

SHREM FINANCIAL PRIVATE LIMITED

Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) of Mundargi-Hadagali-Harapanahalli in the State of Karnataka on DBFOMT Hybrid Annuity Basis

TECHNICAL DUE DILIGENCE REPORT



FEBRUARY, 2021

SUBMITTED BY



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



Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) of Mundargi-Hadagali-Harapanahalli in the State of Karnataka on DBFOMT Hybrid Annuity Basis

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CHAPTER 1. INTRODUCTION

1.1 General

DBL Mundargi Harpanahalli Tollways Limited (herein after referred to as the "Concessionaire") had augmented the existing road from Mundargi-Hadagali (SH-45) and Hadagali-Harpannahalli (SH-47) in the state of Karnataka, in accordance with the provisions of the Concession Agreement (CA) executed with Karnataka Road Development Corporation Limited (herein after referred to as the "**KRDCL**") on 16th December 2015.

The Project Highway comprises of two state highways viz SH-45 and SH-47 and starts from Mundargi and ends at Hadagali under link 27C (Km. 0+000 to Km. 24+885 on SH-45) and changes its direction from Hoovina Hadagali towards Harpanahalli under link 27D (Km. 0+000 to Km. 26+321 on SH-47). The Project stretch passes through Gadag, Bellary and Davangere District and mainly passes through Mundargi, Korlahalli, Kaganor, Hoovina, Hadagali, Nagathi, Basapura, Kulahalli and Harapanahalli. Project location map is provided at **Figure 1.1**.

SHREM ROADWAYS PRIVATE LIMITED (SRPL) acquired DBL Mundargi Harpanahalli Tollways Limited vide agreement dated 26th March 2018.

SHREM FINANCIAL Pvt. Ltd (SFPL). appointed RUKY Projects Pvt. Ltd. as consultant 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 annuity payments received and future schedule of annuity payments.

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Å KARNATAKA POLITICAL MAP BI MAHARASHTRA Gulba GULBARG CHIN ANDHRA BUAPUR ALKOT RAICHUR Chit DAKSHI -Map Not To • 0.1 h 6 c A lrict Headquarte tate Boundar CHAMRA JHAGAR International Boundary Since Copyright@Prokerala.com **O** Mundargi



Figure 1.1: Project Location Map

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1.2 Project Data

	Table 1.1: Project Data						
S. No.	Particulars	Details					
1	Name of the project	Design, Build, Finance, operate and maintain and transfer (DBFOMT) of existing state highway from Mundargi-Hadagali-Harapanahalli in the state of Karnataka on DBFOMT Hybrid annuity basis.					
2	Road Type	State Highway					
3	Name of the Authority	KRDCL					
4	Name of the Concessionaire	DBL Mundargi Harpanahalli Tollways Limited					
5	Name of the EPC Contractor	Dilip Buildcon Limited					
6	LOA	11.09.2015					
7	Date of agreement	16.12.2015					
8	Date of Supplementary Agreement I	29.09.2016					
9	Date of Supplementary Agreement II	17.04.2018					
10	Design Length as per Schedule I of CA	51.21 Kms.					
11	Actual Length Constructed	51.21 Kms.					
12	EPC Cost	Rs. 157.1 Cr.					
13	Nature of contract	DBFMOT (Hybrid Annuity)					
14	Toll collected by	Authority					
15	Concession Period	10 years from Appointed Date					
16	Appointed date	29.09.2016					
17	Concession End date	28.09.2026					
18	Construction Period	730 Days from Appointed Date					
19	Schedule Completion Date	28.09.2018					
20	Date of issuance of Provisional Certificate (Commercial Operation Date)	05.02.2018					
21	Bonus on early completion	Applicable as per Cl.28.1					
22	Annuity Amount	As per Cl.23.4 and Cl.23.6.3 of CA					
23	Total Number of Annuities received as on Jan 2021	04					
24	First Annuity Date	28.03.2019					

1.3 Scope of Technical 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
- 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 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 and claims 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 of the Project as per schedule B and Schedule C of Concession Agreement (CA) including Change of scope are listed in the following Table.

S. No.	Particulars	As per CA	COS*	As per Site			
1.	Total Length	51.21 Kms.		51.21 Kms.			
2.	Toll Plazas	2 Nos.		2 Nos.			
3.	Bus Bays	14 Nos.	-8 Nos.	1 No*			
4.	Bus Shelters	14 Nos.	-11 Nos.	2 Nos*			
5.	Major Junction	10 Nos.		10Nos.			
6.	Minor Junctions	20 Nos.		20Nos.			
7.	Major Bridges	1 Nos.		1 Nos.			
8.	Minor Bridges	11 Nos.		11 Nos.			
9.	Box/Slab Culverts	19 Nos.		19 Nos.			
10.	Pipe Culverts	65 Nos.		65 Nos.			

Table 2.1: Salient Features

* Due to land problem 5 no of bus bays and one no of bus shelter is not constructed.

2.2 Typical Cross Section (TCS) Schedule

During construction The Concessionaire has followed the Typical Cross Section schedule shown in the following figures below and TCS Schedule is tabulated and given below.



Figure 2.1: (TCS A) of Schedule of CA – Rural Cross Section with Paved Shoulder

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Figure 2.2: (TCS B) of Schedule of CA - 2 LANE Carriageway With Paved Shoulder In-built up Area



Figure 2.3: (TCS D) of Schedule of CA - 4 Lane Divided Carriageway in urban Area

S. No.	From	То	Length (Kms.)	TCS Type	
Link 27 C Mundargi-Hadagali (SH-45)					
1	0.000	1.500	1.50	TCS D	
2	1.500	10.000	8.50	TCS A	
3	10.000	10.700	0.70	TCS B	
4	10.700	22.900	12.20	TCS A	
5	22.900	23.700	0.80	TCS B	
6	23.700	24.885	1.19	TCS D	
	Link 27	C Hadagali-Hara	panahalli (SH-47) (SH-45)	
7	0.000	0.500	0.50	TCS D	
8	0.500	7.200	6.70	TCS A	
9	7.200	8.000	0.80	TCS B	
10	8.000	11.300	3.30	TCS A	

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S. No.	From	То	Length (Kms.)	TCS Type
11	11.300	11.900	0.60	TCS B
12	11.900	13.800	1.90	TCS A
13	13.800	14.200	0.40	TCS B
14	14.200	19.600	5.40	TCS A
15	19.600	20.200	0.60	TCS B
16	20.200	25.100	4.90	TCS A
17	25.100	26.321	1.22	TCS B

Table 2.2: TCS Schedule



Figure 2.4: 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, side drains are constructed along the main carriageway 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 road is not proposed along the entire stretch of the project road as per provisions of Schedule B of CA.

2.5 Bypass

There is no bypass / realignment proposed on the project road as per provisions of Schedule B of CA.

2.6 Intersections

As per provisions of Schedule B of the Concession Agreement 10 Major Junctions and 20 Minor Junctions are provided. Details are given below.

Chainage (Km.)	Junction Type	Revised Category	Side of Cross Road	Intersecting Road	Remarks			
	Link 27C Mundargi to Hadagali							
0+000	3-Arm	Major	RHS	SH-129	To Ramenahalli			
0+030	4-Arm	Major	RHS	Town road	To Koppal			
		Major	LHS	Existing SH-45	To Nagarahalli			
0+850	3-Arm	Minor	LHS	Village Road	To Byalawadi			
1+165	4-Arm	Major	RHS	Existing SH-45	To Mundargi			
		Major	LHS	SH-23	To Shirol			
5+150	4-Arm	Minor	RHS	Village Road	To Bidanal			
		Minor	LHS	Village Road	To Bennihalli			
5+675	4-Arm	Minor	RHS	Village Road	To Bidanal			
		Minor	LHS	Existing SH-45	To Nagarahalli			
11+235	4-Arm	Minor	RHS	Existing SH-45	To Mammigi Road (SH-47)			
12+100	3-Arm	Minor	RHS	Village Road	To Madalagatti			
13+850	3-Arm	Minor	LHS	Village Road	To Hakandi			
19+260	3-Arm	Minor	RHS	Village Road	To Kotanakal			
22+000	3-Arm	Minor	RHS	Village Road	To Nowli			
23+280	4-Arm	Minor	RHS	Village Road	To Hoovina Hadagali Town			
		Minor	LHS	Village Road	To Hoovina Hadagali Town			
23+700	3-Arm	Minor	RHS	Village Road	To Hoovina Hadagali Town			
23+920	3-Arm	Major	RHS	SH-40	To Hoovina Hadagali Town			

Table	2.3:	List	of	Junction	IS
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Chainage (Km.)	Junction Type	Revised Category	Side of Cross Road	Intersecting Road	Remarks
		Major	RHS	SH-40	To Agarnur Road (SH-47)
24+885	3-Arm	Major	LHS	SH-40	To Hoovina Hadagali Town
		Major	RHS	SH-40	To Hoovina Hadagali Town
		Lin	k 27D Hadaga	li to Harapanahalli	
0+000	3-Arm	Minor	RHS	Village Road	To Hadagali
2+330	3-Arm	Minor	LHS	Village Road	To Devagondanahalli
4+470	3-Arm	Minor	RHS	Village Road	To Markonahalli
7+780	3-Arm	Minor	LHS	Village Road	To Sogi
		Minor	RHS	Local Road	To House
11+550	3-Arm	Minor	RHS	Village Road	To Mannera Masalavada
11+650	3-Arm	Minor	LHS	Village Road	To Bettada Malleshwara Temple
14+010	3-Arm	Minor	RHS	Village Road	To Madligeri
17+780	3-Arm	Minor	RHS	Village Road	To Bandri
18+400	3-Arm	Minor	LHS	Village Road	To Kanchikeri
19+900	3-Arm	Minor	LHS	Village Road	To Bagali
25+515	4-Arm	Major	RHS	Village Road	Sathur
		Major	LHS	Town Road	Harapanahalli Town Road
25+625	4-Arm	Major	RHS	SH-105	To Sathur
25+790	4-Arm	Major	RHS	SH-105	To Sathur
	4-Arm	Major	LHS	SH-105	To Harapnahalli Town road
26+000	3-Arm	Major	RHS	SH-25	To Haspet
26+321	3-Arm	Major	RHS	SH-25	To Shimoga
			LHS	SH-25	To Haspet

2.7 Grade Separated Structures and underpasses

Grade Separated Structures and underpasses are not proposed as per provisions of Schedule B of CA.

2.8 **Road Over Bridge**

ROB is not proposed in the project road as per provisions of Schedule B of CA.

2.9 Summary of the Carriageway and Pavement Details

	Table 2.4: Summary of Carria	geway and PDetai	IS
S. No.	Description	Flexible (Kms.)	Rigid (Kms.)
1.	Total Length of 2 lane (Flexible)	49.21	
2.	Total Length 4 lane	2.000	
3.	Total Length of the Project	51.21	
	Type of Alignment		
1.	New Alignment		
2.	Realignment	0.45	
3.	Strengthening		
4.	Reconstruction	50.76.	
5.	Total Length of the Project	51.21	

Table 2.4. Summany of Comissions and Dostails

2.10 **Summary of Bridges and Culverts**

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	1	3	5	3
2	Widening		4	31	6
3	Reconstruction		4	29	10
4	New				
5	Improvement				
	Total	1	11	65	19

Table 2.5: Summary of Structures

Details of the condition survey carried out on Structures are provided at ANNEXURE-2 & 3.

Toll Plazas 2.11

- There are two Toll Plazas as per schedules. But only toll booths are constructed at toll plaza • locations @ Km. 8+150 and @ Km. 23+800.
- Control room, Traffic aid post, quarters and medical aid post building are not constructed due to • LA issue.
- Toll is being collected at tollbooths. •

2.12 Bus shelters

As per provisions of Schedule C of CA bus shelters are provided at 14 locations. Details are provided below.

Table 2.6: Bus Shelters						
S. No.	S. No. Chainage (km.)					
LINK 27 C Mundargi to Hadagahalli						
1.	3+800	RHS				
2.	3+570	LHS				
3.	4+700	RHS				
4.	5+050	LHS				
5.	9+920	RHS				
6.	10+780	LHS				
7.	22+950	RHS				
8.	23+080	LHS				
LINK 2	7 D Hadagahalli to I	Harpanahalli				
1.	2+250	LHS				
2.	2+460	RHS				
3.	4+800	LHS				
4.	1+940	RHS				
5.	17+880	LHS				
6.	17+620	RHS				



Figure 2.5: Representative Photograph of Bus Bay

2.13 Other Project Facilities Provided as per Schedule I of Concession Agreement

- Road side furniture: Sign Boards Kilometer 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. STATUS OF WORK AFTER PCOD

3.1 General

In accordance with Clause 14.3 of Concession Agreement, Provisional certificate was issued on 31th March 2018 for completed length of 45.43 Kms. out of a total length of 51.206 Kms. The details of completed length are given in the following table.

Erom (Km) To (Km) Sido Longth (m)					
	10 (KIII.)	Side	Length (m)		
Link 27C From Km. 00+000 to Km. 24+885					
1+230	8+000	BHS	6670		
8+300	9+120	BHS	820		
9+370	10+100	BHS	730		
10+600	13+970	BHS	3370		
14+210	14+590	BHS	380		
14+710	16+530	BHS	1820		
16+915	17+950	BHS	1035		
18+330	23+180	BHS	4850		
24+000	24+300	BHS	300		
24+450	24+885	BHS	435		
Link 27	D From Km. 00+0	00 to Km. 26+	321		
0+000	0+280	BHS	280		
0+330	13+900	BHS	13570		
14+040	19+880	BHS	5840		
19+950	23+690	BHS	3740		
23+710	23+800	BHS	90		
24+100	25+500	BHS	1400		
Tot	al Length (Kms.)		45.430		

Table 3.1: Details of Completed Lengt

3.2 Punch List

A Punch list is a list of tasks and items that need to be completed before construction and along with that only a Project can be considered, finished. Accordingly, two punch lists were given along with Provisional Certificate. Punch list-1, works delays attributable to concessionaire. The items are included in the list-I, shall be completed within 90 days from the issuance of Provisional certificate. Punch List-II balance works pending due to reasons attributable to authority.

The details of Punch List-I are given in the following table.

WCP-06 Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) of Existing state Highway Mundargi - Hadagali - Harpanahalli in The State of Karnataka on DBFOMT Annuity Basis (Link - 27C & 27D)			
		Punch List - 1 Fo	r - PCOD (Link - 27C & 27D)
Punch ID	Proposal	Status of Main Structure	Balance/Rectification works
PI1/1	1 No of Box Culvert in 27C & 1 No of MNB in 27D	Completed	Protection works to be done
PI1/2	Isolated locations in 27C & 27D	Completed	Cleaning of waterway and the structure, rectification of protection work, providing edge concrete for pitching and shoulder protection to be done for all structures
Pl1/3	1 No of MNB Link 27C(11+701)	Not Applicable	Maintenance of existing bridge to be done
PI1/4	1 No of HPC in 27C, 4Nos of HPC in 27D and 2Nos of MNB in	Completed	Floor Apron to be done (BHS)
Pl1/5	I No of HPC in 27C	Completed	Drainage wall and protection wall (adjacent to Head wall) to be done
PI1/6	I No of HPC in 27C	Completed	RHS Pipe collars to be matched with headwall, Protection to be done, LHS Cath pit walls to be constructed
Pl1/7	2 No of HPC in 27C	Completed	Honeycomb to be rectified
PI1/8	3 Locations in 27C	Carriage way completed	Connecting RCC Drain & Wheel load Drain not covered at both ends
PI1/9	8 mt, in 27C and 18 mt in 27D	Carriage way completed	RCC drain slab to be done
PI1/10	2 Nos in 27D	Carriage way completed	Electrical pole foundation damaged, to be rectified
PI1/11	6 locations in 27D	Carriage way completed	Street light pole cables exposed on footpath, to be rectified
PI1/12	50 mt in 27D	Carriage way completed	Kerb at Toe to be provided
PI1/13	14+320(LHS)	Not Applicable	Rehabilitation of borrow area, to be done

Table 3.2: Punch List-I





WCP-06 Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) of Existing state Highway Mundargi - Hadagali - Harpanahalli in The State of				
	Karnataka on DBFOMT Annuity Basis (Link - 27C & 27D)			
Punch ID Proposal Status of Main Structure Balance/Rectification works			Balance/Rectification works	
PI1/14	10 mt in 27C & 60 mt in 27D	Carriage way completed	Between BT edge to drain paving to be done	
Pl1/15	2 locations - 17+010(LHS), 18+303(RHS)	Not Applicable	Filter media to be provided for ground water recharge pit/bore	
PI1/16	16+700(RHS)	Not Applicable	Re-use/Disposal of 20% safety stored scarified bitumen at basecamp	
PI1/17	3+636-27C Widening HPC	Completed	RHS Honey comb rectification & protection works to be done as per standards & approved drawings after clearance of land owner objection	
PI1/18	18+985-27C Widening HPC	Completed	BHS-300mm floor apron to be done after clearance of land owner objection	
PI1/19	21+861-27C Reconstruction of MNB	Completed	RHS-for of stone pitching & aprons on A1 side (1st span width) to be executed after clearance of land owner objection	
PI1/20	0+351-27D Reconstruction of MNB	Completed	LHS-Flexible apron and curtain wall to be done after clearance of water pipeline and Electric pole RHS-Flexible apron to be done after clearance of UGD line	
Pl1/21	3+247-27D Reconstruction of Box culvert	Completed	LHS-Flexible apron to be constructed after clearance of land owner objection	
PI1/22	4+900 -27D Reconstruction of Box culvert	Completed	RHS-Protection works to be done after clearance of electric transformer and land owner objection LHS-Curtain wall construction to be done per drawing after clearance of land owner objection	
PI1/23	7+289-27D Widening MNB	Completed	LHS-Protection to be done as per drawing after clearance of Electric pole and house compound RHS-Flexible apron to be done after clearance of land owner objection	
PI1/24	10+866-27D Widening as per CA, Reconstruction at Site	Completed	RHS-Protection works to be done after clearance of land owner objection	
PI1/25	11+867 27D Reconstruction of Box Culvert	Completed	RHS-Protection works to be carried after clearance of Electric pole and pipe line LHS-Protection works to be carried out after clearance of land problem	
Pl1/26	20+787-27D Widening HPC	Completed	RHS-Apron to be done after shifting of pipe line	



Punch List –II, items to be started or in progress shall be completed within 90 days from the issuance of Provisional certificate. The details are given in the following table.

