



## NATIONAL HIGHWAYS AUTHORITY OF INDIA (Ministry of Road Transport and Highways)

Construction of Eight lane Vadodara Kim Expressway from Km 323.00 to Km 292.00 ( Sanpa to Manubar Section of Vadodara Mumbai Expressway) in the State of Gujarat under NHDP Phase - VI on Hybrid Annuity Mode (Phase IA-Package III)

# MONTHLY PROGRESS REPORT 08 FOR THE MONTH OF OCTOBER-2019



Client : NATIONAL HIGHWAYS AUTHORITY OF INDIA.

Concessionaire : Patel Vadodara - Kim Expressway Private Limited.

**Independent Engineer**: Aarvee Associates Architects Engineers & Consultants Pvt. Ltd.

**EPC Contractor**: Patel infrastructure Limited.

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#### 1.0 EXECUTIVE SUMMARY

The Patel Vadodara - Kim Expressway Private Limited. has been awarded Construction of Eight Lane Vadodara Kim Expressway from Km 323.00 to Km 292.00 (Sanpa to Manubar)Section of Vadodara Mumbai Expressway) in the State of Gujarat Under NHDP Phase - VI on Hybrid Annuity Mode (Phase IA- Package III).

The road passes through plain and rolling terrain. Land use is mostly agricultural with Black Cotton soil. The entire length of the project road falls in the state of Gujarat under Bharuch Districts. The Function of expressway is to cater for movement of heavy volumes of motor traffic at high speeds. They connect major points of traffic generation and are intended to serve trips of medium and long length between large residential areas, industrial or commercial concentrations, and the central business district. They are divided highways with high standards of geometric and full or partial control of access and provided generally with grade separation at intersections. Parking, loading and unloading of goods and passengers and pedestrian traffic are not permitted on these highways.

This report covers the activities for the month of October 2019. The Embankment work of the main carriageway is started and 22.4 Km of work is in progress and Embankment top in 1.04 Km has been completed and Sub grade top has been completed in 0.55 Km. The overall Physical progress as on 31st October 2019 is assessed to be approximately 20.38%. The financial progress achieved 31st October 2019 is assessed to be 20.99 %.

The Project involves the Eight Lane new alignment with divided carriageway having total 119 structures which include 1-ROB, 1-Flyover, 1-VOP, 3-MJBs.

The Major National Highways and State Highways intersecting the project corridor are NH-228, SH-161.

#### 1.1 Construction progress in current month

Key reporting metrics	Value/ %/ Amount
Scheduled Physical Progress (%)	20.40%
Cumulative Physical Progress up to current month (%)	20.38%
Physical Progress during current month (%)	1.91%
Financial progress (%)	20.99%
Cumulative Expenditure till date (Rs Cr)	341.49 Cr.
Tests passed as % of total tests witnessed by IE	
Number of pending COS proposals	NIL
Amount for pending COS (Rs Cr)	NIL

#### **1.2 Project Synopsis**

National Highways Authority of India plans to undertake the Construction of new alignment 8-lane from Sanpa to Manubar from Km 323.00 to Km 292.00 in the State of Gujarat under NHDP Phase-VI on Hybrid Annuity Mode (Length 31.00 Km.) – Package III.

The project involves new alignment from Km 323.00 to Km 292.00 the 8-lane divided carriageway. It includes the construction of bridges, intersections, Connecting roads, culverts and related infrastructure, and the installation of signaling systems and signboards. The project will be developed under National Highways Development Project (NHDP) Phase-VI on Hybrid Annuity Mode.

#### **Proposed alignment**

Sr.No	Design (	Chainage	Length	Village	Remark
1	323+000	321+600	1.40	Matar Talpad	
2	321600	318+900	2.70	Suthodara	
3	318+900	317+200	1.70	Danda	
4	317+200	314+300	2.90	Dora	
5	314+300	310+900	3.40	Simartha	
6	310+900	307+750	3.15	Kurchan	
7	307+750	305+550	2.20	Karela	
8	305+550	301+200	4.35	Kelod	
9	301+200	300+500	0.70	Tralsa	
10	300+500	297+550	2.95	Dayadara	
11	297+550	296+050	1.50	Tralsi	
12	296+050	293+850	2.20	Derol	
13	293+850	292+700	1.15	Tham	
14	292+700	292+000	0.70	Manubar	
		Total	31	Km	

## 1.3 Strip Plan (Summary)

1. Work fi reason for	ront Unav r Unavaila		2. Length completed by layer (MCW)			3. Length completed by layer (Service Road)				
	Length (km)	% Total Pending Length		Length (km)	% Total Length		Length (km)	%Total Length		
Total Length	31.00	100%	Total Length	31.00	100%	Total Length	-	-		
Total Work front Unavailable (A=B+C)	5.515	17.79%	Total Length Completed (Till PQC)	-	-	Total Length Completed (Till DBM)	-	-		
Pending Land	1.075	1 075	ding Land	3.47%	PQC	-	-	ВС	-	-
Acquisition(B)	1.073	3.47%	DLC	-	-	DBM	-	-		
Donding	4.440		GSB	-	-	WMM	-	-		
Pending Clearances			Sub-Grade	0.55	1.77%	GSB	-	-		
Encumbrances( Utilities like		4.440 14.33	14.32%	Embankment Top	1.04	3.54%	Embankme nt Top	-	-	
electical,water, tree cutting)(C)			Embankment (WIP)	22.40	72.25%	Sub-Grade	-	-		
tree catting/(c)			C&G	23.17	74.74%	C&G	-	-		

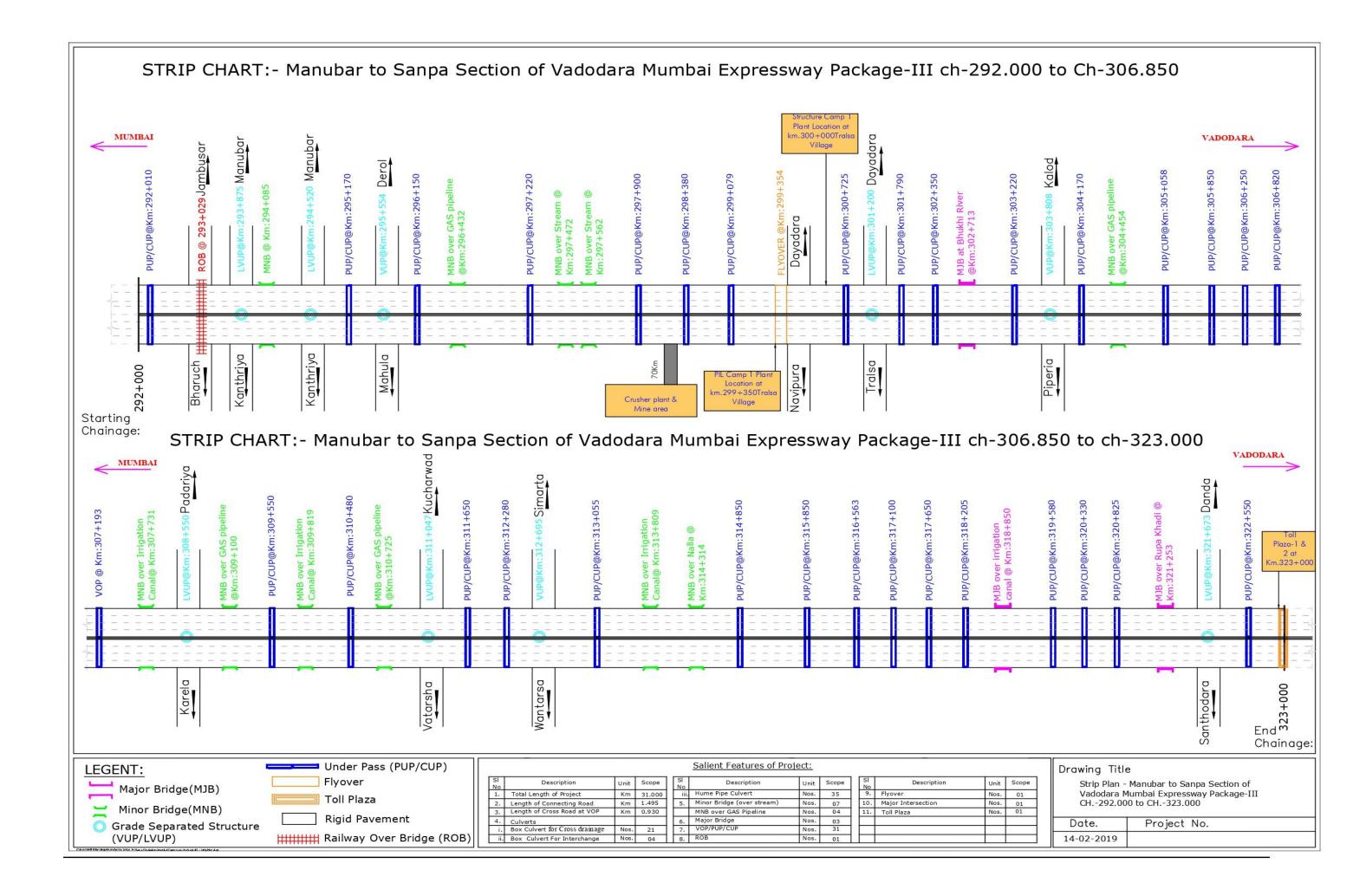
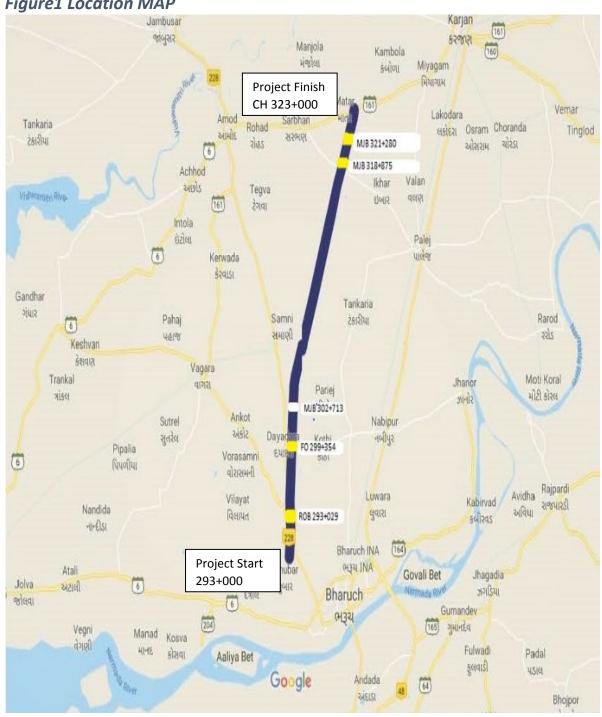


Figure 1 Location MAP



## 2.0 Project Overview

#### **2.1 Salient Features of Project**

Sr. No.	Component	Remarks
1	Project	Construction of Eight lane Vadodara Kim Expressway from Km Km 323.00 to 292.00 (Sanpa to Manuba Section of Vadodara Mumbai Expressway) in the State of Gujarat under NHDP Phase - VI on Hybrid Annuity Mode (Phase IA-Package III)"
2	Name of the Employer	National Highways Authority of India
3	Name of Concessionaire	Patel Vadodara Kim Expressway Pvt. Ltd.
4	Name of EPC Contractor	Patel Infrastructure Ltd.
5	Independent Engineer	Aarvee Associates Architects Engineers & Consultants Pvt. Ltd
6	Design Consultant	SPECIALIZED ENGINEERING SERVICES PVT. LTD
7	Project Length (In Km)	31.00 Km
8	Date of Concession Agreement	11th May, 2018
9	Appointed Date	08th March 2019
10	Scheduled Date of Completion	07th March 2021
11	Total Project Bid Cost as per CA	1712.00 Cr.
12	Project Cost (60 % of Bid Cost as per article 42)	1027.20 Cr.
13	<b>Construction Period</b>	2 Years (730 days)
14	Maintenance Period	15 Years
15	Total Concession Period	17 Years

## 2.2 Project Overview

#### 2.2.1 Structures & Other Works

Sr. No.	Feature	Description
1	Major Bridge	03 Nos.
2	Flyover	01 No.
3	ROB	01 No.
4	Minor bridges	11 Nos.
5	Vehicular underpass	03 Nos.
6	Light Vehicular Underpasses	07 Nos.
7	Pedestrian Underpass	30 Nos.
8	Vehicular Overpasses	01 No.
9	Toe Wall/Retaining Wall	1.89 Km
10	RE Wall	26446 Sqm.
11	Culverts (HP/BC)	62 Nos. (35 Nos. Pipe / 27 Nos. Box)
12	Toll Plaza	2 Nos.
13	Truck Parking Facility	02 Nos.
14	Rest Area/Toilet Facility	03 Nos.
15	Helipad	01 No.
16	Emergency Cross Over	06 nos.
17	Noise Barrier	10.5 km
18	Rain Water Harvesting Structures	62 nos.

## 2.2.2 Highway

Sr. No.	Feature	Description
1	Embankment	29.371 Km
2	Subgrade	29.371 Km
3	G.S.B	29.371 Km
4	D.L.C	29.371 Km
5	P.Q.C	29.371 Km
6	Service Road/Slip Roads	02.430 Km

#### 2.2.3 PROJECT LOCATION

The Project consists of new alignment of 8 lane of Sanpa to Manubar Section of Vadodara Mumbai Expressway. The project road stretch is a part of Vadodara Mumbai Expressway, which covers main cities like Vadodara, Surat, Thane and Mumbai. Major built up areas along the stretch under development are Ankleshwar, Bharuch, Valsad, and Navsari.

