सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार
Government of India

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

Four Laning of Cholopuram Thanjavur from Km. 116.440 to Km. 164.275 of NH-45C under NHDP-IV on Hybrid Annuity Mode Basis.

PATEL CHOLOPURAM THANJAVUR HIGHWAY PRIVATE LIMITED

MONTHLY PROGRESS REPORT

APRIL 2022

List of Tables

List of Figures

The old National Highway (NH -36) 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 36 (NH-36). 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 45C. It links Chennai with Thanjavur and is 418 km long.

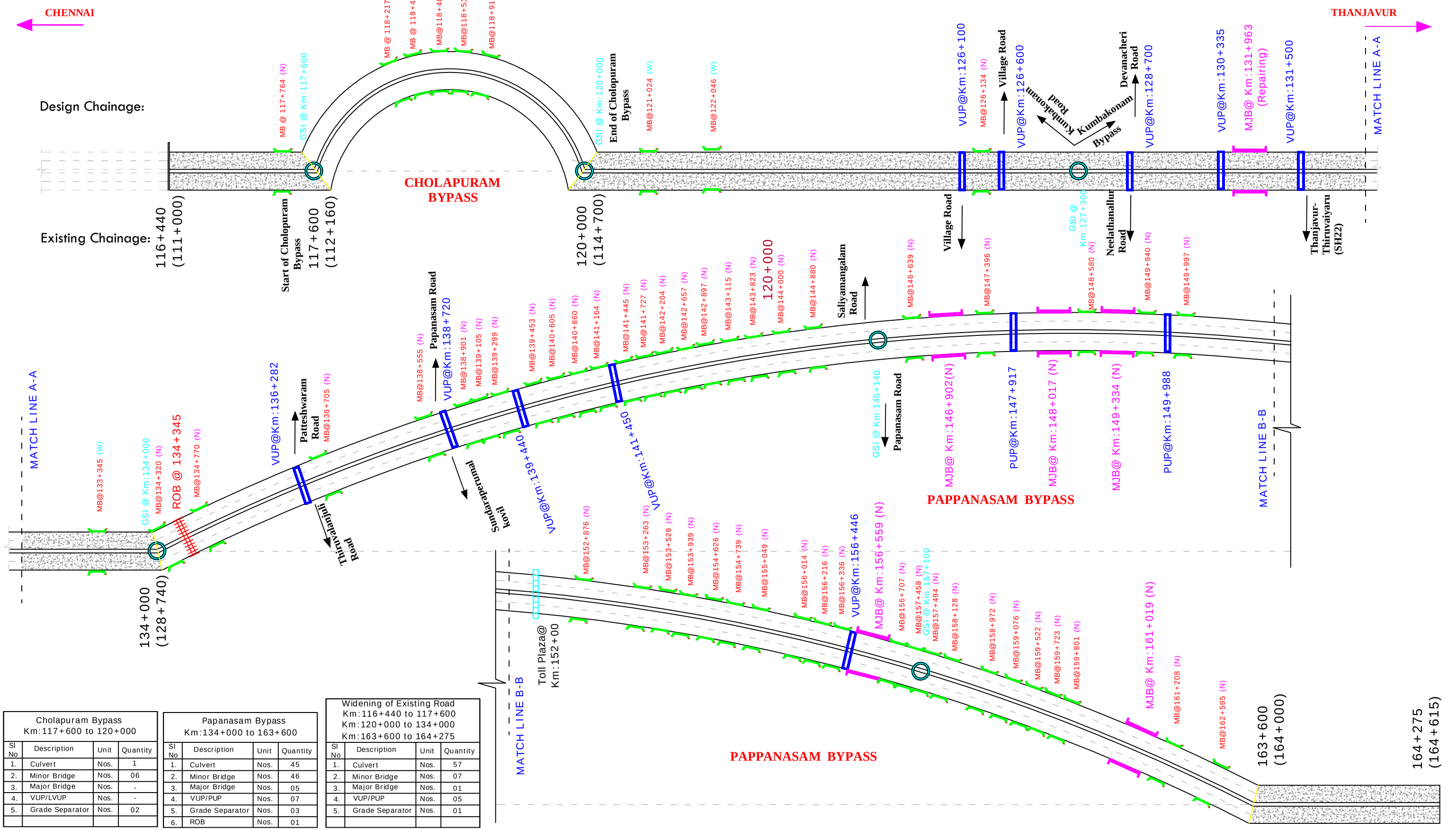
The Cholopuram to Thanjavur section of NH-45C is an important link to connect Metropolitan city of Chennai to religious and tourist places of Kumbakonam, Thanjavur, Tiruchirapalli. The project is also expected to provide improved connectivity to other religious places & other major cities like Thanjavur,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

Project Synopsis

The Government of India had entrusted to the National Highway Authority of India (NHAI) the development, maintenance and management of National Highway No. 45C including the section from km 116.440 to Km 164.275 (approx. 47.835 Km). The Authority had resolved to augment for four Laning of Cholopuram - Thanjavur from Km 116.440 to Km 164.275 section of NH - 45C in the State of Tamilnadu under NHDP Phase-IV on "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.

STRIP PLAN - CHOLAPURAM TO THANJAVUR HIGHWAY PROJECT OF NH45 C



Cholapuram Bypass Km:117+600 to 120+000			
Sl No	Description	Unit	Quantity
1.	Culvert	Nos.	1
2.	Minor Bridge	Nos.	06
3.	Major Bridge	Nos.	-
4.	VUP/LVUP	Nos.	-
5.	Grade Separator	Nos.	02

Papanasam Bypass Km:134+000 to 163+600			
Sl No	Description	Unit	Quantity
1.	Culvert	Nos.	45
2.	Minor Bridge	Nos.	46
3.	Major Bridge	Nos.	05
4.	VUP/PUP	Nos.	07
5.	Grade Separator	Nos.	03
6.	ROB	Nos.	01

Widening of Existing Road Km:116+440 to 117+600 Km:120+000 to 134+000 Km:163+600 to 164+275			
Sl No	Description	Unit	Quantity
1.	Culvert	Nos.	57
2.	Minor Bridge	Nos.	07
3.	Major Bridge	Nos.	01
4.	VUP/PUP	Nos.	05
5.	Grade Separator	Nos.	01

LEGEND:

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

Salient Features of Project:

Sl No	Description	Unit	Scope
1.	Total Length of Project	Km	47.835
2.	Length of Widening Portion	Km	15.335
3.	Length of Bypass	Km	32.000
4.	Length of service/Slip Road	Km	27.100
5.	Culverts		
	Box Culvert	Nos.	74

Sl No	Description	Unit	Scope
	Slab Culvert	Nos.	29
6.	Minor Bridge	Nos.	59
7.	Major Bridge	Nos.	06
8.	VUP/PUP	Nos.	12
9.	Grade Separated Structure	Nos.	06
10.	ROB	Nos.	01

