



National Highway Authority of India
(Ministry of Road Transport & Highways)

PATEL SETHIYAHOPU - CHOLOPURAM HIGHWAY PRIVATE LIMITED

Four laning of Sethiyahopu - Cholopuram from Km 65.960 to Km.116.440 section of NH-45C in the state of Tamil Nadu under NHDP Phase-IV on Hybrid Annuity Mode.

INDEPENDENT ENGINEER
M/s. Theme Engineering Services Pvt. Ltd

MONTHLY PROGRESS REPORT
APRIL 2019

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Executive Summary

The old National Highway (NH -45C) runs through the state of Tamil Nadu. The project road is part of the 168 km long Vikravandi to Thanjavur section of the existing National Highway 45C (NH-45C). Recently MORTH has amended the number and Length of the National Highways. The old NH 12 in the state of Tamil Nadu has become the part of the New National Highway 36. It links Chennai with Thanjavur and is 418 km long.

The Sethiyahopu to Cholopuram section of NH-45C is an important link to connect Metropolitan city of Chennai to religious and tourist places of Cholopuram, Thanjavur, kumbakonam, Puducherry. The project is also expected to provide improved connectivity to other religious places & other major cities like Rameswaram, Madurai, Tiruchirappalli, etc.

Project Synopsis

The Government of India had entrusted to the National Highway Authority of India (NHAI) the development, maintenance and management of National Highway No. 45C including the section from km 65.960 to Km 116.440 (approx. 50.480 Km). The Authority had resolved to augment for four Laning of Sethiyahopu - Cholopuram from Km 65.960 to Km 116.440 section of NH - 45C in the State of Tamil Nadu under NHDP Phase-IV on design, build, operate and transfer (the “DBOT Annuity” or “Hybrid Annuity”) basis.

The scope of work will broadly include rehabilitation, upgradation and widening of the existing carriageway to four - lane standards with construction of new pavement, rehabilitation of existing pavement, construction and/or rehabilitation of major and minor bridges, culverts, road intersections, interchanges, drains etc. Including those prescribed in the Concession Agreement and its Schedule and the operation and maintenance itself. The map of project road is given in Figures below. The details of habitations are given in table - 01.

Figure 1: Project Location Map

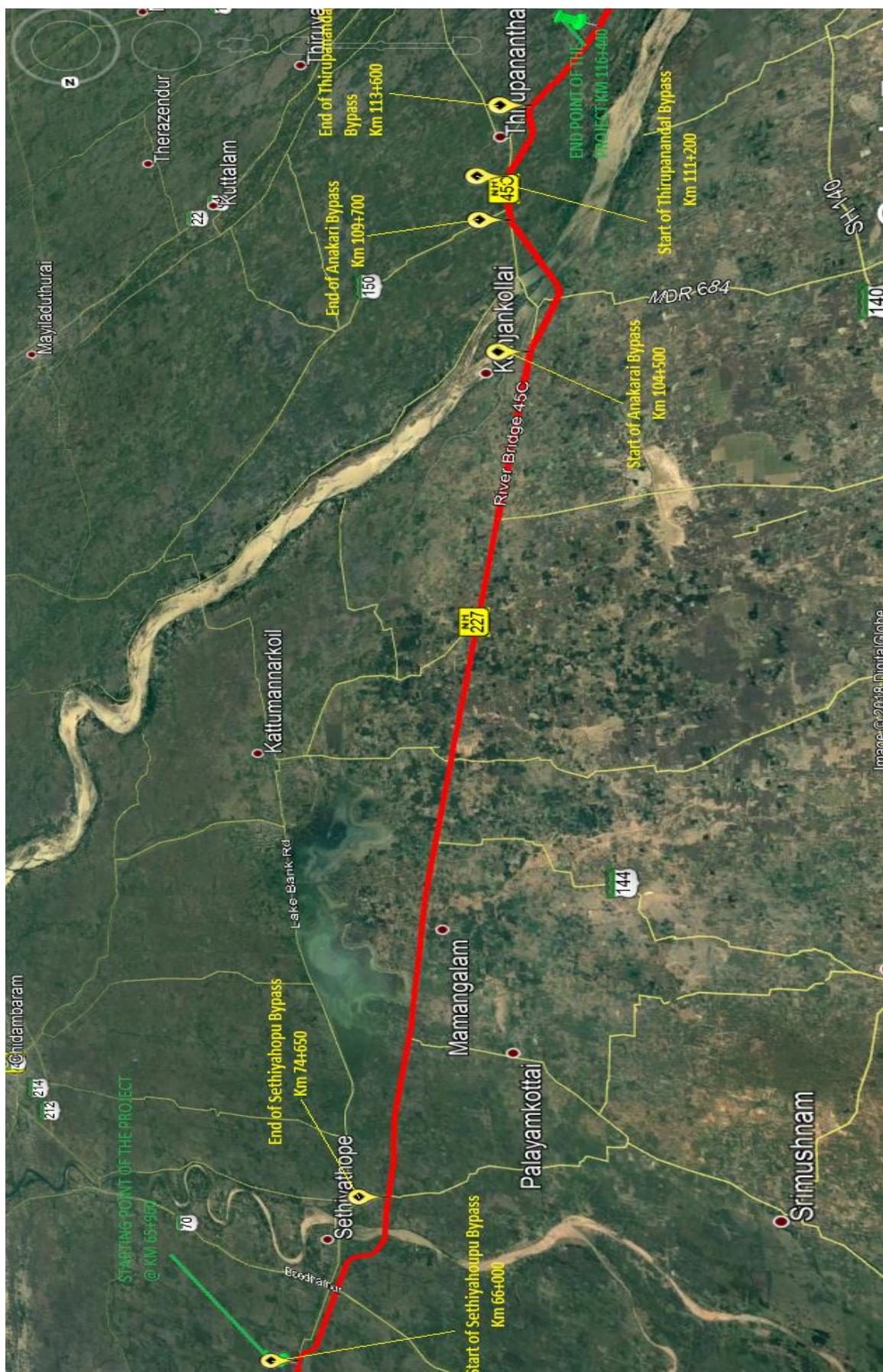
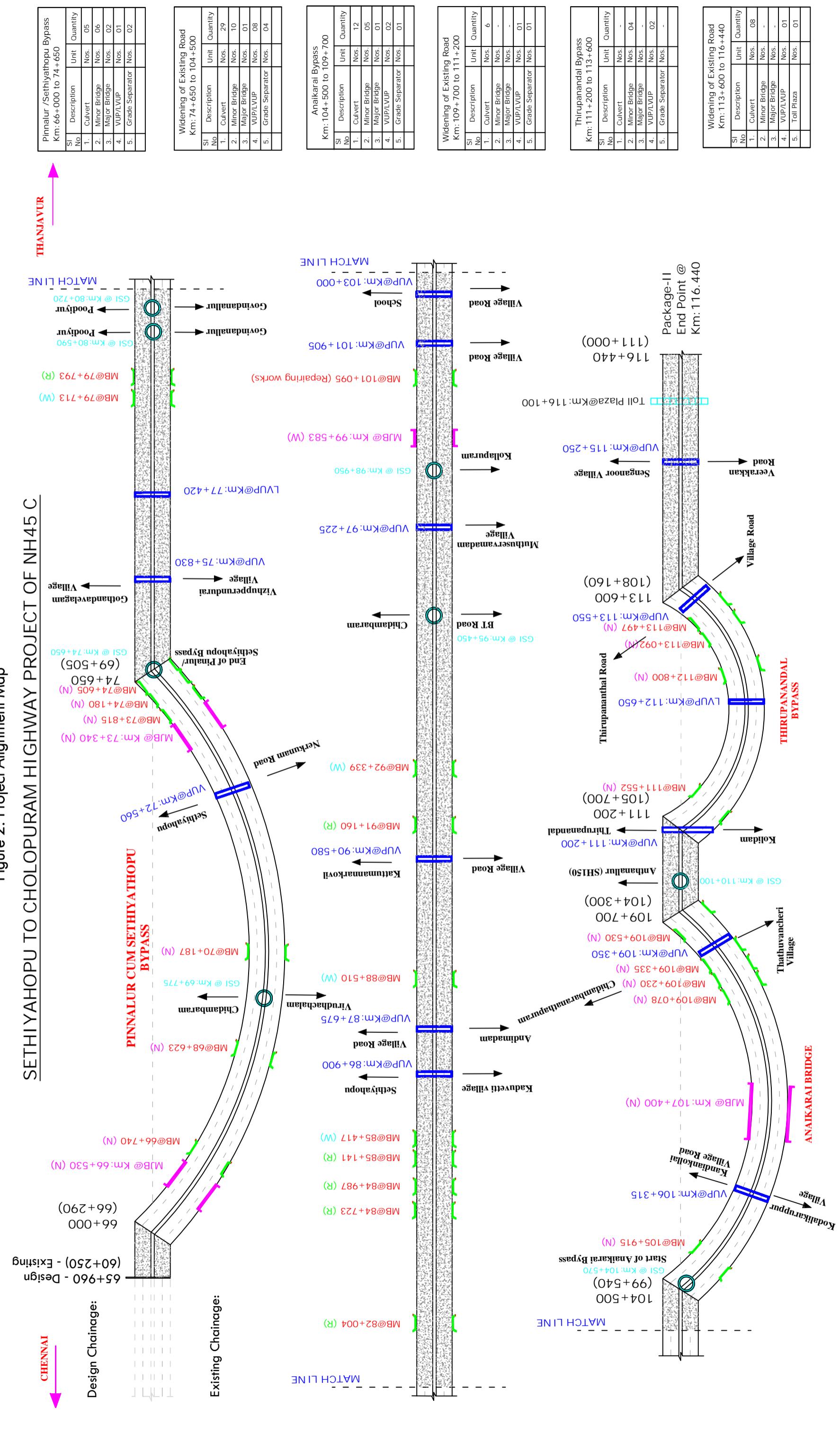


Figure 2: Project Alignment Map

SETHIYAHOPU TO CHOLOPURAM HIGHWAY PROJECT OF NH45 C



Drawing Title
Strip Plan - Sethiyahopu to Cholopuram Highway Project

Date.	Project No.
31-08-2018	PSCHP/NHAI/TN/001

Sl No	Description	Unit	Scope
1.	Total Length of Project	Km	50.480
2.	Length of Widening Portion	Km	34.230
3.	Length of Bypass	Km	16.250
4.	Length of service/Slip Road	Km	27.100
5.	Culverts	No.	53
	Box Culvert	No.	01

Sl No	Description	Unit	Scope
11.	Minor Intersection	Nos.	07
12.	Major Intersection	Nos.	07
13.	Bus Bays and Shelters	Nos.	69
			01

Sl No	Description	Unit	Scope
1.	Toll Plaza		
2.	Vehicle Under Pass (LVUP/VUP)		
3.	Reconstruction of Existing Road		
4.	Bypass/Newconstruction		

Table - 1.1 : Details of Project Alignments

Existing and Proposed Alignments							
Sl. no.	Existing Chainage (Km)		Design Chainage (Km)		LENGTH (Km)	TCS Type	Remarks
	From	To	From	To			
1	60.250	Bypass	65.960	69.460	3.500	Type-A-3 (Fig 2.4 of the manual)	Bypass
2	Bypass	Bypass	69.460	70.090	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
3	Bypass	Bypass	70.090	72.350	2.260	Type-A-3 (Fig 2.4 of the manual)	Bypass
4	Bypass	Bypass	72.350	72.775	0.425	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
5	Bypass	Bypass	72.775	74.335	1.560	Type-A-3 (Fig 2.4 of the manual)	Bypass
6	Bypass	69.820	74.335	74.960	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
7	69.820	70.375	74.960	75.520	0.560	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
8	70.375	71.010	75.520	76.150	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
9	71.010	71.855	76.150	76.900	0.750	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
10	71.855	72.170	76.900	77.220	0.320	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
11	72.170	72.570	77.220	77.620	0.400	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
12	72.570	72.800	77.620	77.850	0.230	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
13	72.800	73.230	77.850	78.300	0.450	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
14	73.230	75.105	78.300	80.150	1.850	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
15	75.105	76.080	80.150	81.120	0.970	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
16	76.080	76.460	81.120	81.500	0.380	TCS-1	Concentric Widening
17	76.460	77.000	81.500	82.240	0.740	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
18	77.000	78.115	82.240	83.150	0.910	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
19	78.115	79.110	83.150	84.150	1.000	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
20	79.110	79.510	84.150	84.550	0.400	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
21	79.510	80.610	84.550	85.650	1.100	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
22	80.610	81.555	85.650	86.580	0.930	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
23	81.555	82.170	86.580	87.210	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	

24	82.170	82.320	87.210	87.360	0.150	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
25	82.320	82.910	87.360	87.990	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
26	82.910	83.180	87.990	88.265	0.275	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
27	83.180	83.660	88.265	88.745	0.480	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
28	83.660	85.220	88.745	90.265	1.520	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
29	85.220	85.850	90.265	90.895	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
30	85.850	86.555	90.895	91.600	0.705	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
31	86.555	87.015	91.600	92.050	0.450	TCS-1	Concentric Widening
32	87.015	87.525	92.050	92.560	0.510	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
33	87.525	90.000	92.560	95.035	2.475	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
34	90.000	90.830	95.035	95.865	0.830	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
35	90.830	91.350	95.865	96.400	0.535	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
36	91.350	91.970	96.400	96.910	0.510	TCS-1	Concentric Widening
37	91.970	92.460	96.910	97.535	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
38	92.460	93.550	97.535	98.535	1.000	TCS-1	Concentric Widening
39	93.550	94.370	98.535	99.335	0.800	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
39A	94.370	94.875	99.335	99.840	0.505	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
40	94.875	95.350	99.840	100.300	0.460	Type-B (Fig 2.6 of the manual) with both side service road	
41	95.350	96.630	100.300	101.590	1.290	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
42	96.630	97.260	101.590	102.225	0.635	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
43	97.260	97.720	102.225	102.685	0.460	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
44	97.720	98.360	102.685	103.315	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
45	98.360	99.190	103.315	104.160	0.845	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
46	99.190	Bypass	104.160	104.990	0.830	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
47	Bypass	Bypass	104.990	106.000	1.010	Type-A-3 (Fig 2.4 of the manual)	Bypass

48	Bypass	Bypass	106.000	106.625	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
49	Bypass	Bypass	106.625	109.035	2.410	Type-A-3 (Fig 2.4 of the manual)	Bypass
50	Bypass	104.260	109.035	109.660	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
51	104.260	105.015	109.660	110.515	0.855	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
52	105.015	105.390	110.515	110.890	0.375	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
53	105.390	Bypass	110.890	111.515	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
54	Bypass	Bypass	111.515	112.430	0.915	Type-A-3 (Fig 2.4 of the manual)	Bypass
55	Bypass	Bypass	112.430	112.840	0.410	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
56	Bypass	Bypass	112.840	113.225	0.385	Type-A-3 (Fig 2.4 of the manual)	Bypass
57	Bypass	108.410	113.225	113.850	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
58	108.410	109.395	113.850	114.835	0.985	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
59	109.395	110.220	114.835	115.660	0.825	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
60	110.220	111.000	115.660	116.440	0.780	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening

1.1. Project Overview

Name of Work	Four Laning of Sethiyahopu-Cholopuram from km. 65.960 to Km.116.440 of NH-45C under NHDP-IV on Hybrid Annuity Mode Basis.
Name of Employer	National Highways Authority of India (NHAI) G-5 & 6, Sector-10, Dwarka, New Delhi -110075
Name of Concessionaire	Patel Sethiyahopu – Cholopuram Highway Pvt Ltd, Patel House, Beside Prakruti Resorts, Channi Road,Vadodara. Gujarat– 391740 Tel: +91-265 277 6678 Fax: +91-265 277 7878
Independent Engineer	M/s. Theme Engineering Services Pvt. Ltd, S.F B1&B2, gateway Apartments, koranattu Karuppur, Kumbakonam – 612501.
EPC Contractor	M/s. Patel Infrastructure Limited, Patel House, Beside Prakruti Resorts, Channi Road,Vadodara Gujarat– 391740, Tel: +91-265 277 6678 Fax: +91-265 277 7878
Design Consultant	CTL Global Services Pvt. Ltd.. 101, 1st Floor, Krishna Chambers, HAL, Airport Road, Bangalore-560017
Senior Lender	Punjab National Bank, Large Corporate Branch, Neelkamal Building, Opp. Sales India, Ashram Road, Ahmedabad - 380009
Lenders Independent Engineers	Sharul Techno-Financial Consultancy Services Pvt. Ltd., 403, Aspire Tower 5, Amanora Park Town, Hadapsar, Pune - 411028.
Length of Road (Design Length)	50.480 Kms
Total Bid Cost	Rs. 1461.00 Crores (as per concession agreement)
Date of Concession Agreement	November 9, 2017
Concession Period	17 Years (Construction Period 2 Years from Appointed date, Operation period 15 years from COD)
Appointed Date	16.08.2018
Construction Period	2 years from Appointed date
Completion Date	15.08.2020
Maintenance Period	15 years from COD

1.2. Salient Project Features

Besides the construction of new carriageways and widening and strengthening of existing carriageways, the following table summaries the major elements of the project construction:

4 - Lane Divided Carriage Way	50.48 Km.
Service Road/ Slip Road	26.595 Km
Major Bridge	04 Nos.
Minor Bridge	25 Nos.
Grade Separate Intersection	08 Nos.
Vehicular Underpass	13 Nos.
Light Vehicular Underpass	2 Nos.
Culverts	60 Nos.
Major Intersections	07 Nos.
Minor Intersections	100 Nos.
Bus Bays	09 Nos.
Toll Plaza	01 Nos.

1.3. Contractual Project Milestones

Following is a listing of the Key Project Milestones:

Mile Stone	Description	Target Date
Mile Stone-I	Concessionaire shall expended not less than 20 % of the Total capital cost and shall have commenced construction of the project and achieved 20% of physical progress on 214 th day from the Appointed Date.	18 th March 2019
Mile Stone-II	Concessionaire shall expended not less than 35% of the Total capital cost and shall have commenced construction of the project and achieved 35% of physical progress on 334 th day from the Appointed Date.	16 th July 2019
Mile Stone-III	Concessionaire shall expended not less than 75 % of the Total capital cost and shall have commenced construction of the project and achieved 75% of physical progress on 584 th day from the Appointed Date.	22 nd March 2020
Scheduled Completion	Concessionaire shall have completed Project on 730 th day from the Appointed Date.	15 th August 2020

1.4. Payment milestone during Construction Period

Payment Mile Stone	Eligibility Criteria	Payment Amount (Rs.)
Mile Stone-I	On Achievement of 10% of Physical Progress	116.88 Crs.
Mile Stone-II	On Achievement of 30% of Physical Progress	116.88 Crs.
Mile Stone-III	On Achievement of 50% of Physical Progress	116.88 Crs.
Mile Stone-IV	On Achievement of 75% of Physical Progress	116.88 Crs.
Mile Stone-V	On Achievement of 90% of Physical Progress	116.88 Crs.

1.5. Permits & Approvals

Sr. No.	Details	Authority	Current Status	Remarks
1	Extraction of Boulders from Quarries	Dist. Mining Officer	Obtained	We have executed an agreement with Mr. Thiru V. Sekar for supply of boulders that is having a valid license for extraction of boulders for the quarry at Padalur Village, Perambalur District.
2	Installation of Crusher	Village Panchayat Head	Obtained	
3	-----D O-----	Pollution Control Board	Obtained	
4	Use of Explosives	District Collector	Obtained	
5	Labour License	Labour Commissioner	Obtained	
6	Environmental Clearance		NA	

Sr. No.	Details	Authority	Current Status	Remarks
7	Trees Cutting Permission	Forest department through NHAI	Obtained & work is in Progress	Tree felling permission obtained for all the three districts & Work in Progress.
8	Electric Poles Shifting	Tamil Nadu Electricity Board	Obtained & work is in Progress	Work in progress in all Three districts.
9	Water Pipes Shifting	Tamilnadu Water Supply and Drainage Board	Obtained & work is in Progress	All the estimates are approved and Work in Progress.
10	Drawing Water from river/ reservoir		NA	

2. Right of Way Status

2.1. Land Acquisition

As per the Schedule – A of Concession Agreement, the Proposed Right of Way (ROW) is of 45 & 60 meters as per table below.

Table 2.1-1: Details of proposed ROW as per Schedule-A

	Design Chainage (Km)	Design Length (Km)	Width (m)	Remarks
Full Right of Way (full width)				
Stretch	65.960 to 75.150	9.190	60.00	
Stretch	75.150 to 82.380	7.230	45.00	
Stretch	82.380 to 83.080	0.700	60.00	
Stretch	83.080 to 84.050	0.970	45.00	
Stretch	84.050 to 86.440	2.390	60.00	
Stretch	86.440 to 87.660	1.220	52.50	
Stretch	87.660 to 91.730	4.070	45.00	
Stretch	91.730 to 93.730	2.000	52.50	
Stretch	93.730 to 95.900	2.170	45.00	
Stretch	95.900 to 99.700	3.800	60.00	
Stretch	99.700 to 104.500	4.800	30.00	
Stretch	104.500 to 109.700	5.200	60.00	
Stretch	109.700 to 110.980	1.280	30.00	
Stretch	110.980 to 113.700	2.720	60.00	
Stretch	113.700 to 116.440	2.740	30.00	
Total Length		50.480		

Balance Right of way (width)

	Design Chainage (Km)	Design Length (Km)	Width (m)	
Stretch	099.700 to 104.500	4.800	15.00	Within 90(Ninety) days of the Appointed date
Stretch	109.700 to 110.980	1.280	15.00	
Stretch	113.700 to 116.400	2.740	15.00	

Besides this, the Authority has to acquire additional land at Toll plaza location, Bus bays, Turning radius at Major junctions.

Table 2.1-2: Status of Land Acquisition as per Site Condition.

Sl. No.	Description	Unit	Present Status	Remarks
A)	Total Length of the Project Highway	Km	50.48	
1	Use of Existing Road Portion	Km	34.23	
2	Proposed Bypass / Realignment portion	Km	16.25	
B)	Hindered Length			
1.	LA pending	Km	7.620	
2.	Payment Pending	Km	10.460	
3.	Existing Buildings	Km	4.860	
4.	Temple & Bus stand	Km	0.105	
5.	Electrical Lines	Km	3.880	
6.	Rural Water Supply lines	Km	20.105	
7.	NOC Irrigation Dept	Km	2.050	
8.	Paddy/Cotton fields	Km	0	
9.	Trees	Km	0.736	
10.	Net Hindered Length (both Side)	Km	46.86	
C)	Total Project Length (both Side)	Km	100.96	
D)	% Hindered Length	%	46.41%	

The details of land acquisition status and available hindrances are produced on a strip chart under section 04.

