

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

Four Laning of Sethiyahopu-Cholopuram from Km. 65.960 to Km. 116.440 of NH-45C under NHDP-IV on Hybrid Annuity Mode Basis.

PATEL SETHIYAHOPU-CHOLOPURAM HIGHWAY PRIVATE LIMITED



MONTHLY PROGRESS REPORT  
AUGUST 2022

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## Executive Summary

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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.

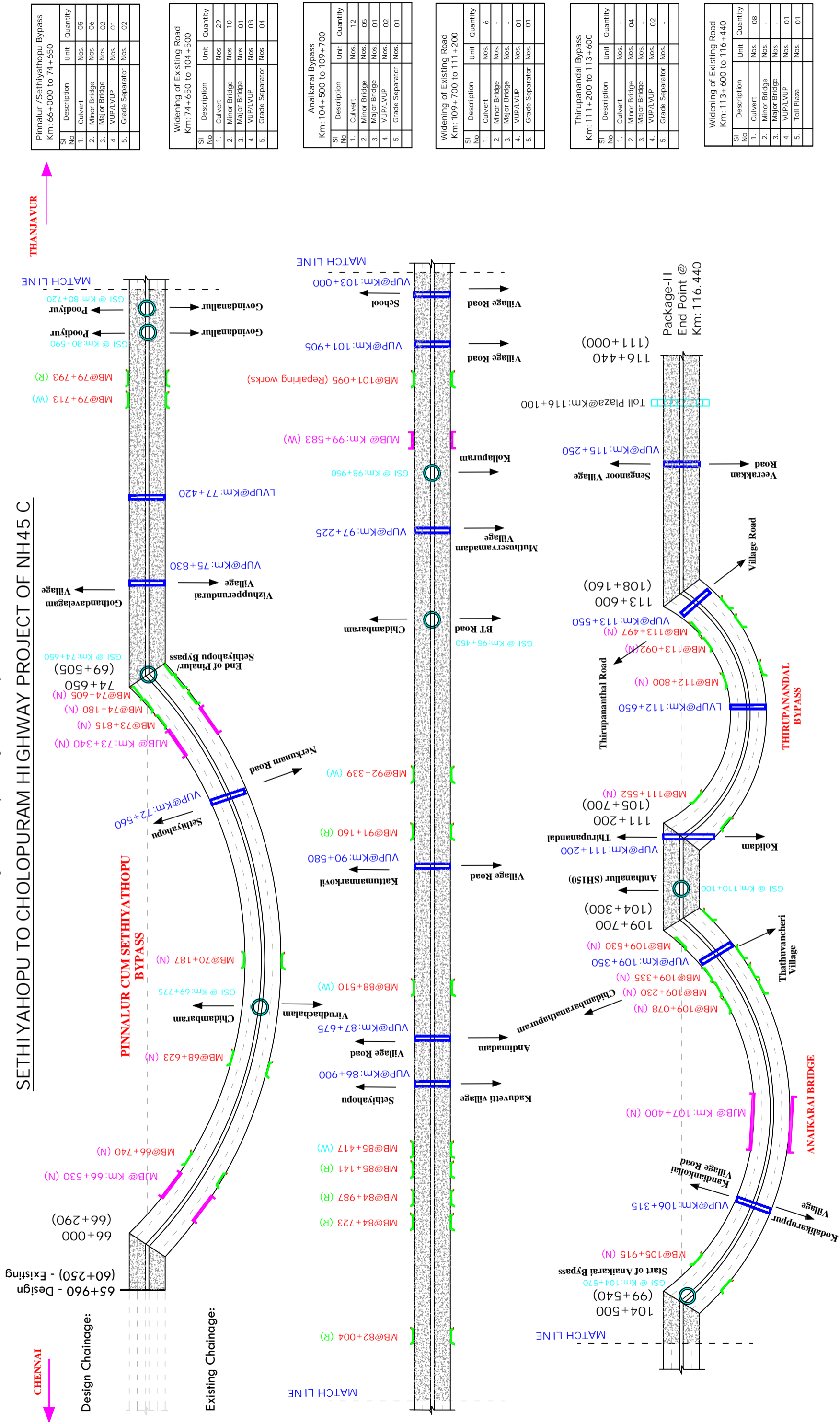
The Sethiyahopu to Cholopuram section of NH-45C is an important link to connect Metropolitan city of Chennai to religious and tourist places of Cholopuram, Thanjavur, kumbakonam, Puducherry. The project is also expected to provide improved connectivity to other religious places & other major cities like Rameswaram, Madurai, Tiruchirappalli, etc. The Project stretches passing through the 03 nos. of districts of Cuddalore, Ariyalur and Thanjavur.

### 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 2: Project Alignment Map  
 SETHIYAHOPU TO CHOLOPURAM HIGHWAY PROJECT OF NH45 C



**LEGEND:**

- Major Bridge (MJB)
- Minor Bridge (MB)
- Grade Separated Structure
- Toll Plaza
- Vehicle Under Pass (LVUP/VUP)
- Reconstruction of Existing Road
- Bypass/Newconstruction

**Salient Features of Project:**

Sl No	Description	Unit	Scope
1.	Slab Culvert	Nos.	07
6.	Minor Bridge	Nos.	25
7.	Major Bridge	Nos.	04
8.	VUP/LVUP	Nos.	15
9.	Grade Separated Structure	Nos.	08
10.	Toll Plaza	Nos.	01

**Drawing Title**

Strip Plan - Sethiyathopu to Cholopuram Highway Project

**Date:** 31-08-2018

**Project No.** PSCHP/NHA/TN/001

**Pinnaluru /Sethiyathopu Bypass**  
 Km: 66+000 to 74+650

Sl No	Description	Unit	Quantity
1.	Culvert	Nos.	05
2.	Minor Bridge	Nos.	06
3.	Major Bridge	Nos.	02
4.	VUP/LVUP	Nos.	01
5.	Grade Separator	Nos.	02

**Widening of Existing Road**  
 Km: 74+650 to 104+500

Sl No	Description	Unit	Quantity
1.	Culvert	Nos.	29
2.	Minor Bridge	Nos.	10
3.	Major Bridge	Nos.	01
4.	VUP/LVUP	Nos.	08
5.	Grade Separator	Nos.	04

**Anaikarai Bypass**  
 Km: 104+500 to 109+700

Sl No	Description	Unit	Quantity
1.	Culvert	Nos.	12
2.	Minor Bridge	Nos.	05
3.	Major Bridge	Nos.	01
4.	VUP/LVUP	Nos.	02
5.	Grade Separator	Nos.	01

**Widening of Existing Road**  
 Km: 109+700 to 111+200

Sl No	Description	Unit	Quantity
1.	Culvert	Nos.	6
2.	Minor Bridge	Nos.	-
3.	Major Bridge	Nos.	-
4.	VUP/LVUP	Nos.	01
5.	Grade Separator	Nos.	01

**Thirupananthal Bypass**  
 Km: 111+200 to 113+600

Sl No	Description	Unit	Quantity
1.	Culvert	Nos.	-
2.	Minor Bridge	Nos.	04
3.	Major Bridge	Nos.	-
4.	VUP/LVUP	Nos.	02
5.	Grade Separator	Nos.	-

**Widening of Existing Road**  
 Km: 113+600 to 116+440

Sl No	Description	Unit	Quantity
1.	Culvert	Nos.	08
2.	Minor Bridge	Nos.	-
3.	Major Bridge	Nos.	-
4.	VUP/LVUP	Nos.	01
5.	Toll Plaza	Nos.	01

Figure 1: Project Location Map

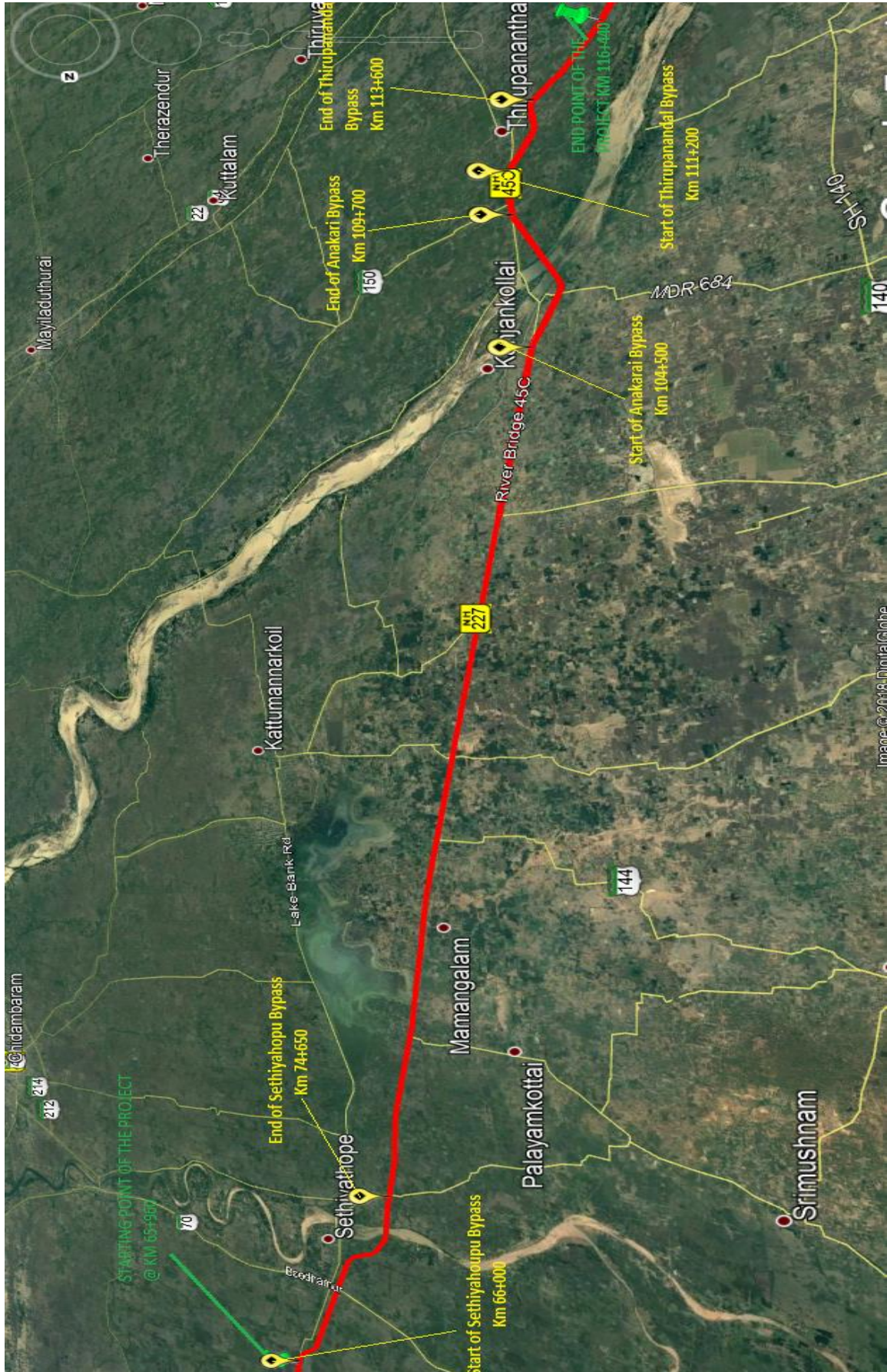




Table - 1.1: Details of Project Alignments

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. Background and Project Details

### 1.1. Project Overview

<b>Name of Work</b>	Four Laning of Sethiyahopu-Cholopuram from Km. 65.960 to Km.116.440 of NH-45C under NHDP-IV on Hybrid Annuity Mode Basis.
<b>Name of Employer</b>	National Highways Authority of India (NHAI) G-5 & 6, Sector-10, Dwarka, New Delhi -110075
<b>Name of Concessionaire</b>	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
<b>Independent Engineer</b>	M/s. Theme Engineering Services Pvt. Ltd, Plot No. 2, Annai Anjugam Nagar, Ullur, Chettimandapam, Kumbakonam – 612001.
<b>EPC Contractor</b>	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
<b>Design Consultant</b>	CTL Global Services Pvt. Ltd. 101, 1st Floor, Krishna Chambers, HAL, Airport Road, Bangalore-560017
<b>Senior Lender</b>	Punjab National Bank, Large Corporate Branch, Neelkamal Building, Opp. Sales India, Ashram Road, Ahmedabad - 380009
<b>Lenders Independent Engineers</b>	Sharul Techno-Financial Consultancy Services Pvt. Ltd., 403, Aspire Tower 5, Amanora Park Town, Hadapsar, Pune - 411028.
<b>Length of Road (Design Length)</b>	50.480 Kms
<b>Total Bid Cost</b>	Rs. 1461.00 Crores (as per concession agreement)
<b>Date of Concession Agreement</b>	November 9, 2017
<b>Concession Period</b>	17 Years ( Construction Period 2 Years from Appointed date, Operation period 15 years from COD)
<b>Appointed Date</b>	16.08.2018
<b>Construction Period</b>	2 years from Appointed date
<b>Completion Date</b>	15.08.2020
<b>Maintenance Period</b>	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 (Slip Road = 14.510 Kms & Service Road = 12.085 Kms)
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 Dates as per CA	Revised Target Dates as per Settlement Agreement
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 <sup>th</sup> day from the Appointed Date.	18 <sup>th</sup> March 2019	➤ 31 <sup>st</sup> May'2021- Total 28.345 Km. four lane to be completed for PCOD-I.
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 <sup>th</sup> day from the Appointed Date.	16 <sup>th</sup> July 2019	➤ 30 <sup>th</sup> Nov'2021- Total 35.940 Km. four lane to be completed for PCOD-II.
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 <sup>th</sup> day from the Appointed Date.	22 <sup>nd</sup> March 2020	➤ Balance 14.540 Km. four lane shall be handed over to the Concessionaire by 31 <sup>st</sup> May'2021 and shall be completed by 31 <sup>st</sup> July'2022.
Scheduled Completion	Concessionaire shall have completed Project on 730 <sup>th</sup> day from the Appointed Date.	15 <sup>th</sup> August 2020	

Note: The Settlement Agreement has been signed between Concessionaire and Authority on 04.03.2021 with the target of completion of 28.345 Kms length by 31.05.2021, and further completion of additional 7.595 Kms length by 30.11.2021 i.e. up to Payment Date of 1<sup>st</sup> Annuity. The non-workable length/non-handed over length is 14.54 Km as per joint site verification by Concessionaire, IE and NHAI. This 14.54 Km length shall be handed over to the Concessionaire by 31.05.2021 and shall be completed by 31.07.2022.

However, out of 14.540 Kms, only 4.180 Kms was handed over to the Concessionaire by 31.05.2021. Out of the balance length equal to 10.360 Kms (i.e. 14.540 kms - 4.180 kms), Concessionaire considered 4.230 Kms length as workable length and remaining length equal to 6.130 Kms (i.e. 10.360 kms - 4.230 kms) was under approval of descope proposal at NHAI, HQ from the scope of work of Concessionaire.

The Competent Authority has communicated extension of time approval for 105 days due to occurrence of Force Majeure event on account of 2<sup>nd</sup> wave of COVID-19.

The revised Target Dates mentioned above in the table as per Settlement Agreement are subjected to extension of time approval for 105 days due to occurrence of Force Majeure event on account of 2<sup>nd</sup> wave of COVID-19.

The Concessionaire had also requested to Authority/IE for the extension of time of 270 days for PCOD-2 up to 10.12.2022 and PCOD-3 upto 10.08.2023 due to constraints of issue in obtaining permission for extracting soils from borrow area and also due to interruption in the availability of pond ash.

The Concessionaire had also submitted the proposal for additional descope to Authority/IE in 3.51 Km length in addition to the already proposed descope of 6.13 Km length due to interruption in the availability of pond ash required for the construction of RE Wall stretches and also due to local villagers were not allowing the concessionaire to continue the construction activities in some stretches. Hence, the concessionaire was not able to execute any construction activity in 3.51 Km length up to 31.05.2021 and submitted the proposal of additional descope to Authority/IE.

Status of PCOD Proposal:-

Sr. No.	Description	Target	Achieved as on date	Remarks
1	Completion of 28.345 Kms by 31.05.2021	55.00% (803.60 Cr.)	66.592%	IE vide letter no. 1144 dated 02.06.2022 has issued the Provisional Completion Certificate-1 (PCC-1) for the completion of 28.345 Kms w.e.f. 10.12.2021.
2	Completion of 35.940 Kms (i.e. 28.345 Kms + 7.595 Kms) by 30.11.2021	72.25% (1055.57 Crore)		
3	Completion of balance 14.540 Kms by 31.07.2022	27.75% (405.43 crore)		

**1.4. Payment milestone during Construction Period**

Payment Mile Stone	Eligibility Criteria	Payment Amount (Rs.)	Claimed Amount (Rs.)	Date of release of payment
Mile Stone-I	On Achievement of 10% of Physical Progress	116.88 Crs.	109.8672 Crs.	04.10.2019
Mile Stone-II	On Achievement of 30% of Physical Progress	116.88 Crs.	109.8672 Crs.	25.09.2020
IPC No. 01 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 31.856% of Physical Progress	10.85 Crs.	10.20 Crs.	29.09.2020
IPC No. 02 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 32.758% of Physical Progress	5.27 Crs.	4.96 Crs.	10.11.2020
IPC No. 03 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 34.484% of Physical Progress	10.09 Crs.	9.48 Crs.	10.11.2020
IPC No. 04 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 35.144% of Physical Progress	3.86 Crs.	3.63 Crs.	10.12.2020
IPC No. 05 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 36.052% of Physical Progress	5.31 Crs.	4.99 Crs.	12.02.2021
IPC No. 06 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 37.886% of Physical Progress	10.72 Crs.	10.07 Crs.	18.03.2021
IPC No. 07 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 39.452% of Physical Progress	9.15 Crs.	8.60 Crs.	31.03.2021
IPC No. 08 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 40.979% of Physical Progress	8.92 Crs.	8.39 Crs.	10.05.2021
IPC No. 09 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 41.432% of Physical Progress	2.65 Crs.	2.49 Crs.	09.06.2021



IPC No. 10 of Mile Stone-III (as per NHA Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 43.429% of Physical Progress	11.67 Crs.	10.97 Crs.	16.07.2021
IPC No. 11 of Mile Stone-III (as per NHA Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 46.976% of Physical Progress	20.73 Crs.	19.48 Crs.	27.08.2021
IPC No. 12 of Mile Stone-III (as per NHA Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 49.966% of Physical Progress	17.47 Crs.	16.43 Crs.	20.09.2021
Payment Mile Stone-III & IPC No. 01 of Mile Stone-IV (as per NHA Policy Guidelines/Atmnirbhar Bharat)	On achievement of 63.787% of physical progress	22.32 Crs.	24.39 Crs.	30.06.2022
IPC No. 02 of Mile Stone-IV (as per NHA Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 66.181% of physical progress	13.99 Crs.	9.78 Crs.	22.08.2022

### 1.5. Permits & Approvals

Sr. No.	Details	Authority	Current Status	Remarks
1	Extraction of Boulders from Quarries	Dist. Mining Officer	Obtained	PIL (EPC Contractor) 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	
7	Trees Cutting Permission	Forest department through NHA	Obtained	Work Completed
8	Electric Poles Shifting	Tamil Nadu Electricity Board	Obtained	Work in Progress
9	Water Pipes Shifting	Tamilnadu Water Supply and Drainage Board	Obtained	Work in Progress

10	Drawing Water from river/ reservoir		NA	
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## 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
<b>Full Right of Way (full width)</b>				
Stretch	65.960 to 75.150	9.190	60.00	Within 15 days of date of Agreement.
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	
<b>Total Length</b>		<b>50.480</b>		

Balance Right of way (width)				
	Design Chainage (Km)	Design Length (Km)	Width (m)	Within 90(Ninety) days of the Appointed date
Stretch	099.700 to 104.500	4.800	15.00	
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 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)	<b>Total Length of the Project Highway</b>	<b>Km</b>	<b>50.48</b>	
1	Use of Existing Road Portion	Km	34.23	
2	Proposed Bypass / Realignment portion	Km	16.25	
B)	<b>Hindered Length</b>			
1.	Hindrance towards existing building, payment pending, NOC from PWD/WRO, teak trees etc.,	Km	6.130	
2.	Hindrance due to Electrical Lines	Km		
3.	Hindrance due to Rural Water Supply lines	Km		
4.	Net Hindered Length (both Side)	Km	6.130	
C)	Total Project Length (both Side)	Km	50.480	
D)	<b>% Hindered Length</b>	<b>%</b>	<b>12.14%</b>	

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	613	97	
2	Ariyalur	355	310	45	
3	Thanjavur	102	98	4	
	<b>Total in Nos.</b>	<b>1167</b>	<b>1021</b>	<b>146</b>	
	<b>Total in %</b>		<b>87.49%</b>	<b>12.51%</b>	

**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	333	50	
2	Ariyalur	461	433	28	
3	Thanjavur	148	96	52	
	<b>Total in Nos.</b>	<b>992</b>	<b>862</b>	<b>130</b>	
	<b>Total in %</b>		<b>86.89%</b>	<b>13.11%</b>	

Details of Stretches under Hindrance towards existing building, payment pending, NOC from PWD/WRO, teak trees etc.:-

Sr. No	Chainage		Length (km)	Non workable length as on 31.08.2022 (km)	Side	Reason	Remarks
	From	To					
1	72.350	73.180	0.830	0.830	BHS	Local Villager's Problem	
2	75.520	76.150	0.630	0.630	BHS	Local Villager's Problem	
3	80.100	81.150	1.050	1.050	BHS	Local Villager's Problem	
4	87.360	87.990	0.630	0.630	BHS	Local Villager's Problem	
5	95.035	95.865	0.830	0.830	BHS	Local Villager's Problem	
6	98.500	99.400	0.900	0.900	BHS	Local Villager's Problem	
7	101.590	102.225	0.635	0.635	BHS	Local Villager's Problem	
8	113.225	113.850	0.625	0.625	BHS	Local Villager's Problem	
Total in Kms				6.130 Km			

The 6.130 Km. length was under non-workable length out of 14.54 km. non-workable length as per Settlement Agreement executed on dated 04.03.2021.

In addition to above 6.130 Km non-workable length, following are the details of Stretches under Hindrance due to practical constraints available at site:-

Sr. No	Chainage		Length (km)	Length can not be taken up due to practical constraints	Side	Reason	Remarks
	From	To					
1	77.220	77.800	0.580	0.580	BHS	Local Villager's Problem	
2	86.580	87.360	0.780	0.780	BHS	Local Villager's Problem	
3	109.035	109.700	0.665	0.665	BHS	Pond Ash Issue	
4	110.900	111.560	0.660	0.660	BHS	Pond Ash Issue	
5	114.835	115.660	0.825	0.825	BHS	Pond Ash Issue	
Total in Kms				3.510 Km			

## 2.2. Removal of Religious Structures

The following structures coming within the ROW are to be demolished

Sl No.	Name of the District	Total No. of structures	Removed as on Date (in Nos.)	Balance (in Nos.)
1	Cuddalore	10	3	7
2	Ariyalur	10	1	9
3	Thanjavur	2	2	0
	<b>Total in Nos.</b>	<b>22</b>	<b>6</b>	<b>16</b>

## 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.

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	

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 are paid and work in progress
2	Ariyalur	86+440	106+860	20.42	5	Estimate Approved	
3	Thanjavur	106+860	116+440	9.58	5	Estimate Approved	
4	Cuddalore & Thanjavur	Km:70+020, Km:73+470 and Km:113+720			3	Estimate Approved	Supervision Charges paid

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.