Sl No	Description	Unit	Scope
11.	Minor Intersection	Nos.	22
12.	Major Intersection	Nos.	20
13.	Bus Bays and Shelters	Nos.	05
14.	Toll Plaza	Nos.	01

Drawing Title

Strip Plan - Cholopuram to Thanjavur Highway Project

Date.	Project No.
30-09-2018	PCTHP/NHAI/TN/001

Figure 1: Project Location Map

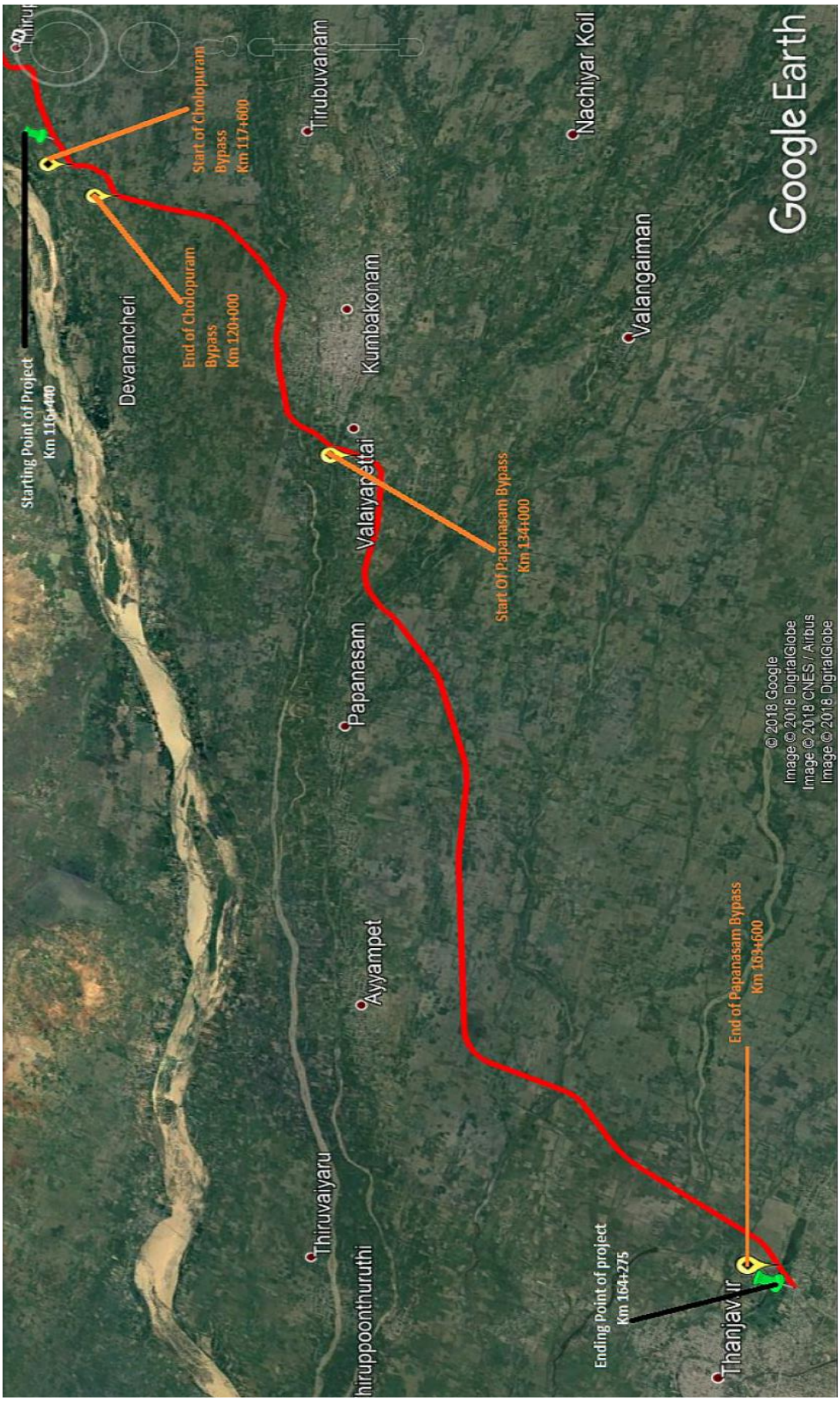


Table- 01: Details of Project Alignments

Sr. no.	Design Chainage (Km)		Length (Km)	TCS Type	Remarks
	From	To			
1	116.440	117.200	0.760	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
2	117.200	117.900	0.700	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
3	117.900	119.600	1.700	Type-A-3 (Fig 2.4 of the manual)	Bypass
4	119.600	120.420	0.820	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
5	120.420	122.000	1.580	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
6	122.000	125.300	3.300	Type-A-3 (Fig 2.4 of the manual)	Eccentric widening
7	125.300	125.700	0.400	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
8	125.700	127.700	2.000	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
9	127.700	128.300	0.600	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
10	128.300	129.100	0.800	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
11	129.100	129.970	0.870	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
12	129.970	130.700	0.730	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
13	130.700	131.050	0.350	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
14	131.050	131.850	0.800	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
15	131.850	132.100	0.250	Type-A-3 (Fig 2.4 of the manual)	Eccentric widening
16	132.100	133.580	1.480	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
17	133.580	134.800	1.220	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
18	134.800	136.000	1.200	Type-A-3 (Fig 2.4 of the manual)	Bypass
19	136.000	136.600	0.600	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
20	136.600	138.500	1.900	Type-A-3 (Fig 2.4 of the manual)	Bypass
21	138.500	139.750	1.250	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	

Sr. no.	Design Chainage (Km)		Length (Km)	TCS Type	Remarks
	From	To			
22	139.750	141.100	1.350	Type-A-3 (Fig 2.4 of the manual)	Bypass
23	141.100	141.800	0.700	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
24	141.800	144.450	2.650	Type-A-3 (Fig 2.4 of the manual)	Bypass
25	144.450	145.580	1.130	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
26	145.580	147.600	2.020	Type-A-3 (Fig 2.4 of the manual)	Bypass
27	147.600	148.320	0.720	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
28	148.320	149.720	1.400	Type-A-3 (Fig 2.4 of the manual)	Bypass
29	149.720	150.450	0.730	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
30	150.450	152.700	2.250	Type-A-3 (Fig 2.4 of the manual)	Bypass
31	152.700	153.300	0.600	Toll Plaza	
32	153.300	156.000	2.700	Type-A-3 (Fig 2.4 of the manual)	Bypass
33	156.000	157.350	1.350	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
34	157.350	164.275	6.925	Type-A-3 (Fig 2.4 of the manual)	Bypass
		Total Length	47.835		