The status of compensation disbursed is as below: -

Table 2.1-3: Compensation disbursement for land					
SL No.	Name of the District	Total No. of Land cases	Amount paid (in Nos.)	Balance to be Paid (in Nos.)	Remarks
1	Cuddalore	710	546	164	
2	Ariyalur	355	261	94	
3	Thanjavur	102	89	13	
	Total in Nos.	1167	896	271	
		Total in %	76.77%	23.23%	

Table 2.1-4 - Compensation disbursement for Structures					
Sl No.	Name of the District	Total No. of structures	Amount paid (in Nos.)	Balance to be Paid (in Nos.)	Remarks
1	Cuddalore	383	313	70	
2	Ariyalur	359	312	47	
3	Thanjavur	153	67	86	
	Total in Nos.	895	692	203	
		Total in %	77.32	22.68%	

The details of chainages under hindrance due to such balance compensation issues to their land owners, structure payment issues, standing crops, water pipe lines etc. are as below -

Table 2.1.5 - Details of Stretches Under Hindrance						
Sr. No .	From	To	Length	Effective Hindered Length	Side	Remarks
1	066+100	066+260	160	320	BHS	Veeranam Pipe Line
2	066+700	067+300	600	1200	BHS	Giri Land
3	068+550	068+620	70	140	BHS	Compensation Disbursement balance - Not allowed to work by owner
4	070+520	070+600	80	160	BHS	Compensation Disbursement balance - Not allowed to work by owner
5	070+800	070+900	100	200	BHS	Compensation Disbursement balance - Not allowed to work by owner
6	072+450	072+600	150	300	BHS	Compensation Disbursement balance - Not allowed to work by owner
7	072+600	072+700	100	100	RHS	Compensation Disbursement balance - Not allowed to work by owner
8	072+800	073+000	200	400	BHS	Compensation Disbursement balance - Not allowed to work by owner
9	073+700	073+800	100	100	RHS	Compensation Disbursement balance - Not allowed to work by owner
10	073+900	074+200	300	600	BHS	Compensation Disbursement balance - Not allowed to work by owner
11	074+570		10	20	BHS	Structure - Payment pending

12	075+500	076+150	650	1300	BHS	Compensation Disbursement balance - Not allowed to work by owner
13	077+200	077+600	400	800	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
14	078+600	078+700	100	100	LHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
15	080+100	081+150	1050	2100	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
16	083+400	084+200	800	1600	BHS	Compensation Disbursement balance - Not allowed to work by owner
17	085+500	086+500	1000	2000	BHS	Compensation Disbursement balance - Not allowed to work by owner
	086+900	087+000	100	200	BHS	
	087+500	088+200	700	1400	BHS	
18	089+400	091+000	1600	3200	BHS	Compensation Disbursement balance - Not allowed to work by owner
19	091+700	091+850	150	300	BHS	Compensation Disbursement balance - Not allowed to work by owner
20	092+750	094+100	1350	2700	BHS	Compensation Disbursement balance - Not allowed to work by owner
21	095+050	095+900	850	1700	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
22	097+900	098+750	850	1700	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
23	098+500	099+400	900	1800	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
24	099+400	099+900	500	1000	BHS	Compensation Disbursement balance - Not allowed to work by owner
25	099+400	099+900	500	1000	BHS	Compensation Disbursement balance - Not allowed to work by owner
26	100+300	101+600	1300	2600	BHS	Compensation Disbursement balance - Not allowed to work by owner
27	101+600	102+230	630	1260	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
28	102+230	102+700	470	940	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
29	102+700	103+320	620	1240	BHS	Compensation Disbursement balance - Not allowed to work by owner
30	103+320	104+200	880	1760	BHS	Compensation Disbursement balance - Not allowed to work by owner
31	104+200	104+500	300	600	BHS	Compensation Disbursement balance - Not allowed to work by owner
32	109+500	109+700	200	200	LHS	Compensation Disbursement balance - Not allowed to work by owner

33	110+400	110+850	450	900	BHS	Compensation Disbursement balance - Not allowed to work by owner
34	110+900	111+050	150	300	BHS	Compensation Disbursement balance - Not allowed to work by owner
3	113+250	113+450	200	400	BHS	Temple Land, Local not allowing to Work
36	113+550	113+990	440	880	BHS	Village Limit - RibbonDevelopment - Compensation, Disbursement balance - Not allowed to work owner
37	114+400	114+650	250	500	BHS	Village Limit - RibbonDevelopment - Compensation, Disbursement balance - Not allowed to work owner
38	115+700	116+440	740	1480	BHS	Toll Plaza Area - LA under Progress

Table 2.1.6 - Hindrance Photographs

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	240	Veeranam Pipe Line	65+960	66+200	Veeranam Pipe Line	240		
	10	Trees (2 Nos)	66+400					
			67+400		Motor Room	25		
			67+850		Motor Room	50		
			67+850		Bore Well	20		
			68+600		Motor Room	50		
			68+600		Sluice Gate (2 Nos)	40		
		Well & Trees	68+850					
		Huts (3 Nos) & Building	69+720	69+750				
		Bore Well & Water Tank	69+750					
			69+750		Tin Shed			
	250	EB Poles (10 Nos)	69+800	69+950				
		Building	69+800					
		Flag Post Pedestal	69+850					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	25	Well, Coconut Farm	70+000					
	150	HT Line Crossing	70+030	70+200				
		Pump Set & Coconut Farm	70+150					
		Pump Set & Coconut Farm	70+200					
		Fish Farm	70+650					
			70+700		Building			
	550	Agriculture Land & Trees	71+000	71+550				
		Teek Farm, Pump Set & 5 Poles	71+250					
		Bore Well	71+300					
		Borewell	71+550		Borewell			
		Pump Set	72+200					Damaged
	100	Veera mudalyaan natham Village	72+450	72+550	Veera mudalyaan natham Village	100		
	10	Hand Pump	72+550		Hand Pump	10		

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	50	Pump Set & Trees	72 + 700					
			72 + 850		Pump Set, Bore Well & Trees			
		Bore & Pump Set	72 + 950		Bore & Pump Set			
			73 + 400		HT Line Tower	20		
	150	Kumarakudi Village	74 + 500	74 + 650	Kumarakudi Village	150		
			74 + 500		Bore Well			2 - Telephone Pole
		Telephone Poles	74 + 710	74 + 850	Telephone Poles			
	300	Eb Poles	74 + 850	75 + 200	EB Poles	300		8 Nos
		Trees	75 + 200	75 + 700	Trees			140 Nos

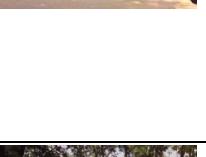
Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Hut	75+210					
			75+260		Bore Well & Water Tank			
		Huts	75+270	75+350	Huts			
		Flag Poles	75+390					
			75+520		Huts			
			75+560		Huts			
			75+565	75+640	Pond			
		Building	75+640					
			75+650		Temple			
			75+660		Water Tap			
		Building	75+680					
			75+700		OFC			
		Bore Well & Water Tank	75+700					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Kothanda vilagam Village	75 + 700	76 + 200	Kothanda vilagam Village			
		Hand Pump	75 + 710					
		Water Tap	75 + 810					
		Street Light	75 + 840					
		Flag Pole	75 + 840		Existing Culvert			
		Water Tap	75 + 880					
		Bore Well & Water Tank	76 + 025					
		Pump Set	76 + 260					
		Trees & EB Poles	76 + 300	76 + 800	Trees & EB Poles	450		
		Trees & EB Poles	76 + 300	76 + 800				
		Bus Shelter	76 + 410					
			76 + 410		Flag Pole			
			76 + 600		Temple			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			76+695		OFC & Compound Wall			
		EB Poles	76+800	77+300	EB Poles			
			76+800	77+300	Telephone Pole			3 nos
			76+850		OFC			
			76+940		Bore & Water Tank			
		Buildings	76+980		Buildings			
			77+060		Bore & Water Tank			
			77+080	77+190	School Compound Wall			
		Building	77+100	77+300				
			77+220		Building			
			77+240		OFC			
			77+280		Compound Wall			
	300	Buildings	77+300	77+600	Buildings	300		

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Trees, EB Poles	77+300	77+600	Trees, EB Poles			
		Flag Pole	77+390	77+420				4 Nos
		Hand Pump	77+505					
		Telephone Pole	77+390	77+510				3 Nos
		Hand Pump	77+590					
			77+700		OFC			
		Building	77+730					
			77+760		Water Tank & Motor Room			
		EB Pole	77+900	78+400	EB Pole			10 Nos
		Water Tap	77+975					
			78+120		OFC			
			78+390		EB Pole, Bore Well			
		OFC	78+400					

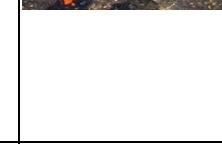
Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	450		78+400	79+000	EB Pole, Trees	450		340 Trees, 16 Poles
			78+680		OFC			
			78+725		Transformer			
		Huts	78+670	78+760				
			78+860		OFC			
	400	Trees & EB Poles	79+000	79+500	Trees & EB Poles	400		
			79+080		OFC			
		Hand Pump	79+105					
		Existing Culvert	79+110					
			79+220		Flag Pole			
		Water Tank & Motor Room	79+240					
			79+260		OFC			
			79+520		Transformer			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			79+565		OFC			
		Hut	79+955					
	400	EB Pole, Water Tap, Trees, Telephone Pole	80+000	80+500	EB Pole, Water Tap, Trees, Telephone Pole	400		
		Water Tank, Motor Room, Hand Pump & Existing Culvert	80+120					
			80+125		Temple			
			80+170		Existing Culvert			
			80+190		OFC			
			80+300	80+390	Pond			
		Transformer	80+340					
	400		80+500	81+000	EB Poles, Telephone Poles, Trees, Water Tap	400		
		Flag Poles	80+530	80+570	Flag Poles			6nos
			80+710		Existing Culvert			
		Bore Well	80+740					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			80+900		OFC			
	400	Tree, EB Poles	81+000	81+500	Tree, EB Poles	400		
			81+125		OFC			
			81+325	81+360	Existing Culvert & Compound Wall			
		Pond	81+360	81+460				
		OFC & Temple	81+445					
	450	EB Pole & Tress	81+500	82+000	EB Pole & Tress	450		
			81+585		OFC			
		Transformer	81+715					
		Sluice Gate	82+020		Sluice Gate			5 Nos
			82+510		OFC			
			82+595		OFC			
			82+875		Existing Culvert			

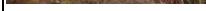
Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			82+890		OFC			
		Existing Culvert	82+975					
	450	Water Tap	83+000	83+500	Water Tap	450		Tap - 6
			83+060		OFC			
		Existing Culvert	83+205					
		OFC	83+265					
			83+310		OFC			
		Flag Post	83+385					
			83+425		Transformer			25
	450	EB Pole, Water Tap, Trees, Telephone Pole	83+500	84+000	EB Pole, Water Tap, Trees, Telephone Pole	450		Pole - 13, Tap - 37, Tree - 239
			83+615		Temple			
			83+625		OFC			
		EB, Transformer	83+850					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			83+890		Flag Poles			4 nos
			83+935		Water Tank			
			83+995		Hand Pump			
	450	Water Tap, Telephone Pole & Buildings	84+000	84+500	Water Tap, Telephone Pole & Buildings	450		Tap - 2, Tree - 185
		Temple & Well	84+070					
		Flag Pole, Telephone Pole	84+110					
			84+110		OFC & Flag Pole			
			84+280		Transformer			
		Transformer	84+480					
			84+500	84+560	Huts			
			84+560		Flag & Ex Culvert			Pole 2 Nos
			84+650		OFC			
			84+920		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Building	84 + 930	84 + 980				
	400		85 + 000	85 + 500	EB Pole, Trees	400		Poles - 23 & Tree 200
		Hut	85 + 045					
			85 + 060		EB, Transformer			
			85 + 090		OFC			
	300		85 + 500	86 + 000	Water Tap	300		Tap - 3
			85 + 770		OFC			
		Transformer	85 + 865					
		Building	85 + 910					
		Hut	85 + 930					
			85 + 955		Temple			
			85 + 990		OFC			
	500		86 + 000	86 + 700	EB Pole, Tree, Water Tap, T Poles	500		Eb Pole - 20, Tree - 275, Tap - 36, T Pole - 5

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			86+280		Temple			
			86+350		Bore Well			
		Temple	86+390					
			86+500		OFC			
			86+585		Motor Room			
		Buildings	86+000	86+700	Buildings			
	700	Building & Huts	86+700	87+500	Building & Huts	700		
			86+700	87+500	EB Pole, Tree, Water Tap, T Poles			EB - 38, Tree - 392, Tap - 30, T Pole - 2
			86+720		Flag Pole			
			86+830		OFC, Transformer			
		Transformer	86+915					
			86+985		OFC			
		Existing Culvert	87+080					

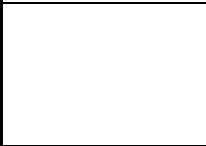
Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			87+155		OFC			
		Transformer	87+330					
			87+360		OFC			
	400	EB Pole, Tree, Tap, Telephone Pole	87+500	88+000	EB Pole, Tree, Tap, Telephone Pole	400		EB - 24, Tree - 163, Tap - 13, T Pole - 5
		Buildings & Huts	87+500	88+000	Buildings & Huts			
		Temple	87+500					
			87+640		OFC			
			87+670		Water Tank, Motor Room			
			87+690		Temple			
			87+735		Flag Pole			
			87+810		Transformer & OFC			
			87+835		Water Tank			
			87+990		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	450	EB Pole, Tree, Tap, Telephone Pole	88+000	88+500	EB Pole, Tree, Tap, Telephone Pole	450		EB - 16, Tree - 145 Water Tap - 15
		Buildings	88+000	88+500	Huts			
			88+190		OFC			
			88+225		Transformer			
	450	EB Pole, Tree, Tap	88+500	89+000	EB Pole, Tree, Tap	450		EB -11. Tap - 2, Tree - 110
		House	88+500	89+000	House			
			88+580		OFC			
			88+590	88+710	Compound Wall			
			88+780		OFC			
			88+910		Temple			
		Existing Culvert	88+965					
	450	water Tap, Telephone Pole	89+000	89+500	water Tap, Telephone Pole	450		Tap - 15, T Pole - 5, Tree - 195
		Flag Post Pedestal	89+110					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			89+210		Transformer			
			89+240		OFC			
			89+350		Water Tank With Bore Well			
			89+355		Temple			
	450	water Tap, Telephone Pole	89+500	90+000	water Tap, Telephone Pole	450		Tap - 18, T Pole - 3
		Water Tank	89+515					
		Flag Pole	89+590					
		Motor Room	89+690					
			89+710		OFC			
			89+805		Well			
			89+910		OFC			
	400	EB Pole, Water Tap, House	90+000	90+500	EB Pole, Water Tap, House	400		EB - 34, Tap - 4
		Pond	90+000	90+060				

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			90+090	90+180	Compound Wall			
			90+180		Transformer			
			90+195		OFC			
			90+230		Transformer			
			90+325		Temple			
			90+375		Existing Culvert			
	400	EB Pole, Telephone Pole, Water Tap	90+500	91+000	EB Pole, Telephone Pole, Water Tap	400		EB - 14, Tap - 5, T. Pole 7
			90+560		OFC			
			90+610		Water Tank			
		Water Tank	90+630					
			90+830	90+860	Pond			
			90+955		OFC			
	450	EB Pole	91+000	91+500	EB Pole	450		EB - 34

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			91+080		OFC			
			91+480		OFC			
	450	EB Pole, Water Tap, Telephone Pole, Trees	91+500	92+000	EB Pole, Water Tap, Telephone Pole, Trees	450		
			91+600		OFC			
			91+730		OFC			
			91+780		Temple			
		Pond	91+780	91+860				
			91+840		OFC			
			91+955		OFC			
	700	EB Pole, Water Tap, Telephone Pole	92+000	93+000	EB Pole, Water Tap, Telephone Pole	700		EB - 16, Tap - 10, T, T Pole - 7
			92+080		OFC			
		Temple	92+135					
			92+265		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Pond	92+270	92+330				
			92+300	92+380	Water Pipe Crossing			
		Temple	92+455					
			92+570		Temple			2 Nos
			92+770		OFC			2 Nos
		OFC	92+995					
	750	EB Pole, Water Tap, Tree	93+000	94+000	EB Pole, Water Tap, Tree	750		EB - 44, Tape - 14, Tree - 270
			93+045		OFC			
			93+115		Transformer			
			93+360		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			93+660		OFC			
			93+800		OFC			
			93+930		Hand Pump			
			93+975		OFC			
	400	Tree, EB Poles, T. Pole, Water Tap, House	94+000	94+500	Tree, EB Poles, T. Pole, Water Tap, House	400		Tree - 220, EB - 25, T Pole - 5, Tap - 7
			94+130		OFC			
		OFC	94+170					
			94+385		OFC			
		TEMPLE	94+440					
	400		94+500	95+000	Tree, EB Pole, T. Pole	400		Tree - 146, EB - 23, T Pole - 4, Tap - 6
			94+530		OFC			
		OFC	94+555					
			94+780		OFC, Transformer			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Pond, Pipe Line	94+830	94+900				
			94+935		OFC			
	450	EB Pole, Tape, Telephone Pole	95+000	95+500	EB Pole, Tape, Telephone Pole	450		EB - 16, T Pole - , Tap 5
			95+130	95+230	Compound Wall			
			95+210		Telephone Panel, Water Tank With Well			
			95+255		Police Station Arch			
			95+290		OFC			
		Flag Pole & Stage	95+415					
			95+435		Street Light			
	400	EB Pole, Tape, Telephone Pole	95+500	96+000	EB Pole, Tape, Telephone Pole	400		EB - 25, T Pole - 7, Tap - 6,
			95+570		Temple			
		OFC	95+850					
		Pond	95+950					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	400	EB Pole, Tape, Telephone Pole	96+000	96+500	EB Pole, Tape, Telephone Pole	400		EB - 39, T Pole - 5,Tap - 6,
			96+120		OFC			
			96+150		Transformer			
			96+480		Transformer			
	450	EB Pole, Tape, Telephone Pole	96+500	97+000	EB Pole, Tape, Telephone Pole	450		EB - 16, T Pole - 3,
			96+710		OFC			
			96+965		OFC			
			97+080		OFC			
			97+195		OFC			
			97+395		OFC			
			97+390	97+500	Pond			
	300	EB Pole, Tape, Telephone Pole	97+500	98+000	EB Pole, Tape, Telephone Pole	300		EB - 16,Tap - 5,
		Temple	97+520					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			97+600		OFC			
			97+680		Motor Room With Bore			
		Transformer	97+700					
		OFC	97+770					
			97+880		OFC			
		OFC	97+965					
	350	EB Pole, Tape, Telephone Pole	98+000	98+500	EB Pole, Tape, Telephone Pole	350		EB - 9, T Pole - 2
		OFC	98+280					
	350	EB Pole, Tape, Telephone Pole	98+500	99+000	EB Pole, Tape, Telephone Pole	350		EB - 19, T Pole - 3
			98+620		Transformer			
		OFC	98+635		Temple			
			98+710		Temple			
		Water Tank with Bore	98+735					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC	98+825					
		Street Light	98+920					
		Flag Pole	98+940					
		OFC	98+950					
	750	EB Pole, Tree, Tape, Telephone Pole	99+000	100+000	EB Pole, Tree, Tape, Telephone Pole	750		EB - 47, T Pole - 4, Tap - 5, Tree 118
			99+120		Temple			
		Motor Room With Bore	99+150					
			99+160		Transformer			
			99+195		Temple With Water Tank			
		OFC	99+300					
		OFC	99+490					
	650	EB Pole, Tree, Tape, Telephone Pole	100+000	101+000	EB Pole, Tree, Tape, Telephone Pole	650		EB - 32, Tap - 12, Tree 210, T Pole - 3
		Transformer	100+150					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			100+195		Bore Well			
			100+200		OFC			
		OFC	100+320					
		Pond	100+350					
		Motor Room With Tank	100+390					
			100+475		Water Tank			
		OFC	100+600					
		OFC	100+670					
		OFC	100+720					
		OFC	100+740					
		Pond	100+740	100+820				
	650	EB Pole, Tree, Tape, Telephone Pole	101+000	102+000	EB Pole, Tree, Tape, Telephone Pole	650		EB - 42, T Pole - 5, Tap - 6 Tree 100
			101+005		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC	101+125					
			101+120	101+300	Pond			
		OFC	101+330					
			101+480		Hand Pump			
			101+805		OFC			
		Transformer	101+835					
	750	EB Pole, Tree, Tape, Telephone Pole	102+000	103+000	EB Pole, Tree, Tape, Telephone Pole	750		EB - 30, T Pole - 2, Tap - 13, Tree 110
		OFC	102+100					
			102+240		Temple			
			102+365		Transformer			
		OFC	102+390					
		OFC	102+435					
			102+520		Flag Pole			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC	102+575					
		OFC	102+730					
		Transformer	102+930					
		Schooh Arch	102+960					
	800	Tape, Telephone Pole	103+000	104+000	Tape, Telephone Pole	800		T Pole - 2, Tap - 13
		OFC	103+025					
		Pond	103+090	103+300				
		OFC	103+130					
		OFC	103+320					
		OFC	103+400					
		OFC	103+425					
		OFC	103+530					
			103+590		Temple			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC & Flag Pole	103+720					
		Pond	103+775	103+815				
			103+860	103+910	Pond			
		Pond	103+935	104+250				
		Existing Irrigation Sluice	103+990					
	400	EB Pole, Tree	104+000	104+500	EB Pole, Tree	400		EB - 4 , Tree - 3
		House	104+500		House			
	350	EB Pole, Tree, Tape	104+500	105+200	EB Pole, Tree, Tape	350		Tree - 21, EB - 23, Tap - 3
	500	EB Pole, Tree, Tape	105+200	105+900	EB Pole, Tree, Tape	500		Tree - 42, EB - 4, Tap - 4
			105+850		Motor Room			
	750	EB Pole, Tree, Tape	105+900	106+900	EB Pole, Tree, Tape	750		Tree - 100, EB - 1, Tap - 7
			105+920		Well			
		Motor Room	106+900					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	1150	EB Pole, Tree, Tape	107+900	109+700	EB Pole, Tree, Tape	1150		Tree - 94, EB - 9, Tap - 6
	1350	Tape	109+700	111+200	Tape	1350		Tap - 18
		OFC	109+705					
		OFC	109+710					
			109+720		Motor Room			
			109+985		Water Pipe			
		OFC	110+330					
		Water Tank	110+450					
			110+725		OFC			
			110+740		Motor Room with well			
	1750	EB Pole, Tree, Tape	111+200	113+500	EB Pole, Tree, Tape	1750		Tree - 460, EB -23, Tap - 12
		OFC	111+230		OFC			
			111+450		Motor Room With Bore			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Gate Valve	111+500					
		Motor Room With Bore	111+600					
			111+680		Motor Room With Bore			
		Motor Room With Bore	112+300					
			112+310		House & Hand Pump			
			112+390		Motor Room With Bore			
			113+220		Motor Room With Bore			
			113+250		House			
			113+330		Motor Room With Bore			
	750	EB Pole, Telephone Pole, Tape	113+500	114+600	EB Pole, Telephone Pole, Tape	750		Tree - 280, EB -38, T Pole - 9. Tap - 6
			113+670	113+720	Sub Station			
			113+700		HT Line Crossing			
			114+060		Flag Pole			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			114+090		Flag Pole, Water Tank			
		HT Line	114+130					
		Transformer	114+460					
		Water Tank	114+450					
		Water Tank	114+495					
		OFC	114+520		Temple			
		Pond	114+540	114+580				
	650	EB Pole, Telephone Pole, Tree, Tape	114+600	115+600	EB Pole, Telephone Pole, Tree, Tape	650		Tree - 80, EB -18, Tap - 2
		Hand Pump	114+610					
		Transformer	114+950					
		Transformer	115+210					
			115+230		Flag Pole			5 Nos
	700	Telephone Pole, Tape	115+600	116+440	Telephone Pole, Tape	700		EB -26, T Pole - 2 Tap - 16

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			115+650		Motor Room			
		OFC	115+820					
		Transformer	115+970					
		OFC	116+095					
		OFC	116+170					
		Hand Pump	116+200					
		Water Tank & Motor Room	116+210					
		OFC	116+275					
		OFC	116+410					
			116+560		Flag Pole			
		House	115+600	116+440	House			

2.2. Removal of Religious Structures

The following structures coming within the ROW are to be demolished

Table 2.2-1: Status of Removal of Religious structures				
Sl No.	Name of the District	Total No. Of structures	Removed as on Date (in Nos.)	Balance (in Nos.)
1	Cuddalore	10	1	9
2	Ariyalur	10	1	9
3	Thanjavur	2	1	1
	Total in Nos.	22	3	19

2.3. Shifting of Utilities and Electrical HT/LT Lines

To proceed with the project construction, several utilities are required to be shifted under the supervision of the respective authorities. These include a water supply line, hand pumps, overhead water tanks, besides Electrical lines, as shown in the table below.

