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# SHREM FINANCIAL PRIVATE LIMITED

Development of Uchera-Nagod-Singhpur-Kalinjer Section (SH-56) Road in the State of Madhya Pradesh on BOT (Toll+Annuity) basis.

## **TECHNICAL DUE DILIGENCE REPORT**



FEBRUARY, 2021

SUBMITTED BY



RUKY PROJECTS PRIVATE LIMITED Hyderabad – 500 072 www.rukyprojects.com



## Development of Uchera-Nagod-Singhpur-Kalinjer Section (SH-56) Road in the State of Madhya Pradesh on BOT (Toll+Annuity) basis.

This document has been issued and amended as follows:

Report No.	Issue	Date	Description
RU-DD Report-Uchera- Nagod	02	February 2021	Technical Due Diligence Report

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## CHAPTER 1. INTRODUCTION

#### 1.1 General

DBL UCHERA-NAGOD TOLLWAYS LIMITED (herein after referred to as the "**Concessionaire**") had augmented the existing road "Uchera-Nagod-Singhpur-Kalinjer" section of SH in the state of Madhya Pradesh, in accordance with the provisions of the Concession Agreement (CA) executed with Madhya Pradesh Road Development Corporation Limited (herein after referred to as the "MPRDC") on 24<sup>th</sup> September, 2012.

The project Highway starts at Km.32+000 and ends at Km 87+000 Near UP Border on Design, Build, Finance, Operate and Transfer (DBFOT) Toll + Annuity basis. Project Location map is given at **Figure 1.1.** 

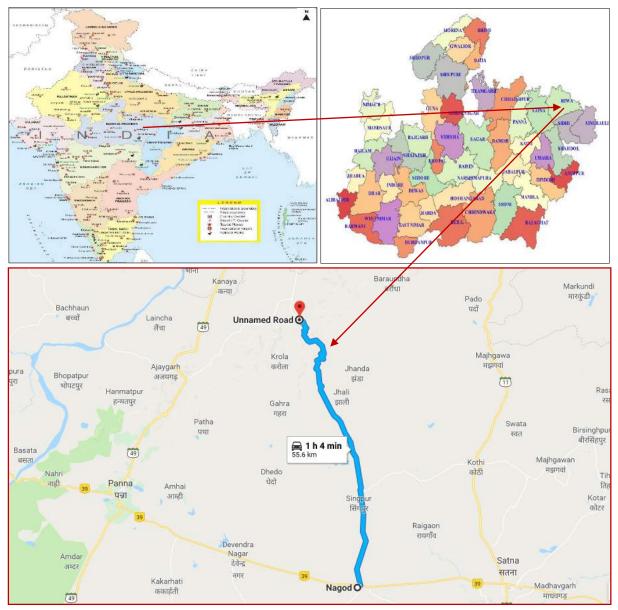


Figure 1.1: Project Location Map

SHREM ROADWAYS PVT. LTD. (SRPL) acquired DBL UCHERA NAGOD TOLLWAYS LIMITED vide agreement dated 26.03.2018.

SHREM FINANCIAL PVT. LTD. (SFPL) appointed RUKY Projects Pvt. Ltd. as consultants for detailed Technical Due Diligence services of the above Road Project to know-how the present condition of Carriageway and Structures, probable costs of Operations and Maintenance during balance Concession period, additional road safety requirements if any and to review the traffic potential and to estimate the projected Toll Collection Etc.

## **1.2** Salient features of the Project

S. No.	Particulars	Details	
1	Name of the project	Development of Uchera Nagod Kalinjar (SH- 56) Road of SH-56 in the State of Madhya Pradesh on BOT (Toll + Annuity) basis.	
2	Road Type	State Highway.	
3	Name of the Authority	Madhya Pradesh Road Development Corporation Limited	
4	Name of the Concessionaire	DBL Uchera - Nagod Tollways Ltd.	
5	Name of the EPC Contractor	Dilip Buildcon Limited	
6	Design Length as per Schedule B of CA	55.600 Km.	
7	Date of LOA	08.08.2012	
8	Date of Agreement	24.09.2012	
9	EPC Cost	Rs. 97.85 Cr.	
10	Nature of contract	BOT (Toll + Annuity)	
11	Toll collected by	Concessionaire	
12	Concession Period	15 years from the Appointed date	
13	Appointed date	20.11.2012	
14	Concession end date	19.11.2027	
14	Construction Period	730 days from the Appointed date.	
15	Schedule Completion Date	19.11.2014	
16	Date of issuance of Provisional Certificate (Commercial Operation Date)	15.05.2014	
17	Date of issuance of Completion Certificate	5.08.2014	
18	Annuity Amount (every six months)	Rs 8.46 Cr	
19	Total Number of Annuities payable	26 Nos.	
20	First Annuity Payment Date	15.11.2014	
21	Total Number of Annuities Paid	13 Nos	

#### Table 1.1: Project Data

#### **1.3** Scope of Consultancy services

The scope of work includes providing Technical Due Diligence of the Project Highway and providing estimate of the anticipated maintenance works. Scope of the work as defined in the consultancy work order is listed below:

- Review of various contractual documents
- Collection of historic/past toll revenue data
- Collection of historic/past classified Traffic data from toll plaza and to estimate the projected traffic to arrive at revenue projections.
- Carryout detailed assessment of pavement condition and propose maintenance plan along with BOQ.
- Review of latest BBD/BI test report
- Carrying out inventory & condition survey of all elements of road like embankment slope, plantation, road furniture, tolling system etc., of the project.
- Carrying out inventory & condition survey of all structures (Major Bridges, Minor Bridges, ROB, RE Wall, Flyovers, VUPs, PUPs, Culverts etc.), suggest any rehabilitation & maintenance requirements along with BOQ.
- Carryout review of tolling system to evaluate the efficiency and functionality of tolling system and to identify and give suggestions to improve if any setbacks in the system.
- Carryout out road safety audit on Project highway and provide suggestions for improvement.
- Assess and Provide BOQ and cost estimate for routine & periodic maintenance including O&M.
- Review of punch list items, NCR's to identify any uncompleted works as on date of submission of report.
- Review of validity of insurance and statutory compliances related to Project.
- Review of correspondences exchanged between parties on contract related issues etc.
- Submission of detailed report on technical due diligence of the project.



## **CHAPTER 2. PROJECT DESCRIPTION & TECHNICAL DETAILS**

#### 2.1 Salient Features of the Project:

The salient features as per schedule B and Schedule C of CA including Change of scope are given in the following table.

S. No.	Particulars	As per CA	COS*	As per Site
1	Total Length	55.600 Kms.		55.600 Kms.
2	Length of 2-Lane without paved shoulder	51.800 kms.		51.800 Kms.
3	Length of 2-Lane with paved shoulder	3.800 Kms.		3.800 Kms.
4	Length of Nagod Bypass	1.700 Kms.		1.700 Kms.
5	Toll Plaza	1 No.		1 No.
6	Bus Bays / Bus Shelters	7 Nos.		7 Nos.
7	Truck Lay Bays	1 Nos.		1 No.
8	Major Junction	4 Nos.		4 Nos.
9	Minor Junctions	9 Nos.		9 Nos.
10	Major Bridges	0 Nos.	2 Nos.	2 Nos.
11	Minor Bridges	7 Nos.	3 Nos.	10 Nos.
12	Box/Slab Culverts	35 Nos.	(+6, -11) Nos.	30 Nos.
13	Pipe Culverts	58 Nos.	(+45, -11) Nos.	92 Nos.

Table	2.1:	Salient	Features

## 2.2 Typical Cross Section (TCS) Schedule

The Concessionaire has followed the Typical Cross Sections shown below as per schedule D of CA, during the construction.

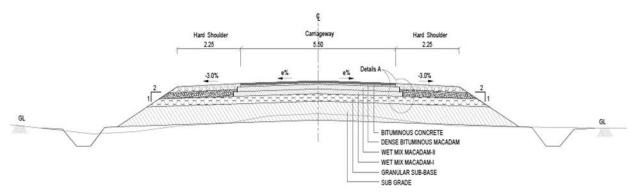


Figure 2.1: TCS 2.1 2 Lane with Granular Shoulder. (Cross Section in Open Country)

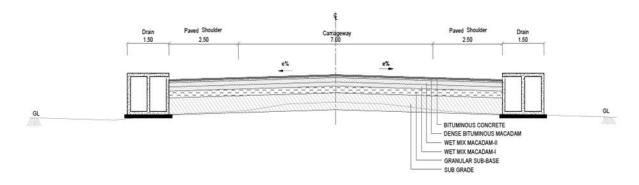


Figure 2.2: TCS 2.3 The Carriageway shall be 7.0 m with Paved shoulder (In Built up Areas)

TCS Schedule is provided below.

S. No.	From Chainage (Km.)	To Chainage (Km.)	Type of TCS	
1	0+000	1+700	TCS 2.1	
2	33+100	34+400	TCS 2.1	
3	34+400	35+600	TCS 2.3	
4	35+600	54+900	TCS 2.1	
5	54+900	55+300	TCS 2.3	
6	55+300	67+400	TCS 2.1	
7	67+400	68+400	TCS 2.3	
8	68+400	69+000	TCS 2.1	
9	69+000	69+800	TCS 2.3	
10	69+800	85+200	TCS 2.1	
11	85+200	85+600	TCS 2.3	
13	85+600	87+000	TCS 2.1	

Table 2.2: TCS Schedule

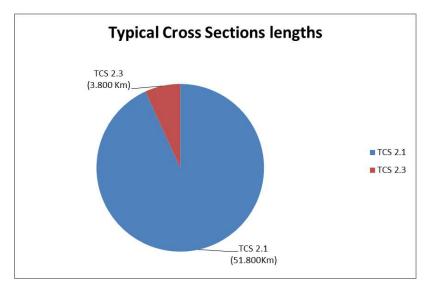


Figure 2.3: Pictorial Diagram of TCS Lengths.



#### 2.3 Road Side Drainage

- To facilitate quick disposal of storm water from the Carriageway and to avoid accumulation of drainage from the Carriageway, drains are accommodated along the main carriage way on both flanks as specified in Schedule B of CA in strict adherence to the Standard Specifications set forth in Schedule D of CA.
- The Concessionaire has provided RCC covered drains with footpath in built up areas while earthen drains are in open and rural areas.

#### 2.4 Service Roads

Service roads are not provided along the entire stretch of the project road as per provisions of Schedule B of the Concession Agreement.

#### 2.5 Bypass/Realignment

Bypass is constructed for a length of 1.7 Km as per the provisions of Schedule B of the Concession Agreement.

#### 2.6 Intersections

As per Schedule B of the Concession Agreement 4 Major Junctions and 9 Minor Junctions are developed. Details are given below

S. No.	Chainage (Km.)	Side	Туре	Major /Minor
1	32+000	BHS	Т	Major
2	33+100	BHS	Т	Major
3	35+500	RHS	Т	Minor
4	38+100	LHS	Т	Minor
5	47+200	LHS	Т	Minor
6	48+800	LHS	Т	Major
7	50+500	RHS	Т	Major
8	50+800	LHS	Т	Minor
9	66+700	RHS	Т	Minor
10	67+100	LHS	Т	Minor
11	67+500	RHS	Т	Minor
12	70+000	RHS	Т	Minor
13	79+300	RHS	Т	Minor

#### Table 2.3: Summary of Junctions

#### 2.7 Grade Separated Structures and Uunderpasses

There are no Grade separated structures in the Project, as per provisions of Schedule B of the Concession Agreement.



#### 2.8 Road Over Bridge

There are no Road Over Bridge in the Project, as per provisions of Schedule B of the Concession Agreement.

#### 2.9 Summary of the Carriageway and pavement Details

The details of Pavement are shown in the following table.

S. No.	Description	Flexible (Km.)	TCS Type
1	2 Lane with Earthen shoulder	51.800	TCS 2.1 of Schedule D
2	2 Lane with Paved shoulder	3.800	TCS 2.3 of Schedule D
3	Bypass Length	1.700	
4	Total Length of the Project	55.600	
5	New Alignment	-	
6	Realignment	-	
7	Strengthening	-	
8	Reconstruction	55.600	
9	Total Length of the Project	55.600	

#### Table 2.4: Summary of Carriageway and Pavement Details

#### 2.10 Summary of Structures

Summary of Structures as per provisions of schedule B of the CA is given below.

S. No.	Description	Major Bridges	Minor Bridges	Hume Pipe Culverts	Box/Slab Culverts
1	Retained	-	-	-	-
2	Widening	-	2	30	14
3	Reconstruction	-	5	9	21
4	New	-	-	19	-
5	Improvement	-	-	-	-
Total		-	7	58	35

Table 2.5: Summary of Structures

#### 2.11 Toll Plaza

As per Schedule C provisions of the Concession Agreement one Toll Plaza has been constructed at Km. 47+950. Salient features of Toll Plaza are provided below.

- Each side comprises of 1 Normal Lanes, 1 extra wide lane and bike lane.
- The lane width in normal lanes is 3.20m.
- The width of islands provided is 1.8m.
- The single canopy is provided to cover the toll lanes.
- Toll plaza building is G+1 building which houses control room, UPS and Pantry.





Figure 2.4: Toll Plaza at Km. 47+950

#### 2.12 Bus shelters and truck lay byes

As per the provisions of Schedule C of the Concession Agreement (CA), 7 Nos. bus shelters and 1 No truck lay bye are provided in the entire length of Project. Details such as Chainage Location are listed in the following table.

S. No.	Chainage (Km.)	Bus shelter/Truck lay bye
1	40+000	Bus shelter
2	44+600	Bus shelter
3	55+000	Bus shelter
4	67+900	Bus shelter
5	69+500	Bus shelter
6	85+500	Bus shelter
7	55+000	Bus shelter
8	86+500	Truck lay bye

#### Table 2.6: List of Bus shelter & Truck Lay bays

#### 2.13 Other Project Facilities Provided as per Schedule C of CA

- Roadside furniture: Sign Boards, KM. stones, Road Marking and Object/Hazard Markers are provided in accordance with IRC-SP: 73-2007.
- Traffic safety devices: W Beam Crash barriers, parapet walls are provided as per the provisions of Schedule C of CA.
- Landscaping: Provided at Toll Plaza location and being maintained
- Tree Plantation: Tree plantation is provided on both sides of the Project Corridor all along the way and is being maintained.
- Medical Aid Post: Provided at Toll Plaza location and is operational
- Highway Lighting: Highway lighting is provided at Toll Plaza and is functional.



## CHAPTER 3. ROAD INVENTORY & PAVEMENT CONDITION

#### 3.1 General

Road Inventory and pavement condition surveys were carried out by a team of Engineers and the features noted at site are presented below.

#### 3.2 Road Inventory

Inventory of the project road was carried out physically and is summarized in Error! Not a valid bookmark self-reference. and few representative photographs are given below.

S. No.	Features	Remarks
1	Terrain	Plain Rolling and Hilly Terrain
2	Land Use	Built Up, Agriculture and Forest
3	Total length of the Road	55.600 km
4	Earthen shoulder	1.0 m to 1.5m Width on site
5	Bypasses	1 Nos
6	Junctions	13 Nos.
7	Toll Plaza	Km.47+950
8	Sign boards	Sign boards are provided as per requirement
9	Road Markings	Lane markings are provided as per requirement
10	Bus Bays /shelters	07 Nos.
11	Truck Lay bye	01 Nos.
12	Street Lighting	Highway lighting provided as per requirement
13	Avenue plantation	Provided along the Project Corridor

#### Table 3.1: Road Inventory

#### 3.3 Pavement Condition

Pavement condition survey was carried out on the project road, based on observations supplemented by simple measurements. The criteria adopted for the classification of the pavement is as per 4.2.1 of IRC 81-1997.

Classification	Pavement condition
Good	No cracking, rutting less than 10mm
Fair	No cracking or cracking confined to single crack in the wheel track with rutting between 10mm and 20mm.
Poor	Extensive cracking and/or rutting greater than 20mm sections with cracking exceeding 20% shall be treated as failed.

**Table 3.2: Pavement condition Classification** 

Assessment of the condition of Pavement surface is a key component of infrastructure asset management. The information used across a wide range of business processes which includes: Monitoring the performance of the road; Predicting future pavement conditions and assessing long term needs; Identifying rehabilitation and maintenance treatment options; investigate causes of pavement deterioration and evaluating specific treatment options; The purpose of the pavement condition survey is to provide a more accurate and detailed investigation of the pavement deterioration in order to assist in determining appropriate rehabilitation treatments.

### 3.4 Pavement Condition Survey

The survey on general pavement condition was primarily undertaken by means of slow drive- over survey, and supplemented with measurements wherever necessary. Pavement assessment was done with the help of simple instruments using measuring tape, Straight edge. It was carried out to quantify pavement deficiency on a representative basis. Aspects of pavement condition assessment include surface defects, rut depth, cracking, potholes, patched areas, shoulder conditions etc. An overall assessment of performance serviceability of the road was also done to rate the existing pavement and shoulder condition qualitatively.

The pavement condition was measured under the following sub-heads:

- Shoulder- (Composition/Condition)
- Riding Quality (Good/Fair/Poor/Very Poor)
- **Pavement Condition-**
  - Cracking (% of Surface area)
  - Ravelling (% of Surface area)
  - Potholes (% of Surface area)
  - Patching (% of Surface area)
  - Rut depth (Moderate 10 to 20 mm & Severe >20 mm)
  - Pavement edge drop (mm)
- Road Side Drain (Non-Existing/ Partially Functional/ Functional)

Upon verification of the Pavement condition in the above said manner, it is observed that the Pavement condition of Project road is good. The field measurements of the Pavement Condition survey are tabulated in the standard proforma as per IRC: SP 19 and is given in ANNEXURE 1. The summary of Pavement condition is given below.

Table 3.3: Pavement Condition Summary					
From (Km.) To (Km.)		Length (Km)	Condition		
Km. 0+000	Km. 1+700		Cood		
Km. 33+100	Km. 87+000	55.600	Good		

## Table 2.2. Devement Condition Summary



Km.35+900



Km. 48+500



Km.72+400Km. 73+250Figure 3.1: Representative Photos of Pavement Condition.



#### **CHAPTER 4. INVENTORY AND CONDITION OF STRUCTURES**

#### 4.1 General Assessment and Condition of the structures

Inspection of existing structures on the project section was carried out, detailed inventory and condition is examined during the site visit as per the guide lines provided in IRC SP: 52-1999 & IRC SP: 35-1990.

#### 4.2 Inventory of Structures

There are 02 Nos. Major Bridge, 10 Nos. Minor Bridges, 92 Nos. Pipe culverts and 30 Nos. Slab/ Box culverts are there along this project road.

S. No.	Type of Structure Number		
1	Major bridges	2 Nos	
2	Minor Bridge	10 Nos	
3	Pipe culverts	92 Nos	
4	Slab/Box Culverts	30 Nos	

#### Table 4.1: List of Structures

For major bridges the superstructure is PSC T beam with RCC wall type piers and abutments resting on Open foundation. For minor bridges the superstructure is RCC solid slab and the substructures are of CR masonry wall type resting on open foundations. Detailed inventory and condition survey of bridges are given in **ANNEXURE 2.** The culverts observed along the project road are mainly of two types viz. pipe culverts and RCC slab/box culverts. Condition of most of the culverts is fair except in few locations. Detailed inventory and condition survey of culverts are given in **ANNEXURE 3**.

#### 4.3 Details of Major Bridges

The total length of the major bridge at Km 0+274 is 60.0m with 2 spans. The superstructure consists of PSC T Beam with RCC column type piers and wall type abutments resting on open foundations. The Superstructure is seated on elastomeric / Neoprene bearings. Expansion joints are of strip seal type. RCC crash barrier have been provided on both sides of the deck.

The total length of the major bridge at Km 82+263 is 100.0m with 4 spans. The superstructure consists PSC T Beam with RCC column type piers and wall type abutments resting on Open / Pile foundations. Superstructure is seated on elastomeric / Neoprene bearings. Expansion joints are of strip seal type. RCC crash barrier have been provided on both sides of the deck.

S. No.	Chainage (Km)	Span	Total Length of Bridge (m)
1	Km. 0+274	2 x 30.0	60.0
2	Km. 82+263	4 x 25.0	100.0

Table 4.2	: List of Ma	jor Bridges
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The condition of the superstructure and substructure is good.





Km.82+263



Km.0+274



## 4.4 Details of Minor Bridges

There are 10 minor bridges in the project stretch. The type of superstructure for minor bridges is RCC solid slab and the substructure is PCC conventional wall type, supported on open foundations. Expansion joints are buried type and bearings are tar paper and neoprene bearings. RCC crash barriers are provided on all structures.

S. No.	Chainage (Km)	Span	Total Length of Bridge (m)	Description
1	Km. 6+000	3 x 10	30	The Minor bridge has RCC solid slab superstructure supported on RCC wall type piers and abutments resting on open foundations.
2	Km. 16+950	3x15.0	45.0	The Minor bridge has girder type superstructure supported on RCC wall type piers and abutments resting on open foundations. It has RCC crash barrier with elastomeric bearings and buried type expansion joints.
3	Km. 21+600	5x7.5	37.5	The Minor bridge has arch type superstructure supported on CRM wall type abutment and piers resting on open foundations.
4	Km. 30+900	3x7.0	21.0	The Minor bridge has RCC Box structure. It has RCC crash barrier, bituminous wearing coat.
5	Km. 42+600	3x15.0	45.0	The Minor bridge has RCC girder type superstructure supported on PCC / RCC wall type piers and abutments resting on open foundations. It has RCC railing. Elastomeric Bearings and buried type expansion joints.
6	Km. 48+787	1x10.0	10.0	The Minor bridge has RCC solid slab superstructure supported on RCC wall type abutments resting on open foundations. It has RCC crash barrier with Tar Paper Bearings and buried type expansion joints.
7	Km. 59+013	1x10.0	10.0	The Minor bridge has RCC solid slab superstructure supported on RCC wall type abutments resting on open foundations. It has RCC crash barrier with Tar Paper Bearings and buried type expansion joints.

#### Table 4.3: Inventory of Minor Bridges



S. No.	Chainage (Km)	Span	Total Length of Bridge (m)	Description
8	Km. 69+000	3x20.0	60.0	The minor bridge has RCC girder type superstructure supported on PCC / RCC wall type piers and abutments resting on open foundations. It has RCC crash barrier with Elastomeric Bearings and buried type expansion joints.
9	Km. 69+779	3x6.0	18.0	The Minor bridge has RCC Box structure. It has RCC crash barrier, bituminous wearing coat.
10	Km. 80+100	1x10.0	10.0	The minor bridge has RCC solid slab superstructure supported on RCC wall type abutments resting on open foundations. It has RCC crash barrier with Tar Paper Bearings and buried type expansion joints.





Km.16+950 Km. 30+900 Figure 4.2: Representative photos for minor bridges

## 4.5 Details of Culverts

The culverts observed along the project road are mainly of two types' viz. RCC Slab/Box culverts and Pipe culverts. The condition of culverts is generally good. For some of the pipe culverts vegetation and vent cleaning is required. In general, the condition of all the structures is found satisfactory. The detailed condition of the same are given the following sections. Detailed inventory and condition survey of culverts are given in **ANNEXURE 3**.

## 4.5.1. Slab/Box Culverts

There are 30 No's of slab / box culverts present in the project stretch. The details of the culverts are as given below.

S. No.	Chainage (Km)	Span (m)	Vent Size (m)
1	Km. 34+173	1 x 2.0	4.5
2	Km. 35+200	1 x 3.0	3.0
3	Km. 36+100	1 x 2.0	3.0
4	Km. 36+800	1 x 3.0	2.5
5	Km. 48+800	1 x 3.0	2.0
6	Km. 54+700	1 x 4.0	2.5
7	Km. 59+400	1 x 6.0	3.0



S. No.	Chainage (Km)	Span (m)	Vent Size (m)
8	Km. 59+800	1 x 4.0	3.0
9	Km. 60+700	1 x 6.0	4.0
10	Km. 61+100	1 x 6.0	3.5
11	Km. 61+200	1 x 6.0	2.5
12	Km. 62+000	1 x 4.0	2.0
13	Km. 62+400	1 x 4.0	2.0
14	Km. 65+900	1 x 3.0	3.0
15	Km. 66+600	1 x 3.0	2.2
16	Km. 69+100	1 x 3.0	2.5
17	Km. 71+500	1 x 4.0	3.2
18	Km. 71+900	1 x 3.0	1.5
19	Km. 72+500	1 x 3.0	1.5
20	Km. 74+800	1 x 4.0	1.5
21	Km. 80+191	1 x 3.0	2.0
22	Km. 81+443	1 x 3.0	1.5
23	Km. 82+600	1 x 4.0	1.5
24	Km. 86+200	1 x 1.0	2.0
25	Km. 86+400	1 x 1.0	1.5
26	Km. 86+500	1 x 1.0	1.2
27	Km. 86+800	1 x 1.0	1.5
28	Km. 87+200	1 x 1.0	1.3
29	Km. 87+400	1 x 1.0	1.25
30	Km. 88+700	1 x 1.0	1.2

## 4.5.2. Condition of the Slab/Box Culverts

The general condition of above slab / box culverts is good. Maintenance is to be carried out before monsoon for vent clearance, Protection works etc.



Km.35+200



Km.74+800





 Km.71+500
 Km.74+800

 Figure 4.3: Representative photos for Box/Slab Culverts

#### 4.5.3. General Description of the Pipe Culverts

There are 92 No's of pipe culverts in the project stretch. The details of the culverts are as given below.