Sl. No.	Authority	Description	Unit	Total Length/ Nos.	Work done	Balance	Remarks
1	BDO & EE, TWAD	Water Supply Pipe Line	Kms.	72.695	25.679	47.016	Work in progress
2	BDO of Concern Union	Hand Pump/Pump Room with Bore well	Nos.	24	16	8	
3	BDO of Concern Union	Over Head Tank	Nos.	15	13 Nos Completed	2	
4	TNEB	Electrical Lines	Kms.	6.83	5.78	1.05	

#### 2.4. Tree felling

Sl.No.	Name of the District	Chainages			Effected 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	6.535	0	0	In addition of 123 nos of teak wood trees to be removed and Permission of the same is awaited from DFO, Cuddalore.
2	Ariyalur	86+440	106+860	20.42	8.385	8.385	0	0	
3	Thanjavur	106+860	116+440	9.58	2.515	2.515	0	0	
Total				50.48	17.435	17.435	0	0	

### 3. Progress Briefing – Contractor Activities

#### 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	Design Submitted	Drawing Approved
1	Pavement Design	Km	50.48	50.48	50.48
2	Plan & Profile	Km	50.48	50.48	50.48
3	Typical Cross Sections	Type	7	7	7
4	Major Intersections	No	07	05	-
5	Minor Intersections	No	100	14	-
6	Toll Plaza (Typical Details)	No	01	01	-
7	Service Roads	Km	26.595	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	04
2	Minor Bridges	No	25	25	25
3	Grade Separated Intersection	No	08	08	08
4	VUP/LVUP	No	15	15	15
5	Box /Slab Culvert	No	60	60	60



## 4. Physical Progress of Work

### 4.1. Physical Progress of Work:

The Progress of the Major works carried out at the Site in the Month of August 2022 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.)	Work in Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	<b>Clearing and Grubbing</b>							
	LHS	47.28	40.620	0.000	40.620	0	6.660	85.91%
	RHS	47.28	39.530	0.000	39.530	0	7.750	83.61%
2	<b>Embankment</b>							
	LHS	47.28	34.310	0.380	34.690	0.425	12.590	73.37%
	RHS	47.28	33.640	0.025	33.665	0.635	13.615	71.20%
3	<b>Subgrade</b>							
	LHS	47.28	34.175	0.345	34.520	0.170	12.760	73.01%
	RHS	47.28	33.495	0.000	33.495	0.170	13.785	70.84%
4	<b>GSB/ Cement Treated Base</b>							
	LHS	47.28	33.350	0.390	33.740	0	13.540	71.36%
	RHS	47.28	32.695	0.675	33.370	0	13.910	70.58%
5	<b>Wet Mix Macadam</b>							
	LHS	47.28	32.975	0.390	33.365	0	13.915	70.57%
	RHS	47.28	32.330	0.610	32.940	0	14.340	69.67%
6	<b>Dense Bitumen Macadam</b>							
	LHS	47.28	32.825	0.390	33.215	0	14.065	70.25%
	RHS	47.28	32.120	0.790	32.910	0	14.370	69.61%
7	<b>Bituminous Concrete</b>							
	LHS	47.28	30.230	0.380	30.610	0	16.670	64.74%
	RHS	47.28	30.870	0.495	31.365	0	15.915	66.34%

**For Service Road**

Sr. No.	Description	Total Length of Service Road (in Km.)	Progress up to Previous Month (in Km.)	Progress during this Month (in Km.)	Cumulative Progress Achieved up to this Month (in Km.)	Work in Progress (in Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Embankment	53.19	30.195	0.435	30.630	0	22.560	57.59%
2	Sub grade	53.19	30.195	0.435	30.630	0	22.560	57.59%
3	GSB/ Cement Treated Base	53.19	29.400	0.200	29.600	0	23.590	55.65%
4	Wet Mix Macadam	53.19	28.730	0.035	28.765	0	24.425	54.08%
5	Dense Bitumen Macadam	53.19	27.265	0.425	27.690	0	25.500	52.06%
6	Bituminous Concrete	53.19	21.135	0.000	21.135	0	32.055	39.73%

**Structure Work**

Sr. No.	Type of Structure	Total No. of Structures	Nos. of Structures		
			Completed	Work in Progress	Balance to be taken up
1	Culvert	60	47.25	4.75	8
2	Light Vehicular Underpass	2	1	0	1
3	Vehicular Underpass	13	9.00	4.00	0
4	Minor Bridges	25	23.00	2.00	0
5	Major Bridge	4	2.00	2.00	0
6	Flyover	8	5.50	1.50	1

The Physical Progress of the Project up to August 2022 as per Approved Schedule G is as follows:-

Component	Item Description	Unit	Planned in Scope (As per Scope of Work)	Cost Weightage in Component (%)	Progress till Aug'2022	% Physical Progress	Remarks
1	2	3	4	5	6	7	
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%	48.915	6.952%	
	(2) Granular work (sub-base, base, shoulders)						
	(a) GSB/ Cement Treated Base	Km	65.52	3.373%	48.430	2.493%	
	(b) WMM/ Cement Treated Base	Km	65.52	4.046%	48.225	2.978%	
	(3) Shoulders	Km	17.65	0.112%	16.720	0.106%	
	(4) Bituminous work						
	(a) DBM	Km	65.52	3.344%	48.165	2.458%	
	(b) BC	Km	65.52	3.023%	45.485	2.099%	
	(5) Rigid Pavement						
	(6) Widening and repair of culverts	Nos	16	0.440%	13.150	0.362%	
	(7) Widening and repair of minor bridges	Nos	4	0.959%	4.00	0.959%	
	<b>B- New realignment/bypass</b>						
	(1) Earthwork up to top of the sub-grade	Km	28.68	6.437%	19.100	4.287%	
	(2) Granular work (sub-base, base, shoulders)						
	(a) GSB/ Cement Treated Base	Km	28.68	1.615%	18.680	1.052%	
	(b) WMM/ Cement Treated Base	Km	28.68	1.436%	18.080	0.905%	
	(3) Shoulders	Km	24.63	0.112%	12.540	0.057%	
	(4) Bituminous work						
	(a) DBM	Km	28.68	1.279%	17.960	0.801%	
(b) BC	Km	28.68	1.158%	16.490	0.666%		
(5) Rigid Pavement							

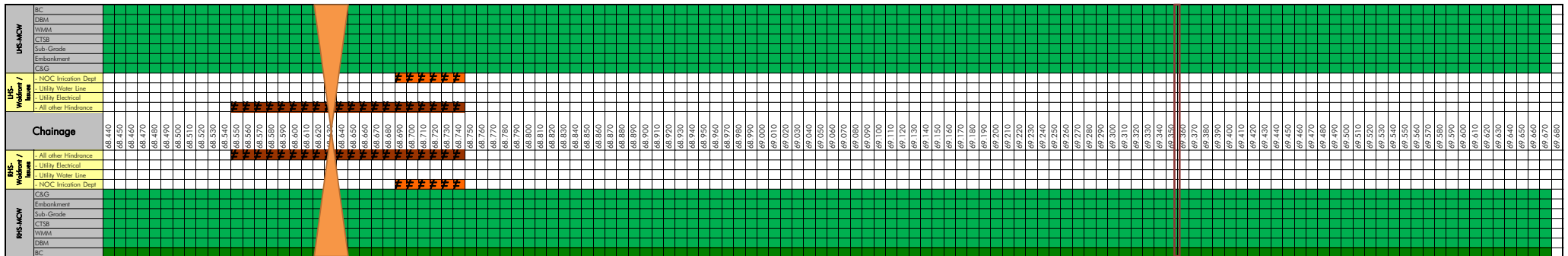
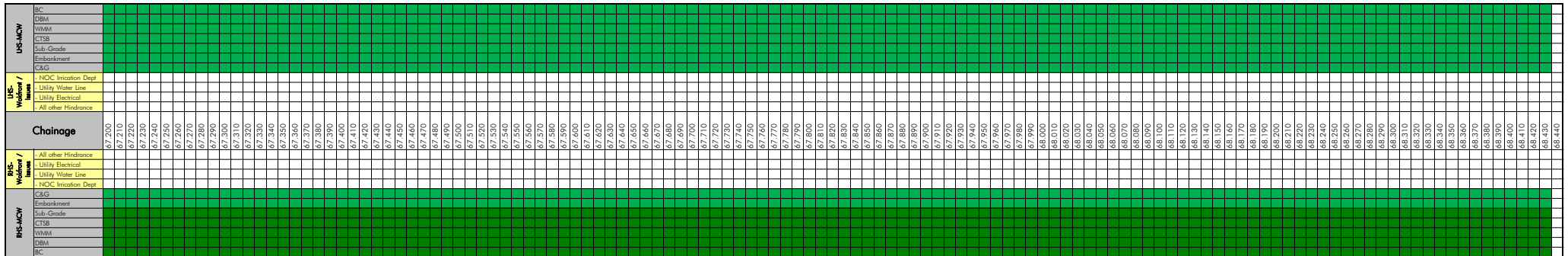
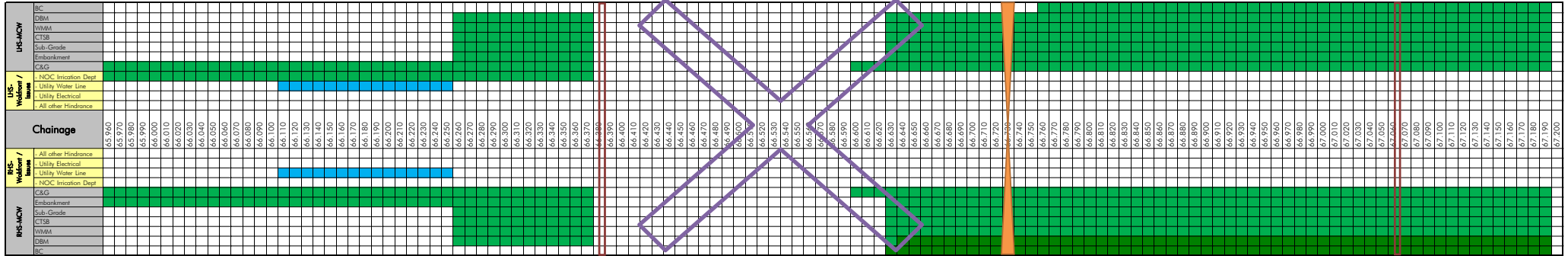
<b>C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:</b>						
<b>(1) Culverts</b>	Nos	44	2.070%	34.10	1.604%	
<b>(2) Minor bridges</b>						
(a) Foundation	Nos	58	3.953%	56.00	3.817%	
(b) Substructure	Nos	134	2.623%	119.00	2.329%	
(c) Superstructure (including crash barrier etc. complete)	Nos	50	1.559%	43.350	1.352%	
<b>(3) Cattle/Pedestrian underpasses</b>						
(a) Foundation	Nos					
(b) Substructure	Nos					
(c) Superstructure (including crash barrier etc. complete)	Nos					
<b>(4) Pedestrian overpasses</b>						
(a) Foundation	Nos					
(b) Substructure	Nos					
(c) Superstructure (including crash barrier etc. complete)	Nos					
<b>(5) Grade separated structures</b>						
<b>(a) Underpass (13 VUP, 2 LVUP)</b>						
(i) Foundation	Nos	56	2.574%	50.00	2.298%	
(ii) Substructure	Nos	60	0.751%	50.00	0.626%	
(iii) Superstructure (including crash barrier etc. complete)	Nos	30	1.289%	19.70	0.846%	
(b) Overpass						
(i) Foundation						
(ii) Substructure						
(iii) Superstructure (including crash barrier etc. complete)						
<b>(c) Flyover</b>						
(i) Foundation	Nos	36	2.426%	30.00	2.021%	
(ii) Substructure	Nos	36	0.470%	29.00	0.379%	
(iii) Superstructure (including crash barrier etc. complete)	Nos	20	1.244%	14.00	0.871%	

	(d) Foot over Bridge						
<b>Major Bridge works and ROB/RUB</b>	<b>A- Widening and repairs of Major Bridges</b>						
	(1) Foundation						
	(a) Open Foundation						
	(b) Pile Foundation/ Well Foundation						
	(2) Sub-structure						
	(3) Super-structure (including crash barriers etc. complete)						
	<b>C- New Major Bridges</b>						
	(1) Foundation						
	(a) Open Foundation						
	(b) Pile Foundation/ Well Foundation						
	(i) Foundation	Nos	84	9.699%	82.00	9.468%	
	(2) Sub-structure	Nos	84	4.576%	82.00	4.467%	
	(3) Super-structure (including crash barriers etc. complete)						
	(i) For MJB at Km. 107+400						
	(a) Casting of Superstructure (Box Segment)	Nos	666	1.450%	642.00	1.398%	
	(b) Erection of Superstructure (Box Segment)	Nos	666	1.050%	163.00	0.257%	
	(i) For other Major Bridges						
	(a) Super-structure (including crash barriers etc. complete)	Nos	37	2.500%	25.80	1.743%	
	<b>D- New rail-road bridges</b>						
	<b>(a) ROB</b>						
(1) Foundation	Nos						
(2) Sub-structure	Nos						
(3) Super-structure (including crash barriers etc. complete)	Nos						
<b>(b) RUB</b>							
(1) Foundation	Nos						
(2) Sub-structure	Nos						
(3) Super-structure (including crash barriers etc. complete)	Nos						

Structures (elevated sections, reinforced earth)	<b>A- Elevated Structures</b>							
	(1) Foundation	Nos						
	(2) Sub-structure	Nos						
	(3) Super-structure (including crash barriers etc.	Nos						
	<b>B- Reinforced earth Wall (includes Approaches of ROB, Underpasses, Overpasses, Flyover etc)</b>	Sqm	196027	7.604%	48,294	1.873%	Only RE Block Erection Quantity is considered	
Other Works	<b>(i) Service roads/ Slip Roads</b>	Km	53.19	4.690%	21.135	1.863%		
	<b>(ii) Toll Plaza</b>	Nos	1	1.821%				
	<b>(iii) Road side drains</b>	Km	28.85	5.429%	6.510	1.225%		
	<b>(iv) Road signs, markings, km stones, safety devices,</b>							
	(a) Road signs, markings, km stones, ...	Km	100.96	2.558%	56.690	1.437%		
	(b) Concrete Crash Barrier/ W- Beam Crash Barrier in Road work							
	(i) Concrete Crash Barrier	Km	26.5	1.179%	6.093	0.271%		
	(ii) W-Beam Crash Barrier	Km	10.03	0.788%	2.360	0.185%		
	<b>(v) Project facilities</b>							
	(a) Bus Bays	No.	18	0.009%	4.000	0.002%		
	(b) Truck Lay-byes	No.						
	(c) Rest areas	No.						
	<b>(vi) Repairs to bridges/structures</b>	Nos						
	<b>(vii) Road side plantation</b>	Km	23.66	0.451%	1.607	0.031%		
	<b>(viii) Protection works</b>							
	(a) Boulder pitching on slopes	Km	10.03	0.218%	2.360	0.051%		
	(b) Toe/Retaining wall	Km	10.03					
	<b>(x) Miscellaneous</b>	Ls.	100%	0.164%				
		<b>Total</b>			<b>100.00%</b>		<b>66.592%</b>	

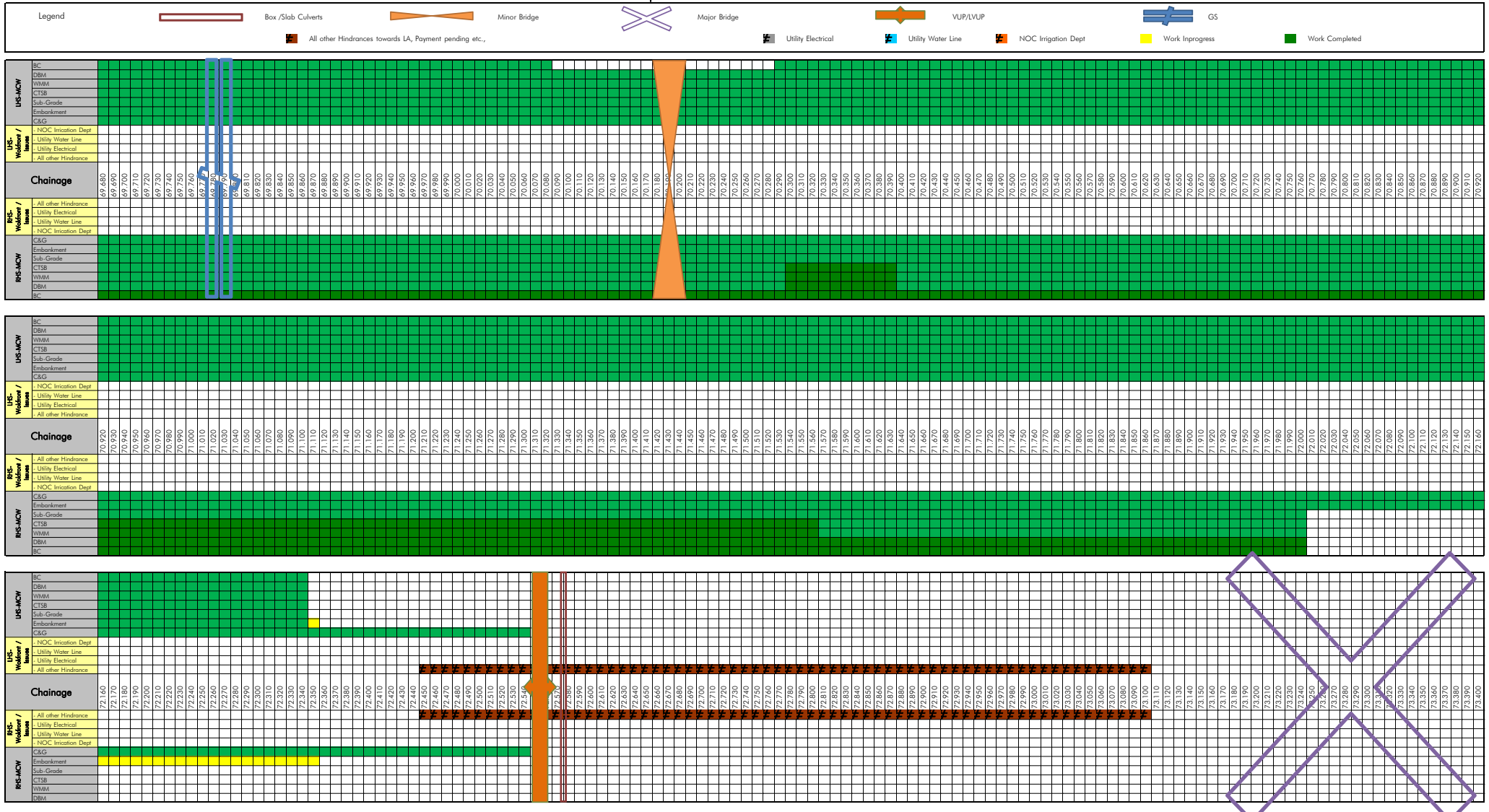
**Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to Km. 116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**  
 Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



**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**

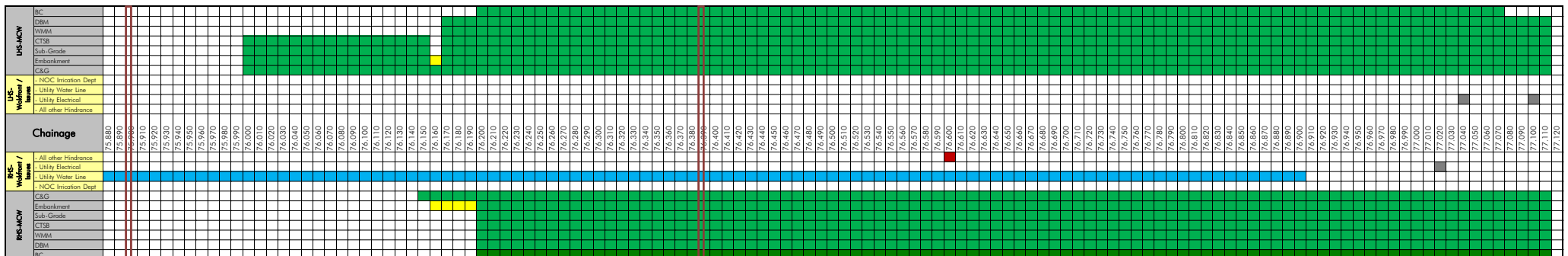
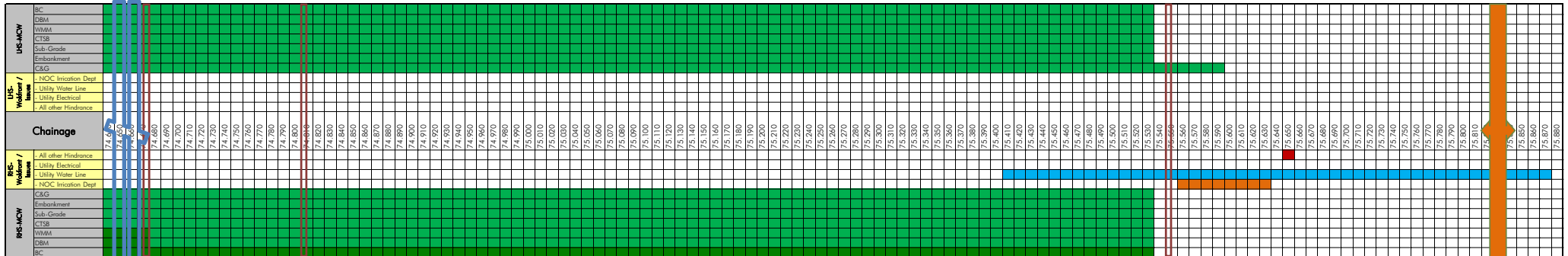
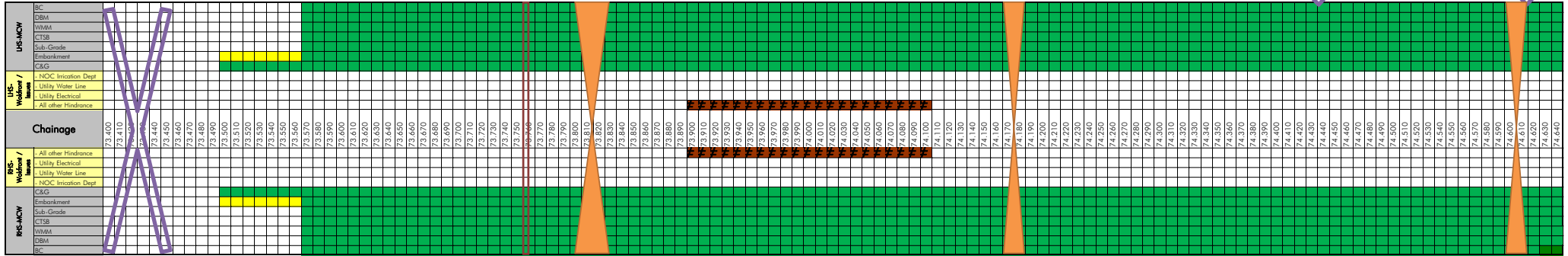
**Strip Plan for MCW as on 31.08.2022**