#### 2.2.4 PROJECT DESCRIPTION

The road passes through plain and rolling terrain. Land use is mostly agricultural land. The entire length of the project road falls in the state of Gujarat under Bharuch Districts. The Function of expressway is to cater for movement of heavy volumes of motor traffic at high speeds. They connect major points of traffic generation and are intended to serve trips of medium and long length between large residential areas, industrial or commercial concentrations, and the central business district. They are divided highways with high standards of geometric and fully control of access and provided generally with grade separation at intersections. Parking, loading and unloading of goods and passengers and pedestrian traffic are not permitted on these highways.

#### **2.3 Project Milestones**

Sr. No.	Project Milestone	Period to achieve the Milestone	achieve the Work Completion		Financial Progress (INR in Cr.)
1	Milestone - 1	150 <sup>Th</sup> DAY	20%	05/08/2019	342.4
2	Milestone – 2	330 <sup>Th</sup> DAY	35%	01/02/2020	599.2
3	Milestone – 3	480 <sup>Th</sup> DAY	75%	30/06/2020	1284.0
4	Milestone – 4	730 <sup>Th</sup> DAY	100%	07/03/2021	1712.0

#### 2.4 Critical Issues & Action Log

Sr.No	Issue Description	Туре	Ongoing/ New Issue/ Resolved	Concerned Authority	Chainage (s) affected due to the issue	_	Action(s) taken till now	Action(s) suggested by the IE	Expected date/ Actual Date for resolving issue
1	Land Acquisition		Ongoing	Detail	Details as per 4.1 LA Summary: Page no 36				
2	Utility Shifting		Ongoing	Details as per 4.3 Status of utility shifting: Page no 42					

#### **3.0 Physical Progress**

Component	% Weightage	Physical Progress (During Current Month)	Physical Progress (Cumulative Up to Current Month)
Road Work	69.024%	0.53%	11.63%
Major Bridge Works	17.368 %	2.27%	8.47%
Structures	0.84 %	-	-
Others	12.768 %	-0.89% *	0.28%
Total Physical Progres	SS	1.91%	20.38%

<sup>\*</sup> Negative Progress in others works is Due to Revision in Weightage of work as per approved Schedule G.

## 3.0 A)Progress Details as per Schedule-B- Highway

#### Main Expressway TCS (Appendix B-I (A))

Sr. No.	From	То	Side	Length	TCS Type	Emb. work in Progress	Emb. Top	Subgrade work
1	292+000	292+600	BHS	600.00	TCS 1	0		
2	292+600	292+790	BHS	190.00	TCS 4	0		
3	292+790	293+310	BHS	520.00	ROB/Stru cture	450		
4	293+310	293+500	BHS	190.00	TCS 4	140		
5	293+500	294+270	BHS	770.00	TCS 1	760		
6	294+270	294+520	BHS	250.00	TCS 2	350		
7	294+520	299+100	BHS	4580.00	TCS 1	2690	120	
8	299+100	299+350	BHS	250.00	TCS 4/Structur e	200		
9	299+350	299+750	BHS	400.00	TCS 6/Structur e	325		
10	299+750	299+770	BHS	20.00	TCS 5	0		
11	299+770	306+250	BHS	6480.00	TCS 1	5410	335	345
12	306+250	306+380	BHS	130.00	TCS 2	70		
13	306+380	308+275	BHS	1895.00	TCS 1	1225		
14	308+275	308+550	BHS	275.00	TCS 2	50		
15	308+550	311+550	BHS	3000.00	TCS 1	2650	185	
16	311+550	311+750	BHS	200.00	TCS 2	200		
17	311+750	314+350	BHS	2600.00	TCS 1	2320		
18	314+350	314+510	BHS	160.00	TCS 3	160		
19	314+510	318+900	BHS	4390.00	TCS 1	3190		
20	318+900	318+980	BHS	80.00	TCS 2	80		
21	318+980	322+450	BHS	3470.00	TCS 1	2830	383	200
22	322+450	323+000	BHS	550.00	TCS 5	70	20	
	1	otal		31000		23170	1043	545
	necting Ro I (A))	ad (Appen	dix					
1	299+350	299+750	LHS	400.00	TCS-6			
	· · · · · · · · · · · · · · · · · · ·			· ·				·

Sr. No.	From	То	Side	Length	TCS Type	Emb. work in Progress	Emb. Top	Subgrade work
2	314+350	314+510	LHS	160.00	TCS 3			
3	294+270	294+520	RHS	250.00	TCS 2			
4	306+250	306+380	RHS	130.00	TCS 2			
5	308+275	308+550	RHS	275.00	TCS 2			
6	311+550	311+750	RHS	200.00	TCS 2			
7	318+900	318+980	RHS	80.00	TCS 2			
Cro	ss Road at	VOP Loca	tions					
(Ap	pendix B-I	(C))						
1	000+000	000+075		75.00	TCS 8			
2	000+075	000+825		750.00	TCS 9			
3	000+825	000+930		105.00	TCS 8			

## 3.0 B) STRUCTURE WORKS: -

Sr.	Type of Structure	Total No. of	No. of Structures	No. of Structures		ructures in ance
No.	Type of Structure	Structures	Tackled	Completed	In Progress	Balance
1	ROB	1	1	0	1	0
2	Major Bridge	3	3	0	3	0
3	Minor Bridges	11	2	0	2	9
4	Flyover	1	1	0	1	0
5	Vehicular Underpass	3	2	0	2	1
6	Light Vehicular Underpass	7	4	0.5	3.5	3
7	Cattle Underpass	30	18	2	16	12
8	Vehicular Overpass	1	0	0	0	1
9	Box Culverts	27	6	3	3	21
10	Pipe Culverts	35	28	20	8	7

## All Structure works as per CA- Scope vs Progress

Structure Type	Location	Span Arrangement	Pile	Group	Pile	e Cap/ Raft	Abut	Shaft/ ment /all	Ab	t. cap	RCC	Girder	PSC	Girder		Slab	Crash E	Barrier
		3	Scope	Comp	Scope	Comp	Scope	Comp	Scope	Comp	Scope	Comp	Scope	Comp	Scope	Comp	Scope	Comp
ROB	293+050	2x(25.525+25+ 25.52)+27.9 + (8 to 28.1)varies+1x38+44 +(6.00to26.1)+3 x(25.52+25+25.52)	42	28.49	42	14	42	3	42		14		182		34		2097	
МЈВ	302+732	37.847+38.04 5+37.847	8	8	8	8	8		8				42		6		455	
МЈВ	318+875	2x32.2+1x15.8 5	4	3	4	-	8		8		14		28		6		321	
MJB	321+280	2x37.658	6	6	6	6	6	3	6				28		4		301	0
FLYOVER	299+375	16.859+33.20 1+16.859	8	6	8	6	16		8		28		14		6		268	
VUP	295+575	1x12	-	-	1	0.5	2		-		-				1		24	
VUP	303+830	1x12	-	-	1	1	2	0.5	-		-				1		24	
VUP	312+720	1x12	-	-	1	-	2		-		-				1		24	
VOP	307+193	1x2	3	0	3	-	3		3		-		8		2		24	
MNB	294+105	1x12.880	-	-	2	-	4		-		-		-		2		26	
MNB	296+450	1X27.846	-	-	4	-	4		4		14		-		2		111	
MNB	297+500	1x17.688	-	-	4	-	4		-		-		-		2		35	
MNB	297+580	1x37.341	4	4	4	-	4		4		-		14		2		149	i I
MNB	304+450	1x22.687	-	-	4	-	4		4		14		-		2		91	
MNB	307+754	1x36.54	4	4	4	4	4		4				14		2		146	
MNB	309+090	1x45.200	4	-	4	-	4		4		-		44		2		181	
MNB	309+873	1x23.688	-	-	4	-	4		4		14		-		2		95	
MNB	310+752	1x21.35	-	-	4	-	4		4		-		44		2		85	
MNB	313+835	1x24.347	-	-	4	-	4		4		14				2		97	
MNB	314+340	1x19.103	-	-	4	-	4		-				-		2		38	

Status of LVUP & PUP												
Sr.No.	Type of Structure	Chainage	Span	Side	Status							
1	LVUP	293+895	1x10.5	BHS	LHS raft completed							
2	LVUP	294+550	1x10.5	BHS	LHS PCC and Raft completed							
3	LVUP	301+240	1x10.5	BHS								
4	LVUP	308+550	1x10.5	BHS	⊣Not yet Started							
5	LVUP	311+047	1x10.5	BHS	BHS Raft and Wall Completed, LHS Slab Completed.							
6	LVUP	316+563	1x10.5	BHS	BHS PCC Completed							
7	LVUP	321+700	1x10.5	BHS	BHS PCC Completed							
1	PUP	292+099	1x7.0	BHS	Not yet Started							
2	PUP	295+170	1x7.0	BHS	BHS Raft Completed							
3	PUP	295+990	1x7.0	BHS	BHS Raft Completed							
4	PUP	297+150	$\frac{1x7.0}{1x7.0}$	BHS	Not yet Started							
5	PUP	297+900	1x7.0	BHS	Foundation Completed, Wall work in progress							
6	PUP	298+380	1x7.0	BHS	BHS Slab Completed							
7	PUP	299+100	1x7.0 $1x7.0$	BHS	Bris siao Compieted							
8	PUP	300+725	1x7.0	BHS	-							
9	PUP	301+790	1x7.0 $1x7.0$	BHS	Not yet Started							
10	PUP	302+350	$\frac{1x7.0}{1x7.0}$	BHS								
11	PUP	303+220	1x7.0	BHS	BHS Raft Completed							
12	PUP	304+170	1x7.0	BHS	BHS Slab Completed							
13	PUP	305+058	1x7.0	BHS	Foundation Completed, Wall work in progress							
14	PUP	305+850	1x7.0	BHS	RHS Raft Completed							
15	PUP	306+250	1x7.0	BHS	BHS Excavation Completed, RHS PCC completed							
16	PUP	306+900	1x7.0	BHS	Not yet Started							
17	PUP	309+550	1x7.0	BHS	BHS Raft Completed							
18	PUP	310+480	1x7.0	BHS	RHS Raft Completed							
19	PUP	311+650	1x7.0	BHS	BHS Raft Completed, wall work in progress							
20	PUP	312+280	1x7.0	BHS	Excavation Done							
21	PUP	313+095	1x7.0	BHS								
22	PUP	314+850	1x7.0	BHS	Not yet Started							
23	PUP	315+870	1x7.0	BHS	BHS PCC Completed							
24	PUP	316+960	1x7.0	BHS	RHS Raft Completed							
25	PUP	317+650	1x7.0	BHS	This hare completed							
26	PUP	317+030	1x7.0	BHS	Not yet Started							
27	PUP	319+650	1x7.0	BHS	LHS Raft Completed							
28	PUP	320+330	1x7.0	BHS	BHS Excavation Completed							
29	PUP	320+330	1x7.0	BHS	RHS PCC Completed							
<u> </u>	1 01	320:023	17/.0	5.10	ratio i de compiend							
30	PUP	322+550	1x7.0	BHS	Not yet Started							

Status of Box Culverts												
Type of Culvert	Design Chainage As per CA	No of Vent	Span	Height	Status as on 31.10.2019							
BC	292+450	1	2.00	2.0								
BC	294+750	2	4.00	4.0	Work yet to start							
BC	295+007	1	2.00	2.00								
BC	295+585	1	2.00	2.00	LHS Slab Completed							
ВС	296+376	1	3.00	3.00	Work yet to start							
ВС	299+770	1	3.00	3.00								
ВС	300+148	1	3.00	3.00	BHS Wall Work in Progress							
BC	301+247	1	2.00	2.00	Work yet to start							
ВС	303+403	1	3.00	3.00	BHS Slab Completed, Retaining wall works in progress							
ВС	305+437	1	2.00	2.00	BHS Slab Completed, Retaining wall works in progress							
BC	307+709	1	2.00	2.00	wan works in progress							
BC	307+789	1	2.00	2.00								
BC	309+030	1	3.00	3.00	Work yet to start							
BC	309+840	1	3.00	3.00	Work yet to start							
BC	309+892	1	3.00	3.00								
ВС	314+148	1	3.00	3.00	BHS Slab Completed, Retaining wall works in progress							
BC	315+247	1	5.00	3.00	Work yet to start							
ВС	316+427	1	2.00	2.00	BHS PCC Done, RHS Raft Done.							
BC	316+582	1	2.00	2.00	·							
BC	318+612	1	3.00	3.00	Work yet to start							
ВС	322+750	1	2.00	2.00	BHS Excavation Done,Ground improvement in Progress							
ВС	323+087	1	2.00	2.0								
ВС	269+883	1	2.00	2.0								
ВС	270+373	1	2.00	2.0	W. 1							
ВС	270+731	1	2.00	2.0	Work yet to start							
ВС	0.250	1	2.00	2.0								
ВС	0.650	1	2.00	2.0								