S. No	Chainage @ Km.	No. of Rows& Dia(m)		S. No	Chainage @ Km.	No. of Rows& Dia(m)		S. No	Chainage @ Km.	No. of Rows& Dia(m)
1	0+200	1 x 1.2		32	63+700	1 x 1.0		63	68+586	1 x 1.2
2	0+500	1 x 1.2		33	72+900	1 x 1.0		64	68+767	1 x 1.2
3	0+900	1 x 1.2		34	73+200	1 x 1.2		65	69+343	1 x 1.0
4	1+350	1 x 1.2		35	73+500	1 x 1.0		66	69+913	1 x 1.0
5	34+300	1 x 1.0		36	73+900	1 x 1.2		67	71+989	2 x 0.9
6	34+800	1 x 1.0		37	74+300	1 x 1.0		68	72+343	1 x 1.2
7	38+500	1 x 1.0		38	76+100	1 x 1.2		69	72+486	1 x 1.2
8	41+500	1 x 1.0		39	76+900	1 x 1.2		70	72+676	1 x 1.0
9	44+800	1 x 1.0		40	77+500	1 x 1.0		71	72+741	1 x 1.2
10	46+500	1 x 1.0		41	83+100	1 x 1.0		72	72+817	1 x 1.2
11	49+800	1 x 1.0		42	83+600	1 x 1.0		73	72+931	1 x 1.0
12	49+800	1 x 1.0		43	84+400	1 x 1.2		74	73+051	1 x 1.2
13	50+500	1 x 1.0		44	84+400	1 x 1.2		75	73+302	1 x 1.0
14	50+800	1 x 1.0		45	84+900	1 x 1.2		76	73+394	1 x 1.2
15	51+900	2 x 1.0		46	84+900	1 x 1.0		77	73+625	1 x 1.2
16	52+500	1 x 1.0		47	85+200	1 x 1.0		78	73+734	1 x 1.0
17	52+700	2 x 1.0		48	34+823	2 x 0.9		79	73+827	1 x 1.0
18	55+500	1 x 1.0		49	37+146	1 x 1.2		80	74+114	1 x 1.0
19	56+200	1 x 1.0		50	57+735	1 x 1.2		81	74+635	1 x 1.2
20	56+500	1 x 1.0		51	57+827	1 x 1.0		82	74+903	1 x 1.2
21	56+800	1 x 1.0		52	57+906	1 x 1.2		83	74+99	1 x 1.2
22	57+400	1 x 1.0		53	58+187	1 x 1.2	]	84	75+313	1 x 1.0
23	58+100	1 x 1.2		54	58+390	1 x 1.0		85	75+403	1 x 1.0
24	58+200	1 x 1.0		55	58+773	1 x 1.2		86	75+500	2 x 0.9
-			-				_ '			

#### Table 4.5: List of Pipe Culverts



DUE DILIGENCE REPORT

S. No	Chainage @ Km.	No. of Rows& Dia(m)
25	58+500	1 x 1.0
26	58+900	1 x 1.0
27	59+200	1 x 1.2
28	59+600	1 x 1.0
29	60+200	2 x 0.9
30	60+400	1 x 1.2
31	60+900	1 x 1.2

S. No	Chainage @ Km.	No. of Rows& Dia(m)
56	59+130	1 x 1.0
57	59+220	1 x 1.2
58	65+173	1 x 1.2
59	66+819	1 x 1.0
60	67+500	1 x 1.0
61	68+079	1 x 1.0
62	68+327	1 x 1.2

S. No	Chainage @ Km.	No. of Rows& Dia(m)
87	77+675	1 x 1.2
88	78+063	1 x 1.2
89	79+799	1 x 1.0
90	80+992	1 x 1.2
91	81+582	1 x 1.2
92	84+616	1 x 1.0

#### 4.5.4. Condition of the Pipe Culverts

The general condition of above pipe culverts is good. Maintenance is to be carried out before monsoon for vent clearance, Protection works etc.

The culverts are in fair condition and can be retained in the present condition with following repairs/rehabilitation measures.

- Chocked culverts must be cleared.
- Debris and garbage near outside the vents must be removed.



## CHAPTER 5. PAVEMENT DESIGN VALIDATION AND OVERLAY SCHEDULES

#### 5.1 General

Review of Pavement design report, providing insights on design life of pavement, crust thickness, history of overlays over the existing pavement etc., Based on pavement condition and Concession Agreement (CA) provisions recommendation for the upcoming renewal cycles.

#### 5.2 Pavement design validation

The flexible pavement has low flexural strength and hence layers reflect the deformation of the lower layers / sub-grade on to the surface layer after the withdrawal of wheel load. In order to control the deflections in the sub-grade so that no permanent deflections result, the pavement thickness is so designed that the stresses on the sub-grade soil are kept within its bearing capacity. Loading of bituminous pavement requires the stiffest layers to be placed at the surface with successive weaker layers down to sub-grade.

The project road is already operational and the standards applicable during the design development phase of the project road are taken into account for this review. Therefore, the design of pavement has been validated based on IRC: 37-2001 publication while the current publication is IRC: 37-2018.

#### Pavement design (Crust Thickness)

The new pavement shall be designed in accordance with the IRC:37. "Guidelines for the Design of Flexible Pavements". Rigid pavement shall be designed in accordance with the method prescribed in IRC:58. "Guidelines for the Design of Plain Jointed Rigid Pavements for Highways".

Pavement design validation as per actual traffic from COD. As per IRC 37, Vehicle Damage Factor (VDF), Distribution of commercial vehicles and growth rate values are 3.5, 0.75 and 5% respectively. Summary is given below.

FY Year		Α	ADT in '	Vehicles	5	CVPD	MSA	CMSA	Year	Remarks
Fifedi	Car	LCV	BUS	2-AT	MAV	(Veh.)		CIVISA	Tear	Refficiences
2015	204	52	5	14	77	150	0.14	0.14	3	Actual
2016	273	73	9	12	107	200	0.19	0.33	4	Actual
2017	235	78	7	15	94	194	0.19	0.52	5	Actual
2018	395	140	16	21	101	278	0.27	0.79	6	Actual
2019	455	142	12	33	231	419	0.40	1.19	7	Actual
2020	422	97	16	50	255	418	0.40	1.59	8	Actual
2021	443	102	17	53	267	439	0.42	2.01	9	Projected
2022	465	107	18	56	281	461	0.44	2.45	10	Projected
2023	488	112	19	58	295	484	0.46	2.92	11	Projected
2024	513	118	20	61	309	508	0.49	3.40	12	Projected
2025	538	124	21	64	325	534	0.51	3.91	13	Projected
2026	565	130	22	68	341	560	0.54	4.45	14	Projected
2027	594	136	23	71	358	588	0.56	5.02	15	Projected

Pavement crust thickness in the pavement design report for flexible pavement is as follows: -

S. No.	<b>Description/ Pavement layer</b>	Design Parameters
1	Sub Grade CBR (%)	7%
2	Design Life (Years)	15 years
		1.59 MSA for 8 Years
3	Design Traffic (MSA)	5.86 MSA for 15 Years
		10 MSA Adopted
4	Surface course (BC)	40 mm
5	Binder course (DBM)	60 mm
6	Base course (WMM)	250 mm
7	Sub Base course (GSB)	230 mm

#### Table 5.2: Flexible Pavement Design summary

MSA has been adopted based on existing crust as per IRC 37 (Back Calculations)

Pavement crust thickness in the pavement design report for rigid pavement is as follows: -

Description	Designed Parameters
CBR of sub grade	7 %
Design life in years	30
Pavement Quality Concrete (PQC) - mm	250
Dry Lean Concrete (DLC) - mm	150
Drainage Layer (GSB) - (mm)	150
Diameter of Dowel Bar (mm)	32
Length of Dowel Bar (mm)	450
Spacing of Dowel Bars (mm)	300
Diameter of Tie Bar (mm)	12 (Deformed)
Length of Tie Bar (mm)	640
Spacing of Tie Bars (mm)	600

#### Table 5.3: Rigid Pavement Design for Toll Plaza

The Pavement crust has been designed according to IRC specification and found in order, the adopted/ designed traffic is more than the actual traffic. Hence pavement crust is safe

#### 5.3 Overlay during operation and maintenance

The pavement has been designed to cater traffic of 10 MSA for a design life of 15 years (up to end of the year 2027) as discussed in **Table 5.2**, whereas the actual traffic is 1.59 MSA and 5.86 MSA for 8 years and 15 years respectively. This implies that pavement will be structurally adequate to cater the future traffic with periodic renewal carried out under the maintenance program.

However, it is recommended to carry out traffic survey, pavement condition and pavement strength evaluation before the end of stage-I of design life (as per pavement design report) and prior to end of concession period to evaluate the requirement of overlay.

#### 5.4 Maintenance/ Overlay schedule

Periodic Maintenance includes Profile corrective course overlaid with the periodic renewal of the wearing course of SDBC. The detailed maintenance schedule is summarized below.

Routine maintenance - Every year

Periodic Renewal for Flexible Pavement – Proposed on or before 2021.

**Periodic Maintenance for Rigid Pavement** – Re-texturing shall be done at least once in 10 years from construction (as per IRC 58-2015).



## CHAPTER 6. SAFETY AUDIT OF ROAD

#### 6.1 General

Road Safety Audit (RSA) is defined as "the formal safety performance examination of an existing or future road or intersection by an independent, multidisciplinary team. It qualitatively estimates and reports on potential road safety issues and identifies opportunities for improvements in safety for all road users".

Road Safety is a multi- sectorial and multi- dimensional issues. It incorporates the development and management of road infrastructure, provisions of safer vehicles, legislations and law enforcements, mobility planning, provisions of health and hospital services, child safety, urban land use planning.

A Key feature of a road safety audit is the use of a team of professionals with varied expertise. The team shall include highway safety engineers, highway design engineers, maintenance personal, and law enforcement. Additional specialties shall be added to the team as needed.

Central Road Research Institute (CRRI) has studied road safety elements extensively in the past and has come up with various manuals such as manual for safety in road design (1998), Road safety Audit Manual (2003) and Revised Road Safety Audit manual (2010). Indian Road Congress (IRC) has published Special provision SP-88, Manual on road Safety Audit. The methodology used for the design stage audit process is based on these manuals like Type Designs for Intersections on National Highways, 1992.

IRC Code No.	IRC Code Name
IRC: 35	Code of Practice for Road Markings
IRC: 38	Guidelines for Design of Horizontal curves for highways and Design
	tables
IRC: 67	Code of Practice for Road signs
IRC: 73	Geometric Design standards for rural highways (non-urban)
IRC:103	Guidelines for Pedestrian Facilities
IRC: SP-15	Ribbon Development along highways and its prevention
IRC: SP-23	Vertical curves for highways
IRC: SP-41	Guidelines on design of at-grade intersections in Rural and Urban areas
IRC: SP-55	Guidelines for safety in construction zones
IRC: SP- 88	Manual of Road Safety Audit

Table 6	5.1: Refer	red IRC Pi	ublications
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#### 6.2 Existing Road Safety Audit

During the site visit it is observed that all safety items are provided as shown in the following table

S. No.	lten	Description	Status	Condition			
	Road Furniture						
1	Sign Boards	Chevron Signs	evron Signs Available as per site				
	-	Village sign boards requirement		Good			
		Information Boards					

#### Table 6.2: Road Safety Audit



S. No.	lterr	Description	Status	Condition
		Other Sign Boards		
		Gantry Sign Boards		
2	Road Marking	Studs &Lane marking	Available as per site requirement	Fair
3	Metal Beam Crash Barriers	At High embankments	Available as per site requirement	Fair

This Project Section is part of an important corridor. It is the Concessionaire's duty and responsibility to provide safe road for the commuters by assuring safe and hindrance free movement for both Traffic and Pedestrians along urban locations & habitations.

#### 6.3 Conclusion

Safety arrangements are made for road users along the Project road are found to be in conformity with project road requirements and good industry practice. However, a continuous monitoring on safety arrangements is required during the operation and maintenance period.



S-curve ahead Km. 85+300



W Beam MCB at approaches of MJB at Km.41+600



Cross Road at Km. 48+500



OH marker board before the Head wall of Box MJB at km.41+600

Figure 6.1: Representative photos during road safety audit



## CHAPTER 7. TOLL PLAZA & HTMS

#### 7.1 General

There is one Toll Plaza on the project road at Km.47+950. Each side comprises of 1 normal lane, 1 extra wide lane. The lane width in normal lanes was 3.2 m and extra wide lane was 4.5 m. The width of islands provided is 1.8 m. The single canopy is provided to cover the toll lanes. Toll plaza building is G+1 floor building which houses control room, UPS and Pantry.

#### 7.2 Tolling Equipment and Control Room Equipment

List of equipment provided at toll plaza and control room is given below.

S. No	Description	Normal Lanes	Extra Wide Lanes	Total			
1	Toll Lane Controller	2	2	4			
2	AVC Controller	2	2	4			
3	Height Sensor	2	2	4			
4	Toll Collector keyboard	2	2	4			
5	Toll Collector Display TFT monitor	2	2	4			
6	Traffic light	2	2	4			
7	User fare display	2	2	4			
8	Overhead Lane Status Light (OHLS)	2	2	4			
9	Thermal receipt printer	2	2	4			
10	Lane incident capture camera	4	4	8			
11	Lane Exit barrier	2	2	4			
12	Violation alarm switch	2	2	4			
13	Amber and siren light	2	2	4			
14	Slow Speed Weight in Motion	0	0	0			
15	Booth CCTV camera	2	2	4			
16	Lane Software	2	2	4			
17	Intercom Slave Unit	2	2	4			
Plaza ro	om equipment						
1	TMS Server with monitor			1			
2	Joystick			1			
3	16 Channel NVR for central booth CCT	V monitoring		1			
4	PTZ Camera with pole						
5	Incident Management Work Station						
6	Intercom Master Unit						
7	Computer	1					
8	Printer						
9	Scanner						
10	42" TV			1			
UPS							

#### Table 7.1: List of Equipment's at toll plaza and control room



S. No	Description	Normal Lanes	Extra Wide Lanes	Total
1	7 KVA			1
Generat	tor			
1	62.5 KVA			1

## 7.3 Vehicles

Few vehicles are required for operation of the highway as per IRC and as per Contract document of the project. The list of vehicles which were observed at site are presented in the below Table.

S. No	Vehicle Type	No
1	Patrol Vehicle	1
2	Ambulance	1
3	Crane	1

Table 7.2: List of Vehicles



Toll Plaza at 47+950



Toll Building at 47+950

Figure 7.1: Photographs of Toll Plaza



## CHAPTER 8. TRAFFIC CENSUS AND TOLL REVENUE

#### 8.1 Traffic Census

In accordance with clause 22.1, the Concessionaire shall install, maintain and operate electronic/computerized traffic counters at each of the Toll Plazas and collect data relating to the number and types of vehicles using the Project Highway. A weekly statement of such data shall be complied and furnished forthwith by the Concessionaire to MPRDC substantially in the form specified in Schedule N of CA.

Accordingly, the Concessionaire provided toll plaza details. Based on the data made available the summarized annual classified Traffic census details for the past five years are provided in Table 8.1 below. The Actual traffic data recorded below has been taken as a basis to calculate AACGR % (Annual Average Compound Growth Rate).

FY Year	Car	LCV	Bus	Truck	MAV	Total Traffic
2016	99821	26544	3354	4227	39007	172889
2017	85854	28358	2691	5330	34390	156320
2018	144158	51160	5970	7624	36845	245862
2019	165918	52005	4544	12121	84368	329044
2020	154420	35459	6003	18459	93150	300705
AACGR* (%)						18.23%

#### Table 8.1: Year wise Traffic (Vehicles) Details

\*AACGR- Annual Average Compound Growth Rate

#### 8.2 Actual Revenue Collection

In accordance with clause 19.5, "During the operation period, the Concessionaire shall furnish to MRPDC within 7 days of completion of each month, a statement of fee substantially in the form set forth in Schedule-M (Monthly fee statement)". As per provisions of CA the concessionaire submitted monthly fee statement and the summary of form submitted under Schedule M during the financial year 2019-20 is given under as Table 8.2.

Description	Car	Car(pass)	LCV	Bus	Truck	MAV	Total
In Nos.	84519	739	22096	4365	13659	90509	215887
Toll Revenue collection in Rs.	2535570	59101	1657200	681360	2563085	33707815	41204131

The figures shown in Table 8-1 are Real time traffic data on project road for the past five years and the growth rate is calculated to be 18.23%. It is pertinent to note that the figures given in table 8.1 are inclusive of exempted /non tollable traffic.

The figures shown in Table 8.2 are actual tollable traffic based on which the toll revenue collected and is excluding of exempted/non tollable traffic. For the realistic estimate of the traffic growth and projected revenue calculation actual traffic based on which FY 2019-20 revenue collected (table 8.2) is considered as a base year traffic and the projected traffic growth rate is restricted to 5%.

Based on the base year traffic and growth rate as explained above traffic projections from year 2019-20 to till end of Concession period toll plaza wise are calculated and summarized below in Table 8.3.

FY	AADT in Vehicles							AA	DT in	PCU			
Year	Car	LCV	BUS	2- AT	MAV	CVPD* (Veh.)	Car	LCV	BUS	2- AT	MAV	CVPD* (PCU)	Remarks
	P	CU Fac	tor				1	1.5	3	3	4.5		
2020	234	61	12	37	248	358	234	91	36	112	1116	1355	Actual
2021	245	64	13	39	260	376	245	95	38	118	1172	1423	Projected
2022	258	67	13	41	273	395	258	100	40	124	1230	1494	Projected
2023	270	70	14	43	287	414	270	105	42	130	1292	1568	Projected
2024	284	74	15	45	301	435	284	110	44	136	1356	1647	Projected
2025	298	77	15	48	316	457	298	116	46	143	1424	1729	Projected
2026	313	81	16	50	332	480	313	122	48	150	1495	1816	Projected
2027	329	85	17	53	349	504	329	128	50	158	1570	1906	Projected
2028	345	89	18	55	366	529	345	134	53	166	1649	2002	Projected

Table 8.3: Projected traffic

\*CVPD: Commercial vehicle per day (LCV+BUS+2 AT+MAV)

#### 8.3 Toll Revenue Calculations

The toll revenue for horizon year is calculated based on the input from the above data, actual toll rates collected on base year (2019-20), with Traffic growth, WPI growth and toll efficiency has been assumed 5%, 4% and 100% respectively and other inputs considered in revenue calculations is given in **Table 8.4** 

Particular	Toll plaza 1
Location	Km.47+950
4 lane length in km	0
2 lane length in km	53.8
Agreement Date	24-09-2012
Appointed Date	20-11-2012
Concession period	15
Commercial operation date	05-08-2014
Concession End Date	19-11-2027
Traffic study year	2020
Vehicle Type	AADT
Car/Jeep/Van	234
2-axle Bus	61
LCV/LGV	12
2A-Truck	37
MAV (2A-6A)	248
Growth Rate (%)	5%

## Table 8.4: Toll Revenue inputs



The split trip type based on the available toll data from Concessionaire is used to derive the annual toll collection for each plaza. The revenue estimated and presented below. Detailed toll revenue estimation is given in **ANNEXURE 4**.

<b>Financial Year</b>	Annual Revenue of TP1 Km.47+950	Remarks
2019-20	412.041	Actual
2020-21	450.294	Projected
2021-22	489.704	Projected
2022-23	537.1	Projected
2023-24	582.361	Projected
2024-25	631.297	Projected
2025-26	684.928	Projected
2026-27	745.416	Projected
2027-28	514.957	233 Days

## Table 8.5 Toll Revenue Estimated (in Rs. lakhs)



## CHAPTER 9. OPERATION AND MAINTENANCE

#### 9.1 General

As per Article 17 of the Concession Agreement, the Concessionaire will operate and maintain the Project Highways by itself or through O&M Contractors and comply with specification and standards, and other requirements set forth in this Agreement, Good Industry Practice, Applicable Laws, applicable permits and manufacturer guidelines and instructions with respect to toll system.

#### 9.2 Inspection

Inspection system followed is illustrated as divided into the following 3 types.

- **Visual Inspection:** Visual inspections are done at frequent intervals, and are intended to determine any potential traffic hazards to the road user or hampering the aesthetics of the project stretch. Visual inspections are meant to identify defects that constitute an imminent or immediate hazard to the public.
- **Detailed Inspection:** Detailed Inspections often require some measuring instruments, are done less frequently and are intended more towards determining performance and behavior of various elements. These inspections also indicate, need (if any) for thorough inspections. Detailed inspections are carried out primarily to establish programs of periodic or major maintenance tasks, and enhancement requirements not requiring urgent execution
- **Thorough Inspection:** Thorough Inspections are aimed at finding the cause and remedy of specific problems and at specific locations. Specialist's inspections are required once in a while. Thorough Inspections shall be carried out with highly sophisticated instruments

The inspection procedures will assist in identifying the need for replacement or renewal under planned program of maintenance and rehabilitation. The elements viz pavement, drainage, shoulders / slopes / Earthworks, structures and buildings are covered.

Maintenance program will be submitted to authority not later than 45 days prior to each accounting year.

#### 9.3 Operations

#### Traffic Flow Operation & Traffic Management Plan

Following are the obligations of the Concessionaire for the regular and emergency operations of the Project Highway and Project Facilities.

- 1 Permitting smooth and uninterrupted flow of traffic during normal operating conditions.
- 2 Functioning of the Toll System including charging and collecting the fees from the road user in accordance with the CA.
- 3 Carrying out preventive and periodic maintenance of the Project Road;
- 4 Undertaking routine maintenance including prompt repairs of potholes, cracks, joints, drains, embankments, structures, pavement markings, lighting, road signs and other traffic control devices;
- 5 Undertaking major maintenance such as resurfacing of pavements, repairs to structures, and repairs and refurbishment of tolling system and other equipment;

TECHNICAL DUE DILIGENCE REPORT

- 6 Functioning of the lighting System
- 7 Functioning of the Patrolling System
- 8 Functioning of rescue and medical aid services
- 9 Ambulance as and when required
- 10 Functioning of the Project Facilities
- 11 Administrative, Operational and Maintenance Base Camp
- 12 Truck Lay bays
- 13 Pickup Bus stops / Bus Bays
- 14 Protection of the environment and provision of equipment and materials therefor;
- 15 Operation and maintenance of all communication, control and administrative systems necessary for the efficient operation of the Project Road.
- 16 Complying with Safety Requirements in accordance with Article 18.

#### 9.4 Operation of Toll Plaza

There are two lanes in each direction operating at toll plaza, middle lanes are used by Car/LCV for collecting toll and extra wide lanes are utilized by wide vehicles like Bus/Trucks/Tractors and toll exempted vehicles. The cash collected is deposited on daily basis to the escrow account. In case of ETC system Toll collection is connected with Network system and directly deposited into the Escrow account.

#### 9.5 Maintenance of Project Highway

The maintenance methodology and yearly maintenance Programme will guide the Maintenance team to undertake the routine & periodic maintenance works of the Project Facilities. This Programme is the basic indicator of the intended works to be carried out by the Maintenance Team over a period of one year. Road maintenance can be carried out in four ways as listed below.

- 1. Preventive Maintenance
- 2. Routine Maintenance
- 3. Periodic Maintenance
- 4. Special repairs

#### Preventive Maintenance

Preventive maintenance is an organized, systematic process of applying a series of preventive treatments over the life of the pavement to minimize life cycle costs.

The strategy of applying periodic treatments at appropriate times in a pavement's life is economical than applying treatment at the end of pavement's life. Preventive maintenance is designed to retard pavement deterioration. Regular preventive maintenance will be carried out to ensure adherence to the Design Requirements and specifications throughout the Concession period.

The flexible pavement is in good condition and hence doesn't require any immediate or preventive interventions.

#### **Routine Maintenance**

Routine maintenance, which involves repairing of cracks, replacement of safety girders along the highway, clearance of debris following accidents, ensuring functionality of sign posts, maintenance of a security set-up, and such other activities.

#### Periodic Maintenance

In contrast to preventive maintenance treatments, periodic maintenance treatments are ideally applied on pavements to improve surface integrity and waterproofing, or to improve skid resistance, without increasing the strength of the pavement significantly. They are sometimes referred to as "functional overlays," as they are intended to restore or enhance the ability of the roadway to serve its purpose (function), but do not increase the load-carrying capabilities. If the pavement failure is more and demands for a "structural overlay" they are intended to increase load-carrying capabilities of the project road. The details of periodic maintenance schedule are given below.

Description	Schedule of Major Maintenance	Status of Major Maintenance
1st Major Maintenance - Highway Phase 1	18 Km- 2018	18 Km-Executed with
		micro surfacing
1st Major Maintenance - Highway Phase 2	26 Km- 2019	26 Km-Executed with
		BC Overlay
1st Major Maintenance - Highway Phase 3	13 Km- 2021	Scheduled
1st Major Maintenance - Highway Phase 4	15 Km- 2022	Scheduled
2nd Major Maintenance - Highway	56 km- 2028	Scheduled

#### Table 9.1: Schedule and status of for Major Maintenance

#### **Special Repairs**

The group of activities performed to restore the roadway following damage due to natural calamities such as heavy floods, sand storms, hurricanes, cyclones, earthquakes or landslides which shall be unpredictable. The affected Project Highway shall be rectified, and the system shall be restored to function as per programme prepared in consultation with Independent Engineer. Typical activities include,

- a. Culvert and bridge repairs
- b. Retaining wall repairs and construction;
- c. Construction of Diversions;
- d. Floodway repairs; and
- e. Flood damage restoration works, etc.