WCP-06 Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) of Existing state Highway Mundargi - Hadagali - Harpanahalli in The State of Karnataka on DBFOMT Annuity Basis (Link - 27C & 27D)				
	Punch List - 2 For - PCOD (Link - 27C & 27D)			
Punch ID	Location	Balance works		
		Work to be executed after clearance of LA, R&R and Utility		
PL2/1	00+000 to 00+930 (BHS)-27C-Mundargi Town limit	shifting		
PL2/2	08+000 to 08+300 (BHS)-27C-Toll plaza	Work to be executed after clearance of LA		
		Work to be executed after clearance of LA, R&R and Utility		
PL2/3	10+100 to 10+600 (BHS) -27C Korlahalli village	shifting		
		Work to be executed after clearance of LA, R&R and Utility		
PL2/4	13+970 to 14+210 (BHS) - 27C Kumbli village	shifting		
PL2/5	14+590 to 14+710 (BHS) - 27C Water pipe line	Work to be executed after clearance of Utility shifting		
		Work to be executed after clearance of LA, R&R and Utility		
PL2/6	17+950 to 18+330 (BHS) - 27C Kagnoor village	shifting		
		Work to be executed after clearance of LA, R&R and Utility		
PL2/7	23+180 to 24+000 (BHS) - 27C Hoovina Hadagalli City	shifting		
		Work to be executed after clearance of LA, R&R and Utility		
PL2/8	13+900 to 14+040 (BHS) - 27D Kanahalli Village	shifting		
PL2/9	23+800 to 24+100 (BHS) 27D Toll plaza	Work to be executed after clearance of LA		
		Work to be executed after clearance of LA, R&R and Utility		
PL2/10	25+554 to 25+910 (BHS) - 27D Harpanhalli city	shifting		
	Link-27C Maktumpura (BHS 2Nos), Bennehalli (BHS 2 Nos), Korlahalli			
	(BHS 2 Nos) Huvina Hadagali (BHS 2 Nos)			
	Link-27D Eradettinahalli (RHS1 No), Vinobha Nagar (RHS 1 No), Bandri	Bus bays & Bus Shelter to be executed after clearance of LA and		
PL2/11	(RHS 1No)	R&R		
	Link-27C Korlahalli (BHS), Huvina Hadagalli (BHS)	RCC drain work to be done after clearance of LA, R&R and local		
PL2/12	Link-27D Nagati basapur (BHS), Km Tanda (RHS), Bandri (RHS),	objection		

Table 3.3: Punch List-II





WCP-06 Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) of Existing state Highway Mundargi - Hadagali - Harpanahalli in The State of Karnataka on DBFOMT Annuity Basis (Link - 27C & 27D)					
	Punch List - 2 For - PCOD (Link - 27C & 27D)				
Punch ID	Location	Balance works			
	Chikkahalli (RHS), Harapanahalli (BHS)				
	Link-27C Huvina Hadagali (BHS)	Foot path and paver blocks to be done after clearance of pipeline			
PL2/13	Link-27D Huvina Hadagali (BHS), Nagati basapur (BHS)	and LA			
	Link-27C Korlahalli (BHS) Huvina Hadagali (BHS)				
	Link-27D Nagati basapur (BHS), Km. Tanda (RHS), Bandri (RHS),	Paved bloc to be done after clearance of LA, R&R and Utility			
PL2/14	Chikkahalli (RHS), Harapanahalli (BHS)	shifting			
	Link-27C Huvina Hadagali (LHS)				
PL2/15	Link-27D Km. Tanda (BHS)	Toe, kerb and paved blocks to be done after clearance of LA			





3.3 De scoped works

Balance works pending due to non-availability of land are proposed for descope and the details as follows.

Description of Item	Location	Remarks
Structure Protection work	5 locations	
Drain work	4 locations in 27 D& 1 in 27C	
Footpath	5 locations in 27D&1in 27C	LA Issue
Drain side Kerb work	One location in 27C	
Bus shelters and Bus bays		Refer Table 3.6

Table 3.4: Details of De scoped works

Table 3.5: Status of Bus bays and Bus shelters

S. No	Chainage Km	Location	side	Bus shelter	Bus bay	
110.	27C					
1	3+570	Mukhtumpur	LHS	De scoped	completed	
2	3+800	Mukhtumpur	RHS	De scoped	To be constructed	
3	4+700	Bennehalli	RHS	To be constructed	To be constructed	
4	5+050	Bennehalli	LHS	De scoped	De scoped	
5	9+920	Korlahalli	RHS	De scoped	To be constructed	
6	10+780	Korlahalli	LHS	De scoped	De scoped	
7	22+950	Hadagali	RHS	De scoped	De scoped	
8	23+080	Hadagali	LHS	De scoped	De scoped	
27D						
1	4+800		LHS	completed	De scoped	
2	17+880		LHS	completed	De scoped	





CHAPTER 4. ROAD INVENTORY & PAVEMENT CONDITION

4.1 General

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

4.2 Road Inventory

Inventory of the project road was carried out physically and the same is summarized in the following table. Few representative photographs are presented below.

S. No.	Features	Remarks
1.	Terrain	Plain Terrain
2.	Land Use	Mostly Agriculture
3.	Two lane length	51.21 Kms.
4.	Earthen shoulder	1 (m) to 1.5 (m) Width on site
5.	Junctions	30 Nos.
6.	Toll Plaza	02 Nos.
7.	Sign boards	Sign boards are provided as per requirement
8.	Road Markings	Lane markings are provided as per requirement
9.	Bus Shelters	2 Nos.
10.	Highway Lighting	Provided as per requirement
11.	Avenue plantation	Provided

Table 4.1: Road Inventory



Km. 25+000



Km. 22+950



Km. 23+800 Figure 4.1: Representative Photographs of Existing Road Features

4.3 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 condition 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 4.2: 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.

4.4 Pavement Condition Survey

The survey on general pavement condition was primarily undertaken by means of slow driveover 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 4.3: Pavement condition summary					
From (Km.) To (Km.) Length (Kms.) Condition					
0+000	55+210	51.21	good		



Km. 21+900

Figure 4.2: Representative Photograph of Pavement Condition Photography





CHAPTER 5. INVENTORY AND REVIEW OF STRUCTURES

5.1 General Assessment and Details of the Existing 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.

5.2 Inventory of Structures

There is 01 Nos Major Bridge, 11 Nos Minor Bridges, 65 Nos Pipe culverts and 19 Nos Slab/ Box culverts are there along this project road.

S. No.	Type of Structure	Numbers
1	Major bridges	1
2	Minor Bridge	11
3	Pipe culverts	65
4	Slab/Box Culverts	19

Table 5.1: List of Structures

The superstructure of the Major bridge is of PSC T-beam and RCC Deck slab. The substructure is of RCC wall type piers and abutments resting on Well foundations. There are 11 minor bridges in which some are RCC solid slab type bridges PCC / RCC wall type Piers and abutments resting on open foundations. Also, there are some RCC box type minor bridges. 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**.

5.3 Details of Major Bridges

There is one Major bridge in the project stretch. The total length of the bridge is 410.0m with 10 spans of 41.0m. The superstructure is of PSC T-beam and RCC Deck slab. The substructure is of RCC wall type piers and abutments resting on Well foundations. Elastomeric/Neoprene bearings are used. Expansion joints are of Modular Strip seal type and RCC railing has been provided.

Table 5.2. List of Major Bruges					
S. No.	Chainage (Km.)	Span	Total Length of Bridge (m)		
1	11+705	10 x 41.0	410		

Table 5.2: List of Major Bridges

The condition of the superstructure and substructure is good. Certain minor maintenance operations such as quadrant pitching, reflector plates, drainage spouts and strip seal expansion joints are to be carried out.



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Km. 11+705 Figure 5.1: Representative of Photographs of Major Bridges

5.4 Details of Minor Bridges

There are 11 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 of tar paper and neoprene bearings. RCC crash barriers are provided on all structures.

S. No.	Chainage Km.	Span (m)	Total Length of Bridge (m)	Description		
	Mundargi – Hoovina Hadagali					
1	0+680	4 x 13.0	52.00	The MNB has RCC solid slab superstructure supported on conventional RCC wall type piers and abutments resting on open foundations Strip seal type expansion joints.		
2	3+324	9 x 5.5	49.50	It is RCC box type minor bridge.		
3	9+275	4 x 7.5	30.00	It is RCC box type minor bridge.		
4	20+688	1 x 8.0	8.0	It is RCC box type minor bridge.		
5	21+844	4 x 10.0	40.0	It is RCC box type minor bridge.		
		Н	oovina Hadagali	- Harapanahalli		
1	0+351	2 x 4.0	9.05	It is RCC box type minor bridge with buried type expansion joints.		
2	6+906	1 x 8.5	8.50	MNB has RCC solid slab superstructure supported on conventional PCC wall type piers and abutments resting on open foundations. Buried type expansion joints.		
3	7+289	2 x 4.725	10.50	It is RCC box type minor bridge with buried type expansion joints.		
4	10+278	1 x 6.3	7.20	MNB has RCC solid slab superstructure supported on conventional PCC wall type piers and abutments resting on open foundations. Buried type expansion joints.		
5	11+237	1 x 6.3	7.20	It is RCC box type minor bridge with buried type expansion joints.		

Table 5.3: Inventory of Minor Bridges

Project: Design, Build, Finance, operate and Maintain and Transfer (DBFOMT) of Mundargi-Hadagali-Harapanahalli in the state of Karnataka on DBFOMT Hybird Annuity Basis.



S. No.	Chainage Km.	Span (m)	Total Length of Bridge (m)	Description
			Mundargi – Hoo	ovina Hadagali
6	16+781	6 x 8.2	49.20	MNB has RCC solid slab superstructure supported on conventional PCC wall type piers and abutments resting on open foundations. Buried type expansion joints.



Km. 9+275Km. 21+844Figure 5.2: Representative photographs for Minor Bridges

5.5 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 clearance 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.

5.5.1. General Description of Slab/Box Culverts

There are 19 Nos. of slab / Box culverts in the project stretch. The details of the culverts are as given below.

S. No.	Chainage (km.)	Span (m)				
Ν	Mundargi – Hoovina Hadagali					
1	0+250	1 x 2.0				
2	1+189	1 x 2.0				
3	5+720	1 x 6.0				
4	13+734	1 x 1.1				
5	17+665	1 x 2.0				
6	19+881	1 x 1.2				
7	21+319	1 x 1.2				
Нос	Hoovina Hadagali - Harapanahalli					
8	1+76	1 x 3.8				
9	3+248	1 x 2.0				



Project: Design, Build, Finance, operate and Maintain and Transfer (DBFOMT) of Mundargi-Hadagali-Harapanahalli in the state of Karnataka on DBFOMT Hybird Annuity Basis.

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S. No.	Chainage (km.)	Span (m)
10	3+921	1 x 2.5
11	4+053	1 x 2.0
12	4+629	1 x 1.5
13	4+901	1 x 2.0
14	7+453	1 x 1.85
15	10+866	1 x 1.8
16	11+209	1 x 2.0
17	11+867	1 x 2.0
18	25+462	1 x 2.0
19	25+846	1 x 4.5

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



Km. 19+881

Km. 4+053

Figure 5.3: Representative Photographs of Box Culverts

5.5.2. General Description of Pipe Culverts

There are 65 Nos. of pipe culverts in the project stretch. The details of the culverts are as given below.

	······································						
S. No.	Chainage (Km.)	Span (m)		S. No.	Chainage (Km.)	Span (m)	
Mundargi – Hoovina Hadagali			Hoovina Hadagali - Harapanahalli				
1	0+044	2 x 0.9		33	2+219	1 x 1.2	
2	1+696	1 x 0.9		34	2+677	15 x 1.2	
3	1+86	1 x 1.2		35	2+963	1 x 1.0	
4	2+203	1 x 1.2		36	4+341	1 x 1.2	
5	2+289	1 x 0.9		37	5+038	1 x 1.2	
6	2+727	1 x 1.2		38	5+203	1 x 1.2	
7	3+480	1 x 0.9		39	5+345	1 x 1.2	
8	3+636	1 x 0.9		40	5+588	2 x 0.9	
9	3+962	4 x 0.9		41	6+010	1 x 1.2	

Table 5.5: List of Pipe Culverts



Project: Design, Build, Finance, operate and Maintain and Transfer (DBFOMT) of Mundargi-Hadagali-Harapanahalli in the state of Karnataka on DBFOMT Hybird Annuity Basis.

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S. No.	Chainage (Km.)	Span (m)	S. No.
N	Ноо		
10	4+513	1 x 1.2	42
11	4+854	1 x 0.9	43
12	6+962	1 x 0.9	44
13	7+941	1 x 1.2	45
14	8+640	2 x 0.9	46
15	10+453	1 x 1.2	47
16	11+069	4 x 1.2	48
17	12+484	3 x 1.0	49
18	14+512	1 x 0.9	50
19	14+947	2 x 1.2	51
20	15+339	1 x 1.2	52
21	15+422	3 x 0.9	53
22	15+703	1 x 0.9	54
23	16+410	2 x 1.0	55
24	16+710	1 x 1.2	56
25	18+000	1 x 1.2	57
26	18+426	1 x 0.9	58
27	18+969	4 x 1.0	59
28	19+425	1 x 1.2	60
29	20+083	1 x 0.9	61
30	20+459	1 x 1.2	62
31	21+575	1 x 1.0	63
32	24+415	2 x 1.2	64
			65

Chainage (Km.)	Span (m)
vina Hadagali - Hara	apanahalli
6+441	1 x 0.9
6+923	1 x 1.2
8+320	2 x 1.2
9+172	5 x 1.2
10+646	3 x 1.2
12+510	1 x 1.2
13+158	3 x 0.9
13+874	1 x 0.9
14+100	1 x 1.2
14+285	7 x 1.2
14+732	1 x 0.3
15+185	3 x 0.9
16+069	4 x 0.9
17+960	2 x 0.9
18+714	1 x 1.2
19+473	3 x 0.9
20+329	3 x 0.9
20+787	5 x 0.9
22+906	1 x 1.2
23+283	1 x 0.9
23+500	2 x 1.2
24+182	1 x 1.2
24+424	4 x 0.9
26+099	1 x 0.9
	Chainage (Km.) /ina Hadagali - Hara 6+441 6+923 8+320 9+172 10+646 12+510 13+158 13+158 13+874 14+732 15+185 16+069 17+960 18+714 19+473 20+329 20+787 22+906 23+283 23+500 24+182 24+424 26+099

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





CHAPTER 6. PAVEMENT DESIGN VALIDATION AND OVERLAY SCHEDULES

6.1 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 CA provisions recommendation for the upcoming renewal cycles.

6.2 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: 37-2012 publication while the current publication is IRC: 37-2018.

6.2.1. 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".

The project road has been divided into 2 sections i.e. Link 27 C (from Mundargi Km. 174+200 to Hadagali Km. 199+500 and Link 27 D (from Hadagali Km. 355+960 to Harapanahalli Km. 329+460). The design traffic as per traffic during design stage and design traffic as per CA is summarized below.