	S	tatus of Hume Pipe Culverts
Type of Culvert	Design Chainage	Status as on 31.10.2019
HPC	293+620	Work yet to start
HPC	294+420	BHS Excavation Done
HPC	295+870	BHS Pipe Laying Done
HPC	296+720	BHS Pipe Laying Done
HPC	298+120	BHS Pipe Laying Done
HPC	298+819	BHS Pipe Laying Done
HPC	300+445	BHS Pipe Laying Done
HPC	300+970	Work yet to start
HPC	301+520	Work yet to start
HPC	302+270	BHS Pipe Laying Done
HPC	302+578	BHS Pipe Laying Done
НРС	303+608	BHS Pipe Laying Done
НРС	304+069	BHS Pipe Laying Done
НРС	304+649	BHS Pipe Laying Done
НРС	307+419	Work yet to start
НРС	307+969	BHS PCC Done
НРС	308+320	BHS PCC Done
НРС	308+794	BHS Pipe Laying Done
НРС	309+368	BHS Pipe Laying Done
НРС	310+119	BHS Pipe Laying Done
НРС	311+329	BHS Pipe Laying Done
НРС	311+969	BHS Pipe Laying Done
НРС	312+679	BHS Pipe Laying Done
НРС	313+369	BHS Pipe Laying Done
НРС	313+812	Work yet to start
НРС	314+669	BHS Pipe Laying Done
НРС	315+719	BHS Excavation Done
HPC	316+069	BHS PCC Done
НРС	316+819	BHS Pipe Laying Done
НРС	317+470	BHS Excavation Done
HPC	319+268	
НРС	319+969	Work yet to start
НРС	320+719	
НРС	322+294	BHS Excavation Done, Ground improvement in Progress
НРС	322+778	BHS Excavation Done, Ground improvement in Progress

## 3.1 Detailed Scope of Work & Physical Progress by Component

ltem	Stage for measurement	Unit	Qty.	Weightage in percentag e to Contract Price	Quantity	% of Physical Progress	Remarks
1	2	3	4	5	6	7	8
	A- Widening and strengthening of Existing road						
minor	<ol> <li>Earthwork up to top of the subgrade</li> </ol>						
bridges, underpasses	j Siloulaci j						
, overpasses, approaches to	GSB 3) Shoulders						
ROB/RUB/ Major	4) Bituminous work 5) Rigid Pavement			Not in Scope			
Bridges/ Structures	a) DLC b) PQC						
(but excluding service	6) Widening and repair of culverts						
roads / Connecting	7) Widening and repair of minor bridges						
road)							
	B- New realignment/bypass  (1) Earthwork up to top of the sub-grade	KM	29.371	19.42%	0.55	8.04%	
	(2) Granular work (sub-base, base, shoulders)						
	(a) GSB	KM	29.371	3.46%			
	(3) Shoulders	KM	29.371	0.97%			
	(4) Bituminous work						
	(5) Rigid Pavement						
	(a) DLC	KM	29.371	4. 640%			
	(b) PQC	KM	29.371	22. 972%			
	C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:						
	(1) Culverts (Pipe & Box)	No.	62	2.32%	23.5	0.55%	
	(2) Minor bridges						
	(a) Foundation	No.	42	2.38%	0	0.45%	
	(b) Sub-Structure	No.	44	1.16%			

Item	Stage for measurement	Unit	Qty.	Weightage in percentag e to Contract Price	Quantity	% of Physical Progress	Remarks
1	2	3	4	5	6	7	8
	(c) Super- Structure (including crash barrier etc. complete)	No.	22	1.94%			
	(3) Cattle/Pedestrian underpasses						
	(a) Foundation	No.	30	2.98%	9.5	1.13%	
	(b) Sub-Structure	No.	60	1.30%	8	0.17%	
	(c) Super- Structure (including crash barrier etc. complete)	No.	30	1.38%	2	0.09%	
	(4) Pedestrian overpasses			Not in Scope			
	(a) Foundation	No.	0	-			
	(b) Sub-Structure	No.	0	-			
	(c) Super- Structure (including crash barrier etc. complete)	No.	0	-			
	(5) Grade separated structures						
	(a) Underpasses (VUP & LVUP)						
	(a) Foundation	No.	10	0.77%	3	0.28%	
	(b) Sub-Structure	No.	20	0.46%	2.5	0.06%	
	(c) Super- Structure (including crash barrier etc. complete)	No.	10	0.52%	0.5	0.03%	
	(b) Overpass (VOP)						
	(a) Foundation	No.	3	0.12%			
	(b) Sub-Structure	No.	3	0.02%			
	(c) Super- Structure (including crash barrier etc. complete)	No.	2	0.12%			
	(c) Flyover						
	(a) Foundation	No.	8	1.11%	6	0.83%	
	(b) Sub-Structure	No.	8	0.46%			
	(c) Super- Structure (including crash barrier etc. complete)	No.	6	0.51%			
	(d) Foot Over Bridge			Not in Scope			
Major Bridge	A - Widening and repairs of Major Bridges			Not in Scope			
vorks and	(a) Foundation						
ROB/RUB	(a) Open Foundation	No.	0	-			
	(b) Pile Foundation/Well	No.	0	-			

Item	Stage for measurement	Unit	Qty.	Weightage in percentag e to Contract Price	Quantity	% of Physical Progress	Remarks
1	2	3	4	5	6	7	8
	Foundation						
	(b) Sub-Structure	No.	0	-			
	(c) Super- Structure (including crash barrier etc. complete)	No.	0	-			
	B - Widening and repairs of						
	a) ROB			Not in Scope			
	(a) Foundation						
	(a) Open Foundation	No.	0	-			
	(b) Pile Foundation/Well Foundation	No.	0	-			
	(b) Sub-Structure	No.	0	-			
	(c) Super- Structure (including crash barrier etc. complete)	No.	0	-			
	b) RUB			Not in Scope			
	(a) Foundation	No.	0	-			
	(b) Sub-Structure	No.	0	-			
	(c) Super- Structure (including crash barrier etc. complete)	No.	0	-			
	C- New Major Bridges						
	(a) Foundation	No.			17.00	3.98%	
	(a) Open Foundation	No.	0	-			
	(b) Pile Foundation/ Well Foundation	No.	22	5.16%			
	(b) Sub-Structure	No.	22	0.59%	2	0.05%	
	(c) Super- Structure (including crash barrier etc. complete)	No.	16	1.39%			
	D- New rail-road bridges						
	(a) ROB						
	(a) Foundation	No.	42	6.77%	14	4.39%	
	(b) Sub-Structure	No.	42	1.05%	2	0.05%	
	(c) Super- Structure (including crash barrier etc. complete)	No.	40	2.42%			
	(b) RUB			Not in Scope			
	(a) Foundation	No.	0	-			
	(b) Sub-Structure	No.	0	-			

Item	Stage for measurement	Unit	Qty.	Weightage in percentag e to Contract Price	Quantity	% of Physical Progress	Remarks
1	2	3	4	5	6	7	8
	(c) Super- Structure (including crash barrier etc. complete)	No.	0	-			
	Interchange			Not in Scope			
Structures	(a) Foundation	No.	0	-			
(elevated	(b) Sub-Structure	No.	0	-			
sections, reinforced earth,	(c) Super- Structure (including crash barrier etc. complete)	No.	0	-			
Interchange)	(d) Reinforced earth Wall (includes Approaches of ROB, Underpasses, Overpasses, Flyover etc)	Sqm	26446	0.84%			
Other works	(i) Service roads/ Slip Roads/ Connecting Road	KM	2.425	0.66%			
	(ii) Toll Plaza	No.	2	0.63%			
	(iii) Road side drains	KM	29.371	1.38%			
	(iv) Road signs, markings, km stones, safety devices,						
Other works	(a)Road signs, markings, km stones, Road Delineators, Reflective Pavement Markers & Solar Studs, Traffic Impact Attenuators, Road Boundary Stone, Kilometer and Hectometer	KM	31.000	0.81%			
	Stones.						
		KM	29.371	1.16%			
	Stones.  (b)Concrete Crash Barrier / W- Beam Crash Barrier / Thrie	KM	29.371	1.16%			
	Stones. (b)Concrete Crash Barrier / W- Beam Crash Barrier / Thrie Beam Steel Barriers in road works	KM No.	29.371	1.16%			
	Stones.  (b)Concrete Crash Barrier / W- Beam Crash Barrier / Thrie Beam Steel Barriers in road works  (v) Project facilities  (a) Bus Bays  (b) Truck Lay-byes			1.16% - 1.08%			
	Stones.  (b)Concrete Crash Barrier / W- Beam Crash Barrier / Thrie Beam Steel Barriers in road works  (v) Project facilities  (a) Bus Bays  (b) Truck Lay-byes  (c) Smaller Parking service	No.	0	-			
	Stones.  (b)Concrete Crash Barrier / W- Beam Crash Barrier / Thrie Beam Steel Barriers in road works  (v) Project facilities  (a) Bus Bays  (b) Truck Lay-byes  (c) Smaller Parking service area	No.	0 2	1.08%			
	Stones.  (b)Concrete Crash Barrier / W- Beam Crash Barrier / Thrie Beam Steel Barriers in road works  (v) Project facilities  (a) Bus Bays  (b) Truck Lay-byes  (c) Smaller Parking service area  (d) Operation &	No.	0 2	1.08%			
	Stones.  (b)Concrete Crash Barrier / W- Beam Crash Barrier / Thrie Beam Steel Barriers in road works  (v) Project facilities  (a) Bus Bays  (b) Truck Lay-byes  (c) Smaller Parking service area  (d) Operation & Maintainance Centre	No. No. No.	0 2 3	- 1.08% 0.648% 0.27%			
	Stones.  (b)Concrete Crash Barrier / W- Beam Crash Barrier / Thrie Beam Steel Barriers in road works  (v) Project facilities  (a) Bus Bays  (b) Truck Lay-byes  (c) Smaller Parking service area  (d) Operation & Maintainance Centre  (e) Lighting	No. No. No. KM	0 2 3 1 31.000	- 1.08% 0.648% 0.27% 0.044%			
	Stones.  (b)Concrete Crash Barrier / W- Beam Crash Barrier / Thrie Beam Steel Barriers in road works  (v) Project facilities  (a) Bus Bays  (b) Truck Lay-byes  (c) Smaller Parking service area  (d) Operation & Maintainance Centre	No. No. No.	0 2 3	- 1.08% 0.648% 0.27%			

ltem	Stage for measurement	Unit	Qty.	Weightage in percentag e to Contract Price	Quantity	% of Physical Progress	Remarks
1	2	3	4	5	6	7	8
	Structure						
	(i) Fencing	KM	29.371	1.094%			
	(j) Utilities ( future ducts )	No.	62	0.234%	22.00	0.1%	
Other works	bridges/structures			Not in Scope			
	(vii) Land Scaping and Tree plantation	KM	29.371	0.176%			
	(viii) Protection works						
	(a) Boulder Pitching/Turfing /other protection measures on slopes		29.371	0.29%			
	(b) Toe/Retaining wall	KM	1.890	3.12%	0.11	0.18%	
	(ix) Tunnel			Not in Scope			
	(a) Excavation	Meter	0	-			
	(b) Construction of support system including Rock bolting, lining etc.	Meter	0	-			
	(c) On Complete completion of Tunnel	Meter	0	-			
	(x) Miscellaneous						
	(a) Overhead Signs	KM	31.000	0.001%			
	(b) Traffic Aid Booth	No.	1	0.017%			
	(c) Medical Aid Booth	No.	1	0.017%			
	(d) Emergengy Cross Over	No.	6	0.018%			
	(d) Helipad	No.	1	0.017%			
	(e) Wearing Course	KM	31.00	0.173%			
	Total			100.00%		20.38%	

## 3.1.1 : Details breakup of physical progress

			Physical	Weightage	Up to Date	e (31.10.2019)
Item No,	Description	Unit	Progress Quantity	to the Contract Price	Quantity	Percentage Progress
1	2	3	7	9		
1	Earth Work upto Top of Subgrade					
1.1	Clearing and grubbing of -MCW	Hec	29.37	0.044%	23.17	0.03%
1.2	Carrying out Jungle Cutting/ removal of debris / dismentling of Concrete Structure / Dismentaling of existing road / Removal of any Physical item	M2	29.37	0.000%	0	
1.3	Earth work in excavation necessary	Cu.m.	29.37	0.013%	22.05	0.01%
1.4	Construction of embankment - MCW Height upto 1 Mtr	Cu.m.	29.37	5.183%	21.98	3.88%
1.5	Construction of embankment - MCW Height 1 mtr to 2 Mtr	Cu.m.	29.37	4.319%	15.6	2.29%
1.6	Construction of embankment - MCW Height 2 mtr to 3 Mtr	Cu.m.	29.37	3.456%	12.12	1.43%
1.7	Construction of embankment - MCW Height 3 mtr to Emb top Bottom	Cu.m.	29.37	2.592%	3.4	0.30%
1.8	Construction of embankment - MCW Embankment Top	Cu.m.	29.37	1.728%	1.04	0.06%
1.9	Construction of Sub grade - MCW	Cu.m.	29.37	2.086%	0.55	0.04%
2	Grannular Sub Base Courses and Base Courses					
2.1	Constructing Grannular Sub-	Cu.m.	29.37	3.46%		