#### 9.6 Review of Test Reports

#### 9.6.1. Bump Integrator Test (BI)

Maintenance of road is dependent on several factors, one of which is the condition of Pavement surface. As such Roughness is the measurement of the riding quality, which in turn is the effect of total surface deterioration. Bump Integrator (BI) is one of the equipment needed for roughness measurement. The roughness of pavement surface is designated as uneven index value and expressed as surface roughness from which the condition of the road can be assessed.

The test was conducted in October 2020. As per Schedule K, If the value exceeds 3000 mm in a KM, the stretch shall be rectified. No stretch exceeded the permissible limit of 3000 mm in the Project road.

# 9.6.2. Benkelman Beam Deflection (BBD)

The performance of flexible pavement is closely related to the elastic deflection of pavement under the wheel loads. The deformation or elastic deflection under a given load depends upon subgrade soil type, its moisture content and compaction, the thickness and the quality of pavement courses, drainage conditions, pavement surface temperatures etc. BBD method is widely followed to evaluate the structural capacity of pavement and for estimation and design of overlay for strengthening of any weak pavement.

As per the Concession Agreement (CA) BBD tests shall be conducted every year after rainy season which falls during month of October to May. Concessionaire has conducted test in November 2020. The values of deflection are within the limits as per laid down specifications. Hence overlay is not required.

## 9.7 O&M Forecast

The O&M costs were estimated based on various parameters of CA and project corridor. The cost summary is given below, and detailed cost estimations are given in **ANNEXURE 5**.

Year	Routine maintenance ( In crores)	Incidental maintenance ( In crores)	Periodic / Major maintenance	Operational Expenses	Total cost per year
2020	0.215	0.313		0.47	0.99
2021	0.221	0.323	1.87	0.48	2.89
2022	0.228	0.333	5.79	0.49	6.84
2023	0.235	0.343		0.51	1.09
2024	0.242	0.353		0.52	1.12
2025	0.249	0.363		0.54	1.15
2026	0.257	0.374		0.56	1.19
2027	0.264	0.385	4.53	0.57	5.75
2028	0.174	0.253	4.64	0.38	5.44
Total	2.08	3.04	16.83	4.52	26.47

 Table 9.2: Proposed Plan for Future Operation & Maintenance Cost (In Crores)



# CHAPTER 10. REVIEW OF CONCESSION AGREEMENT

#### 10.1 Scope of Work (Article 2)

Article 2 provides the scope of work which includes the following.

- Construction of the Project Highway on the Site set forth in Schedule-A and as specified in Schedule-B together with provision of Project Facilities as specified in Schedule-C, and in conformity with the Specifications and Standards set forth in Schedule-D;
- Operation and maintenance of the Project Highway in accordance with the provisions of Concession Agreement (CA)
- Performance and fulfillment of all other obligations of the Concessionaire in accordance with the provisions of this Concession Agreement (CA) and matters incidental

#### 10.2 Letter of Award

After evaluation of the bids received, Authority will select one bidder considering their score in technical and financial bids. Further Authority will issue a Letter called LOA (Letter of Award) to the selected bidder requiring the execution of agreement within stipulated time. The issued LOA copy given in **ANNEXURE 6**.

#### **10.3 Conditions precedent (Article 4):**

#### Conditions precedent to be fulfilled by the Authority:

- Providing adequate Right of Way
- Providing necessary approvals as per the Concession Agreement (CA)

#### Conditions precedent to be fulfilled by the Concessionaire:

#### Provide performance security to the Authority

- Executed and procured Escrow Agreement & Substitution Agreement
- Procured all applicable permits specified in Schedule E
- Executed financing Agreements and delivering 3 copies of Financial Package
- Delivered to the Authority confirmation in original of the correctness of their representations and warranties set forth in Agreement and a legal opinion from the legal opinion from the legal counsel of the Concessionaire

#### **10.4 Major Obligations of the Concessionaire (Clause 5.1)**

- The Concessionaire shall obtain necessary permits in conformity with the applicable laws
- Procure appropriate rights for obtaining materials
- Perform and fulfill its obligations under financing Agreements
- To make reasonable efforts to facilitate the acquisition of land required for execution
- Transfer the Project Highway upon termination of the Contract Agreement (CA)

## **10.5** Obligations relating to the Competing Roads (Clause 6.3)



Neither Authority nor any Governmental Instrumentality shall construct the Competing Road before 10<sup>th</sup> Anniversary of the Appointed Date.

# **10.6** Performance Security (Article 9)

- The Concessionaire shall submit the Performance security to the Authority within 180 days from the date of the Agreement
- The Performance security shall remain in force and effect for a period of one year from the Appointed Date
- Performance Security shall be released upon the Concessionaire expending on Project Construction an Aggregate sum that is not less than 20% of the Total Project Cost.

# 10.7 Provisional Completion Certificate (Clause 14.3)

• Upon completion of works in accordance with the specifications and standards set forth in the Schedule B, C and D and after determining the tests on completion successful the Independent engineer shall issue the Completion Certificate in the form set forth in Schedule J of the Concession Agreement (CA).

A copy of PCOD is enclosed in **Annexure-7**.

# 10.8 Completion Certificate (Clause 14.4)

• Upon completion of Punch list items appended to the Provisional Completion Certificate within 90 days of issuance of Provisional Complete Certificate, Completion Certificate shall be issued to the Concessionaire. A copy of Completion Certificate is enclosed in **Annexure-8**.

# 10.9 Commercial Operation Date (COD) (Clause 15.1)

- COD shall be the date on which the Provisional Completion Certificate is issued by the Independent Engineer.
- With COD the Project shall enter into commercial service and the Concessionaire is entitled to demand and collect Fee.

## 10.10 Change of scope (Article 16)

Change of Scope Proposal during Construction period and consented by the Authority are given in **ANNEXURE 10.** 

## **10.11 O&M Obligations of the Concessionaire (Clause 17.1)**

- Permitting safe, smooth and uninterrupted flow of traffic on the Project road
- Collecting and appropriating the Fee
- Minimizing the disruption to traffic in the event of accidents
- Undertaking routine maintenance including prompt repairs of pot holes, cracks, joints, drains, embankments, structures, pavement markings, lighting, road signs and other traffic control devices
- Undertaking major maintenance such as resurfacing of pavements, repairs and refurbishments of tolling system and other equipment
- Preventing any unauthorized use of the Project road.



- Protection of environment and provision of equipment and materials
- Complying with safety Requirements in accordance with the provisions of the CA.

# 10.12 Maintenance Requirements (Clause 17.2)

The Contractor shall procure that at all times during the Operations Period; the Project Highway conforms to the maintenance requirements set forth in Schedule K (the "Maintenance Requirements").

# 10.13 Maintenance Manual (Clause 17.3)

No later than 180 (one hundred and eighty days prior to the Scheduled Two Lanning Date, the Contractor shall, in consultation with the Independent Engineer, evolve a repair and maintenance manual (the "**Maintenance Manual**") for the regular and preventive maintenance of the Project in conformity with the Specifications and Standards, Maintenance Requirements, Safety Requirements and Good Industry Practice, and shall provide 5 (five) copies thereof to the Authority and 2 (two) copies to the Independent Engineer. The Maintenance Manual shall be revised and updated once every 3 (three) years and the provisions of this Clause shall apply, mutatis mutandis, to such revision.

# 10.14 Maintenance Programme (Clause 17.4)

On or before COD and no later than 45 days prior to the beginning of each Accounting year during the Operation Period as the case may be the Concessionaire shall provide to the Authority and Independent Engineer its proposed annual programme of preventive, urgent and the schedule maintenance. The Concessionaire has been submitting the Annual Maintenance Programme regularly as per the above clause.

# 10.15 Damages for breach of Maintenance Obligations (Clause 17.8)

In the event that the Contractor fails to repair or rectify any defect or deficiency set forth in the Maintenance Requirements within the period specified therein, it shall be deemed to be in breach of this Agreement and the Concessionaire shall be entitled to recover Damages, to be calculated and paid for each day of delay until the breach is cured, at the higher of the following.

- 0.5% (zero decimal five percent) of the Average Daily Fee, and
- 0.1% (zero point one per cent) of the cost of such repair or rectification as estimated by the Independent Engineer.

# 10.16 Monthly Status Reports (Clause 19.1)

During the Operation Period, the Contractor shall, no later than 7 (seven) days after the close of each month, furnish to the Concessionaire, the Authority and the Independent Engineer a monthly report stating in reasonable detail the condition of the Project including its compliance or otherwise with the Maintenance Requirements, Maintenance Manual, Maintenance Program and Safety Requirements, and shall promptly give such other relevant information as may be required by the Concessionaire, Independent Engineer or the Authority. In particular, such report shall separately identify and state in reasonable detail the defects and deficiencies that require rectification.

## **10.17** Monthly Fee Statement (Clause 19.5)

During the Operations Period, the Contractor shall furnish to the Concessionaire and the Authority, if required by the Contractor, within 7 (seven) days of completion of each month, a statement of Fee substantially in the format set out in the Concession Agreement ("Monthly Fee Statement").



## 10.18 Annuity (Clause 25.1.1)

The Authority agrees and undertakes to pay the Concessionaire for each annuity Payment period on each annuity payment date as set forth in schedule Y the sum of Rs 8.46 Crores.

As per Clause 25.2.1, In case the COD is different from the Schedule Y, then the annuity payment schedule shall be suitably modified to be a period of 6 months from the preceding Annuity Payment date. Total annuity nos. during the concession period are 26.

S. No.	Particulars	Payment Paid on		
1	1st Annuity	1-Dec-14		
2	2nd Annuity	28-May-15		
3	3rd Annuity	30-Nov-15		
4	4th Annuity	8-Jun-16		
5	5th Annuity	22-Nov-16		
6	6th Annuity	29-May-17		
7	7th Annuity	17-Feb-18		
8	8th Annuity	29-May-18		
9	9th Annuity	29-Nov-18		
10	10th Annuity	21-May-19		
11	11th Annuity	20-Nov-19		
12	12th Annuity	22-May-20		
13	13th Annuity	18-Nov-20		

#### Table 10.1: Status of Annuity Payments

#### 10.19 Concession Fee (Article 26)

- In consideration of the grant of Concession the Concessionaire shall pay Concession Fee of Rs. 1.00 per year during the Concession Period
- Concession Fee shall be paid in advance within 90 days of the commencement of the Accounting Year.
- Yearly the Concessionaire is paying the Concession Fee to the MPRDC

## 10.20 Toll Fee (Clause 27.1.1)

Toll Fees Shall be revised annually in accordance with Clause 27.2.1.

#### 10.21 Change in Law (Article 41)

The Contractor acknowledges that the Contractor shall be responsible for any consequences arising from any Change in Law and the Contractor shall at its own costs and expenses, undertake the compliance with any such Change in Law, however, in the event any receivables are obtained by the Concessionaire from the Authority, towards the losses incurred by the Concessionaire on account of Change in Law, then the Contractor shall ensure that such receivables are passed to the Concessionaire.



# CHAPTER 11. INSURANCE

#### **11.1 Details of Insurance**

As per clause 32.1 of the Concession Agreement, the Concessionaire shall effect and maintain at its own cost during the Operation Period such insurances for such maximum sums as may be required under the Financing Agreements and the Applicable laws, and such insurances as may be necessary or prudent in accordance with Good Industry Practice.

Accordingly, the Concessionaire has procured the following insurances for mitigating the risks. The copies of Insurance are attached in **Annexure-9**.

Name of the	Insurance	Doliny No.	Effectiv	e Period	Description of the
Policy	Company	Policy No	From	То	Policy
Civil Engineering Completed Risk Policy	Aspire Insurance Brokers Pvt Ltd	321300441910001988	27.3.2020	26.3.2021	Road and structure, Toll Building & Booths, Road furniture, Sign Boards
Employees Compensation Policy	HDFC ERGO General Insurance Co Ltd	3114203387691200000	19.05.2020	18.05.2021	Employees compensation
Electronic Equipment Insurance Policy Schedule	The Oriental Insurance Company Limited	171200/44/2021/37	08.09.2020	07.09.2021	EEI Equipment installed in the Project Highway

#### Table 11.1: Insurance Details

# CHAPTER 12. CONCLUSION

#### 12.1 General

Based on detailed site inspection, review of various documents and reports as described in the preceding chapters technical over view of the Project is provided below.

#### **12.2** Pavement Condition

The overall project pavement condition is good. RCC drains are constructed in built up locations and earthen drains in rural locations resulting in, effective drainage system along the project road. Shoulder condition is fair.

# **12.3 Condition of Structures**

General condition of Bridges is good. No major structural defects were noticed. General condition of Culverts is good. Observed vegetation growth in vents of Box and Hume Pipe culverts and they are getting cleared during regular maintenance period.

#### 12.4 Traffic Growth

Based on real time, traffic data was extracted from Schedule N of CA, the traffic growth observed is 18.23%, however 5% growth is considered while evaluating forecast of traffic volumes.

#### 12.5 Project Facilities:

Toll Plaza is located at Km. 47+950 and is operational. Toll Plaza is operated by ETC Toll collection system and connected by network system monitored in administrative building. Truck lay byes/Bus bays are in good condition. Medical Aid posts found functional. Avenue plantation and landscaping at Toll Plaza is provided and being maintained. Highway lighting is provided at truck laybys and toll plaza locations and found functional.

#### 12.6 Road safety

Pavement marking is in good condition and number of sign boards are provided as per IRC SP 73-2007. The condition of signboards & other road appurtenances like metal beam crash barriers is fair.

#### 12.7 Maintenance

- The routine maintenance being carried out by O&M contractor effectively, based on documents reviewed, time to time observations made by client/Authority, being complied and no outstanding NCR's are to be attended as on date.
- Major maintenance (MM) /Periodic maintenance will be carried out in 2021 and 2028.

#### 12.8 Epilogue

The project is designed and constructed as per the stipulated specifications besides maintenance work is being carried out timely and effectively to keep the road in traffic worthy and safe at all time.

Chainag	e (Km.)			Pavemen	t Condition			Ridin	g Quality	Pavement	Sho	ulder	Embankment	Road Side	Drain	
From	То	Cracking (%)	Raveling (%)	Potholing (%)	Bleeding (%)	Rutting	Patching (%)	Speed (km/hr)	Quality (G/F/P /VP)	Edge Drop (cm)	Composition	Condition (Fair / Poor/ Damaged)	Condition (Good/Fair / Poor)	Type (LD/ULD/CD/NO)	Condition (PF/F)***	Remarks
0+000	1+700								G		E	F	F	ULD	F	
32+000	33+000								G		E	F	F	ULD	F	
33+000	34+000								G		E	F	F	ULD	F	
34+000	35+000								G		E/E+P	F	F	LD	PF	
35+000	36+000								G		E/E+P	F	F	LD	PF	
36+000	37+000								G		E	F	F	ULD	PF	
37+000	38+000								G		E	F	F	ULD	PF	
38+000	39+000								G		E	F	F	ULD	F	
39+000	40+000								G		E	F	F	ULD	F	
40+000	41+000								G		E	F	F	ULD	PF	
41+000	42+000								G		E	F	F	ULD	F	
42+000	43+000								G		E	F	F	ULD	F	
43+000	44+000								G		E	F	F	ULD	PF	
44+000	45+000								G		E	F	F	ULD	F	
45+000	46+000								G		E	F	F	ULD	F	
46+000	47+000								G		E	F	F	ULD	F	
47+000	48+000								G		E	F	F	ULD	F	
48+000	49+000								G		E	F	F	ULD	F	
49+000	50+000								G		E	F	F	ULD	F	
50+000	51+000								G		E	F	F	ULD	PF	
51+000	52+000								G		E	F	F	ULD	PF	
52+000	53+000								G		E	F	F	ULD	PF	
53+000	54+000								G		E	F	F	ULD	PF	
54+000	55+000								G		E/E+P	F	F	LD	PF	
55+000	56+000								G		E/E+P	F	F	LD	PF	
56+000	57+000								G		E	F	F	ULD	F	
57+000	58+000								G		E	F	F	ULD	F	
58+000	59+000								G		E	F	F	ULD	PF	
59+000	60+000								G		E	F	F	ULD	F	
60+000	61+000								G		E	F	F	ULD	F	
61+000	62+000								G		E	F	F	ULD	PF	
62+000	63+000								G		E	F	F	ULD	F	
63+000	64+000								G		E	F	F	ULD	F	
64+000	65+000								G		E	F	F	ULD	F	
65+000	66+000								G		E	F	F	ULD	PF	
66+000	67+000								G		E	F	F	ULD	F	<u> </u>



Chainag	e (Km.)			Pavemen	t Condition			Ridin	g Quality	Pavement	Shou	ılder	Embankment	Road Side I	Drain	
From	То	Cracking (%)	Raveling (%)	Potholing (%)	Bleeding (%)	Rutting	Patching (%)	Speed (km/hr)	Quality (G/F/P /VP)	Edge Drop (cm)	Composition	Condition (Fair / Poor/ Damaged)	Condition (Good/Fair / Poor)	Type (LD/ULD/CD/NO)	Condition (PF/F)***	Remarks
67+000	68+000								G		E/E+P	F	F	LD	PF	
68+000	69+000								G		E/E+P	F	F	LD	F	
69+000	70+000								G		E/E+P	F	F	LD	PF	
70+000	71+000								G		E	F	F	ULD	F	
71+000	72+000								G		E	F	F	ULD	PF	
72+000	73+000								G		E	F	F	ULD	F	
73+000	74+000								G		E	F	F	ULD	F	
74+000	75+000								G		E	F	F	ULD	F	
75+000	76+000								G		E	F	F	ULD	PF	
76+000	77+000								G		E	F	F	ULD	F	
77+000	78+000								G		E	F	F	ULD	PF	
78+000	79+000								G		E	F	F	ULD	F	
79+000	80+000								G		E	F	F	ULD	PF	
80+000	81+000								G		E	F	F	ULD	F	
81+000	82+000								G		E	F	F	ULD	F	
82+000	83+000								G		E	F	F	ULD	PF	
83+000	84+000								G		E	F	F	ULD	F	
84+000	85+000								G		E	F	F	ULD	F	
85+000	86+000								G		E/E+P	F	F	LD	PF	
86+000	87+000								G		E/E+P	F	F	LD	PF	



Mrem 🆄

S. No.	Chainage	Type of Structure	Substructure	Superstructure	Expansion Joint	Approach slabs	Drainage spouts	Wearing coat	Bearings	Quadrant Pitching	Toe wall	Aprons
1	Km. 0+274	Major Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
2	Km. 6+000	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
3	Km. 16+950	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
4	Km. 21+600	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
5	Km. 30+900	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
6	Km. 42+600	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
7	Km. 48+787	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
8	Km. 59+013	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
9	Km. 69+000	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
10	Km. 69+779	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
11	Km. 80+100	Minor Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair
12	Km. 82+263	Major Bridge	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair	Fair

## Annexure 2 : Condition of Bridges



S. No	Chainage (Km.)	Box/slab	Return wall	Quadrant pitching	Toe wall	Aprons	Parapet Wall
1	35+200	Good	Good	Fair	Fair	Fair	Fair
2	35+200	Good	Good	Fair	Fair	Fair	Fair
3	36+100	Good	Good	Fair	Fair	Fair	Fair
4	36+800	Good	Good	Fair	Fair	Fair	Fair
5	48+800	Good	Good	Fair	Fair	Fair	Fair
6	54+700	Good	Good	Fair	Fair	Fair	Fair
7	59+400	Good	Good	Fair	Fair	Fair	Fair
8	59+800	Good	Good	Fair	Fair	Fair	Fair
9	60+700	Good	Good	Fair	Fair	Fair	Fair
10	61+100	Good	Good	Fair	Fair	Fair	Fair
11	61+200	Good	Good	Fair	Fair	Fair	Fair
12	62+000	Good	Good	Fair	Fair	Fair	Fair
13	62+400	Good	Good	Fair	Fair	Fair	Fair
14	65+900	Good	Good	Fair	Fair	Fair	Fair
15	66+600	Good	Good	Fair	Fair	Fair	Fair
16	69+100	Good	Good	Fair	Fair	Fair	Fair
17	71+500	Good	Good	Fair	Fair	Fair	Fair
18	71+900	Good	Good	Fair	Fair	Fair	Fair
19	72+500	Good	Good	Fair	Fair	Fair	Fair
20	74+800	Good	Good	Fair	Fair	Fair	Fair
21	80+191	Good	Good	Fair	Fair	Fair	Fair
22	81+443	Good	Good	Fair	Fair	Fair	Fair
23	82+600	Good	Good	Fair	Fair	Fair	Fair
24	86+200	Good	Good	Fair	Fair	Fair	Fair
25	86+400	Good	Good	Fair	Fair	Fair	Fair
26	86+500	Good	Good	Fair	Fair	Fair	Fair
27	86+800	Good	Good	Fair	Fair	Fair	Fair
28	87+200	Good	Good	Fair	Fair	Fair	Fair
29	87+400	Good	Good	Fair	Fair	Fair	Fair
30	88+700	Good	Good	Fair	Fair	Fair	Fair

# Annexure 3: Condition of Box/Slab/Pipe culverts Condition of Box/Slab culverts



Condition	of Hume Pi	pe Culverts

S. No.	Chainage (Km.)	Hume Pipe	of Hume Pipe C Head wall	Protection works	Toe wall
1	0+200	Good	Good	Fair	Fair
2	0+500	Good	Good	Fair	Fair
3	0+900	Good	Good	Fair	Fair
4	1+350	Good	Good	Fair	Fair
5	34+300	Good	Good	Fair	Fair
6	34+800	Good	Good	Fair	Fair
7	38+500	Good	Good	Fair	Fair
8	41+500	Good	Good	Fair	Fair
9	44+800	Good	Good	Fair	Fair
10	46+500	Good	Good	Fair	Fair
11	49+800	Good	Good	Fair	Fair
12	49+800	Good	Good	Fair	Fair
13	50+500	Good	Good	Fair	Fair
14	50+800	Good	Good	Fair	Fair
15	51+900	Good	Good	Fair	Fair
16	52+500	Good	Good	Fair	Fair
17	52+700	Good	Good	Fair	Fair
18	55+500	Good	Good	Fair	Fair
19	56+200	Good	Good	Fair	Fair
20	56+500	Good	Good	Fair	Fair
21	56+800	Good	Good	Fair	Fair
22	57+400	Good	Good	Fair	Fair
23	58+100	Good	Good	Fair	Fair
24	58+200	Good	Good	Fair	Fair
25	58+500	Good	Good	Fair	Fair
26	58+900	Good	Good	Fair	Fair
27	59+200	Good	Good	Fair	Fair
28	59+600	Good	Good	Fair	Fair
29	60+200	Good	Good	Fair	Fair
30	60+400	Good	Good	Fair	Fair
31	60+900	Good	Good	Fair	Fair
32	63+700	Good	Good	Fair	Fair
33	72+900	Good	Good	Fair	Fair
34	73+200	Good	Good	Fair	Fair
35	73+500	Good	Good	Fair	Fair
36	73+900	Good	Good	Fair	Fair
37	74+300	Good	Good	Fair	Fair



S. No.	Chainage (Km.)	Hume Pipe	Head wall	Protection works	Toe wall
38	76+100	Good	Good	Fair	Fair
39	76+900	Good	Good	Fair	Fair
40	77+500	Good	Good	Fair	Fair
41	83+100	Good	Good	Fair	Fair
42	83+600	Good	Good	Fair	Fair
43	84+400	Good	Good	Fair	Fair
44	84+400	Good	Good	Fair	Fair
45	84+900	Good	Good	Fair	Fair
46	84+900	Good	Good	Fair	Fair
47	85+200	Good	Good	Fair	Fair
48	34+823	Good	Good	Fair	Fair
49	37+146	Good	Good	Fair	Fair
50	57+735	Good	Good	Fair	Fair
51	57+827	Good	Good	Fair	Fair
52	57+906	Good	Good	Fair	Fair
53	58+187	Good	Good	Fair	Fair
54	58+390	Good	Good	Fair	Fair
55	58+773	Good	Good	Fair	Fair
56	59+130	Good	Good	Fair	Fair
57	59+220	Good	Good	Fair	Fair
58	65+173	Good	Good	Fair	Fair
59	66+819	Good	Good	Fair	Fair
60	67+500	Good	Good	Fair	Fair
61	68+079	Good	Good	Fair	Fair
62	68+327	Good	Good	Fair	Fair
63	68+586	Good	Good	Fair	Fair
64	68+767	Good	Good	Fair	Fair
65	69+343	Good	Good	Fair	Fair
66	69+913	Good	Good	Fair	Fair
67	71+989	Good	Good	Fair	Fair
68	72+343	Good	Good	Fair	Fair
69	72+486	Good	Good	Fair	Fair
70	72+676	Good	Good	Fair	Fair
71	72+741	Good	Good	Fair	Fair
72	72+817	Good	Good	Fair	Fair
73	72+931	Good	Good	Fair	Fair
74	73+051	Good	Good	Fair	Fair
75	73+302	Good	Good	Fair	Fair