	As per traffic surveys		fic surveys	As per schedule		Adopted for design	
S. No.	Location	10 years MSA (Bituminou s layer)	15 years MSA (Non- Bituminou s layer)	10 years MSA (Bituminou s layer)	15 years MSA (Non- Bituminou s layer)	10 years MSA (Bituminou s layer)	15 years MSA (Non- Bituminou s layer)
1	Km. 182+335	11.95	19.42	3.5	5.55	11.95	19.42
2	Km. 332+245	1.23	2	3.74	5.87	3.74	5.87

Table 6.1: Des	gn traffic	summary
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As per schedule, Appendix B-II, "The design of the crust for the project road shall be done for schedule MSA or as per actual traffic whichever is more". Since the calculated MSA of the project road is coming out higher in Link 27C and lower in Link 27D, with respect to MSA provided in Schedule B of Concession Agreement, therefore MSA as per actual traffic for Link 27 C and as per given in schedule B





for link 27 D has been adopted for the design of crust for the road. Pavement crust thickness in the pavement design report for flexible pavement is as follows:

C. No.	Description/	Design/Adopted Parameters		
5. INO.	Pavement layer	Link 27 C	Link 27 D	
1	Sub Grade CBR (%)	10 %	8 %	
2	Design Life (Years)	10 years for bituminous	10 years for bituminous	
		15 years for non-bituminous	15 years for non-bituminous	
3	Design Traffic (MSA)	11.95 MSA for bituminous	3.74 MSA for bituminous	
		19.42 MSA for non-bituminous	5.87 MSA for non-bituminous	
4	Surface course (BC)	40mm	40mm	
5	Binder course (DBM)	50 mm	50 mm	
6	Base course (WMM)	250 mm	250 mm	
7	Sub Base course (GSB)	200 mm	160 mm	

Table 6.2: Flexible Pavement Design summary

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

Description	Design/Adopted Thickness		
Description	Link 27 C	Link 27 D	
CBR of sub grade	10 %	10 %	
Design life in years	30	30	
Pavement Quality Concrete (PQC) – (mm)	280	250	
Dry Lean Concrete (DLC) – (mm)	150	150	
Drainage Layer (GSB) - (mm)	150	150	
Diameter of Dowel Bar (mm)	32	32	
Length of Dowel Bar (mm)	450	450	
Spacing of Dowel Bars (mm)	300	300	
Diameter of Tie Bar (mm)	12 (Deformed)	12 (Deformed)	
Length of Tie Bar (mm)	640	640	
Spacing of Tie Bars (mm)	640	780	

Table 6.3: Rigid Pavement Design for Toll Plaza

The Pavement crust has been designed according to IRC specification and found in order the adopted/ Constructed pavement layer thickness is adequately provided than actual/designed thickness.

6.3 Overlay during operation and maintenance

The pavement has been designed to cater traffic of 11.95 MSA and 3.74 MSA (up to 2027 for 10 years) for Link 27C and Link 27D respectively. This implies that pavement will be structurally adequate to cater the future traffic with periodic renewal carried out under the maintenance program.

However, as per clause 2.3.7 of Schedule K of CA, periodic renewal shall be carried out as and when required and at least once between 5th and 7th year (from COD) within the concession period, the periodic maintenance activities shall also include profile corrective course overlaid with the periodic



renewal of the wearing course of BC, the concessionaire may adopt cost effective treatment like asphalt recycling, stone mastic, micro seal etc.

Based on the present available data It is envisaged that existing pavement require overlay (periodic renewal) in the year of 2025. Nevertheless, the pavement shall be maintained to the desired level of performance by carrying out periodical renewals as mentioned in subsequent sections.

6.3.1. Maintenance/ Overlay schedule

Periodic Maintenance shall be carried out as and when required based on the road condition and at least once in 7 years from COD and in the last year of Concession period as a good industry practice. It includes Profile corrective course overlaid with the periodic renewal of the wearing course of BC. The detail maintenance schedule is summarized below.

Routine maintenance - Every year

Periodic Renewal for Flexible Pavement – Next periodic renewal In the year 2025 **Periodic Maintenance for Rigid Pavement** – Re-texturing shall be done at least once in 10 years from construction




CHAPTER 7. SAFETY AUDIT OF ROAD

7.1 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). 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- 73	Two lane Manual
IRC: SP- 84	Four lane Manual
IRC: SP- 88	Manual of Road Safety Audit

Table 7.1: Referred IRC Publications





7.2 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.	lterr	Description	Status	Condition
Road Fu	niture			
		Chevron Signs	Available as per	Good
		Chevron Signs	site requirement	
		Village sign boards	Available as per	Good
Road Furniture Chevron Signs 1 Sign Boards Village sign boards 1 Sign Boards Information Boards Other Sign Boards Other Sign Boards 2 Road Marking Studs &Lane marking	village sign boards	site requirement		
1	Sign Boards	Information Boards	Available as per	Good
T	JIGH DUALUS	Information Boards	site requirement	
		Other Sign Boards	Available as per	Good
			site requirement	
		Cantry Sign Boards	Available as per	Good
		Gantry Sign Boards	site requirement	
2	Pood Marking	Stude & I and marking	Available as per	Fair
2	Road Marking St		site requirement	Tan
3	Metal Beam	At High embankments	Available as per	Fair
5	1Sign BoardsInformation Boards1Sign BoardsOther Sign Boards2Road MarkingStuds &Lane marking3Metal Beam Crash BarriersAt High embankments	site requirement	i dil	

Table 7	1.2: Status	of Road	Safety	/ Items
Table /	.z. Jiaius	o oi noau	Jaicy	/ 1001113



Km. 21+900 Figure 7.1: Representative Photographs of Road Safety

7.3 Conclusions

Safety arrangements, 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 highly appreciated during the maintenance period.





CHAPTER 8. TOLL PLAZA & HTMS

8.1 General

There are two toll Plazas on the project road at Link-27C & Link-27D. Each Toll plaza comprises of 4 lanes. Each side comprises of 1 normal lanes, 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 buildings are G+1 floor building which houses control room, UPS and Pantry.

8.2 Tolling Equipment's

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

S. No.	Equipment	Nos.
1	Combined toll lane controller with AVC controller	12
2	Toll collector Keyboard	12
3	AVC sensors including 3 sets of height sensors	12
4	Thermal Receipt Printer	12
5	Lane incident capture camera	12
6	Traffic Light 200mm dia	12
7	Overhead lane signals	12
8	User fare display 2-lines	12
9	Intercom slave unit	12
10	Lane barrier	12
11	IR Barrier Safety	12
12	Manual booth controller	12
13	10KVA online	
14	Barcode Reader	12
	Plaza Room Equipment	
15	TMS server	2
16	Admin/LSDU	4
17	Cashu up/Audit work station	4
18	Thermal receipt printer	2
19	6KVA online UPS with 30 min back up.	2

Table 8.1: List of Tolling Equipment at Toll Plaza and Control Room

8.3 Vehicles

The list of vehicles, which were observed at site, for operation of Highway and Toll Plaza are presented below.

S. No.	Vehicle Type	Remarks						
1	Jeep	Ambulance (2)						
2	Jeep	Patrolling vehicle (2)						

Table 8.2: List of Vehicles





DUE DILIGENCE REPORT



Toll Plaza at Km. 23+800



Toll Building at Km. 8+150

Figure 8.1:Representative Photographs of Toll Plaza





CHAPTER 9. SCHEDULE OF ANNUITY PAYMENTS

9.1 Hybrid Annuity Model (HAM)

Hybrid annuity model is the PPP model in which Authority makes payment of 40% of the Bid Project cost during construction period based on progress milestones set forth in Concession Agreement. Payment of the balance 60% of the Bid Project Cost is made in form of bi-annual annuities with interest during the operational phase of concession.

In this HAM model, as per Cl. 27.5 Lump sum payment is given in four installments during the construction phase as below.

Installment No	Amount in Rs. (Crores)	% Progress during construction							
First	16.163	25							
Second	16.163	50							
Third	16.163	75							
Fourth	16.163	On COD							

Table 9.1: Payment Schedule during construction

9.2 Schedule of Annuity Payments

As per 27.1, the concessionaire upon achieving COD, Authority agrees to pay Rs. 17.73 crores as per schedule –M.

S. No.	Particulars	Annuity Due Dates	Payment received date
1	1st Annuity	28.03.2019	29-Mar-19
2	2nd Annuity	29.09.2019	19-Dec-19
3	3rd Annuity	28.03.2020	29-Mar-20
4	4th Annuity	29.09.2020	19-Nov-20
5	5 th Annuity	28.03.2021	
6	6 th Annuity	29.09.2021	
7	7 th Annuity	28.03.2022	
8	8 th Annuity	29.09.2022	
9	9 th Annuity	28.03.2023	
10	10 th Annuity	29.09.2023	
11	11 th Annuity	28.03.2024	
12	12 th Annuity	29.09.2024	
13	13 th Annuity	28.03.2025	
14	14 th Annuity	29.09.2025	
15	15 th Annuity	28.03.2026	
16	16 th Annuity	29.09.2026	

Table 9.2: Schedule of Annuity Payments





CHAPTER 10. OPERATION AND MAINTENANCE

10.1 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.

10.2 Inspection

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

- Visual Inspection
- Detailed Inspection
- Thorough Inspection

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's Engineer not later than 45 days prior to the commencement of the month in which maintenance is to be carried out.

10.3 Operations

10.3.1. 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 Carrying out preventive and periodic maintenance of the Project Highway;
- 3 Undertaking routine maintenance including prompt repairs of potholes, cracks, joints, drains, embankments, structures, pavement markings, lighting, road signs and other traffic control devices;
- 4 Undertaking major maintenance such as resurfacing of pavements, repairs to structures,
- 5 Functioning of the lighting system;
- 6 Functioning of the Patrolling System
- 7 Functioning of rescue and medical aid services
- 8 Ambulance as and when required
- 9 Functioning of the Project Facilities
- 10 Administrative, Operational and Maintenance Base Camp
- 11 Truck Parking Lay bays
- 12 Pickup Bus stops / Bus Bays
- 13 protection of the environment and provision of equipment and materials therefore;
- 14 Operation and maintenance of all communication, control and administrative systems necessary for the efficient operation of the Project Highway
- 15 Complying with Safety Requirements in accordance with Article 18.



10.4 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

10.4.1. 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.

10.4.2. 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.

10.4.3. 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.

However, as per Schedule K, 2.3.7 periodic maintenance of BC shall be laid as required and at least 5th or 7th year from Cod.

The details of periodic maintenance schedule are given below.

Table 10.1. Schedule and Status of for Major Maintenance								
S. No.	Major Maintenance	Year	Status at site					
1	1st Periodic Maintenance	2025	Scheduled					

Table 10.1: Schedule and status of for Major Maintenance

-	R	l	J	К	Y
-		-	~	eit)i	100



10.4.4. Special Repairs

The group of activities performed to restore the roadway following damage due to natural calamities such as heavy floods, sandstorms, 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.

10.5 Review of Test Reports

10.5.1. Bump Integrator Values

Maintenance of road is dependent on several factors, one of which is the condition of the pavement surface. Treatment can be suggested based on the condition of surface of road. As such Roughness is the measurement of 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.

The concessionaire shall measure the road roughness at least twice in every year. Accordingly, the BI test was conducted in Aug 2020. As per Schedule K during the maintenance period, laying of the renewal coat shall be initiated if the stretch exceeds 2000mm/Km. The values obtained from the test report are verified and found within the above said limits. Hence no renewal coat is required. Further it is to be noted that Concessionaire shall handover the project with riding quality with acceptable roughness value 2000mm/Km.

10.5.2. 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 Schedule K, BBD tests shall be conducted every year soon after rainy season. Deflection exceeds 1mm, a bituminous overlay shall be provided to bring it back to 0.6mm. DBL has conducted BBD test in Feb 2020 and deflection not exceeded 1mm. Hence overlay is not required.

Also a mandatory strengthening course shall be provided over the period 5th/6th years after COD. Moreover, the deflection assessed by BBD test at the end of the concession period shall not exceed 1mm.



10.5.3. Environmental Quality Monitoring

In Aug 2020, Concessionaire has conducted Ambient air quality test, Noise quality test, Water quality test and soil quality test in accordance with Schedule L. The values are within the permissible limits.

10.6 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 4.**

Year	Routine maintenance (In crores)	Incidental maintenance (In crores)	Periodic / Major maintenance	Operational Expenses	Total cost per year
2020	0.242	0.312		1.11	1.66
2021	0.249	0.322		1.14	1.71
2022	0.256	0.331		1.18	1.77
2023	0.264	0.341		1.21	1.82
2024	0.272	0.351	17.46	1.25	19.33
2025	0.28	0.362	17.94	1.29	19.87
2026	0.288	0.373		1.33	1.99
2027	0.147	0.19		0.68	1.02
Total	2.00	2.58	35.40	9.19	49.17

Table 10.2: Proposed Plan for Future Operation & Maintenance Cost (In Crores)





CHAPTER 11. REVIEW OF CONCESSION AGREEMENT

11.1 General: Scope of Project (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 B and C and in conformity with the Specifications and Standards (Schedule D) and Schedule L;
- operation and maintenance of the Project Highway in accordance with the provisions of this Agreement
- performance and fulfilment of all other obligations of the Concessionaire in accordance with the provisions of this Agreement and matters incidental

11.2 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 5**.

11.3 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

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 A
- 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

11.4 Performance Security (Article 9)

- The Concessionaire shall submit the Performance security to the Authority within 120 days from the date of the Agreement,
- The Performance security shall remain in force throughout the Construction period
- Performance Security shall be released on Commercial Operation Date.

11.5 Tests (Clause 13.3)

For determining that the Project, conforms to the Maintenance Requirements, the Independent Engineer shall require the Concessionaire (Concessionaire shall in turn require the Contractor) to carry out, or cause to be carried out, tests specified by it in accordance with Good Industry Practice. One half of the costs incurred on such tests, and to the extent certified by the Independent Engineer as reasonable, shall be reimbursed by the Authority to the Concessionaire





11.6 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 of CA after determining the tests on completion successful the Independent engineer shall issue the Completion Certificate in the form set forth in Schedule J of CA.

A copy of PCOD enclosed at Annexure-6.

11.7 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.

11.8 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.

11.9 Change of scope (Article 16)

Change of scope proposals that were initiated during construction period and consented by the KRDCL are provided at **Annexure 8**.

11.10 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 and repairs.
- Preventing any unauthorized use of the Project road.
- Protection of environment and provision of equipment and materials

11.11 Maintenance Requirements (Clause 17.2)

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





11.12 Maintenance Manual (Clause 17.3)

No later than 180 (one hundred and eighty days prior to the Scheduled Two Laning 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.

11.13 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.

11.14 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 the 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 decimal one per cent) of the cost of such repair or rectification as estimated by the Independent Engineer.

11.15 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.

11.16 Annuity (Article 27)

The Authority agrees and undertakes to pay the Concessionaire for each annuity Payment period on each annuity payment date as set forth in schedule M of the CA the sum of Rs 17.73 Crores.





11.17 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.

11.18 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 12. INSURANCE

12.1 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 the Insurance is enclosed in **Annexure-7**.

Name of	Insurance	Policy No	Effective	e Period	Description of the	
the Policy	Company		From	То	Property	
Civil Engineerin g Completed Risk	National Insurance Co. Ltd	32130044191000199 9	27.3.2020	26.3.202 1	Toll Plaza Building & Booths, TMS, HTMS, Office & IT Equipment, Road Furniture, Fixtures, Electrical Poles, Lighting & Fittings, Signboard, Safety/concrete/ Protection barrier, gantry various equipment.	
Electronic Equipment Insurance Policy schedule	Oriental Insurance Company Ltd	171200/44/2021/68	7.12.2020	6.12.202 1	EEI Equipment installed in the Project Highway	
Employees Compensat ion Insurance Policy	The New India Assurance Co Ltd	45010036190100000 052	8.2.2020	7.2.2021	All categories of Employees of the Contractor & sub- contractor engaged in the Project	

Table 12.1: Insurance Details





CHAPTER 13. CONCLUSION

13.1 General

Based on the above information over all condition of the Project is provided below.

13.2 Pavement Condition

Pavement condition is Good. No major distress was noticed. In 2020, overlay was laid and riding quality is Good. Drainage system is effective along the project road as the RCC drains constructed in built up locations and earthen drains in rural locations. Shoulder condition is fair.

13.3 Condition of Structures

General condition of Bridges is Good. No major structural defects were noticed and found structurally safe. 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.

13.4 Traffic Growth

Traffic growth observed since PCOD is satisfactory.

13.5 Project Facilities

Toll Plazas are proposed at Km. 8+150 and at Km. 23+800 and tollbooths are constructed and operated. Truck lay byes/Bus bays are in Good condition. Highway lighting is provided at truck laybys and toll plaza locations and found functional.

13.6 Road safety

Pavement marking is in Good condition and number of sign boards are provided as per IRC SP 73-2007. The condition of sign boards is Good but very few sign boards were mis-utilized by the local people, sticking the pamphlets on boards resulting to reduction in visibility. However, signboards are being cleaned by maintenance team to impart the visibility. Other road appurtenances like metal beam crash barriers and kerb are intact.

13.7 Maintenance

A dedicated team is appointed for routine maintenance works and working effectively. Major maintenance (MM) /Periodic maintenance is scheduled in 2024 /2025.

13.8 Epilogue

The project is well designed and constructed as per the stipulated specifications besides maintenance work is being carried out effectively and keeping the road traffic worthy, smooth, safe at all times.