Table 2.3-1: Status of sanction of Estimates - Relocation of RWS Pipe line

Sr. No.	Name of the District	Chainages			Total Number of Estimates	Remarks
		From	To	Length in Km		
1	Cuddalore	65+960	86+440	20.48	25	Work in Progress
2	Ariyalur	86+440	106+860	20.42	46	
3	Thanjavur	106+860	116+440	9.58	4	

Table 2.3-2: Status of sanction of Estimates - Electrical Lines Relocation

Sr. No	Name of the District	Chainages			Number of Estimates	Present Status	Remarks
		From	To	Length in Km			
1	Cuddalore	65+960	86+440	20.48	10	Estimate Approved	Supervision Charges paid.
2	Ariyalur	86+440	106+860	20.42	5	Estimate Approved	Supervision Charges paid.
3	Thanjavur	106+860	116+440	9.58	5	Estimate Approved	Supervision Charges paid for 4 Nos

Estimates for shifting of the above Electric lines have been prepared. The estimated cost is Rs. 17.45 Crores.

Estimates have been done for the shifting of the water supply pipeline & related items mentioned above. The final amount of Rs. 15.87 Crores sanctioned by RO, NHAI, Madurai.

Table 2.3-3: Status of Utility Relocation							
Sl. No.	Authority	Description	Unit	Total Length/ Nos.	Work done	Balance	Remarks
1	BDO & EE,TWAD	Water Supply Pipe Line	Kms.	72.695	9.702	62.993	Work in progress
2	BDO of Concern Union	Hand Pump/Pump Room with Bore well	Nos.	24	10	14	
3	BDO of Concern Union	Over Head Tank	Nos.	15	7 Nos Completed	8	
4	TNEB	Electrical Lines	Kms.	6.83	2.95	3.88	

2.4. Tree felling

Table 2.4-1: Status of Tree felling									
Sl.N o.	Name of the District	Chainages			Effectuated Length in Kms.	Completed as on Date	Balance as on Date	Balance no. of Trees	Remarks
		From	To	Length in Km					
1	Cuddalore	65+960	86+440	20.48	6.535	6.289	0.246	26	Work in Progress
2	Ariyalur	86+440	106+860	20.42	8.385	8.215	0.170	54	
3	Thanjavur	106+860	116+440	9.58	2.515	2.195	0.320	110	
Total				50.48	17.435	16.699	0.736	190	

3.1. Pre-construction Activities

Detailed Design & Drawings

The Plan and Profile, as well as the Pavement Designs for the entire 50.48 km project length has been completed and reviewed by the Independent Engineer (IE). Construction Methodology, QA & QC procedures submitted to the IE has been reviewed and accepted.

Table 3.1-1: Status of Design and Drawings-Highway					
Sl No.	Description	Unit	Total Scope as per Sch.-B As per Sch. B	Design submitted	Drawing Approved
1	Pavement Design	Km	50.480	50.48	50.48
2	Plan & Profile	Km	50.480	50.48	48.48
3	Typical Cross Sections	Type	7	7	7
4	Major Intersections	No	07	-	-
5	Minor Intersections	No	100	-	-
6	Toll Plaza (Typical Details)	No	01	-	-
7	Service Roads	No	26.595	26.595	-

Table 3.1-2 : Status of Design and Drawings –Structures					
Sr. No	Description	Unit	Total Scope As per Sch. B	Design Submitted	Drawing Approved
1	Major Bridges	No	04	04	1
2	Minor Bridges	No	25	25	18
3	Grade Separated Intersection	No	08	08	8
4	VUP/LVUP	No	15	15	12
5	Box /Slab Culvert	No	60	60	53

4.1. Physical Progress of Work

The Progress of the Major Works carried out at the Site in the Month of April 2019 is as follows.

CUMMULATIVE STATEMENT

For Main Carriageway

Sr. No.	Description	Total Length of Highway Excluding Toll Plaza (in. Km.)	Progress up to Previous Month (in Km)	Progress during this Month (In Km.)	Cumulative Progress Achieved up to this Month (In Km)	In Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Clearing and Grubbing							
	LHS	47.28	23.96	4.70	28.66	0	18.62	60.62%
	RHS	47.28	20.72	5.54	26.26	0	21.02	55.54%
2	Embankment							
	LHS	47.28	0	2.55	2.55	11.74	44.73	5.39%
	RHS	47.28	0	1.81	1.81	11.32	45.47	3.83%
3	Sub grade							
	LHS	47.28	0	0	0	1.93	47.28	0.00%
	RHS	47.28	0	0	0	0.60	47.28	0.00%
4	GSB/ Cement Treated Base							
	LHS	47.28	0	0	0	0	47.28	0.00%
	RHS	47.28	0	0	0	0	47.28	0.00%
5	Wet Mix Macadam							
	LHS	47.28	0	0	0	0	47.28	0.00%
	RHS	47.28	0	0	0	0	47.28	0.00%
6	Dense Bitumen Macadam							
	LHS	47.28	0	0	0	0	47.28	0.00%
	RHS	47.28	0	0	0	0	47.28	0.00%
7	Bituminous Concrete							
	LHS	47.28	0	0	0	0	47.28	0.00%
	RHS	47.28	0	0	0	0	47.28	0.00%

For Service Road

Sr. No.	Description	Total Length of Service Road (Km.)	Progress up to Previous Month (in Km)	Progress during this Month (In Km.)	Cumulative Progress Achieved up to this Month (In Km)	In Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Embankment	53.19	0	0	0	0	53.19	0.00%
2	Sub grade	53.19	0	0	0	0	53.19	0.00%
3	GSB/ Cement Treated Base	53.19	0	0	0	0	53.19	0.00%
4	Wet Mix Macadam	53.19	0	0	0	0	53.19	0.00%
5	Dense Bitumen Macadam	53.19	0	0	0	0	53.19	0.00%
6	Bituminous Concrete	53.19	0	0	0	0	53.19	0.00%

<u>Structure Work</u>					
Sr. No.	Type of Structure	Total No. of Structures	Nos. Of Structures		
			Completed	In Progress	Balance
1	Culvert	60	2	26	32
2	Light Vehicular Underpass	2	0	1	1
3	Vehicular Underpass	13	0	7	6
4	Minor Bridges	25	1	18	6
5	Major Bridge	4	0	1	3
6	Flyover	8	0	5	3

The Physical Progress of the Project up to April 2019 as per Approved Schedule G is as follows:-

Item	Stage for Payment	Unit	Qty.	Weightage in percentage to Contract Price	EPC Cost	Completed up to 30.04.2019	% Physical Progress
Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	A- Widening and strengthening of existing road						
	(1) Earthwork up to top of the sub-grade	Km	66.96	9.517%	1,259,149,811		
	(2) Granular work (sub-base, base, shoulders)	Km					
	(a) GSB/ Cement Treated Base	Km	65.52	2.873%	380,125,589		
	(b) WMM/ Cement Treated Base	Km	65.52	3.546%	469,110,512		
	(3) Shoulders	Km	17.65	0.112%	14,871,740		
	(4) Bituminous work	Km					
	(a) DBM	Km	65.52	5.370%	710,391,656		
	(b) BC	Km	65.52	1.998%	264,329,795		
	(5) Rigid Pavement						
	(6) Widening and repair of culverts	Nos.	16	0.440%	58,232,176		
	(7) Widening and repair of minor bridges	Nos.	4	0.959%	126,889,505		
	B- New realignment/bypass						
	(1) Earthwork up to top of the sub-grade	Km	28.68	7.437%	983,900,859		
	(2) Granular work (sub-base, base, shoulders)						
	(a) GSB/ Cement Treated Base	Km	28.68	1.615%	213,638,057		
	(b) WMM/ Cement Treated Base	Km	28.68	1.436%	189,985,659		
	(3) Shoulders	Km	24.63	0.112%	14,871,740		

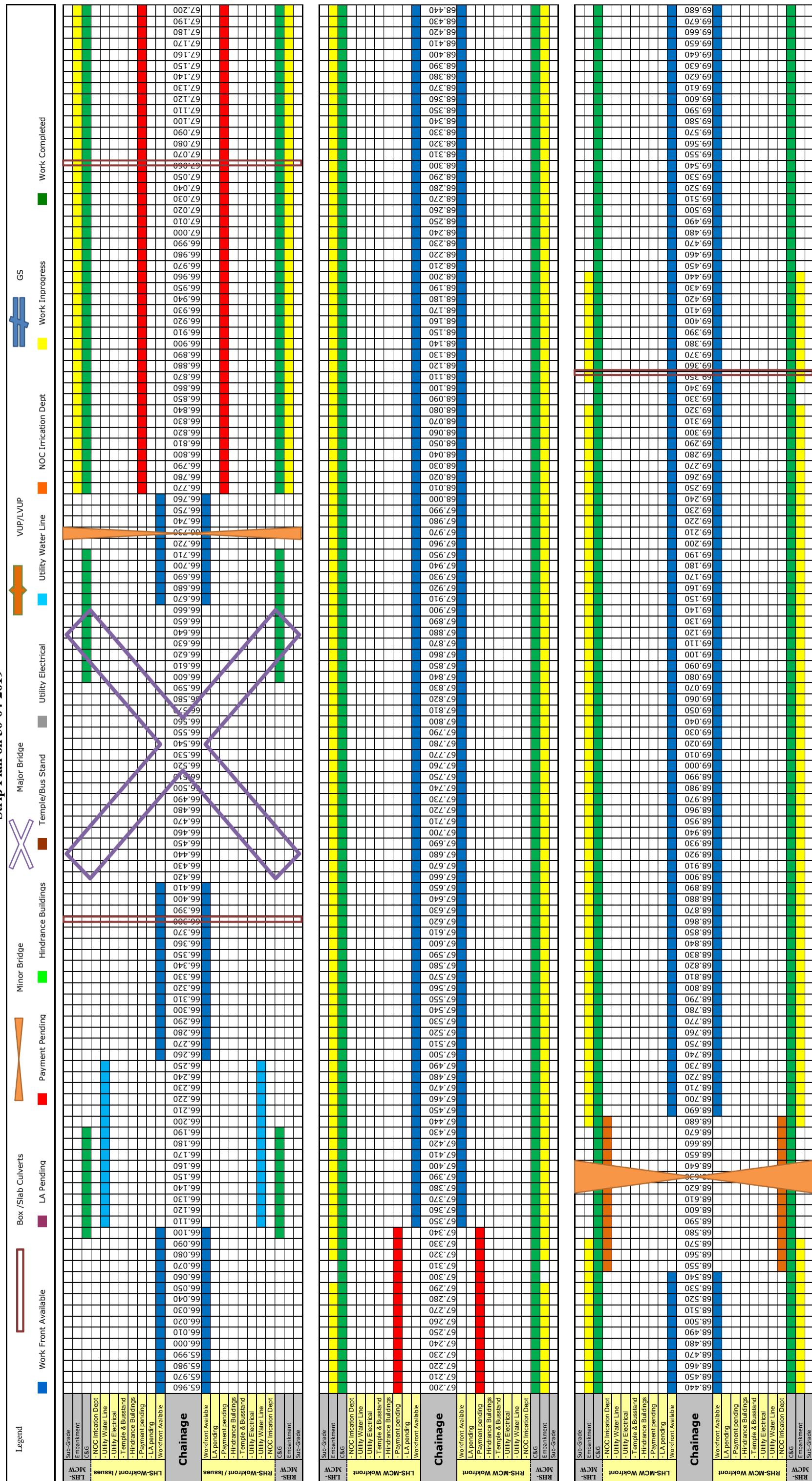
(4) Bituminous work						
(a) DBM	Km	28.68	1.656%	219,132,172		
(b) BC	Km	28.68	0.781%	103,340,561		
(5) Rigid Pavement						
C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:						
(1) Culverts	Nos.	44	1.570%	207,725,198	2	0.071%
(2) Minor bridges						
(a) Foundation	Nos.	58	1.453%	192,185,204	17	0.426%
(b) Substructure	Nos.	134	2.423%	320,544,497	31	0.561%
(c) Superstructure (including crash barrier etc. complete)	Nos.	50	1.559%	206,310,836	9	0.281%
(3) Cattle/Pedestrian underpasses						
(a) Foundation	Nos.		0.000%			
(b) Substructure	Nos.		0.000%			
(c) Superstructure (including crash barrier etc. complete)	Nos.		0.000%			
(4) Pedestrian overpasses						
(a) Foundation	Nos.		0.000%			
(b) Substructure	Nos.		0.000%			
(c) Superstructure (including crash barrier etc. complete)	Nos.		0.000%			
(5) Grade separated structures						
(a) Underpass (13 VUP, 2 LVUP)						
(i) Foundation	Nos.	56	1.274%	168,578,361	12	0.273%
(ii) Substructure	Nos.	60	0.751%	99,383,595	3	0.038%
(iii) Superstructure (including crash barrier etc. complete)	Nos.	30	1.589%	210,173,790		
(b) Overpass						
(i) Foundation			0.000%			
(ii) Substructure			0.000%			
(iii) Superstructure (including crash barrier etc. complete)			0.000%			
(c) Flyover						
(i) Foundation	Nos.	36	0.926%	122,463,747	11	0.283%
(ii) Substructure	Nos.	36	0.470%	62,236,342		
(iii) Superstructure (including crash barrier etc. complete)	Nos.	20	1.744%	230,794,019		
(d) Foot over Bridge						
Major Bridge works and ROB/RUB	A- Widening and repairs of Major Bridges					
	(1) Foundation		0.000%			
	(a) Open Foundation		0.000%			
	(b) Pile Foundation/ Well Foundation		0.000%			
	(2) Sub-structure		0.000%			
	(3) Super-structure (including crash barriers etc. complete)		0.000%			

	C- New Major Bridges						
	(1) Foundation			0.000%			
	(a) Open Foundation			0.000%			
	(b) Pile Foundation/ Well Foundation	Nos.	84	5.289%	699,701,550		
	(2) Sub-structure	Nos.	84	3.612%	477,891,273		
	(3) Super-structure (including crash barriers etc. complete)	Nos.	77	3.208%	424,381,248		
	D- New rail-road bridges						
	(a) ROB						
	(1) Foundation	Nos.		0.000%			
	(2) Sub-structure	Nos.		0.000%			
	(3) Super-structure (including crash barriers etc. complete)	Nos.		0.000%			
	(b) RUB						
	(1) Foundation	Nos.		0.000%			
	(2) Sub-structure	Nos.		0.000%			
	(3) Super-structure (including crash barriers etc. complete)	Nos.		0.000%			
Structures (elevated sections, reinforced earth)	A- Elevated Structures						
	(1) Foundation	Nos.		0.000%			
	(2) Sub-structure	Nos.		0.000%			
	(3) Super-structure (including crash barriers etc. complete)	Nos.		0.000%			
	B- Reinforced earth Wall (includes Approaches of ROB, Underpasses, Overpasses,Flyover etc)	Sqm	196027	9.104%	1,204,450,614	5580	0.259%
Other Works	(i) Service roads/ Slip Roads	Km	53.19	5.690%	752,725,608		
	(ii) Toll Plaza	Nos.	1	1.821%	240,951,085		
	(iii) Road side drains	Km	28.85	5.429%	718,314,179		
	(iv) Road signs, markings, km stones, safety devices,						
	(a) Road signs, markings, km stones, ...	Km	100.96	3.058%	404,615,279		
	(b) Concrete Crash Barrier/ W- Beam Crash Barrier in Road work	Km					
	(i) Concrete Crash Barrier	Km	26.5	1.679%	222,129,021		
	(ii) W-Beam Crash Barrier	Km	10.03	0.788%	104,276,599		
	(v) Project facilities						
	(a) Bus Bays	No.	18	0.009%	1,168,188		
	(b) Truck Lay-byes	No.		0.000%			
	(c) Rest areas	No.		0.000%			
	(vi)Repairs to bridges/structures	Nos.					
	(vii) Road side plantation	Km	23.66	0.451%	59,629,564		
	(viii) Protection works						
	(a) Boulder pitching on slopes	Km	10.03	0.218%	28,903,487		
	(b) Toe/Retaining wall	Km	10.03	0.000%			
	(x) Miscellaneous	Ls.	100%	8.031%	1,062,496,886	30%	2.415%
	Total			100.000%	13,230,000,000		4.605%

Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

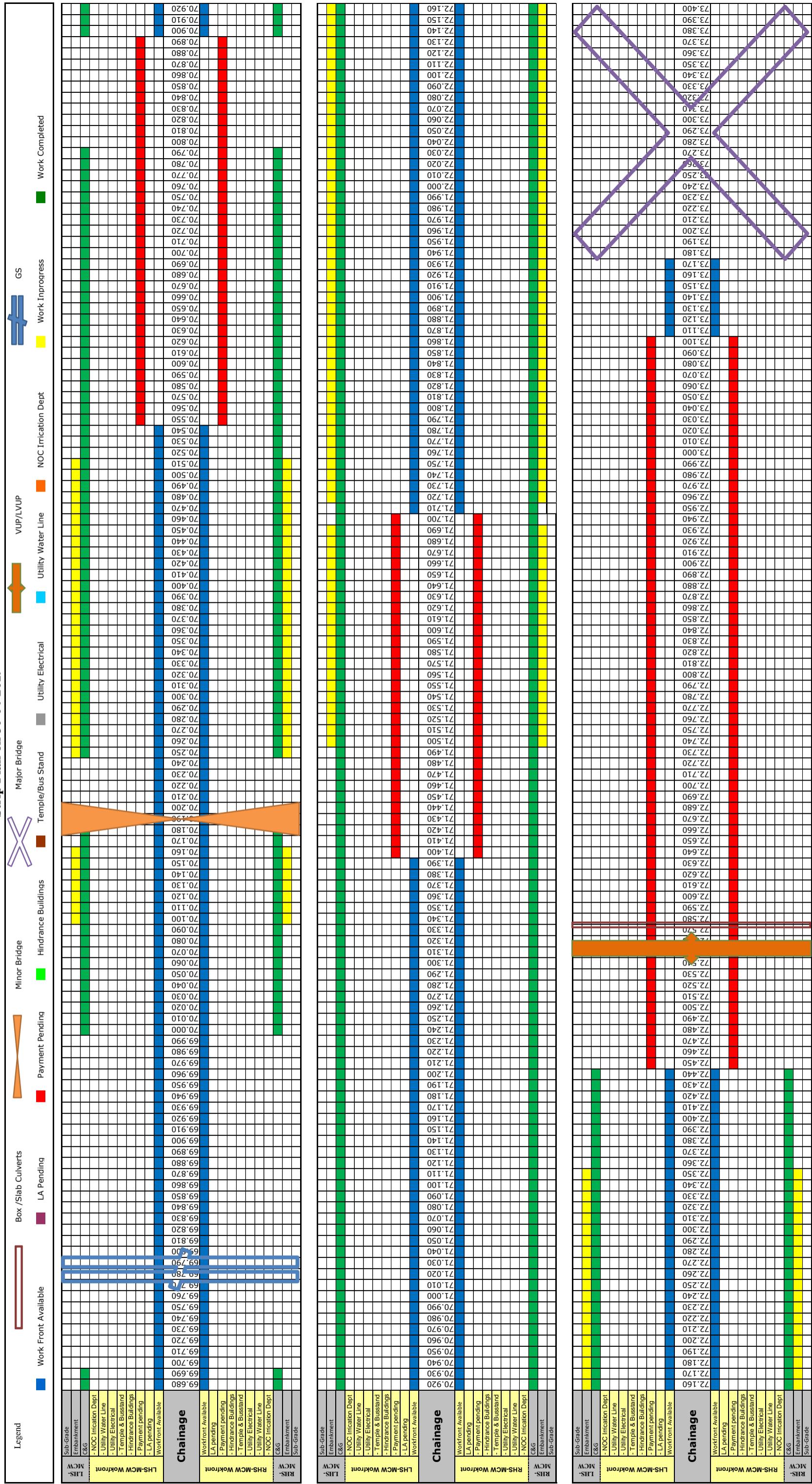
Strip Plan on 30-04-2019



Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

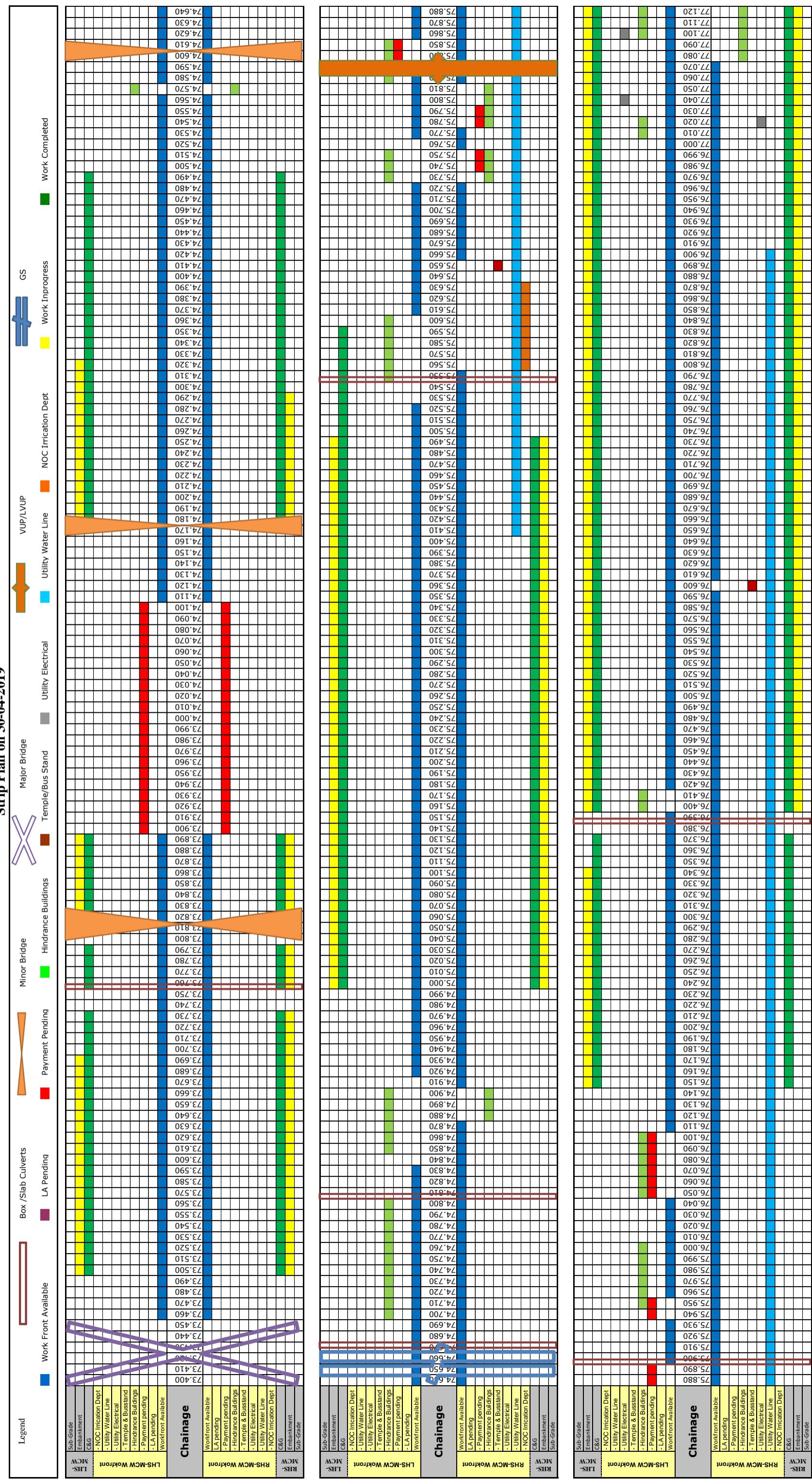
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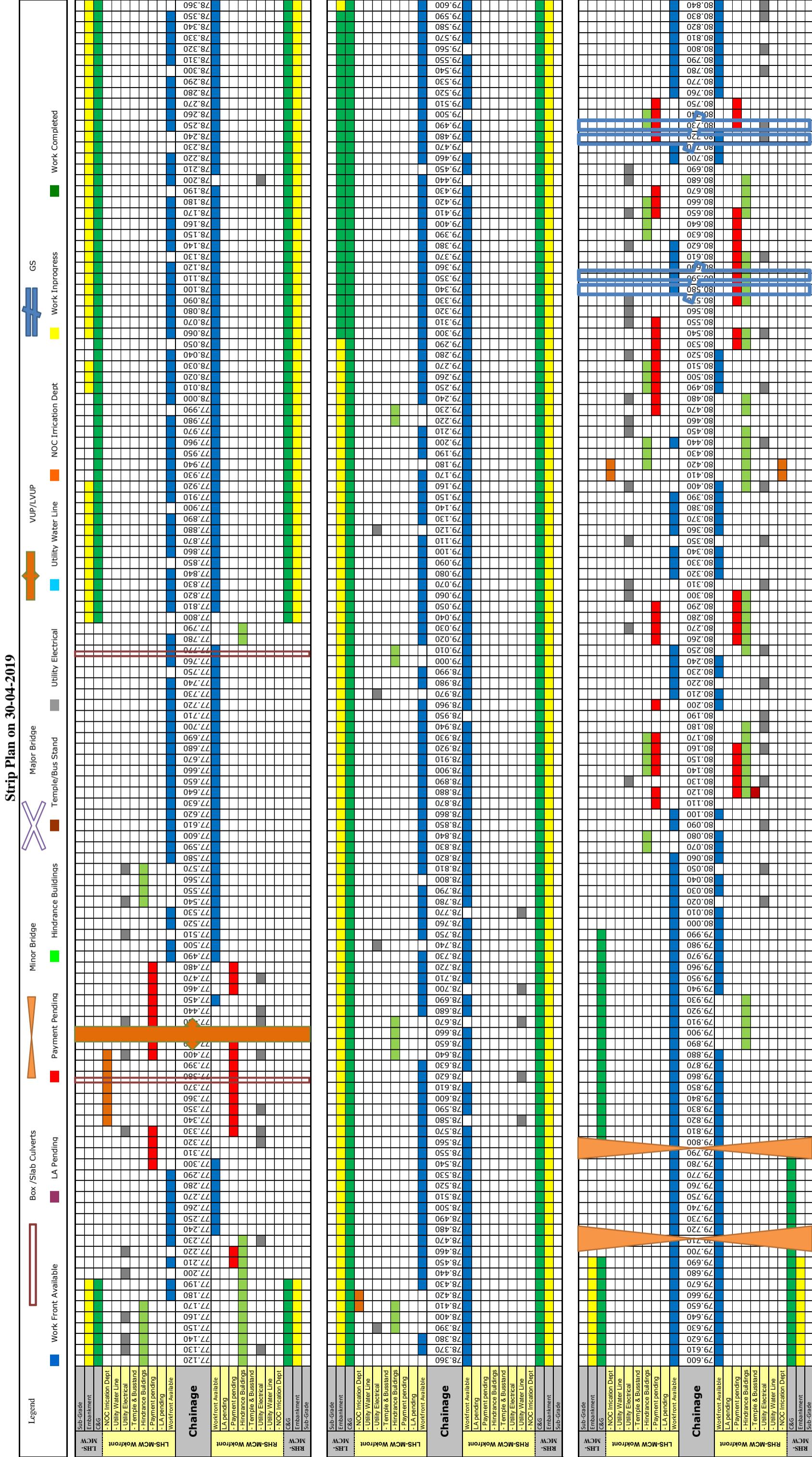
Sethiyahopu - Cholopuram Road Projects

Strip Plan on 30-04-2019



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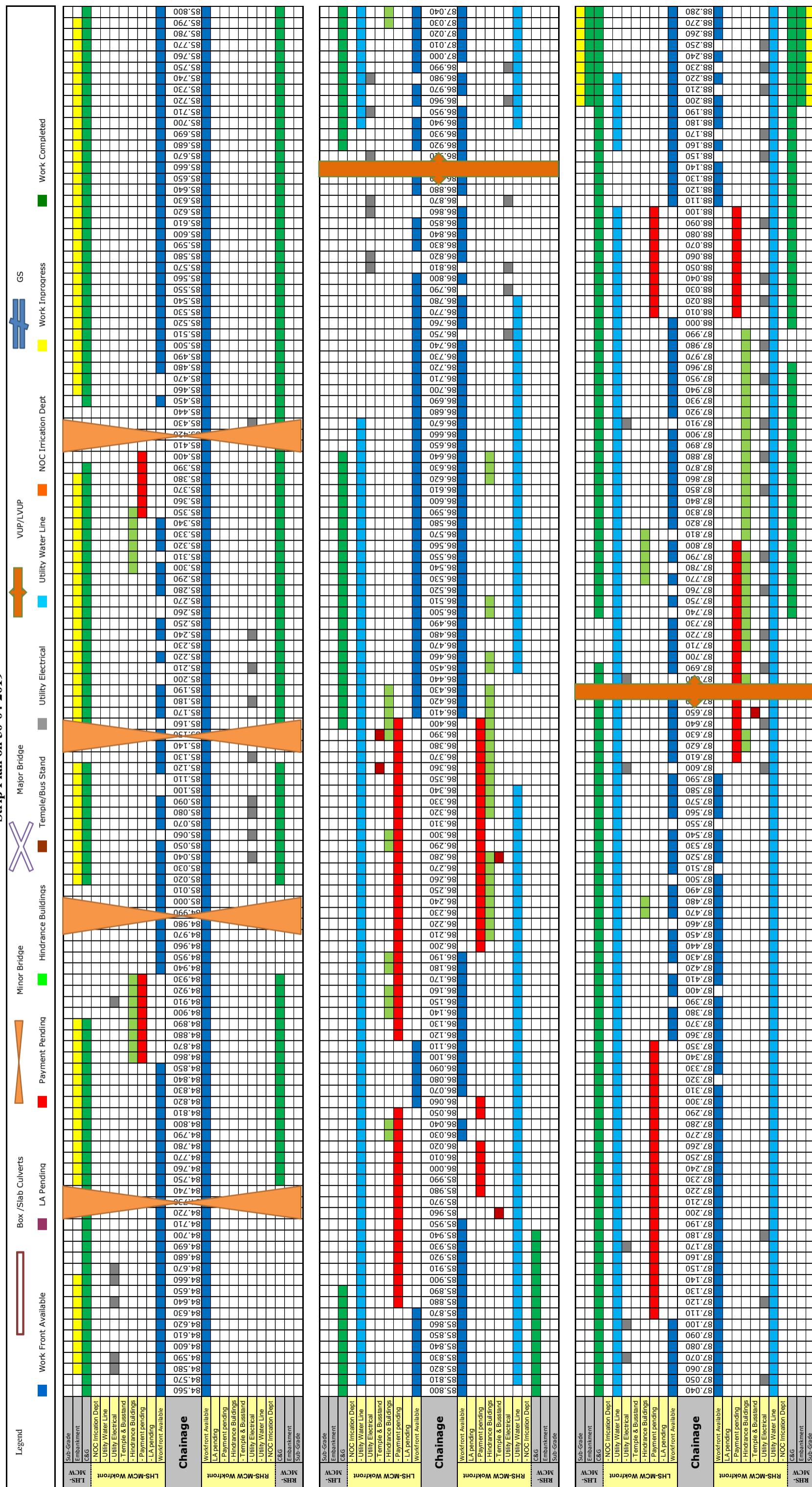
Sethiyahopu - Cholopuram Road Projects



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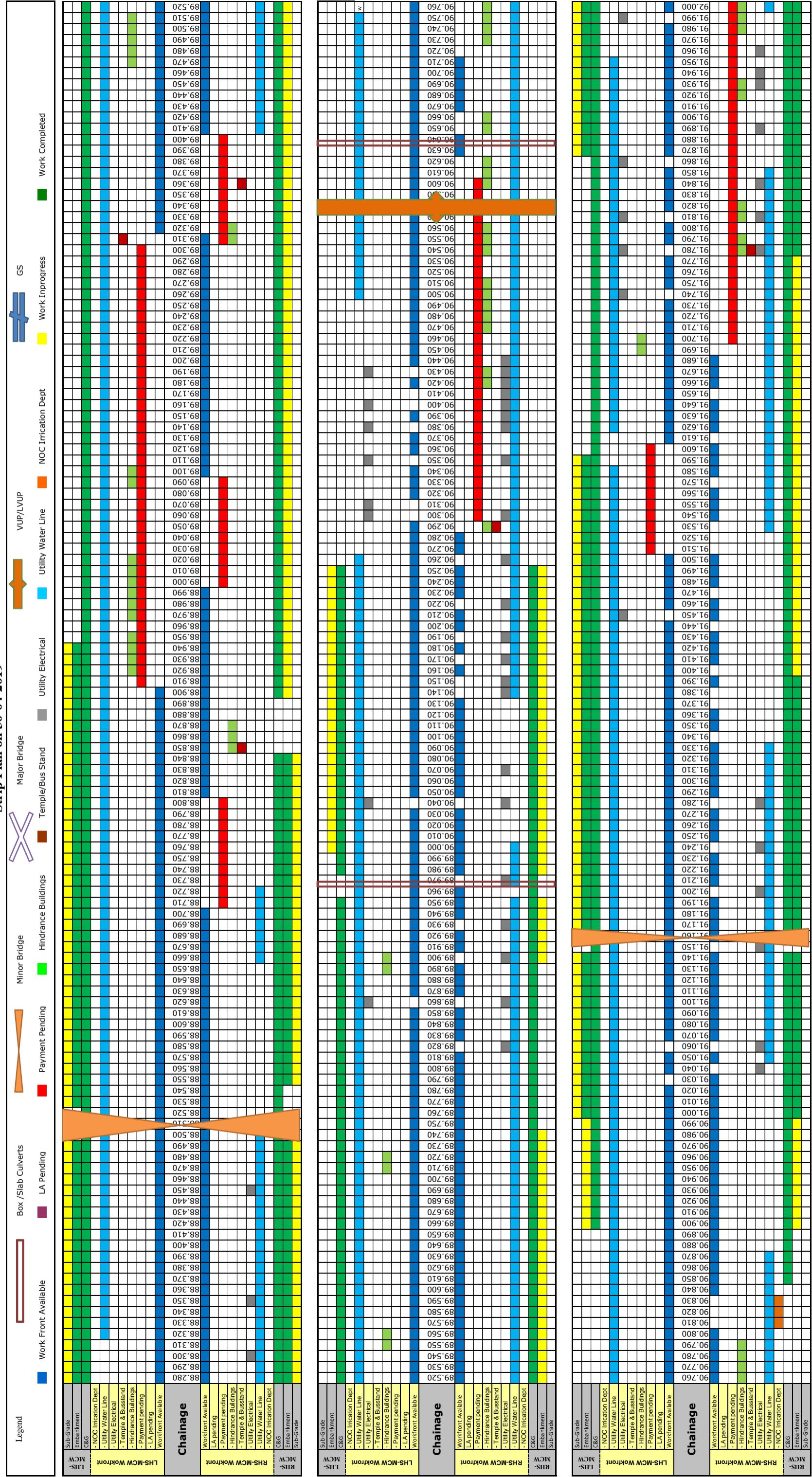
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Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

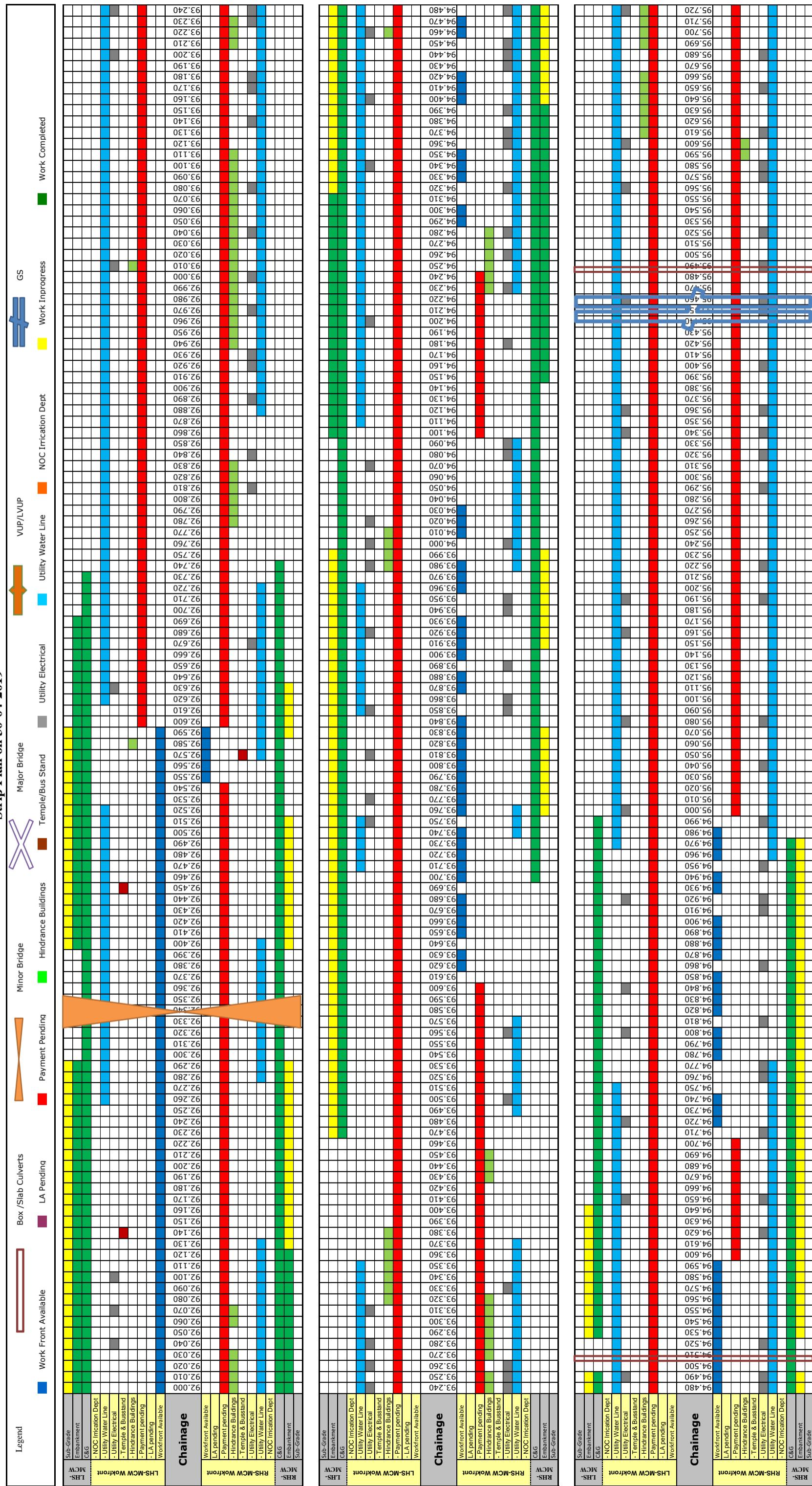
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Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

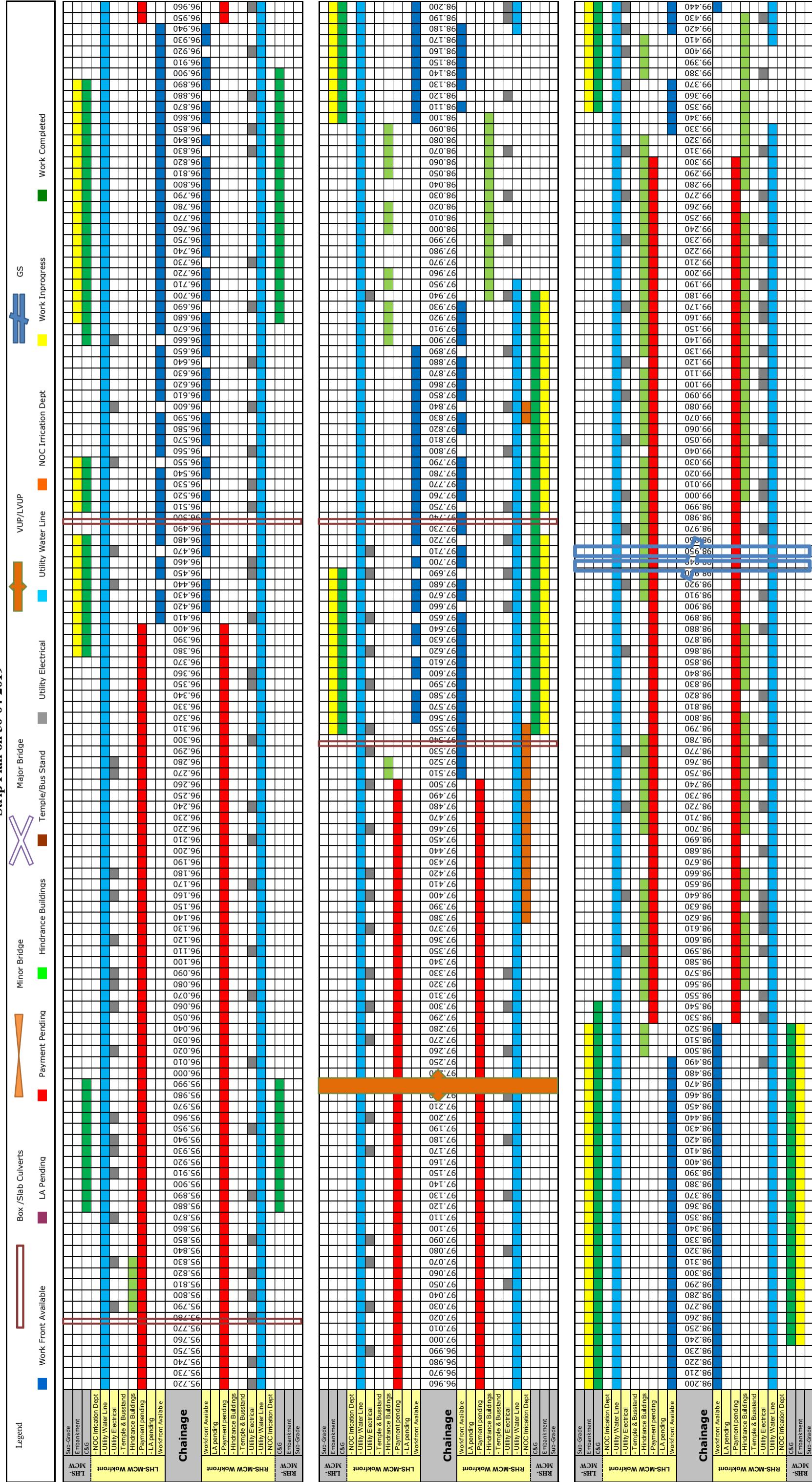
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Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