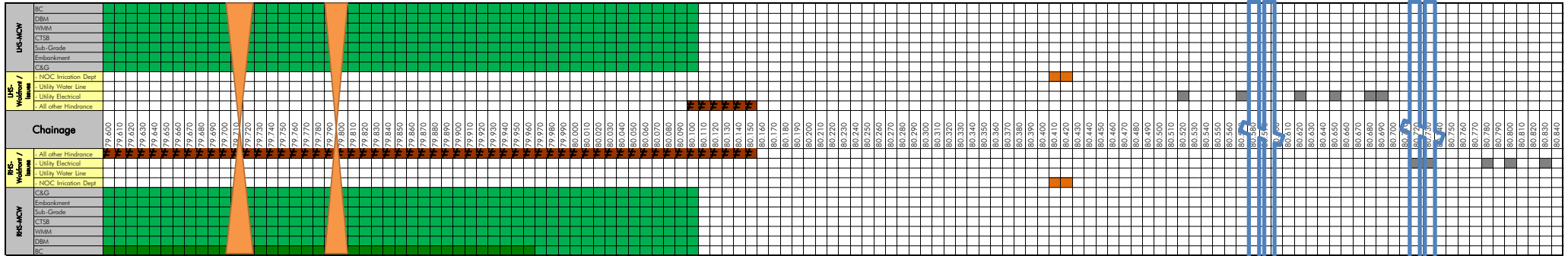
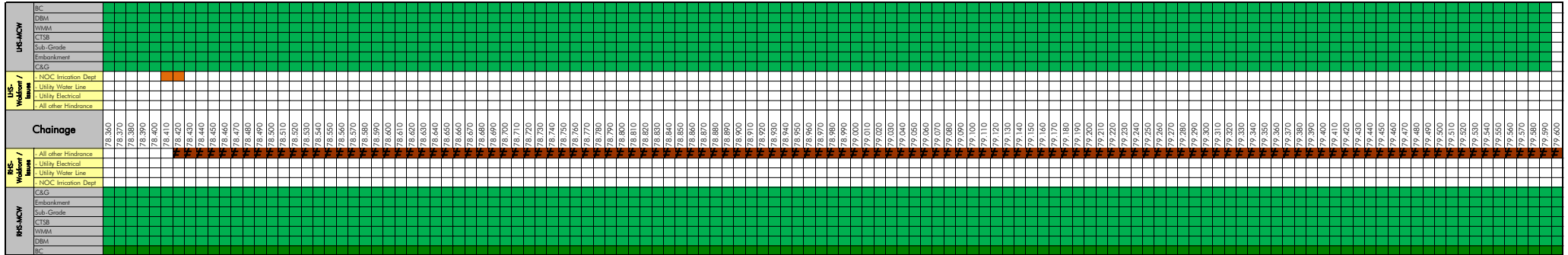
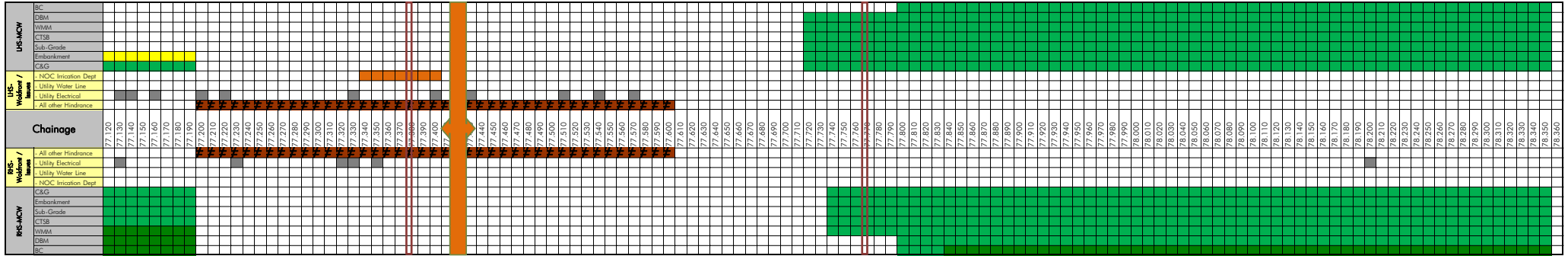
**Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to Km. 116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**  
Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



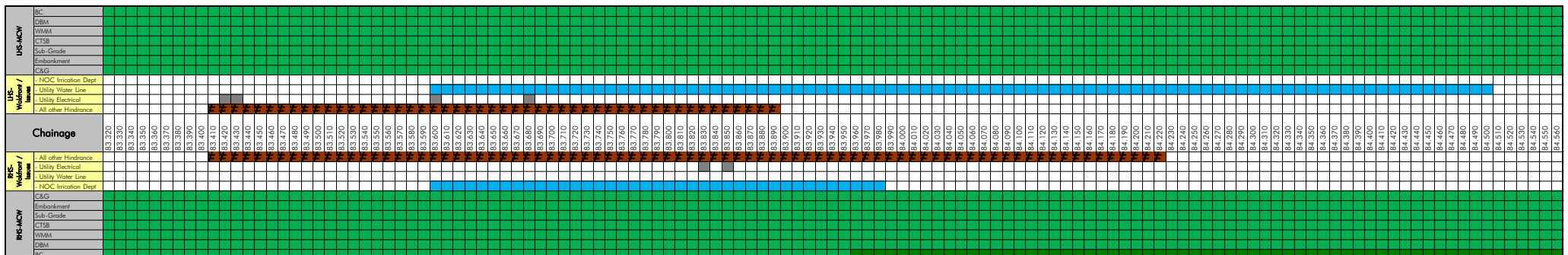
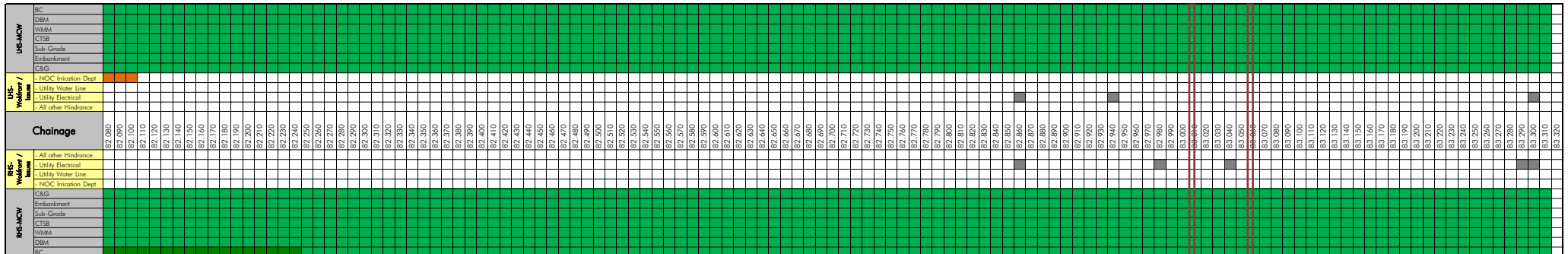
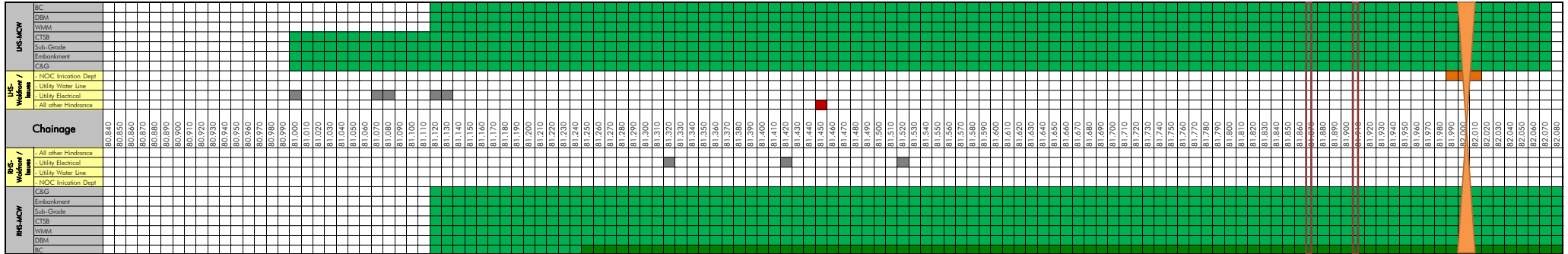
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 Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



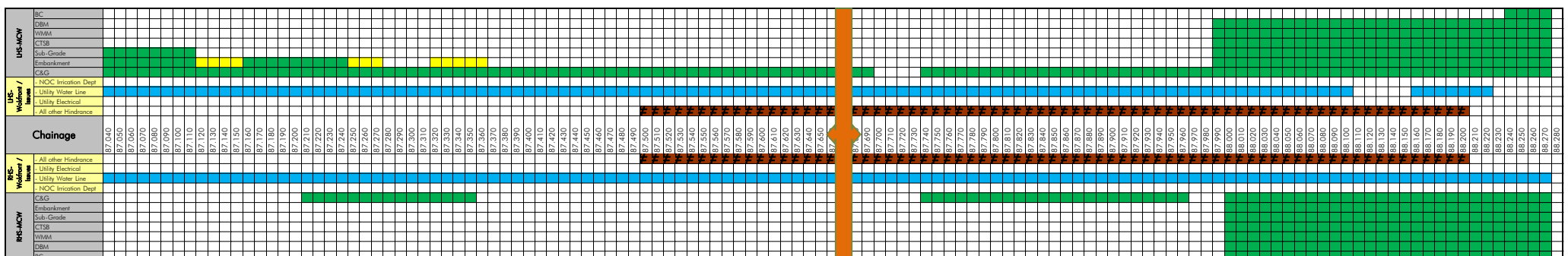
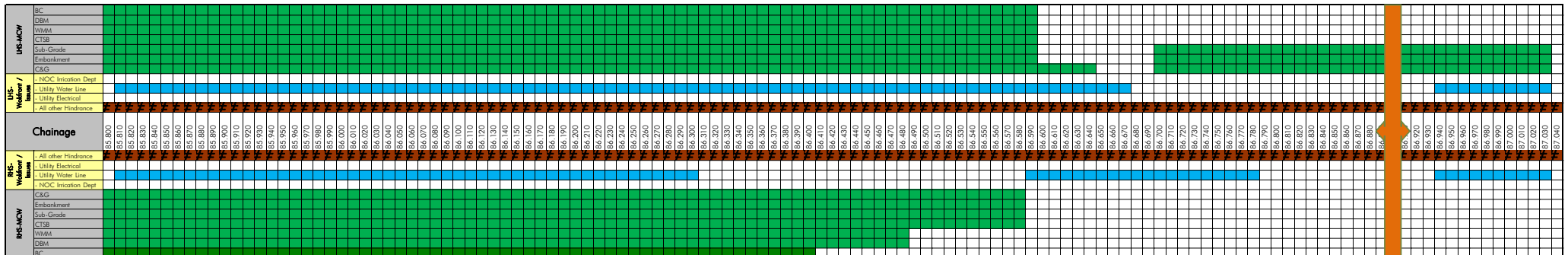
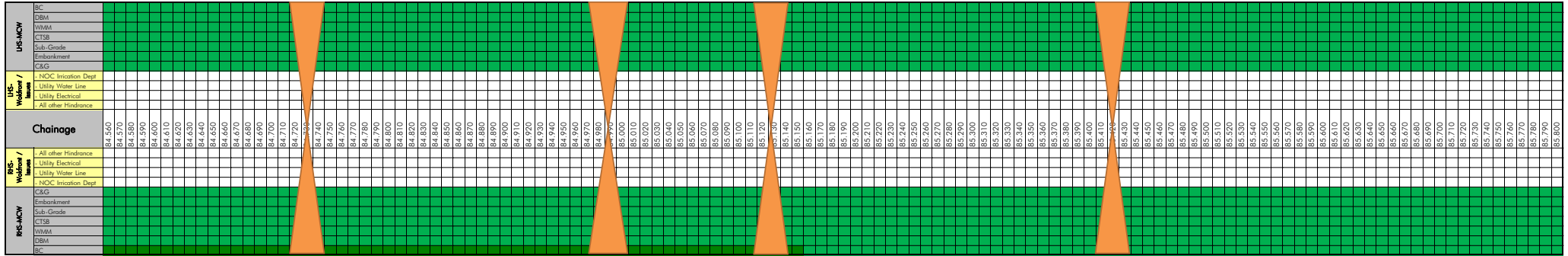
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 Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



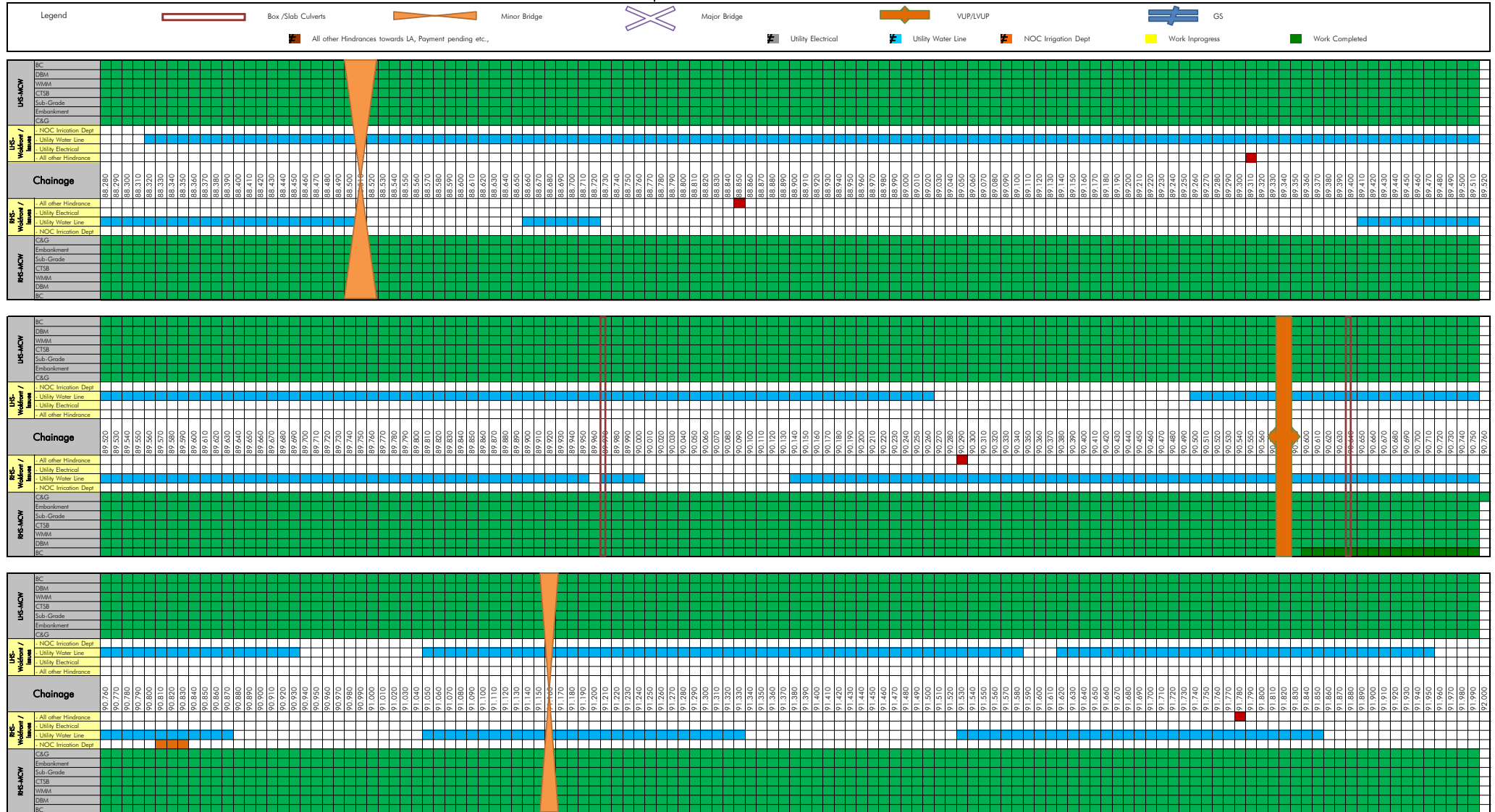
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 Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



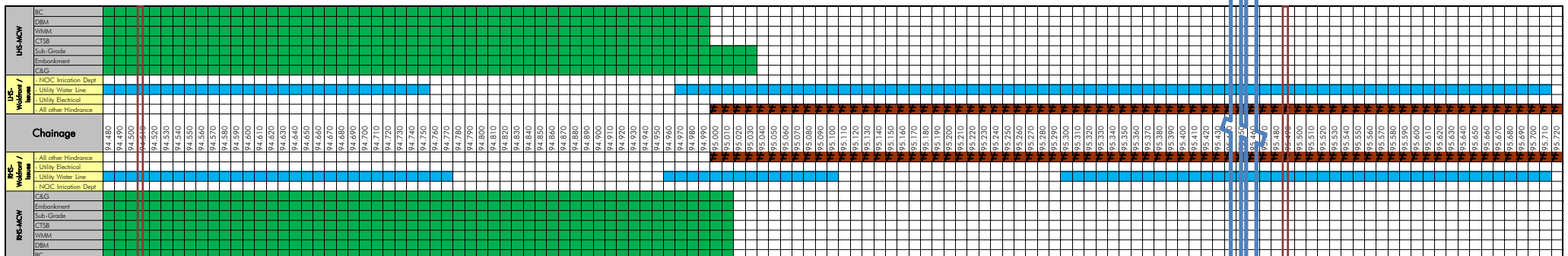
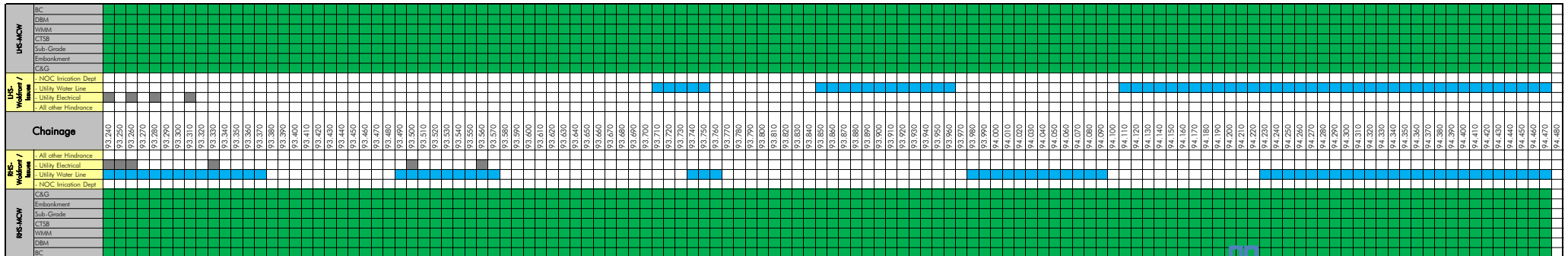
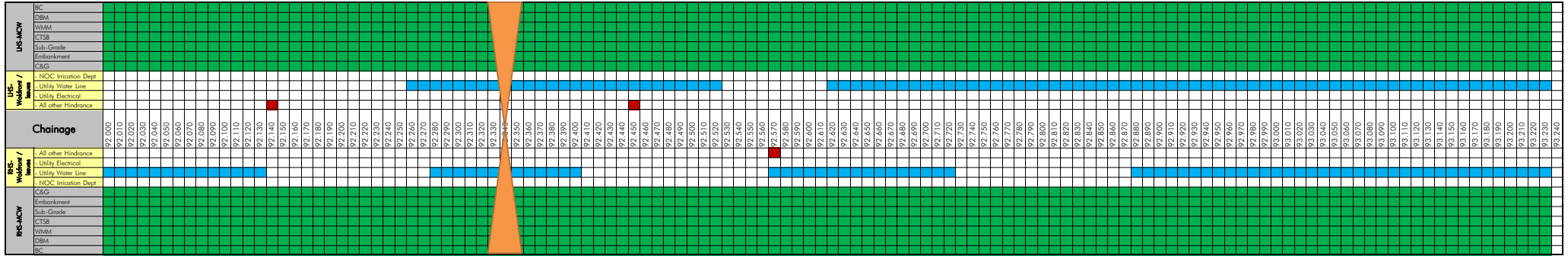
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Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



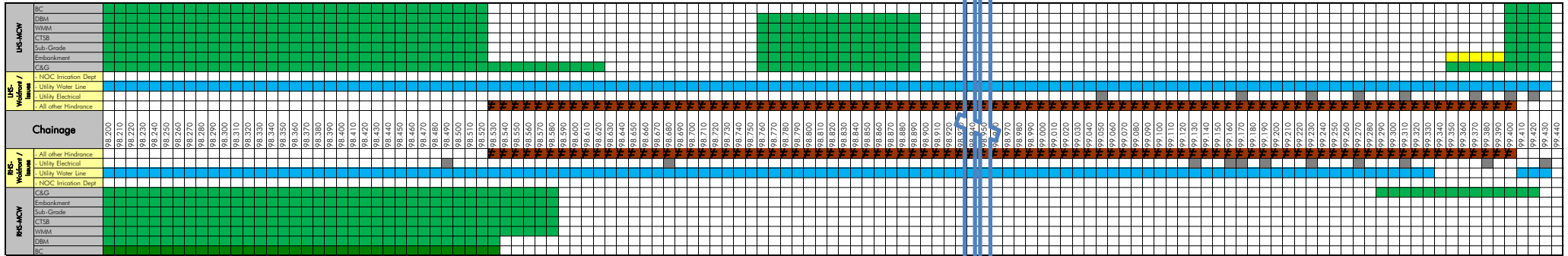
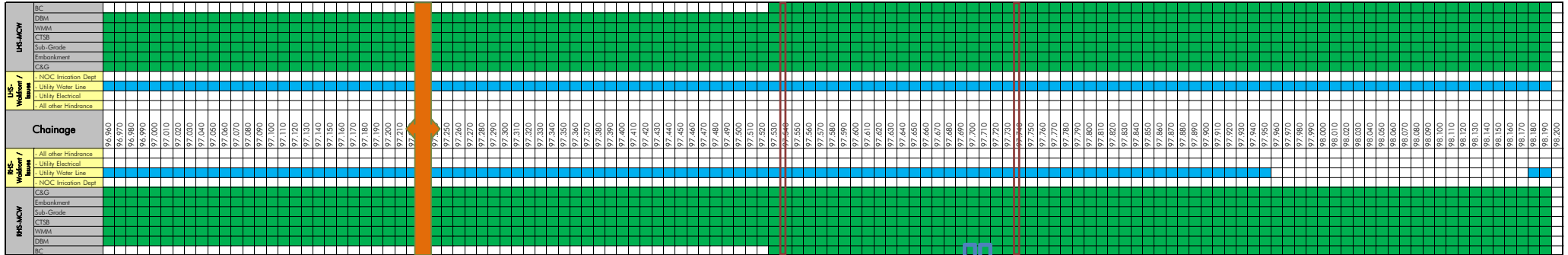
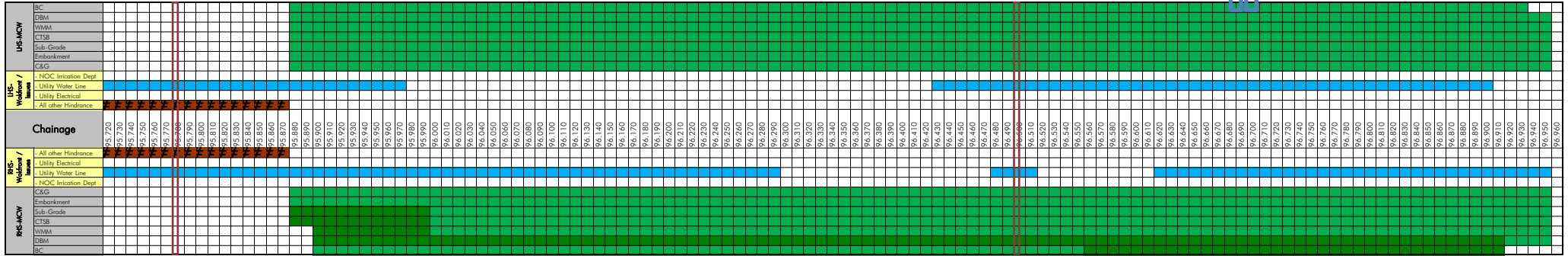
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 Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