ANNEXURES



Annexure 1: Condition of Pavement

Chainag	e (Km.)	Shou	ulder	Riding	Quality		Paveme	ent Condit	ion			Embank	Road Side	Drain
From	То	Comp osition	Condit ion (G/F/P /VP)	Speed (Km./hr .)	Conditio n (G/F/P /VP)	Cracki ng (%)	Raveling (%)	Pothol ing (%)	Rutti ng	Patchi ng (%)	Pavemen t Edge Drop (cm)	ment Conditio n (G/F/P)	Type (LD/ULD/CD /NO)	Condit ion (PF/F)
0+000	1+500	_	-		P/G							G	LD	F
1+500	2+000	P+E	G		G							G	ULD	F
2+000	3+000	P+E	G		G							G	ULD	F
3+000	4+000	P+E	G		G							G	ULD	F
4+000	5+000	P+E	G		G							G	ULD	F
5+000	6+000	P+E	G		G							G	ULD	F
6+000	7+000	P+E	G		G							G	ULD	F
7+000	8+000	P+E	G		G							G	ULD	F
8+000	9+000	P+E	G		G							G	ULD	F
9+000	10+000	P+E	G		G	4						G	ULD	F
10+000	10+700	Р	G		G	5						G	LD	F
10+700	12+000	P+E	G		G							G	ULD	F
12+000	13+000	P+E	G		G							G	ULD	F



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Chainag	e (Km.)	Shou	ulder	Riding	Quality		Paveme	ent Condit	tion			Embonk	Road Side	Drain
From	То	Comp osition	Condit ion (G/F/P /VP)	Speed (Km./hr .)	Conditio n (G/F/P /VP)	Cracki ng (%)	Raveling (%)	Pothol ing (%)	Rutti ng	Patchi ng (%)	Pavemen t Edge Drop (cm)	ment Conditio n (G/F/P)	Type (LD/ULD/CD /NO)	Condit ion (PF/F)
13+00	14+000	P+E	G		G							G	ULD	F
14+000	15+000	P+E	G		G							G	ULD	F
15+000	16+000	P+E	G		G							G	ULD	F
16+000	17+000	P+E	G		G					6		G	ULD	F
17+000	18+.000	P+E	G		G							G	ULD	F
18+.000	19+000	P+E	G		G							G	ULD	F
19+000	20+000	P+E	G		G							G	ULD	F
20+000	21+000	P+E	G		G							G	ULD	F
21+000	22+000	P+E	G		G							G	ULD	F
22+000	22+900	P+E	G		G							G	ULD	F
22+900	23+700	Р	G		G							G	LD	F
23+700	24+885	-	-		G							G	LD	F
0+000	0+500	-	-		G					7		G	LD	F
0+500	1+000	P+E	G		G							G	ULD	F



Mren **

Chainag	ge (Km.)	Shou	ulder	Riding	Quality		Paveme	ent Condit	ion			Embonk	Road Side	Drain
From	То	Comp osition	Condit ion (G/F/P /VP)	Speed (Km./hr .)	Conditio n (G/F/P /VP)	Cracki ng (%)	Raveling (%)	Pothol ing (%)	Rutti ng	Patchi ng (%)	Pavemen t Edge Drop (cm)	ment Conditio n (G/F/P)	Type (LD/ULD/CD /NO)	Condit ion (PF/F)
1+000	2+000	P+E	G		G							G	ULD	F
2+000	3+000	P+E	G		G							G	ULD	F
3+000	4+000	P+E	G		G							G	ULD	F
4+000	5+000	P+E	G		G							G	ULD	F
5+000	6+000	P+E	G		G							G	ULD	F
6+000	7+200	P+E	G		G							G	ULD	F
7+200	8+000	Р	G		G							G	LD	F
8+000	9+000	P+E	G		G							G	ULD	F
9+000	10+000	P+E	G		G							G	ULD	F
10+000	11+300	P+E	G		G							G	ULD	F
11+300	11+900	Р	G		G							G	LD	F
11+900	12+900	P+E	G		G							G	ULD	F
12+900	13+800	P+E	G		G							G	ULD	F
13+800	14+200	Р	G		G							G	LD	F



Mrem **

Chainag	e (Km.)	Shou	ulder	Riding	Quality		Paveme	ent Condit	tion			Embank	Road Side	Drain
From	То	Comp osition	Condit ion (G/F/P /VP)	Speed (Km./hr .)	Conditio n (G/F/P /VP)	Cracki ng (%)	Raveling (%)	Pothol ing (%)	Rutti ng	Patchi ng (%)	Pavemen t Edge Drop (cm)	ment Conditio n (G/F/P)	Type (LD/ULD/CD /NO)	Condit ion (PF/F)
14+200	15+000	P+E	G		G							G	ULD	F
15+000	16+000	P+E	G		G							G	ULD	F
16+000	17+000	P+E	G		G							G	ULD	F
17+000	18+000	P+E	G		G							G	ULD	F
18+000	19+000	P+E	G		G							G	ULD	F
19+000	19+600	P+E	G		G							G	ULD	F
19+600	20+200	Р	G		G							G	LD	F
20+200	21+000	P+E	G		G							G	ULD	F
21+000	22+000	P+E	G		G							G	ULD	F
22+000	23+000	P+E	G		G							G	ULD	F
23+000	24+000	P+E	G		G							G	ULD	F
24+000	25+100	P+E	G		G							G	ULD	F
25+100	26+321	Р	G		G							G	LD	F

Condition: G=Good, F=Fair, P=Poor & VP=Very poor, Rutting: M=Moderate & S=Severe

Drain: LD=Lined open Drain, ULD=Unlined Drain, CD=Covered Drain, NO=No drain, PF=Partial Function, F= Functional





Annexure 2: Condition of Bridges

S. No.	Chainage (Km.)	Type of Structure	Substructure Super structure		Crash barrier	Expansion Joint	Approach slabs	Drainage spouts	Wearing coat	Toe wall
				Mundargi	-Hadagali					
1	0+68	Minor	Good	Good	Good	-	Good	_	_	Good
2	3+324	Minor	Good	Good	Good	Good	Good	Good	Good	Good
3	9+275	Minor	Good	Good	Good	Good	Fair	-	Good	Good
4	11+705	Major	Good	Good	Good	-	Good	-	Good	Good
5	20+688	Minor	Good	Good	Good	Good	Fair	-	-	Good
6	21+844	Minor	Good	Good	Good	-	-	-	Good	Good
			Но	ovina Hadagali	i - Harapanahal	li				
7	0+351	Minor	Good	Good	Good	Good	-	Good	Good	Good
8	6+906	Minor	Good	Good	Good	-	Good	-	Good	Good
9	7+289	Minor	Good	Good	Good	Good	Good	Good	Good	Good
10	10+278	Minor	Good	Good	Good	Good	Fair	-	Good	Good
11	11+237	Minor	Good	Good	Good	-	Good	-	Good	Good
12	16+781	Minor	Good	Good	Good	Good	Good	-	Good	Good





TECHNICAL DUE DILIGENCE REPORT

	Pipe Culverts											
S. No.	Chainage (Km.)	Hume Pipe	Head wall	Quadrant pitching	Toe wall							
	-	Munda	rgi -Hadagali									
1	0+044	Pipe	Good	Fair	Good							
2	1+696	Pipe	Good	Fair	Good							
3	1+860	Pipe	Good	Fair	Good							
4	2+203	Pipe	Good	Fair	Good							
5	2+289	Pipe	Good	Fair	Good							
6	2+727	Pipe	Good	Fair	Good							
7	3+480	Pipe	Good	Fair	Good							
8	3+636	Pipe	Good	Fair	Good							
9	3+962	Pipe	Good	Fair	Good							
10	4+513	Pipe	Good	Fair	Good							
11	4+854	Pipe	Good	Fair	Good							
12	6+962	Pipe	Good	Fair	Good							
13	7+941	Pipe	Good	Fair	Good							
14	8+640	Pipe	Good	Fair	Good							
15	10+453	Pipe	Good	Fair	Good							
16	11+069	Pipe	Good	Fair	Good							
17	12+484	Pipe	Good	Fair	Good							
18	14+512	Pipe	Good	Fair	Good							
19	14+947	Pipe	Good	Fair	Good							
20	15+339	Pipe	Good	Fair	Good							
21	15+422	Pipe	Good	Fair	Good							
22	15+703	Pipe	Good	Fair	Good							
23	16+410	Pipe	Good	Fair	Good							

Annexure 3: Condition of Culverts

TECHNICAL DUE DILIGENCE REPORT

S. No.	Chainage (Km.)	Hume Pipe	Head wall	Quadrant pitching	Toe wall
24	16+710	Pipe	Good	Fair	Good
25	18+000	Pipe	Good	Fair	Good
26	18+426	Pipe	Good	Fair	Good
27	18+969	Pipe	Good	Fair	Good
28	19+425	Pipe	Good	Fair	Good
29	20+083	Pipe	Good	Fair	Good
30	20+459	Pipe	Good	Fair	Good
31	21+575	Pipe	Good	Fair	Good
32	24+415	Pipe	Good	Fair	Good
	Нос	ovina Hada	gali - Harapan	ahalli	
33	2+219	Pipe	Good	Fair	Good
34	2+677	Pipe	Good	Fair	Good
35	2+963	Pipe	Good	Fair	Good
36	4+341	Pipe	Good	Fair	Good
37	5+038	Pipe	Good	Fair	Good
38	5+203	Pipe	Good	Fair	Good
39	5+345	Pipe	Good	Fair	Good
40	5+588	Pipe	Good	Fair	Good
41	6+010	Pipe	Good	Fair	Good
42	6+441	Pipe	Good	Fair	Good
43	6+923	Pipe	Good	Fair	Good
44	8+320	Pipe	Good	Fair	Good
45	9+172	Pipe	Good	Fair	Good
46	10+646	Pipe	Good	Fair	Good
47	12+510	Pipe	Good	Fair	Good
48	13+158	Pipe	Good	Fair	Good

TECHNICAL DUE DILIGENCE REPORT

S. No.	Chainage (Km.)	Hume Pipe	Head wall	Quadrant pitching	Toe wall
49	13+874	Pipe	Good	Fair	Good
50	14+100	Pipe	Good	Fair	Good
51	14+285	Pipe	Good	Fair	Good
52	14+732	Pipe	Good	Fair	Good
53	15+185	Pipe	Good	Fair	Good
54	16+069	Pipe	Good	Fair	Good
55	17+960	Pipe	Good	Fair	Good
56	18+714	Pipe	Good	Fair	Good
57	19+473	Pipe	Good	Fair	Good
58	20+329	Pipe	Good	Fair	Good
59	20+787	Pipe	Good	Fair	Good
60	22+906	Pipe	Good	Fair	Good
61	23+283	Pipe	Good	Fair	Good
62	23+500	Pipe	Good	Fair	Good
63	24+182	Pipe	Good	Fair	Good
64	24+424	Pipe	Good	Fair	Good
65	26+099	Pipe	Good	Fair	Good

Box/Slab Culverts

S. No.	Chainage (Km.)	Box / Slab	Return wall	Quadrant pitching	Toe wall	Parapet wall
		Munda	argi -Hada	gali		
1	0+250	Box	Good	Fair	Good	Good
2	1+189	Box	Good	Fair	Good	Good
3	5+720	Box	Good	Fair	Good	Good
4	13+734	Box	Good	Fair	Good	Good
5	17+665	Box	Good	Fair	Good	Good
6	19+881	Slab	Good	Fair	Good	Good

Project: Design, Build, Finance, operate and Maintain and Transfer (DBFOMT) of Mundargi-Hadagali-Harapanahalli in the state of Karnataka on DBFOMT Hybird Annuity Basis



TECHNICAL DUE DILIGENCE REPORT

S. No.	Chainage (Km.)	Box / Slab	Return wall	Quadrant pitching	Toe wall	Parapet wall
7	21+319	Slab	Good	Fair	Good	Good
	Hoov	ina Hada	agali - Har	apanahalli		
8	1+760	Slab	Good	Fair	Good	Good
9	3+248	Box	Good	Fair	Good	Good
10	3+921	Box	Good	Fair	Good	Good
11	4+053	Box	Good	Fair	Good	Good
12	4+629	Box	Good	Fair	Good	Good
13	4+901	Box	Good	Fair	Good	Good
14	7+453	Box	Good	Fair	Good	Good
15	10+866	Box	Good	Fair	Good	Good
16	11+209	Box	Good	Fair	Good	Good
17	11+867	Box	Good	Fair	Good	Good
18	25+462	Box	Good	Fair	Good	Good
19	25+846	Box	Good	Fair	Good	Good



Annexure 4: O&M Cost

S No.	Item		Unit	No	Frequency per year	Quantity	Rate	Amount	Remarks
1	General Cleaning in Carriageway & Shoulders Rural area	Monthly	Kms.	51.21	12	4	350	8,60,328	04 nos of Labour
2	General Cleaning in Carriageway & Shoulders Urban area	Twice in a month	Kms.	3.19	24	4	350	1,07,184	04 nos of Labour
3	Watering in Median Plants	Once in Week	Kms.	3.19	52	1	1939	3,21,641	01 nos of Labour
4	Watering in Avenue plants	Once in Week	Kms.	0	52	0	1939	-	
5	Median Maintenance (Grass cutting and plant trimming)	Once in Month	Kms.	3.19	12	0	21000	-	02 nos of Labour - 2 x 350 = 700 x 30 = 2,52,000
6	ROW Cleaning	Half yearly	Kms.	25.605	2	5	350	89,618	5 Nos of labour per KM. (50% of the Project length)
7	Cleaning of Culverts	Half yearly	Nos.	84	2	2	650	2,18,400	3 nos of Labour along with JCB or Excavator
8	Road Furniture Cleaning	Quarterly	Kms.	51.21	4	2	350	1,43,388	02 nos of Labour
9	Maintenance of Bus	Monthly	Nos.	9	6	2	350	37,800	2 nos/ Bus shelter/month



S No.	Item		Unit	No	Frequency per year	Quantity	Rate	Amount	Remarks
	shelters								
10	General Cleaning in Building & Facilities	Daily	Nos.	2.00	6	60	350	2,52,000	02 nos of Labour for 30 days
11	Bridges	Half yearly	Nos.	11	2	2	350	15,400	02 nos of Labour for removal of vegetation/Structure
								20,45,759	
	EQUIPMENT SUPPLY							-	
1	TRUCK TIPPER 6-8 CUM CAPACITY	Monthly	Nos.	1	12	1	10000	10,000	Considered Rs 10,000/- per vehice including maintenance
2	Water Tanker Cap 12 KL for Median	Monthly	Nos.	0.0	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.	0.0	12	0	12000	-	(12000/year)
6	Manhoise/ Skyscrapper	Monthly	Nos.		12		400000	-	(2000000 is the cost of vehicle, considering 20% Rental per year)



S No.	ltem		Unit	No	Frequency per year	Quantity	Rate	Amount	Remarks
									including maintenance
7	Bikes	Monthly	Nos.	0.0	12	0	2500	-	Per Supervisor/Per Month
8	Building Maintenance	Yearly			12	2	5000	1,20,000	5000/month
9	Toll plaza AMC	Yearly	Nos.		12	2	5000	1,20,000	5000/month
								2,50,000	
1	Patrolling vehicle	Monthly	Nos.	12	1	1	10000	10000	Considered Rs 10,000/- per vehice including maintenance
2	Ambulance	Monthly	Nos.	12		1	10000	10000	Considered Rs 10,000/- per vehice including maintenance
3	Tow away trucks and Crane	Monthly	Nos.	12		1	40000	40000	Considered Rs 40,000/- per vehice including maintenance
4	Consumables for Medical Aid Post and Ambulance	Monthly	Nos.	12		1	2500	30000	2500 Per month for per set (Per set - Per toll plaza)
5	Consumables for Route Patrolling & Crane	Monthly	Nos.	12		1	2500	30000	2500 Per month for per set (Per set - Per toll plaza)
								1,20,000	
				Routine r	maintenance	cost		24,15,759.00	



S. No.	Item		Unit	No	Frequency	Quantity	Rate	Amount	Remarks
1	Road marking	Half yearly	Sqm.	1	1	3943	516	20,34,588	33 % of Total Project length on B/S for 1 year
2	Carriageway Maintenance (Pot Holes etc)	Yearly	Sqm.	1	1	1024	168	1,72,032	5% of Flexible Pavement
3	Maintenance of Earthen Shoulder	Half yearly	Cum.	1	3	768.15	225	5,18,501	5% of total Shoulder length throughout the project
4	Sign Board	Quarterly	Kms.	1	1	25	4000	1,00,000	5 % of Total sign boards per half year (considerd 500 nos)
5	МВСВ	Monthly	RMT			75	2400	1,80,000	5% of Total qty per year - (considered 2400 per number)
6	Mile Stone (Km. Stone/ HM Stone / ROW stone etc.)	Quarterly	Nos.	51.21	4	13	2250	1,17,000	5 % of total stones per year (unable to understand the backup)
7	ROW Fencing (If available)	Quarterly	Kms.		4			-	10 % of total ROW fencing per year
8	Kerb	Yearly	Kms.	0	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	Yearly	Ls.	1	1	0.00	4000	-	Considered 1% of the total