Strip Plan on 30-04-2019



Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

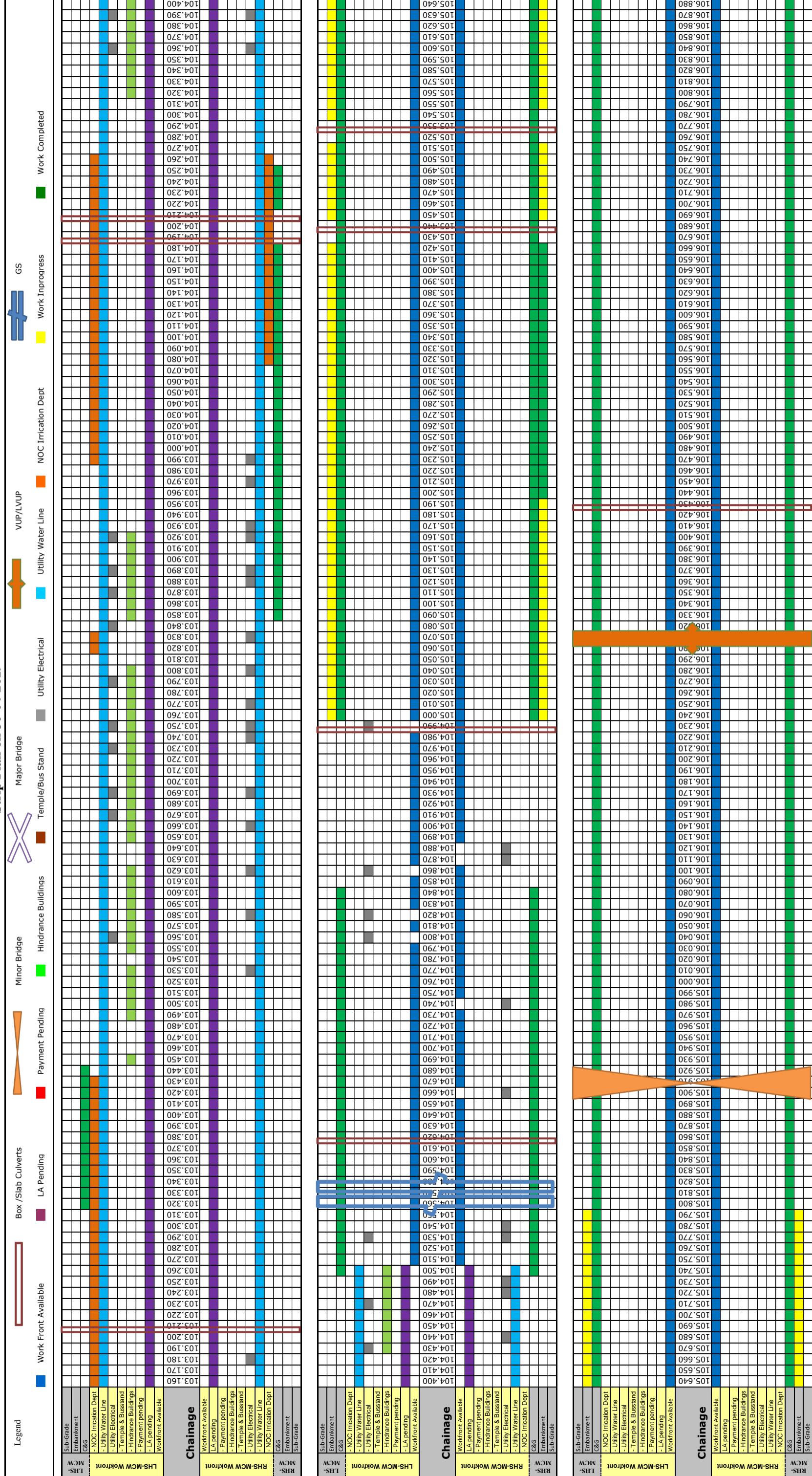
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Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

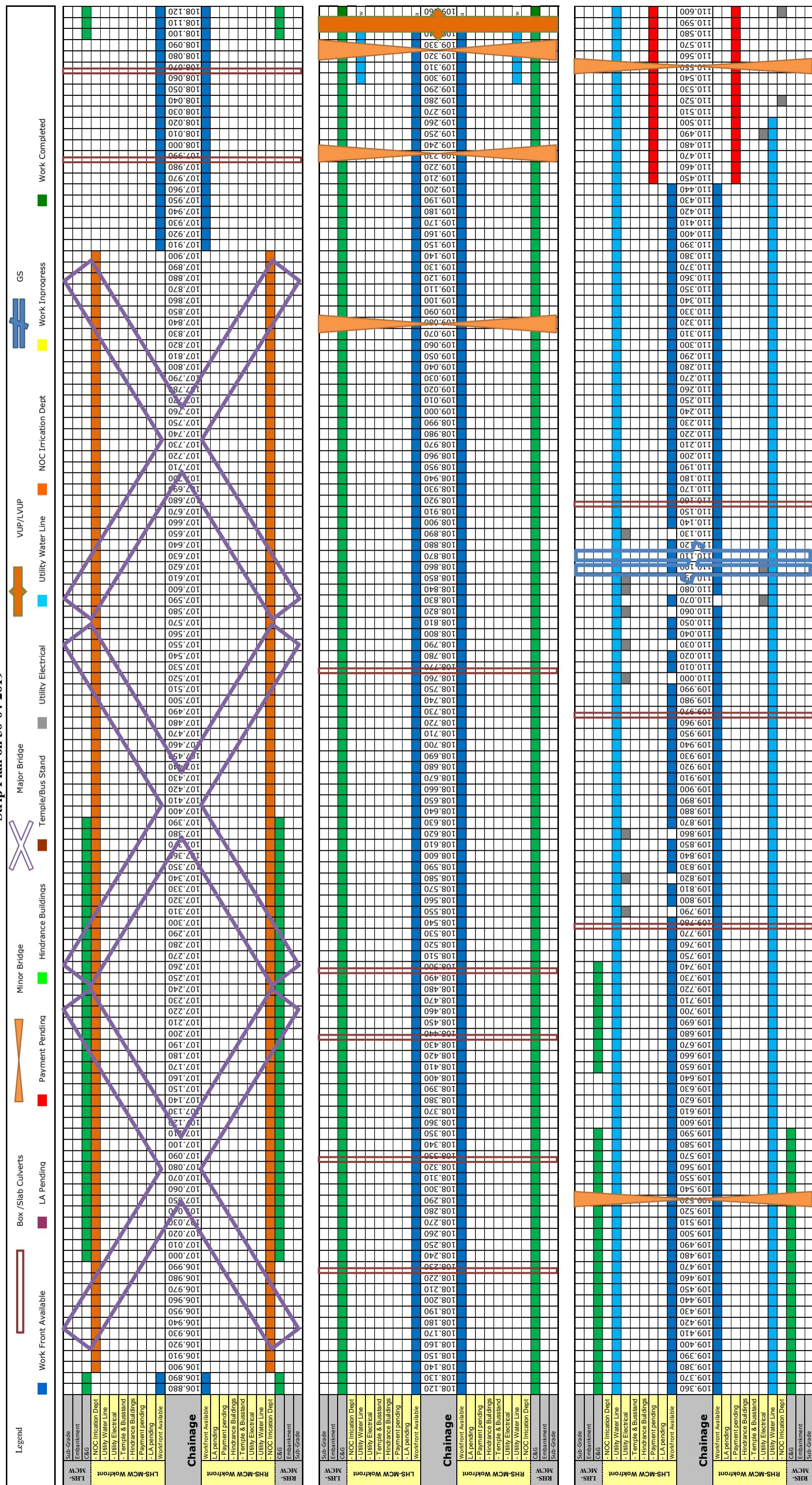
Strip Plan on 30-04-2019



Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

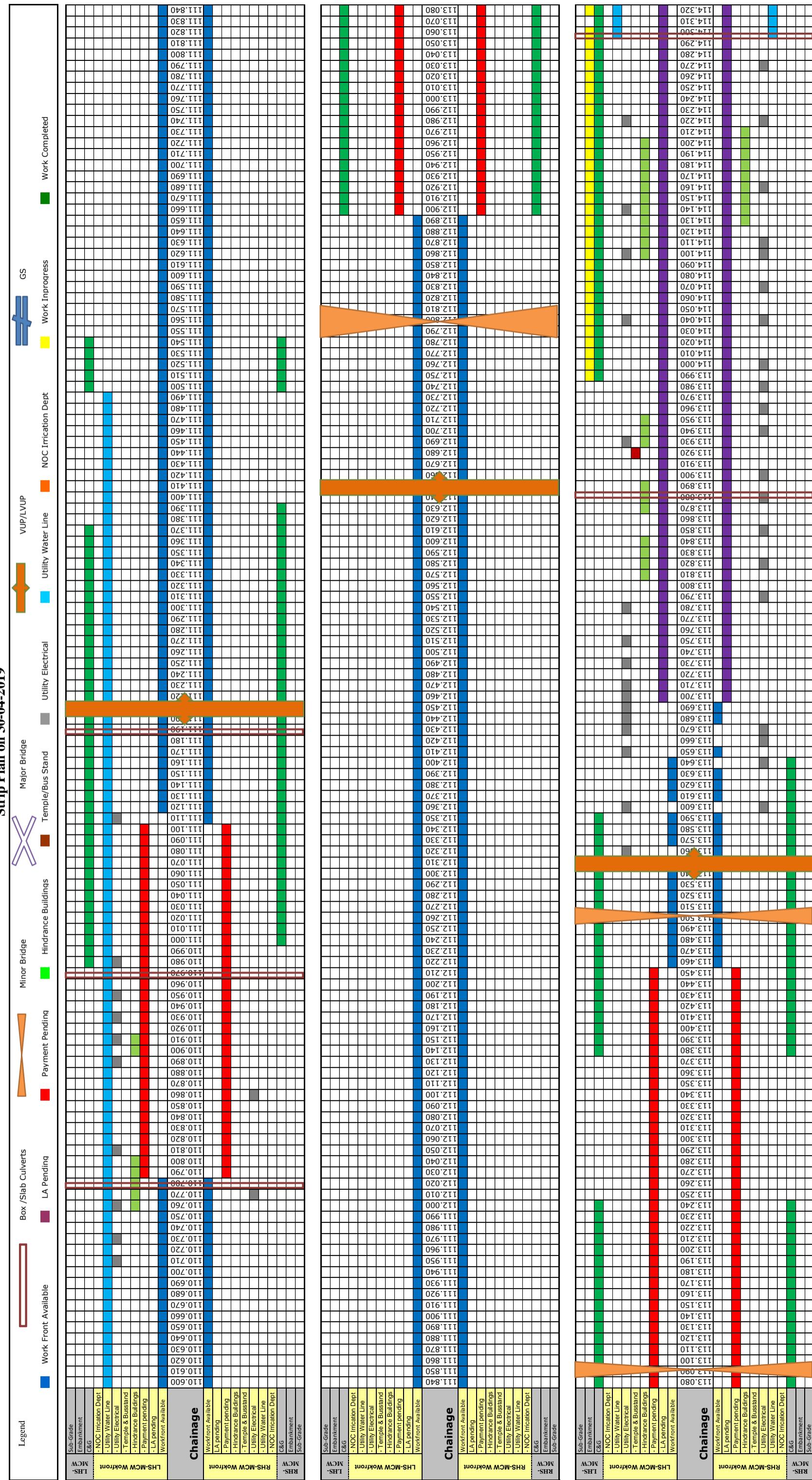
Strip Plan on 30-04-2019



Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

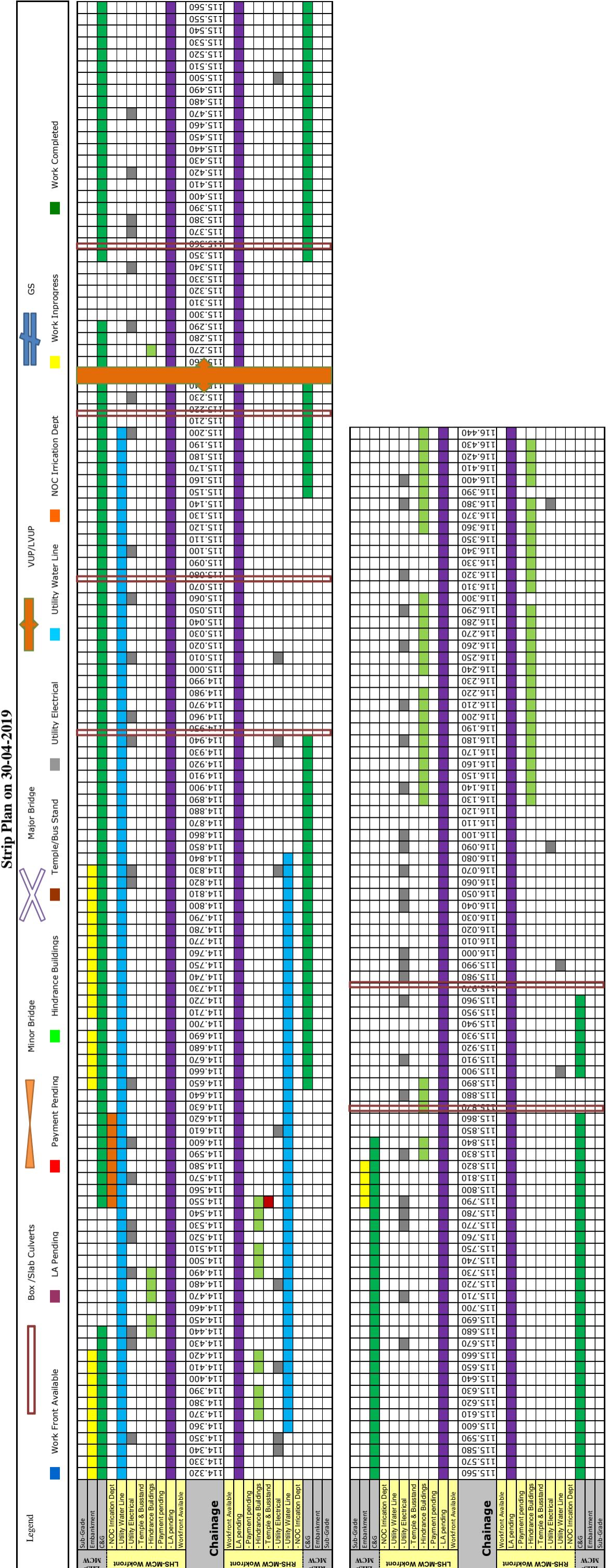
Sethiyahopu - Cholopuram Road Projects

Strip Plan on 30-04-2019



Four Laning of Sethiyahopu - Cholopuram from Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDTP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects



STATUS OF BOX CULVERTS ON EXISTING ROAD - MCW				Completed				In Progress			
Status Upto	30.04.2019			LHS				RHS			
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Remarks		Type of Structure	Protection Work	Slab	Wall	Raft	Granular Filling
											Excavation
1	74+675	74.670	EXISTING	1 x 3.0m x 2.0m		New Construction	BOX CULVERT				
2	74+800	74.808	EXISTING	1 x 1.20m		Reconstruction	PIPE CULVERT				
3	75+558	75.555	EXISTING	1x3.0m		Reconstruction	BOX CULVERT				
4	75+902	75.897	EXISTING	1 x 2.0m x 2.0m		Reconstruction	BOX CULVERT				
5	76+390	76.387	EXISTING	1 x 3.0m		Reconstruction	BOX CULVERT				
6	77+382	77.379	EXISTING	1 x 4.0m		Reconstruction	BOX CULVERT				
7	77+766	77.764	EXISTING	1 x 2.0m		Widening	BOX CULVERT				
8	81+868	81.867	EXISTING	1 x 2.0m x 2.0m		Reconstruction	BOX CULVERT				
9	81+913	81.910	EXISTING	1 x 1.95m x 1.0m		Widening	BOX CULVERT				
10	83+012	83.007	EXISTING	2 x 2.0m x 2.0m		Reconstruction	BOX CULVERT				
11	83+065	83.062	EXISTING	1 x 2.0m x 2.0m		Reconstruction	BOX CULVERT				
12	89+973	89.969	EXISTING	4 x 0.75m		Widening	PIPE CULVERT				
13	90+640	90.637	EXISTING	1 x 1.20m		Reconstruction	PIPE CULVERT				
14	94+509	94.509	EXISTING	1 x 3.6m x 1.6m		Widening	BOX CULVERT				
15	95+495	95.490	EXISTING	1 x 1.2m x 0.9m		Reconstruction	BOX CULVERT				
16	95+794	95.787	EXISTING	1 x 1.20m		Reconstruction	PIPE CULVERT				
17	96+511	96.505	EXISTING	1 x 5.0m		Reconstruction	BOX CULVERT				
18	97+530	97.534	EXISTING	1x2.0m		Reconstruction	BOX CULVERT				
19	97+742	97.738	EXISTING	1 x 3.0m x 1.0m		Widening	BOX CULVERT				
20	99+471	99.467	EXISTING	1 x 3.0m x 4.0m		Repair & Widening	BOX CULVERT				
21	99+776	99.769	EXISTING	1 x 2.0m x 2.0m		Repair & Widening	BOX CULVERT				
22	99+840	99.838	EXISTING	1 x 1.5m x 1.5m		Repair & Widening	BOX CULVERT				
23	100+177	100.173	EXISTING	1 x 1m		Repair & Widening	PIPE CULVERT				
24	100+364	100.358	EXISTING	1 x 10m		Repair & Widening	BOX CULVERT				
25	100+823	100.817	EXISTING	1 x 3.5m x 2.5m		Repair & Widening	BOX CULVERT				
26	101+851	101.851	EXISTING	1 x 1.5m x 1.5m		Repair & Reconstruction	BOX CULVERT				
27	103+220	103.214	EXISTING	1 x 4.0m x 2.5m		Repair & Reconstruction	BOX CULVERT				
28	104+197	104.190	EXISTING	1 x 1.0m		Repair & Reconstruction	PIPE CULVERT				
29	104+215	104.208	EXISTING	1 x 1.0m		Reconstruction	PIPE CULVERT				
30	109+786	109.779	EXISTING	1 x 1.0m		Repair & Reconstruction	PIPE CULVERT				
31	109+975	109.967	EXISTING	1 x 2.0m x 1.7m		Repair & Reconstruction	BOX CULVERT				
32	110+167	110.160	EXISTING	2 x 1.0m		Repair & Reconstruction	PIPE CULVERT				
33	110+795	110.785	EXISTING	1 x 1.2m x 2.0m		Repair & Reconstruction	BOX CULVERT				
34	110+980	110.971	EXISTING	1 x 1.5m x 2.0m		Repair & Reconstruction	BOX CULVERT				
35	113+897	113.885	EXISTING	1 x 1.0m		Repair & Widening	PIPE CULVERT				
36	114+313	114.300	EXISTING	1 x 1.0m		Repair & Widening	PIPE CULVERT				
37	114+703	114.703	EXISTING								
38	114+954	114.952	EXISTING	1 x 1.0m		Repair & Reconstruction	PIPE CULVERT				
39	115+097	115.087	EXISTING	2 x 1.0m		Repair & Reconstruction	PIPE CULVERT				
40	115+232	115.221	EXISTING	1 x 2.0m x 2.0m		Repair & Reconstruction	BOX CULVERT				
41	115+381	115.368	EXISTING	1 x 2.0m		Repair & Reconstruction	BOX CULVERT				
42	115+884	115.872	EXISTING	2 x 1.0m		Repair & Widening	PIPE CULVERT				
43	115+978	115.978	EXISTING	1 x 2.0m x 2.0m		Repair & Widening	BOX CULVERT				

**SETHIYAHOPU CHOLOPURAM PROJECT -
STATUS OF BOX CULVERTS ON EXISTING ROAD - SERVICE ROAD**

Completed						In Progress					
						LHS			RHS		
Status Upto	As Approved by IE	Design Challenge As per CA	Number and Length of Spans (m)		Remarks	Type of Structure	Protection Work	Slab	Wall	Raft	Slab
1	74+675	74.670	EXISTING	1 x 3.0m x 2.0m	New Construction	BOX CULVERT					
2	74+800	74.808	EXISTING	1 x 1.20m	Reconstruction	PIPE CULVERT					
3	75+558	75.555	EXISTING	1x3.0m	Reconstruction	BOX CULVERT					
4	75+902	75.897	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT					
5	76+390	76.387	EXISTING	1 x 3.0m	Reconstruction	BOX CULVERT					
6	77+382	77.379	EXISTING	1 x 4.0m	Reconstruction	BOX CULVERT					
7	77+766	77.764	EXISTING	1 x 2.0m	Widening	BOX CULVERT					
8	83+012	83.007	EXISTING	2 x 2.0m x 2.0m	Reconstruction	BOX CULVERT					
9	83+065	83.062	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT					
10	89+973	89.969	EXISTING	4 x 0.75m	Widening	PIPE CULVERT					
11	90+640	90.637	EXISTING	1 x 1.20m	Reconstruction	PIPE CULVERT					
12	94+509	94.509	EXISTING	1 x 3.6m x 1.6m	Widening	BOX CULVERT					
13	95+495	95.490	EXISTING	1 x 1.2m x 0.9m	Reconstruction	BOX CULVERT					
14	95+794	95.787	EXISTING	1 x 1.20m	Reconstruction	PIPE CULVERT					
15	96+511	96.505	EXISTING	1 x 5.0m	Reconstruction	BOX CULVERT					
16	97+530	97.534	EXISTING	1x2.0m	Reconstruction	BOX CULVERT					
17	99+776	99.769	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT					
18	99+840	99.838	EXISTING	1 x 1.5m x 1.5m	Repair & Widening	BOX CULVERT					
19	100+177	100.173	EXISTING	1 x 1m	Repair & Widening	PIPE CULVERT					
20	100+364	100.358	EXISTING	1 x 10m	Repair & Widening	BOX CULVERT					
21	101+851	101.851	EXISTING	1 x 1.5m x 1.5m	Repair & Reconstruction	BOX CULVERT					
22	103+220	103.214	EXISTING	1 x 4.0m x 2.5m	Repair & Reconstruction	BOX CULVERT					
23	104+197	104.190	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT					
24	104+215	104.208	EXISTING	1 x 1.0m	Reconstruction	PIPE CULVERT					
25	109+786	109.779	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT					
26	109+975	109.967	EXISTING	1 x 2.0m x 1.7m	Repair & Reconstruction	BOX CULVERT					
27	110+167	110.160	EXISTING	2 x 1.0m	Repair & Reconstruction	PIPE CULVERT					
28	110+795	110.785	EXISTING	1 x 1.2m x 2.0m	Repair & Widening	BOX CULVERT					
29	110+980	110.971	EXISTING	1 x 1.5m x 2.0m	Repair & Reconstruction	BOX CULVERT					
30	113+897	113.885	EXISTING	1 x 1.0m	Repair & Widening	PIPE CULVERT					
31	114+313	114.300	EXISTING	1 x 1.0m	Repair & Widening	PIPE CULVERT					
32	114+954	114.952	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT					
33	115+097	115.087	EXISTING	2 x 1.0m	Repair & Reconstruction	PIPE CULVERT					
34	115+232	115.221	EXISTING	1 x 2.0m x 2.0m	Repair & Reconstruction	BOX CULVERT					
35	115+381	115.368	EXISTING	1 x 2.0m	Repair & Reconstruction	BOX CULVERT					
36	115+884	115.872	EXISTING	2 x 1.0m	Repair & Widening	PIPE CULVERT					
37	115+978	115.978	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT					

Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	Completed		In Progress		RHS	LHS
					Slab	Wall	Raft	PCC	Excavation	Granular Filling
1	66+357	66.383	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT					
2	67+068	67.068	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT					
3	69+357	69.357	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT					
4	72+570	72.578	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT					
5	73+755	73.755	BYPASS	1x1.2.0mx2.0m	PIPE CULVERT					
6	104+622	104.618	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT					
7	104+998	104.992	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT					
8	105+440	105.440	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT					
9	105+536	105.525	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT					
10	106+442	106.432	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT					
11	108+002	107.994	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT					
12	108+080	108.070	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT					
13	108+225	108.225	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT					
14	108+345	108.334	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT					
15	108+441	108.441	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT					
16	108+540	108.500	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT					
17	108+767	108.767	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT					
18	111+205	111.196	BYPASS	1 x 1.0m	PIPE CULVERT					
19	111+452	111.452	BYPASS		PIPE CULVERT					