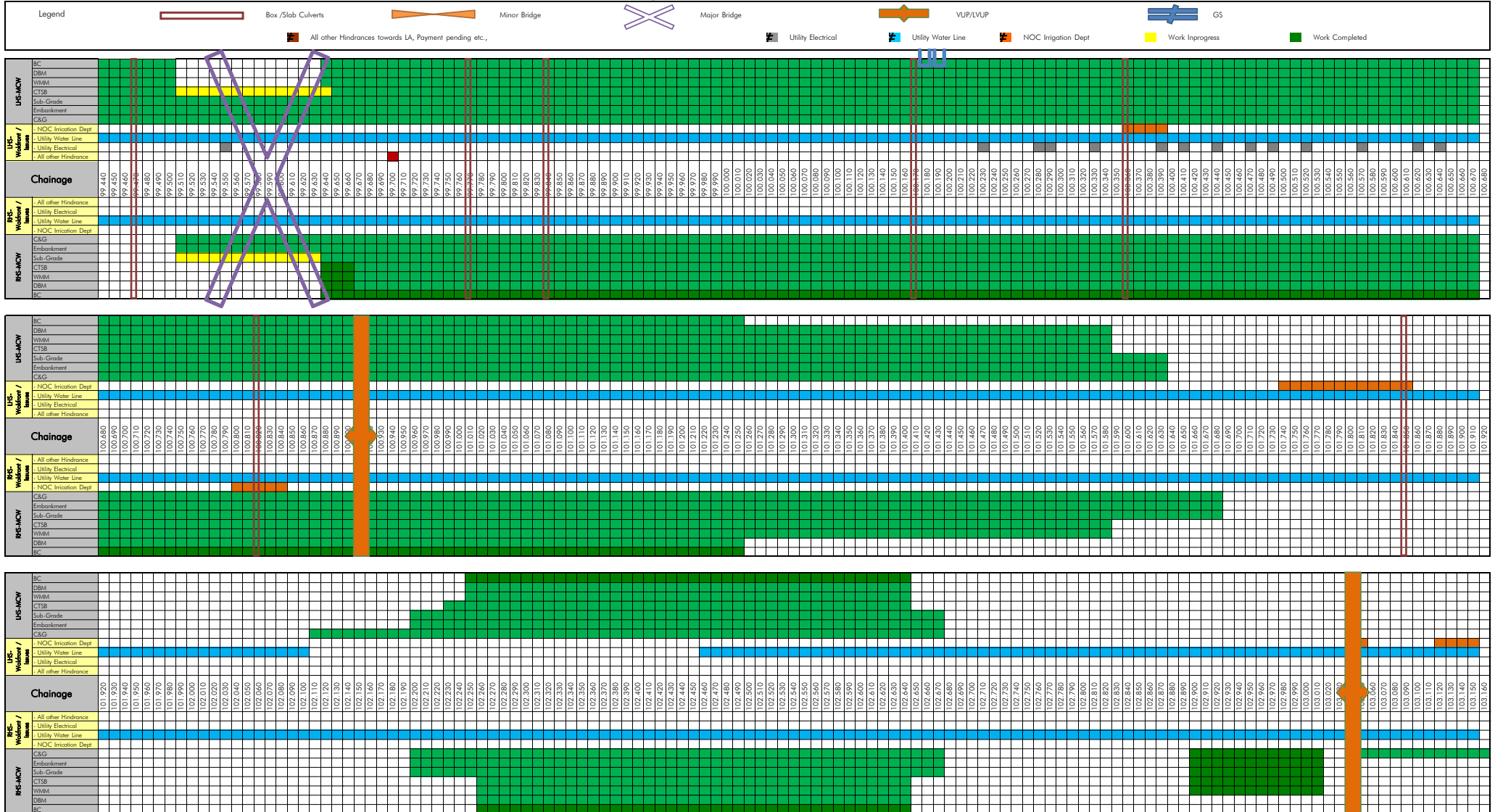
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Sethiyahopu - Cholopuram Road Projects

Strip Plan for MCW as on 31.08.2022



**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

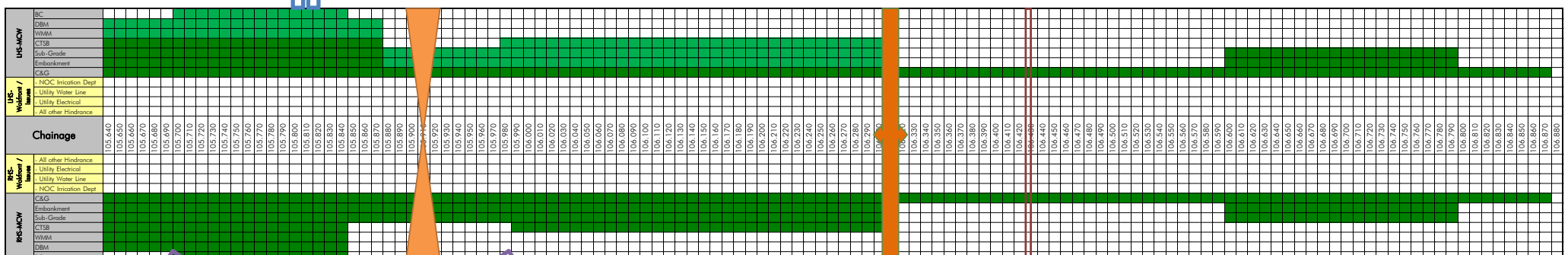
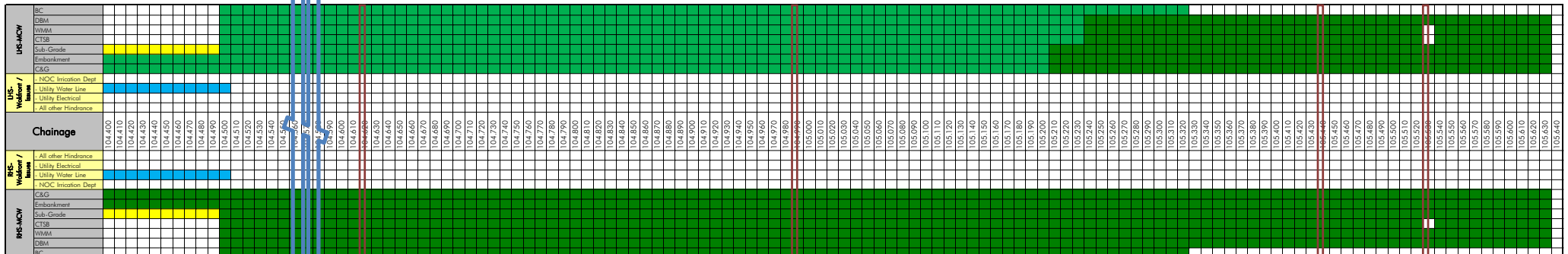
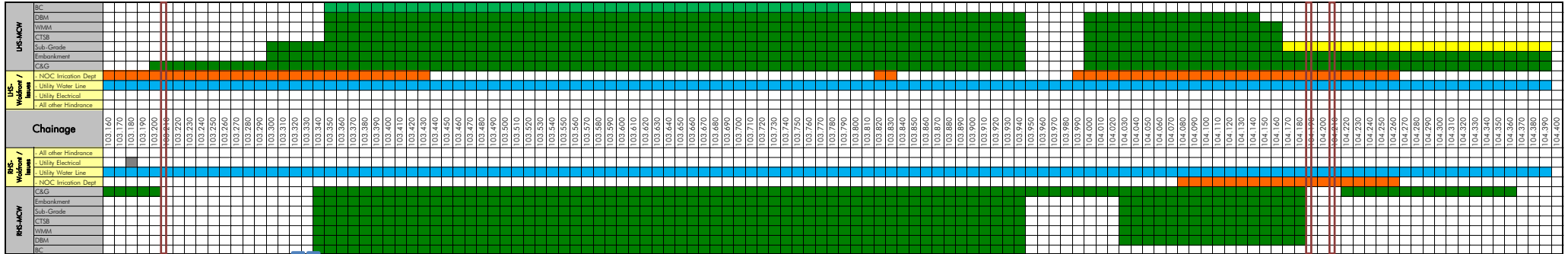
**Strip Plan for MCW as on 31.08.2022**





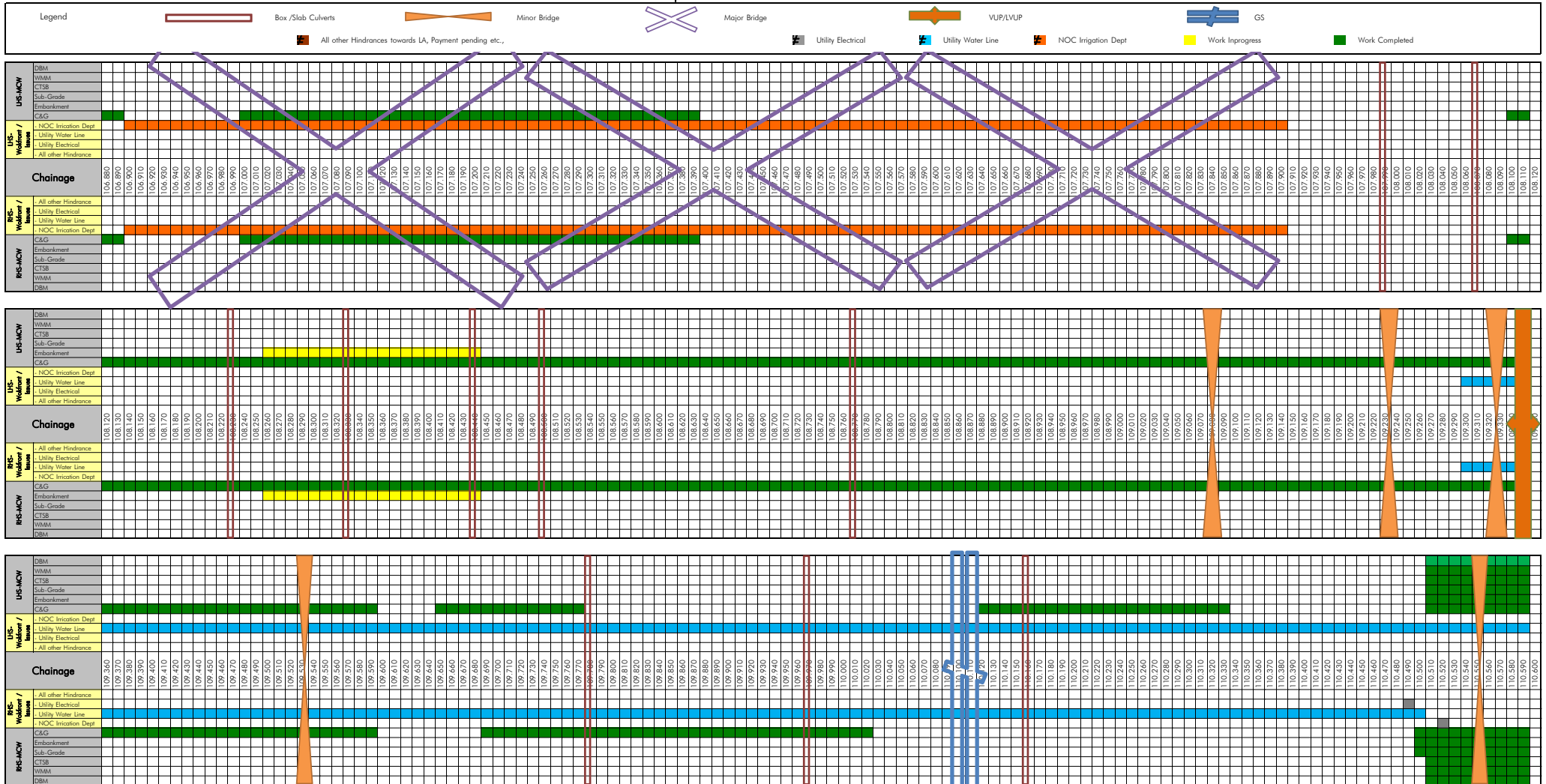
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 Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



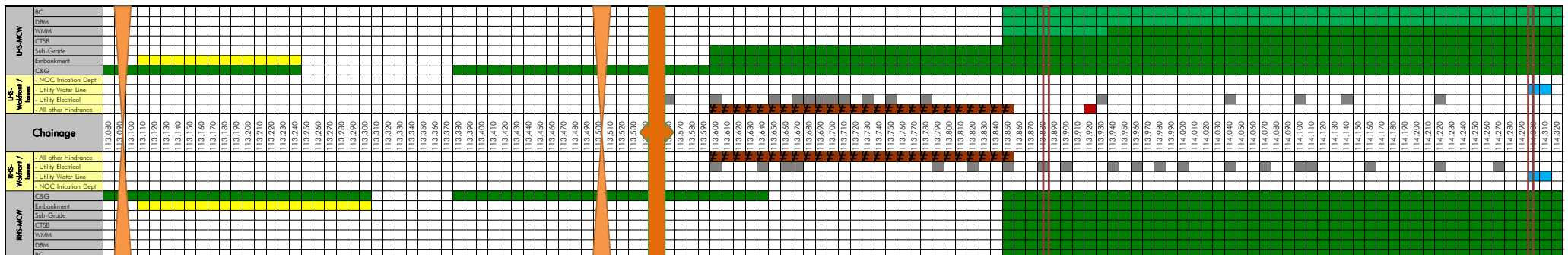
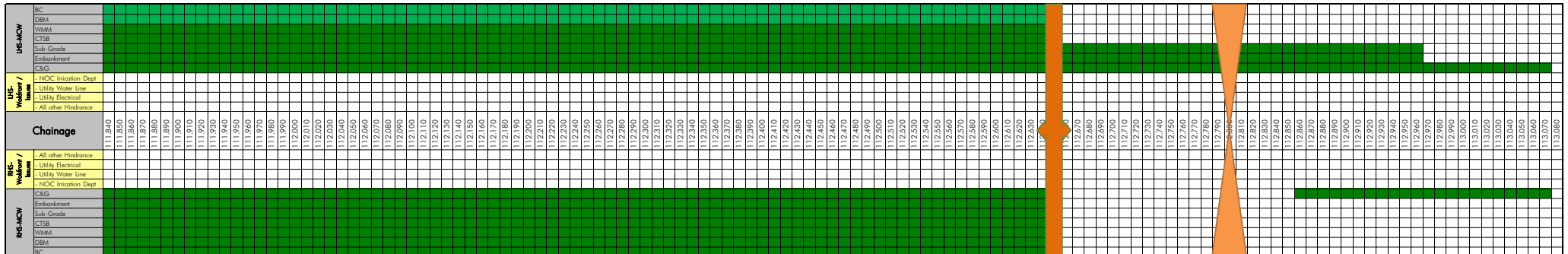
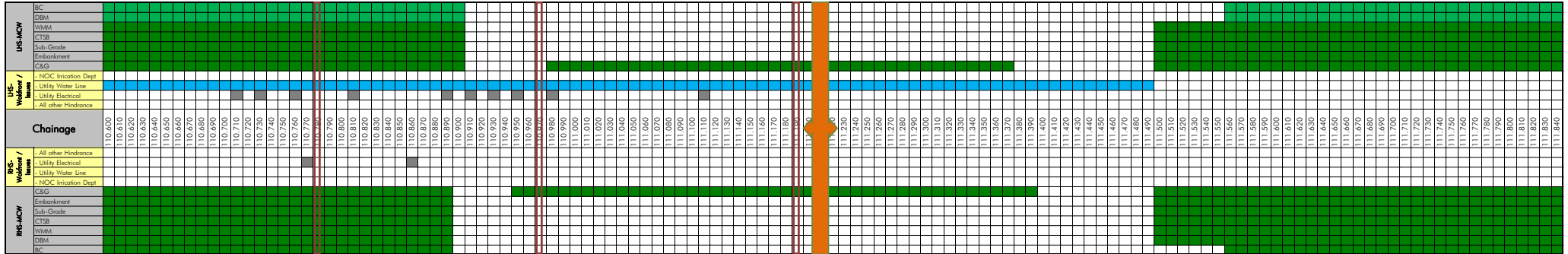
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 Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



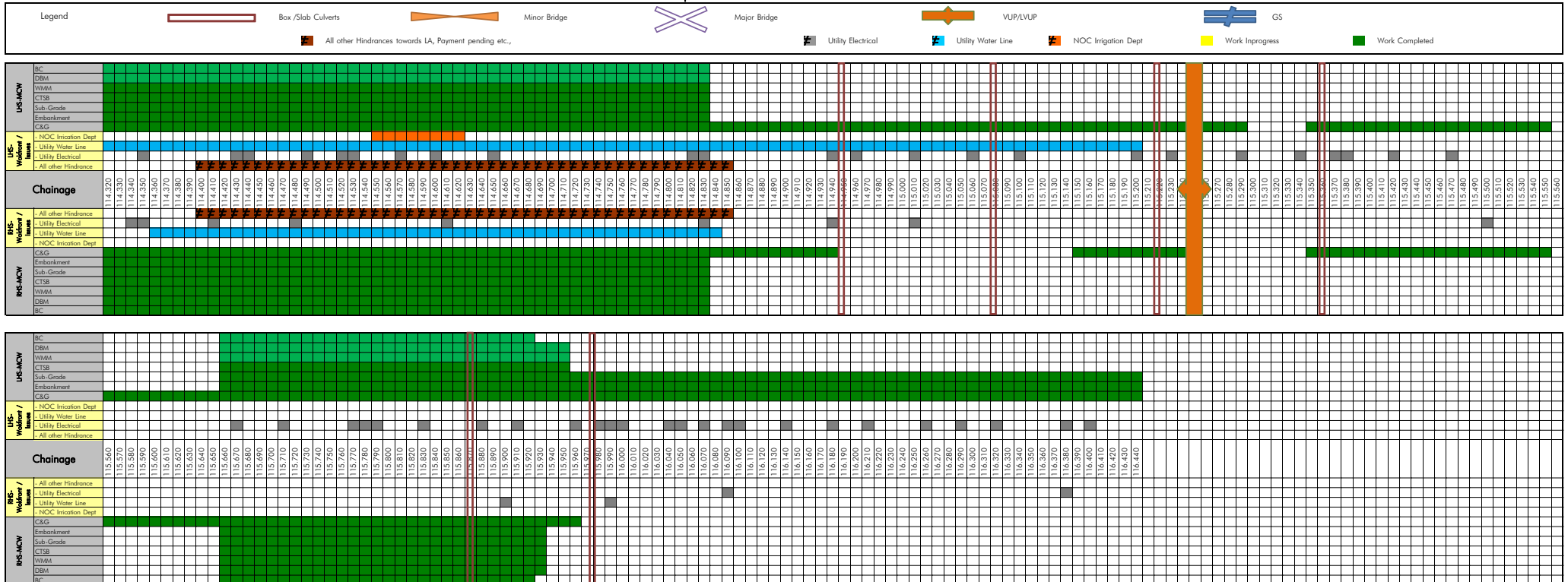
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 Sethiyahopu - Cholopuram Road Projects

**Strip Plan for MCW as on 31.08.2022**



**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

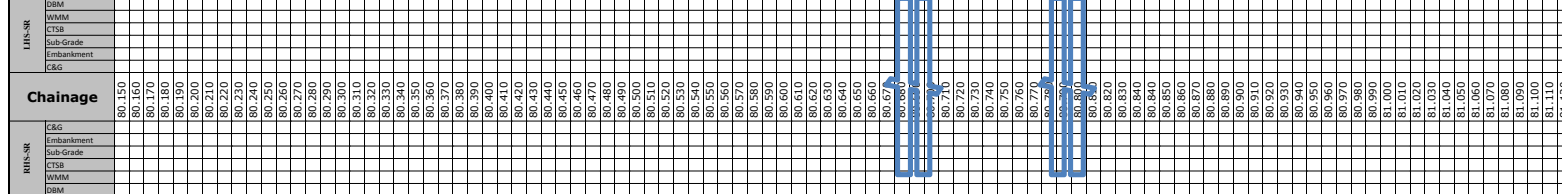
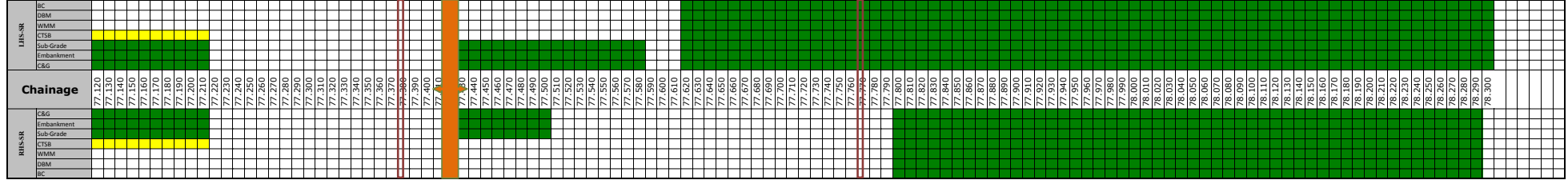
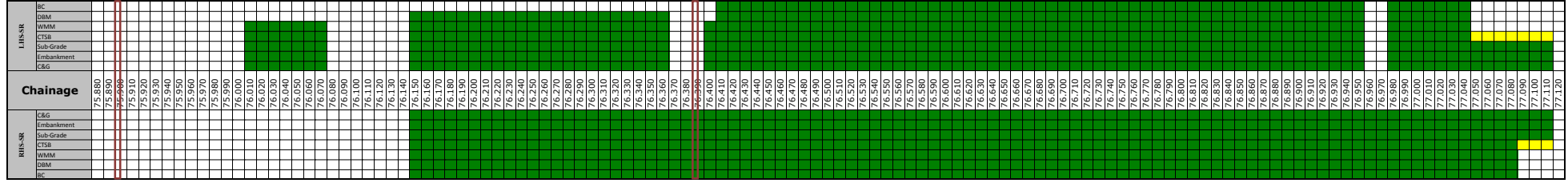
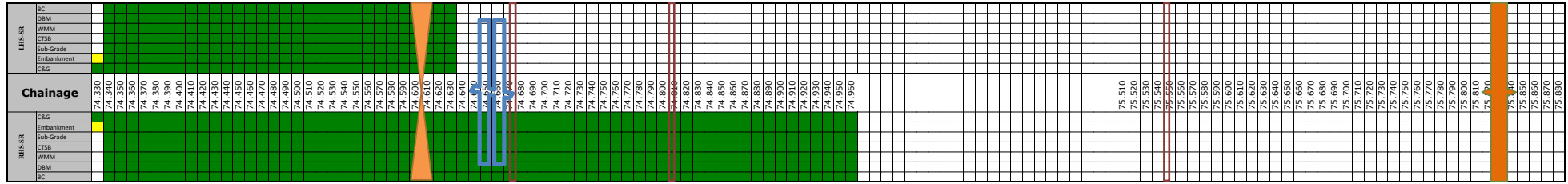
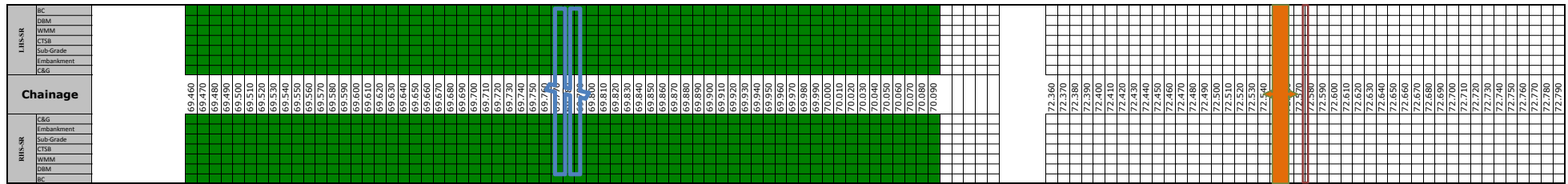
**Strip Plan for MCW as on 31.08.2022**



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 for SR as on 31.08.2022



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 for SR as on 31.08.2022



L/S-SR	Chainage	L/S-SR						
		BC	DBM	WMM	CTS	Sub-Grade	Embankment	
R/S-SR		CG	Embankment	Sub-Grade	CTS	WMM	DBM	BC
83.320								
83.330								
83.340								
83.350								
83.360								
83.370								
83.380								
83.390								
83.400								
83.410								
83.420								
83.430								
83.440								
83.450								
83.460								
83.470								
83.480								
83.490								
83.500								
83.510								
83.520								
83.530								
83.540								
83.550								
83.560								
83.570								
83.580								
83.590								
83.600								
83.610								
83.620								
83.630								
83.640								
83.650								
83.660								
83.670								
83.680								
83.690								
83.700								
83.710								
83.720								
83.730								
83.740								
83.750								
83.760								
83.770								
83.780								
83.790								
83.800								
83.810								
83.820								
83.830								
83.840								
83.850								
83.860								
83.870								
83.880								
83.890								
83.900								
83.910								
83.920								
83.930								
83.940								
83.950								
83.960								
83.970								
83.980								
83.990								
84.000								
84.010								
84.020								
84.030								
84.040								
84.050								
84.060								
84.070								
84.080								
84.090								
84.100								
84.110								
84.120								
84.130								
84.140								
84.150								
84.160								
84.170								
84.180								
84.190								
84.200								
84.210								
84.220								
84.230								
84.240								
84.250								
84.260								
84.270								
84.280								
84.290								
84.300								
84.310								
84.320								
84.330								
84.340								
84.350								
84.360								
84.370								
84.380								
84.390								
84.400								
84.410								
84.420								
84.430								
84.440								
84.450								
84.460								
84.470								
84.480								
84.490								
84.500								
84.510								
84.520								
84.530								
84.540								
84.550								
84.560								