Incidental Cost



S. No.	Item		Unit	No	Frequency	Quantity	Rate	Amount	Remarks
	Panels								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 Technical Specifications and as directed by the Engineer.	Yearly	Rmt.	0		0.00	3985	-	3% of Length replacement in every 5 years (Quantity to be estimated)
	Total amount for 1 Year							31,22,121	

Operational Expenses

S.no.	Particulars	Amount
1	Man Power	₹ 82,20,000
2	Fuel for Generator & Vehicles	₹ 17,88,000
3	Electricity	₹ 9,90,000
4	Stationary	₹ 10,000
5	Replacement of Electrical Fixtures	₹ 22,813
6	Refurbishment of Toll Plaza Equipment	₹ 75,000
	Total Amount	₹ 1,11,05,813

Major Maintenance Summary

Description Due date Base cost Esc Period Escalation Rate per Year Cost of MIMR on due date @ 3% In creation
--



Date of Estimation	30-01-2021					
Major Maintenance - Highway	01-04-2024	15,93,24,552	3.20	3.0%	17,46,19,709	17.46
Major Maintenance - Highway	01-04-2025	15,93,24,552	4.20	3.0%	17,93,99,446	17.94
				Total	₹ 35,40,19,155	35.40

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	5,12,100.00	14.00	71,69,400	5,12,100.00	14.00	71,69,400
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 Tyre Rollers to achieve the desired compaction as per Technical specification clause No. 507 and mix design conforming the IRC -111 and IRC 37.	Cum	20,484.00	7,480.00	15,32,20,320	20,484.00	7,480.00	15,32,20,320
3	Providing and laying bituminous concrete using a batch type Hot Mix Plant using crushed aggregates	Cum	20,484.00	6,800.00	13,92,91,200	20,484.00	6,800.00	13,92,91,200



S. No.	DESCRIPTION	Unit	QUANTITY	RATE	AMOUNT	QUANTITY	RATE	AMOUNT
	of size							
4	Micro surfacing	Sqm	-	160.00		-	160.00	
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 (considereing 50% for 7 years)	Sqm	-	130.00		-	130.00	
	Total				29,96,80,920			29,96,80,920
	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	11,949.00	516.00	61,65,684	11,949.00	516.00	61,65,684
3	Road Studs	Nos	17,070.00	750.00	1,28,02,500	17,070.00	750.00	1,28,02,500



S. No.	DESCRIPTION	Unit	QUANTITY	RATE	AMOUNT	QUANTITY	RATE	AMOUNT
4	Kerb painting		-	250.00		-	250.00	
	Total			-	1,89,68,184		-	1,89,68,184
	Grand Total				31,86,49,104			31,86,49,104



Annexure 5: Letter of Award



KARNATAKA ROAD DEVELOPMENT CORPORATION LTD.

KRDCL/WCP6/ LOA /2015-16 - 1910 To M/s Dilip Buildcon Limited. Date: 11-09-2015

M/s Dilip Buildcon Limited, Plot No. 5, Inside Govind Narayan Singh Gate, Chuna Bhatti, Kolar Road, Bhopal (M.P.) - 462 016

Kind Attn: MrDilipSuryavanshi Email: db@dilipbuildcon.co.in

LETTER OF AWARD

Sir,

Sub: "Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) of Existing State Highway Mundargi - Hadagali – Harapanahalli in the State of Karnataka on DBFOMT Annuity Basis (WCP6)"- Letter of Award (LoA)

Ref.: (i) RFP issued on 10thApril 2015

(ii) Your bid submitted on June17th, 2015

This is to notify that your bid submitted for the captioned project (the "Project") for a semiannual annuity quote of Rs17,73,00,000 (Rupees Seventeen Crore and Seventy Three Lakh only) is hereby accepted by the Government of Karnataka by declaring you as the "Selected Bidder". The concession period is 10 (ten) years including construction period of 24 (twenty four) months.

- 1. The semi-annual annuity quoted by you shall be disbursed in accordance with the provisions of Draft Concession Agreement (DCA).
- 2. Lumpsum Payment of Rs 64,65,20,000 (Rupees Sixty Four Crore, Sixty Five Lakh and Twenty Thousand) shall be disbursed in accordance with the provisions of Draft Concession Agreement (DCA) in four equal instalments.
- 3. In accordance with the clause 3.3.2 of the Project RFP Document, you are hereby requested to confirm your acceptance of this Letter of Award within 7 days of its receipt by signing and returning the duplicate copy of the LOA in acknowledgement thereof. Thereafter, pursuant to clause 1.3 of the Project RFP Document, you are required to execute the Concession Agreement within 45 days from the issue of LoA.
- 4. You shall promote and incorporate the Concessionaire as a limited liability company under the Companies Act 1956/2013 as applicable, as the entity which shall undertake and perform the obligations and exercise rights of the Bidder under the LoA, including the obligation to enter into the Concession Agreement pursuant to the LoA for executing the Project.



- 5. The Concessionaire shall, for the performance of its obligations hereunder during the Concession Period, provide to the Authority no later than 120 (one hundred and twenty) days from the date of the Agreement, an irrevocable and unconditional guarantee from a Bank for a sum equivalent of Rs10.26 Crore (Rupees Ten Crore and Twenty Six Lakh) in the form set forth in Schedule F (the "Performance Security").
- 6. In case of Default on your part, action as per relevant conditions of Bid Document shall be taken.

Please acknowledge the receipt.

Encl: LoA (in Duplicate)

Yours faithfully.

Managing Director, KRDCL

Copy submitted to:

- 1. Chief Secretary to the Government of Karnataka
- Principal Secretary, Public Works, Ports & Inland Water Transport Department, Government of Karnataka
- 3. Principal Secretary, Finance Department, Government of Karnataka
- 4. Principal Secretary, Infrastructure Development Department, Government of Karnataka
- 5. Principal Secretary, Forest, Ecology & Environment Department, Government of Karnataka
- 6. Principal Secretary, Revenue Department, Government of Karnataka
- 7. Director, PPP Cell, Department of Economic Affairs, Government of Karnataka
- 8. Collector & District Magistrate, Gadag District, Gadag
- 9. Collector & District Magistrate, Bellary District, Bellary
- 10. Collector & District Magistrate, Davanagere District, Davanagere
- 11. Executive Engineer, KRDCL Project Office, Hubli
- 12. Principal Accountant General in Karnataka (Accounts), AG's office, New Building, Bangalore 560001
- 13. Executive Director, PricewaterhouseCoopers



Annexure 6: Provisional Certificate

No: CEG-BNG/IE/MHH/WCP-6/RA/03/2017-18/

To Managing Director M/s DBL Mundarg-Harappanahalli Tollways Limited Plot 5, Inside Govind Narayan singh Gate ChunaBhatti, Kolar Road Bhopal -462026 Madhya Pradesh



CONSULTING ENGINEERS GROUP LTD An ISO 9001:2000 Company Bangalore Office House No. 98-A, "Brahammagin" 1st Block, 4th_Cross, HT Line, KRS Gowda Extension, HMT Layout, Nagasandra Post, Bangalore-560073, KARNATAKA, Phone: 080-28379118.

Date: 31th March 2018

Sub: Independent Engineer for WCP-6: Design, Build, Finance, Maintain and Transfer (DBFOMT) OF Existing State Highway Mundargi-Hadagali-Harapanahalli in the State of Karnataka of DBFOMT Annuity Basis; Issue of Provisonal Certificate

Ref: 1) Concessionaire letter No DMHTL/IE-CEG /WCP-06/2016-17/466A dt 20/11/2017

- 2) IE's letter no. CEG/RO-BNG/KRDCL/WCP-6/PCOD/01/2016-17 date 05/01/18
- 3) KRDCL letter No KRDCL/Co-Finace/WCP-06/2017-18 Dated 27/03/2018

Sir,

The Concessionair's letter vide under ref (1) wherein requested for issue of Provisional Certificate completion as per clause 14.3 of the article 14 for a length of 45.430 km. Accordingly, IE's letter vide under ref (2) has recommended to KRDCL to declare the project Highway can be provisionally fit to entry into commercial operation commenceing from 5^{th} Feb 2018.

In pursuance of KRDCL vide its letter under ref (3) has given its consent for issuance of Provisional Certificate Accordinly, as per the Schedule -J of the agreement the necessary Provisional Certificate is hereby notified.

Thanking You

Yours Sincerely (B.T.Jwalendra Kumar) Independent Engineer



A) Managing Director KRDLC Thimmaiah Road Cross, Vasanathanagar Bangalore-52 for kind Infromation

-) Col Sanjay Bajpai Head (Coordination) HQ
- b) Executive Engineer, KRDCL Project Office -Hospet for Information
- 4) Team Leader CEG-Mundargi for information

Head Office: CEG Tower. B-11 (G), Malviya Industrial Area, Jaipur - 302017 (Rajasthan) INDIA Tel: 0141-275801/802/803 Fax: 275806.
TECHNICAL DUE DILIGENCE REPORT



CONSULTING ENGINEERS GROUP LTD An ISO 9001:2000 Company Bangalore Office House No. 98-A, "Brahammagiri" 1st Block, 4th Cross, HT Line, KRS Gowda Extension, HMT Layout, Nagasandra Post, Bangalore-560073. KARNATAKA, Phone: 080-28379118. Cine and an extension and an extension of the construction of the construction CIN: U74140RJ1991PLC006329

Dated 31 / 03 / 2018

No/CEG/RO-BNG/KRDCL/WCP/PCOD/02/2017-18/

PROVISIONAL CERTIFICATE

- 1. I, **B.T. Jwalendra Kumar**, acting as Independent Engineer, under and in accordance with the Concession Agreement dated 29.09.2016 on Design, Build, Finance, Operate and Maintain and Transfer (DBFOMT) the **Mundargi –Hadagali-Harapanahalli** in the state of Karnataka on DBFOMT Annuity Basis ,through DBL Mundargi Harapanahalli Tollways Limited ,hereby certify that the tests specified in Article 14 and Schedule-I of the Agreement have been undertaken to determine compliance of the Project Highway with Provisions of the Agreement.
- 2. Construction works that were found to be incomplete and/ or deficient have been specified in the punch list appended hereto, and the Concessionaire has agreed and accepted that it shall complete and/ or rectify all such works in the time and manner set forth in the Agreement. Some of the incomplete works have been delayed as a result of reasons attributable to the Authority or due to Force Majeure and the Provisional Certificate cannot be withheld on this account. Though the remaining incomplete works have been delayed as a result of reasons attributable to the nature and extent of such incomplete works, it would not be prudent to withhold commercial operation of the Project Highway, pending completion thereof.
- 3. In view of the foregoing, I am satisfied that the Project Highway can be safely and reliably placed in commercial service of the Users thereof, and in terms of the agreement, the Project Highway is hereby provisionally declared fit for entry into commercial operation on this the 5th day of February 2018.

Signed Sealed and Delivered For and on behalf of Concessionaire by: (Signature) Mamage Designation Address

Signed Sealed and Delivered For and on behalf of Independent Engineer by:

.. (Signature)

B.T.Jwalendra Kumar (Name) Independent Engineer (Designation)

Head Office: CEG Tower. B-11 (G), Malviya Industrial Area, Jaipur - 302017 (Rajasthan) INDIA Tel: 0141-275801/802/803 Fax: 275806.



From:	"Mundargi - CEG " <mundargi@cegindia.com></mundargi@cegindia.com>				
To:	<db@dilipbuildcon.co.in>, "'SAJILAL'" <rsajilal@dbl.co.in></rsajilal@dbl.co.in></db@dilipbuildcon.co.in>				
Cc:	"'Managing Director'" <mdkrdcl@gmail.com>, "'Sanjay Bajpai - CEG'" <bajpaisanjay@cegindia.com>, "'ravindra nath'" <eekrdclhospet@gmail.com>, <tlmundargi@cegindia.com>, <bt.jwalendra@cegindia.com></bt.jwalendra@cegindia.com></tlmundargi@cegindia.com></eekrdclhospet@gmail.com></bajpaisanjay@cegindia.com></mdkrdcl@gmail.com>				
Date:	Tuesday, April 03, 2018 10:00AM				
Subject:	Issue of Provisional Certificate				

Dear Sir,

Please find attached here with Issue of Provisional Certificate

Thanks & Regards Mundargi Office WCP-06

Attachments:

CEG 03 (Issue of Provisional Certificate.pdf

https://mail.notes.na.collabserv.com/livemail/0/04573CFF68C00011694F7BA31723A32C/?OpenDocument&Form=h_PrintUl&ui=classic&sq=1





Annexure 7: Completion Certificate

NO/CEG /RO-BNG/ KRDCL/ WCP-6/PCOD/01/201 To, The Managing Director Karnataka Road Development Corporation Limited 1st Floor,#16/J, Thimmaiah Road Cross, Miller Tank bed Area Vasanthanagar Bangalore-560052



CONSULTING ENGINEERS GROUP LTD An ISO 9001:2000 Company Bengalore Office House No. 98-A, 'Brahammagri' 1st Block, 4th Cross, HT Line, KRS Gowda Extension, HMT Layout, Nagasandra Post, Bangalore-560073, KARINATAKA, Phone: 080-28379118.

CIN: U74140RJ1991PLC006329

Date: - 23rd February 2018

Sub:Independent Engineer for WCP-6: Design, Build, Finance, Maintain and Transfer (DBFOMT) Of Existing State Highway Mundargi- Hadagali-Harapanahalli in the State of Karnataka on DBFOMT Annuity Basis - <u>Issuance of Provisional Certificate of</u> <u>Completion as per Clause 14.3 of Article 14 for 45.430 km</u>

Ref:-

- 1. Concessionaire Letter No: DMHTL/MD-KRDCL/WCP-06/2016-17/466A dt 20.11.2017
- 2. IE Letter No: CEG/Mund/WCP-06/Misc/2016-17/542dt:16.12.2017
- 3. Concessionaire Letter No: DMHTL/IE-CEG/WCP-06/2016- 17/522dt: 05.01.2018
- 4. KRDCL Letter No. KRDCL/co finance/WCP-6/1722 dt:-06.10.2016

Sir,

The KRDCL has taken up Design, Build, Finance. Operate, Maintenance and Transfer (DBFOMT) of State Highway Mundargi-Hadagali-Harapanahalli on DBFOMT (Hybrid Annuity) basis.

The project road extends in two state highway viz., SH-45Link -27C which starts on SH-45 from Mundargi (Hesarur Junction) and ends at HoovinaHadagali(24.885 km) and SH-47, Link 27D which starts from HoovinaHadagali and ends at Harapanahalli at Tahsildar Office on SH-25(26.321 km).

SH	Details	From	To	Length in m
SH-45	Link 27C Mundargi – Hadagali	0+000	24+885	24,885
SH-47	Link 27D Hadagali – Harapanahalli	0+000	26+321	26,321
	Total			51,206

The cursory details of the contract WCP-6 is as below:

Contract no.	WCP-6
Contract name	Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) of Mundaragi – Harapanahalli road in the State of Karnataka on DBFOMT Hybrid Annuity Basis
Length	51.206km
Estimated Construction cost	Rs 164.13 crore
Estimated Project cost	Rs 205.13crore
Lumpsum payment to be paid in 4 equal instalments during the Construction period	Rs 64.652crore (each @ Rs 16.163 crore)
Total Annuity Amount (16 nos. during Annuity payment period)	Rs 283.68 crore (each Rs 17.73 crore)
	6

lead Office: CEG Tower. B-11 (G), Malviya Industrial Area, Jaipur - 302017 (Rajasthan) INDIA Tel: 0141-275801/802/803 Fax: 275806.

1/6

Concessionaire	DBL Mundaragi - Harapanahalli Tollways Ltd.
Independent Engineer	M/s Consulting Engineers Group Ltd.
Date of signing of Concession Agreement	16.06.2015
Concession period	10 yrs including 2 yrs construction period
Date of signing of Supplementary Agreement	29.09.2016
Appointed date	29 09 2016
Scheduled 2-Laning Standard Date	28.09.2018

Pursuant to clause 14.3 of Article 14 of the Concessionaire Agreement, the Concessionaire has notified the Authority vide letter in ref (3) dated 5th Jan 2018 that they have completed 45.43 km of the project length which is 88.72% of total project length of 51.206 Kms and have requested for the issuance of Provisional Certificate of Completion as per the provisions of the Concession Agreement clause 14.3.