	Description		Physical	Weightage	Up to Date	e (31.10.2019)
Item No,		Unit	Progress Quantity	in percentage to the Contract Price	Quantity	Percentage Progress
	base					
3	Shoulders					
3.1	Earthwork in filling of median / island area	Cu.m.	29.37	0.245%		
3.2	Construction of modified Earthen / un paved shoulders	Cu.m.	29.37	0.036%		
3.3	Providing min 200 mm dia NP4 pipes along the road in 2 Rows in shoulder	LM	29.37	0.691%		
4	Rigid Pavement					
4.01	Providing xxx mm thick DLC (M15) for CW	Cum	29.37	4.640%		
4.02	Providing xxx mm thick PQC for CW	Cum	29.37	22.972%		
5	Pipe Culverts					
5.01	Culvert Excavation	Cum	35.00	0.006%	28.50	0.01%
5.02	Culvert PCC M15 grade	Cum	35.00	0.114%	28.50	0.09%
5.03	Providing, laying and jointing NP4 (as per IS:458) Hume pipes for culverts, - Dia 1200 mm (Internal)	LM	35.00	0.232%	20.50	0.14%
5a	Box Culverts					
5.01a	Culvert Excavation	Cum	27.00	0.022%	6.5	0.01%
5.02a	Culvert PCC M15 grade	Cum	27.00	0.209%	5	0.04%
5.03a	Foundation RCC M 30 - Culvert	Cum	27.00	0.405%	4.5	0.08%
5.04a	HYSD bar in Foundation- Culvert	MT	27.00	0.480%	4.5	0.09%
5.05a	Substructre RCC M 30 - Culvert	Cum	27.00	0.304%	3	0.04%

			Physical	Weightage	Up to Date	e (31.10.2019)
Item No,	Description	Unit	Progress Quantity	in percentage to the Contract Price	Quantity	Percentage Progress
5.06a	HYSD bar in Substructure- Culvert	MT	27.00	0.267%	3	0.03%
5.07a	Super Structure RCC M 30 - Culvert	Cum	27.00	0.153%	3	0.02%
5.08a	HYSD bar in Super Structure- Culvert	MT	27.00	0.127%	3	0.02%
5.09a	Finishing Work (10% cost of overall work)	Nos.	27.00	0.000%		0.0000%
6A	Bill No: 6A Minor Bridges					
6A,01	Structure excavation Ordinary and soft Soils - MNBR	Cum	42.00	0.056%	8	0.01%
6A,02	MNBR - PCC M15 grade	Cum	42.00	0.124%	4	0.01%
6A,03	MNBR - RCC M35 - Foundation	Cum	34.00	0.887%		0.00%
6A,04	HYSD bar reinforcement - Foundation	Mt	34.00	1.034%	6	0.18%
6A,05	MNBR - RCC M35 Pile Cap	Cum	8.00	0.090%	4	0.04%
6A,06	MNBR - RCC M35 1.2m dia piles	Rm	8.00	0.186%	8	0.19%
6A,07	MNBR - RCC M35- Substructure Abutment	Cum	44.00	0.447%	-	0.0000%
6A,08	HYSD bar reinforcement - substructure Abutment	Mt	44.00	0.445%	-	0.0000%
6A,09	MNBR - RCC M35 - Abutment Cap	Cum	44.00	0.128%	-	0.0000%
6A,10	HYSD bar reinforcement - Abutment cap	Mt	44.00	0.144%	-	0.0000%
6A,11	RCC M35 - RCC Girder	Cum	10.00	0.118%	-	0.0000%
6A,12	PSC M45 - PSC Girder	Cum	8.00	0.239%	-	0.0000%

			Physical	Weightage	Up to Date	e (31.10.2019)
Item No,	Description	Unit	Progress Quantity	in percentage to the Contract Price	Quantity	Percentage Progress
6A,13	HYSD bar reinforcement - Super structure Girder	Mt	18.00	0.586%	-	0.0000%
6A,14	HT Steel for PSC Girder	Mt	8.00	0.323%	-	0.0000%
6A,15	RCC M35 - SLAB	Cum	22.00	0.278%	-	0.0000%
6A,16	HYSD bar reinforcement - SLAB	Mt	22.00	0.398%	-	0.0000%
6B	Bill No. 6B : PUP					
6B,01	Structure excavation Ordinary and soft Soils - PUP	Cum	30.00	0.025%	17.5	0.01%
6B,02	PUP - PCC M15 grade Levelling course	Cum	30.00	0.184%	14	0.09%
6B,03	PUP - RCC M35 Raft	Cum	30.00	1.216%	9.5	0.45%
6B,04	HYSD bar reinforcement - RAFT	Mt	30.00	1.560%	9.5	0.57%
6B,05	PUP RCC M35 Wall	Cum	60.00	0.677%	8	0.09%
6B,06	HYSD bar reinforcement - Wall	Mt	60.00	0.623%	8	0.08%
6B,07	PUP - RCC M35 - TOP Slab	Cum	30.00	0.674%	2	0.04%
6B,08	HYSD bar reinforcement - TOP Slab	Mt	30.00	0.706%	2	0.05%
6B,09	Finishing Work (10% cost of overall work)	Nos	30.00	0.000%		
6C	Bill No. 6C : VUP					
6C,01	Structure excavation Ordinary and soft Soils - VUP	Cum	3.00	0.003%	2	0.00%
6C,02	VUP - PCC M15 grade - Levelling course	Cum	3.00	0.013%	2	0.01%
6C,03	VUP - RCC M35 - <b>Raft</b>	Cum	3.00	0.096%	1.5	0.05%
6C,04	HYSD bar reinforcement - Raft	Mt	3.00	0.123%	1.5	0.06%
6C,05	VUP - RCC M35 - WALL	Cum	6.00	0.086%	0.5	0.01%

			Physical	Weightage	Up to Date	(31.10.2019)
Item No,	Description	Unit	Progress Quantity	in percentage to the Contract Price	Quantity	Percentage Progress
6C,06	HYSD bar reinforcement - WALL	Mt	6.00	0.079%	0.5	0.01%
6C,07	RCC M35 - TOP SLAB	Cum	3.00	0.096%	-	
6C,08	HYSD bar reinforcement - TOP Slab	Mt	3.00	0.082%	-	
6D	Bill No. 6D : LVUP					
6D,01	Structure excavation Ordinary and soft Soils - LVUP	Cum	7.00	0.005%	3.5	0.00%
6D,02	LVUP - PCC M15 grade levelling course	Cum	7.00	0.033%	3.5	0.02%
6D,03	LVUP - RCC M35 Raft	Cum	7.00	0.220%	1.5	0.06%
6D,04	HYSD bar reinforcement - Raft	Mt	7.00	0.282%	1.5	0.08%
6D,05	LVUP - RCC M35 - <b>Wall</b>	Cum	14.00	0.155%	2	0.02%
6D,06	HYSD bar reinforcement - WALL	Mt	14.00	0.143%	2	0.02%
6D,07	LVUP - RCC M35 - <b>Top Slab</b>	Cum	7.00	0.187%	0.5	0.01%
6D,08	HYSD bar reinforcement - TOP Slab	Mt	7.00	0.159%	0.5	0.01%
6E	Bill No. 6E : VOP					
6E,01	Structure Excavation for foundation of VOP	Cum	3.00	0.000%		
6E,02	Foundation PCC M15 grade for levelling course	Cum	3.00	0.001%		
6E,04	HYSD bar reinforcement - Foundation	Mt	3.00	0.054%		
6E,05	RCC M35 Pile Cap	Cum	3.00	0.012%		
6E,06	RCC M35 1.2m dia piles	Rm	3.00	0.049%		
6E,07	RCC M35 - ABUTMENT/Return Wall	Cum	2.00	0.002%		

	Description	Unit	Progress Quantity	Weightage	Up to Date (31.10.2019)	
ltem No,				in percentage to the Contract Price	Quantity	Percentage Progress
6E,08	HYSD bar reinforcement - ABUTMENT/Return Wall	Mt	2.00	0.002%		
6E,09	RCC M35 - ABUTMENT CAP	Cum	2.00	0.002%		
6E,10	HYSD bar reinforcement - ABUTMENT CAP	Mt	2.00	0.004%		
6E,11	RCC M35 - PIER	Cum	1.00	0.001%		
6E,12	HYSD bar reinforcement - PIER	Mt	1.00	0.001%		
6E,13	RCC M35 - PIER CAP	Cum	1.00	0.001%		
6E,14	HYSD bar reinforcement -PIER CAP	Mt	1.00	0.002%		
6E,15	HYSD bar reinforcement - Super structure Girder	Mt	2.00	0.050%		
6E,16	HT Steel for PSC - Girder	Mt	2.00	0.033%		
6E,17	PSC M45 - Box Girder/PSC Girder	Cum	2.00	0.025%		
6E,18	M-35 for SLAB super structure	Cum	2.00	0.015%		
6F	Bill No: 6F Flyover					
6F,01	Structure excavation Ordinary and soft Soils - Flyover	Cum	8.00	0.003%	6	0.00%
6F,02	Flyover - PCC M15 grade - levelling course under fdn.	Cum	8.00	0.005%	6	0.00%
6F,03	HYSD bar reinforcement - Foundation	Mt	8.00	0.575%	6	0.43%
6F,04	RCC M35 Pile Cap	Cum	8.00	0.114%	6	0.09%
6F,05	RCC M35 1.2m dia piles	Rm	8.00	0.414%	6	0.31%
6F,06	RCC M35 - ABUTMENT	Cum	4.00	0.047%	-	0.0000%
6F,07	HYSD bar reinforcement - ABUTMENT	Mt	4.00	0.058%	-	0.0000%

			Physical	Weightage	Up to Date (31.10.2019)		
Item No,	Description	Unit	Progress Quantity	in percentage to the Contract Price	Quantity	Percentage Progress	
6F,08	RCC M35 - ABUTMENT CAP	Cum	4.00	0.031%	-	0.0000%	
6F,09	HYSD bar reinforcement - Abutment cap	Mt	4.00	0.053%	-	0.0000%	
6F,10	RCC M35 - Pier Substructure	Cum	4.00	0.037%	-	0.0000%	
6F,11	HYSD bar reinforcement - Pier Substructure	Mt	4.00	0.057%	-	0.0000%	
6F,12	RCC M35 - Pier CAP	Cum	4.00	0.065%	-	0.0000%	
6F,13	HYSD bar reinforcement - Pier CAP	Mt	4.00	0.110%	-	0.0000%	
6F,14	RCC M35 - RCC Girder	Cum	4.00	0.032%	-	0.0000%	
6F,15	PSC M45 - Girder	Cum	2.00	0.053%	-	0.0000%	
6F,16	HYSD bar reinforcement - Girder	Mt	6.00	0.144%	-	0.0000%	
6F,17	HT Steel for PSC - Girder	Mt	2.00	0.072%	-	0.0000%	
6F,18	RCC M35 - SLAB	Cum	6.00	0.084%	-	0.0000%	
6F,19	HYSD bar reinforcement - SLAB	Mt	6.00	0.126%	-	0.0000%	
6F,20	Finishing Work (10% cost of overall work)	Nos	6.00	0.000%	-	0.0000%	
6G	Bill No: 6G Major Bridges						
6G,01	Structure excavation Ordinary and soft Soils - MJB	Cum	22.00	0.014%	18	0.01%	
6G,02	Major Bridge PCC M15 grade - Levelling course	Cum	22.00	0.026%	18	0.02%	
6G,03	HYSD bar reinforcement - Foundation	Mt	22.00	2.746%	17	2.12%	
6G,04	RCC M35 Pile Cap	Cum	22.00	0.708%	17	0.55%	
6G,05	RCC M35 1.2m dia piles	Rm	22.00	1.661%	17	1.28%	

	Description		Physical	Weightage	Up to Date	Up to Date (31.10.2019)		
Item No,		Unit	Progress Quantity	in percentage to the Contract Price	Quantity	Percentage Progress		
6G,06	RCC M35 - Abutment substructure	Cum	12.00	0.100%	2	0.02%		
6G,07	HYSD bar reinforcement - Abutment Substructure	Mt	12.00	0.099%	2	0.02%		
6G,08	RCC M35 - ABUTMENT CAP	Cum	12.00	0.032%				
6G,09	HYSD bar reinforcement - ABUTMENT CAP	Mt	12.00	0.036%				
6G,10	RCC M35 - Pier Substructure	Cum	10.00	0.037%				
6G,11	HYSD bar reinforcement - Pier Substructure	Mt	10.00	0.056%				
6G,12	RCC M35 - Pier CAP	Cum	10.00	0.089%				
6G,13	HYSD bar reinforcement - Pier CAP	Mt	10.00	0.137%				
6G,14	PSC M45 - Girder	Cum	16.00	0.261%				
6G,15	HYSD bar reinforcement -Girder	Mt	16.00	0.343%				
6G,16	HT Steel for PSC -Girder	Mt	16.00	0.340%				
6G,17	RCC M35 - SLAB	Cum	16.00	0.178%				
6G,18	HYSD bar reinforcement - SLAB	Mt	16.00	0.265%				
6G,19	Finishing Work (10% cost of overall work)	Nos.	16.00	0.000%				
6H	Bill No. 6H : ROB							
6H,01	Structural Excavation in ROB foundation	Cum	42.00	0.017%	28.39	0.01%		
6H,02	ROB - Foundation PCC M15 grade Levelling course	Cum	42.00	0.034%	17	0.02%		
6H,03	HYSD bar reinforcement - Foundation	Mt	42.00	3.292%	21.20	1.94%		
6H,04	RCC M35 Pile Cap	Cum	42.00	0.715%	14	0.28%		