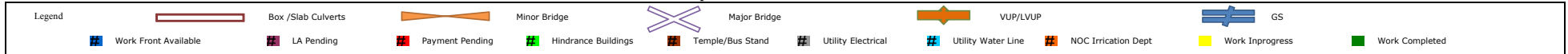
L/S-SR	Chainage	L/S-SR						
		BC	DBM	WMM	CTS	Sub-Grade	Embankment	
R/S-SR		CG	Embankment	Sub-Grade	CTS	WMM	DBM	BC
85.650								
85.660								
85.670								
85.680								
85.690								
85.700								
85.710								
85.720								
85.730								
85.740								
85.750								
85.760								
85.770								
85.780								
85.790								
85.800								
85.810								
85.820								
85.830								
85.840								
85.850								
85.860								
85.870								
85.880								
85.890								
85.900								
85.910								
85.920								
85.930								
85.940								
85.950								
85.960								
85.970								
85.980								
85.990								
86.000								
86.010								
86.020								
86.030								
86.040								
86.050								
86.060								
86.070								
86.080								
86.090								
86.100								
86.110								
86.120								
86.130								
86.140								
86.150								
86.160								
86.170								
86.180								
86.190								
86.200								
86.210								
86.220								
86.230								
86.240								
86.250								
86.260								
86.270								
86.280								
86.290								
86.300								
86.310								
86.320								
86.330								
86.340								
86.350								



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 for SR as on 31.08.2022



LI/SR	DBM	WMM	CTS	Sub-Grade	Embankment	CG
Chainage	96.910					
	96.920					
	96.930					
	96.940					
	96.950					
	96.960					
	96.970					
	96.980					
	96.990					
	97.000					
	97.010					
	97.020					
	97.030					
	97.040					
	97.050					
97.060						
97.070						
97.080						
97.090						
97.100						
97.110						
97.120						
97.130						
97.140						
97.150						
97.160						
97.170						
97.180						
97.190						
97.200						
97.210						
97.220						
97.230						
97.240						
97.250						
97.260						
97.270						
97.280						
97.290						
97.300						
97.310						
97.320						
97.330						
97.340						
97.350						
97.360						
97.370						
97.380						
97.390						
97.400						
97.410						
97.420						
97.430						
97.440						
97.450						
97.460						
97.470						
97.480						
97.490						
97.500						
97.510						
97.520						
97.530						
97.540						
97.550						
97.560						
97.570						
97.580						
97.590						
97.600						
97.610						
97.620						
97.630						
97.640						
97.650						
97.660						
97.670						
97.680						
97.690						
97.700						
97.710						
97.720						
97.730						
97.740						
97.750						
97.760						
97.770						
97.780						
97.790						
97.800						
97.810						
97.820						
97.830						
97.840						
97.850						
97.860						
97.870						
97.880						
97.890						
97.900						
97.910						
97.920						
97.930						
97.940						
97.950						
97.960						
97.970						
97.980						
97.990						
98.000						

LI/SR	DBM	WMM	CTS	Sub-Grade	Embankment	CG
Chainage	99.080					
	99.090					
	99.100					
	99.110					
	99.120					
	99.130					
	99.140					
	99.150					
	99.160					
	99.170					
	99.180					
	99.190					
	99.200					
	99.210					
	99.220					
99.230						
99.240						
99.250						
99.260						
99.270						
99.280						
99.290						
99.300						
99.310						
99.320						
99.330						
99.340						
99.350						
99.360						
99.370						
99.380						
99.390						
99.400						
99.410						
99.420						
99.430						
99.440						
99.450						
99.460						
99.470						
99.480						
99.490						
99.500						
99.510						
99.520						
99.530						
99.540						
99.550						
99.560						
99.570						
99.580						
99.590						
99.600						
99.610						
99.620						
99.630						
99.640						
99.650						
99.660						
99.670						
99.680						
99.690						
99.700						
99.710						
99.720						
99.730						
99.740						
99.750						
99.760						
99.770						
99.780						
99.790						
99.800						
99.810						
99.820						
99.830						
99.840						
99.850						
99.860						
99.870						
99.880						
99.890						
99.900						
99.910						
99.920						
99.930						
99.940						
99.950						
99.960						
99.970						
99.980						
99.990						
100.000						

LI/SR	BC	DBM	WMM	CTS	Sub-Grade	Embankment	CG
Chainage	101.920						
	101.930						
	101.940						
	101.950						
	101.960						
	101.970						
	101.980						
	101.990						
	102.000						
	102.010						
	102.020						
	102.030						
	102.040						
	102.050						
	102.060						
102.070							
102.080							
102.090							
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102.760							
102.770							
102.780							
102.790							
102.800							
102.810							
102.820							
102.830							
102.840							
102.850							
102.860							
102.870							
102.880							
102.890							





SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON EXISTING ROAD - MCW							Completed										In Progress						
Status Upto	31.08.2022						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	Fly wing wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Fly wing wall	Protection Work	
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	BOX 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+767	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	BOX CULVERT																	
13	90+640	90.637	EXISTING	1 x 1.20m	Reconstruction	BOX 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	BOX 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	BOX 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+251		EXISTING	1 x 2.0m x 2.0m	New Construction	BOX CULVERT																	
27	101+851	101.851	EXISTING	1 x 1.5m x 1.5m	Repair & Reconstruction	BOX CULVERT																	
28	103+220	103.214	EXISTING	1 x 4.0m x 2.5m	Repair & Reconstruction	BOX CULVERT																	
29	104+197	104.190	EXISTING	1 x 1.0m	Repair & Reconstruction	BOX CULVERT																	
30	104+215	104.208	EXISTING	1 x 1.0m	Reconstruction	BOX CULVERT																	
31	109+786	109.779	EXISTING	1 x 1.0m	Repair & Reconstruction	BOX CULVERT																	
32	109+975	109.967	EXISTING	1 x 2.0m x 1.7m	Repair & Reconstruction	BOX CULVERT																	
33	110+167	110.160	EXISTING	2 x 1.0m	Repair & Reconstruction	BOX CULVERT																	
34	110+402		EXISTING	1 x 1.5m		BOX CULVERT																	
35	110+795	110.785	EXISTING	1 x 1.2m x 2.0m	Repair & Widening	BOX CULVERT																	
36	110+980	110.971	EXISTING	1 x 1.5m x 2.0m	Repair & Reconstruction	BOX CULVERT																	
37	113+897	113.885	EXISTING	1 x 1.0m	Repair & Widening	BOX CULVERT																	
38	114+313	114.300	EXISTING	1 x 1.0m	Repair & Widening	BOX CULVERT																	
39	114+703	114.703	EXISTING			BOX CULVERT																	
40	114+954	114.952	EXISTING	1 x 1.0m	Repair & Reconstruction	BOX CULVERT																	
41	115+097	115.087	EXISTING	2 x 1.0m	Repair & Reconstruction	BOX CULVERT																	
42	115+232	115.221	EXISTING	1 x 2.0m x 2.0m	Repair & Reconstruction	BOX CULVERT																	
43	115+381	115.368	EXISTING	1 x 2.0m	Repair & Reconstruction	BOX CULVERT																	
44	115+884	115.872	EXISTING	2 x 1.0m	Repair & Widening	BOX CULVERT																	
45	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									
Status Upto	31.08.2022						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	Fly wing wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Fly wing wall	Protection Work	
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+767	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+402		EXISTING	1 x 1.5m		BOX CULVERT																	
29	110+795	110.785	EXISTING	1 x 1.2m x 2.0m	Repair & Widening	BOX CULVERT																	
30	110+980	110.971	EXISTING	1 x 1.5m x 2.0m	Repair & Reconstruction	BOX CULVERT																	
31	113+897	113.885	EXISTING	1 x 1.0m	Repair & Widening	PIPE CULVERT																	
32	114+313	114.300	EXISTING	1 x 1.0m	Repair & Widening	PIPE CULVERT																	
33	114+954	114.952	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT																	
34	115+097	115.087	EXISTING	2 x 1.0m	Repair & Reconstruction	PIPE CULVERT																	
35	115+232	115.221	EXISTING	1 x 2.0m x 2.0m	Repair & Reconstruction	BOX CULVERT																	
36	115+381	115.368	EXISTING	1 x 2.0m	Repair & Reconstruction	BOX CULVERT																	
37	115+884	115.872	EXISTING	2 x 1.0m	Repair & Widening	PIPE CULVERT																	
38	115+978	115.978	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT																	

SETHIAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS - MCW						Completed								In Progress								
Status Upto	31.08.2022					LHS								RHS								
Sr. No.	As Approved by IE	Design Chainage As per CA		Number and Length of Spans (m)	Type of Structure	Protection Work	Fly wing wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Fly wing wall	Protection Work	
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	113+372	113.372	BYPASS		BOX CULVERT																	

SETHIAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS - SERVICE ROAD						Completed								In Progress								
Status Upto	31.08.2022					LHS								RHS								
Sr. No.	As Approved by IE	Design Chainage As per CA		Number and Length of Spans (m)	Type of Structure	Protection Work	Fly wing wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Fly wing wall	Protection Work	
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																	
6	113+372	113.372	BYPASS		BOX CULVERT																	

SETHIAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX - MCW						Completed	In Progress															
Status Upto	31.08.2022					LHS							RHS									
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure		Protection Work	Retaining wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Retaining wall	Protection 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									NA	NA	NA	NA	NA	NA	NA		
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																	

SETHIAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX - SERVICE ROAD						Completed							In Progress									
Status Upto	31.08.2022					LHS							RHS									
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure		Protection Work	Retaining wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Retaining wall	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																	

SETHIAHOPU CHOLOPURAM PROJECT - STATUS OF LVUP					Completed						In Progress					
Status Upto	31.08.2022				LHS						RHS					
Sr. No.	As Approved by IE	Number and Length of Spans (m)	Type of Structure		Protection Work	Slab	Wall	Raft	PCC	Excavation	Excavation	PCC	Raft	Wall	Slab	Protection Work
1	77+420	1X10.5	LVUP	EXISTING												
2	112+643	1X10.5	LVUP	BYPASS												



SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB (>15m Span)					Completed									In Progress											
Status upto	31.08.2022				LHS									RHS											
Sr. No.	MNB at Chainage	Span			Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap /Abtcap	Pier/Abt	Open Foundation	PCC	Excavation	Excavation	PCC	Open Foundation	Pier/Abt	Piercap /Abtcap	Girder Casting	Girder Launching	Slab	Crash Barrier			
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	A1																					
				P1																					
				A2																					

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MJB										Completed								
MJB at Chainage 66+530 (8x30) - BYPASS										In Progress								
Status Upto 31.08.2022	LHS/LSR									RHS/RSR								
	Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt	Can	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt	Can	Girder Casting	Girder Launching	Slab	Crash Barrier
A1																		
P1																		
P2																		
P3																		
P4																		
P5																		
P6																		
P7																		
A2																		
MJB at Chainage 73+340 (9x30) - BYPASS										Completed								
MJB at Chainage 73+340 (9x30) - BYPASS										In Progress								
Status Upto 31.08.2022	LHS/LSR									RHS/RSR								
	Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt	Can	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt	Can	Girder Casting	Girder Launching	Slab	Crash Barrier
A1																		
P1																		
P2																		
P3																		
P4																		
P5																		
P6																		
P7																		
P8																		
A2																		

MJB at Chainage 99+583 (3x25) - EXISTING ROAD										Completed		In Progress							
Status Upto 31.08.2022	LHS/LSR									RHS/RSR									
	Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt	Can	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt	Can	Girder Casting	Girder Launching	Slab	Crash Barrier	
A1																			
P1										Existing Major Bridge need to be retained.									
P2																			
A2																			
MJB at Chainage 107+400 - BYPASS										Completed		In Progress							
Status Upto 31.08.2022	LHS/LSR									RHS/RSR									
	Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt	Can	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt	Can	Girder Casting	Girder Launching	Slab	Crash Barrier	
A1																			
P1																			
P2																			
P3																			
P4																			
P5																			
P6																			
P7																			
P8																			
P9																			
P10																			
P11																			
P12																			
P13																			
P14																			
P15																			
P16																			
P17																			
P18																			
P19																			
A2																			

SETHIAHOPU CHOLOPURAM PROJECT - STATUS OF FLYOVER					Completed									In Progress											
Status upto	31.08.2022				LHS									RHS											
Sr.No.	FO at Chainage	Span			Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap /Abtcap	Abt Shaft	Pile Cap	PCC	Pile	Pile	PCC	Pile Cap	Abt Shaft	Piercap /Abtcap	Girder Casting	Girder Launching	Slab	Crash Barrier			
1	69+785	1x30	BYPASS	A1																					
				A2																					
2	74+655	1x30	BYPASS+EXISTING	A1																					
				A2																					
3	80+556	1x30	EXISTING	A1																					
				A2																					
4	80+720	1x30	EXISTING	A1																					
				A2																					
5	95+455	2x30	EXISTING	A1																					
				P1																					
				A2																					
6	98+950	2x30	EXISTING	A1																					
				P1																					
				A2																					
7	104+570	1x30	BYPASS	A1																					
				A2																					
8	110+110	1x30	EXISTING	A1																					
				A2																					

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF VUP					Completed									In Progress									
Status upto	31.08.2022				LHS									RHS									
SR.NO.	VUP at Chainage	Span			Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap /Abtcap	Abt Shaft	Pile Cap	PCC	Pile	Pile	PCC	Pile Cap	Abt Shaft	Piercap /Abtcap	Girder Casting	Girder Launching	Slab	Crash Barrier	
1	72+545	1x25	BYPASS	A1																			
				A2																			
2	75+830	1x25	EXISTING	A1																			
				A2																			
3	86+900	1x25	EXISTING	A1																			
				A2																			
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																			

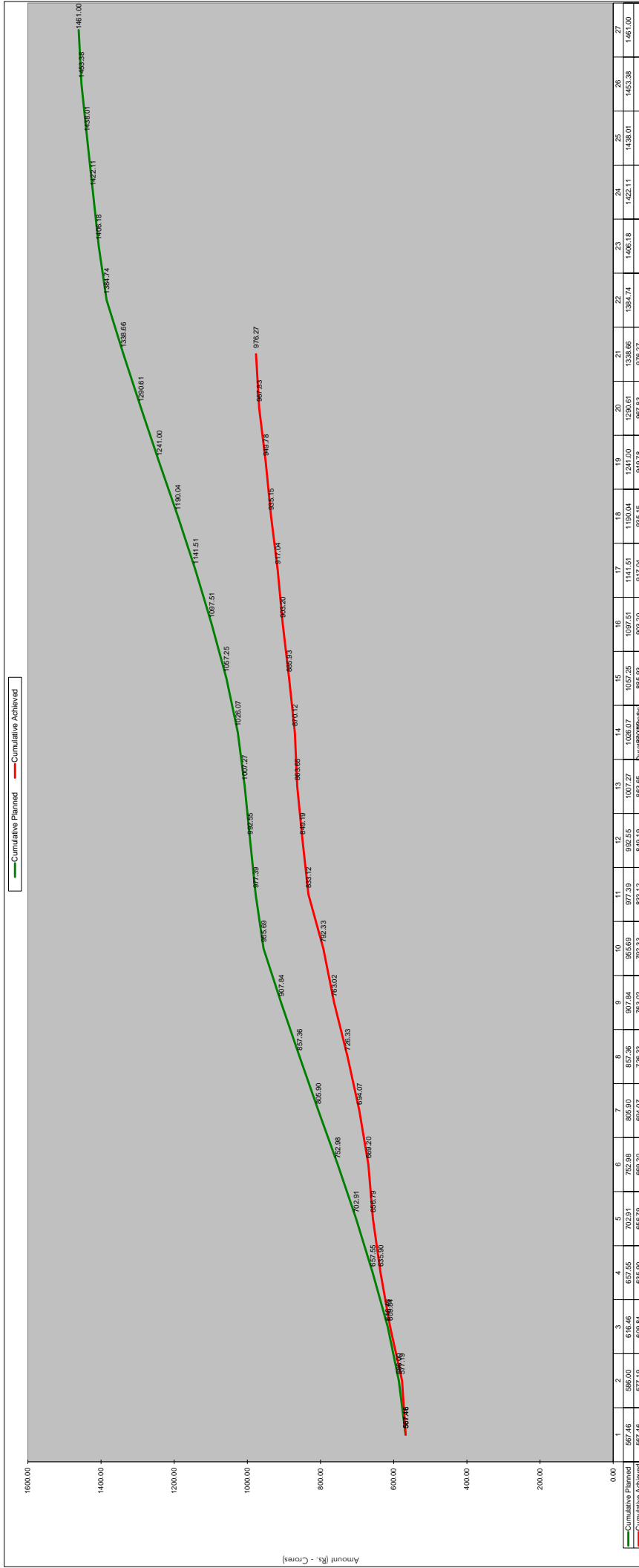
5. Financial & Physical Progress of Work

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

Figure 3b: Physical Progress - Planned vs Achieved - S Curve

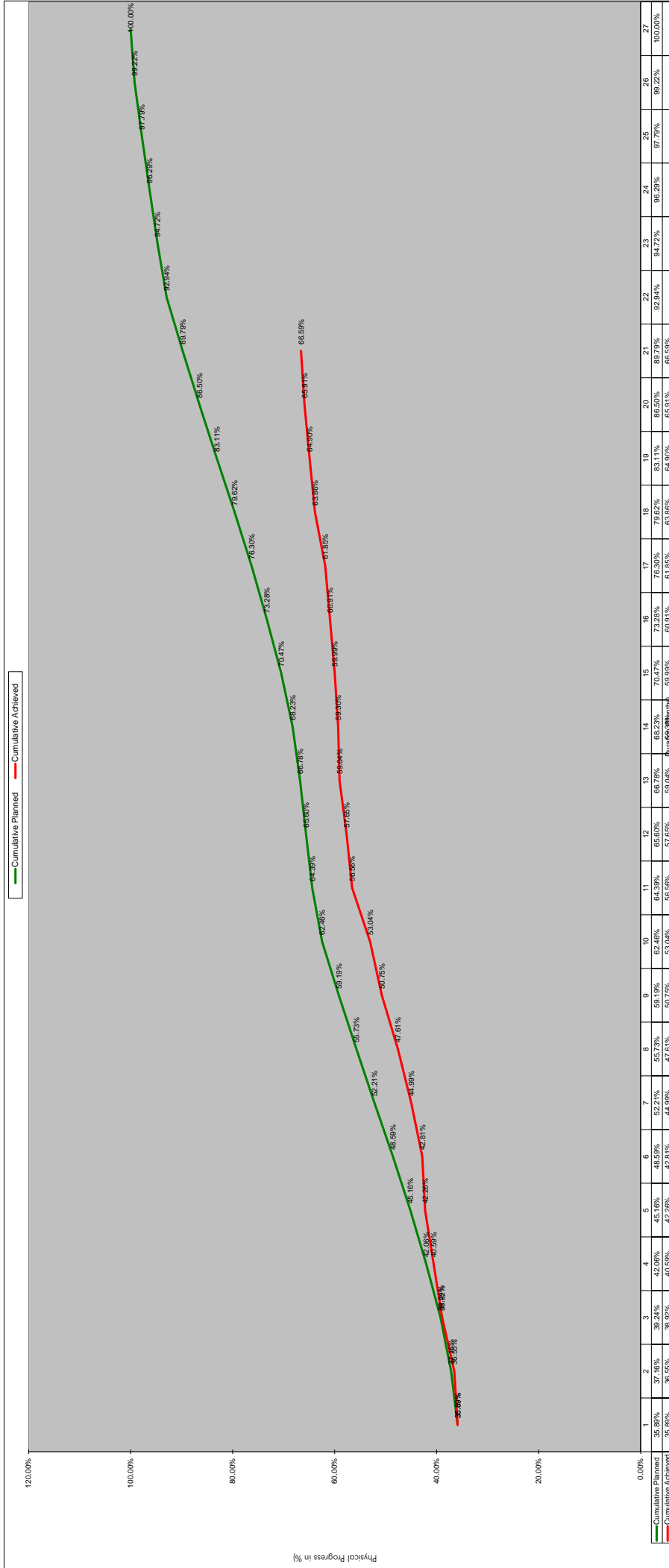
**Four Lining of Sethiyahopu - Cholopuram from Km. 65.960 to 116.440 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode  
Fig. 03a- Financial Progress (Revised S-Curve) as per revised Target Agreement including EOT of 105 days + 90 days grace period**



Schedule	2020												2021												2022												2023		
	Upto	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb												
Monthly Planned	567.46	18.54	30.46	41.09	45.36	50.07	52.92	51.46	50.48	47.85	21.70	15.16	14.72	18.80	31.19	40.25	44.01	48.52	50.96	49.61	48.06	46.07	21.45	15.92	15.90	15.37	7.62												
Monthly Achieved	567.46	9.73	32.65	26.06	20.88	12.41	24.87	32.26	36.70	29.31	40.79	16.07	14.46	6.47	15.81	17.27	13.84	18.11	14.63	18.04	8.45																		
Cumulative Planned	567.46	586.00	616.46	657.55	702.91	752.98	805.90	857.36	907.84	955.69	977.39	992.55	1007.27	1026.07	1057.25	1097.51	1141.51	1190.04	1241.00	1290.61	1338.66	1384.74	1406.18	1422.11	1438.01	1453.38	1461.00												
Cumulative Achieved	567.46	577.19	609.94	635.90	656.79	689.20	694.07	726.33	763.02	792.33	833.12	849.19	863.65	870.12	885.93	903.20	917.04	935.15	949.78	967.83	976.27																		
Monthly Planned (%)	38.8%	1.3%	2.1%	2.8%	3.1%	3.4%	3.6%	3.5%	3.5%	3.3%	1.5%	1.0%	1.0%	1.3%	2.1%	2.8%	3.0%	3.3%	3.5%	3.4%	3.3%	3.2%	1.5%	1.1%	1.1%	1.1%	0.5%												
Monthly Achieved (%)	38.8%	0.7%	2.2%	1.8%	1.4%	0.8%	1.7%	2.2%	2.5%	2.0%	2.8%	1.1%	1.0%	0.4%	1.1%	1.2%	0.9%	1.2%	1.0%	1.2%	0.6%																		
Cumulative Planned (%)	38.8%	40.1%	42.2%	45.0%	48.1%	51.5%	55.2%	58.7%	62.1%	65.4%	66.9%	67.9%	68.9%	70.2%	72.4%	75.1%	78.1%	81.5%	84.9%	88.3%	91.6%	94.8%	96.2%	97.3%	98.4%	99.5%	100.0%												
Cumulative Achieved (%)	38.8%	39.5%	41.7%	43.5%	44.95%	45.80%	47.51%	49.71%	52.23%	54.23%	57.02%	58.12%	59.11%	59.56%	60.64%	61.82%	62.77%	64.01%	65.01%	66.24%	66.82%																		

Note:- Due to force majeure event on account of 2nd wave of COVID -19 and due to problems/constraints at site on account of delay in process of obtaining permission for extraction of soil from the Borrow area and interruption in the supply of Pond Ash, the required progress could not be achieved.

**Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to 116.440 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode**  
**Fig. 03b- Physical Progress (Revised S-Curve) as per revised Target Agreement including EOT of 105 days + 90 days grace period**



Schedule	2020												2021												2022												2023		
	Dec 1	Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25	Jan 26	Feb 27												
Monthly Planned	35.89%	1.27%	2.08%	2.81%	3.11%	3.43%	3.62%	3.52%	3.46%	3.28%	1.93%	1.21%	1.18%	1.45%	2.24%	2.81%	3.01%	3.32%	3.49%	3.40%	3.29%	3.15%	1.78%	1.57%	1.50%	1.43%	0.78%												
Monthly Achieved	35.89%	0.66%	2.38%	1.66%	1.68%	0.55%	2.18%	2.62%	3.14%	2.29%	3.52%	1.08%	1.39%	0.27%	0.69%	0.92%	0.94%	2.01%	1.04%	1.01%	0.68%																		
Cumulative Revised Target	35.89%	37.16%	39.24%	42.06%	45.16%	48.59%	52.21%	55.73%	59.19%	62.46%	64.39%	65.60%	66.78%	68.23%	70.47%	73.28%	76.30%	79.62%	83.11%	86.50%	89.79%	92.94%	94.72%	96.29%	97.79%	99.22%	100.00%												
Cumulative Achieved	35.89%	36.55%	38.92%	40.59%	42.26%	44.81%	47.61%	49.73%	50.75%	53.04%	56.56%	57.65%	59.04%	59.30%	61.85%	63.86%	65.91%	68.04%	70.30%	72.78%	75.30%	77.96%	80.79%	83.79%	86.94%	90.22%	94.50%												

**Note:- Due to force majeure event on account of 2nd wave of COVID - 19 and due to problems/constraints at site on account of delay in process of obtaining permission for extraction of soil from the Borrow area and interruption in the supply of Pond Ash, the required progress could not be achieved.**



## 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's at Annaikarai Lab		
Sl. NO	EQUIPMENT LIST'S	QUANTITY
1	compression testing machine 2000 kN	1
2	cement mortar vibrating machine	1
3	AIV Apparatus	1
4	electronic weighing balance (50 kg)	1
5	electronic 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 <sup>2</sup> )	2
27	GI Tray ( 18 x24 x50 )	5
28	Enamel Tray ( medium)	4
29	Enamel Tray ( small)	6
30	spactula 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's at Meensurity Lab

Sl. NO	EQUIPMENT LIST'S	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
<b>Sl. NO</b>	<b>EQUIPMENT LIST'S</b>	<b>QUANTITY</b>
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
<b>Sl. NO</b>	<b>EQUIPMENT LIST'S</b>	<b>QUANTITY</b>
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	pycnometer 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 apparatus with accessories	1 Nos
45	field 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	standard 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 collar and base plate	60 Nos
62	Perforrated 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
<b>Sl. NO</b>	<b>EQUIPEMENT LIST'S</b>	<b>QUANTITY</b>
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 aprpratus 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 aprpratus	1 Nos
106	Needle Intial setting time for vicat needle aprpratus	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 August - 2022 are tabulated below:-

Four Laning of Sethiyahopu - Cholapuram 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.



Monthly Progress Report : Summary of Quality Control Report : Month of August - 2022

Sr. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month August 2022						Test conducted upto this month				
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Tested		Passed		Failed		No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	
								Concessi onarie	IE	Concessi onarie	IE	Concessi onarie	IE					
<b>1.0 Tests on OGL</b>																		
1.1	Grain size analysis	IS:2720 (Part4)	1 test / 250 meters	345	345	0	97	0	0	0	0	0	0	0	345	345	0	97
1.2	Atterberg Limits	IS:2720 (Part5)	1 test / 250 meters	345	345	0	97	0	0	0	0	0	0	345	345	0	97	
1.3	Proctor	IS:2720 (Part8)	1 test / 250 meters	345	345	0	97	0	0	0	0	0	0	345	345	0	97	
1.4	Free Swell index	IS:2720 (Part40)	1 test / 250 meters	345	338	7	97	0	0	0	0	0	0	345	338	7	97	
1.5	California bearing ratio	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>2.0 Borrow Area for EMB/Subgrade (MoRT&amp;H 305)</b>																		
2.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m <sup>3</sup>	1576	1576	0	855	20	10	20	10	0	0	1596	1596	0	865	
2.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m <sup>3</sup>	1576	1576	0	855	20	10	20	10	0	0	1596	1596	0	865	
2.3	Proctor	IS:2720 (Part8)	1 test /1500 m <sup>3</sup>	1576	1576	0	855	20	10	20	10	0	0	1596	1596	0	865	
2.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m <sup>3</sup>	1576	1576	0	855	20	10	20	10	0	0	1596	1596	0	865	
2.5	California bearing ratio	IS:2720 (Part16)	1 test /3000 m <sup>3</sup>	480	472	8	253	10	6	10	6	0	0	490	482	8	259	
2.6	Direct shear Test	IS:2720 (Part13)	1 test /3000 m <sup>3</sup>	293	290	3	150	10	6	10	6	0	0	303	300	3	156	
<b>3.0 Cutting portion &amp; Existing Portion for EMB/SG site sampling (MoRT&amp;H 305)</b>																		
3.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m <sup>3</sup>	87	85	2	45	0	0	0	0	0	0	87	85	2	45	
3.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m <sup>3</sup>	87	85	2	45	0	0	0	0	0	0	87	85	2	45	
3.3	Proctor	IS:2720 (Part8)	1 test /1500 m <sup>3</sup>	87	85	2	45	0	0	0	0	0	0	87	85	2	45	
3.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m <sup>3</sup>	87	85	2	45	0	0	0	0	0	0	87	85	2	45	
3.5	California bearing ratio	IS:2720 (Part16)	1 test /3000 m <sup>3</sup>	45	43	2	25	0	0	0	0	0	0	45	43	2	25	
3.6	Direct shear Test	IS:2720 (Part13)	1 test /3000 m <sup>3</sup>	1	1	0	1	0	0	0	0	0	0	1	1	0	1	
<b>4.0 Service Road</b>																		
4.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m <sup>3</sup>	27	27	0	20	0	0	0	0	0	0	27	27	0	20	
4.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m <sup>3</sup>	27	27	0	20	0	0	0	0	0	0	27	27	0	20	
4.3	Proctor	IS:2720 (Part8)	1 test /1500 m <sup>3</sup>	27	27	0	20	0	0	0	0	0	0	27	27	0	20	
4.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m <sup>3</sup>	27	27	0	20	0	0	0	0	0	0	27	27	0	20	
4.5	California bearing ratio	IS:2720 (Part16)	1 test /3000 m <sup>3</sup>	8	8	0	8	0	0	0	0	0	0	8	8	0	8	
4.6	Direct shear Test	IS:2720 (Part13)	1 test /3000 m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>5.0 Flyash For Embankment</b>																		
5.1	Liquid Limit & Plastic limit	TABLE-1	1 test /1500 m <sup>3</sup>	447	447	0	256	0	0	0	0	0	0	447	447	0	256	
5.2	Maximum Dry Density	Clause 5.2	1 test /1500 m <sup>3</sup>	447	447	0	268	0	0	0	0	0	0	447	447	0	268	
5.3	Grain size analysis	IS:2720 (Part4)	1 test /3000 m <sup>3</sup>	307	307	0	180	0	0	0	0	0	0	307	307	0	180	
5.4	Direct shear Test	IS:2720 (Part13)	1 test /3000 m <sup>3</sup>	202	202	0	113	0	0	0	0	0	0	202	202	0	113	



Sr. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month August 2022						Test conducted upto this month			
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Tested		Passed		Failed		No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE
								Concessi onarie	IE	Concessi onarie	IE	Concessi onarie	IE				
<b>6.0 Field Density Test (MoRT&amp;H 305)</b>																	
6.1	Field density (OGL)	IS:2720 (Part28)	1 test / 3000 sqm	4049	3929	120	1008	20	0	20	0	0	0	4069	3949	120	1008
6.2	EMB field density	IS:2720 (Part28)	1 test / 3000 sqm	89417	86573	2844	16661	731	109	710	100	21	9	90148	87283	2865	16770
6.3	SG field density	IS:2720 (Part28)	1 test / 2000 sqm	18171	17739	432	6293	256	30	256	30	0	0	18427	17995	432	6323
6.4	Shoulder field density	IS:2720 (Part28)	1 test / 2000 sqm	1053	1010	43	125	20	10	20	10	0	0	1073	1030	43	135
6.5	Ground improvement (Soil)	IS:2720 (Part28)	1 test / 2000 sqm	4178	4098	80	461	310	40	310	40	0	0	4488	4408	80	501
6.6	Ground improvement & Median filling (Flyash)	IS:2720 (Part28)	1 test / 2000 sqm	27856	27149	707	3921	1332	113	1290	110	42	3	29188	28439	749	4034
<b>7.0 Filter Media &amp; Back filling (MoRT&amp;H 2500)</b>																	
7.1	Gradation		As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.2	Backfilling field density		1 test /1000 m <sup>3</sup>	840	840	0	48	153	10	150	10	3	0	993	990	3	58
7.3	RE Wall field density		As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>8.0 Safe Bearing capacity of soil</b>																	
8.1	Free Swell index	IS:2720 (Part40)	As required	112	99	13	96	0	0	0	0	0	0	112	99	13	96
8.2	Grain size analysis	IS:2720 (Part4)	As required	112	105	7	96	0	0	0	0	0	0	112	105	7	96
8.3	Proctor	IS:2720 (Part8)	As required	112	105	7	96	0	0	0	0	0	0	112	105	7	96
8.4	Direct shear Test	IS:2720 (Part13)	As required	112	93	19	96	0	0	0	0	0	0	112	93	19	96
8.5	Bearing Capacity / Plate Load Test	IS:6403 / IS:1888	As required	110	56	54	66	0	0	0	0	0	0	110	56	54	66
<b>9.0 CTSB Mix Design/Site Frequency (MoRT&amp;H 403)</b>																	
9.1	Gradation	Table 400-4	1 test/400m <sup>3</sup>	1064	1064	0	406	27	12	27	12	0	0	1091	1091	0	418
9.2	Atterberg Limits	IS:2720 (Part5)	1 test/400m <sup>3</sup>	943	943	0	329	27	12	27	12	0	0	970	970	0	341
9.3	Proctor	IS:2720 (Part8)	As required	48	48	0	46	2	2	2	2	0	0	50	50	0	48
9.4	CBR Test or unconfined compressive strength test	IS:2720 (Part16)	As required	1	1	0	1	0	0	0	0	0	0	1	1	0	1
9.5	Quality of cement		Minimum 1 test/5 tons	2	2	0	2	0	0	0	0	0	0	2	2	0	2
9.6	Aggregate Impact value	IS:2386 (Part4)	As required	28	28	0	17	0	0	0	0	0	0	28	28	0	17
9.7	Field Density	IS:2720 (Part28)	1 set of 2 Test per 500 Sqm	6025	6025	0	3615	109	42	109	42	0	0	6134	6134	0	3657
9.8	Specific gravity & Water absorption	IS:2386 (Part2)	As required	2	2	0	2	0	0	0	0	0	0	2	2	0	2
9.9	Cubes	IRC SP 89 (2010)	1 set 400MT	2084	2084	0	741	33	23	33	23	0	0	2117	2117	0	764
<b>10.0 Granular Bedding Material (For Structures-Ground Improvement)- Mix Design</b>																	
10.1	Gradation	Table 400-1	1 test/400m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.2	Atterberg Limits	IS:2720 (Part5)	1 test/400m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.3	Proctor	IS:2720 (Part8)	As required	0	0	0	0	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	0	0	0	0
10.5	Aggregate Impact value	IS:2386 (Part4)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.6	Field Density	IS:2720 (Part28)	1 Test per 1000 Sq.m	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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								Concessi onarie	IE	Concessi onarie	IE	Concessi onarie	IE				
<b>11.0 Granular Bedding Material (For Structures-Ground Improvement)- Site Frequency</b>																	
11.1	Gradation	Table 400-1	1 test/400m <sup>3</sup>	3	3	0	3	0	0	0	0	0	0	3	3	0	3
11.2	Atterberg Limits	IS:2720 (Part5)	1 test/400m <sup>3</sup>	3	3	0	3	0	0	0	0	0	0	3	3	0	3
11.3	Proctor	IS:2720 (Part8)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.4	CBR Test	IS:2720 (Part1 6)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.5	Aggregate Impact value	IS:2386 (Part4)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.6	Field Density	IS:2720 (Part28)	1 Test per 1000 Sq.m	90	90	0	21	0	0	0	0	0	0	90	90	0	21
<b>12.0 WMM Mix Design</b>																	
12.1	Gradation	Table 400-3	1 test/200m <sup>3</sup>	61	61	0	61	17	5	17	5	0	0	78	78	0	66
12.2	Aggregate Impact Value	IS:2386 (Part4)	1 test/1000m <sup>3</sup>	13	13	0	13	13	3	13	3	0	0	26	26	0	16
12.3	Flakiness & Elongation index	IS:2386 (Part1)	1 test/500 m <sup>3</sup>	12	12	0	12	13	3	13	3	0	0	25	25	0	15
12.4	Atterberg Limits	IS:2720 (Part5)	1 test/200m <sup>3</sup>	12	12	0	12	17	5	17	5	0	0	29	29	0	17
12.5	Water absorption & Sp.Gravity	IS:2386 (Part2)	As required	8	8	0	8	0	0	0	0	0	0	8	8	0	8
12.6	Proctor	IS:2720 (Part8)	As required	4	4	0	4	1	1	1	1	0	0	5	5	0	5
12.7	CBR	IS:2720 (Part1 6)	As required	2	2	0	2	0	0	0	0	0	0	2	2	0	2
<b>13.0 WMM Site Frequency (MoRT&amp;H 406)</b>																	
13.1	Gradation	Table 400-3	1 test/200m <sup>3</sup>	735	735	0	284	0	0	0	0	0	0	735	735	0	284
13.2	Aggregate Impact Value	IS:2386 (Part4)	1 test/1000m <sup>3</sup>	422	422	0	159	0	0	0	0	0	0	422	422	0	159
13.3	Flakiness & Elongation index	IS:2386 (Part1)	1 test/500 m <sup>3</sup>	438	438	0	145	0	0	0	0	0	0	438	438	0	145
13.4	Atterberg Limits	IS:2720 (Part5)	1 test/200m <sup>3</sup>	698	698	0	250	0	0	0	0	0	0	698	698	0	250
13.5	Water absorption	IS:2386 (Part2)	As required	4	4	0	4	0	0	0	0	0	0	4	4	0	4
13.6	Proctor	IS:2720 (Part8)	As required	22	22	0	20	0	0	0	0	0	0	22	22	0	20
13.7	CBR	IS:2720 (Part1 6)	As required	1	1	0	1	0	0	0	0	0	0	1	1	0	1
13.8	Field Density	IS:2720 (Part28)	1 set Test per 1000 Sq.m / 3 pits	1558	1558	0	945	45	19	45	19	0	0	1603	1603	0	964
<b>14.0 Dense Bituminous Macadam (Grade - II)</b>																	
14.1	Bitumen Extraction & Gradation		1 Test/400MT	434	434	0	198	9	2	9	2	0	0	443	443	0	200
14.2	Combined Gradation	Table 500 - 18, Grad.II	1 Test/400MT	423	423	0	177	10	3	10	3	0	0	433	433	0	180
14.3	Individual Gradation Sets	Table 500 - 18, Grad.II	1 Test/400MT	422	422	0	180	10	3	10	3	0	0	432	432	0	183
14.4	Flakiness & Elongation index	MoRT&H Table 900 - 4	1 test/ 350 m <sup>3</sup>	276	276	0	121	10	3	10	3	0	0	286	286	0	124
14.5	Aggregate Impact Value	MoRT&H Table 900 - 4	1 test/ 350m <sup>3</sup>	323	323	0	141	10	3	10	3	0	0	333	333	0	144
14.6	Marshall Density	ASTM D 2726	1 Set/400MT	453	453	0	199	14	7	14	7	0	0	467	467	0	206
14.7	GMM	MoRT&H Table 900 - 4	1 Test/400MT	422	401	0	183	14	7	14	7	0	0	436	415	0	190
14.8	DBM Core Cutting	MoRT&H Table 900 - 4	1 Test/700M <sup>2</sup>	1275	1275	0	655	29	29	29	29	0	0	1304	1304	0	684
<b>Bitumen test (VG -40)</b>																	
14.9	Softening Point	IS: 1205 - 1978	1 Test/ 1 lot	217	217	0	93	4	2	4	2	0	0	221	221	0	95
14.10	Penetration	IS: 1205 - 1978	1 Test/ 1 lot	217	217	0	93	4	2	4	2	0	0	221	221	0	95
14.11	Viscosity	IS: 1205 - 1978	1 Test/ 1 lot	217	217	0	93	4	2	4	2	0	0	221	221	0	95

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								Concessi onarie	IE	Concessi onarie	IE	Concessi onarie	IE				
<b>15.0 Bituminous Concrete (Grade - II) PMB MCW</b>																	
15.1	Bitumen Extraction & Gradation	IRC SP 11	1 Test/400MT	235	235	0	124	0	0	0	0	0	0	235	235	0	124
15.2	Combined Gradation	Table 500 - 17, Grad.II	1 Test/400MT	238	238	0	141	0	0	0	0	0	0	238	238	0	141
15.3	Individual Gradation Sets	Table 500 - 17, Grad.II	1 Test/400MT	238	238	0	141	0	0	0	0	0	0	238	238	0	141
15.4	Flakiness & Elongation index	MoRT&H Table 900 - 4	1 test/350 m <sup>3</sup>	119	119	0	58	0	0	0	0	0	0	119	119	0	58
15.5	Aggregate Impact Value	MoRT&H Table 900 - 4	1 test/350m <sup>3</sup>	121	121	0	60	0	0	0	0	0	0	121	121	0	60
15.6	Marshall Density	ASTM D 2726	1 Set/400MT	234	234	0	116	0	0	0	0	0	0	234	234	0	116
15.7	GMM	MoRT&H Table 900 - 4	1 Test/400MT	234	234	0	116	0	0	0	0	0	0	234	234	0	116
15.8	BC Core Cutting	MoRT&H Table 900 - 4	1 Test/700M <sup>2</sup>	941	941	0	414	0	0	0	0	0	0	941	941	0	414
<b>16.0 Bituminous Concrete (Grade - II) VG-40 S/R</b>																	
16.1	Bitumen Extraction & Gradation	IRC SP 11	1 Test/400MT	46	46	0	19	4	1	4	1	0	0	50	50	0	20
16.2	Combined Gradation	Table 500 - 17, Grad.II	1 Test/400MT	43	43	0	18	4	1	4	1	0	0	47	47	0	19
16.3	Individual Gradation Sets	Table 500 - 17, Grad.II	1 Test/400MT	43	43	0	18	4	1	4	1	0	0	47	47	0	19
16.4	Flakiness & Elongation index	MoRT&H Table 900 - 4	1 test/350 m <sup>3</sup>	27	27	0	12	2	1	2	1	0	0	29	29	0	13
16.5	Aggregate Impact Value	MoRT&H Table 900 - 4	1 test/350m <sup>3</sup>	27	27	0	12	2	1	2	1	0	0	29	29	0	13
16.6	Marshall Density	ASTM D 2726	1 Set/400MT	43	43	0	18	4	1	4	1	0	0	47	47	0	19
16.7	GMM	MoRT&H Table 900 - 4	1 Test/400MT	43	43	0	18	4	1	4	1	0	0	47	47	0	19
16.8	BC Core Cutting	MoRT&H Table 900 - 4	1 Test/700M <sup>2</sup>	186	186	0	86	14	14	14	14	0	0	200	200	0	100
<b>Bitumen test (PMB)</b>																	
16.9	Softening Point	IS: 1205 - 1978	1 Test/ 1 lot	143	143	0	61	3	1	3	1	0	0	146	146	0	62
16.10	Elastic recovery	IS: 15462 - 2019	1 Test/ 1 lot	143	143	0	61	3	1	3	1	0	0	146	146	0	62
<b>17.0 Prime Coat</b>																	
17.0	Rate of Spread of Binder		Three tests per day	982	982	0	455	0	0	0	0	0	0	982	982	0	455
<b>17.1 Emulsion Test (SS-1)</b>																	
17.1	Say bolt Viscometer	IS: 8887-2004	1 Test/ 1 lot	5	5	0	3	0	0	0	0	0	0	5	5	0	3
<b>17.2 Tack Coat</b>																	
17.2	Rate of Spread of Binder		Three tests per day	1151	1151	0	458	30	0	30	0	0	0	1181	1181	0	458
<b>17.3 Emulsion Test (RS-1)</b>																	
17.3	Say bolt Viscometer	IS: 8887-2004	1 Test/ 1 lot	7	7	0	5	0	0	0	0	0	0	7	7	0	5
<b>18.0 Fine Aggregate (MoRT&amp;H 1008)</b>																	
18.1	Gradation/ Sieve analysis	IS:2386 (Part1)	1 test per day	2091	2091	0	709	34	9	34	9	0	0	2125	2125	0	718
18.2	Specific gravity & Water absorption	IS:2386 (Part3)	As required	16	16	0	15	0	0	0	0	0	0	16	16	0	15
18.3	Fineness Modulus	MoRT&H Sec. 1008 & 383	1 test per day	1949	1949	0	637	34	9	34	9	0	0	1983	1983	0	646
18.4	Alkali aggregate reactivity test	IS:2386 (Part-7)IS: 456	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.5	Deleterious material/silt	IS:2386 (Part2)	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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								Concessi onarie	IE	Concessi onarie	IE	Concessi onarie	IE				
<b>19.0 Coarse Aggregate (MoRT&amp;H 1007)</b>																	
19.1	Gradation	IS:2386 (Part1)	1 test per day	2005	1989	0	709	34	9	34	9	0	0	2039	2023	0	718
19.2	Specific gravity & Water absorption	IS:2386 (Part3)	As required	18	18	0	15	0	0	0	0	0	0	18	18	0	15
19.3	Aggregate Impact Value	IS:2386 (Part4)	1 test / each source & monthly	528	528	0	243	8	4	8	4	0	0	536	536	0	247
19.4	Flakiness index	IS:2386 (Part1)	1 test / each source & monthly	498	498	0	230	8	0	8	0	0	0	506	506	0	230
19.5	Soundness	IS:2386 (Part5)	As required	2	2	0	2	0	0	0	0	0	0	2	2	0	2
19.6	Alkali aggregate reactivity test	IS:2386 (Part-7)IS: 456	1 test per source	2	2	0	2	0	0	0	0	0	0	2	2	0	2
19.7	Deleterious constituents	IS:2386 (Part2)	1 test per source	2	2	0	2	0	0	0	0	0	0	2	2	0	2
19.8	Petrographic Examination	IS:2386 (Part8)	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>20.0 Cement (MoRT&amp;H 1006)</b>																	
20.1	Chemical test / Physical test	IS:4031, 4032	1 test per source	14	14	0	9	0	0	0	0	0	0	14	14	0	9
20.2	Fineness	IS:4031 (Part1)	Every batch	580	580	0	268	6	2	6	2	0	0	586	586	0	270
20.3	Normal Consistency	IS:4031 (Part4)	Every batch	552	552	0	268	6	2	6	2	0	0	558	558	0	270
20.4	Initial & Final setting time	IS:4031 (Part5)	Every batch	552	552	0	268	6	2	6	2	0	0	558	558	0	270
20.5	Soundness of Cement	IS:4031 (Part3)	Every batch	496	496	0	234	6	2	6	2	0	0	502	502	0	236
20.6	Compressive Strength-set	IS:4031 (Part6)															
	3 days		1 test per Lot	509	509	0	227	8	2	8	2	0	0	517	517	0	229
	7 days		1 test per Lot	500	496	0	213	8	2	8	2	0	0	508	504	0	215
	28 days		1 test per Lot	496	496	0	209	9	2	9	2	0	0	505	505	0	211
<b>21.0 Concrete Cube Strength</b>																	
<b>M15 PCC</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	745	745	0	272	4	1	4	1	0	0	749	749	0	273
	28Days Compressive Strength			1281	1281	0	516	15	6	15	6	0	0	1296	1296	0	522
<b>M20 KERB</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	328	358	0	78	8	0	8	0	0	0	336	366	0	78
	28Days Compressive Strength			834	804	0	203	36	4	36	4	0	0	870	840	0	207
<b>M20 RCC</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	378	378	0	109	0	0	0	0	0	0	378	378	0	109
	28Days Compressive Strength			751	751	0	248	0	0	0	0	0	0	751	751	0	248
<b>M20 PCC</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	35	35	0	16	0	0	0	0	0	0	35	35	0	16
	28Days Compressive Strength			37	37	0	15	0	0	0	0	0	0	37	37	0	15
<b>M25 RCC</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	61	61	0	15	7	2	7	2	0	0	68	68	0	17
	28Days Compressive Strength			112	112	0	67	2	1	2	1	0	0	114	114	0	68