1.1. Project Overview

Name of Work	Four Laning of Cholopuram-Thanjavur from km. 116.440 to Km.164.275 of NH-45C under NHDP-IV on Hybrid Annuity Mode Basis
Name of Employer	National Highways Authority of India (NHAI) G-5 & 6, Sector-10, Dwarka, New Delhi -110075
Name of Concessionaire	Patel Cholopuram-Thanjavur Highway Pvt Ltd, Patel House, Beside Prakruti Resorts, Chanani Road, Vadodara. Gujarat– 391740 Tel: +91-265 277 6678 Fax: +91-265 277 7878
Independent Engineer	M/s. Theme Engineering Services Pvt. Ltd, 8, Thomaiyammal Nagar, 6th Street, R.S College (Post), Thanjavur-613005.
EPC Contractor	M/s. Patel Infrastructure Limited, Patel House, Beside Prakruti Resorts, Chanani Road,Vadodara Gujarat– 391740, Tel: +91-265 277 6678 Fax: +91-265 277 7878
Design Consultant	CTL Global Services Pvt. Ltd. 101, IST Floor, Krishna Chambers, HAL, Airport Road, Bangalore-560017
Senior Lender	Punjab National Bank, Large Corporate Branch, Neelkamal Building, Opp. Sales India, Ashram Road, Ahmedabad - 380009
Lenders Independent Engineers	Sharul Techno-Financial Consultancy Services Pvt. Ltd., 403, Aspire Tower 5, Amanora Park Town, Hadapsar, Pune - 411028.
Length of Road (Design Length)	47.835 Kms.
Total Bid Cost	Rs. 1345.60 Crores (as per concession agreement)
Date of Concession Agreement	October 12, 2017
Concession Period	17 Years (Construction Period 2 Years from Appointed date, Operation period 15 years from COD)
Appointed Date	06.09.2018
Construction Period	02 years from Appointed date
Completion Date	04.09.2020
Maintenance Period	15 years from COD

1.2. Salient Project Features

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

4 - Lane Divided Carriage Way	47.835 Kms
Service Road/ Slip Road	27.100 Kms
Major Bridge	06 Nos.
Minor Bridge	56 Nos.
Grade Separate Intersection	06 Nos.
Vehicular Underpass	10 Nos.
Pedestrian Underpass	02 Nos.
Rail-road Bridges	01 Nos
Box Culverts	74 Nos.
Slab Culverts	29 Nos.
Major Intersections	20 Nos.
Minor Intersections	22 Nos.
Bus Bays	05 Nos.
Rest Area	01 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 214th day from the Appointed Date.	07th April 2019	➢ 31st May'2021- Total 22.846 Km. four lane to be completed for PCOD-I. ➢ 30th Nov'2021- Total 34.675 Km. four lane to be completed for PCOD-II. ➢ Balance 11.990 Km. four lane shall be handed over to the Concessionaire by 31st May'2021 and shall be completed by 31st July'2022. ➢ Balance 1.170 Km. to be de-scoped from the scope of Concessionaire.
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 334th day from the Appointed Date.	05th August 2019	
Mile Stone-III	Concessionaire shall expended not less than 75 % of the Total capital cost and shall have commenced construction of the project and achieved 75% of physical progress on 584th day from the Appointed Date.	11th April 2020	
Scheduled Completion	Concessionaire shall have completed Project on 730th day from the Appointed Date	04th September 2020	

Note : The Settlement Agreement has been signed between Authority and Concessionaire for the completion of 22.846 Kms length by 31.05.2021, and further completion of additional 11.829 Kms length by 30.11.2021 i.e. up to Payment Date of 1st Annuity. The non-workable length/non-handed over length is 13.160 Km as per joint site verification by Concessionaire, IE and NHAI. Out of the total non-workable length/non-handed over length of 13.160 Kms, length equal to 11.990 Kms shall be handed over to the Concessionaire by 31.05.2021 and shall be completed by 31.07.2022. Remaining length of 1.170 Kms (i.e. 13.160 kms -11.990 kms) shall be de-scoped from the scope of work of Concessionaire as per the provision given in Article 16.6 of the Concession Agreement. However, both party shall be mutually free to decide and take up this remaining length of 1.170 kms, if the length will be made available.

Status of PCOD Proposal:-

Sr. No.	Description	Target	Achieved as on date	Remarks
1	Completion of 22.846 kms by 31.05.2021	45.01% (605.62 Cr.)	57.290%	
2	Completion of 34.675 kms (i.e. 22.846 Kms + 11.829 Kms) by 30.11.2021	68.41% (920.48 Cr.)		
3	Completion of balance 11.990 kms by 31.07.2022	27.25% (366.74 Cr.)		
4	Estimate of balance 1.170 kms length (i.e. 13.160 Kms - 11.990 Kms)	4.34% (58.38 Cr.)		

1.4. Payment milestone during Construction Period

Payment Milestone	Eligibility Criteria	Payment Amount (Rs.)
Milestone-I	On Achievement of 10% of Physical Progress	107.65 Crs.
Milestone-II	On Achievement of 30% of Physical Progress	107.65 Crs.
Milestone-III	On Achievement of 50% of Physical Progress	107.65 Crs.
Milestone-IV	On Achievement of 75% of Physical Progress	107.65 Crs.
Milestone-V	On Achievement of 90% of Physical Progress	107.65 Crs.

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 engaged Agate Infra Engineering for supply of boulders that is having a valid license for extraction of boulders and other required permission for the quarry at Kalpadi Village, Perambalur District.
2	Installation of Crusher	Village Panchayat Head	Obtained	
3	-----D O------	Pollution Control Board	Obtained	
4	Use of Explosives	Dist. Collector	Obtained	
5	Labour License	Labour Commissioner	Obtained	
6	Environmental Clearance		NA	
7	Trees Cutting Permission	Forest department through NHAI	Obtained	Work in Progress (Permission for removal of Teak wood trees is awaited)
8	Electric Poles Shifting	Tamil Nadu Electricity Board	Obtained	Work in Progress
9	Water Pipes Shifting	Tamil Nadu Water Supply and Drainage Board	Obtained	Work in Progress
10	Drawing Water from river/ reservoir	-	NA	-

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
(i) Full Right of Way (full width)				
Stretch	116.440 to 117.600	1.160	30	Within 15 (Fifteen) days from the date of Agreement.
Stretch	117.600 to 120.000	2.400	60	
Stretch	120.000 to 134.000	14.000	30	
Stretch	134.000 to 164.275	30.280	60	
Total Length		**47.835**		

Balance Right of way (width)				
	Design Chainage (Km)	Design Length (Km)	Width (m)	
Stretch	116.440 to 117.600	1.160	30	Within 90 (Ninety) days of the Appointed date
Stretch	120.000 to 120.340	0.34	20	
Stretch	124.700 to 126.100	1.40	20	
Stretch	126.700 to 127.655	0.95	20	
Stretch	130.600 to 134.000	3.40	20	
Total Length		**7.250**		

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

Table 2.1-2: Status of Land Acquisition as per Site Condition				
Sl. No.	**Description**	**Unit**	**Present Status**	**Remarks**
A)	**Total Length of the Project Highway**	**Km**	**47.835**	
i)	Use of Existing Road Portion	Km	15.835	
ii)	Proposed Bypass / Realignment portion	Km	32.000	
B)	Hindered Length			
i)	LA Pending/Land under disputes	Km	8.691	
ii)	Existing Buildings	Km		
iii)	Pending for Disbursement of Payment	Km		
iv)	Electrical Lines	Km		
v)	Rural Water Supply lines	Km		
C)	Net Hindered Length (Both side)	Km	8.691	
D)	Total Project Length (Both side)	Km	47.835	
E)	**% Hindered Length**	**%**	**18.17%**	