S. No.	Chainage (Km.)	Hume Pipe	Head wall	Protection works	Toe wall
76	73+394	Good	Good	Fair	Fair
77	73+625	Good	Good	Fair	Fair
78	73+734	Good	Good	Fair	Fair
79	73+827	Good	Good	Fair	Fair
80	74+114	Good	Good	Fair	Fair
81	74+635	Good	Good	Fair	Fair
82	74+903	Good	Good	Fair	Fair
83	74+990	Good	Good	Fair	Fair
84	75+313	Good	Good	Fair	Fair
85	75+403	Good	Good	Fair	Fair
86	75+500	Good	Good	Fair	Fair
87	77+675	Good	Good	Fair	Fair
88	78+063	Good	Good	Fair	Fair
89	79+799	Good	Good	Fair	Fair
90	80+992	Good	Good	Fair	Fair
91	81+582	Good	Good	Fair	Fair
92	84+616	Good	Good	Fair	Fair

## **Annexure 4: Toll Revenue Calculations**

# Toll Plaza-I:

1. Tollable Traffic considered for Toll Revenue in No.s (AADT):

Vehicle Type	Traffic (AADT)
venicie rype	Km.47.950
Car/Taxi/Van	234
LCV	61
Bus	12
Truck	37
MAV	248

#### 2. Traffic Growth Rates

Table-2: Details of Growth rates adopted
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Year	Car	LCV	BUS	Truck	MAV
2019-25	5.00	5.00	5.00	5.00	5.00
2025-30	5.00	5.00	5.00	5.00	5.00

## 3. Trip Distribution Ratio as per the Toll Data.

#### Table-3: Details of Trip Distribution (Base Year 2019-20)

Vehicle Type	Single Trip	Local Pass	Total
Car/Taxi/Van	99%	1%	100%
LCV	100%	0%	100%
Bus	100%	0%	100%
Truck	100%	0%	100%
MAV	100%	0%	100%

## 4. Toll Rates :

## Table-4: Details of Toll Fee (Base Year 2019-20)

Vehicle Type	Toll Fee at Km. 47+950
Car/Taxi/Van	30
LCV	75
Bus	155
Truck	190
MAV	375



# Toll Plaza-1 Revenue:

Years	Car/Jeep	Car/Jeep (local pass)	LCV	Bus	Trucks	MAV	Total in RS	Total in Lakh.	Cumulative (in Lacs)
2019-20	2535570	59101	1657200	681360	2563085	33707815	41204131	412.041	412.041
2020-21	2662349	65935	1856064	733320	2796680	36915076	45029423	450.294	862.336
2021-22	2795466	69231	1948867	818110	3087105	40251630	48970410	489.704	1352.040
2022-23	3424446	76969	2174205	884281	3320520	43829553	53709974	537.100	1889.139
2023-24	3595668	85307	2282915	955023	3652572	47664639	58236125	582.361	2471.501
2024-25	3775451	89573	2538065	1030629	3922364	51773660	63129742	631.297	3102.798
2025-26	3964224	99001	2813022	1140656	4301526	56174421	68492850	684.928	3787.727
2026-27	4757069	103951	2953673	1228399	4612700	60885824	74541616	745.416	4533.143
2027-28	4994922	114606	3264586	1322064	5045141	65927931	51495713	514.957	5048.100



# Annexure 5: O & M Costs

S. No.	Item		Unit	No	Frequency per year	Quantity	Rate	Amount	Remarks
1	General Cleaning in Carriageway & Shoulders Rural area	Monthly	Km	55.6	12	4	350	934,080	04 nos of Labour
2	General Cleaning in Carriageway & Shoulders Urban area	Twice in a month	Km	3.8	24	4	350	127,680	04 nos of Labour
3	Watering in Median Plants	Once in Week	Km	3.8	52	1	1939	383,146	01 nos of Labour
4	Watering in Avenue plants	Once in Week	Km	0	52	0	1939	-	
5	Median Maintenance (Grass cutting and plant trimming)	Once in Month	Km	3.8	12	0	21000	-	02 nos of Labour - 2 x 350 = 700 x 30 = 2,52,000
6	ROW Cleaning	Half yearly	Km	27.8	2	5	350	97,300	5 Nos of labour per KM (50% of the Project length)
7	Cleaning of Culverts	Half yearly	Nos	122	2	2	650	317,200	3 nos of Labour along with JCB or Excavator
8	Road Furniture Cleaning	Quarterly	Km	55.6	4	1	350	77,840	02 nos of Labour
9	Maintenance of Bus shelters	Monthly	Nos	7	6	1	350	14,700	2 nos/ Bus shelter/month
10	General Cleaning in Building & Facilities	Daily	Nos	2.00	6	15	350	63,000	02 nos of Labour for 30 days
11	Bridges	Half yearly	Nos	10	2	2	350	14,000	02 nos of Labour for removal of vegetation/Structure
								2,028,946	

#### Routine Maintenance cost for 1 year

1	TRUCK TIPPER 6-8 CUM CAPACITY	Monthly	Nos	1	12	1	15000	15,000	(2000000 is the cost of vehicle, considering 10% Rental per year) including maintenance
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S. No.	Item		Unit	No	Frequency per year	Quantity	Rate	Amount	Remarks
2	Water Tanker Cap 12 KL for Median	Monthly	Nos	1.2	12	0	440000	-	(2200000 is the cost of vehicle, considering 20% Rental per year) including maintenance
3	Tractor Mounted Water tanker Cap 6 KL for RoW	Monthly	Nos		12		160000	-	(800000 is the cost of vehicle, considering 20% Rental per year) including maintenance
4	Mechanical Sweeper	Monthly	Nos		12		500000	-	(2500000 is the cost of vehicle, considering 20% Rental per year) including maintenance
5	Grass cutter	Monthly	Nos	1.2	12	0	12000	720	(12000/year)
6	Manhoise/ Skyscrapper	Monthly	Nos		12		400000	-	(2000000 is the cost of vehicle, considering 20% Rental per year) including maintenance
7	Bikes	Monthly	Nos	1.2	12	0	2500	2,400	Per Supervisor/Per Month
8	Building Maintenance	Yearly			12	1			
9	Toll plaza AMC	Yearly	Nos		12	1	5000	60,000	10000/month
								78,120	

1	Patrolling vehicle	Monthly	Nos	12			150000	0	(1500000 is the cost of vehicle, considering 10% Rental per year) including maintenance
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Shrem

S. No.	Item		Unit	No	Frequency per year	Quantity	Rate	Amount	Remarks
2	Ambulance	Monthly	Nos	12		1	10000	10000	(1200000 is the cost of vehicle, considering 10% Rental per year) including maintenance (1 Ambulance/toll plaza)
3	Tow away trucks and Crane	Monthly	Nos	12		1	20000	20000	(2000000 is the cost of vehicle, considering 10% Rental per year) including maintenance
4	Consumables for Medical Aid Post and Ambulance	Monthly	Nos	12		1	500	6000	2500 Per month for per set (Per set - Per toll plaza)
5	Consumables for Route Patrolling & Crane	Monthly	Nos	12		1	500	6000	2500 Per month for per set (Per set - Per toll plaza)
								42,000	
								2,149,066,00	]

2,149,066.00



# Incidental cost for 1 year

	Item		Unit	No	Frequency	Quantity	Rate	Amount	Remarks
1	Road marking	Half yearly	Sqm.	1	1	4368	516	22,53,888	10 % of Total Project length on B/S for 1 year
2	Carriageway Maintenance ( Pot Holes etc )	Yearly	Sqm.	1	1	295	168	49,560	5% of Flexible Pavement
3	Maintenance of Earthen Shoulder	Half yearly	Cum.	1	3	834	225	5,62,950	5% of total Shoulder length throughout the project
4	Sign Board	Quarterly	Km.	1	1	13	4000	52,000	2.5 % of Total sign boards per half year ( considerd 500 nos )
5	МВСВ	Monthly	RMT			37.5	2400	90,000	2.5% of Total qty per year - (considered 2400 per number)
6	Mile Stone ( KM Stone/ HM Stone / ROW stone etc.)	Quarterly	Nos.	55.6	4	14	2250	1,26,000	5 % of total stones per year (unable to understand the backup)
7	ROW Fencing ( If available)	Quarterly	Km.		4			-	10 % of total ROW fencing per year
8	Kerb	Yearly	Km.	5895	1	0.0	250	-	2 % of total Kerbings per year
9	Electrical Poles	Yearly	Nos.	0	1	0	55000	-	3 % of total poles per year
10	Replacement of Rigid pavement Panels	Yearly	Ls.	1	1	0.00	4000	-	Considered 1% of the total volume
11	Providing Reinforced cement concrete crash barrier at the edges of the bridge structures constructed with M-40 grade concrete with HYSD-Fe 500 TMT reinforcement concrete per Rmt conforming to IRC:21 and fixing with dowel bars 16 mm dia to old concrete using epoxy grout as per drawing and	Yearly	Rmt.	0		0	3985	-	3% of Length replacement in every 5 years (Quantity to be estimated)



	Total amou	31,34,398				
Technical Specifications and as directed by the Engineer.						

# **Operational Expenses**

S. No.	PARTICULARS	Amount
1	Man Power	₹ 2,976,000
2	Fuel for Generator & Vehicles	₹ 1,236,000
3	Electricity	₹ 330,000
4	Stationary	₹ 10,000
5	Replacement of Electrical Fixtures	₹ 30,080
6	Refurbishment of Toll Plaza Equipment	₹ 75,000
	Total Amount	₹ 4,657,080

# Major Maintenance BOQ

S. No.	DESCRIPTION	Unit	QUANTITY	RATE	AMOUNT	QUANTITY	RATE	AMOUNT
	Pavement (Asphalt & Concrete)							
1	Providing and applying tack coat with Rapid Setting Bitumen Emulsion using emulsion pressure distributor on the prepared bituminous/granular surface cleaned with mechanical broom, Ref. to Technical specification 503.			-			-	
(a)	On Bituminous surface @ 2.0 kg to 3.0 kg/10 sq.m.	Sqm	-	14.00		-	14.00	
2	Providing and laying bituminous concrete using a batch type Hot Mix Plant using crushed aggregates of size (table 500-17), premixed with VG Grade Bitumen and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers, Pneumatic	Cum	-	7,480.00		-	7,480.00	



S. No.	DESCRIPTION	Unit	QUANTITY	RATE	AMOUNT	QUANTITY	RATE	AMOUNT
	Tyre Rollers to achieve the desired compaction as per Technical specification clause No. 507 and mix design conforming the IRC - 111 and IRC 37.							
3	Providing and laying bituminous concrete using a batch type Hot Mix Plant using crushed aggregates of size	Cum	5,171.25	6,800.00	3,51,64,500	5,171.25	6,800.00	3,51,64,500
4	Providing Micro surfacing	Sqm	2,03,350.00	160.00	3,25,36,000	2,03,350.00	160.00	3,25,36,000
5	Repair of joint Grooves with Epoxy Mortar Repair of spalled joint grooves of contraction joints, longitudinal joints and expansion joints in concrete pavements using epoxy mortar or epoxy concrete)	MTRS	-	250.00			250.00	
6	Texturing of Rigid pavement (considering 50% for 7 years)	Sqm	-	130.00		-	130.00	
	Total				6,77,00,500			6,77,00,500
	Chapter 9 Junctions, Traffic Signs Marking and Other Appurtenances			-			-	
1	Providing and laying of cement concrete kerb without channel (M-20 Grade) over WMM foundation using kerb laying machine & proper curing complete, as per drawing & technical specification clause no.409, 1700 and as per the instructions of Employer's representative Consider 5% for construction period.	Rmt	-	380.00		-	380.00	
2	Providing and laying lane markings of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes, Ref. to Technical specification 803.	Sqm	13,236.67	516.00	68,30,120	13,236.67	516.00	68,30,120
3	Road Studs	Nos	-	750.00		-	750.00	
4	Kerb painting		-	250.00		-	250.00	
	Total Chapter 9			-	68,30,120		-	68,30,120
	Grand Total				7,45,30,620			7,45,30,620

Annexure 6: Letter of Award MADHYA PRADESH ROAD DEVELOPMENT CORPORATION LIMITED (Govt. of M.P. Undertaking) 16-A, Arera Hills, Bhopal - 462 011 Tel.: (O) 0755-2765196, 205, 213, 216 (EPBX) Fax : 91-755-2572643 Website : www.mprdc.nic.in. No. MPRDC/BO1/U-N-S-K/2012/ 5797 Bhopal, dated 08 August, 2012 M/s Dilip Buildcon Ltd., E-5/99, Arera Colony, Bhopal Fax: 4247574 Sub: Regarding, Strengthening, Widening, Maintaining and Operating of Uchera-Nagod-Singhpur-Kalinjer (SH-56) Road on BOT (Toll + Annuity)basis In response to your Pre-Qualification you have submitted Technical and Financial Bid for development of Uchera-Nagod-Singhpur-Kalinjer (SH-56) Road on BOT (Toll + Annuity) basis. In this connection, kindly refer to the clarification, addendum etc. issued from time to time before submission of the tender document. Also refer to your bid documents containing an unconditional price bid of ₹ 8,46,00,000.00 (Rupees eight crores forty six lacs only) as Annuity Amount payable in terms of Clause 25 of the Concession -Agreement. Pursuant to our acceptance of your tender and decision to award the work to you, we request you to send your acceptance and sign the Concession Agreement within the time stipulated in the Tender. Yours faithfully, Encl: Duplicate copy of LoA (Arun-Paliwal) Dy. General Manager Connecting People Through quality infrastructure

DUE DILIGENCE REPORT

**Annexure 7: Provisional Completion Certificate** (INDIA) PRIVAT CON A MULTI-DISCIPLINARY CONSULTANCY AND CONSTRUCTION MANAGEMENT ORGANISATION Registered Office : H-54 A, Kalkaji, New Delhi - 110 019 (India) Fax : 91-11-26239888 Tel.: 41605600, 41605601, 41605502 E-mail : redecon1@rediffmail.com www.redeconindia.com Project Office: - Duplex No. 2 Sunny Residency, Mathura Vihar, Near Ghadi Chowk, Vijay Nagar, Jabalpur Phone:-0761-4040854, Email: - redeconjabalpur@gmall.com Letter no: -MPRDC /IE/MP/45/2014 Date: - 15.05.2014 To, The Project Manager M/S DBL Nagod Kalinjer Tollways Limited Site Office 52 mile stone village Maihtain Block - Nagod, Dist - Satna (M.P.) Nagod Kalinjer Road 45 km on Satna (M.P.) Project: Development of Uchera-nagod-kalinjer (SH-56) on BOT (Toll+Annuity) Basis road section km 32+000 to 85+803 issue of Provisional Certificate of above road project section km 32+000 to 85+803 Subj .:-Ref:-Your letter no. DBL/IE/2014/108 on dated 14.04.2014 Dear Sir. As per Concession Agreement dated 24<sup>th</sup> September 2012 Article 14 Clause 14.3 read in Conjunction with Schedule 'J' the Provisional Certificate of Section km 32+000 to 85+803 is Forwarded as Appendix -A with Punch List as Appendix-B for your information and necessary Action pleREDECON (INDIA) Fre

Your's

R.D. Dohane R.D.DOHARE 15 5-4014 Team Leader Team Leader Redecon (India) Private Limited

Encl: 1. Provisional Certificate Appendix-A 2. Punch List Appendix-B

Copy To: 1. Chief Engineer (BOT), MPRDC, Bhopal.

2. General Manager (North), MPRDC, Jabalpur.

3. Divisional Manager, MPRDC, Rewa (Division-1)

DUE DILIGENCE REPORT

4		Annexure	8: Completion Cert	ificate
A M Reg	ULTI-DISCIPLINARY CO Istered Office : H-54	A. Kalkaji, New De	PRIVATE NSTRUCTION MANAGE Ihi - 110 019 (India) F decon1@rediffmail.com	MENT ORGANISATION ax : 91-11-26239888
Project Offic	e: - Duplex No. 2 Sunny Phone:-0763	Residency, Mathura Vi - 4040854, Email: - <u>re</u> i	har, Near Ghadi Chowk, V deconjabalpur@gmail.cor	'ijay Nagar, Jabalpur <u>n</u>
Lette	er no: -MPRDC /IE/MP,	72/2014		Date: - 05.08.2014
То				
M/S Site Nag	Project Manager 5 DBL Nagod Kalinjer Office 52 Mile Stone od, Dist- Satna(M.P) 1 d 45 Km On satna (M	Village Maihtain Nagod Kalinjer		
Project	: Development of Ucl road Section Km. 3		r (SH-56) On BOT (Tol	l+Annuity) Basis
Sub: - Is	ssue of Completion Ce	ertificate of above re	ad project section km	. 32+000 to 85+803
(2)	) Your Letter No. – M Our Letter No. – DBI Our Letter No. – DBI	/MPRDC/UNK/201	4/124	
Dear Sir,				
With	h reference to above	etter, I the I.E, Rede	con (India) Private Lii	nited carried out the Joint
Visit of	project in presence o	f MPRDC and conce	ssionaire on dated 04/	/08/2014
We are	all satisfied with the	completed balance •	work of "Punch List" a	nd final certificate may be
Issued.				
				R.D. DOHARE
			REDECC	TEAM LEADER 05-8-9014
Enclos	ed:-			REBECON INDIA PVT. LTD JABALPUR
	COMPLIETION CERT			
COPY TO	):-			
1. 2.		AGER (NORTH) MF		

र्शनशि अनुसूच	IV Policy Schedula -	<b>Civil Engineering</b>	Completed R	ček .			
Policy Num	iber:			Risinoss Source	010355		
21300441910001988 alter for Strik				Sales Channel	Conte		
मार्यालय कोड	/Office Code: 32130	V 0.007	5500000001				
DIVISION II E Madhya Prad	/Office Address: BH 3-8, Indrapurt, B H E I losh - 462022.	Bhopal Ltd -	HO Contact	re Insurance Bro Number: 82919 Io Broker Code:			
SSTIN 23AAA		Cu	stomer Ca	re Toll Free N	umber:		
Soniact Num Mail: 321300 Mobile Numb		oma		00 345 0330 er.support@ni	c.co.in		
ग्रिहक का शाव OLLWAYS I	R /Customer Name: .TD	DBL UCHERA NA	GOD	भूरभूक आ 97018818		anor ID: Que	PAN AALCONTIN
	PLOT NO 5, INSIDE			what /Pho	1901		
	A BHATTI, KOLAR H PAL, State: MADHYA 1928			\$-\$17 /E-1	flow		
	3/2020 ♣ 00:00 ₦ 126/03/2021	26/03/2021 내는 제	ध्य रात्तरति	e yana Polic	y Effecti	ive from 00:00 h	ours, on 27/03/2020 to
पुरीगरवि	IN Promium	\$ 9,93,322.00	कवर मोट	संख्या और लोगी Note Number a		NA	
s	CGST SSTAUTGST IGST	00.005.03 \$ 00.005.03 \$ 00.075.03 \$		Hoto Number 1	nu Dani		
वीरांस बाट	344-LiKerala	₹0.00	पुरस्ताव स	ख़िमा और लमिपि। Number i		68092003270868	67 Dt. 27/03/2020
	Flood Cess wath_chavar/ ss:GST_TDS	₹0.00		Number 1	110 000		
पुनर् <b>पुरापुत</b> िव	100 C 100 C 100 C	70.00	रसीद व	संख्या और लथिएँ	Receipt	22122081101000	7666 Dt. 27/03/2020
Recoverable	इन्ट्री Stamp Duty	10.00		Number a	ind Date	32130001191000	1000 CAL ETRABELICO
			पतिपती पॉल	ननिति संख्या अति )			
	otal Amount	t 11.72,120.00			aftif7 ser and siry Date	NA	
	en Lakh Soventy Two ra-Nagod-Singhpur-H				Saina 48	5001	
Sr.No	Type of Risk	Descript	lon Of	Earthquake Zone		nsured of the risk(?)	Excess(r)
1	Roads	ROAD STRUC Toll Buil Booths, HTMS, O	TURE ding & TMS,	Zone IV	92,3	94,45,000.00	1,00,000 00
		Equipr	nent,				
2	Roads	Equipmer Fumiture, Electrica Lighting & Signboard	t, Road Fixturs, Poles Fittings,	Zone IV	6,9	6,55,000.00	1,00,000.00
		Berr	Her.				

2 Policy is replicable for Polads a Polad side structures a Ton places a Bruges a Pryovers on Land.
 3 Na Coverage for (Road) Transportation Tunnels
 4 No Coverage for Marine Vessel Impact Damage.
 5.Each 72 hour period will be treated as One occurrence/ovent for STFI & EQ for application of Excess.

PROJECT DETAILS COVERED UNDER THE POLICY AS FOLLOWS:

Printed on 27/03/2020 by ID: 75159

Page no: 1



# HDFC ERGO General Insurance Company Limited



May 13, 2020

#### DBL UCHERA NAGOD TOLLWAYS LTD

PLOT NO. 5, GOVIND NARAYAN SINGH GATE, CHUNA BHATTI, BHOPAL, BHOPAL, MADHYA PRADESH 482016.



Dear Customer,

#### Sub: Employees Compensation Insurance Policy No: 3114203387691200000

We thank you for having preferred us for your *Insurance* requirements. We at HDFC ERGO General Insurance believe "*Insurance*" as not only to be an assurance to indemnify in the event of unfortunate circumstances, but one that signifies protection and support, which you can count on when you need it most.

The Insurance Policy enclosed herewith is a written agreement providing confirmation of our responsibility towards you that puts insurance coverage into effect against stipulated perils.

Please note that the policy has been issued based on the information contained in the proposal form and / or documents received from you or your representative / broker.

Name of the Intermediary	:	GLOBAL INSURANCE BROKERS PVT LTD

Intermediary Code : 200113159601

Where the proposal form is not received, information obtained from you or your representative /broker, whether orally or otherwise, is captured in the policy document.

If you wish to contact us in reference to your existing policy and /or other general insurance solutions offered by us, you may write to our correspondence address as mentioned below. Alternatively, you may visit our website <u>www.hdfcergo.com</u>. To enable us to serve you better, you are requested to quote your Policy Number in all correspondences.

Thanking you once again for choosing HDFC ERGO General Insurance Company Limited and looking forward to many more years of association.