			Physical	Weightage in percentage	Up to Date	Up to Date (31.10.2019)		
Item No,	Description	Unit	Progress Quantity	to the Contract Price	Quantity	Percentage Progress		
6H,05	RCC M35 1.2m dia piles	Rm	42.00	2.710%	28.39	2.14%		
6H,06	RCC M35 - ABUTMENT/Return Wall	Cum	4.00	0.019%		0.00%		
6H,07	HYSD bar reinforcement - ABUTMENT/Return Wall	Mt	4.00	0.023%		0.00%		
6H,08	RCC M35 - ABUTMENT CAP	Cum	4.00	0.012%		0.00%		
6H,09	HYSD bar reinforcement - ABUTMENT CAP	Mt	4.00	0.020%		0.00%		
6H,10	RCC M35 - PIER	Cum	38.00	0.195%	2	0.02%		
6H,11	HYSD bar reinforcement - PIER	Mt	38.00	0.299%	2	0.03%		
6H,12	RCC M35 - PIER CAP	Cum	38.00	0.179%				
6H,13	HYSD bar reinforcement - Pier CAP	Mt	38.00	0.301%				
6G,14	PSC M45 - Girder	Cum	40.00	0.246%				
6G,15	HYSD bar reinforcement -Girder	Mt	40.00	0.314%				
6G,16	HT Steel for PSC -Girder	Mt	40.00	0.332%				
6H,14	RCC M35 - SLAB	Cum	40.00	0.260%				
6H,15	HYSD bar reinforcement - SLAB	Mt	40.00	0.382%				
6H,16	Providing and Fixing Steel Girder for Superstructure as per Technical Specification	Mt	4.00	0.889%				
6H,17	Finishing Work (10% cost of overall work)	Nos.	40.00	0.000%				
7	Reinforced Earth Wall							
7.01	PCC For RE Wall Foundation	Cum	26,446.00	0.018%				
7.02	Providing RCC Facia Panel / Block	Sqm	26,446.00	0.261%				

			Physical	Weightage in percentage	Up to Date	e (31.10.2019)
Item No,	Description	Unit	Progress Quantity	to the Contract Price	Quantity	Percentage Progress
7.03	Filter media behind RE walls	Cum	26,446.00	0.094%		
7.04	Construction of embankment with Reinforced Earth	Cum	26,446.00	0.225%		
7.05	RCC crash barrier with friction slab M 40	Rmt	3,952.02	0.246%		
8	Service roads/ Slip Roads					
8.01	Construction of Subgrade	Cum	2.43	0.050%		
8.02	Construction of GSB	Cum	2.43	0.136%		
8.03	Constructing Wet Mix Macadam base	Cu.m.	2.43	0.157%		
8.04	Primer coat - Connecting road	Sqm	2.43	0.010%		
8.05	Tack coat -1 - Connecting road	Sqm	2.43	0.004%		
8.07	Dense Bituminous Macadam course- Connecting road	Cu.m.	2.43	0.172%		
8.08	Bituminous Concrete - Connecting Road	Cu.m.	2.43	0.132%		
9	Bill No.9: Toll Plaza					
9.01	Clearing and grubbing - Toll Plaza	Hec	2.00	0.000%		
9.02	Construction of embankment - Toll Plaza	Cum	2.00	0.087%		
9.03	Construction of Subgrade - Toll Plaza	cum	2.00	0.019%		
9.04	Constructing Grannular Sub- base - Toll Plaza	Cu.m.	2.00	0.031%		
9.05	Providing xxx mm thick DLC (M15) for Toll plaza	cum	2.00	0.052%		
9.06	Providing xxx mm thick PQC for	cum	2.00	0.288%		

			Physical	Weightage	Up to Date	e (31.10.2019)
Item No,	Description	Unit	Progress Quantity	in percentage to the Contract Price	Quantity	Percentage Progress
	Toll plaza					
9.07	Providing and fixing of Tool booth	Nos.	2.00	0.009%		
9.08	Roof over Toll plaza	Sq.m	2.00	0.050%		
9.09	Operation & Office building at toll plaza	Sq.m	1.00	0.022%		
9.11	Toll plaza sign boards	LS	2.00	0.032%		
9.12	Toll Plaza Facilities	LS	2.00	0.043%		
10	DRAINAGE					
10.01	Drain Excavation	Cu.m.	29.37	0.066%		
10.02	Drain Lining	cum	29.37	0.479%		
10.03	RCC M 20 Grade Dain	Cum	29.37	0.241%		
10.04	HYSD bar reinforcement	Mt	29.37	0.117%		
10.05	Construction of chute lined drain in shoulder	L.M.	29.37	0.408%		
10.06	Construction of energy dissipation basin and sumps	Nos.	29.37	0.067%		
11	Bill No. 11: Traffic signs, Road markings and other road appurtunences					
11.01a	Providing Kerb M-20 grade	L.M.	29.37	0.116%		
11.01b	Painting on Kerbs	Sq.m	29.37	0.014%		
11.02a	Supplying & Fixing Sign Boards	KM	31.00	0.402%		
11.03a	Pavement marking	Sq.m	31.00	0.278%		
b)	W-Beam Crash Barrier in Road work					
11.06b	Providing and erecting " W "	L.M.	29.37	1.160%		

			Physical	Weightage	Up to Date	e (31.10.2019)
Item No,	Description	Unit	Progress Quantity	in percentage to the Contract Price	Quantity	Percentage Progress
	metal beam crash barrier					
12	Wayside Amenities/Rest Area					
12.01	Truck Parking service area	LS	2.00	1.08%		
12.02	Smaller Parking service area	LS	3.00	0.65%		
12.03	Providing operational and maintenance Center	No.	1.00	0.27%		
12.04	Providing & Placing Noise Barrier	Km.	9.30	0.40%		
12.05	Providing lighting including all	Km.	31.00	0.04%		
12.06	Provding Advanced Traffic Management Systems (ATMS)	Km.	31.00	0.46%		
12.07	Providing min 600 mm dia NP4 pipes across the road for utility work	No.	50.00	0.23%		
12.08	Providing Rain Water Harvesting arrangement as shown in drawing with all materials etc., with all lifts and leads complete as directed by the engineer	No.	62.00	0.07%		
II	Fencing Work					
А	Providing Chain Link Fencing in ROW	Km.	29.37	1.09%		
13	Road Side Plantation					
	Land Scaping and Tree plantation	LS	29.37	0.176%		
14	PROTECTION WORKS					
I	Boulder pitchin on slopes					

			Physical	Weightage	Up to Date	e (31.10.2019)
Item No,	Description	Unit	Progress Quantity	in percentage to the Contract Price	Quantity	Percentage Progress
Α	Providing and laying stone pitching on embankment slopes	cum	29.37	0.213%		
В	Providing and laying filter media underneath stone pitching	cum	29.37	0.077%		
II	Toe/Retaining wall					
Α	Excavation of Retaining Wall + Toe Wall	Cu.m.	1.89	0.031%	0.15	0.00%
В	M-15 PCC Retaining Wall + Toe Wall	Cu.m.	1.89	0.089%	0.15	0.01%
С	M-25 Retaining Wall + Toe Wall	Cum	1.89	1.626%	0.11	0.09%
D	HYSD - Retaining Wall + Toe Wall	MT	1.89	1.371%	0.11	0.08%
15	MISCELLANEOUS WORKS					
15.01	Overhead Signs	Km.	31.00	0.001%		
15.02	Traffic Aid Booth	No.	1.00	0.017%		
15.03	Medical Aid Booth	No.	1.00	0.017%		
15.04	Wearing courses	Km.	31.00	0.173%		
15.05	ROW Survey, centerline fixing along with fixing of ROW piller and obtaining pusation of ROW	Km.	31.00	0.000%		
15.06	Emergency Cross Over	Nos.	6.00	0.018%		
15.07	Helipad	Nos.	1.00	0.017%		
	Total Amount					20.38%

### **4.0 Land Acquisition and Clearance**

### 4.1 LA Summary: - A)Length Wise:

									Ar	nnexure-G
Sr.No	FROM	TO	LENGTH (KM)	VILLAGE	SURVEY NO	Owner Name	CLEAR LENGTH (KM)	UNCLEAR LENGTH (KM)	SIDE	REMARKS
1	292+000	293+410	1.410				1.410			
2	293+410	293+510	0.100	Tham	231	Huriben wd/o Vali bagas and others	0.100		LHS	
3	293+510	296+350	2.840				2.840		0 1	
4	296+350	296+450	0.100	Derol	519	Maniben Wd/o Gambhirsinh Dadabhai and others		0.100	BHS	
5	296+450	297+380	0.930		130		0.930		62 66	
6	297+380	297+455	0.075	Dayadra	504	Ismailbhai Ahamdbhai Isabhai and others	0.075		LHS	
7	297+455	297+600	0.145			the state of the s	0.145			
8	297+600	297+630	0.030	Dayadra	481	Musabhai Ahmadbhai Mala	0.030		RHS	
9	297+630	297+660	0.030	151 547 45-1110-111			0.030			
10	297+660	297+705	0.045	Dayadra	462,463,46 5,466,467, 468	Umarajibhai Ahamad Valibhai and others,Salimyusuf Ibrahimbhai Mahanmadbhai and others	0.045		BHS	
11	297+705	297+805	0.100		1.		0.100		GC 38	
12	297+805	297+875	0.070	Dayadra	469	Ikbal Ahmad Isa	0.070		RHS	
13	297+875	298+070	0.195				0.195	Į.		
14	298+070	298+135	0.065	Dayadra	435	Ahmadbhai Amijibhai Mithabhai	0.065		RHS	
15	298+135	298+520	0.385			5	0.385			
16	298+520	298+540	0.020	Dayadra	540	Ismail Aadam Vali and others	0.020		RHS	
17	298+540	298+710	0.170				0.170		0.0	
18	298+710	298+750	0.040	Dayadra	356	Gulambhai Ahmadbhai Mahanmadbhai and others	0.040		LHS	
19	298+750	298+875	0.125				0.125		e e	
20	298+875	299+000	0.125	Dayadra	547	Aadambhai Musebhai Aamanjibhai		0.125	BHS	
21	299+000	299+360	0.360			100	0.360			
22	299+360	299+505	0.145	Dayadra	563,565/A	Usmanbhai Sulemanbhai Adambhai and others, Bibiben Wd/o Valibhai Isapbhai and others	0.145		BHS	
23	299+505	299+650	0.145				0.145			
24	299+650	299+680	0.030	Dayadra	567/B	Valibhai Yusufbhai Isabhai and others	0.030		RHS	

					Land Acc	quisition Status			20	
313		-	4 55		203	27	-	8	Ar	nexure-G
Sr.No	FROM	TO	LENGTH (KM)	VILLAGE	SURVEY NO	Owner Name	CLEAR LENGTH (KM)	UNCLEAR LENGTH (KM)	SIDE	REMARKS
25	299+680	299+710	0.030				0.030			
26	299+710	299+820	0.110	Dayadra	569/A, 569/B	Zubedaben Wd/o Mahmadbhai Valibhai and others	0.110		BHS	
27	299+820	300+915	1.095				1.095			
28	300+915	301+000	0.085	Tralsa	Ĭ	Haji Ibrahim Ismail Kothivala and others	0.085		BHS	
29	301+000	301+110	0.110		0		0.110		3	
30	301+110	301+150	0.040	Tralsa		Haji Ibrahim Ismail Kothivala and others	0.040		BHS	
31	301+150	301+640	0.490				0.490			
32	301+640	301+850	0.210	Kelod	253/A	Mahmad Musabhai Vali Kalabhai and others		0.210	BHS	
33	301+850	305+000	3.150		**	1	3.150		7	
34	305+000	305+080	0.080	Pipaliya	213	Rashid Musa Ali and others	0.080	0	RHS	
35	305+080	305+155	0.075		30		0.075		3 8	
36	305+155	305+210	0.055	Pipaliya	215	Rashid Musa Ali and others	0.055		RHS	
37	305+210	306+050	0.840				0.840			
38	306+050	306+155	0.105	Karela	120	Thakorbhai Lalubhai and others	0.105		LHS	
39	306+155	306+480	0.325		43		0.325			
40	306+480	306+530	0.050	Karela	61	Rameshbhai Falubhai Patel	0.050		LHS	
41	306+530	309+640	3.110				3.110		1	
42	309+640	309+690	0.050	Kurchan	574	Vali Mahmad Abhram Vali	0.050		LHS	
43	309+690	309+880	0.190		30 1111 W 111		0.190	0		
44	309+880	310+030	0.150	Kurchan	529/1,524/ 1,523/1,52 2,527	Yusuf Ibrahim Umarji and others,Ismail Ibrahim Vali,Aadam Vali and others		0.150	BHS	
45	310+030	310+040	0.010		-		0.010		J. J.	
46	310+040	310+120	0.080	Kurchan	495	Ismail Mahnmad Aku	0.080		RHS	
47	310+120	312+300	2.180				2.180			
48	312+300	312+570	0.270	Simaltha	42	Administrator of Kamnath Mahadev	0.270		BHS	
49	312+570	313+630	1.060		33		1.060			
50	313+630	313+735	0.105	Simaltha	303	Maheshbhai Vasava		0.105	RHS	
51	313+735	316+780	3.045				3.045			