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS - SERVICE ROAD						
Status	Up to	Completed			In Progress	RHS
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	Protection Work	LHS
1	72+570	72.578	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT	
2	104+622	104.618	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT	
3	104+998	104.992	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT	
4	106+442	106.432	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT	
5	111+205	111.196	BYPASS	1 x 1.0m	PIPE CULVERT	

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX - MCW		Completed		In Progress	
Status Update	As Approved by IE	LHS		RHS	
Sr. No.	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	Protection Work	Excavation Work
1	79+716	79.715	1 x 12.50m	MNBB	Widening
2	79+795	79.795	2 x 12.50m	MNBB	Re-Const.
3	82+007	82.006	2 x 12.50m	MNBB	Widening
4	85+144	85.144	2 x 12.50m	MNBB	Re-Const.
5	85+435	85.432	1 x 12.50m	MNBB	Widening
6	88+513	88.513	1 x 12.50m	MNBB	Widening
7	91+164	91.165	2 x 12.50m	MNBB	Re-Const.
8	92+343	92.342	1 x 12.50m	MNBB	Widening
9	101+101	101.100		MNBB	EXISTING
10	66+757	66.730	2 x 12.5m	MNBB	BYPASS
11	68+644	68.650	2 x 12.5m	MNBB	BYPASS
12	74+173	74.175	2 x 12.5m	MNBB	BYPASS
13	74+605	74.600	2 x 12.5m	MNBB	BYPASS
14	105+915	105.915	2 x 12.5m	MNBB	BYPASS
15	109+090	109.088	2 x 12.5m	MNBB	BYPASS
16	109+195	109.208	2 x 12.5m	MNBB	BYPASS
17	109+365	109.365	2 x 12.5m	MNBB	BYPASS
18	109+540	109.540	2 x 12.5m	MNBB	BYPASS
19	111+563	111.565	2 x 12.5m	MNBB	BYPASS
20	112+807	112.807	1 x 25m	MNBB	BYPASS
21	113+100	113.100	2 x 12.5m	MNBB	BYPASS
22	113+505	113.505	2 x 12.5m	MNBB	BYPASS

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX - SERVICE ROAD		Completed		In Progress	
Status Upto	30.04.2019	LHS		RHS	
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	Protection Work
1	74+605	74.600	2 x 12.5m	MNBB	BYPASS
2	105+915	105.915	2 x 12.5m	MNBB	BYPASS
3	109+090	109.088	2 x 12.5m	MNBB	BYPASS
4	109+195	109.208	2 x 12.5m	MNBB	BYPASS
5	109+365	109.365	2 x 12.5m	MNBB	BYPASS
6	109+540	109.540	2 x 12.5m	MNBB	BYPASS
7	111+563	111.565	2 x 12.5m	MNBB	BYPASS
8	112+807	112.807	1 x 25m	MNBB	BYPASS
9	113+100	113.100	2 x 12.5m	MNBB	BYPASS
10	113+505	113.505	2 x 12.5m	MNBB	BYPASS

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF LVUP				Completed		In Progress		RHS	
Status Upto 30.04.2019				LHS				RHS	
Sr. No.	As Approved by IE	Number and Length of Spans (m)	Type of Structure						
1	77+420	1X10.5	LVUP	EXISTING					
2	112+643	1X10.5	LVUP	BYPASS					
			Protection Work						
			Slab						
			Wall						
			Raft						
			PCC						
			Excavation						

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB (>15m Span)			
Status upto	MNB at Chainage	Span	
SR.NO.			LHS
1	70+185	2 x 20	BYPASS A1 P1 A2
2	73+815	1 x 15	BYPASS A1 A2
3	84+725	1 x 15	EXISTING A1 A2
4	84+987	2 x 15	EXISTING P1 A2
			RHS
		EXCAVATION	PCC Open Foundation Pile/Abt Piercap /Abtcap Grider Slab Crash Barrier
			In Progress
			Completed

Completed		In Progress		RHS/LSR	LHS/LSR	Completed		In Progress		RHS/LSR	LHS/LSR
MJB at Chainage 66+530 (8x30) - BYPASS	STATUS OF MJB	MJB at Chainage 73+340 (9x30) - BYPASS	STATUS OF MJB			Pile	Pile Cap	Pier/Abt	Pier/Cap/Abt	Cap	Pile/Cap
A1	P1	A1	P1			Pile	Pile Cap	Pier/Abt	Pier/Cap/Abt	Cap	Pile/Cap
P2											
P3											
P4											
P5											
P6											
P7											
A2											
Crash Barrier		Crash Barrier				Slab	Girder Casting	Pier/Cap/Abt	Pier/Cap/Abt	Cap	Pile/Cap
Crash Barrier		Crash Barrier									Pile
											Pile Cap
											Pier/Abt
											Pier/Cap/Abt
											Girder Casting
											Slab
											Crash Barrier

MJB at Chainage 99+583 (3x25) - EXISTING ROAD			MJB at Chainage 107+400 - BYPASS		
	LHS/LSR	RHS/LSR		LHS/LSR	RHS/LSR
	Completed	In Progress		Completed	In Progress
A1			Crash Barrier		
P1			Slab		
P2			Girder Casting		
A2			Pile Cap/Abt		
			Pile Cap/Abt		
			Pile Cap		
			Pile		
			Pile		
			Pile Cap		
			Pile Cap/Abt		
			Pile/Abt		
			Pile/Cap		
			Pile/Cap/Abt		
			Girder Casting		
			Slab		
			Crash Barrier		

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF FLYOVER		Completed		In Progress		RHS											
Status upto	30.04.2019	F.O at Chainage	Span	LHS	RHS	Slab	Pile Cap	PCC	Pile	Abt Shaft	Abt cap /Abtcap	Girder Casting	Slab	Crash Barrier			
1	69+785	1x30	BYPASS	A1													
2	74+655	1x30	BYPASS+EXISTING	A1	A2												
3	80+556	1x30	EXISTING	A1													
4	80+720	1x30	EXISTING	A1													
5	95+455	2x30	EXISTING	A2													
6	98+950	2x30	EXISTING	P1													
7	104+570	1x30	BYPASS	A2													
8	110+110	1x30	EXISTING	A2													

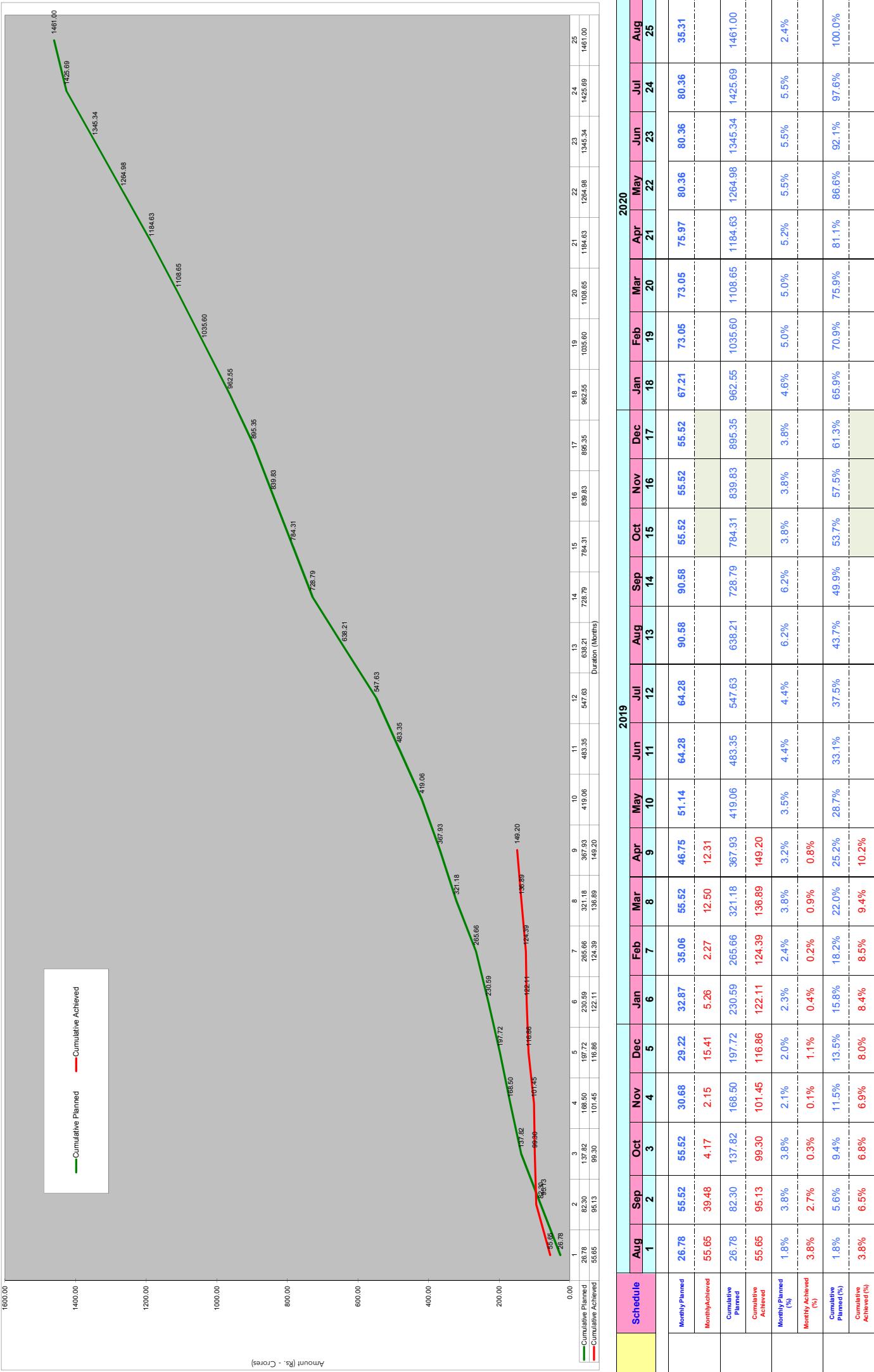
SETHIYAHOPU CHOLPURAM PROJECT - STATUS OF VUP		Completed		In Progress		RHS	
Status upto	30.04.2019	LHS	RHS	LHS	RHS	LHS	RHS
SR.NO.	VUP at Chainage	Span		Crash Barrifer	Slab	Pile Cap	Pile
1	72+545	1x25	BYPASS	A1 A2			
2	75+830	1x25	EXISTING	A1 A2			
3	86+677	1x25	EXISTING	A1			
4	87+670	1x25	EXISTING	A1 A2			
5	90+580	1x25	EXISTING	A1 A2			
6	97+225	1x25	EXISTING	A1 A2			
7	101+910	1x25	EXISTING	A1 A2			
8	102+975	1x25	EXISTING	A1 A2			
9	106+318	1x25	BYPASS	A1 A2			
10	109+350	1x25	BYPASS	A1 A2			
11	111+235	1x25	BYPASS+EXISTING	A1 A2			
12	113+550	1x25	BYPASS+EXISTING	A1 A2			
13	115+258	1x25	EXISTING	A1 A2			

5. Financial Progress of Work

Figure 3: Financial Progress - Planned vs Achieved - S Curve

Four Laning of Sehiyahopu - Cholopuram from Km. 65.960 to 116.440 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode

Fig. 03- Financial Progress (S-Curve)



6. Quality Control and Quality Assurance

6.1. List of Lab Equipment's

A site laboratory has been set up with all equipment required for testing soil, GSB, WMM, Bitumen, aggregate and concrete. Following tables represents the list of QA/QC equipment's available at Annaikarai & Meensurity Lab.

Table 6.1 - 1 QA/QC Lab Equipment at Annaikarai Lab

Sl. NO	EQUIPEMENT LIST'S	QUANTITY
1	compression testing machine 2000 kN	1
2	cement mortar vibrating machine	1
3	AlV Apparatus	1
4	Elecrronic weighing balance (50 kg)	1
5	Elecrronic weighing balance (600 gm)	1
6	Hot Air Oven(250° c)	1
7	Hot plate	1
8	Rain Gauge	1
9	Sieve: as per IS 460 -1962 200 dia Brass frame	
10	4.75 mm	1
11	1.18 mm	1
12	600 mic	1
13	300 mic	1
14	90 mic	1
15	75 mic	1
16	Pan with Lid	1
17	Sieve: as per IS 460 -1962 200 dia GI frame	
18	40 mm	1
19	20 mm	1
20	12.5 mm	1
21	10 mm	1
22	4.75 mm	1
23	2.36 mm	1
24	Pan with Lid	1
25	Thickness Gauge	1
26	Glass Rain measuring jar (200CM ²)	2
27	GI Tray (18 x24 x50)	5
28	Enamel Tray (medium)	4
29	Enamel Tray (small)	6
30	spectula wooden handle	8
31	GI Tray ()	1
32	Iron tray	1
33	slump cone apparatus with tamping rod	2

Table 6.1 - 2 QA/QC Lab Equipment at Meensurity Lab

Sl. NO	EQUIPEMENT LISTS	QUANTITY
1	Test Sieves Set 450mm internal diameter as per IS complete with lid & pan of hole sizes	
a	100mm	2 Nos
b	75mm	2 Nos
c	90mm	2 Nos
d	63mm	2 Nos
e	53mm	2 Nos
f	50mm	2 Nos
g	45mm	2 Nos
h	40mm	2 Nos
i	37.5mm	2 Nos
j	31.5mm	2 Nos
k	26.5mm	2 Nos
l	25mm	2 Nos
m	22.4mm	2 Nos
n	20.0mm	2 Nos
o	19.0mm	2 Nos
p	18mm	2 Nos
q	16mm	2 Nos
r	14mm	2 Nos
s	13.2mm	2 Nos
t	12.5mm	2 Nos
v	11.2mm	2 Nos
u	10mm	2 Nos
w	9.5mm	2 Nos
x	6.3mm	2 Nos
y	5.6mm	2 Nos
z	4.75mm	2 Nos
2	Test Sieves Set 200mm internal diameter (Brass frame & steel or brass wire cloth mesh) as per IS complete with lid & pan of sieve	
a	37.5mm	2 Nos
b	26.5mm	2 Nos
c	22.4mm	2 Nos
d	19mm	2 Nos
e	16mm	2 Nos
f	14mm	2 Nos
g	13.2mm	2 Nos
h	12.5	2 Nos
i	11.2mm	2 Nos
j	10mm	2 Nos
k	9.5mm	2 Nos
l	4.75mm	2 Nos
m	2.8mm	2 Nos
n	2.36mm	2 Nos
o	2.0mm	2 Nos

Sl. NO	EQUIPEMENT LISTS	QUANTITY
p	1.80mm	2 Nos
q	1.7mm	2 Nos
r	1.4mm	2 Nos
s	1.18mm	2 Nos
t	1.0mm	3 Nos
v	0.600mm	2 Nos
u	0.425mm	2 Nos
w	0.355mm	2 Nos
x	0.300mm	2 Nos
y	0.180	2 Nos
z	0.090mm	2 Nos
aa	0.075mm	6 Nos
3	Measuring cylinder - Borosilicate glass - 100ML	40 Nos
4	Glass Thermometer 00c to 3000c	10 Nos
5	Flash filtering borosil glass - 2000ML	1 No
6	Flash filtering borosil glass - 5000ML	1 No
7	Round hot Plate	2 Nos
8	Measuring cylinder - Borosilicate glass - 1000ML	4 Nos
9	Measuring cylinder - Borosilicate glass - 250ML	4 Nos
10	Measuring cylinder- Borosilicate glass - 500ML	4 Nos
11	Beakers - glass borosil - low from cap 600ML	4 Nos
12	Compaction pedestal - 4"	4 Nos
13	Extractor plate - 6" dia for marshal test	1 No
14	Rammer marshal - 4"	4 Nos
15	Thermometer Infra red - MTX - 2	2 Nos
16	LE - Chatlier mould one set of six	2 Nos
17	Cone penetrometer	1 No
18	Los angeles abrasion testing machine	1 No
19	Marshal Mould - 4" dia	51 nos
20	G.I Tray - 1500*1500*100MM	4 Nos
21	Compaction pedestal - 6"	1 No
22	Marshal stability apparatus	1 No
23	Measuring cylinder- Plastic - 50ML	4 Nos
24	Measuring cylinder- Plastic - 250ML	2 Nos
25	Measuring cylinder- Plastic - 500ML	2 Nos
26	Measuring cylinder- Plastic - 1000ML	2 Nos
27	Vibrating machine with digital timer	1 No
28	Hot Air Oven - Thermostatic - NoN Digital - 45*45*45 CM	1 No
29	Hot Air Oven - Thermostatic - NoN Digital - 90*60*60 CM	1 No
30	Penetration cup - 55*70 MM	2 Nos
31	Penetration cup - 55*35MM	6 Nos
32	Standard Penetrometer - Automatic with digital timer	1 No
33	proctor compaction mould 100mm dia with 2.69kg Rammer mid steel	4 Nos
34	proctor compaction mould 150mm dia with 4.89kg Rammer mid steel	6 Nos
35	proving ring compression type 10kn	1 Nos

Sl. NO	EQUIPEMENT LISTS	QUANTITY
36	proving ring compression type 2.5kn	1 Nos
37	proving ring compression type 25kn	1 Nos
38	proving ring compression type 50kn	1 Nos
39	pycnometter bottle	4 Nos
40	Rapid moisture meter-0-25%	4 Nos
41	Riffle sample divider -G.I-20mm , no of slot ;16	1 nos
42	Riffle sample divider -G.I-40mm , no of slot ;12	1 Nos
43	Pipette borosilicate glass - 10 ml	4 Nos
44	Sant equivalent value test apparaus with accessories	1 Nos
45	fileld density test app - sand replacement method small	2 Set
46	shrinkage limit set W/O mercury	1 Nos
47	Mercury 250 Gm	1 Nos
48	Buoyancy balance	1 Nos
49	Spatula 8"	10 Nos
50	Spatula 4"	10 Nos
51	Standard sand - grade III - Bag of 25 kg	2 Nos
52	Standard sand - grade I - Bag of 25 kg	2 Bag
53	Standard sand - grade II - Bag of 25 kg	2 Bag
54	stanard penetrometer - automatic with digital timer	1 Nos
55	Beaking head assembly - 6'	1 Nos
56	Bulk density cylindrical metal measure - 15 LTR	1 Nos
57	Bulk density cylindrical metal measure - 5 LTR	1 Nos
58	Bulk density cylindrical metal measure - 30 LTR	1 Nos
59	Calcium carbide - 500 GM for rapid moisture meter	10 Nos
60	Liquid limits device - hand operated	1 Nos
61	CBR mould mild steel 150mm dia eith coller and base plate	60 Nos
62	Perforated plate - for CBR test AS per 1377	57 Nos
63	Spacer disc - for CBR test	4 nos
64	surcharge weight 2.5kg annular for cbr test	120 nos
65	cbr load frame electrical single speed	1 nos
66	chiesel 25mm wide *300mm long	20 nos
67	compression testing machine 2000kn digital manual pace	1 nos
68	cube moulds 7.06cm isi marked for cement	12
69	Concrete mixer - Tilting drum type	1 No
70	Constant temperature waterbath for marshal test with digital	2 Nos
71	Core drilling machine with disel engine	1 No
72	Electronic weighing balance - 10KG	1 No
73	Cube moulds - 10CM	18 Nos
74	Cube moulds - 5CM	12 Nos
75	Electronic weighing balance - 600Gms	2 Nos
76	Dial gauge 0.01*30mm	4 Nos
77	Electronic platform balance - 100KG	1 Nos
78	Electronic weighing balance - 30KG	2 Nos
79	Electronic weighing balance - 50KG	2 Nos
80	Electronic weighing balance - 5KG	1 No
81	Stop watch - digital	4 Nos

Sl. NO	EQUIPEMENT LISTS	QUANTITY
82	Direct shear apparatus	1 No
83	Bottle wash plastic - 1000ML	4 Nos
84	Length gauge	1 No
85	Tray - G.I 300*300MM (12"*12")	6 Nos
86	Enamel tray -300*250*40 mm (10"*12")	9 Nos
87	Tray G.I -300*250*40 mm (10"*12")	9 Nos
88	Enamel tray -450*600*40 mm (18"*12")	12 Nos
89	Field density test app -sand replacement method medium	2 Set
90	Field density test app -sand replacement method Large	2 Set
91	Filter paper for marshal test 100mm dia	10 PKT
92	Filter paper for CBR test 15cm dia PKT of 100 circles	10 PKT
93	Flakiness gauge - M.S .Chrome / powder coated	1 Nos
94	Pensky marten flash piot apparatus	1 Nos
95	Flexural strength testing machine curve	1 Nos
96	French curve	2 Nos
97	Slump test appratus with tamping rod 16mm dia *600mm long	9 Nos
98	Thermometer dial 100mm dia * 300mm long 00 - 3000c	10 Nos
99	Tripod stand for CBR test	4 Nos
100	Gauging trowel 6" (150mm)	4 Nos
101	U tube glass viscometer	1 Nos
102	Saybolt viscometer with energy regulator	1 Nos
103	Vacuum pump -Singal Stage	1 Nos
104	Vibrating table -60*60 CM	1 Nos
105	Needle final setting time for vicat needle appratus	1 Nos
106	Needle Intial setting time for vicat needle appratus	1 Nos
107	Vicat Needle apparatus	2 Nos
108	Hammer with Handle - 1000 GM	4 Nos
109	Aggregate Impact testing machine	1 Nos
110	Beakers - glass borosil - low form cap ; 600ML	2 Nos
111	Beam mould -15*15*70 CM - Mild steel	17 Nos

6.2. Quality Control Test Summary

GSB material, soil samples from borrow areas, aggregates, cement and bitumen are being tested regularly. Trial mix design for concrete with different admixtures is also in progress.