Yours sincerely,

Razotra

Authorised Signatory

3114203387691200000

HDFC ERGO General Insurance Company Limited (Formerty HDFC General Insurance Limited)
Registered & Corporate Office:
Cost
1st Floor,HDFC House, 165 - 108 Backbey Reclamation,
H. T. Parekh Marg, Churchgate, Mumbal - 400 (22)
LBS Marg, Bh

Customer Service Address: D-301, 3rd Floor, Eastern Business District (Wegnet Mall), LBS Marg, Bhandup (West), Mumbal - 400 078

UIN : IRDAN125P0017V02201112 | IRDAI Reg No. 146 | CIN : U68030MH2007PLC177117 Tol Firee Number: 1800 2700 700 Telephone : +01 22 6588 3600 Fee: 01 22 6688 3609 578 Email : cere@hdferego.com

Page 1 of 13

# HDFC ERGO General Insurance Company Limited

Certificate of Insurance cum Policy Schedule



Policy No. 3114203387691200000 Employees Compensation Insurance

Insured Name DBL UCHERA NAGOD TOLLWAYS LTD (PAN Number:AACCD8124B)						Business	о	THERS			
Correspo Address	spondence PLOT NO. 5, GOVIND NARAYAN SINGH GATE,CHUNA BHATTI, BHOPAL,BHOPAL,MADHYA PRADESH,462016.							AYH			
Mobile			Phone E Mail						Policy Issuar	/ nce Date	13/05/2020
Period of Insurance From Date & Time 19/05/2020 00:01 AM To Da						To Da	te & Time	18/0	5/2021 Midn	ight	

LAW

The Policy covers Liability of the Insured under the following Law(s) shown as covered, subject to claim being otherwise admissible as per terms, conditions and exclusions of the Policy and subject to Limit of Indemnity as stipulated against each Law:

Sr. No.	Law	Limit of Indemnity
a.	Employee's Compensation Act, 1923 and subsequent amendments thereof prior to the date of issue of this Policy	Subject otherwise, to the terms, conditions & Exclusions of the Policy, the amount of liability incurred by the Insured
b.	Common Law	Subject otherwise, to the terms, conditions & Exclusions of the Policy, the amount of liability incurred by the Insured, but not exceeding:-
		a) Limit Per Employee for any number of accidents during Period of Insurance ₹. Unlimited
		b) Limit Per Accident for any number of Employees ₹.Unlimited
		c) Aggregate Limit for all accidents and claims arising there from during the Period of Insurance ₹.Unlimited

EC-13-0005			
3114203387691200000		Page 2 d	of 13
HDFC ERGO General Insurance Company Limited (Formerly HDFC	General Insurance Limited)	UIN : IRDAN125P0017V02201112   IRDAI Reg No.148   CIN : U86030MH2007PL0	2177117
Registered & Corporate Office: 1st Floor,HDFC House, 165 - 166 Backbey Reclamation,	Customer Service Address: D-301, 3rd Floor, Eastern Business District (Magn	Toll Free Number: 1600 2700 700 gnet Mall), Telephone : +91 22 6638 3600 Fax: 91 22 6638 3699	

				CY SCI	IEDULE		cation: NOIDA
Policy No	: 171200/44/2021/37		Prev Policy N	lo :			
Cover Note No	: ER1700203535		Cover Note D	t : 08.	/09/2020		
Insured's Code	: 114390109		Issuing Office	Code :	171200		
Insured's Name	: DBL Uchera Nagod To		Issuing Office	Name :	CBU Vado	dara (GS	STIN: 24AAACT06
Address	(GSTIN: 23AAECD377 : Plot No 5, Inside Govir Gate, Chuna Bhatti, Kolar Ro	nd Naryan Singh bad, Bhopal,	Address	RC	Floor, K Dad Dodara	IRTI TO\	WER, TILAK
	Madhya Pradesh, 462	016		G	UJARAT 3	90001	
Tel /Fax /Email	: BHOUPAalvni4612611f@uni	soninsurance.net	Tel /Fax /Ema	il : 02	65-242707 1200@orie	5 / 0265-	
Agent/Broker D	etails				1200@0110	mainsar	
Dev.Off.Code	:						
Agent/Broker	: LC0000000179 (1149)	UNISON INSURA	NCE BROKING	SERVICE	ES P LTD		
Address Tel/Fax/Email	: 601-602 ,6TH FLOOR VADODARA 390015 G 2252274,BARODA,GU : 0265-2252274/0265-23	GUJARAT INDIA,N IJARAT,396007	10B NO 989829				AOD
Period of Insurance	ce : FROM 00:00 ON 08/			/2021			
Collection No & D	t : DC_I_INDCSH 3214	000845 - 17/09/20	20 GST IN		O :2419487	7404	UIN :0
Gross Premium	: 1,252 G	ST : 225	Stam	p Duty	: 1	Total	: 1,477
		RISK DE	TAILS				
Section I :	EEI - EQUIPMENT						
occuont.				Sun	n Insured	:	27,79,478
1 Location of the							
	Nagod	ge stretch connect	ing from Uchera	i to			
	Nagod	ADESH - 485001	ing from Uchera	to			
	Nagod MADHYA PRA	ADESH - 485001 Year of Ar Manufacture Ma	nnual			alation	Sum Insured
No. Items	Nagod MADHYA PRA n of Manufacturer Name	ADESH - 485001 Year of Ar Manufacture Ma	nnual aintenance Ide ontract		9		Sum Insured
No. Items	Nagod MADHYA PRA n of Manufacturer Name	ADESH - 485001 Year of An Manufacture Ma Co 2018	nnual aintenance Ide ontract	ntificatio	9		
No. Items 1 AS PER LIS Deductible / Ex	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST	ADESH - 485001 Year of An Manufacture Ma Co 2018	nnual aintenance Ide ontract	ntificatio	9		
No. Items 1 AS PER LIS Deductible / Ex Excess : (a) For equipment	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST	ADESH - 485001 Year of Ar Manufacture Ma Co 2018 ATTACHED	nnual aintenance Ide ontract AS	ntificatio	9		
No. Items 1 AS PER LIS Deductible / Ex Excess : (a) For equipment 1) For PC : 59	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST access for : AS PER LIST with value upto Rs. 1 lakh	ADESH - 485001 Year of Ar Manufacture Ma Co 2018 ATTACHED	nnual aintenance Ide ontract AS	ntificatio	9		
No. Items 1 AS PER LIS Deductible / Ex Excess : (a) For equipment 1) For PC : 59 2) For Equipm	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST ccess for : AS PER LIST with value upto Rs. 1 lakh % of claim amount subject	ADESH - 485001 Year of An Manufacture Ma Co 2018 ATTACHED	nnual aintenance Ide ontract AS .2500/-	PER LIST	9 F		27,79,478
No. Items 1 AS PER LIS Deductible / Ex Excess : (a) For equipment 1) For PC : 59 2) For Equipm (i) Equipme	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST access for : AS PER LIST with value upto Rs. 1 lakh % of claim amount subject nent other than PC :	ADESH - 485001 Year of An Manufacture M 2018 ATTACHED to minimum of Rs Drive and/or Hard	nnual aintenance Ide ontract AS .2500/- Disc)- 5% of cla	ntificatio	۶ ۲ nt subject to	o a minim	27,79,478
No. Items 1 AS PER LIS Deductible / Ex Excess : (a) For equipment 1) For PC : 5% 2) For Equipment (i) Equipment (ii) Winches	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST access for : AS PER LIST with value upto Rs. 1 lakh % of claim amount subject ment other than PC : ent (other than Winchester	ADESH - 485001 Year of An Manufacture Ma Co 2018 ATTACHED to minimum of Rs Drive and/or Hard c-10% of claim am h -	AS .2500/- Disc)- 5% of cla	PER LIST	nt subject to n of Rs.250	o a minin 0/-	27,79,478
No. Items 1 AS PER LIS Deductible / Ex Excess : (a) For equipment 1) For PC : 5% 2) For Equipment (i) Equipment (ii) Winches	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST access for : AS PER LIST with value upto Rs. 1 lakh % of claim amount subject nent other than PC : ent (other than Winchester ster Drive and/or Hard Disc with value more Rs. 1 lakh	ADESH - 485001 Year of An Manufacture Ma Co 2018 ATTACHED to minimum of Rs Drive and/or Hard c-10% of claim am h -	AS .2500/- Disc)- 5% of cla	PER LIST	nt subject to n of Rs.250 num of Rs.	6 5 a minim 0/- 2,500/-	27,79,478
No. Items 1 AS PER LIS Deductible / Ex Excess : (a) For equipment 1) For PC : 5% 2) For Equipme (i) Equipme (ii) Winches (b) For equipment 1) Equipment	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST access for : AS PER LIST with value upto Rs. 1 lakh % of claim amount subject nent other than PC : ent (other than Winchester ster Drive and/or Hard Disc with value more Rs. 1 lakh	ADESH - 485001 Year of An Manufacture Ma Co 2018 ATTACHED to minimum of Rs Drive and/or Hard c-10% of claim am h -	AS .2500/- Disc)- 5% of cla ount subject to a amount subject	PER LIST	nt subject to n of Rs.250	6 0 a minim 0/- 2,500/- behalf o	27,79,478
No. Items           AS PER LIS           Deductible / Ex           Excess :           (a) For equipment           1) For PC : 59           2) For Equipme           (ii) Winches           (b) For equipment           1) Equipment           2) En equipment           3) Equipment           4) Equipment           5) Sis an electronicall	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST access for : AS PER LIST with value upto Rs. 1 lakh % of claim amount subject nent other than PC : ent (other than Winchester ster Drive and/or Hard Disc with value more Rs. 1 lakh	ADESH - 485001 Year of An Manufacture Ma Ca 2018 ATTACHED to minimum of Rs Drive and/or Hard c-10% of claim am h - rive) - 5% of claim	aintenance Ide ontract AS .2500/- Disc)- 5% of cla ount subject to a amount subject	PER LIST	nt subject to n of Rs.250 num of Rs.	6 0 a minim 0/- 2,500/- behalf o	27,79,478
No. Items AS PER LIS Deductible / Ex Excess : (a) For equipment (i) For PC : 5% 2) For Equipme (ii) Winches (b) For equipment 1) Equipment (ii) Equipment (ii) Equipment (ii) Equipment (ii) Equipment (iii) Equipment (iiii) Equipment (iiii) Equipment (iii) Equipment (iii)	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST access for : AS PER LIST with value upto Rs. 1 lakh % of claim amount subject nent other than PC : ent (other than Winchester ster Drive and/or Hard Disc with value more Rs. 1 lakk (other than Winchester Disc stamped will be sent by pre-	ADESH - 485001 Year of An Manufacture Ma Co 2018 ATTACHED to minimum of Rs Drive and/or Hard c-10% of claim am h - rive) - 5% of claim	aintenance Ide ontract AS .2500/- Disc)- 5% of cla ount subject to a amount subject The	PER LIST	nt subject to n of Rs.250 num of Rs. For and on Insurance	o a minim 0/- 2,500/- behalf o Compan	27,79,478
No. Items AS PER LIS Deductible / Ex Excess: (a) For equipment (i) Equipme (ii) Winches (b) For equipment (ii) Equipment (ii) Equipment (ii) Equipment (iii) Sinces (b) For equipment (iii) Sinces (c) For equipment (c) Equipment	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST access for : AS PER LIST with value upto Rs. 1 lakh % of claim amount subject nent other than PC : ent (other than Winchester ster Drive and/or Hard Disc with value more Rs. 1 lak (other than Winchester Di ster Drive and/or Hard Disc with value more Rs. 1 lak (other than Winchester Di lak (other than Winchester Di stamped will be sent by pre- egarding the Policy please 1 33208485.	ADESH - 485001 Year of Ar Manufacture M. 2018 ATTACHED to minimum of Rs Drive and/or Hard c-10% of claim am h - rive) - 5% of claim olicy Schedule).Th ost.	aintenance Ide ontract AS .2500/- Disc)- 5% of cla ount subject to a amount subject The	ntification PER LIST aim amour a minimum to a minim e Oriental	nt subject to n of Rs.250 num of Rs. For and on Insurance	o a minim 0/- 2,500/- behalf o Compan	27,79,478
No. Items AS PER LIS Deductible / Ex Excess: (a) For equipment (i) Equipme (ii) Winches (b) For equipment (ii) Equipment (ii) Equipment (ii) Equipment (iii) Sinces (b) For equipment (iii) Sinces (c) For equipment (c) Equipment	Nagod MADHYA PRA n of Manufacturer Name T AS PER LIST access for : AS PER LIST with value upto Rs. 1 lakh % of claim amount subject nent other than PC : ent (other than Winchester ster Drive and/or Hard Disc with value more Rs. 1 lakk (other than Winchester Disc stamped will be sent by pre-	ADESH - 485001 Year of Ar Manufacture M. 2018 ATTACHED to minimum of Rs Drive and/or Hard c-10% of claim am h - rive) - 5% of claim olicy Schedule).Th ost.	aintenance Ide ontract AS .2500/- Disc)- 5% of cla ount subject to a amount subject The	ntification PER LIST aim amour a minimum to a minim e Oriental	nt subject to n of Rs.250 num of Rs. For and on Insurance	o a minim 0/- 2,500/- behalf o Compan	27,79,478



#### Attached to and forming part of policy number 171200/44/2021/37



2) Winchester Drive and/or Hard Disc-25% of claim amount subject to a minimum of Rs.10,000/-

In case of computers, the term 'equipment' shall include the entire computer system comprising of CPU, Key boards, Monitors, Printers, Stabilizers, UPS.

#### SCHEDULE OF PREMIUM

Cover Description	Premium
TOTAL PREMIUM	1,252
ADD :IGST	225
STAMP DUTY	1
TOTAL AMOUNT	1,477

Total Sum Insured In Words : Indian Rupees Twenty-Seven Lakhs Seventy-Nine Thousand Four Hundred Seventy-Eight Only Total Amount Paid : Indian Rupees One Thousand Four Hundred Seventy-Seven Only

The Insurance under this policy is extended to cover risks of (as per forms attached):

STFI Inclusion Cover EAR - EARTHQUAKE COVER

#### Excess / Deductible :

The following minimum deductibles are applicable based on Sum Insured of the policy

The Insurance under this policy is subject to warranties & Clauses (as per forms attached) :

In the event of a claim under the policy exceeding Rs.1lac or a claim for refund of premium exceeding Rs1lac, the insured will comply with the provisions of the AML policy of the Company. The AML policy is available in all our operaing Offices as well as company's website.

Communicable Disease Exclusion Clause

Exclusion-Any Direct or indirect loss by infectious or contagious disease

The insurance under this policy is subject to conditions, clauses, warranties, endorsements as per forms attached.

Warranted that in case of dishonour of premium cheque(s) the Company shall not be liable under the policy and the policy shall be void abinitio (from inception).

In witness whereof the undersigned being authorised by and on behalf of the company has/have herein to set his/their hands at CBU Vadodara (GSTIN: 24AAACT0627R2Z4) on 17TH DAY OF SEPTEMBER 2020

For and on behalf of The Oriental Insurance Company Limited

Entered By : AKSHAY ASHOKRAO HIWALE

Examined By : A K Parmar

Authorised Signatory

Place :

Date : 17/09/2020

For and on behalf of The Oriental Insurance Company Limited

Authorised Signatory

This is an electronically generated document (Policy Schedule). The Policy document duly stamped will be sent by post.

In case of any query regarding the Policy please call Toll Free No. 1800 11 8485 and 011 33208485.

CIN: U66010DL1947GOI007158 All the Amounts mentioned in this policy are in Indian Rupee

Page 2 of 2

**TECHNICAL** DUE DILIGENCE REPORT

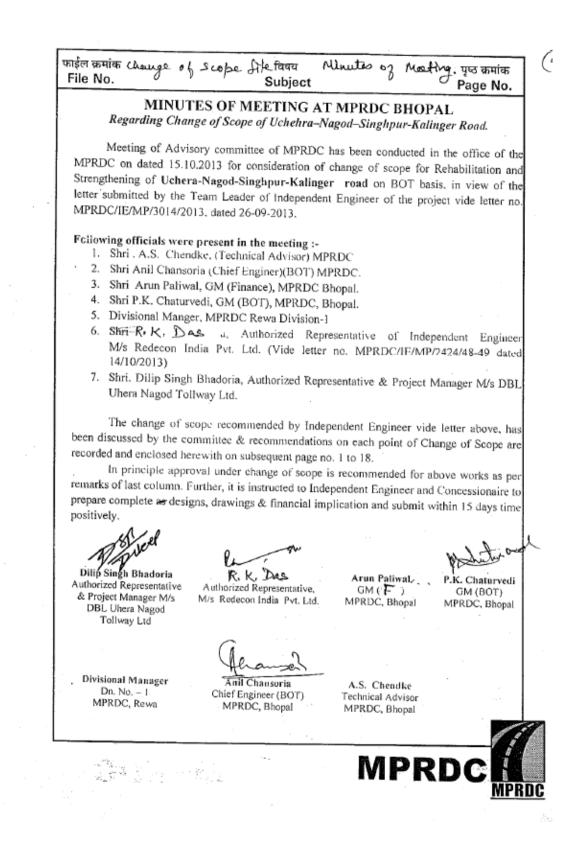
MPRDC	MADHYA PRADESH ROAD DEVELOPMENT CORPORATION L (Govt. of M.P. Undertaking) 45-A, Arera Hills, Bhopal-462 011 Tel.: (O) 0755-2765196, 205, 213, 216 (EPABX), 0765-2550995, Fax : 91-755-2572643 Website : www.mprdc.nic.in					
5	Letter no/Uchehara-Nagod Road/COS/06/2013, Bhopal Date					
	To, 1. Independent Engineer, Redicon (India) Pvt. Ltd., H-54-a, Kalkaji, New Delhi	2. Divisional M.P.R.D.C Rewa (M.F	2., Div1,			
	Sub. :- Approval of variation/Change of Scope for BOT (Toll+Annuity) basis.	Uchehara-N	agod Road Road on			
-	Ref. :- Your letter no. MPRDC/IE/MP/3014/2013, Date 26.09.2013.					
	Please find enclosed herewith the copy of th	e minutes of t	the meeting, for Change of			
	Scope held on 15.10.2013. In-principle approval is granted accordingly for Change of Scope					
	for the said project. You are hereby advised to send	I the financial	implication &valuation of			
	negative and positive variation on the basis of as but	ilt drawings ar	ad actual work done on site			
	to this office within 15 days time positively.					
	Encl. :- As above.		-			
			Chief Engineer (BOT) MPRDC, Bhopal			
	Endt. no. 75.9.0. /Uchehara-Nagod Road/COS/06/20 Copy to :-		Bhopal Date £3.09.2014			
2	<ol> <li>Shri Arun Paliwal, General Manager (Finance), MPRDC, Bhopal for information and necessary action please.</li> <li>General Manager (North), MPRDC, Jabalpur for information and necessary action</li> </ol>					
	please. Shri Dilip Singh Bhadoria, Concessionaire Representative M's DBL Uchehara-Nagod Tollways Pvt. Ltd., for information and necessary action please.					
			Chief Engineer (BOT) MPRDC, Bhopal			
	¥3					

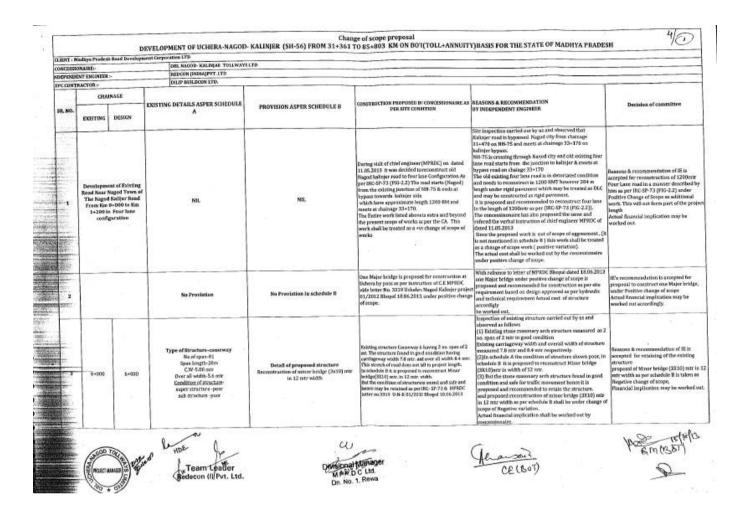
# Annexure 10: Change of Scope

RUKYDoc No.RU-DD Report- Uchera – Nagod - Kalinjar Road /02

mise muite Reductor a Mayod/ change figure Variation proposed in you muite File No. of scope (06/2013 Subject about the Page No. Page No. 3 No -bren put up 10/2013 Calling for walking on Hillohs Dougt for approval pis. but up with forfair for sign Ms. DUNILA N. - 8812-19 Concentionman representation of 16's approperties on present in bridge 157/0/13. The meeting oution on privation of proces below for further new full Man Man 26

DUE DILIGENCE REPORT



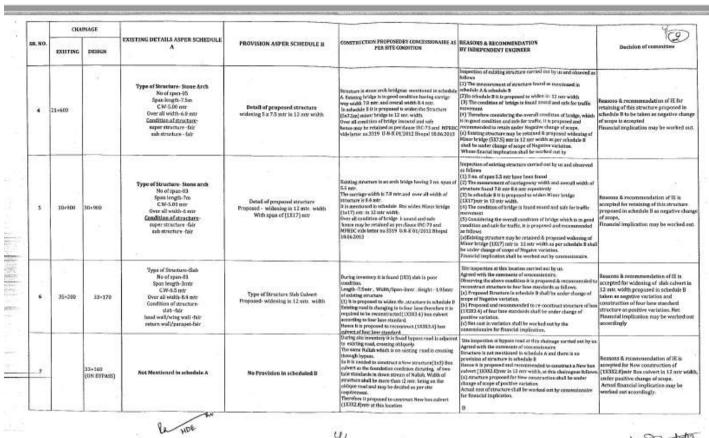


Shrow

TECHNICAL DUE DILIGENCE REPORT

Shrow **TECHNICAL** 

DUE DILIGENCE REPORT



Team Leader decon (I) Pvt. Ltd.

41 MARDC Lid

Dn. No. 1, Rewa

Acra LE(BOT)

ME ISTATS P

# Project: Project: Development of Uchera – Nagod - Kalinjar Road of SH-56 in the State of Madhya Pradesh on DBFOT on (Toll + Annuity) basis



DUE DILIGENCE REPORT

SR. NO.	CHA	UNAGE	EXISTING DETAILS ASPER SCHEDULE A				4/
	EXISTING	DESIGN		PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSED BY CONCESSIONAIRE AS PER SITE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Dectaion of committee
8	36+100	34+175	Type of Structure-Slab. Boo of spars-91 Span length-2mtr CM-85 mit Over all width-64 mit Condition of structure- nable-flap head would/wing wall-fair return wall/paragee-bar	Type of structure-RCC colvect proposed-widening up to-12.0 mtr width	During investion (efforing etrocture state slab (131.4) is have a very peer coordination in the length of course, strength of the state of course, strength of the strength of the strength of the schedule of the proposed to widen the structure in Data wide. Since the coordination strength or is not good and stands for matthe level it is proposed to re-constraint (132.64 short for anohum having 12 but width as the investance course of course of the strength of the strength measures.	Importing of Existing simulator (article on the an Agreed with the constants and eccentrification Therefore its proposed and reconstruction of the Therefore its proposed values of the the the state of the state (a) is which also proposed values of the T2 entry, which all writings which will be under change of access of Register sensities (b) are proved a state of the state of the state of the state writing with all be under change of access of Register sensities (b) are proved a state of the state of the state of the Writing with all be under change of access of the state of the Writing with all be under change of access of the state of the writing with all be under change of access of the state of the writing with all be under the state of the state of the state of the state of the state of the state of the work is under the request.	to 12intr width proposed in schedule B is taken as negative variation and
9	36+600	34+823	Type of Structure Slab No of spars 0.1 Span length-Totor CW-3 min Over all width-8.4 min Condition of <u>Structure</u> tabb-fair head widt/ming sual -fair reterm widt/parapet-fair	Type of structure (183) RCC stab calvert Proposed-Widening up to-12.0 mtr width	During sensitive colleting structure is found H.P.C. (2014) is using percensition. Unadoutif of existing structure is given below. Length - Stein: / 2014 / 2014 / 2014 / 2014 In utback there is a provisition to be widered (33.3) dable width of 10 mir. Load enquiry of people at the location considered, width results water eventse. Therefore larger more sectional area is provided to see came this. Hence is is proposed to reconstruct (33.1.2)HPC in weldt of 12 mir.	Improvise of Existing structure carried out by an Aproved with the comments of connectionarile. Therefore its proposed and recommended to necessature. (2013) 1990: In the writin of 12 mrt at this location.as bilanos (b) is solidable sproposed writing and yor Warthern in the width of 12 mrt shall be under change of stope of Negative variations (b) proposed structures (2013.2017); that is be under change at positive variations.	Reasons & incommendation of IE is accepted for widening of RCC stab to Timmwidia proposed to schedule & taken is ingative variation and proposed construction of 2 yoow HPC 1.2 and The Net of pipe to 12 mit width as positive variation. Net financial implication may be worked out accordingly.
10	Estra	37+146	NIL	No grovivious in schedule 1	During investory entiting structure is found WFC (13385) mir in good condition. The desail of entities (in the desail of the desail Langho - Starr, 1 rev UR: 0.9 mir Starr 1 to corporated in bothesis et a 8 and jer the measurable of highway 1 is required to water the amounts in (1 provide). These to its prospect for widering to 12 mir, width with existing BFC of (1309) mir.	concessionaire	12 mtr. with taken as positive variation.
11	42+600	40+724	Type of Structure-Miner Bridge Ro of again-03 Span Inrgpt-15 eer CW-57 mir Over all with 0-3 mir Cendlice of Structures exper Structure-poor and structure-poor	Type of Structure (3X15) mir. Minor Bridge Prepazed- Re-construction in 12 mir. Width	As per fastiski investory (2817) here girder lendige to exhibing to grow catilities. The correlation way width is '07 metric and were all world to directors in 18 A anni. The directors in 18 A anni. The finiting bindige is in good condition here compare landschuld II & Scholl Clark. The finiting bindige is in good condition here compare landschuld II & Scholl Clark and the second second second technical as a per data second second second second second technical as a per data second second second second second technical as a per data second second second second second performance of the second second second second second technical second second second second second second technical second second second second second second technical second seco	Existing Bridge found in sparsd condition, hence it is proposed &	accepted for retaining (3K15) minor
12	44+600	424 <u>859</u>	Type of Structure - IPC No. of pipe-01 Dia of pipe-1030am C.W. 65 nutr Over all width -75 nutr Consiliant of structure pipe-fair Recal wall fair Recal wall fair	Type of structure-E.P.C.(Lot.04)mm. Proposed - widening up to 12 mm wide).	Owing Insumary 2 new of 50 ntr, HPC, even it would Starts in four is in fair canaditon. (3) it is schedule as it is proposed in writem (1XX.0) HPC up to 32 mer vides, and at at at its the sciology structure have 2 Nov of LOSentr HPC. There due to this difference its required to widen additional too Raw from scientific and proposed to within the explicit HPC is 1 new 12 new 1400.	The title hoppention control one by an Agreed with the content of a concession of the transferred disk in the content of a concession of the schedule is like (List.Jammir is proposed to wide and in interaction)? and with the Title Theorem Market and an Stabulary and the parts the concellation is the proposed index Stabulary condition. (Distance are two widering stable change of scope of pastitive The scanar schedule schedule activity and and an Stabulary conditions.	Remember & recommendation of IK is accepted for additional one Prov II/C Val. (0.1.100/mtv. 201 attr with taken as positive vaciotion. Actual financial implication may be worked out acceedingly.