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								Concessi onarie	IE	Concessi onarie	IE	Concessi onarie	IE				
<b>M30 RCC</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	849	849	0	293	5	1	5	1	0	0	854	854	0	294
	28Days Compressive Strength			1378	1378	0	516	26	20	26	20	0	0	1404	1404	0	536
<b>M30 RCC PUMPABLE</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	146	146	0	63	12	0	12	0	0	0	158	158	0	63
	28Days Compressive Strength			350	350	0	172	33	16	33	16	0	0	383	383	0	188
<b>M35 RCC</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	393	393	0	191	2	0	2	0	0	0	395	395	0	191
	28Days Compressive Strength			809	809	0	412	0	0	0	0	0	0	809	809	0	412
<b>M35 PILING</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	987	987	0	518	0	0	0	0	0	0	987	987	0	518
	28Days Compressive Strength			2919	2919	0	1560	5	5	5	5	0	0	2924	2924	0	1565
<b>M35 RCC PUMPABLE</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	1256	1256	0	528	34	1	34	1	0	0	1290	1290	0	529
	28Days Compressive Strength			3762	3689	0	1770	114	86	114	86	0	0	3876	3803	0	1856
<b>M35 RE BLOCK</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	792	792	0	228	0	0	0	0	0	0	792	792	0	228
	28Days Compressive Strength			2270	2270	0	728	0	0	0	0	0	0	2270	2270	0	728
<b>M40 PUMP &amp; M40 RCC</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	950	950	0	367	17	2	17	2	0	0	967	967	0	369
	28Days Compressive Strength			2079	2079	0	833	26	18	26	18	0	0	2105	2105	0	851
<b>M40 PQC</b>																	
	7 Days Flexural Strength	As Per IS: 516	As Per IS: 516	12	12	0	12	0	0	0	0	0	0	12	12	0	12
	28 Days Flexural Strength			30	30	0	30	0	0	0	0	0	0	30	30	0	30
	7 Days Compressive Strength	As Per IS: 516	As Per IS: 516	12	12	0	12	0	0	0	0	0	0	12	12	0	12
	28 Days Compressive Strength			30	30	0	30	0	0	0	0	0	0	30	30	0	30
<b>M40 PILING</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	306	306	0	92	0	0	0	0	0	0	306	306	0	92
	28Days Compressive Strength			997	997	0	271	0	0	0	0	0	0	997	997	0	271
<b>M45 PUMP</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	429	429	0	186	4	0	4	0	0	0	433	433	0	186
	28Days Compressive Strength			1080	1080	0	425	21	10	21	10	0	0	1101	1101	0	435
<b>M50 RCC PUMP</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	19	19	0	12	0	0	0	0	0	0	19	19	0	12
	28Days Compressive Strength			29	29	0	23	0	0	0	0	0	0	29	29	0	23
<b>M60 PUMP</b>																	
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	621	621	0	204	11	4	11	4	0	0	632	632	0	208
	28Days Compressive Strength			2133	2133	0	665	24	12	24	12	0	0	2157	2157	0	677

**PATEL SETHIYAHOPU CHOLOPURAM HIGHWAY PVT. LTD.**

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

**STATUS OF NCR**

SI No	NCR NO	Date	Location		Description of NCR	NCR Issued reference	Concessionaire Reply Reference	NCR Closed Reference	Remarks
			From	To					
1	NCR - 01	30.01.2019	Box Culver at Km:76+390 (LHS)		Improper Ground Improvement for Box culver at Km:76+390	Lr.No.221_30.01.2019	Lr.No.280_14.02.2019	Lr.No.258_20.03.2019	Closed
2	NCR - 02	23.05.2019	Minor Bridge at Km:79+795 (LHS)		a) Improper compaction/vibration f Abtment -1 wall 2nd lift lead to honey combs. b) No cover to the reinforcement in Abutment -1 wall 2nd lift	Lr.No.304_23.05.2019	Lr.No.956_13.08.2021	Lr.No.630A_13.08.2021	Closed
3	NCR - 03	23.05.2019	Abutment A2 of Minor Bridge at Km:85+435 (LHS)		Improper alignment (plumb) of Abutment-2 wall 2nd lift	Lr.No.305_23.05.2019	Lr.No.958_15.08.2021	Lr.No.631A_21.08.2021	Closed
4	NCR - 04	23.05.2019	Pile cap for Abutment A2 of VUP at Km.102+975 LHS		Honey combs in Pile cap for Abutment A2 of VUP at Km.102+975 LHS	Lr.No.306_23.05.2019	Lr.No.959_15.08.2021	Lr.No.632A_31.08.2021	Closed
5	NCR - 05	15.11.2019	HW between Km:93+900 to Km.94+200 (RHS)		Rectification required in Median kerb	Lr.No.403_15.11.2019 Lr.No.478_09.07.2020	Lr.No.1008_22.11.2021	Lr.No.646_26.11.2021	Closed
6	NCR - 06	13.12.2019	HW between Km:82+850 to Km.82+970 (RHS)		WMM segregation	Lr.No.429_13.12.2019	Lr.No.786_23.12.2020	Lr.No.551_29.01.2021	Closed
7	NCR - 07	09.07.2020	Diversion road damaged at Km:97+300 to Km:97+600		Diversion road damaged	Lr.No.476_09.07.2020	Lr.No.727_02.10.2020	Lr.No.509_14.10.2020	Closed
8	NCR - 08	23.07.2020	95+990 to 96+100(RHS) 96+230 to Km:96+300(RHS)		Improper laying of Kerb and not as per approved drawings	Lr.No.482_23.07.2020	Lr.No.1009_22.11.2021	Lr.No.647_26.11.2021	Closed
9	NCR - 09	31.07.2020	96+300 to 96+400(RHS)		Kerb mould is not as per the approved drawings	Lr.No.484_31.07.2020	Lr.No.1010_22.11.2021	Lr.No.648_27.11.2021	Closed
10	NCR - 10	18.08.2020	96+100 to 96+220(RHS)		Kerb mould is not as per the approved drawings	Lr.No.489_18.08.2020	Lr.No.1011_22.11.2021	Lr.No.649_29.11.2021	Closed
11	NCR - 11	12.11.2020	Km.83+950 to Km.84+100		Excavated Embankment fill and used in Subgrade layer	Lr.No.523_12.11.2020	Lr.No.774_02.12.2020	Lr.No.552_29.01.2021	Closed
12	NCR - 12	02.12.2021	Km.83+940 to Km.84+080 (LHS)		Median kerb laying is not in line and level	Lr.No.531_02.12.2021	Lr.No.1012_22.11.2021	Lr.No.650_29.11.2021	Closed
13	NCR - 13	03.04.2021	Box Culvert at Km:77+766 (LHS)		Box Culvert without proper shuttering and reinforcement exposed.	Lr.No.587_03.04.2021	Lr.No.888_12.05.2021	Lr.No.597A_12.05.2021	Closed
14	NCR - 14	05.05.2021	RE wall of VUP at Km:90+580		Unsuitable soil is used in RE wall embankment filling at Km:90+580 (VUP)	Lr.No.596_05.05.2021	Lr.No.892_18.05.2021	Lr.No.603_22.06.2021	Closed

## 7. Weather Report -Meensuritti

DATE	Temperature (°C)		Rainfall in mm	Humidity in %		Remarks
	Max	Min		Max	Min	
01.08.2022	39.4	28.2	0.00	80	51	Sunny
02.08.2022	39.2	28.1	5.00	84	50	Rainy
03.08.2022	38.9	27.5	0.00	86	44	Sunny
04.08.2022	39.2	26.5	20.00	90	45	Rainy
05.08.2022	39.7	27.0	0.00	80	47	Sunny
06.08.2022	40.1	28.1	0.00	70	49	Sunny
07.08.2022	40.7	29.4	0.00	64	52	Sunny
08.08.2022	41.2	28.8	0.00	70	50	Sunny
09.08.2022	39.9	29.5	0.00	65	49	Sunny
10.08.2022	40.0	29.8	0.00	63	50	Sunny
11.08.2022	40.7	30.2	0.00	61	52	Sunny
12.08.2022	39.8	29.2	0.00	67	55	Sunny
13.08.2022	40.2	30.0	0.00	69	53	Sunny
14.08.2022	41.3	29.5	0.00	65	50	Sunny
15.08.2022	40.9	29.7	0.00	67	54	Sunny
16.08.2022	42.0	30.1	0.00	70	50	Sunny
17.08.2022	39.7	29.8	0.00	77	49	Sunny
18.08.2022	39.7	29.5	35.00	68	51	Rainy
19.08.2022	38.9	27.6	0.00	70	48	Sunny
20.08.2022	39.8	27.4	0.00	72	51	Sunny
21.08.2022	40.1	29.3	0.00	74	52	Sunny
22.08.2022	39.6	29.2	6.00	77	50	Rainy
23.08.2022	37.2	27.8	53.00	72	52	Rainy
24.08.2022	39.1	27.2	0.00	87	51	Sunny
25.08.2022	39.7	28.6	0.00	79	52	Sunny
26.08.2022	39.4	28.4	0.00	75	55	Sunny
27.08.2022	39.7	27.4	10.00	80	54	Rainy
28.08.2022	39.5	27.8	0.00	79	52	Sunny
29.08.2022	40.1	27.6	0.00	82	49	Sunny
30.08.2022	40.7	29.4	0.00	84	52	Sunny
31.08.2022	35.7	28.9	40.00	82	60	Rainy

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## Weather Report Anakarai

DATE	Temperature (°C)		Rainfall in mm	Humidity in %		Remarks
	Max	Min		Max	Min	
01.08.2022	35.4	24.6	3.00	72	40	Rainy
02.08.2022	36.1	24.2	0.00	73	41	Sunny
03.08.2022	34.8	26.6	0.00	75	38	Sunny
04.08.2022	34.2	24.8	0.00	72	41	Sunny
05.08.2022	36.3	26.8	0.00	76	40	Sunny
06.08.2022	35.8	25.4	0.00	73	39	Sunny
07.08.2022	36.5	26.2	0.00	75	41	Sunny
08.08.2022	38.2	27.4	0.00	74	40	Sunny
09.08.2022	37.8	26.7	0.00	75	40	Sunny
10.08.2022	36.2	25.9	0.00	72	38	Sunny
11.08.2022	37.8	27.2	0.00	73	41	Sunny
12.08.2022	37.4	26.1	0.00	72	42	Sunny
13.08.2022	38.4	27.8	0.00	74	39	Sunny
14.08.2022	38.1	25.2	0.00	72	37	Sunny
15.08.2022	37.2	22.3	0.00	75	38	Sunny
16.08.2022	37.7	26.2	0.00	75	40	Sunny
17.08.2022	38.2	25.4	0.00	76	41	Sunny
18.08.2022	38.4	25.6	16.40	75	42	Rainy
19.08.2022	37.4	24.3	0.00	73	41	Sunny
20.08.2022	37.8	24.7	0.00	72	42	Sunny
21.08.2022	38.4	25.3	5.50	74	44	Rainy
22.08.2022	36.7	22.6	14.50	75	41	Rainy
23.08.2022	34.8	23.7	48.30	73	38	Rainy
24.08.2022	37.7	24.4	0.00	74	42	Sunny
25.08.2022	37.4	23.8	0.00	73	41	Sunny
26.08.2022	38.0	24.3	0.00	73	40	Sunny
27.08.2022	38.1	25.1	0.00	75	42	Sunny
28.08.2022	36.7	24.3	4.50	75	43	Rainy
29.08.2022	37.8	24.2	12.40	73	41	Rainy
30.08.2022	38.3	27.6	0.00	73	39	Sunny
31.08.2022	37.7	26.3	12.70	74	41	Rainy

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- 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 Cuddalore, Ariyalur & Thanjavur District. – Request Authority to advise/instruct the Competent Authority of Land Acquisition to speed up the process of disbursement of pending payment.
2. Additional land acquisition for toll plaza, bus bays, turning radius of major junctions along the project highways.
3. Finalization of Toll plaza location.
4. NOC from PWD/WRO, Govt of Tamil Nadu for construction of Minor Bridge and Major Bridge 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	2	2	
	<b>Total</b>	<b>30</b>	<b>30</b>	<b>15</b>	<b>15</b>	

5. 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.
6. Payment disbursement and necessary clearances required for removal of religious and Govt. buildings.
7. NOC from PWD/WRO, Govt. of Tamil Nadu for construction of project highways in the existing ponds (in a length of 1.702 Kms).

Sl No	Chainage		Length Affected (M)	Side	AVG Toe Width from CL "A"	Width/distance of Pond Edge from CL "C"
	From	To				
1	75+557	75+632	74.75	RHS	32.50	7.00
2	77+330	77+400	70.00	LHS	28.16	3.00
3	78+404	78+422	17.90	LHS	16.00	9.50
4	80+396	80+415	19.00	LHS	27.00	7.00
5	80+400	80+423	23.00	RHS	24.00	6.50
6	81+356	81+416	60.30	LHS	18.00	9.00
7	81+760	81+835	75.00	LHS	14.30	2.00
8	90+804	90+837	32.77	RHS	32.00	12.80
9	97+376	97+551	175.00	RHS	32.67	11.00
10	97+822	97+845	23.00	RHS	27.50	7.80
11	99+961	100+020	59.70	RHS	25.00	17.28

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12	100+350	100+389	39.00	LHS	22.70	4.00
13	100+800	100+845	44.70	RHS	23.00	12.25
14	100+731	100+854	123.75	LHS	23.00	5.00
15	103+039	103+056	17.60	LHS	23.00	6.60
16	103+125	103+435	310.10	LHS	23.00	6.00
17	103+822	103+846	24.00	LHS	23.20	5.20
18	104+091	104+262	171.00	RHS	23.00	16.80
19	103+992	104+264	271.50	LHS	23.00	10.90
20	114+547	114+617	70.00	LHS	20.62	0.00
<b>Total Length affected (in M)</b>			<b>1702.1</b>			

## 8. 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	81+850	9.3m	To be shifted to edge of PROW	Deposit Amount remitted to PWD/WRO. Work yet to be commenced.
2	81+870	1.8m	To be shifted to edge of PROW	
3	81+910	1.8m	To be shifted to edge of PROW	
4	82+010	1.8m	To be shifted to edge of PROW	
5	82+100	7.4m	To be shifted to edge of PROW	
6	103+990	5.97m	To be shifted to edge of PROW	Estimate received from BDO. Approval pending with Authority

## 9. Removal of Religious structures and Bus stand from the proposed ROW.

SL No	Chainage	Type of Structure	Side	Distance from PCL (M)	TCS Type	Formation Width Required from PCL	ROW From PCL	Remarks
<b>Priority I – Obstruction of Main Carriage way &amp; Service Road :-</b>								
1.	86+350	Temple	LHS	7	Type - B with SR 7.5	21.25	26.10	
2.	92+455	Temple	LHS	14	Type - A3	18.80	23.70	
<b>Priority II – Obstruction of Service Road :-</b>								
1.	75+650	Temple	RHS	15	Fig -7.8 with SR 5.5	22.75	25.50	
2.	80+125	Temple	RHS	16	Type -A3	20.80	23.50	
3.	83+615	Temple	RHS	16	Type - B with SR 7.5	21.25	21.25	
4.	84+070	Temple	LHS	16	Type - B with SR 7.5	21.25	29.00	
5.	86+280	Temple	RHS	23	Type - B with SR 7.5	21.25	30.00	

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6.	86+390	Temple	LHS	18	Type - B with SR 7.5	21.25	26.10	
<b>Priority III – Falling Within ROW and effecting the Utility shifting works:-</b>								
1.	76+600	Temple	RHS	24.5	Type - B with SR 7.5	21.25	31.10	
2.	99+710	Temple	LHS	20	Type - A3	17.95	25.00	

10. Removal of Government Buildings

11. Removal of unauthorized occupations in 38 nos. in Cuddalore dist. & 32 nos. in Ariyalur dist. in the project highways.

12. Revised Estimates for Electrical Shifting due to non-available of vertical clearance – Request Authority for earlier Approval.

13. Estimate for shifting of water supply utilities in Missing locations-Request Authority for earlier Approval.

14. With reference to our several correspondence time to time vide which we intimated the matter of enforced nationwide lockdown as well as its impact on the Project Highway, the World Health Organization (WHO) on 11th March' 2020 had characterized the Novel Coronavirus Disease (COVID-19) outbreak as a global Pandemic. In view of the WHO's announcement and over all prevailing condition of the nation, the Union Government of India (GOI) had invoked section 2 of Epidemic Disease Act 1897 on 12.03.2020 to prevent the spread of novel coronavirus in India. Accordingly, the State Government of Tamilnadu has enforced complete lockdown of the entire state from 24.03.2020 to 31.03.2020 to avoid the spread of COVID-19. Subsequently, The Ministry of Home Affairs (MHA) vide Order No. 40-3/2020-DM-I(A), dated 24.03.2020 directed to enforce complete nationwide lockdown for the period of 21 days from 25.03.2020 to 14.04.2020.

Further, based on the outcome of COVID-19 spread containment during 1st nationwide lockdown till 14<sup>th</sup> April' 2020 & condition of country as a whole, Ministry of Home Affairs (MHA), Govt. of India in exercise of powers conferred under Section 10(2)(I) of Disaster Management Act 2005, has issued an Order bearing no. 40-3/2020-DM-I(A), dated 15.04.2020 that the nationwide lockdown will remain continue till 3rd May' 2020 to contain the spread of COVID-19 in the country. However, to mitigate hardship of the public select additional activities will be allowed with effect from 20th April' 2020 including Road Construction Activities as per sr. no. 16 of Consolidated Revised Guidelines on the measures to be taken by Ministries / Departments of GOI, State/ UT Govt. and State/ UT Authorities incorporating these guidelines are enclosed with the MHA order.

Accordingly, we have submitted the detailed work program during the extended lock down period up to 03.05.2020 along with the list of Manpower & Machineries to be involved in the Construction work to take suitable action for the issuance of necessary permission from District Administration in this regard. Further, vide our letter no. 12 dated 23.04.2020 we informed that Press released no. 280 dated 20.04.2020 issued by Government of Tamilnadu that Government of Tamilnadu had instructed to continue to enforce all the existing restrictions issued by MHA order dated 24.03.2020 during extended lock down period i.e. up to 03.05.2020.

Further, vide our letter no. 16 dated 08.05.2020 & 19 dated 20.05.2020 we informed that Government of Tamilnadu had instructed to continue to enforce all the existing restrictions issued by MHA order dated 24.03.2020 during extended lock down period i.e. up to 31.05.2020. After that, a notification issued by Revenue and Disaster Management (D-II) Department, Govt. of Tamilnadu bearing no. 203 dated 23.04.2020 vide which it is informed that resumption of construction of road & bridge project can be done with taking all precaution as per Standard Operating Procedure (SOPs) for social distancing and obtain permission from District Administration.

But so far we have not received the requisite permission from the District Administration for commencement of works and the entire construction activities are standstill since 21.03.2020 and the mobilised manpower and machineries are in idle conditions which the Concessionaire facing the huge losses of valuable time and cost due to occurrence of this Force Majeure under the Article-28 of Concession Agreement. Furthermore, we also notified in our earlier correspondence that Ministry of Home Affairs, Govt. of India vide their order dated 29.04.2020 allowed the movement of stranded migrant workers to their home town and subsequently, Local officials of District Administration are now approaching to our staff/ labours directly & taking their willingness for movement to their home town. Due to this and havoc of spreading of coronavirus, our workers and labours are putting their voice/desire for roaming to their home town. Based on prevailing situation and circumstances thereto & on human ground we could not restrict them from going to their home town and many migrant labours/ staffs have registered their name for the movement to their home town.

Further, Concessionaire has also reported that order dated 31.05.2020 issued by Health and Family Welfare (P1) Department, Government of Tamilnadu vide which they notified that state of Tamilnadu has been divided into 8 zones and issued additional guidelines for strict adherence on movement of person/ vehicle, testing & quarantine strategies for management of COVID-19 in the state.

After that Government of India has announced "Unlock 1.0" in entire country except containment zones but Government of Tamilnadu has instructed to extended all restrictions issued vide additional guidelines for strict adherence on movement of person/ vehicle, testing & quarantine strategies for management of COVID-19 in the state.

In addition to that due to surge of cases of COVID-19 in State of Tamilndau, Government of these states has given instruction to compulsory quarantine period of 14 days for passenger/ people who are coming in the state from another state.

Thus, Concessionaire started construction activities in Project Highway after getting permission from District Administration as well as tried to get momentum of the Progress of work as like they have on 20.03.2020 but they are facing lots of challenges like non-availability of desired nos. of skilled labours, non-availability of desired staff for operation of our machineries, non-availability of spare parts in local market due to disturbance of supply chain, due to enforcement of 14 days Quarantine as per Govt. norms labours are also not willing to come back to work considering upcoming Monsoon season, etc. which are beyond the control of Concessionaire.

15. Unprecedented heavy rain affected the construction activities in the project highway due to the occurrence & effect of severe cyclonic storm NIVAR on 25.11.2020.

16. The second wave of COVID-19 in India appears to be ascending faster than the first wave that peaked in mid-September last year Nevertheless, India is already leading the world in

terms of average daily cases detected and registers the third-highest average daily deaths. The whole country is facing big difficulties and struggling for the survival of human life. The impact of this event is an extremely painful and great loss to the nation. Looking to such an uncontrolled situation, Supreme Court intervened on 22.04.2021 and asked for the national plan for COVID-19 with the central Government and took own cognizance of what it called a national health emergency situation. The Health System has been collapsed due to the severe scarcity of oxygen. The spread of Coronavirus cases in Tamil Nadu right now is so fast, that it took only half the duration to overtake the daily infection peak number reported in the first wave.

Due to many restrictions in persisting conditions arise due to occurring of 2<sup>nd</sup> wave of Extra ordinary event COVID-19, the supply chain of required material is being disturbed and not in smooth shape which leads to hampering the work progress during this valuable working season. Due to surge in cases of 2<sup>nd</sup> wave of COVID-19 drastically day by day and additional lockdown like restriction imposing by State Government, migrants labours are leaving the state and going to their native place under the fear of prevailing situation. Further migrants labours who were gone their home at Holi Festival are not returning back due to fear and precarious situation of the spike of COVID-19 pandemic. Due to this condition, we are facing acute shortage of labour/operator/driver for the construction activities in Project Highway and work is being affected because of the impediments beyond the control of the Concessionaire. It is also pertaining to mention that despite taking all necessary precaution and follow the safety guidelines of COVID-19, unfortunately, our many manpower including senior-level deployed at in Project i.e. Sethiyahopu- Cholapuram Section have been infected by COVID-19 and our both base camp (i.e. Meensuruti Base Camp & Anakarai Base Camp) have been sealed by the Block Medical officer, Govt. Community Health Center, Ariyalur despite that incident was beyond our control.

17. COVID-19 cases due to 3<sup>rd</sup> wave is being drastically increased and occurring never-seen before spikes in infected cases of COVID-19 day by day. You may also aware that in our country 3.47 Lakh new cases in a day have been recorded on 20.01.2022, which is already bigger than the peak of the first wave of this pandemic in India and continuously increasing day by day.