The detailed list of quality control test conducted up to the month of April - 2019 are tabulated below -

Four Laning of Sethiyahopu - Cholapuram From km 65.960 to km 116.440 Section of NH-45C in the State of TamilNadu Under NHDP

Phase-IV on Hybrid Annuity Mode

Monthly Progress Report : Summary of Quality Control Report : Month of April-2019

S.No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous(Mar) month			Tests conducted during reporting month upto 30 th APR-19			Test conducted upto this month		
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Conducted EPC/ Concessionaire
1.0 Tests on OGL												
1.1	Grain size analysis	IS:27720 (Part4)	1 test /250 meters	313	0	82	0	0	0	0	313	313
1.2	Atterberg Limits	IS:27720 (Part5)	1 test /250 meters	313	0	82	0	0	0	0	313	313
1.3	Proctor	IS:27720 (Part8)	1 test /250 meters	313	0	82	0	0	0	0	313	313
1.4	Free Swell index	IS:27720 (Part40)	1 test /250 meters	313	308	5	82	0	0	0	313	308
1.5	California bearing ratio	IS:27720 (Part16)	As required	0	0	0	0	0	0	0	0	0
2.0 Borrow Area for EMB/Subgrade (MoRTH & H 305)												
2.1	Grain size analysis	IS:27720 (Part4)	1 test /1500 m ³	151	0	111	0	100	0	0	79	251
2.2	Atterberg Limits	IS:27720 (Part5)	1 test /1500 m ³	151	0	111	0	100	0	0	79	251
2.3	Proctor	IS:27720 (Part8)	1 test /1500 m ³	151	0	111	0	100	0	0	79	251
2.4	Free Swell index	IS:27720 (Part40)	1 test /1500 m ³	151	0	111	0	100	0	0	79	251
2.5	California bearing ratio	IS:27720 (Part16)	1 test /3000 m ³	0	0	0	0	13	0	6	13	13
3.0 Cutting portion & Existing for EMB/SG (MoRTH & H 305)												
3.1	Grain size analysis	IS:27720 (Part4)	1 test /1500 m ³	2	0	2	0	0	0	0	2	251
3.2	Atterberg Limits	IS:27720 (Part5)	1 test /1500 m ³	2	0	2	0	0	0	0	2	251
3.3	Proctor	IS:27720 (Part8)	1 test /1500 m ³	2	0	2	0	0	0	0	2	251
3.4	Free Swell index	IS:27720 (Part40)	1 test /1500 m ³	2	0	2	0	0	0	0	2	251
3.5	California bearing ratio	IS:27720 (Part16)	1 test /3000 m ³	0	0	0	0	0	0	0	0	0
4.0 FLYASH For Embankment												
4.1	Liquid Limit & Plastic limit	TABLE-1		1 test /1500 m ³	55	55	0	55	0	0	55	55
4.2	Maximum Dry Density	Clause 5.2		1 test /1500 m ³	55	55	0	55	0	0	55	55
5.0 Field Density Test MoRTH 305												
5.1	Field density (G _L)	IS:27720 (Part28)	1 test /3000 sqm	1225	1171	54	268	712	670	42	187	1937
5.2	EMB field density	IS:27720 (Part28)	1 test /3000 sqm	2304	2232	72	302	2878	2620	258	768	5182
5.3	SG field density	IS:27720 (Part28)	1 test /2000 sqm	0	0	0	0	0	0	0	0	0
5.4	Shoulder field density	IS:27720 (Part28)	1 test /2000 sqm	0	0	0	0	0	0	0	0	0
6.0 Filter Media & Back filling MoRTH 2500												
6.1	Gradation		As required	0	0	0	0	0	0	0	0	0
6.2	Backfilling field density		1 test /1000 m ³	0	0	0	0	0	0	0	0	0
6.3	RE Wall field density		As required	0	0	0	0	0	0	0	0	0

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous(Mar) month			Tests conducted during reporting month upto 30 th APR-19			Test conducted upto this month			
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	No. of test witnessed by IE	Conducted EPC/ Concessionaire	Passed	Failed	No. of test witnessed by IE	Conducted EPC/ Concessionaire	Passed
7.0 Safe Bearing capacity of soil													
7.1	Free Swell index	IS:2720 (Part40)	As required	43	39	4	39	0	0	0	0	43	39
7.2	Grain size analysis	IS:2720 (Part4)	As required	43	43	0	39	0	0	0	0	43	0
7.3	Proctor	IS:2720 (Part8)	As required	43	43	0	39	0	0	0	0	43	0
7.4	Direct shear Test	IS:2720 (Part13)	As required	43	36	7	39	0	0	0	0	43	36
7.5	Bearing Capacity/ Plate Load Test	IS:6403 / IS:1888	As required	3	3	0	3	0	0	0	0	3	3
8.0 CTSB Mix Design/Site Frequency MORT&H 403													
8.1	Gradation	Table 400-4	1 test/400m ³	42	42	0	42	0	0	0	0	42	42
8.2	Atterberg Limits	IS:2720 (Part5)	1 test/400m ³	5	5	0	5	0	0	0	0	5	5
8.3	Proctor	IS:2720 (Part8)	As required	4	4	0	4	0	0	0	0	4	4
8.4	CBR Test or unconfined compressive	IS:2720 (Part16)	As required	1	1	0	1	0	0	0	0	1	1
8.5	Quality of cement		Minimum 1 test/5 tons	2	2	0	2	0	0	0	0	2	2
8.6	Aggregate Impact value	IS:2386 Part-4	As required	3	3	0	3	0	0	0	0	3	3
8.7	Field Density	IS:2720 (Part28)	1 set of 2 Test per	0	0	0	0	0	0	0	0	0	0
8.8	Specific gravity& Water absorption	IS:2386 (Part2)	As required	2	2	0	2	0	0	0	0	2	2
8.9	Cubes	IRC SP 89 (2010)	Minimum 5 Cubes	34	34	0	34	0	0	0	0	34	0
9.0 Granular Bedding Material (For Structures-Ground Improvement)- Mix Design													
9.1	Gradation	Table 400-1	1 test/400m ³	0	0	0	0	0	0	0	0	0	0
9.2	Atterberg Limits	IS:2720 (Part5)	1 test/400 m ³	0	0	0	0	0	0	0	0	0	0
9.3	Proctor	IS:2720 (Part8)	As required	0	0	0	0	0	0	0	0	0	0
9.4	CBR Test	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0
9.5	Aggregate Impact value	IS:2386 Part-4	As required	0	0	0	0	0	0	0	0	0	0
9.6	Field Density	IS:2720 (Part28)	1 Test per 1000Sq.m	0	0	0	0	0	0	0	0	0	0
10.0 Granular Bedding Material (For Structures-Ground Improvement)- Site Frequency													
10.1	Gradation	Table 400-1	1 test/400m ³	0	3	0	3	0	0	0	0	3	0
10.2	Atterberg Limits	IS:2720 (Part5)	1 test/400 m ³	0	3	0	3	0	0	0	0	3	0
10.3	Proctor	IS:2720 (Part8)	As required	0	0	0	0	0	0	0	0	0	0
10.4	CBR Test	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0
10.5	Aggregate Impact value	IS:2386 Part-4	As required	0	0	0	0	0	0	0	0	0	0
10.6	Field Density	IS:2720 (Part28)	1 Test per 1000Sq.m	90	90	0	21	0	0	0	90	90	0

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous(Mar) month upto 30 th APR-19			Tests conducted during reporting month upto 30 th APR-19			Test conducted upto this month		
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	No. of test witnessed by IE	Conducted EPC/ Concessionaire	Passed	Failed	No. of test Conducted EPC/ Concessionaire	Passed
11.0 WNM Mix Design												
11.1 Gradation		Table 400-3	1 test/200m ³	25	0	25	0	0	0	0	25	0
11.2 Aggregate Impact Value	IS:2386 Part-4	1 test/1000 m ³	3	3	0	0	0	0	0	3	3	0
11.3 Flakiness & Elagation index	IS:2386 Part1	1 test/ 500 m ³	2	2	0	0	0	0	0	2	2	0
11.4 Atterberg Limits	IS:2720 (Part5)	1 test/200m ³	2	2	0	0	0	0	0	2	2	0
11.5 Water absorption& Sp.Gravity	IS:2386 Part2	As required	4	4	0	0	0	0	0	4	4	0
11.6 Proctor	IS:2720 (Part18)	As required	2	2	0	0	0	0	0	2	2	0
11.7 CBR	IS:2720 (Part16)	As required	1	1	0	1	0	0	0	1	1	0
11.8 Field Density	IS:2720 (Part28)	1 set Test per 1000Sq.m/ 3 pits	0	0	0	0	0	0	0	0	0	0
12.0 WNM Site Frequency MoRt&H 406												
12.1 Combined Gradation	Table 400-3	1 test/200m ³	0	0	0	0	0	0	0	0	0	0
12.2 Aggregate Impact Value	IS:2386 Part-4	1 test/1000 m ³	0	0	0	0	0	0	0	0	0	0
12.3 Flakiness & Elagation index	IS:2386 Part1	1 test/ 500 m ³	0	0	0	0	0	0	0	0	0	0
12.4 Atterberg Limits	IS:2720 (Part5)	1 test/200m ³	0	0	0	0	0	0	0	0	0	0
12.5 Water absorption	IS:2386 Part2	As required	0	0	0	0	0	0	0	0	0	0
12.6 Proctor	IS:2720 (Part18)	As required	0	0	0	0	0	0	0	0	0	0
12.7 CBR	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0
12.8 Field Density	IS:2720 (Part28)	1 set Test per 1000Sq.m	0	0	0	0	0	0	0	0	0	0
13.0 Prime Coat												
13.1 Rate of Spread of Binder		Three tests per day	0	0	0	0	0	0	0	0	0	0
14.0 Tack Coat		Three tests per day	0	0	0	0	0	0	0	0	0	0
14.1 Rate of Spread of Binder		Three tests per day	0	0	0	0	0	0	0	0	0	0
15.0 Fine Aggregate MoRt&H 1008												
15.1 Grade / Sieve analysis	IS:2386 (Part1)	1 test per day	275	0	113	37	0	10	312	312	0	123
15.2 Specific gravity& Water absorption	IS:2386 (Part2)	As required	16	16	0	15	0	0	16	16	0	15
15.3 Fineness Modulus	MoRt&H Sec. 1008&383	1 test per day	133	133	0	41	37	0	10	170	170	0
15.4 Alkali aggregate reactivity test	IS:2386 (Part-7)IS : 456	1 test per source	0	0	0	0	0	0	0	0	0	0
15.5 Deleterious material/silt	IS:2386 (Part2)	1 test per source	0	0	0	0	0	0	0	0	0	0

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous(Mar) month				Tests conducted during reporting month upto 30 th APR-19				Test conducted upto this month		
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed
16.0 Coarse Aggregate MORT&H 1007														
16.1 <i>Gradation</i>	IS:2386 (Part2)	1 test per day	275	275	0	124	37	37	0	10	312	312	0	134
16.2 <i>Specific gravity& Water absorption</i>	IS:2386 (Part3)	As required	18	18	0	15	0	0	0	0	18	18	0	15
16.3 <i>Aggregate Impact Value</i>	IS:2386 (Part4)	1 test / each source	110	0	62	9	9	0	4	119	119	0	66	
16.4 <i>Flokkiness index</i>	IS:2386 (Part1)	1 test / each source & monthly	86	86	0	53	5	5	0	2	91	91	0	55
16.5 <i>Soundness</i>	IS:2386 (Part5)	As required	0	0	0	0	0	0	0	0	0	0	0	
16.6 <i>Alkali aggregate reactivity test</i>	IS:2386 (Part7)IS : 456	1 test per source	0	0	0	0	0	0	0	0	0	0	0	
16.7 <i>Deleterious constituents</i>	IS:2386 (Part2)	1 test per source	0	0	0	0	0	0	0	0	0	0	0	
16.8 <i>Petrographic Examination</i>	IS:2386 (Part8)	1 test per source	0	0	0	0	0	0	0	0	0	0	0	
17.0 Cement MORT&H 1006														
17.1 <i>Chemical test / Physical test</i>	IS:4031,4032	1 test per source	4	4	0	4	0	0	0	0	4	4	0	4
17.2 <i>Fineness</i>	IS:4031 (Part1)	Every batch	138	138	0	110	11	11	0	4	149	149	0	114
17.3 <i>Normal/Consistency</i>	IS:4031 (Part4)	Every batch	138	138	0	110	11	11	0	4	149	149	0	114
17.4 <i>Initial/Final setting time</i>	IS:4031 (Part5)	Every batch	138	138	0	110	11	11	0	4	149	149	0	114
17.5 <i>Soundness of Cement</i>	IS:4031 (Part3)	Every batch	110	110	0	87	11	11	0	4	121	121	0	91
17.6 <i>Compressive Strength-Set</i>	IS:4031 (Part6)													
3 days		1 test per Lot	101	101	0	72	6	6	0	3	107	107	0	75
7 days		1 test per Lot	99	99	0	70	5	5	0	1	104	104	0	71
28 days		1 test per Lot	90	90	0	62	4	4	0	3	94	94	0	65
18.0 Water														
18.1 <i>Chemical test</i>	IS 2386	1 test per source	5	5	0	5	0	0	0	0	5	5	0	5
19.0 Admixture														
19.1 <i>Physical Properties</i>	IS 9103	1 test per Lot	3	3	0	3	0	0	0	0	3	3	0	3
19.2 <i>Chemical Test</i>	IS 9103	1 test per source	2	2	0	2	0	0	0	0	2	2	0	2
20.0 Steel														
20.1 <i>8 mm Dia</i>	IS 1786		2	2	0	2	0	0	0	0	2	2	0	2
20.2 <i>10 mm Dia</i>	IS 1786		5	5	0	5	0	0	0	0	5	5	0	5
20.3 <i>12 mm Dia</i>	IS 1786		5	5	0	5	0	0	0	0	5	5	0	5
20.4 <i>16 mm Dia</i>	IS 1786		5	5	0	5	0	0	0	0	5	5	0	5
20.5 <i>20 mm Dia</i>	IS 1786		5	5	0	5	0	0	0	0	5	5	0	5
20.6 <i>25 mm Dia</i>	IS 1786		1	1	0	1	0	0	0	1	1	1	0	1
20.7 <i>32 mm Dia</i>	IS 1786		2	2	0	2	0	0	0	0	2	2	0	2
21.(A) Concrete Cube Strength														
M15 PCC														
7Days Compressive Strength														
28Days Compressive Strength														
M20 PCC														
7Days Compressive Strength														
28Days Compressive Strength														

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous(Mar) month			Tests conducted during reporting month upto 30 th APR-19			Test conducted upto this month		
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	No. of test witnessed by IE	Conducted EPC/ Concessionaire	Passed	Failed	No. of test witnessed by IE	Conducted EPC/ Concessionaire
M25 RCC												
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	0	0	0	0	0	0	0	0	0	0
28Days Compressive Strength			0	0	0	0	0	0	0	0	0	0
M30 RCC												
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	79	79	0	56	0	0	0	0	5	183
28Days Compressive Strength			172	172	0	98	11	11	0	5	183	0
M30 RCC PUMPABLE												103
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	2	2	0	2	0	0	0	0	2	56
28Days Compressive Strength			4	4	0	4	20	20	0	6	24	0
M35 RCC												
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	102	102	0	89	11	11	0	6	113	113
28Days Compressive Strength			193	193	0	150	14	14	0	4	207	0
M35 RCC PILING												154
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	218	218	0	165	11	11	0	3	229	0
28Days Compressive Strength			491	485	0	336	46	46	0	21	537	531
M35 RE BLOCK												
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	76	76	0	35	22	22	0	15	98	98
28Days Compressive Strength			187	187	0	106	59	59	0	35	246	246
M40 RCC												
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	3	3	0	3	0	0	0	0	3	3
28Days Compressive Strength			6	6	0	6	0	0	0	0	6	6
M40 PILE												
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	54	54	0	54	6	6	0	3	60	60
28Days Compressive Strength			114	114	0	114	0	0	0	0	114	0
M45 RCC												
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	3	3	0	3	0	0	0	0	3	3
28Days Compressive Strength			6	6	0	0	0	0	0	0	6	6
M50 RCC												0
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	3	3	0	3	0	0	0	0	3	3
28Days Compressive Strength			6	6	0	6	0	0	0	0	6	6
M60 RCC												
7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	3	3	0	3	0	0	0	0	3	3
28Days Compressive Strength			6	6	0	6	0	0	0	0	6	6

7. Weather Report

DATE	Temperature (°C)		Rainfall in mm	Humidity in %		Remarks
	Min	Max		Min	Max	
01-04-2019	30.4	39.4	0.00	30	74	Sunny
02-04-2019	29.9	39.9	0.00	24	78	Sunny
03-04-2019	29.9	46.8	0.00	23	77	Sunny
04-04-2019	30.7	47.1	0.00	25	76	Sunny
05-04-2019	30.1	46.7	0.00	26	75	Sunny
06-04-2019	30.2	45.8	0.00	27	76	Sunny
07-04-2019	29.9	44.9	0.00	26	75	Sunny
08-04-2019	30	43.6	0.00	25	78	Sunny
09-04-2019	31.2	44.7	0.00	23	74	Sunny
10-04-2019	33.4	45.2	0.00	25	78	Sunny
11-04-2019	31.2	50.1	0.00	21	76	Sunny
12-04-2019	33.4	44.1	0.00	25	79	Sunny
13-04-2019	33.8	46.5	0.00	29	75	Sunny
14-04-2019	32.4	46.2	0.00	26	65	Sunny
15-04-2019	33.8	45.8	0.00	28	70	Sunny
16-04-2019	32.4	50.4	0.00	10	71	Sunny
17-04-2019	30.1	49.3	0.00	18	78	Sunny
18-04-2019	31.6	50.4	0.00	10	76	Sunny
19-04-2019	31.8	50.4	0.00	10	78	Sunny
20-04-2019	32.4	50.4	0.00	10	69	Sunny
21-04-2019	31.5	50.4	0.00	10	69	Sunny
22-04-2019	32.7	46.5	0.00	35	70	Sunny
23-04-2019	23.2	46.5	0.00	35	73	Sunny
24-04-2019	32.5	48.9	0.00	24	67	Sunny
25-04-2019	29.5	48.9	0.00	24	76	Sunny
26-04-2019	31.2	51.2	0.00	13	76	Sunny
27-04-2019	32.1	46.5	0.00	28	72	Sunny
28-04-2019	30.8	47.1	0.00	25	77	Sunny
29-04-2019	30.9	39.8	0.00	39	76	Sunny
30-04-2019	31.2	39.5	0.00	13	74	Sunny

- Various issues related to environment and safety, such as traffic management, safety signage, disposal of waste materials and oil spillage, housekeeping, area barricading and traffic management, etc, are being taken care of during the execution of the project.

Periodic Safety meetings being conducted on a regular basis and the details of the photographs for the same along with action taken are as below.



9. Support required from NHAI

Concessionaire requests NHAI to take early action on the following issues:

1. Pending Disbursement of Payment to the beneficiaries from CALA towards Land and Buildings in Thanjavur District. – Request Authority to advise/instruct the Competent Authority of Land Acquisition to speed up the process of disbursement of pending payment.
2. Permission from Local Authorities for procurement of Borrow Earth from Irrigation Tanks/Pond.

Sl. No	District	Taluk	Location/Villages	Survey No	Area in Hectares	Date of Applied	Present Status
1	Cuddalore	kattumannar koil	Veeranam Lake - 01	189/1	4.8	-	
2	Cuddalore	kattumannar koil	Veeranam Lake - 02	189/1	4.9	-	
3	Cuddalore	kattumannar koil	Palayamkottai Kelpathi Lake	240	4.9	31.08.2018	Under Special Permission from PWD
4	Cuddalore	kattumannar koil	Kuruchikollai	122	4.8	-	-
5	Cuddalore	Kurinjipadi	Man Eri	2/1	4.5	20.07.2018	EC Clearance is pending
6	Cuddalore	kattumannar koil	Nelli Kolli	129	4.8	-	NOC Under Process
1	Ariyalur	Udayarpalayam	Kundavelly East	461	13.66.5	26.11.2018	EC Clearance is pending
2	Ariyalur	Udayarpalayam	Thaluthalaimedu	118	28.15.5	26.11.2018	
3	Ariyalur	Udayarpalayam	Thaluthalaimedu	118	28.15.5	26.11.2018	
4	Ariyalur	Udayarpalayam	Muthuservamadam	125	6.29.5	26.11.2018	
5	Ariyalur	Udayarpalayam	Ulkottai North	320	19.66	26.11.2018	
6	Ariyalur	Udayarpalayam	Vempakkudi	110	12.69	26.11.2018	
7	Ariyalur	Udayarpalayam	Uthayanatham East	313-2A	6.83.5	26.11.2018	
8	Ariyalur	Udayarpalayam	Uthayanatham East	227, 231-3, 232	12.83.5	26.11.2018	
9	Ariyalur	Udayarpalayam	Ammannakkanthodi	66, 65, 104, 105, 106, 110, 112, 116, 123, 124	43.83.5	26.11.2018	
10	Ariyalur	Udayarpalayam	Ammannakkanthodi	57, 58, 59, 61, 62	19.07.5	26.11.2018	
11	Ariyalur	Udayarpalayam	Kuruvalaper kovil	1, 226, 227, 228, 427, 428, 429, 430, 431, 432, 433	38.62	26.11.2018	
12	Ariyalur	Udayarpalayam	Udayarpalayam	614-4B, 615-2, 616 - 1, 617, 610-2B	10.03.5	26.11.2018	
13	Ariyalur	Udayarpalayam	Periya Eri, Papakudi	290	12.24	12.01.2018	Application submitted with DC, Ariyalur Temporary permission received on 08.03.2019
14	Ariyalur	Udayarpalayam	Eswarakulam, Papakudi	185	5.7	12.01.2018	
15	Ariyalur	Udayarpalayam	Pandian eri.	283	5.7	02.03.2019	

3. Change of Scope notice required for relocation of VUP @ Km 113+500 due to existence of electrical substation of TANGENDCO at Km:113+700 to 113+800(RHS).
4. Removal of Electrical substation 85+300 to 85+400 which is obstructing the project highways.

5. NOC from PWD/WRO, Govt of Tamilnadu for construction of Minor Bridge (13 Nos) and Major Bridge (3 Nos) as per below

Sl No	Description	Total scope (Nos.)	Submitted as on date (Nos.)	Approved as on date (Nos.)	Balance (Nos.)	Present Status
1	MNB	26	26	13	13	Under Processing with Engineer In Chief, Chennai
2	MJB	4	4	1	3	
	Total	30	30	14	16	

6. In sufficient Right of Way with respect to the land handed over as per Clause 10.3.1 of Concession Agreement at the time of Signing of Joint Memorandum.
7. Payment disbursement and necessary clearances required for removal of religious and Govt buildings.
8. NOC from PWD/WRO, Govt of Tamilnadu for construction of project highways in the existing ponds (in a length of 1.702 Kms).
9. Removal/relocation of existing irrigation sluice and regulator in the locations.