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	CHA	INAGE					40
SR. NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSID BY CONCESSIONAIRS AS PER SITE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
13	48+800	45+868	Type of Structure Side No of span-01. Span length-Start CNF-6.5 arz Deer all with 5.7 Smit Condition of structure- alab -fair head wall/ving wall -fair return wall/parapot-fair	Type of Structure-RCC cubert[1x3]mir. Proposed widening up to 12 mir width	During ownersely stilling eractions table colorest [3:12]System to beach, in proceedables, [3:12]System to beach, in proceedables, [3:12]System to be a set of the second set of the second second second second second second second second second second second second second (XX) [3:05] (4:10) (4:10	Impaction carried out by us. Append with the commends of extending the function structure future is in operand & neuronand to reformations (1922) Status and the content of a status of the struc- (1922) status and the order of a structure that he under change of structure status and the status of the structure structure (1) Instructure status and the status of the structure of the structure status of the structure structure structure of the structure status of the structure structure structure of the structure status of the structure structure structure of the structure structure structure structure structure structure of the structure structure st	Reasons & recommendation of IE is accepted for videning of BCC colver(US3)car is 12 mr vidth propored in a checkale Bishos as negative variation and construction of (US22.88 mr Box Colver up to 32 mr vidth as positive variation. Net financial implication may be service out accordingly.
34	52+800	48+787	Type of Structure- HPC No of pipe-1020mn CW-65 stri Over all vision of the structure- pipe-fat Head will fat Return will-fair	Type of Structure- HPC (01X1000) Proposedwidening up to 12 mir width	Decilig preventy existing articular is front (2004) (PCCs works) of 15 min is par condition. In advantable it is proposed by the second bias. In advantable it is proposed to what the structure (2126) perform in a provide the structure of the second making ordered and the confidence true as both the clasmo in a probability of the second bias of the second in a probability of the second bias of the second in a probability of the second bias of the second in a probability of the second bias of the second in a probability of the second bias of the second in a probability of the second bias of the second list of the second bias of the second bias of the second (1) Effecting values way a '0.02mm' (2) Advance '0.02mm' (2) Advance '0.02mm' (2) Mark of the second bias of the second bias of the second (2) Mark of the second bias o	Inspection at this charange in carried out by en. Agreed with the comments of concessionaire It is observed that water weatups at this coheren and siles it has large outbranes man. As per hydroxile calculation and also the requirment of siles employee in the requirement of a mixine bridge (DMI) with m 12 and welds as follows: (DMI) with m 12 and welds as follows: (DMI) with m 12 and welds as follows: (DMI) period as a solution of the solution of the solution of the solution of the solution. (D) Proposed assister helds of (IXIA) more shall be charged along on opposite variance. The transp of except on opposite variance.	Reasons & recommandation of HE is accepted for wideking to 12 rutr width (TAL 0) IRC proposed in schedule Bot an equitive warking and communication (XL10) not minor leving up to 12 rutr width as poditive variation. Net francelal implication may be worke out accerdingly.
15	51+900	49+830	Type of Structure-HPC No of pipe-10 Dis of pipe-10Damn CM-65 net Over all width 84 net English and survice- pipe-dat Head wall-fair Beturn wall-Dair	Type of Structure- HPC (203.6) entr Propiosel – widening up in 12 mir width	The second secon	Site topestion carried out by us. Aprend with the commands of casessicinasise sizes the condition with the site of the site of the site of the Site of the site is difference between existing HFC (2009), and impresent HFC (2018) in a Meldek & AB compositively. Than fuer it is proposed and recommended to write the solving structure (2018) from HFC is 2009 with the site of the site o	Beanins & recommendation of EE is accepted for widehiling to 22 nm with (2009) INC proposed is achieved to 2 tok an Regulari variation. Actual Stancial implication may be worked out accordingly.
16	\$2+700	50+703	Type of Structure - HPC No of pipe-02 Dia of pipe-100 term Over all with 7-2 entr Combined Agraduate Head will poor Berson wall-poor	Type of Structure- HMC(2X1.09)mtr. proposed withh Ressauturation in 12.0 mtr width	In interactive is freed (28. A)out TRC overall width 6. data. Interactive is the proposed in construct (28.2.2) part (TRC) INTERC (28.2.2) and the issue of the second of the INTERC (28.2.2) and the issue of the second of the second of the issue of the second of the second of the second of the issue of the second of the second of the second of the issue of the second of the seco	Inspection corried out by us. Agreed with the connection of concentionaire Hydraulic data is selectived by the concentionaire	Beasons & recommendation of IE is accepted for reconstruction to (24.12) PIC in 12 mm width taken as magative variation and construction of LaSimut instor fridge width of 12 mm as passive variation. Net Results in picture tray be worked out accordingly.
16	524700	50+703	Noot pipe 62 Dis of pipe-3000mm CW+55 mtr Ower all width-75 mtr Candilian distructure- pipe-poor Head will poor	proposed width Reponstruction in 12.0 rstr	HTEC: HEXDoarweld the catating halah is law because the additionata area in this location is barps also a condition of the second second second second second second second hexperiments and the second second second second second is the second second second second second second is the second second second second second second second is the second second second second second second second is the second second second second second second second second is the second	Agend with the concentration of accounting and hydroxine is that is a statemeted by the concentrations (11(1)) is schedule A (233.2) prior three and accounting the poly-schedule A (231(2)) in schedule A (233.2) prior three and counting the poly-schedule A (231) in a schedule A (233.2) prior three and counting the poly-schedule (231) prior Marine Maring (231 and 231) in a field of the recommended to construct an address. (231) prior Marine Marine II and Andress II shall be change of scope of (231) prior prior minimum of a field of the change of scope of (231) prior prior minimum of a field of the change of scope of (231) prior with a field of the poly of the change of scope of (231) prior with a field of the poly of the change of scope of (231) prior with a field of the poly of the change of scope of (232) prior with a field of the poly of the poly of the poly of the with a b change of field of the poly of the poly of the poly of the prior with a b change of field of the poly of the poly of the poly of the prior with a b change of field of the poly of the	accepted for reconstruction BPC in 12 mtr width taken variation and construction minor bridge in width of 12 positive variation.Net finan



#### DUE DILIGENCE REPORT

SR, ND,	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSED BY CONCESSIONAIRE AS PERSITE ON BITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
57	55+500	53+366	Type of Simutane-IRPC Nucl Space 100 Cills of pape 1000 Cills of Same Over all width -7. Same Candilian of Same Transmission (Same Same Cills) Piece Same Nace wall -Sale Return wall Gair	Type of Suracture- HPC(1x1.0)ner Proposed-wildening upto12 mtr wildek	Dering the inventory valuing structure (120.6) HPC in with a 47.5847 found in prev condition. It is in particular with the proposed to within (120.6) HPC up to 12 may within There is a difference in exciting structure and proposed memory in a structure in the structure of the structure memory in a structure in the structure of the structure memory in a structure in the structure of the memory in a structure of the structure of the memory in the structure of the structure of the field character is a structure of the structure of the field character is a structure of the structure of the field character is a structure of the structure of the field character is a structure of the structure of the structure of the field character is a structure of the structure of the structure of the field character is a structure of the structure of the structure of the field character is a structure of the structure of the structure of the field character is a structure of the structure of the structure of the field character is a structure of the structure of the structure of the field character is a structure of the structure of the structure of the field character is a structure of the structure of the structure of the structure of the structure of the structure of the structure of the struct	See large states corried out by us. Append with the environments of consecutivitation. Append with the environment SPC is reducide B is not benefits and the consecutivity (LNL 2009) and the state monitories and the consecutivity (LNL 2009) and the state whole comes and the state is more compare in the ansatzing sectors as a state of the state of the state of the state (LO) Persuant proposed is schedulin 8 shall be under change of scapes of Registry variation. (LD) Persuances of recommended statistics. (LD) Are stori of writistics and how which of all by concentrative first assuming particular.	Resonance & recommendation of IE is accepted for proposed structure in schedule B, whiching of HHC (XX.1994 II. Tarrow rolds, Laken as Negaber variati and reconstruction of (LX.12) arts HEC 2. Tarts with a positive variation, Net francelal implication may be warden out acceedingly.
18	Dita	574735	Not Mitationed in schedule A	Ple proposal inStandaie B	In investory existing structure (1,6,6) ever HPC in which of 60 any found in part occultate. No per schedule AB, correcting to not Proposed. Observing Million at this shringer location it for provid- ing period length regarding there of water data grainsy assess which ever costs estimation attenders. Therefore certaidering the location of structures in its prevade length of the location of structures. Therefore certaidering the location of structures in its prevade length of the location of structures in the pregnant data to reconstruct (201.0) HPC levelable of 1.2 next	Inspections carried on by zet. Append with the commonstrain for an approximate in net. metriconel introducida is and there is no provident of introcarry in schedule II. Later a concern real with the building water overraps the activity structures is mainly means. Here: it is prepared and in concenses of the network (2011) metric (1011) and the concern real activity means. (1) The prepared and recommended in metrics water is more centrary or the activity provides and the activity of the Change alterage of provides a articular. The struct activity of provides and the avoided on by orienterisation.	Baasons & recommodation of IK is acception for rescontraction to (24.0) HPC in 12 mm within taken a positive vertilion. Actual financial implication may be worked out acceedingly.
19	Dex	57+827	Not Nextioned in schedule A	No proposal inSkedale B	In investmany entitieg entorchire (1.00.85) out o store side front is poor encolation. Details of encounting processively given before Larget & Kenzer, Wathly Span & Store Ir Ingelds - 8 attents August exhaustions in any store is not it reported. The store of the store of the store of the store of the unified it may implied it may be any store of the store of the store of Hensen to layer passed to reconstruct (bcl.8) ner HPC in 12 atter width.	Importion carried out by as Agreed with the comments of concessionsins. Structure is an exceedinged it is checklick A and there is no provide an drawture in schecklick B finance any period could be (11:10) (in mit TIC: In which all 22 our which is proposed where cross sectional area in more compare in the outping syntaxic (1) The proposed and recommended structure stall be unler change of source provider with the worked on by concessionais in the financial inplactments.	Ressons & recommendation of IE is accepted for recommendation to [LSLA] HPC is 12 nm with taken as positive variation. Actual financial implication may be worked out accomingly.
20	bm	\$7+505	Not Meationed in schedule A	No proposal inShadule IJ	In increasing realising through the (back85) per atoms study found in power conclusions. Upwatch power conclusions are provided by the largest 2-2 per scheduler. In 64(4) per atoms before largest 2-2 per scheduler is 4.6 bit models and the properties that the provide its required at that locations for schedur and institute of reader that even its proposed to reconstruct (back8) nor HPC in 12 mer widets.	Importance correction to the year of concentration, the per schedule A 8 3 structures is non-Program. Hence a per test accelsion (1814.0) ney HPC to width of 12 new is proposed whose trace sociation (2014.0) ney HPC to width of 12 new is proposed whose trace sociation (2014) the more compare to the existing structure. The program function of economical distribution to under change of trace per possible scattering. The actual cost of encourse shall be worked now by communication by the actual cost of encourse shall be worked now by communication by	Busions & reconstrendation of IE is accepted for reconstruction to [1s1.0]p HPC in 12 mir with taken as positive variation. Actual financial implication may be worked out accurdingly.
21	btra	58+197	Not Neutioned in schedule A	No proposal instructule B	In interentry editing structure [143.15]part nation shab from in poor condition. Details if editional generations is given below (Langi) - Party, Walth Sparn of Strater, Height - 1. Setty Adapter absolute AB at structure is not Proposed. Dot Howards the sequence of the Strategy and United to the Strategy and the Strategy and Hannet IA (programs) and the Strategy and Hannet IA (programs).	Imagentians correctly set for your Agended with the consensus of economicanian, as your schedule A B. B. excenture is non Programs. Before a spore for economicanian and the schedule of the proposed whether downs sectional areas in more compare to the exchange of scores, and economicanian and the scatter The proposed and recommended structure shall be under change of scores of proteint wardning. The economicanics and be warded outly the economicanian and the structure is and the warded outly the economicanian and the score of the score of the score of the economicanian and the score of the score of the score of the economicanian and the score of th	Reasons & recommendation of IE is accepted for reconstruction to (13.14) IFIC is 12 are with taken at packive variation. Actual financial implication may be worked out accordingly.

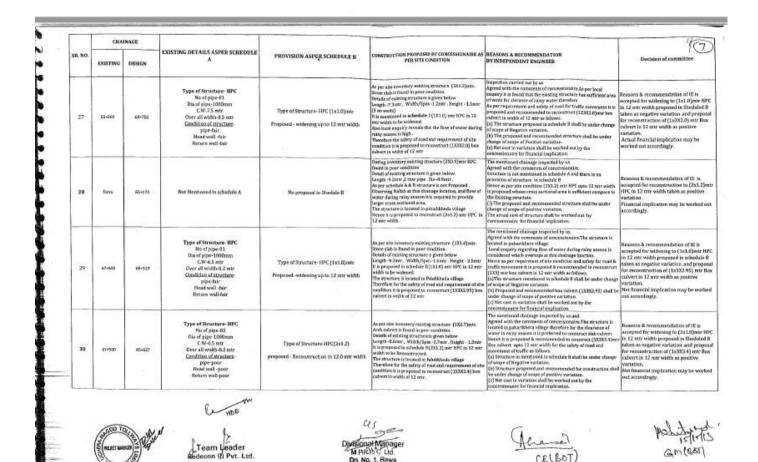
	OIA	INAGE			T		4/5
SR. NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	5 PROVISION ASPER SCHEDULE II	CONSTRUCTION PROPOSED BY CONCESSIONAIRE AS YER SITE (ONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
n	ians.	59+399	Not Meationed in schedule A	No proposal instructule B	In investory molifies (Huittee [InHR]sect many slah branch appare confliction. Design a scalaring structure (given bains) length 7, 20 arr, With Syme - Olters, Beight - 10 are depart achiel bain & 20 servecute in our Proposed. Bas structure in required at 2016 location for unlety and Wence is in graphened to reconstruct (InLE) mer HPC in 12 mir width.	Importing carried our by un Apread with this concreates to (concestionalys, Strutters is not concested in Schedule A Balt there is no provide of star-stars, is collected (M) and IPC in 32 over webship interest where a sensities (MX 14) and IPC in 32 over webship propagated where cross sectional and the explosites to the existing attracture. The propagated has a section of the propagated and recommended structure shall be under Change allowing explosites variables. The propagated and recommended structure with the under Change attractive frances in splication.	Reserves & recommendation of IE is accepted for recommution to (3x1, HPC in 12 mir width takes as positiv variation, Actual financial implication may be worked out accordingly.
23	6ma	86-773	Not Mentioned its schedule A	No proposal in Stanishin B	In investory collising structure (1s1.05/part atoms slab found as poor workings. Betalis of costing introduced granu below length. Proc. Wold/Spin-1.26/arts. Neight. 1.18/cert As per scheduls & & Structure is not Proposed. Observing platical table schedungs for Structure, and Anno Material platical table schedungs for Structure, and Anno Material platical table schedungs for Structure and Material platical schedungs for Structure (161.0) and Physica 12/mer width.	Importion actuals out by es. Agreed with the createness to concentration-As per schedule A. 8.8 generation of Progressic Land anguity reveals that during fully assess according to the control of the control between aper site control on (2010) part PRC is 22 new with the control of the control on (2010) part PRC is 22 new with generation. The proposed and recommended structure while he socker thange of stopes of provide walk the worked and by omnomendows with the maximum.	Braaens & recommendation of IE is accepted for reconstruction to [24], HPC in 12 mm width taken sa positiv variation. Actual financial implication may be worked out accordingly.
24	60+200	37×013	Type of Structure-Arch Not of space-01 Spane length-100gr CW-6.5 way Over all width-7.5 mir Candition of Structure- dath-fail head wall/wing wall-fail returns wall/paraged-fair	Type of Structure-BCC dab(126) net spac Proposal - Burenetruction in(126)mir RCC dab in 12.0 mir width	As per ends is a wrony externation (322.5) ent: Similar dub is been or attack. In a Refactive 6 min proposed in resonance (336) ent- Mixer Indige is 10 mm value. The proposed structure has been space compared to relating invigo. Nydewate contaction in conditived and accordingly (335) early line a triage in widdy 12 mm is proposed to reconstruct. Size devine, with a CE MPROC on dend 11.43.2481 devided and proposed (138) early Minor bridge the for entermention.	Importion carried with year and Agained with the conservence of coassessionships. The entiting structure is linearistic and deep folly terration where were those studies in high ordering mains reason-indexing and deter theore as per as reactions in its proposed and recommendation reconstruct (DMDner mixed in forge as follows: reconstruct (DMDner mixed in forge as follows: reconstruct (DMDner mixed in forge as follows: reconstruct (DMDner mixed in this and the under change of toppe of angettes exactions: () Perspectant and in encommended because the off as ender discoust of spectro variation.	Résident à recommendation of le is accepted for reconstruction to (two)- minor treating in 12 mer width propos schedule B taken an anguber variable dendule B taken an anguber variable dendule B taken an anguber variable and minor bridge in 12 mer widthes in a minor bridge in 12 mer widthes in points workfield. Net finandel implicition may be worked out accordingly.
2	Batra.	5%-L36	Net Mottlered in schedule A	No proposal in schedule B	During investory on services a family at this location, in tarkly 46000 of an observed hist water frame on road, data to knowledge of charange in killy/terminic particular is and a facture for a set program Tawarkey to subgrand the 7.00 in nativy seasons. A New ensumes in regional listics is to program to bless constructions of (LSLB) nerr RPC is 12 entry with.	Involution (correct) out by use hyperbolic (correct) out by use the product of the product of the product is the basers of the lat (DRF) sources water eventual the product is the basers. DRF is the opportunity of attraction specification is all Hence are presented on the revenue specification is all the product of the product of the product is the product (i) The represent and resonanced of directions had be under design of space product is add by worked such by DRF of the corrections. The oftentiation of the resonance double directions had be under the oftentiation of the resonance double worked such by opposition increte for infranzal (regionations.	Reasons & recommendation of IE is accepted for reconstruction to (3x1, HPC in 12 etcr width taken as positiv variation , Actual fitmental implication may be worked out accordingly.
26	kina	59+228	Not Mentiosed in schedule A	Na proposal in achedule B	As per schedule A.E.B. setucture is not Proposed . Observing Nullah at this Chaltage location, and flow of water Gaving rainy season its required to provide larger crises sectional area.	Inspection correct acity as Approximation of the second s	IR recommendation is accepted for reconstruction to [241.3] nor HPC in mr with token as positive variation Actual franceful implication may be worked out accordingly.

d Team Leader Bedecord (1) Put. 1+1 Divisional Manager M.PR.DC.Ltd Dn.No. 1, Reva

Ahanson CE(BOT)

G n (68)

XANDONA XX



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CE NO.	CHAINAGE				20-00 (CO)		10
SR NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSED BY CONCESSIONAIRE AS PER SITE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
31	68+101	Ke+013	Type of Structure-Some No of span-31 Span length-Lam CW 6 atr Owned width 6-7 atr Candidation of Spectree head wall/weight head wall/weight return well/paragion foor	Type of Structure Stone slab advert(3:330)mm Proposed—Reconstitution in 12.0 mir wigh	During januchery esisting statuture [130.56] estratore who is how in poor constraints. Details of resisting structure is given blow Longh, desarr, Wildhalfon d.Steter. Height- (3.5m) (	The mentioned chainings languered by us and Agreet with the commerciant of caponateralism in targe season from a firward with the bactain is consented and havens that the proposed construction (1.01) per side chained in on higher side for per also condition (2.21). per mHC is to wished at 12 as without not drainings of water at the Housian have a is without not drainings of water at the Housian have a size many values. The proposed in schedule (2.02) after HEC is 32 mer values. The proposed in schedule (2.02) able only the 12 and without (2.03) results and the HOUSIAN of the proposed of the construction of the schedule (2.02) and the proposed of the construction of the schedule of the proposed in the schedule in without (2.03) results are represented in schedule in the construct the we change of energies of positive variation.	Reserve & reconstruction of [1] is accepted for reconstruction of [1:4] mit sike in 12 mit with programs in schedul Bahen as regular variation and (2:312] mit Proposal for reconstruction of (2:312] mit Prof. In 22 mit which as positive variation Net filamental implication may be worked ast accordingly.
32	Ratra	67+500	Not Nemtaned in schedule A	No provision is scheduled B	During investiony as ST2400 e is found at that location in raing assess it is determined that water there as rand, its schedak A & Stettware in as groupoed Therefore is infigured for raid to raing assume a New instructions imperfect Honors II is proposed. Newcommunication of []12.07 Not- IITC in 12 anti-visible.	Importing carried cost by so Aprend with the concension of concessionalize. There in no provides of structure in schedule A is in there are predice another (NL KM) and PFC in 12 acts with whose corea cardinal true is sufficient compares to the solating structure. (C) The proposed and recommended structure shall be under change of scope optimizer variables worked out by concentration.	Reasons & recommendation of 15 recommendation is accepted for Newconstruction of (1x1.0)estr RPC is 32 mir with taken as passive variation. Amal financial implication may be warked out accordingly.
33	Datra	65-979	Not Wontloated in schedule A	Ne proposal in Stedule H	In intercory existing structure [25:1.10] into runse data in found in poor confident. Details of existing structure a given balaw Leight 7.9 mer. With 52 mer. 1.10 mer. Higher- 8.5 mer runse at 2.8 mercurse is hat broccosed la per archivalar. 2.8 mercurse is the broccosed la per archivalar. 2.8 mercurse is not be broccosed meter doring market mercurse in the proceeding of the percent lineare its proposed is reconstruct (25:1.0) mer HNC. In 12 mer wides	The method durings inspects by us. Apref with the cammaria of consonitation. Structure is not insertioned in a cohortist & And there (in op prevision of attractive in inducing a final structure). EXECUTION IN THE CONSTRUCTION OF A structure of the CALCOUNT IN THE CONSTRUCTION OF A structure of the insertion of a structure of the constructure of the CALCOUNT IN THE CONSTRUCTION OF A structure of the constructure of the constructure of the constructure charge of theory on a control work of the constructure of the constructure of the constructure of the constru- ture structure of control work of the constructure of the The actual case of circuit are while the vorted on the proceedings of the constructure of the context of the consensemble of the context of the context of the context of the constructure of the context of the context of the consensemble of the context	Reasons & recommendation of IE is accepted for reconstruction of (2xL0)mt BPC in 12 min width taken as positive variation. Financial implication may be worked out accordingly.
34	Barra	65×527	Not Meritianed in achiedade A	No proposal in Shedulo B	Daring avenues relating encoded and encode	The executioned charcogo is supported by on and Appred with the composition of the composition of the Structure is non-neutrinocial in schedule A and there is no provides and instrument in schedule A and there is no provides and instrument in schedule A and there is no provides and instrument in schedule A and the and the first proposed and mechanisms and characteria is a structure of schedule and instrume making based (1) The proposed and mechanisms of instrume making based (approximation of instructure shall be worked as as by compositionary for first first shall be worked as as by compositionary for first first shall be worked as as by compositionary for first first shall be worked as as by	Reasons & recommendation of IE recommutation is accepted for reconstruction of (ast.0)ner HerC in 12 min which halos a politive variation. Phancial implication may be worked out accordingly.
35	Bitra	67-596	Not Meatinned in schoolsle A	no proposal in Shedule B	During wreating establing structure (200.45)mtr more data fefsadel per condution (and a fefsadel per condution) (angle 7-2 zur scalad-bold height A. Sterr, Ar per effoldule A. 8 8 structure is net Proposed. Observing thates table challenge besterio, and Brow Mort Mang many seesan it to congrind to provide water Mang many endowed in recomment (AcLA) (net 70% Co 12 mtr white).	The methods discourse togenerately use and Agreed with the comments of overcenteration. Structure is an interstational in solution in a structure provides of discourse in solution in a seconstruct (RAL) provide to discourse and a large construct (RAL) provides of an expression of the seconstruct (RAL) provides of the proposed where constantiant a large to a structure of the proposed in the seconstruct (RAL) (RAL) provides of the proposed where constantiant and and (RAL) provides of the proposed where constantiant and the solution (RAL) provides of the proposed where constantiants in the large of the structure of the provides where the solution of the solution (RAL) provides of the provides and the solution of the solution (RAL) provides of the solution of	Bismons & recommendation of (E is accepted for reconstruction of (3e1.4)mit HPC in 12 nitr width taken as positive variation . Actual francial implication may be worked out acceedingly.
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#### **TECHNICAL** DUE DILIGENCE REPORT