It clearly shows that the 3<sup>rd</sup> wave of COVID-19 is spreading rapidly. It is also pertinent to mention that in Tamil Nadu 28,561 cases in a day have been recorded on 20.01.2022 (for reference, the highest number of cases per day in Tamil Nadu during the peak of 2<sup>nd</sup> wave was 36,184 cases per day on 21<sup>st</sup> May 2021) and continuously increasing day by day

In view of rising daily cases of the coronavirus disease (Covid-19), the Tamil Nadu government has imposed a complete lockdown in the state on Sunday (January 16, 2022) in view of the rising Covid-19 cases. The state government has been reimposing a Sunday lockdown in the state since January 9. The Tamil Nadu government had also extended the existing Covid-19 lockdown restrictions, including night curfew and imposed fresh restrictions around the Pongal festival till January 31. The city of Thanjavur has been continuing to report majority of cases in Tiruchirapalli region along with Tiruchi. This is the first time such a high number has been reported after the second wave in May 2021.

## 10. Important Events

Table 10.1. Details of Important Events

Sl. No	Date of Events	Description of Events	Remarks
1	24.08.2022	Progress review meeting by RO Madurai	

## 11. Organization Chart

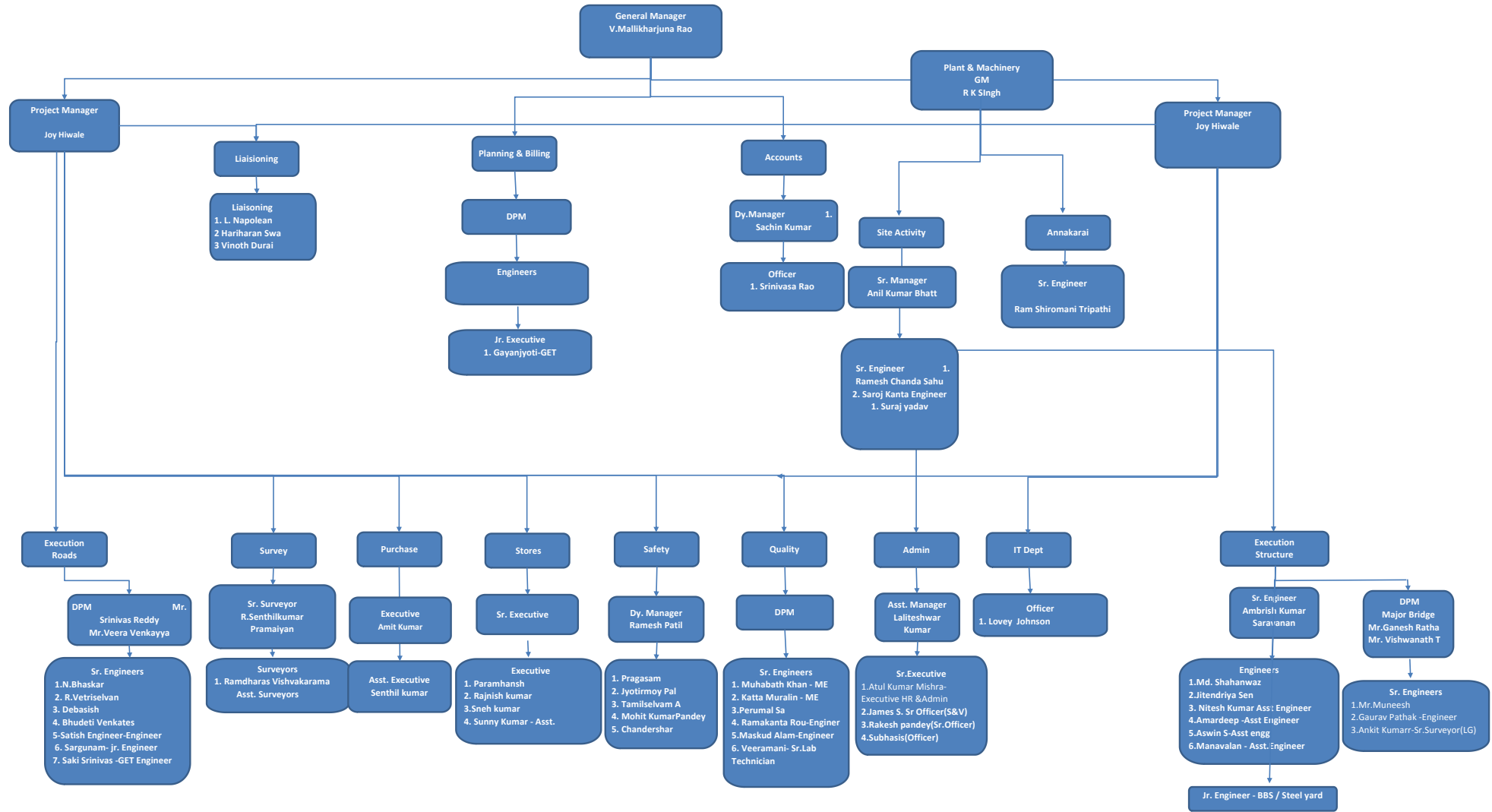
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The following figures represents the organization structure of the EPC and SPV Team.

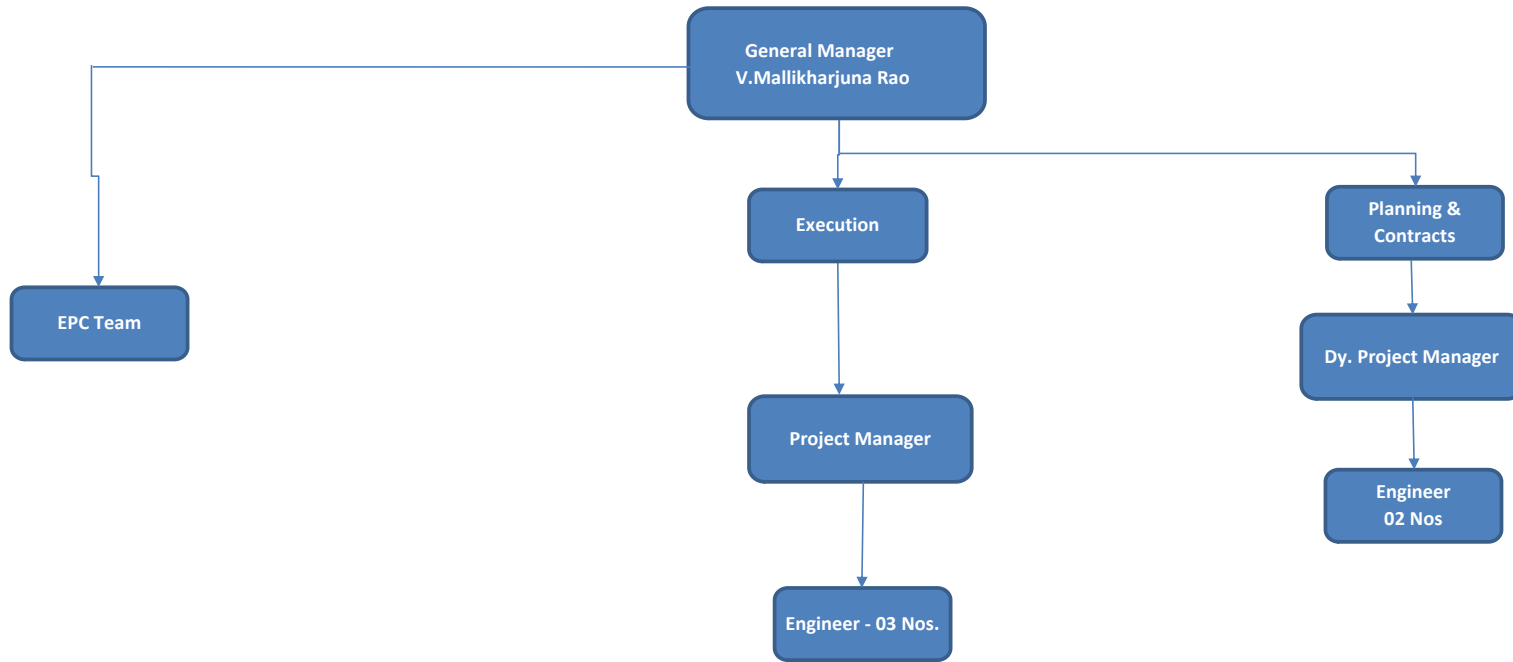
1. Fig. 4 - Organization Chart - EPC Team
2. Fig. 5 - Organization Chart - SPV Team



### ORGANIZATION CHART - EPC TEAM



# 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	13	
3	Dozer		4	
4	Soil Compactor	HAMM 311	8	
5	Backhoe Loader	JCB 3DX	8	
6	Tipper	Bharat Benz- 3128C	310	
7	Transit Mixture	2523C	12	
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	
13	Wet Mix Plant	250 TPH	1	
14	Concrete Batch Mix Plant	45 cum	2	
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	2	
20	Genset 63KVA Boiler	63KVA Boiler	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	Both are in operation.
26	Launching Girder		2	Both are in operation.

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## 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 Culverts with Box Culverts	23.03.2018	Approved	3.21 Cr	21.02.2020
2	Strengthening/up grade the incident Management Service	10.05.2019	Required COS notice for Strengthening/upgrade the incident Management Service.	NA	NA
3	Comprehensive -COS 02	20.08.2018	Approved	(-) 4.69 Cr	23.06.2021

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

Four laning of Sethiyahopu to Cholapuram from Km 65+960 to 116+440 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.

**TABLE 14.1 - CORRESPONDANCE - CONCESSIONAIRE TO NHAI**

S.No	Date	Letter No	Subject	Remarks
1	10.08.2022	PSCHPL/SCP/NHAI/2022/1178	Recording of drone video for the month of July 2022-reg	
2	10.08.2022	PSCHPL/SCP/NHAI/2022/1179	Request for Extension of Time for PCOD-2 and PCOD-3-reg	
3	12.08.2022	PSCHPL/SCP/NHAI/2022/1181	Submission of IPC 02 of Payment Milestone IV-Recommendation for payment	
4	16.08.2022	PSCHPL/SCP/NHAI/2022/1184	Survey No. 174-12 and 174-13 Nangudi village of Kattumannarkoil Taluk in Cuddalore District - Sh. Deivanathan-No Objection Certificate requested-reg	
5	16.08.2022	PSCHPL/SCP/NHAI/2022/1185	Survey No. 158-20 Nangudi village in Katumannarkoil taluk in Cuddalore District -Smt. Selvamary- No objection certificate requested-reg	
6	22.08.2022	PSCHPL/SCP/NHAI/2022/1191	Proposal for deletion of 3.510 Km as per clause 16.6 of Concession Agreement-reg	
7	26.08.2022	PSCHPL/SCP/NHAI/2022/1192	RA bill No.01 -Shifting of infringement of veeranam pipeline pertaining to CMWSSB-reg	
8	31.08.2022	PSCHPL/SCP/NHAI/2022/1197	Compliance report-Damages caused to River Bund at various places due to the formation of Temporary cross barrier by NHAI at Coleroon Anaikarai-reg	

**Four laning of Sethiyahopu to Cholapuram from Km 65+960 to 116+440 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.**

**TABLE 14.2 - CORRESPONDANCE - NHAI TO CONCESSIONAIRE**

S.No	Date	Letter No	Subject	Remarks
1	01.08.2022	NHAI/PIU/Thanj/11025/11/2018/2161	Non achievement of cumulative target up to July 2022, Action required for completion of backlog-reg	
2	02.08.2022	NHAI/11015/03/General/ROMadurai/2022/1999	Training program to be conducted with all stakeholders of NHAI under RO, Madurai on 06.08.2022 at Madurai-Request for participation-reg	
3	04.08.2022	NHAI/PIU/Thanj/11011/01/2006/2204	Postal Life Insurance Scheme-reg	
4	04.08.2022	NHAI/PIU/Thanjavur/11025/09/2018/2215	Muthuservamadam village of Jayankondam Panchayat-Request to construct bore well and hand pump-reg	
5	06.08.2022	NHAI/PIU/Thanj/11019/52/2017/2211	Independent consultancy services for the month of June'2022-50% Claim-reg	
6	08.08.2022	NHAI/PIU/Thanj/11019/70/2019/2221	Relocation of fee plazas- Revised proposals as per norms of NH fee rule 2008 and clarifications to NHAI HQ letter dated 01.07.2022-report submission-reg	
7	08.08.2022	NHAI/PIU/Thanj/11025/03/2018/2227	Acquisition of land in vembukudi village of ariyalur district-Erection of HT tower & poles in the Non-acquired lands-Complaint made-reg	
8	08.08.2022	NHAI/PIU/Thanj/11025/03/2018/2232	Acquisition of additional lands-Complaints made-reg	
9	08.08.2022	NHAI/PIU/Thanj/11025/03/2018/2238	Request way to agricultural fields at cholapuram panchayat-report called for	
10	10.08.2022	NHAI/14013/19/2020/RO Madurai/2039	Minutes of meeting-communicated-reg	
11	10.08.2022	NHAI/PIU/Thanj/11021/52/2022/2248	Request for Permission to lay underground OFC on (Sethiyathope-Cholapuram-Thanjavur section) NH-45C along the road from Km 98.350 to Km 104.550(LHS),from Km 109.700 to Km 111.200 (LHS)	
12	12.08.2022	NHAI/PIU/Thanj/11019/16/2021/2250	Handing over the stretch of existing NH45C to the Government of Tamilnadu for future maintenance with one time improvement-reg	
13	12.08.2022	NHAI/PIU/Thanj/11019/16/2021/2251	Improvement as a deposit work from NHAI for the stretches where NHAI Alignment deviated from the existing alignment proposal received from CE NH GoTN-Handing over the stretch	
14	12.08.2022	NHAI/PIU/Thanj/11025/11/2018/2297	Request received from concessionaire to reimburse of loss occurred on account of change in CPI(IW) as per NHAI policy No.8.4.22 dated 02.12.2020-reg	
15	13.08.2022	NHAI/PIU/Thanj/11025/11/2018/2291	Quality team visit on 25.10.2021 to 29.10.2021- Compliance report submitted by Concessionaire-Report called for-reg	
16	19.08.2022	NHAI/PIU/Thanj/11025/11/2018/2332	Request for Extension of Time for PCOD-2 and PCOD-3- Remarks called for-reg.	
17	22.08.2022	NHAI/PIU/Thanjavur/11025/11/2019/2348	The additional proposal submitted by concessionaire for deletion of Scope of Work due to non-availability of encumbrance free land-Report called for-reg	
18	22.08.2022	NHAI/PIU/Thanj/11025/03/2018/2354	Acquisition of Additional lands in Kundaveli East village-Protest from Public-Remarks called for-reg	
19	22.08.2022	NHAI/PIU/Thanj/11025/11/2018/2364	Submission of IPC 02 of payment milestone IV-recommendation for payment-remarks called for-reg	
20	23.08.2022	NHAI/PIU/Thanj/11025/03/2018/2379	Acquisition of land in Pappakudi South Village- Drain the rain water in a private tank- Complaints made-reg	
21	23.08.2022	NHAI/PIU/Thanj/11025/03/2018/2380	Taking over certificate and Account details for depositing of sanction fund requested-Reg	
22	23.08.2022	NHAI/PIU/Thanj/11025/03/2018/2384	Consumer Council Quarterly Meeting Conducted by the District Collector, Cuddalore- Action requested-reg	
23	24.08.2022	NHAI/PIU/Thanj/11025/03/2018/2393	Public representation for approach road to Mamangalam village Panchayat at Km 82+150 of RHS of NH45C-reg	
24	24.08.2022	NHAI/PIU/Thanj/11025/17/2018/2394	Construction of Bridge in Walaja Eri-Restoration of damaged portion requested-reg	
25	25.08.2022	NHAI/PIU/Thanj/11025/03/2018/2396	NOC requested for Construction of storm water drain for length of 250m at Thirupanandal Town panchayat, Thanjavur District-reg	
26	25.08.2022	NHAI/PIU/Thanj/11025/09/2018/2408	Damages caused to the River bund at various places due to the formation of temporary cross barrier by NHAI at Coleroon River Anaikarai rectification to be carried out report called for-reg	
27	29.08.2022	NHAI/PIU/Thanj/11025/11/2018/2450	Quality Inspection team visit on 25.10.2021 to 29.10.2021-compliance report submitted by Concessionaire-report called for	
28	29.08.2022	NHAI/PIU/Thanj/11025/11/2018/2436	Project milestone 03 as per clause of 3.1(iii) of Settlement Agreement dt.04.03.2021 & IPC-02 of PMS-04 works executed upto 20.07.2022-Payment Intimation-Reg	
29	30.08.2022	NHAI/PIU/Thanj/11025/09/2018/2445	Shifting of Infringement of Veeranam Pipeline pertaining to CMWSSB-reg	
30	30.08.2022	NHAI/11015/149A/2017/RO Madurai/2128	Communication of Minutes of the Meeting-reg	

Four laning of Sethiyahopu to Cholapuram from Km 65+960 to 116+440 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.

**TABLE 14.3 - CORRESPONDANCE - CONCESSIONAIRE TO INDEPENDENT ENGINEER**

S.No	Date	Letter No	Subject	Remarks
1	01.08.2022	PSCHPL/SCP/IE/2022/1165	Soil test report for the proposed borrow area of the project	
2	03.08.2022	PSCHPL/SCP/IE/2022/1167	Intimation to commence the erection of the superstructure on LHS and removal of debris on RHS on kollidam major bridge at Km.107+400 reg	
3	03.08.2022	PSCHPL/SCP/IE/2022/1168	Releasing of water at Vellar River (Major bridge at Km 73+340)-Intimation-reg	
4	05.08.2022	PSCHPL/SCP/IE/2022/1170	Soil test report for the Proposed Borrow Area of the Project (BA No 43)- Reg	
5	07.08.2022	PSCHPL/SCP/IE/2022/1174	Submission of Monthly Progress Report for the Month of July 2022-reg	
6	08.08.2022	PSCHPL/SCP/IE/2022/1176	Submission of Monthly Status & Management (O&M) Report for the month of July 2022 -reg	
7	19.08.2022	PSCHPL/SCP/IE/2022/1188	Soil test report for the Proposed Borrow area of the project-reg	



**Four laning of Sethiyahopu to Cholapuram from Km 65+960 to 116+440 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.**

**TABLE 14.4 - CORRESPONDANCE - INDEPENDENT ENGINEER TO CONCESSIONAIRE / NHAI**

S.No	Date	Letter No	Subject	Remarks
1	01.08.2022	TES/IE/SCP/NHAI/2022/408	Submission of IPC 02 of Payment Milestone IV –Recommendation for payment- reg	
2	02.08.2022	TES/IE/SCP/NHAI/2022/416	Acquisition of land in vembukudi village of Ariyalur District-Erection of HT Tower & Poles in the Non-acquired lands- Complaint made at CH 104+400 on NH-45C –reg	
3	04.08.2022	TES/IE/SCP/NHAI/2022/412	Concessionaire’s request for reimbursement of loss occurred on account of change in CPI(IW) as per NHAI Policy No 8.4.22 dated 02.12.2020-Comments of Independent Engineer-reg	
4	04.08.2022	TES/IE/SCP/NHAI/2022/413	Concessionaire’s request for reimbursement of all the costs incurred on account of increase in indirect taxes in HSD- Change in Law pursuant to Article 35 of the Concession Agreement	
5	10.08.2022	TES/IE/SCP/NHAI/2022/414	IE Monthly Progress Report (MPR) for the Month of July 2022-Reg	
6	10.08.2022	TES/IE/SCP/PIL/2022/760	Construction target for 2022-23 and Action plan for completion of backlog-reg	
7	11.08.2022	TES/IE/SCP/PIL/2022/761	Minutes of the RO Review meeting on Median and Avenue plantation activities held on 09.08.2022-reg	
8	11.08.2022	TES/IE/SCP/PIL/2022/762	Utility Shifting of HT Tower at CH 73+430 and HT line at CH 70+080-reg	
9	11.08.2022	TES/IE/SCP/PIL/2022/764	Site Review Meeting- reg	
10	11.08.2022	TES/IE/SCP/PIL/2022/765	Monthly Site Inspection-reg	
11	12.08.2022	TES/IE/SCP/NHAI/2022/417	Paper cutting on crack in the diversion at CH 66+000 to 66+500 LHS- reg	
12	17.08.2022	TES/IE/SCP/NHAI/2022/418	Acquisition of land in vembukudi village of ariyalur district-Erection of HT tower & Poles in the non acquired land-Complaint made at CH 104+400 on NH 45C-reg	
13	17.08.2022	TES/IE/SCP/NHAI/2022/419	Request for merging PCOD-2 with PCOD-3-IE comments-reg	
14	19.08.2022	TES/IE/SCP/NHAI/2022/421	Paper cutting of settlement in the existing road at Sethiyathope-reg	
15	19.08.2022	TES/IE/SCP/NHAI/2022/422	Quality Inspection from 25.10.2021 to 29.10.2021; Compliance Report submitted by concessionaire - Report called for	
16	19.08.2022	TES/IE/SCP/PIL/2022/766	Proposal for Non-woven Polyester reinforced WP membrane instead of Mastic Asphalt over deck slab-reg	
17	19.08.2022	TES/IE/SCP/PIL/2022/768	Quality Inspection from 25.10.2021 to 29.10.2021; Compliance Report submitted by concessionaire - Report called for	
18	20.08.2022	TES/IE/SCP/PIL/2022/769	Site Inspection Report	
19	20.08.2022	TES/IE/SCP/PIL/2022/770	Public representation for approach road to mamangalam village panchayat on NH-45C	
20	20.08.2022	TES/IE/SCP/PIL/2022/771	HT LT Line crossing Encroachment in the PCOD accomplished stretches	
21	22.08.2022	TES/IE/SCP/NHAI/2022/423	IE Inspection report for the month of July 2022-Reg	
22	24.08.2022	TES/IE/SCP/PIL/2022/773	Releasing of water at Vellar River (Major Bridge at Km 73+340)-reg	
23	25.08.2022	TES/IE/SCP/PIL/2022/774	Matching of FRL at CH 65+960 and entry–exit provision for bypassed section of Sethiyathope Town-reg	
24	26.08.2022	TES/IE/SCP/NHAI/2022/424	Public representation for PUP and drain at Meensurutti of NH-45C and Acquisition of additional lands in Kundaveli East village-Protest from Public IE comments-reg	
25	26.08.2022	TES/IE/SCP/PIL/2022/775	Status report on the Provisional completion-3 stretches-reg	
26	29.08.2022	TES/IE/SCP/PIL/2022/777	Minutes of meeting dated 23.08.2022-reg	

## 15. Progress Photographs

Sl. No	Description	Location	Side	Remarks
1.	Embankment Layer work in Progress	104+500	RHS	
2.	Embankment Layer work in Progress	112+643	LHS	



Sl. No	Description	Location	Side	Remarks
3.	Embankment layer work in progress	97+500	LSR	
4.	Subgrade Layer work in progress	116+300	LHS	



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Sl. No	Description	Location	Side	Remarks
5.	CTSB Layer Work in progress	105+530	BHS	
6.	WMM Layer Work in progress	105+320	BHS	



Sl. No	Description	Location	Side	Remarks
7.	DBM Laying Work in progress	105+300	BHS	
8.	BC Laying Work in progress	70+070	RHS	



Sl. No	Description	Location	Side	Remarks
9.	Super Structure Work in Progress	105+960	LHS	Minor Bridge
10.	Sub Structure Work in Progress	73+340	LHS	Major Bridge



Sl. No	Description	Location	Side	Remarks
11.	Deck Slab Work in progress	99+583	LHS	Major Bridge
12.	Box Segment casting work in progress	107+400	RHS	Major Bridge



Sl. No	Description	Location	Side	Remarks
13.	HT Wire Stressing Work in Progress	107+400	LHS	Major Bridge