					Land Ac	quisition Status				
500					5-4				Ar	nexure-G
Sr.No	FROM	TO	LENGTH (KM)	VILLAGE	SURVEY NO	Owner Name	CLEAR LENGTH (KM)	UNCLEAR LENGTH (KM)	SIDE	REMARKS
52	316+780	316+875	0.095	Dora	733	Old Govt. Land		0.095	BHS	
53	316+875	317+600	0.725	7		*	0.725		-	
54	317+600	317+710	0.110	Dora	620171	Administrator of Brahmanpanch	0.110		BHS	
55	317+710	319+800	2.090				2.090			
56	319+800	319+890	0.090	Danda	605	Jayantibhai Lallubhai		0.090	BHS	
57	319+890	320+230	0.340	2.1			0.340			
58	320+230	320+290	0.060	Telod	385	Administrator of Telod Kabripanth, Ambalal Ganeshbhai.	0.060		RHS	
59	320+290	320+340	0.050				0.050		30	
60	320+340	320+410	0.070	Telod	393	Administrator of Telod Kabripanth, Ambalal Ganeshbhai.	0.070		RHS	
61	320+410	321+220	0.810				0.810			
62	321+220	321+250	0.030	Suthodra	97	Mohansang Chhatrasang Deputy and others		0.030	RHS	
63	321+250	321+330	0.080	j			0.080			
64	321+330	321+410	0.080	Suthodra	108	Harisinh Jitsinh	0.080		LHS	
65	321+410	321+520	0.110	98	is:		0.110		. 133	
66	321+520	321+700	0.180	Suthodra	106	Rukshan aben Jashubha Bhaibava and others	0.180		BHS	
67	321+700	321+850	0.150		0		0.150			
68	321+850	321+905	0.055	Suthodra	118	Rajendrasinh Udesinh		0.055	RHS	
69	321+905	322+130	0.225				0.225			
70	322+130	322+245	0.115	Matar Talpad	468,467	Jaydevprasad Ramanlal,Shree Bhikhabhai Laljibhai		0.115	BHS	
71	322+245	323+000	0.755	0	3		0.755		10	
	Length % of I	Project	31.000			35	29.925	1.075	10 30	
	Lengui % Of I	Toject	100%	J.			96.53%	3.47%		

#### B)Area Wise:

		Packago	e - 3 (Sampa to Man	ubar)(Km 323.000	to Km 292.00)		
SI. No.	Village Name	Taluka & District	Area in Hec.	Award (Rs. In Cr.)	Disbus Area in Hec.	Disburs (Rs. In Cr.)	Disbus Area in %
1	Matar Talpad		19.7199	10.02	16.7231	8.43	85%
2	Vanta Matar		1.6709	1.64	0.6865	1.37	41%
3	Sunthodara		13.0293	1.77	13.0293	1.62	100%
4	Telod	Tal Amad	3.4501	1.24	2.8330	1.15	82%
5	Danda	TalAmod DistBharuch	29.1681	19.81	28.6605	19.46	98%
6	Dora		38.0178	22.58	37.0607	22.17	97%
7	Simlatha		21.2190	42.05	19.6934	38.39	93%
8	Vantarsa		0.2261	0.04	0.2261	0.04	100%
9	Kurchan		18.1489	3.21	17.0847	3.00	94%
10	Padariya		5.7697	2.78	5.7697	2.78	100%
11	Karela		42.1435	20.70	40.8154	20.09	97%
12	Pipaliya		12.4403	3.78	12.2705	3.71	99%
13	Kelod		25.5545	24.16	24.4512	23.46	96%
14	Taralsa	Tal. & DistBharuch	16.5034	11.56	15.5425	10.88	94%
15	Dayadara		20.9353	8.48	17.1477	7.64	82%
16	Derol		35.3771	35.89	34.6392	35.12	98%
17	Tham		8.1923	4.22	7.9318	4.00	97%
18	Kanthariya	]	8.6506	11.01	6.6815	9.97	77%
	TOTAL AW	ARD PKG #3	320.2168	224.94	301.25	213.27	94%

#### 4.2 Clearances Summary: -

		LIIVIIO	nment					
Proposal Status Length Current impacted stage Issues/Comments								
As per Schedule-A (Annex-V) – The Environmental clearance have been obtained								
		Forest La	and/Tree					
Proposal Description	Status	Length impacted	Current stage	Issues/Comments				
Tree cutting permission received on dated 25.03.2019 with letter no. NHAI PIU SURAT								
(Expressway)/FR-02/2019/1717								

### **4.2 A) STATUS OF PERMISSION AND APPROVALS**

Sr No	Appro	vals as in Schedule -E
a	Permission of the state Government for extraction of boulder from quarry	The company has given a subcontract to Mauni Minerals for supply of Aggregate and GSB material. They have already procured permission from State Government for extraction of boulders. Valid till 14.07.2025
b	Permission of Village panchayat and Pollution control board for installation of crusher.	Obtained. Valid till 14.07.2025
c	License for use of explosives	Work Agreement with Mauni Minerals (Agency) to Sub-agency (Sukhdev Enterprise) for quarrying of boulder is enclosed with its use, storage & transportation of explosives.  Valid till 31.03.2023
d	Permission from State government for drawing water from river/reservoir.	NA (For use of water, as per guideline of Ministry of water resource letter dated 26/10/2012, it is exempted from obtaining NOC if ground water used up to 100 cum/day i.e. 1 Lac liter/day in any Infrastructure Project., as our consumption is under the limit.)
e	License from Inspector of factories or competent authorities for setting up Batching Plant	Obtained. Valid till 17.09.2025.
f	Clearance from Pollution control board for Setting up Batching Plant	Obtained. Valid till 17.09.2025.
g	Permission of Village Panchayat and Pollution control board for Asphalt Plant	N.A.
h	Permission of Village Panchayat and State Government for Borrow earth.	Some Village Panchayats Obtained. Others in progress
i	Permission of State Government for Cutting trees	Obtained Forest trees cutting permission received vid letter no. NHAI/PIU Surat (Expressway)/FR-02/2019/1717 on dated 25.03.2019
j	Consent to establish issued by the Sate Pollution Control Board for the Project;	Obtained

### 4.3 Status of utility shifting: -

Utility Category	Name/ Department	Status	Length affected	Date & letter of request by Authority for estimate	Date & letter when Estimate was Received from concerned dept.	Date & letter when Estimate was Verified By IE.	Date & letter of Approval by Authority RO/ HQ	Date & letter of Deposit of super- vision charge	Progress of Physical Shifting	Agency	Estimate Amount	Issue/ Comments
	GWSSB	All Estimates submitted	80 M	-	-		-	-	-	-	-	-
Water	SSNNL	Detailed proposal submission of arrangement of existing canal in proposed structure and GADs is submitted in PIU on Dt.27.09.2019 for three division.(Bharuch,karjan, jambusar)	730 M									
Electricity	DGVCL	PVKPL submit supervision charges vide Letter #80 on 16.05.2019	2640 M	1	-	#72,73 &74 on 13.02.2019	-	Supervision Charges Paid for 1) Palej on 24.05.2019 2) Amod on23.05.2019 3) Bharuch (Rural) Pending-	-	-	-	Issue of Supervision charges of 2.5%( as per NHAI) & 15% as demanded by DGVCL is to be resolved
·	GETCO	PIU has written Letter no. 271 Dt.03.08.2019 to ACE, GETCO, Vadodara for compliance & extension of validity of five nos. Estimates and rest 1 under preparation with GETCO	710 M			#342 on 01.05.2019						
Gas Pipe Lines	GAIL		300 M					Supervision Charges Paid by NHAI without GST				

### 4.3 A) Utility shifting/ Tree Cutting Progress Status-Length Wise

Utility Category	Name/ Department	Length affected (M)	Length Cleared (M)	Balance Affected Length (M)
NA/atan	GWSSB	80	-	80
Water	SSNNL	730	-	730
	DGVCL	2640	-	2640
Electricity	GETCO	710	-	710
Gas Pipe Lines	GAIL	300	-	300
Tree	Tree Cutting	900	900	0

### **4.3 B) Utility shifting/ Tree Cutting Progress Status-Nos**

Sr. No.	Particular	Total	Progress till Last Month	Current Month	Cumulative Progress till Oct- 2019	Balance to Completed	Remarks
1	Electric Pole						
	Bharuch Section						
	Bharuch division						
	i) Bharuch Subdivision	41				41	
	ii) Palej Subdivision	5				5	
	iii) Amod Subdivision	5				5	
	Total	51				51	
2	Structures (Nos.)						
	Bharuch Section	7	7	-	7	0	
	Total	7	7	-	7	0	
3	Religious Str. (Nos.)						
	Bharuch Section	0	0	0	0	0	
	Total	0	0	0	0	0	
4	H.T. Line crossing						
	<b>Bharuch Section</b>	6				6	
	Total	6				6	
5.	Water Utilities						
	Bharuch Section						
	i) Bharuch						
	Subdivision						
	ii) Jambusar						
	Sub- division						
	Total	64				64	

### **Tree Cutting Progress Status-Nos**

Sr. No.	District	Ca	tegory	Tota Nos.	('iifting	No. of Cutting Permission	No. of Cutting up to this Month	Balance	Remark
		Govt. Trees	All	164	Tree Cutting Permission is received vide letter No.	164	164	-	-
1	Bharuch	Pvt.	5	0	NHAI/PIU Surat (Expressway)/PR- 02/2019/ 1717 Date: 25.03.2019				

## 5.0 Change of Scope:-

Sr. No.	Proposal Details	Date of first submission	Current Status	COS Amount	Expected/Actual date of
		to IE			Approval
	NIL	NIL	NIL	NIL	NIL

### 6.0 Mobilization of Resources.

Sr. No	Equipment	Unit	Tentative Planning	Deployed Machinery Month of Oct-19
1	Excavator	Nos	30	21
2	Motor Grader	Nos	20	12
3	Vibratory Roller	Nos	25	18
4	Wet Mix/ DLC Paver	Nos	1	-
5	Wet Mix Plant	Nos	1	1
6	PQC Paver	Nos	1	1
7	Pneumatic Tyre Roller	Nos	0	-
8	Dumpers/Tippers	Nos	100	51
9	FE Loaders/JCB	Nos	10	7
10	Water Tanker	Nos	30	20
11	Batching Plant CP60	Nos	2	2
12	Batching Plant CP 120	Nos	2	1
13	Batching Plant 300 TPH (DLC)	Nos	1	1
14	Transit Mixers	Nos	20	18
15	Boom Placer	Nos	1	1
16	Concrete Pump	Nos	1	1
17	Kerb Machine	Nos	1	0

### **7.0 Financial Progress Details**

#### 7.1 Pen Picture - Escrow

Total Bid	Total Project Cost	Cumulative inflow to Escrow	Cumulative outflow	Inflow to Escrow	Outflow from Escrow
Project	,		from Escrow till previous	During the month	during the month
Cost (Cr.)	(Cr.)	till previous month (Cr)	month (Cr)	(Cr)	(Cr)
1712.00	1027.2 Cr.	284.78	271.79	0.05	10.22

#### 7.2 Escrow detail

Total Bid	Total Project	Escrow Plan	Escrow Plan	Escrow Plan	Escrow Actual	Escrow Actual	Escrow Actual
Project Cost	Cost (Cr.)	till date-Debt	till date-	till date- VGF	till date-Debt	till date-	till date- YGF
(Cr.)	, ,	(HAM)(Cr)	Equity	(HAM)(Cr)	(HAM)(Cr)	Equity	(HAM)(Cr)
(- /			(HAM)(Cr)			(HAM)(Cr)	
1712.00	1027.2 Cr.	229.07	102.72	265.36	0.00	116.69	0.00

# 8.0 QA/QC Report. 8.1 Test conducted on site.

							N	lumber of	Tests Co	onducted	t			
		Testing	Frequency of	Specification	Up To F	revious I	Month	Th	is Month	)	Tota	Upto Da	ate	
Sr. No.	Name of Test	Method	Test	Requirements	Passed	Failed	Total No. of Test	Passed	Failed	Total No. of Test	Passed	Failed	Cum. No. of Test	Remarks
				OGL &	Cutting s	oil								
1	Free Swell Index		2 test per 3000 m <sup>3</sup>	50 % Max	148	0	148	0	0	0	148	0	148	
2	Grain Size Analysis		2 test per 3000 m <sup>3</sup>	-	148	0	148	0	0	0	148	0	148	
3	Plasticity Index	IS 2720 Part 5	2 test per 3000 m <sup>3</sup>	L.L.= Not>50 %,PI =Not> 25 %	148	0	148	0	0	0	148	0	148	
4	Max. Dry Density	IS 2720 Part 8	2 test per 3000 m <sup>3</sup>	Up to 3m 1.52 gm./cc	148	0	148	0	0	0	148	0	148	
5	CBR	IS 2720 Part 16		Min. 8 % or as per design	0	0	0	0	0	0	0	0	0	
6	Density of Comp.Layer	IS 2720 Part 28		90-95 % of lab MDD	5364	72	5436	0	0	0	5364	72	5436	
				Borrow Area (Emb	oankment	& Subgr	ade)							
1	Free Swell Index	IS 2720 Part 40	2 test per 3000 r	n <sup>3</sup> 50 % Max	1825	0	1825	10	0	10	1835	0	1835	
2	Grain Size Analysis	IS 2720 Part 4	2 test per 3000 r	n <sup>3</sup> -	1825	0	1825	10	0	10	1835	0	1835	
3	Plasticity Index	IS 2720 Part 5	2 test per 3000 r	L.L.= Not>50 %,PI = Not> 25 %	1825	0	1825	10	0	10	1835	0	1835	
4	Max. Dry Density	IS 2720 Part 8	2 test per 3000 r	Up to 3m 1.52 gm./cc More than 3m 1.60 gm./cc	1825	0	1825	10	0	10	1835	0	1835	
5	CBR	IS 2720	1 test per 3000 r	n3 Min. 8 % as	54	0	54	0	0	0	54	0	54	