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SR. NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSED BY CONCESSIONAIRE AS DER SITE ONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
36	bin	68+763	Rot Mentioned in schedule A	No peoposal in Shertale B	During transitory existing titreture [1X1:2]ner stoce stable is lowed in paper consistent bettel of existent particular to light-a 1.5mr. A speer cheales A to B transtrue in our Proposel. Observing Killsh at this changes location, seed flow of water during systemate water everyous the existent during structure already to provide structure, no subgrand most derivative. Therefore it to proposed to provide structure, no subgrand most derivative.	The mentioned chalange interpreted by us Approximation of the second second second second second Sections is non-methods in scheduler 4 and there is no provise of attractione is schedule 8 filters its in proposed of memorymatic distribution to memorymatic (SLL) in the IPL uppo 32 metrix with yorking crosse actional area is superfidence memorymetric the existing mentatione (1) The appropried and memorymatical fitting and the solution many of scope all period in an actions and the solution provides analyse of scope all period in metations. The schedule core of memorymetric three schedules of the solution metation.	Resource & recommendation of IE is accepted for reconstruction of (2nLD)m HPC in 12 mir withit halven as positive variation. Actual financial implication may be worked out accordingly.
37	71+968	53+343	Type of Structure-Stone No of apart 0.3 Span length 1. Serve CW-5.8 mrr Over all width 4.5 mrr Condition of structure- tion of tructure- tion of tructure- nead wall/wing wall-poor return wall/parapet-poor	Type of Structure-RDC(143)mir alab Proposed -Recenstruction in 32.0 mir widds	Surving juwnersy existing structure [D33.5/bars stores able is lowaling over ensisting areas of existing structure taylows below, length - Softward Waldh - 24 high - JaSong - (1) for schedule B is in propage to reconstruct (D33) able in (2) at review Mallah at file chaining incentes, and flow of water Carlos Mallah at file chaining incentes, and the structure is male water for the structure of the structure is male water for the structure of the structure is male water for the structure of the structure is male water for the structure of an interes is propaged to reconstruct (2s1.2) are HPC in 12 mer with	The mentioned chalonge impected by us. Agenced with the demonstrated demonstrates in the provide conduction of the proposed and recommended to social with postation berna it is proposed and recommended to the social social social social social social social social social social social social social social social social (1) Structure proposed in advisibility (1) Structure proposed within the deleted, shall be charge of snappo of height re-relations. (b) involves proposed and recommended to recommended the be charged recept of pacidions variations. Here in our variation of market with the worked on by controls similar to financial implication.	Beasers & recommendation of II is accepted for deletion of (reconstruction (IA2) new data in 12 min which ) project is achedula Dialena as negative variable and proposal in reconstruction of (2x1 mit HFCD: 12 mit which is spective variation. Net Research Implication may worked out acceedingly.
38	72+596	69+453	Type of Structure-Stone No of span-th Span instantial to sur- CAR-5.7 mir Over all width-6.7 mir <b>Condilizion of structures</b> . Subh-proce hand wall/wing wall space entars wall/parapet-poor	Type of Structure-RCC slab(123.6) mir Proposal -Reconstruction in 12.8 mir widdi	Dering investory center, attracture (2014 Guster storee shib is lowed) once examition therail of activity attracture layeve below. Length - Anew yields that & high Problem (1) Is ander also It is proposed to reconstruct (103) shib is 12 zer archive. So definition of a mediation, and provide structures (so definition of a mediation) in a structure is solved at a mediation of a proposed structure is solved at a mediate a structure of proposed structures in solved at a mediate and a structure is solved at a meson music (2n1.2) store HPC in 12 zer wide).	The mentioned chainage imperied by us. Agreed with the consensus to descension of the set of manage of how mits a conflict the brack is in proposed and resource address of the location brack is in proposed and resource address of the location brack is the proposed and resource address delated shall be charge of susper of Regards watching the location of the location of the location of the delated shall be charge of susper of Regards watching. (b) markets proposed and resourceastic to a reconstruct shall be charge of scope of passion watching. Net cost of structure of atracture address the without one by ontoresionaire for financial implication.	Restores 6, recommendation of E in accepted for widesing of LickOjabio Cohert in 12 mm width proposed in releaded 5 taken as negative variation PPV in 12 mm width as positive variation PPV in 12 mm width as positive variation Net financialization may be worke out accordingly.
39	72+968	1	Not Metalloned in schwäude A	Type of structure-HPC [1x1.2]retr HPC proposed -Newcorstruction in 12.0 min width	During lowerscop on structure found at existing characteristics of the prograded to Neurosastrust (1311.2) and NPC apps 32 min widdl Apps that durantial (do the instances is not required at this instatus litere the mouttare is canceled	The meetinged chaining impacted by us and Approximation of the contention of commission in Approximation of the contention of the contention of required at Matcanations between both side growing (approximated for any strength of the content of the content of the recommended to delete the intent of classifier with the leve commended to a field the content of the content of the (1) Strength of the content of the content of the content of Arthail cont of intention of matchain. By contention of the content Arthail cont of intention of the variable of by contents into the financial impaction.	Rassins & recommendation of II: for deleting this structure HFC (UX.2) m width of 22 mirrates as negative char of scope. Binancial (mplication may be worked o
40	73+565	71-343	Type of Structure-HPC No of spin-01 Dia of Spin-1005rem CVV-65 mit CVr-85 mit Condition of machine Spin-64r Head Wall -fair Referen wall-fair	Type of Structure-HPC (La1.0)our Proposel-widening up to 12 netrwidth	During Investory existing structure (100, 59xer HPC 5 form) in poor condition conditions and the structure of the struc- condition of the structure of the structure of the Apper visibilities in the structure of the structure (1X12) struc- HPC in 12 are with the structure of the structure of the Socie the sectoring ANC is in poor condition haven it is preposed to recomment (1X12) are HPC in 12 are width.	The iterational chainings imported by us and Agreed with the community of conserving and the inductional coeffision of IP-0 in the preparent its recommunity of the constant of IP-0 (TAL2)precise to make change (1) Security to incontrol and inductional to that the used change (1) Security to incontrol and induction and the coefficient in some change of anyone constant of the construction shall be index change of anyone variations. (c) Net coefficient and the variation of the the construction for financial inguistration.	Remmus & recommendation of IE is accepted for widening of [1st.0]#PC is 12 mtr width proposed in wheevie II baken as begathe warking and proposed for reconstruction of [1st.2] with MPC is 12 mtr width as positive variation. Net financial implication may be works out accordingly.

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8, NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSED BY CONCESSIONAIRE AS PER SITE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
41	74+580	1 1 1	Kut Mentioned in scheidale A	Type of structure- HPC [2x1.2]mtr Proposed -Newconstruction in 32.0 mtr width	During investory to structure band as extring thange in solved efficient proposed to lewonstruct (XX,1) and the proposed to lewonstruct (XX,2) and the proposed of the solution provide the solution of the structure is not required at this locates likeness the abroduce is deleted	The meansaid durings trapported by of ind. Agriced with the constantiant of constraints with, a per intercented constitution of a size on similarity in the first location because both during constraints in the second original grant processing of the constraints of the during optimal grant processing of the second of the during of Negative variations, shall be avoided of the consequencies for first second resolutions with the second of the consequence of first second resolutions.	Reasons & recommendation of HE for detering of this structure HPC(131.2) room is 12 array width taken as negative change of some Pinancial implication may be worked out.
42	74-330	714757	Type of Structure- HPC No of pipe-03 Data of pipe-1000 C.W55 toke Over all worldh-62 mm Candilians of Artusture- pipe-for Head walf-for Recurs worl-for	Type of Structure- IIPC [11.0]mfr Proposed widening of IIPC in 12 ntr width	During taveshop existing Virtuary (130.09)ere: HPC is found to prove condition Detail of existing structure in given balane. Langth Asself zero raw Deta - 59 HPC in 12 zero width. Show the of costing HPC is to seek as (131.09) terr MPC in Linear is to proposed to reconduct (131.02) terr MPC in L2 net width.	The meanioned chainage large-cash by no and Agrowd with the connected of commission arm, harming in view to nearly of traffic state federating condition for formative proposition of the state federating con- light formative proposition and economic and the state of the Differences proposition and economic state of the state of the Differences proposition and the state of the state of the profile state of the state of the state of the state of the profile state of the state of the state of the state of the constitution in the state of the state of the state of the monotoniant in the instance in mylectation.	Resours & recommendation of IE/S accepted for widening of (1a.09)(PC in 12 mer width proposed in schedule B taken senaptive variation, and proposal for neuratorations of (1a1.2) m/r HPC in 12 mer widths a positive variation. Ref financial integration may be seefined out acceedingly.
43	Lan	71+992	Not Mextioned in schedule A	No proposal in Stedule B	Science (an end or per constraint (2016)) were passes while a local on perso constitution Detail of content person tentions. Langup A-start available (a local) - Langup A-start available (b local) An per state conditions and addry of the result, strengthere is in programmed with contemport backwards and strengthere linears in programs for executions (Social) met HPC open 12 term of the	The methods during toposited by at Aprend with the connected of accessionane. The structure is nature above in adhedia A See represent on the noticed at 8 theore it is prepared and recommended in means the is applicable. It can be able as an extension and is applicable to object adding any structure, and the structure analysis of a structure and any structure. This is under damped charge of pools of proteins markets. The actual control structures will be under during the actual control structures will be under during the connectionair for financial implications.	Beasons & recommendation of IE is accepted for re-emstruction of (UzLD)/ret BPC in the welth of 12 mir talens as positive variable. Actual financial implication may be worked out
4	Ren	72+343	Not Mentioned in achedule A	No propanal in Shedule B	During invertory oxisting structure (1306/6)outristone dials is found in goar condition forest of ensisting structure is provided on longth + Oatrix width & Shangha - Catarix, in schedule A & I is in ant proposed. As per 5th conducts and safety of the read, structure is required at this change location. Home it is proposed in reconstruct (151.0) mix HPC upto 12 mix width.	The mediatext claimage inspectively us. Agreed with this correspondence of concessionation. Structure is not enteredient in architek A and there is no provident a throughout and indext and the seconstruct (SXLI)provides and incommandial to reconstruct (SXLI)provides and incommandial distributions (SXLI) and a second and incommandial and a second and a second and a second and a second and a second The actual cost of structure shall be sourcided out by momentarian second and a second action.	Resource & recommendation of IE is accepted for reconstruction of (IE-D)on HPC in the width of 12 antr takes as pool/ow wrafaton. Actual financial implication may be worked out.
45	Ditta	72+404	Net Mertioned in askedule A	No proposal in Shedhile B	During Investory valiting structure (1980-66) part stone data is formal is poor condition Deall of castring structure is given before. Instructure 4.6 A et al. (1990) and addy of diversal, structure is required at this channel addy of the read, structure is required at this channel becadior. Baron 6 is appressive to resolution. Upto 12 carr width	The inestitated characge taspected by as. Agreed with the comments of concessionairs. Biordanic as of the testihed is a bidded as all there is no previous of structure is achedule B Biornic its prepared and involvemented to reconstruct (1811) into 186, capo 22 out it will bid where stress anticinal area to affinism to respect to the califorgit involves. (1) The groups and externamented atruntum shall be ander charage of acque of patient's version. The strated acad of structures shall be worked as thy conventionair for framerial largitations.	Remons & recommendation of HE recommendation is accepted for re- construction of (14.0) per r IPC in the width of 12 mer taken as positive variation. Actual financial implication may be worked out

L. Team Leader Redecon (I) Fyt. Ltd.

Divisional Manager M ABDC Lid Dr. No. 1, Reva Ahana) ac (Bot)

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**DUE DILIGENCE REPORT** 

SR. NO.	CHA	INAGE	EXISTING DETAILS ASPER SCHEDULE	PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSED BY CONCESSIONAIRE AS	REASONS & RECOMMENDATION	4/01
30.00	EXISTING	DESIGN	^	PROVIDENT ASPER SCHEDOLE B	FER SITE COOPTION	BY INDEPENDENT PREINEER	Decision of committee
45	tres	72+076	Not Mentioned is schedule A	No groporal in Shedule B	During teamstery soliting structure (138.7.7 petr atoes this is benefit in poor condition Detail of contrapt structure is provided. Length, addoor, works 0.7.8 petr 4-0.3 forther, Its scheduce A.8.11 is not proposed. As per any conducts and a slavly of the read, structure is required at this duringle location. Hence is its proposed on reconstruct (12.3.0) enter HPC upto 12 ext width	Interaction in the part to the end without virtual decapting agents and fair increases to the end without virtual decapting agents (1) The proposed as if recommended streatment and be under distage of notice of partitive virtual decay. The endual cost of structure shall be worked as; by OMCHOStowing for Thurstell integlication.	Bossions & recommendation of HE is be accepted for reconstruction of (3xL4) HFC in the width of 12 not taken as pointing variable. Actual financial implication may be worked out
47	Em	72×1%1	Not Meathaoed in schedule A	No propried in Shedule B	Buring lowersory existing structure (100.65) out states in the forward in poor consisting buring of example, without is given below. Langle, 4-ber within 65 bright 6.05 fort. In schedy 4.4 h for and processor for 6.05 fort. In schedy 4.4 h for an other process required at this charring in broken. However is grower for excent nucl. (ball.0) ner HFC apres 25 over width.	The metrosof charage impected by on Aprel with the converses at domainstance Structure is not metrosoft to sub-table Asiad there is no provision of attractive in sub-table Asiad there is no provision of attractive in sub-table as the sub-table table as a sub-table as a sub-table as a sub- table as a sub-table as a sub-table as a sub- table as a sub-table as a sub-table as a sub- table as a sub-table as a sub-table as a sub- table as a sub-table as a sub-table as a sub- table as a sub-table as a sub-table as a sub-table to the as a sub-table as a sub-table as a sub-table as a table as a sub-table as a sub-table as a sub-table as a sub-table as a sub-table as a sub-table as a sub-table table as a sub-tab	Basens & recommendation of IE is accepted for re construction of (IsAM) polific in the width of 12 min taken as positive variation. Actual financial implication may be worked out
48	im.	72+8\$7	Not Nertlineed in schedule A	No proyosal in Shedule B	Barling Elevency soliting structure (LRL65) err some skib is Staud in poor crastitum Detail of entities generature lie prove betwe. Langeh disser with 4460 bight of Science Is solitable AB for loss or proposed Alter per disc source and a structure is liense that a proposal as recombined (DxL8) not HPC upon 12 mer width	The enorthesis distance inspected by an Approx dist. We community of community and Bruckness is not mentioned in schedule A and there is no revertisms of investment in administration of the Mercen is in proposed and recommended in recentry (EUM) prime TPPC and 11 mm viside hours cause sectional areas in ECM to proposed and recommended in tracements of DI The proposed and recommended in tracements of the schedule of structures while the under change of scopes of patients variations. The actual cost of structures shall be worked out for financial implication.	Beasons & recommendation of IK is accepted for reconstruction of [13.0] HPC is the wideh of 12 mm taken as positive variation. Actual firaneoal implication may be worked out.
49	6au	72-931	Not Mentioned in schedule A	Ne proposé in Stodulo B	During investions ensuing structure (200.45)nets stope (bb) foreaf in poor condition Detail of existing securators is given balano. Longol - Stepic webb 605 highs 0.3 mer. In schoold at A fit is not expressed. As pre-bit ensuitation and adapt at the most, ensuitane la Horiz & Linguese allo reconstruct (1a1.0) mer HPC spits 32 mer webb.	The metalissis of chainings increased by us. Agend with the convertes of consocialisation. Surveium is not meeting in tackfolds Anot three is no provide of drawning in schedules Anot three is no provide out drawning in the constrained to reconstruct URL the proposed and reconstrained to reconstruct URL The proposed and reconstrained to interest linguage of scope of provide variables. This actual variation of provide variables. This actual variation structure shall be under dimensiones.	Reasons & recommendation of IIS is accepted for re-construction of (1x1.0) IPC in the visit of 12 mer taken as positive variation. Actual financial implication may be warked out.
50	bus	73-851	Not Mentioned in schedule A	Nu proposal is Shedule B	During Investeey existing menutare (1338)per proce shifts 8 beest in poor could ten best of retring arrangement spiron below. Little of the start and a large of Science. The shift shift AB to its not progressed. As per risk constitution and an sky of the road, structure is required an that chairage locations. Hereit it is proposed to recomment (SociA) part MPC spiro 12 mer wide).	The emotioned challesgic appetite by us Agreed with the conversion of occosed/solution. Structures is not resolution to solvedule A and there is no provides a of structure is schedule B able is a belowed in many samon, water overtogo the existing structure. How of the proposed of the associationate the reconstruct (PML-3) are HPC up to 12 mer Melh is moderated to [CAL Spin PC, whose energy association are not more than the solution PC, whose energy association are associated to the solution PC, whose energy association are not more than the solution PC, whose energy association are not more than the solution PC, whose energy of petitive variables and the solution PC, whose energy of petitive variables and the solution PC and the solution of petitive variables. The social cose alteracture shall be worked as by convensionation for francial inplication.	Brassess & recommendation of IE is accepted for m construction of (21.14) IFFG in the width of 12 rate when as produce an idden of the second second Actual threat of implication may be worked out

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SR. NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSED BY CONCESSIONAIRE AS PER SITE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
51	Fatra	77+312	Not Mentioned in schodule A	Ne proposal in Stadiale B	During Investory rediving SPALOUP (1287) per store which is fauld in poor credition Deals of a analyze structure is given below. Imaged 2420; evaluate 37 kmpr - ASariz, is a backet a 64 Di la in any program. A per air a credition and in they of the read, structure (s mapping at the division float they of the read, structure (s Hence is in programs the interactive) (12.10) and HPC upto 12 net welds	The newsteend chainings imposed by an Agreed with the commands of concentrations. Structure is not neutrinoid in a divide A and there is no providing of executars in schedule B Horns It is proposed and incommodel to reconstruct (LLL) part HIPC, upon 12 are within whose other mechanismes is artificient compare to the existing intraction. (2) The proposed and recommended by include and case of practice waith a worked and blue ander charge of scope of particle waith and the worked area by operations.	Reanons & recommendation of IE is accepted for re-construction of (EsLD) of HPC in the works of 12 mit taken as positive variable Actual financial implication may be worked out
52	ters.	78+334	Nut Meatismed in schedule A	No proposal in Studialise B	Dering investory withing structure (1903.2) our raise while its bandling port constitution Derial all actuating structure (signs below, Longsh.4.22 art. with 0.5 begit.4.23 true. This state shale. All is in our proposed This structure and the line our proposed. As your place and bottom and a shafey of the result, structure in theore is a grouped for reconstruct (101.0) see HPC upts 12 next width.	The metalese C datage isspected by us. Agreed with the comments of consolination. Sirvative is not mentioned in schedule A and there is an provintion of structures in schedule A and there is an interpret of the schedule and the schedule and the Minter K and the schedule and the schedule and U.M.Shiper titt. Let be T card words whole crease sectional across (U.M.Shiper titt. Let be T card words whole crease sectional across (U.M.Shiper titt. Let be T card words whole crease sectional across (U.M.Shiper titt. Let be T card words whole crease sectional across (U.M.Shiper titt. Let be T card words whole creases (U.M.Shiper titt. Let be T card words whole creases). (U.M.Shiper titt. Let be the schedule across the schedule across charge of scepe registering across schedule across schedule across (L.M.Shiper titt. Let be across schedule across schedule across schedule across (L.M.Shiper titt. Let be across schedule across schedule across schedule across (L.M.Shiper titt. Let be across schedule acro	Beacces & recommendation of IE is accepted for no construction of (21.4) (91.4)
53	Estra	73-625	Not Mentioned in sthedule A	No proposal in Shedule B	During investiony reliability curvature (200.65)petry states with a foreast in pose conditions Datal of contrast growthere in grow below. Largen-2 and within 6565 highly disclosed 2 to a versity 2 to a versity 2 to a versity of the 1 to a star proposed. A pose that conditions and and by 0 the road, presentant in required at this is changed protocol. There on the propagated to rescurrent (LoL 8) net FIFC upto 2 at the version.	The methods of damage inspectiol by us. Agreed with the comments of concentration of the second Dividuous in our membrand to accelerate A and there is no provisites of attractions in included. If a second method (32.03) per stiff our procession of the second method equipments in the and state generator. Equipments in the and state generator. Equipments in the and state generator. How states control encourse which he worked one to encoursely one to perform that the worked one to proceedings of compositions.	Reasens & recommendation of IE is accepted for ne construction of (Ex1.6)m INTC in the width of 12 rate taken as positive valuation. Actual Brancial implication may be worked out.
54	Estra	75+754	Not Measured in schedule &	No proposal in Shedule B	Detrog Investory soliting arcitizes (136.45)per store jub is found in pear catalities Data for dating mutative is given below. Longth - Satter widd- 465 highly - 40 (etc), In schedric A.B. El Li car proposed. As per role constituies and calkey, of the rock, structure it required at this closings location. Hence it is proposed to reconstruct (1s1.0) ent HPC upto 12 star width.	The neutrinoid chainage imperiod by as. Agend with the comments of accentationairs. Birstature in or twesteend is and which and them is no provision of aircratture in solidwide B Hows it is approved and eccentered to be constrained. (UKU) have HTV type 22 mer width whose cross medical area in antibient composed and eccenterminated through a spectra of the solid and anti- charge of accept explore is the minicipal practices. The scenario con of structure shall be under charge of accept exploritions.	Brasson & recommendation of IE is accepted for recommendation of [181.0/m tiff-En the width of 12 min token as positive variable. Actual financial implication may be worked out
55	Eatra.	714827	Not Merritoned in schodule A	No proposal in Shedule II	During Jonatory existing structure (13034)print neine with the feature to proce compliant Dentil of existing structures is given below. Length 2.5 and structures to prove the denter in softwidta A.6 is in our symposium of the result structure is magnitude to the Schwange Instance, they for proposed to recommend (Int.19) mark HPC upon 12 and vide	The methods of durings inspected true: (general with the construct of constructions inspect Birtwitters is not mentioned in schedule J, and there is no provides of structure is schedule 3. (SUL (B) that HFC up is 1.2 mm with): Where means automative is difficult compare to the existing structure. (SUL (B) that HFC up is 1.2 mm with): Instance was automative in difficult compare to the existing structure. (D) The programs and encommonifold instructure shall be a rather (T) the structure and encommonifold instructure shall be a rather (The structure of an occurs what The worked out for Spanical regulations.	Rossons & recommendation of TE is seepted for recomstruction of (DxL0)n NPC in the walk of 21 mit taken as positive variation. Armal financial implication may be worked out

La Team Leader Redecoh (I) Pvt. Ltd.

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1	CHA	INAGE				and a second second second second	13
SR. NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE	PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSEDBY CONCESSIONAIRE AS PER SITE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
56	Euro	74-114	Not Meetinated in atheniade A	No proposal in Shedule B	During insertiony existing sources or (1338 Agner stone dish is based in part concidios) Denail of exasting structure is given below. Longh - 6.5 zer and dish - 6.8 height - 4.6 kerty. In schedule: A & B is in a transmood. A part also entities and safely of the rend, structure is required at 646 Challmaps bottom. These is the concentration of the appendent to resolve the resolvent (161.0) entrielling up 1.2 and width:	(2) Stence it is proposed and reconstructed to reconstruct. (EXLO) HPC upto 12 nur width whose cross sectional area is equivalent to the existing structure.	Ressons & recommendation of IS in accepted for re construction of (ISLO) RHC in the width of 12 mtr Jakon as positive variable. Actual financial implication may be warehold out
57	Ema.	74+635	Net Mettlened in achodale A	No gruposal inShedale D	During investory exhibing structure (132,4) pair steer white the density is power candition benefat of excision grantmanning prove bisers. Langth - 2/batt, width -2.4 burght - 0/batt, Turnsheaddar & A is it is an a proposed in the start conditions and a dairy of the read, structure is magnitud at this dataget boattory. In the start proposed is recentarized (bcl.0) into HPC spits 12 mar while the recentarized (bcl.0) into HPC	The metasizene data says respected by as. Agreed with the command of concessioning. Brouttrue is not metaioned in surfachine A suditions is no. prevision of answare in schedule B interes it is programed and commercial to reconstruct (2003) mer HTC and the transmission of the construct (2003) mer HTC and the transmission of the construct (2003) mer HTC and the transmission of the construct (2004) mer HTC and the construction of the construct (2004) mer HTC and the construction of the construction (2004) mer HTC and the construction of the construction (2004) mercession of the construction of the construction of the construction (2004) mercession of the construction of the construction of the construction (2004) mercession of the construction of the construction of the construction (2004) mercession of the construction of the construction of the construction (2004) mercession of the construction of the construction of the construction (2004) mercession of the construction of the construction of the construction of the construction (2004) mercession of the construction of the constructi	Reasons & recommendation of TE is accepted for m construction of (2010) PIC m the within of 12 mir taken as putitive variation. Actual financial implication may be worked out
50	374506	74+758	Type of Structure - HPC No of pipe-01 Dia of pipe-100 error CW4 6.5 mit Constitution of structure pige-bit Head woll -for Return woll-fair	Type of Scructure-MPC (1x1.00) Proposed -widening up to 12 mir width	During any eventry resulting concluse (200.65) per store which is fraved in proporcion/films (based) and carabing any eventry in given below. Length - 2 berry, Wildholgson (0.64) fittight - 3 Actr (Data, verts) As per schedule B is is proposed to while (33.10) per HTC in 12 mer while Which is not resembling with the existing structures. Therefore any also waits condition for the addy of infficient regiments in fulfills in societion of made is proposed to recombined (30.10) HTC in width of 12 mer.	as follows. (4) (a) Structure mentioned in schedule B proposed for withining shall be change of acope of Negative variation. (b) The proposed and recommended structure shall be under	Reconst & recommendation of Hi is excepted for webering of [151.0]BPC is 12 net webby progress of a schedule B taken as negative wetration and progress for reconstruction of (251.0) and RPC is 12 mer width as positive variations. Net fixeasial implication may be work out accordingly.
59	tem.	76+933	Nat Memiored is schedule A	No proposal in achedate B	During investory solaring structure (220.33) perturbation adds in formal in poor execution. Detroif of endoticing surveaux logicure balance. Langel 4.2 mer weight-0.05 longer-0.2 warr. (2 mer weight-0.05 longer-0.2 warr. (2 mer weight-0.05 longer-0.2 warr.) in solaridity and the structure of the read, structure los respirad at this clusings location. Bases 1.1 as programed to reconstruent (2 m 64) wer HPC appo 12 eurosity.	The mentioned chainings trapected by un. Agricul with the comments of Consolinteration. Structures is an entremoted as Antellated A and there is no provide out discusses in activities A and there is no likes as a proposed and recommended to reconstruct (DAL Bytari HPC upon 12 new width where mean endimalarum in Spationies in the outing structure. (1) The proposed and recommended in tracture shall be under damp of except a pointies waitained in structure shall be under damp of except a pointies waitained. The structure is the Online waitained in the theorementerative for Discussion Englished.	Ressons & recommendation of III is accepted for reconstructions of (31.10) FIC: in the welf of 12 mitraken as positive variation. Actual Insancial implication may be worked on
60	bme	76+93)	Not Mentioned in schedule A	No proposal in schodale li	During treasury existing structure (200.8) on power hibits found is part criteriolitis brand of causely structure hypers below. (2 no word) is schedule AS bits net proposed As part the condition and unity of the road, words are inschedule AS bits in expression. (2 no word) is schedule AS bits in expression and, words are required at this Charange bottom. Hansa this proposed to reconstruct (Ld. 6) mir HPC apro 12 nov with	The mentioned durings properties by us. Agreed with the convertes of concernisation. Broadure is not summitteend in its help is A and there is no provides of durinet in include lab. A suff there is no provides of durinet in include lab. A discontinued (UKL) allow 127 ergs 20 - 21 art wide) whose cross sectional area it. Explositions to the anticity protection. URL allow 127 ergs 20 - 21 art wide) whose cross sectional area it. Days of longer of possible variantes. The actual coupt of structure while the worked cut concentions and a structure while the worked cut concentions and the flatmant allower of structure while the worked cut concentions and the flatmant allowers.	Reasons & recommendation of IE is accepted for re-coastruction of (1x14) JPCs in the width of 12 roter taken as prolifice variation. Actual financial implication may be worked out.