Sections of the road notified by the Concessionaire for issuance of Provisional Certificate of Completion are as under:

Link	SI.No	From	То	Side	Length	Remarks
		Link 27C "Fr	om Km.00+000	to Km.24+8	85"	
	1	01+230	08+000	BHS	6670	
	2	08+300	09+120	BHS	820	
	3	09+370	10+100	BHS	730	
	4	10+600	13+970	BHS	3370	
	5	14+210	14+590	BHS	380	1
Link-27C	6	14+710	16+530	BHS	1820	
	7	16+915	17+950	BHS	1035	
	8	18+330	23+180	BHS	4850	
	9	24+000	24+300	BHS	300	
	10	24+450	24+885	BHS	435	
		Link 27D "Fr	om Km.00+000	to Km.26+.	321"	<u>.</u>
	11	00+000	00+280	BHS	280	
Link-27D	12	00+330	13+900	BHS	13570	
	13	14+040	19+880	BHS	5840	
	14	19+950	23+690	BHS	3740	
	15	23+710	23+800	BHS	90	
	16	24+100	25+500	BHS	1400	
		TOTAL			45.430	K.M

In this connection, the following points are brought for the kind perusal:

1. Status of handing over of site:

The site handing over schedule as per the Schedule G of the Concession Agreement signed on 16.06.2015 and subsequently modified in the First Supplementary Agreement signed on 29.09.2016 with the approval of World Bank are as below;

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Schedule G of the Concession Agreement signed on 16.06.2015			Modified clause of Schedule G as in t First Supplementary Agreement sign on 29.09.2016		
Stretch	Site	Handing Over	Stretch	Site	Handin g Over
The stretches in possession of the Authority and is free from land acquisition and encumbrances.	The Authority shall give the Concessionaire a minimum 80% of area of the site, free from land acquisition and encumbrances.	On or before the Appointed Date	The stretches in possession of the Authority and is free from land acquisition and encumbrances	The Authority shall give the Concessionair e a minimum 80% of the site free from land acquisition and encumbrances	On or before the Appoint ed Date
Balance stretches/location s where land acquisition / encumbrance clearance is involved.	The Authority shall give the Concessionaire the balance site, free from land acquisition and encumbrances.	Within 6 months of the Appointed Date.	Balance stretches/locati ons where land acquisition / encumbrance clearance is involved	The Authority shall hand over to the Concessionair e the balance site, free from land acquisition and encumbrances	Within 8 months of the Appoin ted Date

The site handed over to Concessionaire as on Appointed Date and due date of balance site handing over are as below:

Site Handing over details	% site
Handing over of site free from land acquisition and encumbrances on Appointed Date.	83.33%
Handing over of site free from land acquisition and encumbrances within 8 months from Appointed Date	5.39%
Total length handed over before the due date of 8 months from appointed date i.e., 28.05.2017	88.72%
Handing over of site free from land acquisition and encumbrances after 8 months from Appointed Date till now	3.33%
Total site handed over till date	92.05%
Balance site to be handed over as on date	7.95%

The 88.72 % of area mentioned above comprises a length of 45.43 Km covering the main carriage way, shoulders and cross drainage structures. Land acquisition and R & R was involved for constructing RCC drain in some town limits, toll plazas, Bus bays and major junctions. The concessionaire has substantially completed 45.43 Km of project highway out of 51.206 km except few minor items as detailed in the punch list-1 (refer Annexure I) which are pending mainly due to land acquisition, utility shifting and adjacent land owners obstructions. Balance length of 5.776 km is being handed over progressively as and when land acquisition process completes.



2. Issue of Provisional completion certificate.

The relevant clause of the Concession Agreement including amendments made with concurrence of World Bank with regard to issue of Provisional Completion Certificate is as below:

- 10.3.5 The Concessionaire shall complete the construction on the land included in the Appendix for which the Right of Way has been granted within 8 months of the Appointed Date, before Project Completion Date. However, construction on the lands for which Right of Way is granted after the period of 8 months from the Appointed Date shall be completed within a reasonable period to be determined by the Independent Engineer in accordance with Good Industry Practice; provided that the issue of Provisional Certificate shall not be affected or delayed due to any construction remaining incomplete on the date of Tests, on account of Right of Way not having been granted over such part of the Site. It is further agreed that the obligation of the Concessionaire to complete the affected Construction Works shall subsist so long as the Authority continues to pay the Damages specified herein, and upon the Authority ceasing to pay such Damages after giving 60 (sixty) days' notice thereof to the Concessionaire, the obligation of the Concessionaire to complete Site of Way is granted after 8 months of the Authority case for the Right of Way is granted after 8 months of the Appointed Date, shall cease forthwith.
- 14.3 The Independent Engineer may, at the request of the Concessionaire and with the concurrence of the Authority in writing, issue a provisional certificate of completion substantially in the form set forth in Schedule-J (the "Provisional Certificate") if the Tests are successful and the Project Highway can be safely and reliably placed in commercial operation though certain works or things forming part thereof are outstanding and not yet complete. In such an event, the Provisional Certificate shall have appended thereto a list of outstanding items signed jointly by the Independent Engineer and the Concessionaire (the "Punch List"); provided that the Independent Engineer shall not withhold the Provisional Certificate for reason of any work remaining incomplete if the delay in completion thereof is attributable to the Authority.

In terms of provision of Concession Agreement, the Concessionaire has completed a length of 45.43 kms which is handed over prior to due date which is 8 months from the appointed date i.e., 29.09.2016 to qualify for the issue of Provisional Completion Certificate with minor outstanding works not attributable to concessionaire as detailed in the **punch list-1**, *Annexure I*

3. Balance site which is not handed over on or before 8 months from appointed date: The balance works in the site which is being handed over after 8 months from the appointed date has been listed in the punch list -2, Annexure II (Balance works). Punch list items also cover the incomplete affected works pertaining to Provisional Completion Certificate stretches such as bus-bays, Junction improvements etc As per the provision of Concession Agreement the balance works as listed in Annexure-IV shall be completed after the site is handed over by the Concessionaire within a reasonable period to be determined by the Independent Engineer in accordance with Good Industry Practice. Authority has handed



over 3.33% of site i.e., 1.69 km progressively after 8 months from the Appointed Date. The works in this reach are under progress.

4. Tests as per Schedule:

Prior to declaration of Provisional Completion, All tests to be undertaken on the project highway or part as per Concession Agreement clause 14.1.2 and Schedule-1. Accordingly the IE and Concessionaire have carried out all the tests in the sections notified by the Concessionaire and monitored and reviewed the results of the Tests and ensured necessary compliance. (Details enclosed as *Annexure-III*)

5. Quality Assurance:

The part of Project Highway notified by Concessionaire has been constructed as specified in Schedule B and C and in conformity with the Specification and Standards set forth in Schedule -D of the Concession Agreement. The RFIs raised by the Concessionaire on daily basis for the material and construction activities have been verified by the IE.

6. Status of Compliance by the Concessionaire to the Non-Compliance Reports (NCRs):

During the execution of works, several NCRs were issued by the Independent Engineer to the Concessionaire. All lapses, defects or deficiencies observed by the Independent Engineer in the construction of the Project Highway are rectified and all NCRs issued are closed in accordance with the provision of the Concession Agreement, which have been complied.

7. Operation and Maintenance Manual:

In accordance with clause 17.3 of the CA, the Concessionaire has submitted to the Independent Engineer, the "Maintenance Manual" for the regular and preventive maintenance measures of the Project Highway in conformity with the Maintenance Requirements, Safety Requirements and Good Industry Practice. The IE has reviewed the manual and concurred.

8. Environmental Audit Report:

The Independent Engineer has carried out a check and determined conformity of the Project Highway with the environmental requirements set forth in Applicable Laws and Applicable Permits

9. Safety Audit Report:

Safety audit of the Project Highway have been undertaken by the Safety Consultant as set forth in Schedule-L, and on the basis of audit, the Independent Engineer has determined conformity of the Project Highway with the provisions of this Agreement.

All the pre-requisites for issuance of the Provisional Certificate of Completion have been carefully examined and all parameters mentioned in the checklist have been certified and complied as in *Annexure-IV*.

10. Recommendations:

In terms of Concession Agreement the Concessionaire has completed the works substantially on the site handed over prior to due date 28th May 2017i.e 8 months from the Appointed Date as specified in Schedule B and C and in conformity with the Specification and Standards set forth in Schedule –D of the Concession Agreement .The completed project length 45.43 kms



with minor outstanding works as detailed in punch list 1 is safe for commercial operation, therefore, Authority is requested for concurring issue of Provisional Certificate of Completion in terms of Concession Agreement clause 14.3 with a direction to complete the punch list items -1 within a period of 90 days.

In view of the above, the project highway can be provisionally declared fit for entry into commercial operation as on 05th February 2018.

Encl: As above

Yours Sincerely

Independent Engineer)

- CC: 1) Chief Engineer, KRDCL, Thimmaiah Road Cross, Vasanathnagar Bangalore -52 for kind information
 - 2) Col. Sanjay Bajpai Head (Coordination) HQ,-
 - 3) Executive Engineer, KRDCL Division, Hospet for information
 - 4) Team Leader, CEG, Mundargi
 - 5) M/s DBL Mundargi-Harappanhalli Tollways Limted, Plot 5, Inside Govind Narayan Singh Gate, ChunaBhatti, Kolar Road, Bhopal-462026, Madhya Pradesh