							N	lumber of	f Tests Co	onducted	t			
		Testing	Frequency of	Specification	Up To F	revious I	Month	Th	nis Month	1	Total	Upto Da	ate	
Sr. No.	Name of Test	Method		Requirements	Passed	Failed	Total No. of Test	Passed	Failed	Total No. of Test	Passed	Failed	Cum. No. of Test	Remarks
		Part 16		per design										
					ork Field to	est								
1	Density of Comp.Layer (Emb.)	IS 2720 Part 28	1 set of 10 tests per 3000 m <sup>2</sup>	95% of Lab MDD	35733	558	36291	137	3	140	35870	561	36431	
2	, , , , , , , , , , , , , , , , , , , ,	IS 2720 Part 28	1 set of 10 tests per 2000 m <sup>2</sup>	97% of Lab MDD	0	0	0	104	0	104	104	0	104	
					GSB									
1	Sieve Analysis		1 Test /400M <sup>3</sup>	As per MORT&H Table 400-1	14	0	14	9	0	9	23	0	23	
2	Plasticity Index	IS 2720 Part 5	1 Test /400M <sup>3</sup>	LL=Not>25% PI=Not>6%	14	0	14	9	0	9	23	0	23	
3	Max. Dry Density	IS 2720 Part 8	1 TEST PER SOURCE		1	0	1	0	0	0	1	0	1	
4	CBR	IS 2720 Part 16	As Required	30% Min.	1	0	1	0	0	0	1	0	1	
5	Water Absorption	IS 2386 Part 3	As Required	2% Max.	1	0	1	0	0	0	1	0	1	
6	AIV	IS 2386 (P-4) & IS 5640	As Required	40% Max	1	0	1	0	0	0	1	0	1	
7	Density of Comp.Layer	IS 2720 Part 28	1 Test /1000M <sup>2</sup>	98% of Lab MDD	48	0	48	9	3	12	57	3	60	
			PHYSICAL I	PROPERTIES OF	AGGREC	ATE FO	R CON	CRETE						
1	Sieve Analysis of CA	IS 2386 Part 1	1 Test/Concreting Day	As per IS 383	312	0	312	48	0	48	360	0	360	
2	Sieve Analysis of FA	IS 2386 Part 1	1 Test/Concreting Day	As per IS 383	312	0	312	48	0	48	360	0	360	

							N	Number of	Tests Co	onducted	d			
		Testing	Frequency of	Specification	Up To F	revious I	Month	Th	is Month	ו	Tota	Upto Da	ate	
Sr. No.	Name of Test	Method	Test	Requirements	Passed	Failed	Total No. of Test	Passed	Failed	Total No. of Test	Passed	Failed	Cum. No. of Test	Remarks
3	Aggregate Impact Value	IS 2386 Part 4	1 Test/Concreting Day	As per IS 383	312	0	312	48	0	48	360	0	360	
4	Flakiness Index	IS 2386 Part 1	1 Test/Concreting Day	As per IS 383	312	0	312	48	0	48	360	0	360	
5	Silt Content	IS 383	As Required		142	0	142	48	0	48	190	0	190	
6	Specific Gravity & W A	IS 2386 PART 3	1 Test/Month		6	0	6	0	0	0	6	0	6	
				Concrete Mix	Design (c	ube sets)	)							
1	M15 7 Days				3	0	3	0	0	0	3	0	3	
	28 Days				9	0	9	0	0	0	9	0	9	
2	M20 Kerb 7 Days				0	0	0	0	0	0	0	0	0	
	28 Days				0	0	0	0	0	0	0	0	0	
3	M20 7 Days				3	0	3	0	0	0	3	0	3	
	28 Days				9	0	9	0	0	0	9	0	9	
4	M25 PCC 7 Days				28	0	28	8	0	8	36	0	36	
	28 Days				65	0	65	6	0	6	71	0	71	
5	M30 7 Days	IS-516	18 Cubes	As per	54	0	54	13	0	13	67	0	67	
	28 Days	13-510	16 Cubes	MoRT&H	64	0	64	24	0	24	88	0	88	
6	M35 7 Days				103	0	103	23	0	23	126	0	126	
	28 Days				189	0	189	57	0	57	246	0	246	
7	M35 Pile 7 Days				66	0	66	10	0	10	76	0	76	
	28 Days				115	0	115	33	0	33	148	0	148	
8	M35 RE block 7 Days				0	0	0	0	0	0	0	0	0	
	28 Days				0	0	0	0	0	0	0	0	0	
9	M40 7 Days				33	0	33	10	0	10	43	0	43	
	28 Days				36	0	36	42	0	42	78	0	78	

							1	Number of	Tests Co	onducted	<u> </u>			
		Testing	Frequency of	Specification	Up To F	Previous I	Month	Th	is Month		Total	Upto Da		
Sr. No.	Name of Test	Method		Requirements	Passed	Failed	Total No. of Test	Passed	Failed	Total No. of Test	Passed	Failed	Cum. No. of Test	Remarks
10	M45 7 Days				1	0	1	2	0	2	3	0	3	
	28 Days				6	0	6	0	0	0	6	0	6	
11	M50 7 Days				0	0	0	7	0	7	7	0	7	
	28 Days				0	0	0	0	0	0	0	0	0	
12	M40 PQC 7 Days				0	0	0	0	0	0	0	0	0	
	28 Days	IS-516	36 cubes & 30	As per	0	0	0	0	0	0	0	0	0	
13	M40 PQC FI. Strength 7 Days	15-510	beams	MoRT&H	0	0	0	0	0	0	0	0	0	
	28 Days				0	0	0	0	0	0	0	0	0	
14	DLC 7 Days	IS-516	10 cubes	Asper MoRT&H	79	29	108	18	0	18	97	29	126	
				Field Con	crete (cube	e sets)								
1	M15 7 Days				0	0	0	0	0	0	0	0	0	
	28 Days				0	0	0	0	0	0	0	0	0	
2	M20 Kerb 7 Days		1 test - 0-5 M3 2test - 6-15 m3		0	0	0	0	0	0	0	0	0	
	28 Days		3test - 16-30 m3		0	0	0	0	0	0	0	0	0	
3	M25 PCC 7 Days	IS-516	4 test - 31- 50 m3	O As per MoRT&H	240	0	240	39	0	39	279	0	279	
	28 Days		+1 test for every		444	0	444	44	0	44	488	0	488	
4	M30 7 Days		50m3 concrete		66	0	66	8	0	8	74	0	74	
	28 Days				172	0	172	4	0	4	176	0	176	
5	M35				126	0	126	107	0	107	233	0	233	

							N	lumber of	Tests Co	onducted	<u>t</u>			
		Testing	Frequency of	Specification	Up To F	revious I	Month	Th	is Month		Tota	Upto Da		
Sr. No.	Name of Test	Method		Requirements	Passed	Failed	Total No. of Test	Passed	Failed	Total No. of Test	Passed	Failed	Cum. No. of Test	Remarks
	7 Days													
	28 Days				307	0	307	119	0	119	426	0	426	
6	M35 Pile 7 Days				674	0	674	32	0	32	706	0	706	
	28 Days				1978	0	1978	70	0	70	2048	0	2048	
7	M35 RE block 7 Days				0	0	0	0	0	0	0	0	0	
	28 Days				0	0	0	0	0	0	0	0	0	
8	M40 7 Days				1	0	1	0	0	0	1	0	1	
	28 Days				1	0	1	0	0	0	1	0	1	
9	M45 7 Days				0	0	0	0	0	0	0	0	0	
	28 Days				0	0	0	0	0	0	0	0	0	
10	M50 7 Days				0	0	0	0	0	0	0	0	0	
	28 Days				0	0	0	0	0	0	0	0	0	
11	M40 PQC 7 Days		1 test of 2 cubes & 2beams for 150		0	0	0	0	0	0	0	0	0	
	28 Days	IS-516	m3	As per	0	0	0	0	0	0	0	0	0	
12	M40 PQC F.S 7 Days		or Min. 6 cubes & 6	MoRT&H	0	0	0	0	0	0	0	0	0	
	28 Days		beams for the day		0	0	0	0	0	0	0	0	0	
13	DLC 7 Days	IS-516	1set of 3cubes for 1000 m2	Asper MoRT&H	0	0	0	0	0	0	0	0	0	
14	DLC	IS 2720	1 Test /2000M <sup>2</sup>	98% of Ref.	0	0	0	0	0	0	0	0	0	

							N	lumber of	Tests Co	onducted	t			
		Testing	Frequency of	Specification	Up To F	revious I	Month	Th	is Month	1	Tota	l Upto Da	ate	
Sr. No.	Name of Test	Method	Test	Requirements	Passed	Failed	Total No. of Test	Passed	Failed	Total No. of Test	Passed	Failed	Cum. No. of Test	Remarks
	FDD	Part 28		Density										
				(	Cement									
1	Fineness	IS 4031	1 Test/Week		50	0	50	8	0	8	58	0	58	
2	Consistency	IS 4031	1 Test/Week		50	0	50	8	0	8	58	0	58	
3	Setting Time	IS 4031	1 Test/Week		50	0	50	8	0	8	58	0	58	
4	Soundness	IS 4031	1 Test/Week		50	0	50	8	0	8	58	0	58	
5	Compressive Strength	IS 4031	1 Test/Week											
	a) 3 Days		01  set = 3  Cube		50	0	50	8	0	8	58	0	58	
	b) 7 Days		01  set = 3  Cube		50	0	50	6	0	6	56	0	56	
	c) 28 Days		01 set = 3 Cube		47	0	47	4	0	4	51	0	51	

#### 8.2 Weather report

SI.	Date	Tempera	ature 0 <b>C</b> .	Humi	dity %		Cum.Rainfall	Remarks
No.		Min. Temp.	Max. Temp.	Min.	Max.	(mm)	(mm)	nemarks
1	1-Oct-19	25.4	32.8	78.0	88.0	8.0	8.0	
2	2-Oct-19	25.8	33.1	75.0	86.0	0.0	8.0	
3	3-Oct-19	25.6	33.1	74.0	85.0	0.0	8.0	
4	4-Oct-19	25.9	32.9	77.0	88.0	0.0	8.0	
5	5-Oct-19	24.2	32.7	76.0	87.0	0.0	8.0	
6	6-Oct-19	23.1	34.0	75.0	88.0	3.0	11.0	
7	7-Oct-19	24.2	33.9	76.0	87.0	0.0	11.0	
8	8-Oct-19	24.7	34.1	74.0	86.0	0.0	11.0	
9	9-Oct-19	25.8	35.0	78.0	88.0	0.0	11.0	
10	10-Oct-19	26.7	37.1	77.0	85.0	0.0	11.0	
11	11-Oct-19	25.4	38.7	75.0	87.0	0.0	11.0	
12	12-Oct-19	25.6	36.2	78.0	85.0	0.0	11.0	
13	13-Oct-19	24.9	33.5	73.0	88.0	0.0	11.0	
14	14-Oct-19	24.8	35.9	75.0	86.0	0.0	11.0	
15	15-Oct-19	25.7	33.9	74.0	87.0	0.0	11.0	
16	16-Oct-19	25.3	35.8	76.0	86.0	0.0	11.0	
17	17-Oct-19	23.9	34.6	78.0	85.0	0.0	11.0	
18	18-Oct-19	24.6	36.1	74.0	87.0	0.0	11.0	
19	19-Oct-19	25.4	35.6	76.0	85.0	0.0	11.0	
20	20-Oct-19	24.6	36.8	74.0	88.0	0.0	11.0	
21	21-Oct-19	25.8	38.9	76.0	85.0	0.0	11.0	
22	22-Oct-19	26.8	34.4	78.0	84.0	0.0	11.0	
23	23-Oct-19	24.9	33.1	79.0	88.0	0.0	11.0	

24	24-Oct-19	25.5	34.5	73.0	81.0	0.0	11.0	
25	25-Oct-19	25.1	34.8	75.0	82.0	0.0	11.0	
26	26-Oct-19	25.2	35.2	78.0	83.0	0.0	11.0	
27	27-Oct-19	28.1	33.0	77.0	81.0	0.0	11.0	
28	28-Oct-19	27.2	33.4	76.0	82.0	0.0	11.0	
29	29-Oct-19	27.4	32.4	78.0	88.0	16.0	27.0	
30	30-Oct-19	26.9	33.0	77.0	87.0	5.0	32.0	
31	31-Oct-19	27.0	33.2	73.0	88.0	0.0	32.0	
	Average	25.5	34.6	75.9	85.8			

### 9.0 Safety Features

### 9. 1 Pen picture of safety features

Location of Black spot	Suggested Remedial Measures with in provisions of Concession Agreement	Financial implications of additional Remedial Measures for Authority
NIL		

9.2 Accident report : NIL

### 10.0 Review status of drawings/design reports

### **10.1 Structure drawing status**

Sr. No	Type of Structure	Total scope (Nos)	Submitted to IE	Approved by IE	Chainage	Submission to IE	Comments from IE	Remarks
1	Pipe Culvert	35	35	35	-	Submitted via direct mail from Designer to IE dated 15.05.2019 at 2:36 PM	Found in order as per MoM dt. 17.05.2019	Approved
2	Box Culvert	27	21	12	-	also 12 submitted via letter no. 089	12 Nos are found in order (less than 20°) in MOM 316+420 approval received via letter no. 632 dt. 16.07.2019	12 Nos
3	Flyover	1	1	-	799 + 375		Comments received via letter No. 584 dated 01.07.2019	Revised drawing has been received from SES and subitted to Site for onward submission.