Fear Leader

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Acranel CE (Boy)

GMAST

	CHA	INAGE					4(14)
SR. NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	OINSTRUCTION PROPOSED BY CONCESSIONAIRE AS PER SATE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
61	ğıra	<b>35+313</b>	Not Mestioned in scientale A	No proposal in schedule B	During averaisty entring structure (190).6(entrasteer side in term) is poor condition Data To casting attracture is pres below. Legenk 4.2mV with 0-01 high CoSter, (2 no. rem) is schedula A.6 II is not proceed. As per size condition and darys of the read, structure is major cast and college families. Hence (1:5 perpendic On recourses (1x1.0) nor HPC ways 12 per math	The manifold distingly imported by on- Agreed with the connected of connectionation. Agreed with the connected of connectionation (accurate is not restrictional in activated And Saree is no provision of structure in activational of the reconstruct (DSLG) provide and recommended in reconstruct (DSLG) proposed and recommended in reconstruct (D). The proposed and recommended in rultime while the under change of coops of activity provides. The actual cool of structure shall be worked out by corrections and effort function length and on.	Reasons & reconstruction of IE is accepted for re-construction of [Lt.1,0] BFC is the width of 12 area taken as positive variations. Actual financial implication may be worked out
62	Katra	75-423	Not Mentioned In schedulle A	No proposal in achedule II	Buring Lanamore existing articles (2000) periodose etablic logical an per executivi total (el constag articultare la filment before, lareget: 450mm and be-10 keeping 45 mm and 10 mm (el constag) articles articles (2000) 10 mm (el constag) articles articles articles (2000) 10 mm (el constag) articles articles (2000) 10 mm (el constag) articles (2000) 10 mm (el constag) 10 mm (el constag) articles (2000) mm (el constag) articles (2000) mm (el constag) 10 mm (el constag) articles (2000) mm (el constag) articles (2000) mm (el constag) 10 mm (el constag) articles (2000) mm (el constag) articles (2000) mm (el constag) 10 mm (el constag) articles (2000) mm (el constag	The memoreal chainage imported by in Append with the convenience of concentrolation. Providence in the memory of concentrolation providence of structures in other labels. In BPC, upon 2 for proceeding the constructed and the IBC, upon 2 for proceeding the construction of the interpreten- ing of the contexport processing of the construction of the III The proceeding of providence and the contexport theory of cooper of providence and the contexport The actual cost of providence and the contexport. The actual cost of providence and the contexport contexport of cooper of instantial implications.	Beasens & recommendation of IE in accepted for reconstruction of GS1.0 RPC in the width of 12 mm takes as positive variation. Actual financial implication may be worked out
63	8m	75-500	Not Mentioned in stredule A	No proposal in schedule B	During investory existing structure (130.6)ner stone dwis is found in gear can dition Beauli of counting structure in given below. Length - Tetrur 2004 - 4.6 hegt O.Serr. In a schoolder A.B.B is in our proposed. A gear date counting and addrey of the read, structure is required at this chalange location. Wears its approach to reconstruct (151.0) part HNC upon 12 net webb.	In a metatomet chaings impected by st. Approd with the contents of concensionant Structure is care mentioned in which the Anath there is no provident of transmission in Authority Anatholic and Structure is a proposed and recommended is reconstruct. (132.20per WFC gets 12 mm withit where cross sectional area to Equivalent to the existing structure. (3) The proposed and reconstructed crusture shall be under change of cooper opacitive variations. The initial cost of structure shall be verified out by concentioncare the financial implementation.	Reasons & recommendation of IE is accepted for reconstruction of (1+1, HPC in the width of 12 mbr islow as positive instation. Actual fitmetial implication may be worked out
64	89+1C0 -	77+168	Type of Structure- Minor Bridge No of span-03 Spin fergits-10mir CW-57 mir Owe all width-85 mir Canadian of thrustate- siger structure-poor sub structure-poor	Type of structure-minor bridge (Est)Optimionr bridge Propasal - Berondruction in 12.0 mir width	(1) As por site inventory estang structure in Pinor inridge (13) 23 per in game condition. The toirridge wand even at walch of announce is d.7 and 65 and respectively. In the chief is the proposed to reconstruct (1314) after mixed at angung the site of CE (MPRDC) ds. 11.06.2015. On retine this entrustee. The attribute means to search at it is in good conditions with mixer require.	The mentioned chalkage inspected by us Agend with the comments of encoesionains Therefore its proposed and necessarised to recain the extrame as followed on the inner bridge (DSUB)entrate 12 (a) Proposed construction of minor bridge of Nagatine spits) minor within full branch change a cooper of Nagatine spits) The stratal cost of sinuttare shall be writed outby minorestimate for flavourd hypication.	Remons & recommendation of IE, is acopted for proposal of construction facibality, 2010/ntr Minor bindge 12 ntr withit takes as under Negatis change of scope. Financial implication may be worked
65	83+681	174575	Type of Structure Stone No of spin +1 Spin length- Intit CW-65 ner Over all width-75 ner Confiltion of structures: ability of structures hade spore head will/wing wall-poor return will/paraget poor	Type of structure-Siab culvert (153)err proposed-Reconstruction in 12.0 retr width	During Inventory existing structure (131.7) per HPC is foreal in poor could is bound of existing structure is given brokes. Larght - Kenit One new Neb. 1.2 retr. (1) is structure is its proposal on construct (133) dub in 12 structure is its proposal on construct (133) dub in 12 structure. Niels a thin chaining instaine, an David Structure, is collegat on coast truth. Proposal structure, is collegat on coast truth. Proposal structure, is collegat on coast at truth. Proposal structure is also condens at truth. Here read/resemption able condens in may be changed as per read/resemption able condens.	Impaction is carried out by us: Argued with the comments of communication, Argue of with the comments of communication, Argue teles credition (2013) HFC is sufficient for characy of Incommun (2013) HFC is sufficient to the commence effect and the communication of the communication of the commence logative variation. So there are preposed and recommended to recommended to be during of acque of positive variables.	III recommendation is accepted for deletion of (reconstruction of [343) is a in 22 mit width ) structure pro- initional at 22 mit width and a second version and proposal for reconstruction of ( and proposal for reconstruction of ( mit RPC/n 22 mit width as positive variation, Net financial implication m worked out accordingly.

**TECHNICAL** 

DUE DILIGENCE REPORT

(	CHA	NAGE					4/55
SR. NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSED BY CONCESSIONAIDE AS PER SITE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
66	B1+900	76-043	Type of Stracture-Stone No of span-01 Span inspb-2 0 arir C-W-55 mtr Over all width 65 antr Condifision of structures shalt woll/yoing wall-poor return wall/parapst-poor	Type of Sensiture-&CC slab(134.0)pper proposed -Reconstruction in 12.0 mlr with	Detail of existing structure is given below. Langth -0.9eetr /width/apan -0.7eetr Height -0.75eetr	Appendix is sacried out by us. Appendix with the elements of concessionales. As per dee condition (281.2) HPC, upo 12 them using is withink for demonstrative to constraint. Second Second Within to Brever. (c) Second and the advance of the second second second defined and the second and the second second second second the strateger demonstration of points outside the technical to change of appendix outside the technical and the second second second second second second second technical second second second second second second technical second second second second second second technical second second second second second second second sections of second second second second second second second sections of second second second second second second second sections of second second second second second second second second sections of second seco	Beasens & recommendation of IR is accepted for deletion offereomtencious (bos) that also it. 2 mer width senature proposal is schedule it baken at negation waistion and groups for reconstruction of [2412] net: HPC in 12 mer width as positive variantes. Net insertial implication may be worked out accordingly.
67	82+988	794799	Type of Structure-Rose Bio of span 61 Syan legith-Totor C.W6 mr - Over all withb, 75 mr Condition of structure- shib -goor head wall/Wrig wall -poor return.wall/parapet-goor	Type of Structure-RCC slab(123.00) proposed -Reconstruction in 12.0 mTr width	During investing widdleg structure (20.0) our store which invest is proof condition but of ensuring structure is given below. Length - Zenra, widdh/span - 10 mir, Height - 3.55 mor (11) in schedule is the spropresent construct, (125) india in 2 art width. Durarcing a same width within the engelse location, and face at yours: thering rating shams it the engelse do Durarcing a same width of the chaining location, and face at yours: the single structure and width. Durarcing provide the structure of the condition proof systemate of the resolution (2012) and the proof systemate of the resolution (2012) and the proof shape structure of the resolution (2012) and the 12 mm width.	Inspection in corrise out by an Approximation of the constraints of consolitations. As per site excellation (28.1.2) HTC up to 12 mer width is sufficient to charage of where it this location houses it is proposed and recommanded to measurement (28.1.2) HTC up to 12 mer width an likelow. (a) Strainture proposed in a checkle it shall be change of large of loggistic variabilities. (b) change appropriate data where with this of the case of provide with this. (b) and the constraints with the schedule of the constraint what the case of provide schedule worked on the provide the fiscancial implication.	Ressens & recommendation of III is accepted for deletise of (reconstructions (aS) form table 12 mt widds) structure proposed in schedule B tables as negative variation and persposid for recommence of (2a1.2) mt IIIX in 12 mm width as positive variation. Ref funcial inglication may be worked out accordingly.
68	85+393	80+191	Type of Structure - HPC Bio of pipe 41 Dia of pipe 41 Diw of pipe 1000mm CW-63 mir Conditional Structure pile-poor Head wall -poor Retern wall-poor	Type of Structure: HPC (1st1.2)mr Proposed - Reconstruction in 12 mir wolfth	Butting insentioncy existing structure (2112)entr-side is fraved in dark growthere in growth between length - Gherer, welds/growth - 12 merer. Hing by - 1.1 mer Eustrage also charer is additude and entrange of version with y senters. The also condition in formed late: In schedule 24 the progression betweenstruce (11:2.1) artic RFC upon 12 mere welds). Since the conditions of adultating faib culture is full interactive vedenzing of this custor with weld Ring grave 11:2.2) mer is proposed upon 22 mir withh.	Empertantic carried cut by us. Agreed with the connects of concessionaire, proposed and procursenelled to wide the existing cohere(1)a.2/per: width up as 2 roor length, to follow, (a) In the length of the second of the second of the length or writing the second for width up and the second width of the proposed and recorrect and for width up and width of the proposed product or writing of a lash shall be width of the proposed product or writing of a lash shall be width of the proposed product or writing of a lash shall be width of the proposed product or writing of a lash shall be the fiber of the product of the product of the the concentionaire for fiberation is producted.	Bessores & recommendation of IE is accepted for deletion (reconstruction of (sat.2)print HPC in 12 mirr workh) structure proposal is schulic its 8 taken negative wariation and proposal for wideming of (LL2) print side culvect ini mirr widema positive vaciation. Net financial impaintation may be worked ou accordingly.
69	94+800	68+992	Type of Structure Stone Ne of span-01 Span length-Strir CW-6 att Over all wider, 7.5 nm Condition of structure, dish poor Leed wall/wide wid joor restart wall/parapot-poor	Type of Structure- slab cuivert(1x4)nar proposed-Reconstruction in 12.0 ner witth	Bonding investory exciting activities (138.6) part HPC is brand to note constraints from the interface one set in gene indexe. Largeth - Hart Xero way Dai - Go Hart (13) is natedate, B is is progression in reconstraints (134) adds in 13 Zour width. Chartwell, a Hartow Middle at 6th charter points one and provide introduces in addression and radius. Proposed structures is schedule fit may be charged as per requirement, in a schedule fit may be charged as per requirement of the condition.	bit Inspiration in constant out by us. Agreed with the constants of accounterbanks but a part the coefficient (2013) 2014 with the sufflicted for datages of water bancs is its programmed and present model to a reconstruct on this has also as a fidewa director is proposed in adult of bank to charge of account for the second for reconstruction that he charge of account of positive variation. We term of the second for the outwards of out by constraint/outputs for familia implication.	Beatons & recommendation of IE is accepted for deletion of [Eva]mar shi extensis in 27 and welfs proposed lessensistical trainers as appointer variation in proposed for real-training of [Lu-2] in and proposed for real-training of the second proposed for the second second second proposed for the second
	AND DO T	A A A A A A A A A A A A A A A A A A A	Led L Tean/Leader	A HOE TH	() Divisional Manager	Geranden CE 180	Notifity Motifity

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TECHNICAL DUE DILIGENCE REPORT

	CHA	INAGE	Conception of the second second second				400
58, NO.	EXISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	CONSTRUCTION PERFORMED BY CONCESSIONAIRE AS PER SITE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
70	\$1+50E	10+43	Type of Structure-HPC No of pipe-01 Dia of pipe-102 (W & S nit Over 30 with 7.5 nit Constitution of structure pipe-sear Head wall-space Betam wall-space	Type of Souchare-HPC(UXL3)mtr. Proposed - Reconstruction is 12 mtr weigh	Evipting slab culture in multicover for dealings of water in ratios success. The slab condition is found fair.	She improve to carried out by all Agreed with the concentrate of brancessionaire. Agreed with the concentrate of brancessionaire. We prove the second second second second second second the second second second second second second second (a) to the data in the second second second second All second second second for second second second (b) Agreed we verticate. (b) Provide second second for evidence of site balls be and evidence of solver second second second second and evidence of solversours what the vertication of the operand for financial improvements.	Ressure & recommendation of IE is accepted for re-possible control [14, 2] one RPC object is 2 in the width proposed in solved/uke B taken as negative variation and proposal do widesing of (15, 12) rm shib colvert in 12 met width as positive variation. Net financial implication may b worked our accordingly.
71	ian.	11:582	Not Mentionzei in schadule A	No grouponal in schedule B	During the investory II in firmed a barried gige is very precaudition the intention of this chainage is on aired descent of the second second second second second Hence II is proposed to reconstruct (int. Sport HPC	She inspection to carried out by an Agreed with the comments of concenterative. Structure in an international or produced A and there is no gravitise of structures in andouble it integer its program discontaneousled to resceptionst. (In 10) HVC in which out 21 and, which are in the produced internative field of the author change of shoups of produce a product or and and Actual cont of structures shall be worked out by concensionairs for manual integrations.	Reasons & recommendation of IE is accepted for propagal of reconstruction (3a.LD) net HPC is 1.2 mir width taken a positive variantes. Artual financial implication may be worked out acceedingly.
72	85-28)	821078	Type of Structure-HPC No of pipe-01 Dia of pipe-1000em CW+05 net Over all widh-75 net Gendling of atracture- glope-lair Head wall-fair Return: wall-fair	Type of Structure-IIPC (3x1.0) Proposed -widening op to 32 oct:	During the investory (150.8%) annew slab in feandin peer continue. Dest of exacting mexature (apples below. Umpf - A Stars width) quare - 185 mmr. Height - 1.5 mm In school will be an impropered so widthe HPC (151.0 (http: rep 12.2 mmr. Weld). Since the existing structure is stone slab set tom and be refared width HPC. In this circumstratere it is proposed to reconstruct (1X1.2) em HPC uppo 12 mmr. with.	The supportant is corrected and by an Approx of the low examination of associationality. Since the soliding arranges is increase also in debificit debificated coordinates in cannot be weeknown it is proposed and reconverseded to reconstruct, CLAT, Datar Witt, Saya Care Weith, (12) of Proposed and reconstructed de structures and the under change of compare (provider a variage). (b) proposed structure is and be due is shall be under change of comper Objective variation. We count of structure and the worked out, by concensionation for fisming in the second second second second second second second second second work of structure and the worked out. By concensionation for fisming in the second sec	Reasons & recommendation of IE is accepted for proposal of reconstruction of (3.1.2) are 11/C in 12 on reduction halo as positive variation. And structure proposed in schedule B as Regarble variation. Net flass the Implication may worked out accordingly-
73	94+CE3	IT PAS	Type of Structure Slab No of apan-41 Spin length-Imre CW-7 att Over 34 width-64 att Condition of structure- Slab- fair head wold/wing wall-fair return wal/paraget-fair	Type of Structure-BOC Calvers Bio of spans klength of span-JzL Datr CW-6.5 mtr Condition of structure Condition of structure Solutions-Bir Proposed width: (Jukdening up to 12.0 mtr width) (JU (21.2) JNE to proposed for new construction.	During cite investory it is fore if (200.9) shits in poor modulate. Dural of existing structures to given below. Larget 4-clower solid/spure-0 do use. Redgin 2-2mar. Is schedule if at the change fractions 7 not structures proposed (1) of the structure of the widening up to 12 not redgin (3) shall be proposed for widening up to 12 not redgin (3) shall be proposed for widening up to 12 not redgin (3) shall be proposed for widening up to 12 not redgin (3) shall be proposed for widening up to 12 not redgin (3) shall be proposed for widening up to 12 not redgin (3) shall be proposed for structures are regulared to charinate.	Situ impection corried out by us and observed that not like a lab mover (1000) hand in detailable distillion as whether the provide the second second second second (11) is ablaulable 2 as a strategy are proposed for construction (21) and second second second second second second (21) and a second second second second second for community and second second second second second second second second	Resons & recommendation of IE is accepted to delete 2 no structures mentioned is achefule B under Negativ variation.

Team Leader

NDA

n 11551

Alia CE(BOT)

RUKYDoc No.RU-DD Report- Uchera – Nagod - Kalinjar Road /02



5R. NO.		INAGE	EXISTING DETAILS ASPER SCHEDULE A				uto.
	EXISTING	DESIGN		PROVISION ASPER SCHEDULE B	CONSTRUCTION PROPOSID BY CONCESSIONAIRE AS PER SITE CONDITION	BEASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
74	75+100	81+92i	Not Mentioned in schedule A	Detail Of Proposed Structure Type of structure: PIC: No of pipes 1 Pipe dis-1200 nm proposal & proposed width-Rewconstruction on 32.0 mir width	Ito this location, being on risgs line.	Daring the Introduction is in sheet well as follows: (1) He structure forward at this change location The boothes of Structure is on might see. (2) (1) Howkhold A no structure is matriced (1) In observation is the structure A new construction IIIPC (101.3) in 12 meruvation (2) any provide meruvation construction of the change in the location (2) proposed merutaries and structure is tool consistent lattice it (2) proposed merutaries and structure is included (2) proposed merutaries and structure in the change of structure is change of structure merutaries and its should be under change of structure should be worked set by the reconsection of market in the structure.	Romons & recommendation of IE is accepted for deletion of (New construction NEC (21), 2 (new width of 1 Sharr) runsture proposed in schedule B. Actual firmwaith warkston may be worked out accordingly.
75	35+400	88+150	Not Newtoned in schedule A	Detail: Of Proposed Structure (Lst.20)HPc Proposed Hewcoustraction in 12.0 mir width	During investory to structure found at existing Advinue In schedule ID is proposed to Newcastinut. (303.20pm HPA appo 32 nor wide). As per size abservation the iterature is not regated dua to this bacter barries (or might have Renex it is proposed to idelife the structure newtineed in schedule ID.	During the investigation is it adopted as follows. (21) No structure based at this oblassing block the The location of environments is an endpoint (20) On selected A no structure is mentioned (20) On selected A no structure is mentioned (20) In selected B 7 is proposed to new construction HPC (20) 2) is width of (21 or). Solving the above constitutes the instructure to not required hence it is proposed & servements the address marke following confilmen-	Resson & recommediation of IE in accepted for deletion of these contraction for [111.3] with of 13mrb/pratice proposed in achied a 10 to take as the against warding a bot takes as the against warding. Actual financial inspiration may be worked out accordingly.
76	tere	64+638	Not Neutlaned in schedule A	Not Merrikaned in Schedule II	During investiony an existing structure (JXL2) wire dabe extent is found in poor conditions. Detail of conting structures a proceidant. Leight -77 were welderlyings -12 indept. Outers, las schedule A.B.B.R.R. to rate proposed. A per trive condition and schedup of the rand, structure is required as that chairings learning. Hences it is proposed to reconstruct (JxLB) net HPC spits 12 mpr welds.	(11)() In technologie is no intractive in manufactual. (0) Also there is no provision of structure is solveiled B (2) As per requirment of size condition and safety of read it is required.	Reasons & recommendation of IE is accepted for proposal to reconstruct (XIA)mer HPC, is width of 12mm taken as Pasible walation. Actual francisci implication may be warked not according/r.
77	#3+580	85×534	Type of Structure Stab No of span 01 Span length intr CW-65 thr Over all width-8.2 mm Condition of structure- Stab-Fair head wall/wing w01-Fair neture wall/parapet-Pair	Type of Structure-RCC culvert[1x1]mtr. Proposed-widening up to 12 mir width	Darlig distributestary (1003) estratish in feund an miga fan. Darli of elisting structures a promisiden. Long fri 4.2 min. vediby jopa 400 mig/s 1.2 min. Darla the distribution of structures them in a source for a finite distribution of structures them in a source in other distribution of the proposal to studies [1XL/0]min elist evident. All proposal to studies [1XL/0]min elist evident. All proposal to studies [1XL/0]min elist evident. All proposal to studies [1XL/0]min elist evident.	Imageneise of Taissing structure corrections () yes Agreed with the constraints of concessionaire. (1)(1) the andwalars A structure is sectioned () 23(1) yes shall (21) andwalars is it is proposed as worker existing experimen- tical section (eds. or works in any costs of an image systems as the shall not concede only provide any cross of an image systems as the shall not concede only service that the shall be under change of shows. Proposed structure is schedule its whall be under change of shows. Antail concessions in the number of our by the concessions into the structure.	Reastro & recommendation of IE is acceptod to deline the attracture (323) ROC data in 12 other width appropriate adredual ID is taken as Regative sariatis Actual financia insplication may be worked out accerdingly.

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TECHNICAL DUE DILIGENCE REPORT

SR. NO.	CHAINAGE				T		4/18
	EMISTING	DESIGN	EXISTING DETAILS ASPER SCHEDULE A	PROVISION ASPER SCHEDULE B	CONSTRUCTION FROPOSEDBY CONCESSIONAIRE AS FER SITE CONDITION	REASONS & RECOMMENDATION BY INDEPENDENT ENGINEER	Decision of committee
78	72+309	\$9+779	Type of Structure- HPC No of spe-30 Dia of pipe-300 Structure CW-6.5 mr Own all width-31 mr Cenditions distructure- pipe-fair Head wall -fair Return wall-fair	Type of Structure-HPC (1x1.0)ettr Proposed-widening up to 12 rate width	It is observed the costing Nature has targer spon due to	The travelus and chainingle toportial by us Append with the commenter of concessionaire. Hence it is proposed and remonstratefield to construct [XIII]part mather bridge in twelfield 12 mit which is bedrokinging compared and workflowd by na ne this located change as follow that change is topology on particular to the source (b) The proposed and resourcemended strature equilible under change of koope of particle variations. The net cost of wantation shall be worked out by concentrative for financial implementary.	Basisten & recommendation of IE is accepted for proposal of videning. Data (II)FE II: a larr width proposad in schedule B be taken as negative variation and proposal for viceosstructions of [LL0] miterinkon bridge in 2 arm width as possible variations. Net financial (replication may be worked out accentingly.
79	83+508	62+383	Type of Structure-Arch No of spin-Bil Spin leigh-Batt CW-X4 mt Condition of structure slab spice head wall young will spoor network wall/paraget-poor	Type of Structure-Slab culvert[1x3] Proposal-widening in 12.0 mtr width		Dering site inopection at this location following things are pharered in the encouncerts of concentrationality (2010) in an attached (2020) shall be added to an end of the (2020) (2010) in a stacked in the proposed to write (102) shit collect in 12 min which and other (2020) shits reconstructions in 12 prior which interaction ingetralign is regardle and reconstructions in manners of the other in a start and the construction in the other construction ingetralign is regardle and the constructions in manners of the other in a start and the start and the other construction ingetralign is an end of the other and the other of the other other is a start and the other other and the other of the other other other other other other other other (1) Proposed May Fortisfies by deriving on variations. Net cost shall be evolved on the yon concensional refer formcal angle for the regularized on the other other other other of pharma of the other	UE recommendation is accepted for proposal of reconstruction of (4025) nm mayor histor 12 nm valid taken as positive variation, and structure proposa (1X3) stabilization and structure proposa (1X3) stabilization and structure proposal (X3)

Manager Contraction of the set

HDE

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CE (Bot)