Sl. No.	Chainage	Distance from PCL	Remarks/Action to be taken	Present Status
1	68+644 (02 Nos)	-	To be shifted to edge of PROW	The site inspection by irrigation officials has been done and the relocation estimate to be forwarded by the PWD, Chidambaram to NHAI.
2	81+850	9.3m	To be shifted to edge of PROW	
3	81+870	1.8m	To be shifted to edge of PROW	
4	81+910	1.8m	To be shifted to edge of PROW	
5	82+010	1.8m	To be shifted to edge of PROW	
6	82+100	7.4m	To be shifted to edge of PROW	
7	103+990	5.97m	To be shifted to edge of PROW	Approval of estimate is pending with NHAI

10. Additional land acquisition for Toll plaza location, Bus bays. Turning radius at Major junctions.
11. Permission for Removal of Teak wood trees from the Project Highway in Cuddalore District in a length of 2.84 Kms.
12. Removal of Religious structures of 18 Nos. and Bus stand from the proposed ROW.
13. Removal of Government Buildings like VAO office, School, Post Office & Ration Shop etc. in 12 nos. in Cuddalore district, 45 nos. in Ariyalur district & 14 Nos in Thanjavur District.
14. Removal of unauthorized occupations in 38 nos. in cuddalore dist & 32 nos in Ariyalur dist. in the project highways,
15. Removal/relocation of Veeranam Pipes between Km: 65+960 to 66+200 causing material adverse effect on construction, Authority requested to take up the matter with Concern Department for early removal of the same.

16. Providing/finalization of land by the concern owning department for construction of Over Head Tank in the following locations:

S. No	Name of the Village	Location/ Chainage	Capacity of OHT	Remarks
1	Nandeeswaram anagalam	77+760	30 KL	Land Yet to be finalized
2	Cholatharam-Arokiya nagar	79+230	30 KL	
3	Cholatharam-Colony	80+120	30 KL	
4	Vanamadevi	86+310	30 KL	

17. Hindrances/Occupations/Land Acquisition issues in the following locations due to various reasons,

Sr. No.	From	To	Length	Description of Issues
1	065+070	066+000	930	Payment of compensation is not made to the concern Land owner of Mr. Giri and not allowing to take possession of land.
2	073+000	073+600	600	Payment of compensation is not made to the concern Land owner and not allowing to take possession of land.
3	073+600	074+100	500	Payment of compensation is not made to the concern Land owner of Mr.Venkatachalam and not allowing to take possession of land.

SI No	Chainage		Name of the land owner	SF.No.	Name of the Village	Court Order reference no.
	From	To				
1.	78+400	79+000	Mrs.Sivasunthari	148/2B	Nandeeswaraman galam	W.P.No.17113/2018, W.P.No.17118/2018 & W.P.No.17114/2018 dated 10.07.2018
2.			Mr.S.Baskaran	148/1B1		
3.			Mr.Thamotharan	148/1B3		
4.			Mrs.S.Sebastiyyam mal	143/1A1		
5.	113+200	113+600	Mr.A.R.Iqbal	177/2,177/4, 181/1,181/3, 183/3A	Thirupanandal	W.P.No.11852/2014 dated 22.07.2014
6.	74+590	74+610	Mr.Murugan	61/5	Kumarakudi	-

10. Important Events**Table 10.1. Details of Important Events**

Sl. No	Date of Events	Description of Events	Remarks
1)	09.04.2019	Joint Factory Inspection of M/s STRATA Geo Systems at Daman and Diu	
2)	12.04.2019	Progress Review meeting at Independent Engineer's Office	
3)	26.04.2019	Progress Review meeting at RO Madurai	
4)	29.04.2019	Progress Review meeting at NHAI Head Quarters	

11. Organization Chart

The following figures represents the organization structure of the EPC and SPV Team.

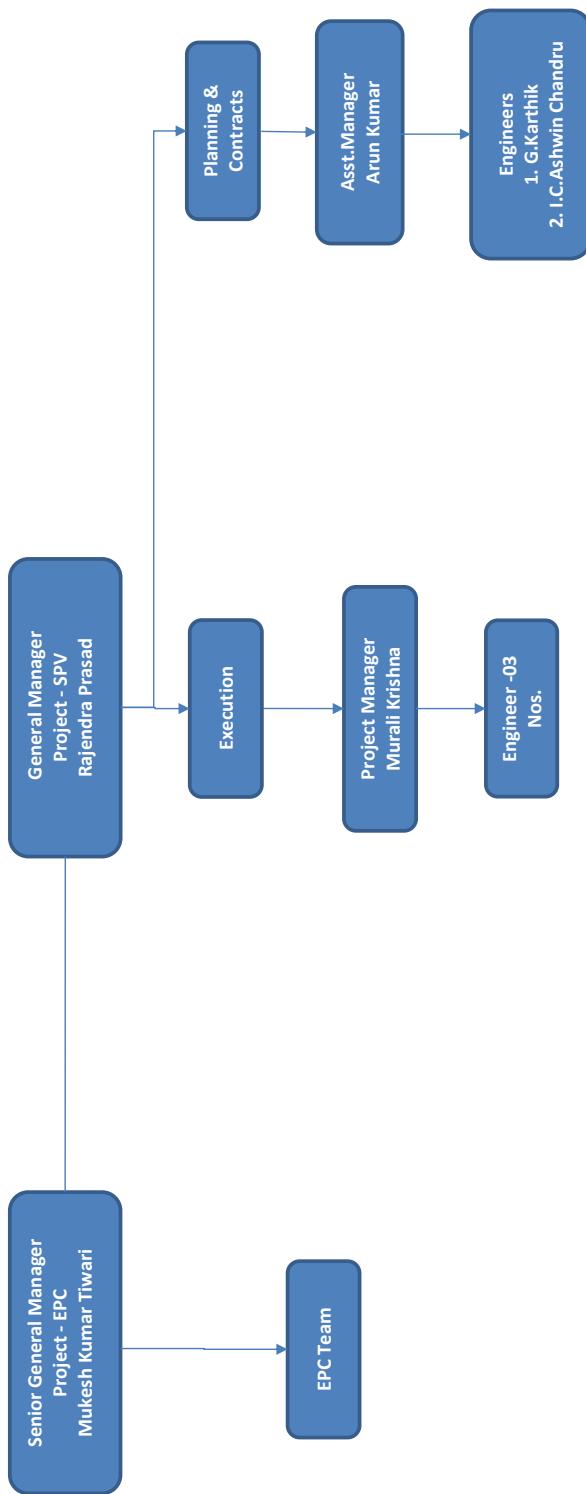
1. Fig. 4 - Organization Chart - EPC Team

2. Fig. 5 - Organization Chart - SPV Team

ORGANIZATION CHART - EPC TEAM



Figure 5 - ORGANIZATION CHART - SPV TEAM



12. List of Plants, Machinery and Equipment's

Table 12.1 - List of Plants, Machinery and Equipment's				
S.No	Name of the Machinery	Capacity / Model	Mobilized in Nos.	Remarks
1	Grader	120K2	9	
2	Excavator	JCB-220	9	
3	Dozer		3	
4	Soil Compactor	HAMM 311	8	
5	Backhoe Loader	JCB 3DX	7	
6	Tipper	Bharat Benz- 3128C	73	
7	Transit Mixture	2523C	8	
8	Loader	455 ZX	4	
9	Trailer		2	
10	Water Tanker		5	
11	Boom Placer	S-36	1	
12	Tractor	5036 D V-2	2	
13	Mobile Service Van		1	
14	Tower Light	AJASKY	3	
11	Hydra Crane		2	
12	Asphalt Batch Mix Plant		1	Erection in Progress
13	Wet Mix Plant	250 TPH	1	Erection in Progress
14	Concrete Batch Mix Plant	45 cum	1	
15	Concrete Batch Mix Plant	60 cum	2	
16	Crusher Plant (3 Stage)	250 TPH	2	
17	Weigh Bridge for Camp 100MT	100MT	3	
18	Weigh Bridge for Crusher 100MT	100MT	2	
19	Genset Base Camp	25KV	1	
20	Genset 63KVA Boiler	63KVA Boile	1	
21	Genset (H.M & B/P)	82.50KV	3	
22	Genset (B/P-CP-45)	125KV	2	
23	Genset Concrete Plant-180 KVA	180 KVA	1	
24	Genset (Crusher)	1010KVA	3	
25	Gantry at Box Segment Casting Yard	100 MT	2	1 no. erected and 1 no. is in under erection.

13. Change of Scope Proposals

Table 13.1 - Status of Change of Scope Proposals

Sl. No	Proposal Details	Date of Proposal	Current Status	COS Amount	Actual Date of Approval
1	Replacement of Pipe Culvert with box Culvert	25.04.2018	Approved in-principle by Authority. Preparation of Details Quantities in proper order is in Progress.	NA	NA
2	Relocation of VUP from Km. 113+550 to Km. 113+273	13.11.2018	The proposal for Shifting of VUP at Km. 113+550 had been submitted to IE/Authority through letter no. PSCHPL/HO/IE/101/2018 dated 13.11.2018.	NA	NA

14. Details of Correspondences

The following tables list out the correspondences between the parties.

Table 14.1. - Concessionaire to NHAI

Table 14.2. - NHAI to Concessionaire

Table 14.3. - Concessionaire to Independent Engineer

Table 14.4. - Independent Engineer to Concessionaire

TABLE 14.1 - CORRESPONDANCE - CONCESSIONAIRE TO NHAI

S.No	Date	Letter No	Subject	Remarks
1	05.04.2019	PSCHPL/SCP/NHAI/2019/342	Submission of Annual Accounts for the year 2018-19 - Value of work done till 31.03.2019	
2	09.04.2019	PSCHPL/HO/SCP/NHAI/005/2019	Regarding Exemption of Environmental clearance for earthwork borrow area	
3	13.04.2019	PSCHPL/SCP/NHAI/2019/349	Removal of Fuel storage tank requested-Details of retail outlets Private properties along national highways in the project site	
4	15.04.2019	PSCHPL/SCP/NHAI/2019/350	RA Bill No 04- Shifting of Electrical utility between Km 86.400 to km 89.430 of papakudi section as per clause 11.2.1 of CA	
5	19.04.2019	PSCHPL/SCP/NHAI/2019/354	Request for removal of Encroachment exists within Right of way	
6	19.04.2019	PSCHPL/SCP/NHAI/2019/355	Hindrance obstruction of Buildings in the project Highway payment of compensation not done	
7	19.04.2019	PSCHPL/SCP/NHAI/2019/356	Issues in dismantling of existing buildings due to protest of land owners	
8	19.04.2019	PSCHPL/SCP/NHAI/2019/357	Construction activities hampered due to delay in disbursement of payment to the affected land owners	

TABLE 14.2 - CORRESPONDANCE - NHAI TO CONCESSIONAIRE

S.No	Date	Letter No	Subject	Remarks
1	05.04.2019	NHAI/PUU/Thanj/11027/11/2018/684	Submission of monthly financing details along with copy of escrow statement for uploading on PMIS Portal	
2	05.04.2019	NHAI/PUU/Thanj/11025/09/2018/686	Allocation of land for shifting the over head tanks-requested	
3	05.04.2019	NHAI/PUU/Thanj/11025/09/2018/687	Allocation of land for shifting the over head tanks-requested	
5	06.04.2019	NHAI/PUU/Thanj/11023/01/2009/702	Identification of Test sections for field trials on Neology based Geocell Technology	
6	11.04.2019	NHAI/PUU/Thanj/11019/57/2017/706	Joining of Team leader	
7	11.04.2019	NHAI/PUU/Thanj/11011/01/2009/715	Remittance towards contribution of welfarecess Tamilnadu workers general welfare board	
8	12.04.2019	NHAI/PUU/Thanj/11025/08/2018/727	Shifting of HT Line & Tower at Km 113.720 - Work order issued	
9	12.04.2019	NHAI/PUU/Thanj/11025/08/2018/729	Shifting of HT Line & Tower at Km 70.020 & 73.470 - Work order issued	
10	12.04.2019	NHAI/PUU/Thanj/11025/25/2018/733	Hindrance obstruction of buildings in the project highway-payment of compensation not done	
11	13.04.2019	NHAI/PUU/Thanj/11015/51/2018/734	Removal of advertisement hoardings on NH within ROW	
12	24.04.2019	NHAI/PUU/Thanj/11025/15/2018/766	Review meeting at NHAI HQ	

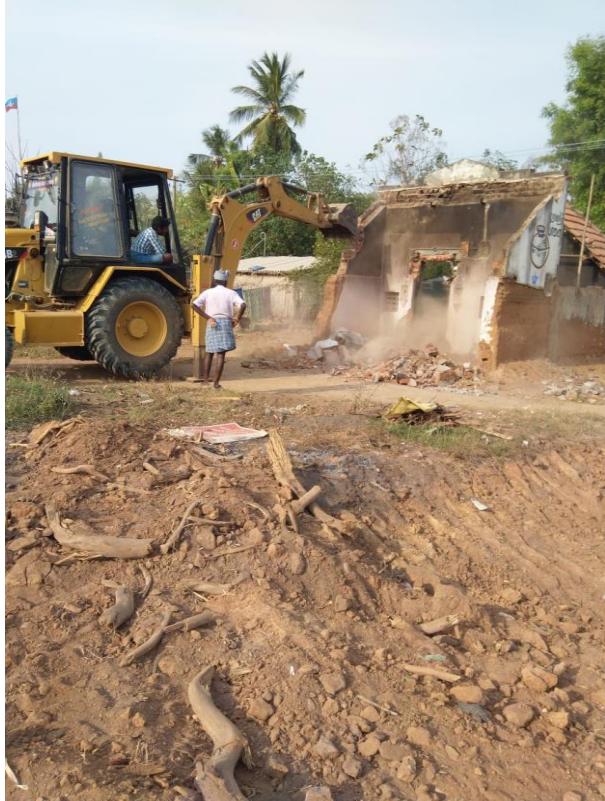
TABLE 14.3 - CORRESPONDANCE - CONCESSIONAIRE TO INDEPENDENT ENGINEER

S.No	Date	Letter No	Subject	Remarks
1	03.04.2019	PSCHPL/SCP/I/E/2019/335	Submission of soil test reports for the borrow area no 11	
2	03.04.2019	PSCHPL/SCP/I/E/2019/336	Land acquired-Handling over of possession of balance land	
3	03.04.2019	PSCHPL/SCP/I/E/2019/337	Hindrance/obstruction of religious structures along the project highway	
4	03.04.2019	PSCHPL/SCP/I/E/2019/338	Hindrance/obstruction of religious structures along the project highway	
5	03.04.2019	PSCHPL/SCP/I/E/2019/339	Disruption of construction activities between Km 78+400 to 79+000	
6	03.04.2019	PSCHPL/SCP/I/E/2019/340	Submission of monthly progress report for the month of March 2019	
7	05.04.2019	PSCHPL/SCP/I/E/2019/341	Submission of Prestressing credential from Ms BBR India Pvt Ltd	
8	05.04.2019	PSCHPL/SCP/I/E/2019/343	Submission of revised design and drawings for VUP at km 72+545 & Km 109+345	
9	05.04.2019	PSCHPL/SCP/I/E/2019/344	Details of Project Specific Website	
10	12.04.2019	PSCHPL/SCP/I/E/2019/345	Submission of Soil test reports for the borrow area no 10 Extension-02	
11	12.04.2019	PSCHPL/SCP/I/E/2019/346	Submission of staging design for minor bridges	
12	13.04.2019	PSCHPL/SCP/I/E/2019/347	Submission of OGL Test Reports	
13	13.04.2019	PSCHPL/SCP/I/E/2019/348	Submission of Concrete Mix design reports for M15PCC & M30 RCC	
14	16.04.2019	PSCHPL/SCP/I/E/2019/351	Compliance report-Plan & profile Drawings for slip & Service road of the project highway	
15	16.04.2019	PSCHPL/SCP/I/E/2019/352	Submission of soil test reports for the borrow area no 11-Extn 1	
16	17.04.2019	PSCHPL/SCP/I/E/2019/353	Submission of revised drawings for MJB at Km 73+340& Km 66+491	
17	19.04.2019	PSCHPL/SCP/I/E/2019/358	Hindrance obstruction of electrical substation between Km 85 + 300 to Km 85 + 400 within the proposed carriageway	
18	24.04.2019	PSCHPL/SCP/I/E/2019/359	Removal of obstructing teak wood trees in Govt Lands Under cuddalore Range	
19	24.04.2019	PSCHPL/SCP/I/E/2019/360	Disruption of construction activities due to delay in disbursement of payment to the effected land owners in the sethiyahopu bypass	
20	24.04.2019	PSCHPL/SCP/I/E/2019/361	Submission of Job Mix Design Report for V/M/M	
21	24.04.2019	PSCHPL/SCP/I/E/2019/362	Submission of Plate Load Test Reports for 2 Minor Bridges	
22	24.04.2019	PSCHPL/SCP/I/E/2019/363	Construction activities hampered due to delay in disbursement of payment to the affected land owners in Cuddalore District	
23	29.04.2019	PSCHPL/SCP/I/E/2019/364	Construction activities of Proposed Major Bridge at Km 107 + 400 is hampered due to delay in issuing of NOC from the PWD WRO, Government of Tamil Nadu and continuous flow of water in the river	

TABLE 14.4 - CORRESPONDANCE - INDEPENDENT ENGINEER TO CONCESSIONAIRE / NHAI

S.No	Date	Letter No	Subject	Remarks
1	03.04.2019	TES/IE/SCP/PIL/2019/265	Submission of GFC drawings for 02 Nos. of Box Culverts at Km 104+706 and Km 104 + 990	
2	11.04.2019	TES/IE/SCP/PIL/2019/266	LA Details	
3	12.04.2019	TES/IE/SCP/PIL/2019/267	Minutes of meeting at IE office 12/04/19	
4	16.04.2019	TES/IE/SCP/PIL/2019/267	Submission of Formwork Design and Drawings for MNB at Km 74+605	
5	16.04.2019	TES/IE/SCP/PIL/2019/268	Proposal of Borrow Area No- 10 (Extension No-01)	
6	16.04.2019	TES/IE/SCP/PIL/2019/269	Submission of Concrete Mix Design M-15 PCC & M-30 RCC with Cheltinad OPC 53 Grade Cement	
7	20.04.2019	TES/IE/SCP/NHAI/2019/076	Change of official mail id for our site use	
8	20.04.2019	TES/IE/SCP/PIL/2019/271	Delay During Construction	
9	22.04.2019	TES/IE/SCP/PIL/2019/272	Ms. BBR India Pvt Ltd	
10	23.04.2019	TES/IE/SCP/PIL/2019/273	OGLS	
12	23.04.2019	TES/IE/SCP/PIL/2019/275	Slow Progress of Anaikarai Major Bridge at Km 107 + 400	
13	23.04.2019	TES/IE/SCP/PIL/2019/276	Submission of Staging Design for MNB at Km 74 + 605	
14	23.04.2019	TES/IE/SCP/PIL/2019/277	Concrete Mix Design	
15	24.04.2019	TES/IE/SCP/NHAI/2019/077	Removal of obstructing teak wood trees in govt lands under cuddalore range	
16	24.04.2019	TES/IE/SCP/NHAI/2019/078	Disruption of construction activities due to delay in disbursement of payment to the effected land owners in the sethiyahopu bypass	
17	24.04.2019	TES/IE/SCP/PIL/2019/278	Comments on MPR for the month of March 2019	
18	25.04.2019	TES/IE/SCP/PIL/2019/279	Use of fly ash inbetween RE Wall	
19	26.04.2019	TES/IE/SCP/PIL/2019/280	Proposal of Borrow area No 11 Extension No 1	
20	26.04.2019	TES/IE/SCP/PIL/2019/281	Destressed condition of existing Culvert at Km 63+300 (Existing Chainage) LHS	

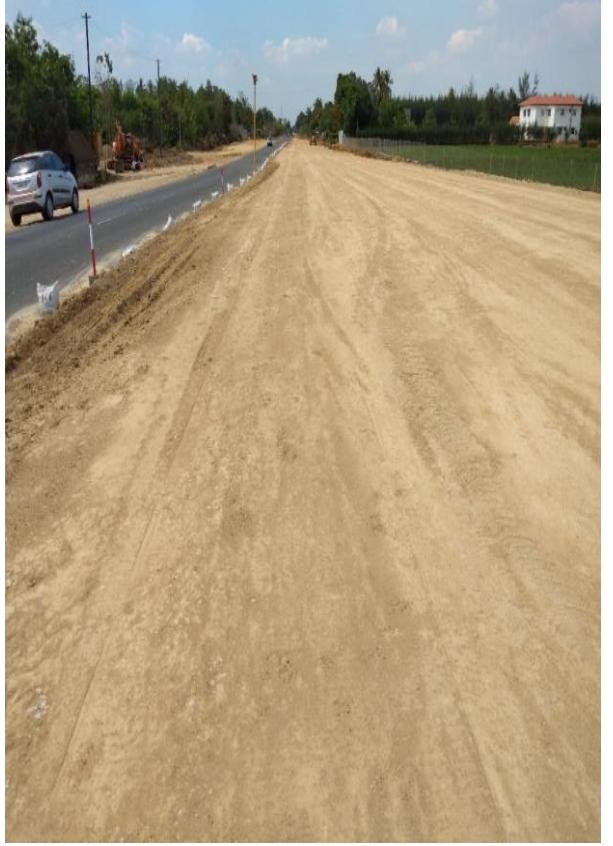
15. Progress Photographs

Sl. No.	Description	Location	Side	Remarks
1.	Dismantling of Existing Structures	95+510		
2.		95+620		
				
Sl. No.	Description	Location	Side	Remarks
3.	Dismantling of Existing Structures	89+560		
4.		89+620		
				

Sl. No.	Description	Location	Side	Remarks
5.	Embankment In Progress	76+400 to 77+200		
		78+000 to 78+300		




Sl. No.	Description	Location	Side	Remarks
6.	Subgrade in progress	88+350 to 88+850	LHS	

Sl. No.	Description	Location	Side	Remarks
7.	Box Culvert Slab Completed	83+065	LHS	
8.	Box Culvert Wall In Progress	99+840	LHS	




Sl. No.	Description	Location	Side	Remarks
9.	Box Culvert Slab Completed	105+440	BHS	
10.	Box Culvert Slab Completed	110+980	LHS	




Sl. No	Description	Location	Side	Remarks
11.	MNB - Slab In Progress	74+173	LHS	
12.	MNB - Wall In Progress	74+605	BHS	
 				

Sl. No	Description	Location	Side	Remarks
13.	MNB - Slab Completed	82+007	LHS	
14.	MNB - Slab Completed	85+114	BHS	
 				

Sl. No	Description	Location	Side	Remarks
15.	VUP - Pile Cap Completed	102+975	A1	
16.	VUP - Piling In Progress	109+365	A2	
				
Sl. No	Description	Location	Side	Remarks
17.	LVUP - Wall 1 st lift Completed	112+643	A1&A2	
18.	GSI - Pile Cap Completed	69+785	A2 LHS	
				

Sl. No	Description	Location	Side	Remarks
19.	GSI - Pile Cap Completed	74+655	A1&A2	
				
Sl. No	Description	Location	Side	Remarks
20.	VUP - Pile cap Completed	111+235	RHS	
21.	GSI - Pile cap Completed	104+570	A2 BHS	
				

Sl. No	Description	Location	Side	Remarks
22.	VUP - Abutment Completed	111+235	A1 RHS	
23.	VUP - Abutment Completed	111+235	A2 RHS	
				
Sl. No	Description	Location	Side	Remarks
24.	VUP - R.C.C. Girder Casting in Progress	106+318		
				