Image: Notice Descent Build, Please Provided and Plance PlancePlance Plance Plance Plance Plance Plance Plance Plance P			1945-000 C 2000	PARA-PARA-
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FL1/2 2 No of HPC in 27C Consisted Horescomb to be nettified. FL1/9 8 Int in 27C and 18 mt in 27D Carriage way Completed Connecting RCC brain & Whee load Drain not covered at Both ends. FL1/9 8 mt in 27C and 18 mt in 27D Carriage way Completed Electrical Pole Foundation dariaged. To be nextified FL1/10 2 Nos in 27D Carriage way Completed Electrical Pole Foundation dariaged. To be nextified FL1/11 5 Stations in 27D Carriage way Completed State FL1/12 5 ont in 27D Carriage way Completed Kare at Toot to be provided. FL1/13 14:328(H5) Not Applicable Relabilitation of bornow area, to be done FL1/14 11:4:328(H5) Not Applicable Relabilitation of bornow area, to be done FL1/15 10:4:200(H5) Not Applicable Relabilitation of bornow area, to be done FL1/15 10:4:200(H5) Not Applicable Relabilitation of 20% safety states as confice bilitamen at basecamp FL1/16 16:4:200(H5) Not Applicable Relabilitation of 20% safety states as confice bilitamen at basecamp FL1/16 16:4:200(RH5) Not Applicable Relabilitation at counc	PL1/6	1 No of HPC In 27C	Completed	RHS-Rpc collars to be matched with headwall. Protection to be done.
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PLLI9 8 mt in 272 and 18 mt in 270 Carriage way Completed RCC drain slab to be done PL1/10 2 Nos in 270 Carriage way Completed Street light, pole cables exposed on footpath, to be rectified PL1/10 6 Locations in 270 Carriage way Completed Street light, pole cables exposed on footpath, to be rectified PL1/12 51 mt in 270 Carriage way Completed Kere at Toe to be provided. PL1/14 10 mt in 272 & 60 mt in 270 Not Applicable Relabilitation of borrow area, to be done PL1/14 10 mt in 272 & 60 mt in 270 Carriage way Completed Relabilitation of borrow area, to be done PL1/14 10 mt in 272 & 60 mt in 270 Carriage way Completed Filter media to be provided for ground water recharge pil/borre PL1/16 13 +4723(LHS) Not Applicable Relave/Disposel of 20% sefety stored scenfed bitumen at basecamp. PL1/10 3+636-27C Widening HPC Completed Rels-Honry Comb rectification & Protection works to be done atter cearnoe of land owner objection. PL1/19 21+861 -27C Reconstruction of MVB Completed RHS- For of stree ptching & aprons on A1 side (155 span with) to be executed atter cearnoe of land owner objection. PL1/20 9-351 -27D Reconstruction of Box C	FL1/8	3 Locations in 270	Carriage way Completed	Connecting RCC Drain & Wheel load Drain not coverad at Both ends.
P11/10 2 Nos. in 270 Carriage way Completed Electrical Pole Foundation damaged. To be rectified P11/11 6 Locations in 27D Carriage way Completed Kreat light pole cables expessed on footpath, to be rectified P11/12 5 init in 27D Carriage way Completed Kreat Tool to be provided. P11/12 114/23Q(H45) Not Applicable Rehabilitation of borrow ana, to be done. P11/12 2 locators 17/-010(LH5), 18+303(RH5) Not Applicable Relate to be provided for ground weter recharge pil/bore. P11/12 2 locators 17/-010(LH5), 18+303(RH5) Not Applicable Relate to be provided for ground weter recharge pil/bore. P11/12 3 4636-37C Widening HPC Completed RH5-Honey Combinet for some on Arring to be done as per standards & eproved drawings after deamce of land owner objection. P11/12 3 4-636-37C Widening HPC Completed RH5-Honey Combinet for some on A1 side (1st span with) to be executed after ceanner of land owner objection. P11/12 2 1+661-27C Reconstruction of MNB Completed RH5- For of bane pil/big apron and curain wall to be done after ceanner of water pipeline and Electric pole. P11/12 3 +247-27D Reconstruction of Box Quivert Completed LH5- Flexible apron to be constructed after clearinge of land owner objection. P11/22 7+	PL1/9	8 mt in 27C and 18 mt in 27D	Carriage way Completed	RCC drain slab to be done
P11/11 6 Locations in 770 Carriage way Completed Street light, point of both and the provided. P11/12 150 mt in 270 Carriage way Completed Karo at Toe to be provided. P11/13 11+323(LH5) Not Applicable Reliabilitation of borrow area, to be done P11/14 10 mt in 270 & 60 mt in 270 Carriage way Completed Between BT edge to drain paking to be done P11/15 Locatabres -17-P10(LH5), 18+303(RH5) Not Applicable Reliabilitation of borrow area, to be done P11/12 14-230(RH5) Not Applicable Reliabilitation of borrow area, to be done P11/12 14-230(RH5) Not Applicable Reliabilitation of borrow area, to be done P11/12 14-230(RH5) Not Applicable Reliabilitation of borrow area, to be done P11/12 14-230(RH5) Not Applicable Reliabilitation of borrow area, to be done at the clearnor of borrow area, to be done at the clearnor of land owner objection. P11/12 14-237C Widening HPC Completed Completed PH5- 30/mm floor aproxis to be done at the clearnor of land owner objection. P11/19 11/19 21+861 -27C Reconstruction of MNB Completed PH5- 30/mm floor aproxis to be done after clearnor of water pipeline and Electric cole. P11/12 14+247 -27D Reconstruction of Bax Cuivert Completed Completed PH5- Flexible apron into be done after clearnor of land owner objection.<	PL1/10	2 Nos in 27D	Carriage way Completed	Electrical Pole Foundation damaged. To be rectified
PI1/12 So multication of borowards Carriage way Completed Kerb at Toe to be provided. PI1/13 141/220(LHS) Not Applicable Rehabilitation of borow areas, to be done PI1/14 In the 27C & 60 mit in 27C Carriage way Completed Retro at Toe to be provided for ground weter recharge altbore PI1/14 Internetia to be provided for ground weter recharge altbore Not Applicable Rite media to be provided for ground weter recharge altbore PI1/14 Internetia to be provided for ground weter recharge altbore Not Applicable Retuse/Disposal of 20% safely stored sconfied bitmen at basecamp PI1/15 Internetia to be provided for ground weter recharge altbore Completed Retuse/Disposal of 20% safely stored sconfied bitmen at basecamp PI1/12 3+636-27C Widening HPC Completed Retuse/Disposal of 20% safely stored sconfied bitmen at basecamp PI1/19 18+985-27C Widening HPC Completed RH5- For of store pictuling & proms on AL side (1st span width) to be executed after cearner of land owner objection. PI1/19 21+861-27C Reconstruction of MNB Completed RH5- For of store pictuling wait to be done after clearnee of land owner objection. PI1/12 3+247 - 27D Reconstruction of Bax Quivert Completed LH5- Reable apron no be done after clearnee of land owner objection. <	PL1/11	6 Locations in 27D	Carriage way Completed	Street light pole cables exposed on footpath, to be rectified
P1/13 14-328(H5) Not Applicable Rehabilitation of borrow reas, to be done. P1/14 10 mt in 27C & 60 mt in 27D Carriage way Completed Between BT edge to drain paking to be done. P1/14 10 mt in 27C & 60 mt in 27D Carriage way Completed Between BT edge to drain paking to be done. P1/15 2 locators 17-010(LH5), 18+303(RH5) Not Applicable Reliabilitation of borrow reas, to be done. P1/16 16+700(RH5) Not Applicable Reliabilitation of 20% safely stored scenified bitumen at basecamp. P1/17 3+636-27C Widening HPC Completed RH5+Honey Combinett/fiction & Protection works to be done as per standards & epproved drawings after dearne of land owner objection. P1/18 18+985-27C Widening HPC Completed RH5-For of stare ptching & prons on A1 side (1st span width) to be executed after dearnee of land owner objection. P1/19 21+861-27C Reconstruction of MNB Completed Completed RH5-For of stare ptching & prons on A1 side (1st span width) to be executed after dearnee of land owner objection. P1/12 3+247 -27D Reconstruction of Box Quivert Completed LH5-Reptile apron and curian wall to be done after clearance of water pipeline and curian. P1/12 3+247 -27D Reconstruction of Box Quivert Completed LH5-Reptile apron to be done after clearnee of land owner o	PL1/12	50 mt in 270	Carriage way Completed	Karo at Toe to be provided.
P11/14 10 mt in 27C & 60 mt in 27D Carriage way Completed Between BT estate to drain paking to be done P11/15 2 locators 17+010(LHS), 18+303(RHS) Not Applicable Relies/Disposal of 20% safely stored scaffed bitumen at basecamp P11/16 16-700(RHS) Not Applicable Relies/Disposal of 20% safely stored scaffed bitumen at basecamp P11/12 3+636-27C Widening HPC Completed RHS-Honey Comb rectification & Protection works to be done as per standards & approved drawings after deamce of land owner objection. P11/18 18+985-27C Widening HPC Completed RHS-Honey Comb rectification & Protection works to be done after clearnor of land owner objection. P11/19 21+861-27C Reconstruction of MNB Completed RHS- For of stane pitching & prons on A1 side (1st span width) to be executed after clearnor of land owner objection. P11/12 0+351-27D Reconstruction of MNB Completed RHS- For of stane pitching & prons on A1 side (1st span width) to be executed after clearnor objection. P11/12 3+247-27D Reconstruction of MNB Completed Completed RHS- Flexible apron to be constructed after clearnor of USD ine. P11/12 3+247-27D Reconstruction of Bax Culvert Completed RHS- Protection works to be done after clearnor of electric transformer and and owner objection. P11/12 14+2900-27D Reconstruction of	PL1/13	14+320(LHS)	Not Applicable	Rehabilitation of borrow area, to be done
Pr1/15 Zivesters 17+010(LH5), 18+303(RH6) Not Applicable Filter media to be provided for ground water restarge pit/bres Pr1/16 16+700(RH6) Not Applicable Re use/Disposal of 20% safely stored scaringe bit/bres Pr1/12 3+636-27C Widening HPC Completed RH5+Honey Combinet Charactor & Protection works to be done as per standards & epproved drawings after deamoe of land owner objection. Pr1/18 18+985-27C Widening HPC Completed RH5+Honey Combinet Charactor & Protection works to be done after clearance of land owner objection. Pr1/19 21+861-27C Reconstruction of MNB Completed RH5- For of store piching & axons on A1 side (1st span width) to be executed after clearance of land owner objection. Pr1/12 3+247 -27D Reconstruction of MNB Completed RH5- Replie apron and curian wall to be done after clearance of land owner objection. Pr1/12 3+247 -27D Reconstruction of Bax Cuivert Completed LH5- Replie apron to be done after clearance of land owner objection. Pr1/12 1+247 -27D Reconstruction of Bax Cuivert Completed LH5- Replie apron to be done after clearance of land owner objection. Pr1/12 1+247 -27D Reconstruction of Bax Cuivert Completed LH5- Replie apron to be done after clearance of land owner objection. Pr1/12 1+247 -27D Reconstruction of Bax Cuivert <td< td=""><td>PL1/14</td><td>10 mL in 27C & 60 mL in 27D</td><td>Carriage way Completed</td><td>Between BT edge to drain baving to be done</td></td<>	PL1/14	10 mL in 27C & 60 mL in 27D	Carriage way Completed	Between BT edge to drain baving to be done
P11/16 16+700(RH5) Not Applicable Re-use/Disposal of 20% safely stored scaling bitumen at basecamp P11/12 3+636 -27C Widening HPC Completed RH5-Honey Combine of Lact owner objection. P11/18 16+985 -27C Widening HPC Completed RH5-Honey Combine of Lact owner objection. P11/18 16+985 -27C Widening HPC Completed PH5- 300mm floor abron to be done after clearnice of land owner objection. P11/19 21+861 -27C Reconstruction of MNB Completed PH5- 500mm floor abron to be done after clearnice of land owner objection. P11/10 0+351 -27D Reconstruction of MNB Completed Completed Completed able: 0 P11/20 0+351 -27D Reconstruction of Bax Quivert Completed Completed Completed RH5- Flexible abron to be done after clearnice of land owner objection. P11/20 0+351 -27D Reconstruction of Bax Quivert Completed LH5- Resible abron to be done after clearnice of land owner objection. P11/22 1+900 -27D Reconstruction of Bax Quivert Completed RH5- Protection works to be done after clearnice of land owner objection. P11/23 7+289 -27D Widening MNB Completed RH5- Protection works to be done after clearance of land owner objection.	PL1/15	2 locations -17+010(LHS), 18+303(RHS)	Not Applicable	Filter media to be provided for ground water recharge pit/bbre
PI1/12 3+636-27C Widening HPC Completed RHS-Honey Camb rectification & Protection works to be done as per standards & approved drawings after dearnee of land owner of lection. PI1/18 18+985-27C Widening HPC Completed RHS-Honey Camb rectification & Protection works to be done as per standards & approved drawings after dearnee of land owner of lection. PI1/19 21+861-27C Reconstruction of MNB Completed RHS-For of stone pitching & aprone on A1 side (1st span width) to be executed after clearnee of land owner objection. PI1/20 0+351-27D Reconstruction of MNB Completed RHS-For of stone pitching & aprone on A1 side (1st span width) to be executed after clearnee of land owner objection. PI1/21 3+247-27D Reconstruction of MNB Completed Completed RHS-Protection works to be done after clearnee of land owner objection. PI1/22 4+900-27D Reconstruction of Box Culvert Completed RHS-Protection works to be done after clearnee of land owner objection. PI1/23 7+289-27D Wedening MNB Completed RHS-Protection works to be done after clearnee of land owner objection. PI1/24 10+865 27D widening as per CA. Reconstruction at Site Completed RHS-Protection works to be done after clearance of lead owner's objection. PI1/24 10+865 27D widening as per CA. Reconstruction at Site Completed RHS-Protection works to be done after clearance of land owner's objection. PI1/24 10+865 27D widening as per CA. Reconstruc	PL1/16	16+700(RHS)	Not Applicable	Re-use/Disposal of 20% safely stored scenified bitumen at basecamp
P11/18 16+985-27C Widening HPC Completed BHS-300mm from apon to be done after clearnice of land owner objection. P11/19 21+861-27C Reconstruction of MNB Completed BHS-for of store ptching & apons on A1 side (1st span width) to be executed after clearnice of land owner objection. P11/20 0+351-27D Reconstruction of MNB Completed Completed Completed BHS-for of store ptching & apons on A1 side (1st span width) to be executed after clearnice of land owner objection. P11/20 0+351-27D Reconstruction of MNB Completed Completed Completed Completed BHS-field apon and curian wall to be done after clearnice of land owner objection. P11/21 3+247-27D Reconstruction of Box Quivert Completed Completed HHS-Frectible apon to be done after clearnice of land owner objection. P11/22 4+900-27D Reconstruction of Box Quivert Completed RHS-Frected in works to be done after clearnice of land owner objection. P11/23 7+289-27D Widening MNB Completed RHS-Frected in works to be done after clearnice of land owner objection. P11/24 10+865 27D widening AnnB Completed RHS-Frected in works to be done after clearance of land owner's objection. P11/24 10+865 27D widening AnnB Completed RHS-Frected in works to be corne after clearance of land owner's objection.	PL1/17	3+636-27C Widening HPC	Completed	RHS-Honey Comb rectification & Protection works to be done as per standards & approved drawings after dearnoe of land owner oblection.
PE1/19 21+861-27C Reconstruction of MNB Completed RHS- For of stone pitching & aprons on A1 side (1st span width) to be executed after clearnice of land owner objection. PE1/20 0+351-27D Reconstruction of MNB Completed Completed Completed RHS- For of stone pitching & aprons on A1 side (1st span width) to be executed after clearnice of land owner objection. PE1/20 0+351-27D Reconstruction of MNB Completed Completed RHS- Flexible apron and curtain wall to be done after clearnice of UGD line. PE1/21 3+247-27D Reconstruction of Box Culvert Completed Completed RHS- Protection works to be done after clearnice of land owner objection. PE1/22 4+900-27D Reconstruction of Box Culvert Completed RHS- Protection works to be done after clearnice of land owner objection. PE1/23 7+259-27D Wedening MnB Completed RHS- Protection works to be done after clearnice of land owner objection. PE1/24 10+865-27D widening as per CA. Reconstruction at Site Completed RHS- Protection works to be come after clearnice of land owner's objection. PE1/24 10+865-27D widening as per CA. Reconstruction at Site Completed RHS- Protection works to be come after clearance of land owner's objection. PE1/24 10+865-27D widening as per CA. Reconstruction at Site Completed RHS- Protection works to be come	PL1/18	18+985 -27C Widening HPC	Completed	5H5- 300mm floor apron to be done after clearnoe of lland owner objection.
PI.1/20 0+351-27D Reconstruction of MNB Completed UHS- Flexible apron and cutain wall to be done after clearance of water pipeline and Electric pole. PI.1/21 3+247-27D Reconstruction of Box Cuivert Completed RHS- Protection works to be come after clearance of land owner's objection. Completed Completed RHS- Protection	PL1/19	21+861 -27C Reconstruction of MNB	Completed	RHS- For of stone pitching & aprons on A1 side (1st span width) to be executed after clearate of land owner objection.
P11/21 3+247 -27D Reconstruction of Box Quivert Completed LHS- Flexible about to be constructed after clearnce of land owner objection. P11/22 4+900-27D Reconstruction of Box Quivert Completed RHS- Protection works to be done after clearnce of electric transformer and and owner objection. P11/23 7+289-27D Widening MNB Completed RHS- Protection works to be done after clearance of land owner objection. P11/24 10+865/27D widening as per CA. Reconstruction at Site Completed RHS- Protection works to be done after clearance of land owner's objection. P11/24 10+865/27D widening as per CA. Reconstruction at Site Completed RHS- Protection works to be done after clearance of land owner's objection. P11/25 11+867/27D Reconstruction of Box Quivert Completed RHS- Protection works to be done after clearance of land owner's objection. P11/25 11+867/27D Reconstruction of Box Quivert Completed RHS- Protection works to be correct after clearance of land owner's objection. P11/26 20+79727D Widening HPC Completed RHS- Protection works to be carried out after clearance of land proteine.	PL1/20	0+351-22D Reconstruction of MNB	Completed	UHS- Republe apron and curtain wall to be done after clearance of water pipeline and Electric pole. RHS- Flexible apron to be done after clearace of UGD line.
PL1/22 4+900-27D Reconstruction of Box Culvert Completed RHS- Protection works to be done after clearnce of electric transformer and and owner objection. PL1/23 7+259-27D Wadening MNB Completed Completed RHS- Protection works to be done after clearnce of electric transformer and and owner objection. PL1/24 7+259-27D Wadening MNB Completed Completed RHS- Flexible amont to be done after clearance of land owner's objection. PL1/24 10+865/27D widening as per CA. Reconstruction at Site Completed RHS- Protection works to be done after clearance of land owner's objection. PL1/25 11+86//27D Reconstruction of Box Culvert Completed RHS- Protection works to be carried after clearance of Electric pole and Protection. PL1/25 11+86//27D Reconstruction of Box Culvert Completed RHS- Protection works to be carried out after clearance of Electric pole and proteine. PL1/26 20+79272D Widening HPC Completed RHS- Protection works to be carried out after clearance of Electric pole and proteine. PL1/26 20+79272D Widening HPC Completed RHS- Agron to be done after clearance of Electric pole and proteine.	PL1/21	3+247 -27D Reconstruction of Box Cuivert	Completed	LHS- Rexible apron to be constructed after clearnce of land owner objection.
PLI/23 7+259-27D Wedening MNB Competed UHS- Protection works to be done after clearance of Electric pole and Youse compound. RHS- Readble atom to be done after clearance of land owner's objection PLI/24 10+865 27D Wedening ANB Competed RHS- Protection works to be done after clearance of land owner's objection. PLI/25 11+867 27D Reconstruction of Box Culvert Competed RHS- Protection works to be carried out after clearance of Electric pole and poleine. PLI/26 20+29727D Wedening HPC Competed RHS- Agron to be done after shiting of poleine.	PL1/22	4+900 -27D Reconstruction of Box Culvert	Completed	RHS- Protection works to be done alter clearnce of electric transformer and land owner objection. LHS- curtain wall constructed to be done per drawing after dearnce of land owner objection.
P11/24 10+865 27D widening as per CA. Reconstruction at Site Completed RHS- Protection works to be done after clearance of land owner's objection. P11/25 11+867 27D Reconstruction of Box Culvert Completed RHS- Protection works to be carried after clearance of lead owner's objection. P11/26 20+79727D Widening HPC Completed RHS- Agron to be done after shiting of poeline.	PL1/23	7+259-27D Wedening MNB	Completed	UHS- Protection works to be done as per drawing after clearance of Electric pole and house compound. RHS- Flexible apron to be done after clearance of land owner's objection.
PL1/25 11+867-27D Reconstruction of Box Culvert Completed RHS- Protection works to be carried after clearance of Electric pole and pipeline. PL1/26 20.429227D Widening HPC Completed RHS- Apron to be done after shiting of pipeline.	PI1/24	10+865 27D widening as per CA. Reconstruction at Site.	Completed	RHS- Protection works to be done after clearance of land owner's objection.
PL1/26 20 +79727D Widening HPC Completed RHS- Agron to be done after shiting of pibeline.	PL1/25	11+867 27D Reconstruction of Box Culvert	Completed	RHS- Protection works to be carried after clearance of Electric pole and pipeline. LHS- Protection works to be carried out after clearance of fand Broblem.
	PL1/26	20+78727D Widening HPC	Completed	RHS- Apron to be done after shiting of pipeline.



Independent Engneen Representative





Appenure-II

WCP-46	DESIGN, BUILD, FINANCE, OPERATE, MAINTAIN AND TRANSFER (DBFONT) OF EXISTING STATE HI DBFONT ANNUITY BASIS(Link-	GHWAY MUNDARGI – HADAGALI - HARAPANAHALLI IN THE STATE OF KARNATAKA ON 27C & 27D)
	PUNCH LIST-2 FOR -PCOD (L	ink -27C & 27D)
Punch ID	Location	Balance Work
PLZ/1	00+000 00+930 (BHS)-27C-Mundargi Town limit	Work to be executed after clearance of LA,R&R and Utility shifting
PL2/2	08+000 08+300 (BHS)-27C-Toll Plaza	Work to be executed after clearance of LA
PL2/3	10+100 10+600 (BHS)-27C-Korlahalli Village	Work to be executed after clearance of LA.R&R and Utility shifting
PL2/4	13+970 14+210 (BHS)-27C-Kumbli village	Work to be executed after clearance of LA,R&R and Utility shifting
PL2/5	14+590 14+710 (BHS)-27C-Water Pipeline	Work to be executed after clearance of Utility shifting
PL2/6	17+950 18+330 (BHS)-27C-Kagnoor Vilage	Work to be executed after clerance of LA,R&R and Utility shifting
PL2/7	23+180 24+000 (BHS)-27C-Hoovina Hadagali City	Work to be executed after clearance of LA,R&R and Utility shifting
PL2/8	13+900 14+040 (BHS)-27D-Kanahalli Viliage	Work to be executed after clearance of LA,R&R and Utility shifting
PL2/9	23+800 24+100 (BHS)-27D-Toll Plaza	Work to be executed after clearance of LA
PL2/10	25+554 25+910 (BHS)-27D-Harpanhalli City	Work to be executed after clearance of LA,R&R and Utility shifting
PL2/11	Link-27C Maktumpura (BHS 2 Nos), Bennehalli (BHS 2 Nos), Korlahalli (BHS 2 Nos), Huvina Hadagali (BHS 2 Nos). Link-27D Eradettinahalli (RHS 1 No), Vinobha Nagar (RHS 1 No), Bandri (RHS 1 No)	Bus Bays & Bus Shelter to be executed after clearance of LA and R&R.
PL2/12	Link-27C Korlahalli (BHS), Huvina Hadagal (BHS). Link-27D Nagati basapur (BHS), KM Tanda (RHS), Bandri (RHS). Chikkahalli (RHS), Harabanahalli (BHS)	RCC Drain work to be done after clearnce of LA, R&R and Local objection.
PL2/13	Link-27C Huvina Hadagali (BHS). Link-27D Huvina Hadagali (BHS). Nacati basapur (BHS).	Foot Path and paver blocks to be done after dearance of pipeline and LA.
PL2/14	Link-27C Korlahalli (BHS), Huvina Hadagali (BHS). Link-27D Nagati basapur (BHS), KM Tanda (RHS), Bandri (RHS), Chikkahalli (RHS), Harapanaballi (BHS)	Paved block to be done after clearnce of LA, R&R and Utility shifting.
PL2/15	Link-27C Huvina Hadagati (LH5). Link-27D KM Tanda (BHS)	Toe Kerb and paved blocks to be done after dearnce of LA

riccasionalices Representative

Independent Engineers Representative





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			Status of Tests as	per SCHEDULE-		
1 Noas per Schedale-I	Test Name	Date of Test	Test Results Submitted by the Concessionnaire	Concurrance (Compliance by IF	Siatos	Remarko
1,2	Visual and Physical Test	12.12.2017	DMHTL/IE-CEG/V/CP-D6/2016-17/526 dated 06.01.2018	CEG/Mund/WCP-05/Misk/2016-17/592 dated 30.01.2018	Concurred	
1.3	Test Drive	12.12.2017	DMHTL/IE-CEG/WCP-06/2016+17/525 dated 06.01.2018	CEG/Mund/WCP-06/Misc/2016-17/581 dated 30.01.2018	Concurred	
1.4	Riding Quality Test	26.12.2017	DMHTL/IE-CEG/WCP-D6/2016-17/521 dated 04.01.2018	CEG/Mund/VICP-06/Misc/2016-17/583 dated 30.01.2018	Concurred	
1.5	Pavement Composition Te	13-12-2017 & 14-12-2017	DMHTL/IE-CEG/V/CP-06/2015-17/528 dated (6.01.2018	CEG/Mund/WCP-05/Misc/2016-17/579 dated 25.01.2018	Concurred	
1.6	Cross-section Test	22.12.2017	DMHTL/IE-CEG/WCP-06/2016-17/527 dated (6.01.2018	CEG/Mund/WCP-06/Misc/2016-17/580 dated 30.01.2018	Concurred	
1.7	Structural Test for Bridges	15.12.2017	DMHTL/IE-CEG/WCP-06/2015-17/519 dated 04.01.2018	CEG/Mund/WCP-05/Misc/2016-17/582 dated 30.01.2018	Concurred	Ultrasonic Ruise Velocity Test Rebound Hammer Test
1.9	Environmental Audit	12.12.2017 & 13.12.2017	DMHTL/IE-CEG/WCP-06/2015-17/520 dated 04.01.2018	CEG/Mund/WCP-06/Misc/2016-17/587 dated 30.01.2018	Reviewed	
1.10	Safety Review	6.01.2018 & 07.01.2018	DMHTL/IE-CEG/WCP-06/2016-17/549 dated 02.02.2018		Reviewed	