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					
Sr. No.	Name of the District	Total No. of Land cases	Amount paid (in Nos.)	Balance to be Paid (in Nos.)	Remarks
1	Thanjavur	1467	1074	393	
	Total in Nos.	1467	1074	393	
	Total in %		73.21%	26.79%	

Table 2.1-4 - Compensation disbursement for Structures					
Sr. No.	Name of the District	Total No. of structures	Amount paid (in Nos)	Balance to be Paid (in Nos)	Remarks
1	Thanjavur	813	670	143	
	Total in Nos	813	670	143	
	Total in %		82.41%	17.59%	

The details of Chainage under hindrance due to such balance compensation issues to their land owners, structure payment issues, standing crops, water pipe lines etc. which are jointly inspected by the Independent Engineer and Authority are as below:-

The 8.691 Km. length is still under non-workable length out of 13.16 km. non-workable length as per Settlement Agreement executed on dated 04.03.2021.

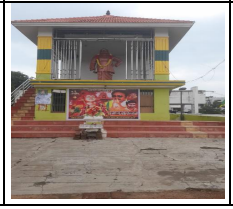
Four laning of Cholapuram-Thanjavur from Km. 116.440 to Km. 164.275 section of NH-45C in the state of Tamil Nadu under NHDP Phase-IV on Hybrid Annuity Mode.

Table 2.1-5 - Details of Stretches Under Hindrance

Sr. No.	Chainage		Side	Non workable length as on 30.04.2022 (Km)	Reason	Remarks
	From	To				
1	116.440	117.900	BHS	1.460	Removal of structures	
2	119.600	120.721	BHS	1.121	Removal of structures	
3	125.580	127.300	BHS	1.720	Removal of structures	
4	128.300	129.100	BHS	0.800	Removal of structures	
5	133.580	134.800	BHS	1.220	Removal of structures	
6	138.300	139.500	BHS	1.200	Removal of structures	
7	146.550	147.000	BHS	0.450	PWD Canal for a length of 700m is to be shifted for which NOC to be granted by PWD/WRD. The proposal for the same has been recommended by the Chief Engineer, WRD/PWD, Trichy to the Engineer-in-Chief, WRD, Chennai on 03.11.2020.	
8	147.600	148.320	BHS	0.720		
	Total Length		**Km**	**8.691**		

Hindrance List in the Project Details of Stretches Under Hindrance with Photographs												Date:- 30.04.2022
Sr. No.	CHAINAGE		Effected Length	Side	Name of the Village	Type of Hindrances	Total No of Structures	Name of the Owner	Survey No	Payment Status	Photos	Remarks
	FROM	TO										
1	116+480	116+490	15	LHS	Manambadi	Hut	1	Tamilselvan S/o Annasamy	43/2A	Paid		
2	116+630	116+650	20	LHS	Manambadi	Sheet House	1	Ethiraj	49/7	Not paid		Proper Documents not Submitted
3	116+640	116+660	20	LHS	Manambadi	Hut	1	Elangovan Rajathi	49/11A,11B	Not paid		Family distribute Problem
4	116+660	116+680	20	LHS	Manambadi	Sheet House	1	Sitarasu S/O Thambusamy	49/7C, 2B	Paid		Paid for 1st Payment and Awaiting for 2nd Payment
5	116+670	116+690	20	LHS	Manambadi	Temple	1	-	-	Not paid		Land Owner not Identified
6	116+880	116+910	30	RHS	Manambadi	Church	1	Edison	127/19	Paid		

Sr. No.	CHAINAGE		Effected Length	Side	Name of the Village	Type of Hindrances	Total No of Structures	Name of the Owner	Survey No	Payment Status	Photos	Remarks
	FROM	TO										
7	116+860	116+900	30	LHS	Manambadi	Sheet House	1	Sinnayan S/O Kaliyaperumal	129/32	Paid		
8	116+890	116+910	20	LHS	Manambadi	Hut	1	Chinnadurai S/O Murugesan	129/11, 12	Not paid		RTO Problem (Survey Number Change)
9	116+895	116+905	10	LHS	Manambadi	Sheet House	1	Sellakannu S/O Swaminathan	129/9	Not paid		RTO Problem (Survey Number Change)
10	116+890	116+910	20	LHS	Manambadi	RCC House	1	Ganesan S/o lakshmanan	129/8	Not paid		RTO Problem (Survey Number Change)
11	116+905	116+920	15	LHS	Manambadi	RCC House	1	AyiPonnu W/o Chinnaiyan	129/6,7	Not paid		RTO Problem (Survey Number Change)
12	116+950	116+970	20	RHS	Manambadi	Sheet House	1	Shanmugam S/o Subramaniam	117/6A	Paid		

Sr. No.	CHAINAGE		Effected Length	Side	Name of the Village	Type of Hindrances	Total No of Structures	Name of the Owner	Survey No	Payment Status	Photos	Remarks
	FROM	TO										
13	117+060	117+080	20	LHS	Manambadi	RCC House	1	Santhanam S/o Rayappan	121/12A2	Paid		
14	117+090	117+120	30	LHS	Manambadi	RCC House	1	Vasudevan S/o Paneerselvam	121/6A2	Paid		
15	117+250	117+270	20	RHS	Manambadi	Sheet House	1	Joseph S/o Antonysamy	117/6A	Not paid		Awaiting for DRO approval
16	120+685	120+695	10	LHS	Kovilacheri	RCC BUILDING	1	SANTHOSH KUMAR	48/7	Paid		Building Payment Paid Land Payment not Paid
17	122+080	122+100	20	RHS	Bagavathapuram	BIG BANIYAN TREE WITH VANAKALIAMMAN TEMPLE	1	MANOHARAN		Not Paid		
18	129+030	129+040	10	LHS	Asoor	DEVAR STATUE	1			Not Paid		Awaiting Approval from District Administration

2.2. Removal of Religious Structures

The following structures coming within the ROW are to be demolished

Table 2.2-1: Status of Removal of Religious structures				
Sl. No.	Name of the District	Total No. of structures	Removed as on Date (in Nos.)	Balance (in Nos.)
1	Thanjavur	13	3	10
Note: Pending for disbursement of payment to the Religious structures.				

2.3. Shifting of Utilities and Electrical HT/LT Lines

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

Table 2.3-1: Status of sanction of Estimates - Relocation of RWS Pipe line						
Sl. No	Name of the District	Chainages			Total Number of Estimates	Remarks
		From	To	Length in Km		
1	Thanjavur	116+440	164+275	47.835	32	Work is in Progress

Table 2.3-2: Status of sanction of Estimates - Electrical Lines Relocation							
Sl. No	Name of the District	Chainages			Number of Estimates	Present Status	Remarks
		From	To	Length in Km			
1	Thanjavur	116+440	164+275	47.835	16	Work in Progress	

Estimates for shifting of the above Electric lines have been prepared. The estimated cost is approximately Rs. 10.50 crores.