Si		Total scope (Nos)	Submitted to IE	Approved by IE	Chainage	Submission to IE	Comments from IE	Remarks	
	Major				302+732	Submitted via letter no. 029 dated 28.03.2019	-Comments received via letter No. 383 dated 11.05.2019 -Comments received on Hyd. Report via letter No. 905 dated 27.09.2019	Pending with concessionaire	
4	Bridge	3	3	1	318+875	Submitted via letter no. 239 dated 04.10.2019	-	Under review with IE	
				•	321+280	Submitted via letter no. 179 dated 28.03.2019	-	Approved in MOM dt. 30.08.2019	
					294+085	Submitted via letter no. 116 dated 21.06.2019	Comments received via letter No. 912 dated 30.09.2019	Pending with concessionaire	
5	5 Minor Bridge	11	11	5	296+432	Submitted via letter no. 184 dated 06.08.2019	-	Approved in MOM dt. 30.08.2019	
						297+472	Compliance submitted via letter no. PVKEPL/VKP3/IE/178/2019 dt. 23.07.2019	-Comments received on Hyd. Report via letter No. 688 dated 01.08.2019	Under review with IE

Sr. No	Type of Structure	Total scope (Nos)	Submitted to IE	Approved by IE	Chainage	Submission to IE	Comments from IE	Remarks
					297+562	Submitted via letter no. 185 dated 06.08.2019	-Comments received on Hyd. Report via letter No. 905 dated 27.09.2019	Approved in MOM dt. 30.08.2019
					304+450	Submitted via letter no. 145 dated 17.08.2019	-	Approved in MOM dt. 30.08.2019
					307+731	GFC drawing has been submitted to site for onward submission.	-	Approved in MOM dt. 30.08.2019
					309+100	Submitted via letter no. 254 dated 17.10.2019	Comments received via letter No. 355 dated 06.05.2019	Under review with IE
					309+840	Submitted via letter no. 125 dated 24.06.2019, also Directly submitted by Designer to Aarvee via mail dt. 23.05.2019		Revised drawing has been received from SES.
					310+752	Submitted via letter no. 132 dt. 12.07.2019	Comments received via letter No. 913 dated 30.09.2019	Pending with concessionaire
					313+835	Submitted via letter no. 145 dated 17.08.2019	-	Approved in MOM dt.

Sr.	Type of Structure	Total scope (Nos)	Submitted to IE	Approved by IE	Chainage	Submission to IE	Comments from IE	Remarks
								30.08.2019
					314+314	Directly by Designer to Aarvee via mail dt. 25.05.2019 at 6:19 pm and via letter no. PVKEPL/VKE3/IE/177/2019 dt. 23.07.2019	-Comments received on Hyd. Report via letter No. 688 dated 01.08.2019 Comments received via letter No. 913 dated 30.09.2019	Pending with concessionaire
6	PUP	30	30	21	-	-29 Nos via letter No. 21 dated 22.10.2018 - 1 No via letter No. 37 dated 12.12.2018 -Further 18 Nos revised Submitted Via Itr no. 18 on 28.02.2019, also Directly submitted by Designer to Aarvee via mail dt. 23.05.2019 at 6:41 pm R3-PVKEPL/HO/VKP3/IE/093/2019 dt. 28.05.2019 - Further revised 12 Nos submitted via 049 on 17.04.2019 -Directly by Designer to Aarvee via mail dt. 30.05.2019	03.06.2019 18 Approved vide AA/VKE/PVKEPL/0115/19-	Revised drawings have been received from Designer

Sr. No	Type of Structure	Total scope (Nos)	Submitted to IE	Approved by IE	Chainage	Submission to IE	Comments from IE	Remarks
				295+575	Directly by Designer to Aarvee via mail dt. 24.05.2019 at 6:22 pm	AA/VKE/PVKEPL/0116/19- 20/DESIGN REVIEW/474 Dt. 03.06.2019	Approved by IE via Itr. 474 dt. 03.06.2019	
7	VUP	3	3	1		Submitted via direct mail from Designer to IE dated 30.05.2019 at 8:00 PM	-	Under review with IE
					312+720		Comments received via letter No. 053 dated 02.02.2019	Pending with concessionaire (needs to change skew angle 17°)
8	VOP	1	1	-	307+193	1278 FP1 /HC )/VK P 3/1F/ 1 /9/ /O 19 OT	Comments received via letter No. 826 dated 16.09.2019	Pending with concessionaire

Sr. No	Type of Structure	Total scope (Nos)	Submitted to IE	Approved by IE	Chainage	Submission to IE	Comments from IE	Remarks
9	LVUP	7	7	7		mail dt. 26.05.2019 at 4:55 pm, 311+047 submitted via direct mail from Designer on 28.05.2019 at 8:20 pm -Directly by Designer to Aarvee via	311+047 approved by AA/VKE/PVKEPL/0119/19- 20/DESIGN REVIEW/485 Dt. 06.06.2019. comments on 6 LVUP received via letter no. 590 Dt. 04.07.2019	1 approved 6 Nos Found in order vide IE letter no. 590
10	ROB	1	1	-	293 + 014	Submitted via letter no. 046 dated 26.04.2019	Comments received via IE letter no. 526 dt. 17.06.2019	Received from SES

### **10.2** Highway drawing status

	Plan and Profile						
Sr No.	Description	Concessionaire Submission Letter No. and Date	IE's comment Letter No. and Date	Remark			
1	MCW	# 35 on 08.04.2019	# <i>476</i> Dt. 04.06.2019				
2	Connecting road	# 35 on 08.04.2019	# 476 Dt. 04.06.2019				
3	VOP Approaches	# 35 on 08.04.2019	# 476 Dt. 04.06.2019				

### **Abstract of Pavement Design**

_	Road / Mair Type of Pave	n Carriageway ment	Pavement Composition	Status	Remark
			40 mm BC + 50 mm DBM +250 mm WMM + 200 mm GSB + 500 mm Subgrade with 8% effective CBR	APPROVED	Letter no. AA/VKE/PVKEPL/051/18-19/Design Review/176 dated 13.03.2019
			30 mm BC + 50 mm DBM +250 mm WMM + 200 mm GSB + 500 mm Subgrade with 10% effective CBR	APPROVED	Letter no. AA/VKE/PVKEPL/051/18-19/Design Review/176 dated 13.03.2019
connecting Roads/		New	30 mm BC + 50 mm DBM +100 mm WMM + 150 mm CTSB + 500 mm Subgrade with 8% effective CBR	APPROVED	Letter no. AA/VKE/PVKEPL/051/18-19/Design Review/176 dated 13.03.2019
Overpass Cross Roads	Flexible Pavement	Construction (10 MSA)	30 mm BC + 50 mm DBM +100 mm WMM + 150 mm CTSB + 500 mm Subgrade with 10% effective CBR	APPROVED	Letter no. AA/VKE/PVKEPL/051/18-19/Design Review/176 dated 13.03.2019
Noaus			40 mm BC + 100 mm Aggregate Layer (WMM) + 200 mm Cemented Base + 250 mm GSB + 500 mm Subgrade with 8% effective CBR	APPROVED	Letter no. AA/VKE/PVKEPL/051/18-19/Design Review/176 dated 13.03.2019
			40 mm BC + 100 mm Aggregate Layer (WMM) + 200 mm Cemented Base + 250 mm GSB + 500 mm Subgrade with 10 % effective CBR	APPROVED	Letter no. AA/VKE/PVKEPL/051/18-19/Design Review/176 dated 13.03.2019
Main Carriage Way	Rigid Pavement	New Construction	300 mm PQC + 150 mm DLC + 150 mm GSB+ 500 mm Subgrade with 8% effective CBR	APPROVED	Letter no. AA/VKE/PVKEPL/051/18-19/Design Review/176 dated 13.03.2019

#### **PLANT & APPROVAL STATUS**

#### **CRUSHER:-**

300 TPH @ Rajpardi for Aggregates – Functional

#### **Batching Plant:-**

- 1. Batching Plant (60 CUM) @ Tralsa Camp (KM 299+350 R/S) Functional
- 2. Batching Plant (112 CUM) @ Tralsa Camp (KM 299+350 R/S) Functional
- 3. Batching Plant (60 CUM) @ Dayadra (KM 300+000 L/S) Functional

#### 10.3 Review status of source approvals

#### **Course Aggregates:-**

1. Rajpardi Quarry Approved vide letter no. 85 dated 15th FEB 2019

**Fine Aggregates:-**

Bodeli Source Approved vide letter no. 86 dated 16th FEB 2019

Nareshwar Source Approved vide letter no. 86 dated 16th FEB 2019

#### Cement:-

vide 048 dated 02th Feb 2019 M/s Birla Corporation Ltd., Chanderiya, Rajasthan M/s Ultra Tech Cement Ltd., Mumbai vide 048 dated 02th Feb 2019 Vide 048 dated 02th Feb 2019 M/s Udaipur Cement works lid. Vide 048 dated 02th Feb 2019 M/s Sanghi Industries Ltd., Kutch District, Gujarat. vide 048 dated 02th Feb 2019 M/s JK Lakshmi Cement Ltd., Sirohi, Rajasthan vide 281 dated 11th March 2019 M/s Gujarat Sidhee cement vide 289 dated 13th March 2019 M/s Hathi Cement M/s Nuvoko Cement vide 546 dated 24th July 2019

#### **Chemical Admixture:-**

M/S BASF India Limited Approved vide letter no. 062 dated 12th Feb 2019

M/S Kunal Conchem Pvt Ltd Approved vide letter no. 062 dated 12<sup>th</sup> Feb 2019

M/S STP Approved vide letter no. 592 dated 5<sup>th</sup> Jul 2019

M/S Salimar Seal and Tar Product vide letter no. 676 dated 29<sup>th</sup> July 2019

M/S Yahska polymers Private limited Approved vide letter no. 784 dated 31st August 2019

M/S CAC Approved vide letter no. 677 dated 29<sup>th</sup> July 2019

#### **Reinforcement Steel:-**

M/s Essar Steel Limited, Mumbai M/s Electro steel Steel Limited, Kolkatta Steel Authority of India Limited (SAIL) Tata Iron and Steel company Limited (TISCO) Rashtriya Ispat Nigam Limited (RINL) Jindal Steel & Power Limited (JSPL)

#### **NP4 Hume Pipe:-**

M/s Giriraj Hume Pipes Industries,

Bodeli Approved vide letter no. 066 dated 12<sup>th</sup> Feb 2019

Approved Quantity of 1200 Dia NP4 Pipes – 700 Nos.

M/s T&G Approved vide letter no. 547 dated 24<sup>th</sup> June 2019

#### **Concrete Mix Design:-**

- M-15 PCC, M-20 PCC, M-25 RCC, M-30 RCC, M-35 RCC, M-35 Pile, M-40 RCC
   With Ultratech OPC 53 Grade cement, Rajpardi quarry Quarry Aggregates, Bodeli and
   Nareshwar Sand and Kunal Con Plast Admixture. Approved vide letter no. 131 dated
   Feb 2019.
- 2) M-15 PCC, M-20 PCC, M-25 RCC, M-30 RCC, M-35 RCC, M-35 Pile, M-40 RCC With Ultratech OPC 53 Grade cement, Rajpardi quarry Quarry Aggregates, Bodeli and Nareshwar Sand and BASF Admixture. Approved vide letter no. 132 dated 25<sup>th</sup> Feb 2019.

#### **Borrow Area:-**

Status	Number of Borrow areas	Qty(Cum)
Approved	74	2668942
Submitted	17	809832
Total	91	3478774

#### **Independent Laboratory:**

Mukesh A Patel, Ahmedabad Approved vide letter no. 065 dated 12<sup>th</sup> Feb 2019 Geo Design & Research Pvt Ltd Approved vide letter no. 283 dated 11th April 2019

#### NCR:-

NCR.01:- Embankment construction is carried out on review stretches without ground improvement. By Letter no. 209 on 22.03.2019 and complied Vide letter 56 on dated 19.04.2019.IE reviewed and commented vide letter mo 451 on dated 30.05.2019. Compliance submitted by concessionaire vide Letter no 148 Dt.20.08.2019.

NCR.02:- Embankment construction is carried out on review stretches without ground improvement. By Letter no. 253 on 08.04.2019 and complied Vide letter 56 on dated 19.04.2019.IE reviewed and commented vide letter mo 466 on dated 31.05.2019.Compliance submitted by concessionaire vide Letter no 148 Dt.20.08.2019

NCR.03:- Construction of Raft is carried out 500mm below the OGL at interface of PUP at Ch. 304+170 on LHS.Rectification Done.

**NCR.04**:- PCC Construction is carried out at Foundation level over un-compacted earth fill of 900mm thick for the construction of PUP at Km. 305+058 and Km. 309+550. Rectification work in progress.

NCR.05:- Construction of back fill is carried out in a single layer with embankment of 1.5m depth around the HPC at ch.303+408. Rectification Done .NCR Closed