Anaexure-IV

Checklist for Independent Engineer regarding Provisional Completion Certificate

While issuing Provisional Completion Certificate for Project -WCP-6 (Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) of Existing State Highway Mundargi-Hadagali-Harapanahalli in the state of Karnataka on DBFOMT Annuity basis) Independent Engineer (IE) has satisfied that all provisions and conditions laid down in the Concessionaire Agreement with regard to issue of such Provisional Completion Certificate have been complied with. Such satisfaction or IE shall among various such performances required, also include the following:

SI. No	Description	Status
1.	The completed stretch of Project Highway (45.43 km out of 51.206 km) has been constructed as specified in the Schedule-B and Schedule-C and in conformity with the Specifications and Standards set forth in Schedule-D of the Concession Agreement	Complied
2.	All tests have been conducted in accordance with schedule-1 and have been witnessed by the representatives of the Authority. The IE shall observe, monitor and review the results of the Tests to determine compliance of the Project Highway with Specifications and Standards. The IE shall ensure that the Tests are successful and the Project Highway can be Safely and reliably placed in commercial operation.	Complied
3	IE shall ensure that the Concessionaire shall comply with the provisions of the Concession Agreement, Applicable Laws and Applicable Permits and conform to Good Industry Practice for securing the safety of the Users.	Complied
4,	Approval of the Competent Authority for proposal /issue of Change of Scope (positive/negative), if any has been obtained or at-least proposal for positive Change of Scope has been referred to the Authority for approval with the recommendations of IE	Complied
5.	In case of the Provisional Completion Certificate, list of outstanding items (Punch List) has been prepared and signed jointly by the Independent Engineer and the Concessionaire. The Punch List shall include only those items of work which are minor in nature and not affecting the safety and reliability of the Project Highway.	Complied
6.	All lapses, defects or deficiencies observed by the independent Engineer in the construction of the Project Highway are rectified and all NCRs issued are closed in accordance with the provision of the Concession Agreement.	Complied
7.	All Drawings submitted by the concessionaire has reviewed by the Independent Engineer as per Schedule-Q of CA	Complied

Concessionaire Representative

Independent Engineer Representative

Annexure 8: Insurance

पॉलसिी अनुसूची	Policy Schedule -	Civil Engine	eering Co.	mpleted	Risk					
Policy Numb	er:		व्यवसाय	सत्रोत.	/Business Sourc	e: 91035:	5			
जारीकर्ता कार्याल	य/Issuing Office		वक्तिय गै	नल_बबिरष	Sales Channe	LCode:				
कार्यालय कोड 🖊	Office Code: 32130	0	9103550	0000000	01					
कार्यालय पता /	Office Address: BH	OPAL	HIN /Na	नाम /Name: Aspire Insurance Brokers Pvt Ltd - HO Contact Number: 8291914810						
DIVISION II B-4 Madhya Prades	8, Indrapuri, B H E sh - 462022.	L, Bhopal,	सह दलात	न कोड / (Co Broker Code					
GSTIN: 23AAACI Contact Numbe	N9967E1ZB 27: 755 2682822		Custo	mer C	are Toll Free	Number				
eMail: 321300(Mobile Number	gnic.co.in		email:c	18 ustom	00 345 0330 er.support@r	ic.co.in				
गुराहक का नाम Наварамана	/Customer Name:	DBL MUND	ARGI		गुराहक 3 9701881	เรื่ร์1 /Cust	omer ID:	पैन /।	PAN: AAFCD5003J	
पता/ Address: N	O-77, BEHIND RM	P QUARTER	RS,5TH S	TAGE,	फोन /Ph	one:				
KUVEMPUNAG	ARA, MYSORE-5	0023, City:	MYSORE	, District	t share					
Cell: 98262923	28	N. 570025.			S-HA /E-	Mail:				
	2020 2 00.00 7	26/02/2021	-	11-11	स्त गण्डन्दी /Poli	w Effort	ivo from Of	00 bor	urs on 27/03/2020	to
midnight of 2	26/03/2021	20/03/2021	ના તપ્ય	งตุง ต	140 9 (MIGHTON)	y Liteci	ave nom or		13, 01 21/00/2020	
प्रीमयिम	/ Premium	₹ 16,29,62	27.00	कवर नोट	र संख्या और तथि Note Number	7 Cover and Date	NA			
SGS	CGST ST/UTGST	2	0.00							
	IGST	₹ 2,93,33	33.00	111212 1	गंकाल और जणिति	Proposal				
কালো রার 37 ।	पकर/Kerala Flood Cess	2	0.00	रस्ताव र	Number	and Date	880020032	7087216	Dt. 27/03/2020	
Less	सटी_टीडीएस / :GST_TDS	2	0.00							
पुनर्प्राप्त योग	ाय सुटाम्प			रसीद व	संखया और तथि।/	Receipt	221200011	01000764	SE Dt 27/03/2020	
Permissible	इयूटी	<i>₹</i>	0.00	1000000000	Number	ind Date	321300011	91000700	00 01. 21103/2020	
IRecoverable 3	stamp Duty		ч	छिली पॉर	लसिी संख्या और	समाप्ती				
कुल /Tot	al Amount	₹ 19,22,96	50.00	2045 - 13		तथि।	NA			
				Prev	Exp	iry Date				
(Rupees Ninete	en Lakh Twenty Tv	vo Thousand	Nine Hur	ndred Six	xty Only.)	Sadao 58	2101			
Sc No	Type of Risk	De	scription	Of	Earthquake	Sum I	nsured of the	Ð	Excess(?)	
51.110	ijpe et talen	R		0	Zone	1 54	15K(1)		1 00 000 00	
1	Roads	S	TRUCTUP ad Furnitu	RE re,	Zone IV	1,04,	03,00,000.00		1,00,000,000	
2	Roads	Fixtu	ires, Elect	rical g &	Zone IV	8,1	5.00,000.00		1.00,000 00	
-		Fittin & S	gs, Signb Safety Bar	oard						
लागू खंडौ,पृष्ठांक Warranty, Riot,	नौ एवं वारंटी / Clau Strike, and Maliciou	ses, Endors Is Damage C	sements a Clause, Po	and War licy is su	rranties Applica	ble:Agree g condition	d Bank Claus	e, Terrori S SUBJE	sm Damage Exclusio CT TO THE	n
FOLLOWING C	ONDITIONS:									W.
1.Excess applic & upto 1500 Cr	able under the polic = 10% of Claim sub	y is: (a) Upto ject to Minim	o SI of Rs num of Rs	500 Cr = 10 lacs	= 10% of Clair Entire Road par	n subject t kage will	o Minimum ol be treated as	Rs 5 lac One loca	s & (b) SI above 500 C tion for application of	2r
2 Policy is Appli	cable for Roads & F	Road side str	uctures &	Toll pla	zas & Bridges &	Flyovers o	in Land			
3.No Coverage	for (Road) Transpo for Marine Vessel In	npact Dama	ge.							
5 Each 72 hour	period will be treate	d as One oc	currence/	event for	r STFI & EQ for a	pplication	of Excess.			
PROJECT DET Design, Build, F of Karnataka on	AILS COVERED UI inance, Operate, M DBFOMT Annuity	NDER THE F aintain and T Basis (WCP	POLICY A Transfer (I 6).	SFOLLO	OWS: I) of Existing Sta	e Highwa	y Mundargi H	adagali H	arapanahalli in the sta	ite
Name of the co Name of the co	insured under the p ntractor under the p	olicy is Dilip olicy is Dilip	Buildcon I Buildcon I	Ltd. & Ki td and s	RDCL. subcontractor is N	ARIOUS			R	
			0						Page por ter	EN V
			0						Page por ter	EX P

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		POLICY SC	CHEDULE F	OR EMPLO	YEES COMP	PENSAT	ION	INSURA	NCE				
Insured's Name		M/S DILIP BU	JILDCON LTD					1010360		-	-		
	- 11	Insured's Detai	ils		Issuing Office Details								
Address	PO64533895	NOIDE COLU		Office Code	8		BHOPA	L DO	1 (4501	00)			
		SINGH GATE CHUNA BHA	TTI KOLAR R	Address		3	C.D.U 1, BLOCK NO 3, IND FL PARYAVAS BHAWAN, ARERA H BHOPAL,462011			IND FLOOI RERA HILLS			
Phone No	BHOP AL, MA	UNITA PRADI	ESH, 452001			-	075540			-			
E-mail/Fax	ail/Fax 1 db@dilipbuildoon,				E-mail/Fax	3	-	nia 450	03271 100æ	/ 07554 newindle	12032	272	
PAN No		4400061248				- 23	-	075542	03274				
GSTIN/UIN	-	23AACCD612	4B2ZD / NA		S.Tax Regn GSTIN	. No		AAACN	41650	ST17B	8		
					SAC			997139	/Othe	56122 r.non-86	e iner	ranca cand	
							1	exci RI)	louid	- Horena	e ma	wante servi	
	1.21			Policy	Details								
Policy Number	3	45010036190	100000052	1	Business S	ource Co	de	-			-		
Period of Insurance		From: 08/02/2 07/02/2021 11	020 12:00:01 :59:59 PM	AM To:	Dev.Off level./Broke Agent/Web	r/Corp. Aggrega	tor	GLOBA PRIVAT 112700	AL INSURANCE			E BROKERS 5140053) L INSURANCE	
Date of Proposal	đ	08-Feb-20	7		Agent/Bancassura		ce/ :	(000000	an o could of a j				
Prev. Policy no.				7	Specified Po	erson		00000100					
Client Type	1	Corporate			E-mail/Fax			girish.pr	15681 abhu@	5661, 9819676655 / NA Ibhu@globalinsurance.co.in,			
Premium(₹)		GST	(7)	Tota	(¥) le	To	tal (T	In words)	Rec	nint	Nis & Date	
5547		99	8	65	45	RUPER FIVE 1	ES SIX HUND FIVE	RED FOP	AND RTY-	45010	0811	90000007	
Cr Details of Employe Cr	es wit	De les h monthly wag les	tails of Emp	loyees with r 8000:	Sub Catego	ries	₹800	0:	En	No of iployee	. [Cash Tota Wages	
Tenda D	an est a	Alaa	1	_	Sub catego	nes			Em	No of Iployee		Cash Tota Wages	
inaue u	escrip	tion		Particular of	Works		Lo	cation D	etails		Inclu	ded All Su	
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-			Cont	actor/Sub-Co	ontractor De	talls:						1	
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Signature valid						(R° (AN I	n a				





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	(ii) Winchest	er Drive	and/or Hard Dis	c-10% of claim am	iount subject	to a minin	num of Rs.2500/-	
2)	(i) Equipmen	nt (other	than Winchester	r Drive and/or Hard	Disc)- 5% o	f claim am	ount subject to a minimu	m of Rs.1000/-
1) 2)	For PC : 5%	o or clain ent othe	n amount subjec r than PC :	t to minimum of Rs	s.2500/-			
(a) For	equipment	with valu	ie upto Rs. 1 laki	h	0500/			
Exces	s:							
Ded	uctible / Exc	cess for	: AS PER LIST	ATTACHED				
1 A	AS PER LIST		AS PER LIST	2018		AS PER I	LIST	99,72,024
SI I No. I	Description Items	of	Manufacturer Name	Year of A Manufacture M Co	nnual aintenance ontract	Identifica	ation No. Escalation %	Sum Insured
			KARNATAKA	- 583131				
1 Lo	cation of the	Risk	AS PER LIST Road and brid to Harapanah	ATTACHED Ige stretch connec alli	ting from Mu	ndargi		
						:	Sum Insured:	99,72,024
Sectio	on I :	EEI • F(
				RISK DE	TAILS			
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Colloc	tion No 2 D+	. PC		12/2020 TO MIDE			NO -2410690100	IIN :0
Tel/F	ax/Email	22522 : 0205-:	2252274/0265-2	UJARAT INDIA, UJARAT,396007 357445/0265-2356		x/10/0001	PHONE NO 0205-	
Addı	ress	: 001-0	02 ,6TH FLOOR				P MARKAND DESAI RA	OD
Aaer	nt/Broker	: LC00	00000179 (1149	UNISON INSURA	NCE BROK	NG SERV	ICES P LTD	
Agen Dev	Off.Code	ans :						
A ====	+/Braken D	taile					171200@orientalinsura	nce.co.in
Tel /Fa	ax /Email	stn S : v/uv/e	hage, mysore, Ka	amataka, 570023	Tel /Fax /F	-mail :	GUJARAT 390001	436654 /
Addres	SS	: "No.7 Kuve	7, Behind Rmp (mpunagara	Quarters,			VADODARA	
		TOLL 29AA	WAYS LIMITED FCD5003J1ZQ)	(GSTIN:	Address	:	Ist FLOOR, KIRTI TOW ROAD	ER, TILAK
Insure	d's Name	: DBL	MUNDARGI HAI	RAPANAHALLI	Issuing Of	fice Name	: CBU Vadodara (GST	IN: 24AAACT06
Insure	d's Code	. 1901	88848			fice Code	. 171200	
Covor	Noto No				Cover Net	• D+ ·		



Government of India Unc	NCE CO. LTD. Jertaking)	
1000 Mar 1000		
Special Conditions	NO. OF EMPLOYEE-10 UPTO-15000(CASH TOTAL WAGE-18.00.000) ABOVE-15000(CASH TOTAL WAGE-6.00.000) TOTAL SUMINSURED-24.00.000 CATEGORIES-ROAD PAVING TARRING & ROAD MAKING SUB CATEGORIES-CONSTRUCTION OF ROAD & OTHER CIVIL WORK	ar E
	EMPLOYEE COVERED - SKILLED/SEMI SKILLED/UN-SKILLED, SUPERVISO CONTACT LABOUR ETC	OR, ENGINEE
Special Exclusions	NA	
Special Excess/Deductible	NA	
Clauses	O EMPLOYEES COMPENSATION INSURANCE Policy clauses attached herewith.	
Premium and GST Details	Description	1
Proventing	Rate of Tax Amount in INP	
SGST	₹ 5547.00	
CGST	9 499	
IGST	9 499	
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	Diffs County to a to	
	Duly Constituted Atto	mey(s)
Stamp Duty under the Policy	Duly Constituted Atto	mey(s)
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Stamp Duty under the Policy MudrankDt numberdt	Duly Constituted Atto is 71 Consolidated Stamp Fees Paid by Pay Order Numbervide re 	rney(s) :ceipt
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Stamp Duty under the Policy Mudrank Dt number dt dt Policy No. : 4 Regd. & Head Office: New	buly Constituted Atto	rmey(s) sceipt



Annexure	9:	Change	of	Scope
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		00000	As per		Bala	nce
SI. No.	Description	Unit	contract Scope	Completed	To be Completed	To be De-Scope
1	Bus bay	No's	14	6	0	8
2	Bus shelter	No's	14	3	0	11
3	Minor & Major Junctions Improvement	No's	41	36	4	0
4	Structure Protection Work	No's	99	93	0	6
5	Reinforced cement concrete M15 grade Boundary pillars	No's	512	0	0	512







Annexure 10: Project Photos



