Table 2.3-3: Status of Utility Relocation							
Sl. No.	Authority	Description	Unit	Total Length/ Nos.	Work done	Balance	Remarks
1	BDO & EE,TWAD	Water Supply Pipe Line (including DI and PVC lines)	Kms.	35.750	7.960	27.79	Work in Progress
2	BDO of Concern Union	Hand Pump/Pump Room with Bore well	Nos.	16	3	13	
3	BDO of Concern Union	Over Head Tank	Nos.	2	2	0	Completed
4	TNEB	Electrical Lines	Kms.	19.215	15.605	3.610	Work in Progress

Estimates have been done for the shifting of the water supply pipeline & related items mentioned above. The estimated cost is approximately Rs. 6.8 crores.

2.4. Tree felling

Table 2.4-1: Status of Tree felling

Sl. No.	Name of the District	Chainages			Effected Length in Kms	Total No. of Trees	Felled/ Removed as on Date	Balance no. of Trees	Remarks
		From	To	Length in Km					
1	Thanjavur	116+440	164+275	47.835	15.310	1461	1448	13	Work in Progress
2	Thanjavur	116+440	164+275	47.835	-	508	508	0	Teak Wood trees
			Total	47.835					

3.1. Pre-Construction Activities

Detailed Design & Drawings

The Plan and Profile, as well as the Pavement Designs for the entire 47.835 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/ Drawings submitted	Design/ Drawings Approved
1	Pavement Design	Km	47.835	47.835	47.835
2	Plan & Profile	Km	47.835	47.835	47.835
3	Typical Cross Sections	Type	5	5	-
4	Major Intersections	No	20	9	1
5	Minor Intersections	No	22	2	-
6	Toll Plaza	No	01	01	01
7	Rest Area	No	01	-	
8	Bus Bay	No	05	05	05
9	Service Roads	No	27.10	26.97	26.97

Table 3.1-2 : Status of Design and Drawings –Structures

Sr. No	Description	Unit	Total Scope as per Sch. B	Design/ Drawings Submitted	Design/ Drawings Approved
1	Major Bridges	No	06	04	04 (02 Nos of Major Bridges Proposed for Descoping)
2	Minor Bridges	No	56	56	54
3	Grade Separated Intersection	No	06	06	06
4	VUP/PUP	No	12	12	12
5	Box /Slab Culvert	No	103	103	103
6	ROB	No	01	01	Structural drawing approved

4. Physical Progress of Work

4.1. Physical Progress of Work

The following table summarize the quantum of work achieved towards the construction of the various elements of the highway.

The Progress of the Major works carried out at the Site in the Month of April 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 Report (in Km)	Progress during this Report (In Km.)	Cumulative Progress Achieved up to this Report (In Km)	In Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Clearing and Grubbing							
	LHS	46.925	42.980	0.000	42.980	0	3.945	91.59%
	RHS	46.925	42.910	0.000	42.910	0	4.015	91.44%
2	Embankment							
	LHS	46.925	30.530	0.955	31.485	1.540	15.440	67.10%
	RHS	46.925	29.930	0.605	30.535	1.740	16.390	65.07%
3	Subgrade							
	LHS	46.925	27.755	1.360	29.115	2.370	17.810	62.05%
	RHS	46.925	26.805	0.970	27.775	2.760	19.150	59.19%
4	GSB/ Cement Treated Sub-Base							
	LHS	46.925	27.385	0.000	27.385	0	19.540	58.36%
	RHS	46.925	26.315	0.230	26.545	0	20.380	56.57%
5	Wet Mix Macadam							
	LHS	46.925	26.515	0.160	26.675	0	20.250	56.85%
	RHS	46.925	26.195	0.190	26.385	0	20.540	56.23%
6	Dense Bituminous Macadam							
	LHS	46.925	25.935	0.490	26.425	0	20.500	56.31%
	RHS	46.925	25.675	0.490	26.165	0	20.760	55.76%
7	Bituminous Concrete							
	LHS	46.925	25.345	0.000	25.345	0	21.580	54.01%
	RHS	46.925	25.255	0.000	25.255	0	21.670	53.82%

For Service Road

Sr. No.	Description	Total Length of Service Road (Km.)	Progress up to Previous Month (in Km)	Progress during this Month (In Km.)	Cumulative Progress Achieved up to this Month (In Km)	In Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Embankment	27.1	5.370	0.000	5.370	0	21.730	19.82%
2	Sub grade	27.1	5.370	0.000	5.370	0	21.730	19.82%
3	GSB/ Cement Treated Base	27.1	5.355	0.000	5.355	0	21.745	19.76%
4	Wet Mix Macadam	27.1	5.275	0.000	5.275	0	21.825	19.46%
5	Dense Bituminous Macadam	27.1	5.275	0.000	5.275	0	21.825	19.46%

6	Bituminous Concrete	27.1	2.400	0.000	2.400	0	24.700	8.86%

For Structure Works

Sr. No.	Type of Structure	Total No. of Structures	No. of Structures				
			Completed up to previous Report	Completed during this Report	Completed up to this Month	In Progress	Balance
1	Culvert	103	81.00	1.00	82.00	18.00	3.00
2	Light Vehicular Underpass	2	2	0	2	0	0
3	Vehicular Underpass	10	8.00	0	8.00	2.00	0
4	Minor Bridges	56	46.00	2.00	48.00	3.00	5.00
5	Major Bridge	5	0	1.00	1.00	3.00	1.00
6	Flyover	6	6	0	6	0	0
7	ROB	1	0	0	0	1	0

The Physical Progress of the Project up to **April 2022** as per approved Schedule G is given below:-

Table 4.1 : Physical Progress of Works

Item	Stage for Payment	Unit	Qty.	Weightage in % to Contract Price	Completed up to April '2022	% Physical Progress	Remarks
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.	28.70	4.26%	16.890	2.505%	
	(2) Granular work (sub-base, base, shoulders)	Km.					
	(a) GSB/ Cement Treated Base	Km.	28.70	1.40%	16.560	0.809%	
	(b) WMM/ Cement Treated Base	Km.	28.70	2.10%	15.860	1.160%	
	(3) Shoulders	Km.	7.10	0.03%	7.10	0.030%	
	(4) Bituminous work						
	(a) DBM	Km.	28.70	1.61%	15.820	0.886%	
	(b) BC	Km.	28.70	1.48%	15.080	0.780%	
	(5) Rigid Pavement						
	Concrete Work	Km.					
	(6) Widening and Repair of Culverts	Nos.	33	0.57%	28.050	0.486%	
	(7) Widening and Repair of Minor Bridges	Nos.	3	0.38%	1.70	0.216%	
	B- New realignment/bypass						
	(1) Earthwork up to top of the sub-grade	Km.	63.33	16.30%	40.000	10.298%	
	(2) Granular work (sub-base, base, shoulders)	Km.					
	(a) GSB/ Cement Treated Base	Km.	62.13	3.39%	37.370	2.042%	
	(b) WMM/ Cement Treated Base	Km.	62.13	3.83%	37.200	2.292%	

Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	(3) Shoulders	Km.	48.19	0.10%	30.140	0.063%	
	(4) Bituminous work						
	(a) DBM	Km.	62.13	3.48%	36.770	2.060%	
	(b) BC	Km.	62.13	3.21%	35.520	1.836%	
	(5) Rigid Pavement						
	Concrete Work	Km					
	C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:						
	(1) Culverts	Nos.	70	5.95%	53.95	4.582%	
	(2) Minor bridges						
	(i) Foundation	Nos.	170	6.71%	113.00	4.461%	
	(ii) Substructure	Nos.	270	3.50%	200.00	2.589%	
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	142	3.78%	90.50	2.407%	
	(3) Cattle/Pedestrian underpasses						
	(i) Foundation	Nos.	4	0.15%	4.00	0.150%	
	(ii) Substructure	Nos.	8	0.08%	8.00	0.084%	
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	4	0.06%	3.70	0.052%	
	(4) Pedestrian overpasses						
	(i) Foundation	Nos.					
	(ii) Substructure	Nos.					
	(iii) Superstructure (including crash barrier etc. complete)	Nos.					
	(5) Grade separated structures						
	(a) Underpass (10 VUP)						
	(i) Foundation	Nos.	40	2.50%	36.00	2.249%	
	(ii) Substructure	Nos.	40	0.91%	36.00	0.818%	
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	20	1.14%	14.80	0.841%	
	(c) Vehicular Overpass (VOP)						
	(i) Foundation	Nos.					
	(ii) Substructure	Nos.					
	(iii) Superstructure (including crash barrier etc. complete)	Nos.					
	(c) Flyover						
	(i) Foundation	Nos.	24	2.25%	24.00	2.250%	
	(ii) Substructure	Nos.	24	0.82%	24.00	0.818%	
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	12	1.02%	11.10	0.946%	
Major Bridge works and ROB/RUB	Major Bridge works and ROB/RUB						
	A- Widening and Repair of Minor Bridges						
	(1) Foundations						
	(a) Open Foundation	Nos.					
	(b) Pile foundation/ well foundation	Nos.					
	(2) Substructure	Nos.					
	(3) Superstructure (including crash barrier etc. complete)	Nos.					
	C- New Major Bridges						

	(1) Foundations						
	(a) Open Foundation	Nos.					
	(b) Pile foundation/ well foundation	Nos.	76	2.17%	47.00	1.345%	
	(2) Substructure	Nos.	76	1.23%	41.00	0.665%	
	(3) Superstructure (including crash barrier etc. complete)	Nos.	62	1.50%	15.30	0.369%	
	D- New rail-road bridges						
	(a) ROB						
	(i) Foundation	Nos.	8	1.50%	8.00	1.500%	
	(ii) Substructure	Nos.	8	0.80%	8.00	0.800%	
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	6	1.49%	3.70	0.917%	
Structures (elevated sections, reinforced earth)	Structures (elevated sections, reinforced earth)						
	(1) Foundation	Nos.					
	(2) Substructure	Nos.					
	(3) Superstructure (including crash barrier etc. complete)	Nos.					
	(4) Reinforced earth Wall (includes Approaches of ROB, Underpasses, Overpasses,Flyover etc)	Sqm	179469	7.52%	29,325	1.229%	Only RE Block Erection Quantity is considered
Other Works	Other Works						
	(i) Service roads/ Slip Roads	Km	27.1	3.86%	2.400	0.342%	
	(ii) Toll Plaza	Nos.	1	1.38%			
	(iii) Road side drains	Km	12.08	1.64%	2.160	0.293%	
	(iv) Road signs, markings, km stones, safety devices, ...						
	(a) Road signs, markings, km stones, ...	Km	95.67	2.02%	46.820	0.989%	
	(b) Concrete Crash Barrier/ W-Beam Crash Barrier in Road work	Km					
	(i) Concrete Crash Barrier	Km	25.42	2.01%	3.440	0.273%	
	(ii) W-Beam Crash Barrier	Km	32.75	0.70%	11.340	0.243%	
	(v) Project facilities						
	(a) Bus Bays	No.	20	0.01%	3.00	0.001%	
	(b) Truck Lay-byes	No.					
	(b) Rest areas	No.	2	0.22%			
	(vi)Repairs to bridges/structures	Nos.	4	0.01%			
	(vii) Road side plantation	Km	22.54	0.60%	17.906	0.475%	
	(viii) Protection works						
	(a) Boulder pitching on slopes	Km	32.75	0.19%	11.340	0.065%	
	(b) Toe/Retaining wall	Km					
	(x) Miscellaneous	Ls.	100%	0.150%	51%	0.076%	
	Total			100.00%		57.290%	

Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

Strip Chart as on 30.04.2022

Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

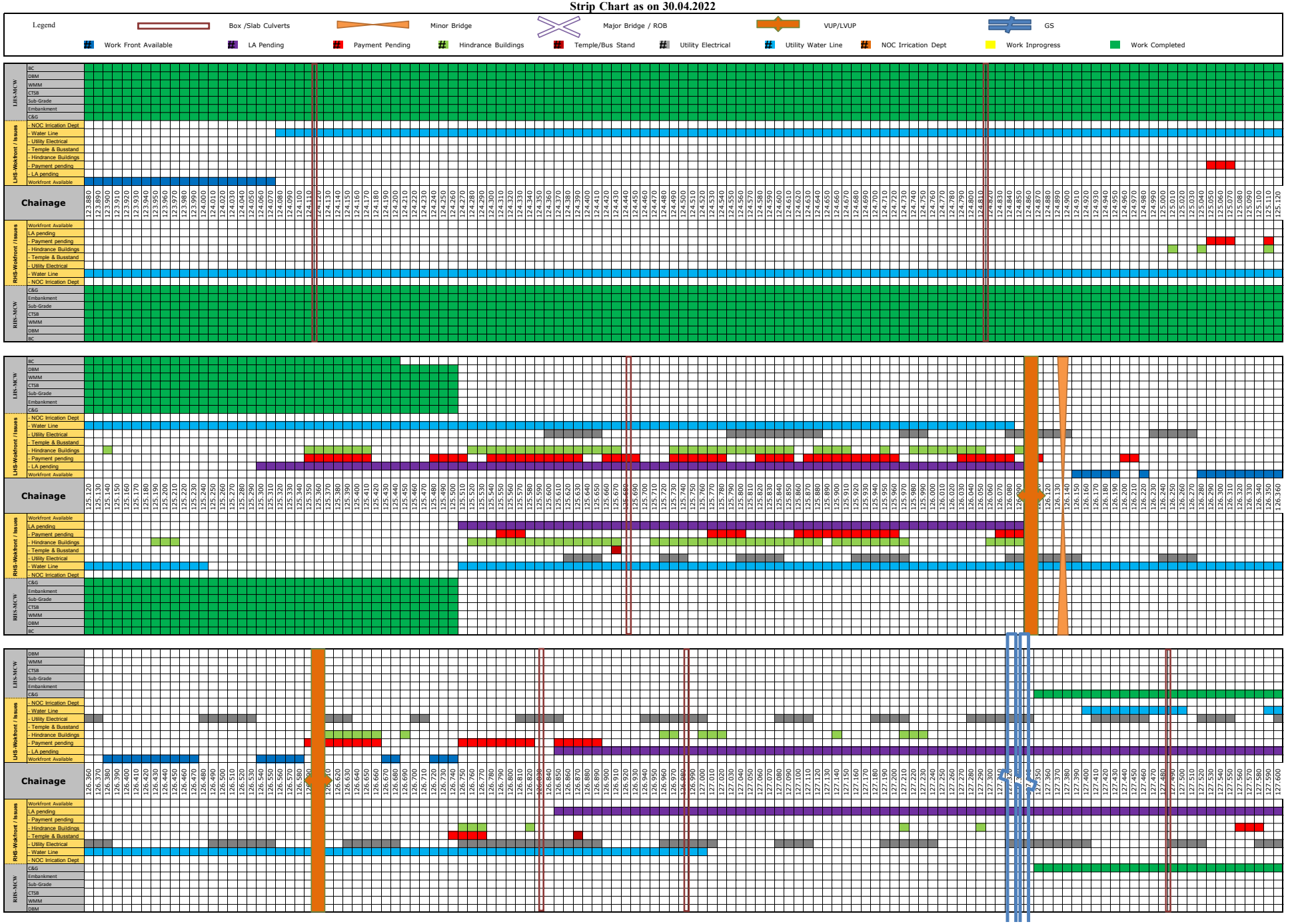
Cholopuram - Thanjavur Project

Strip Chart as on 30.04.2022

Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

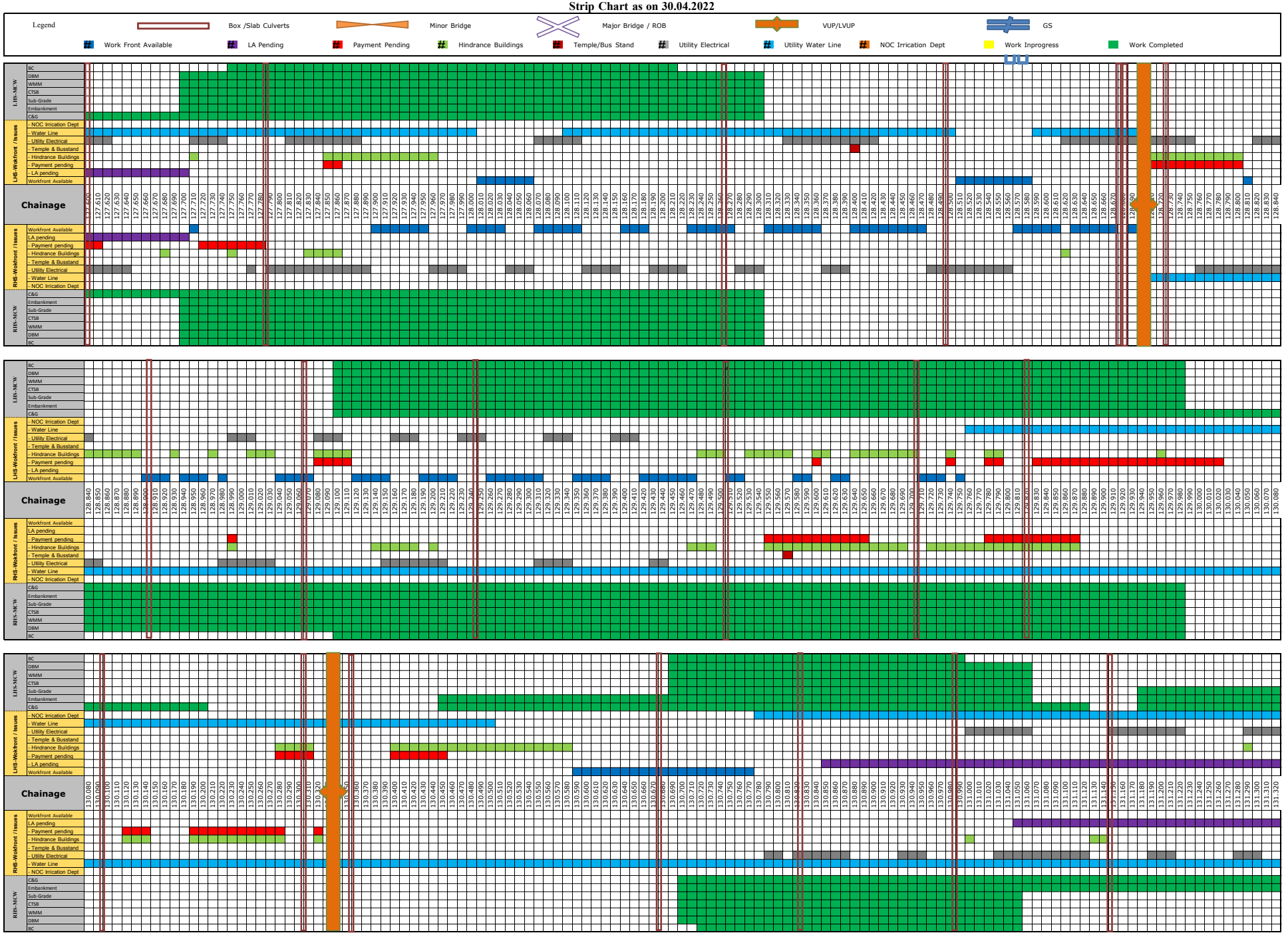
Strip Chart as on 30.04.2022



Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

Strip Chart as on 30.04.2022



Cholopuram - Thanjavur Project

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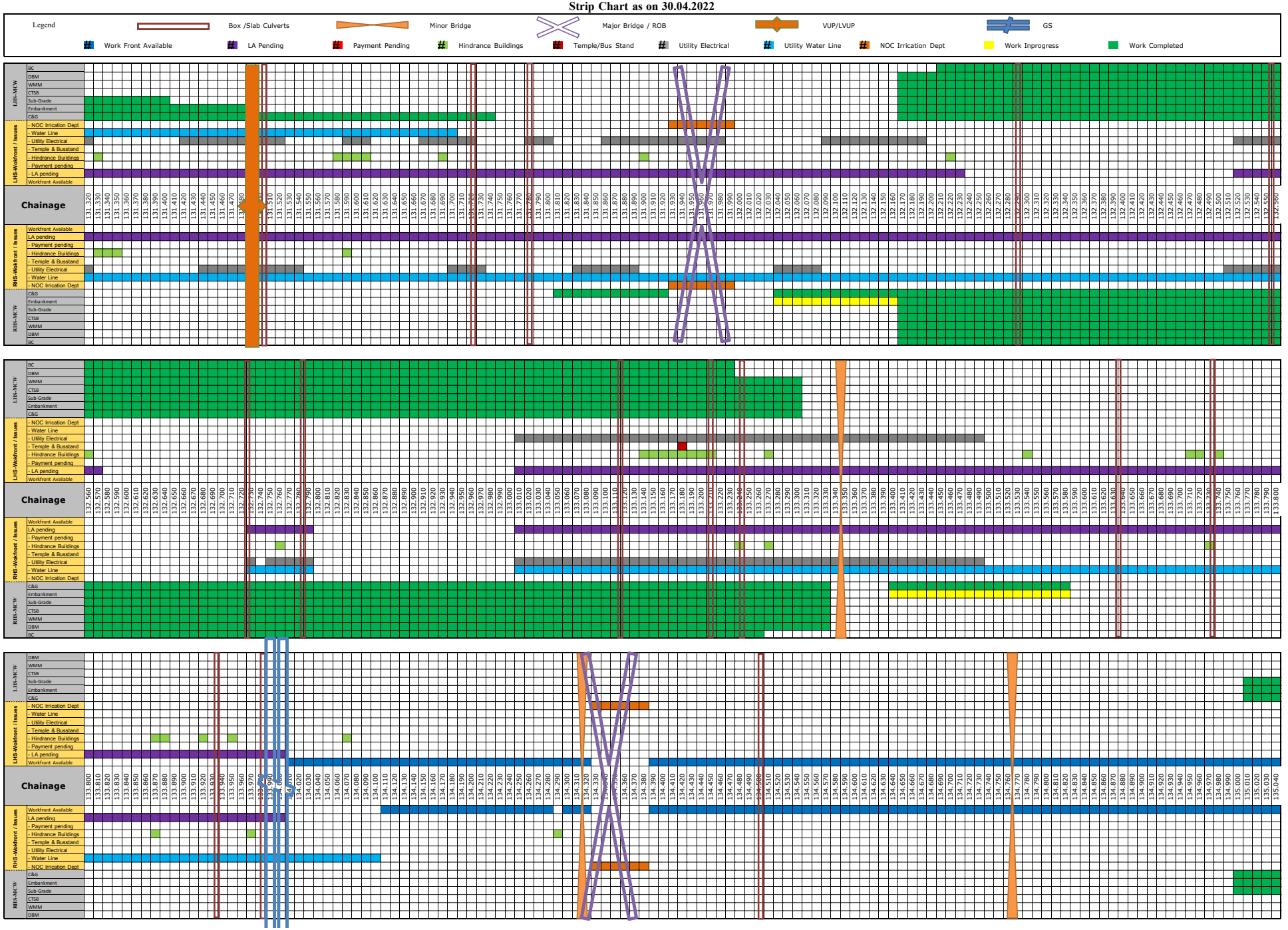

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Cholopuram - Thanjavur Project

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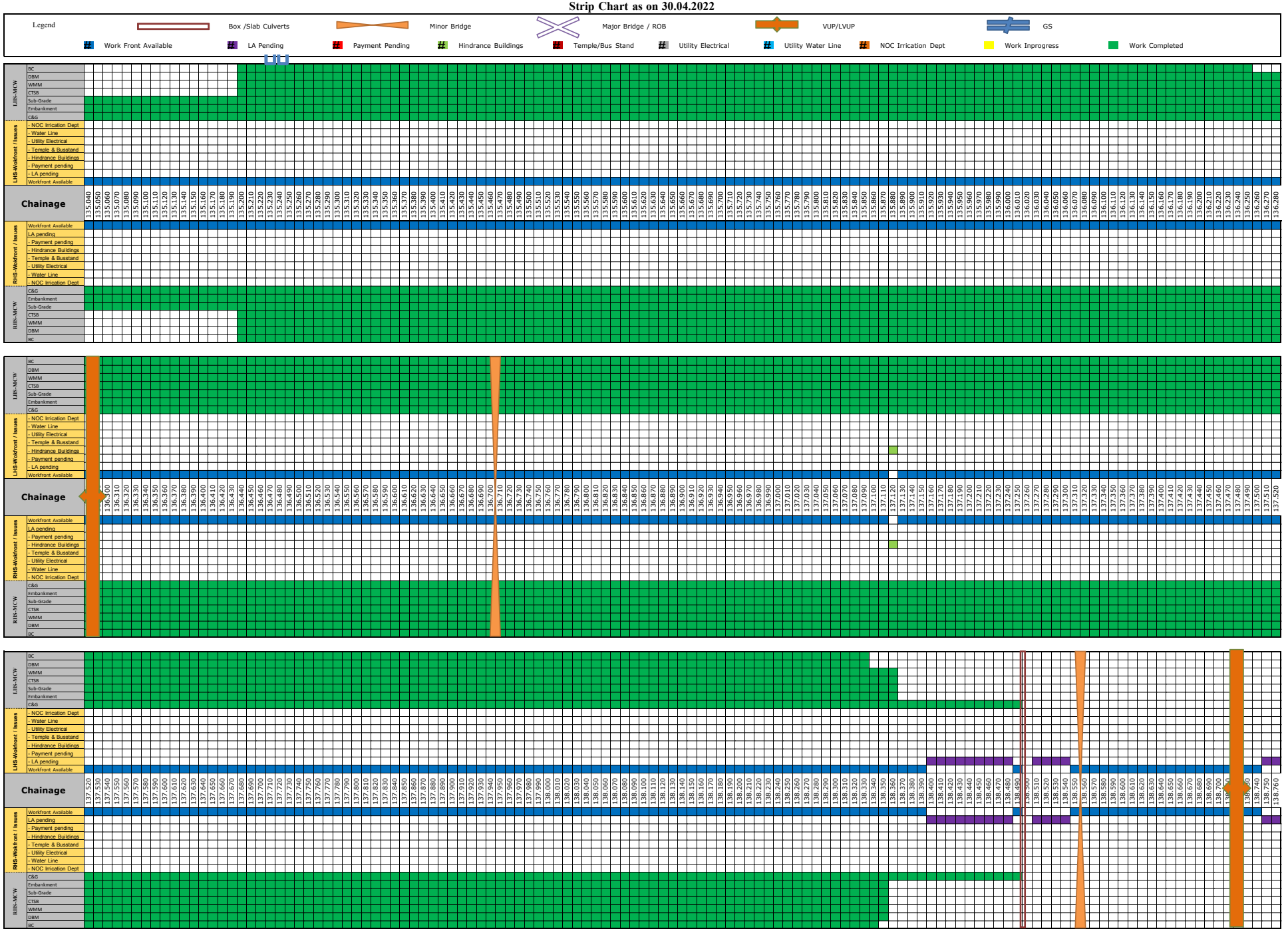

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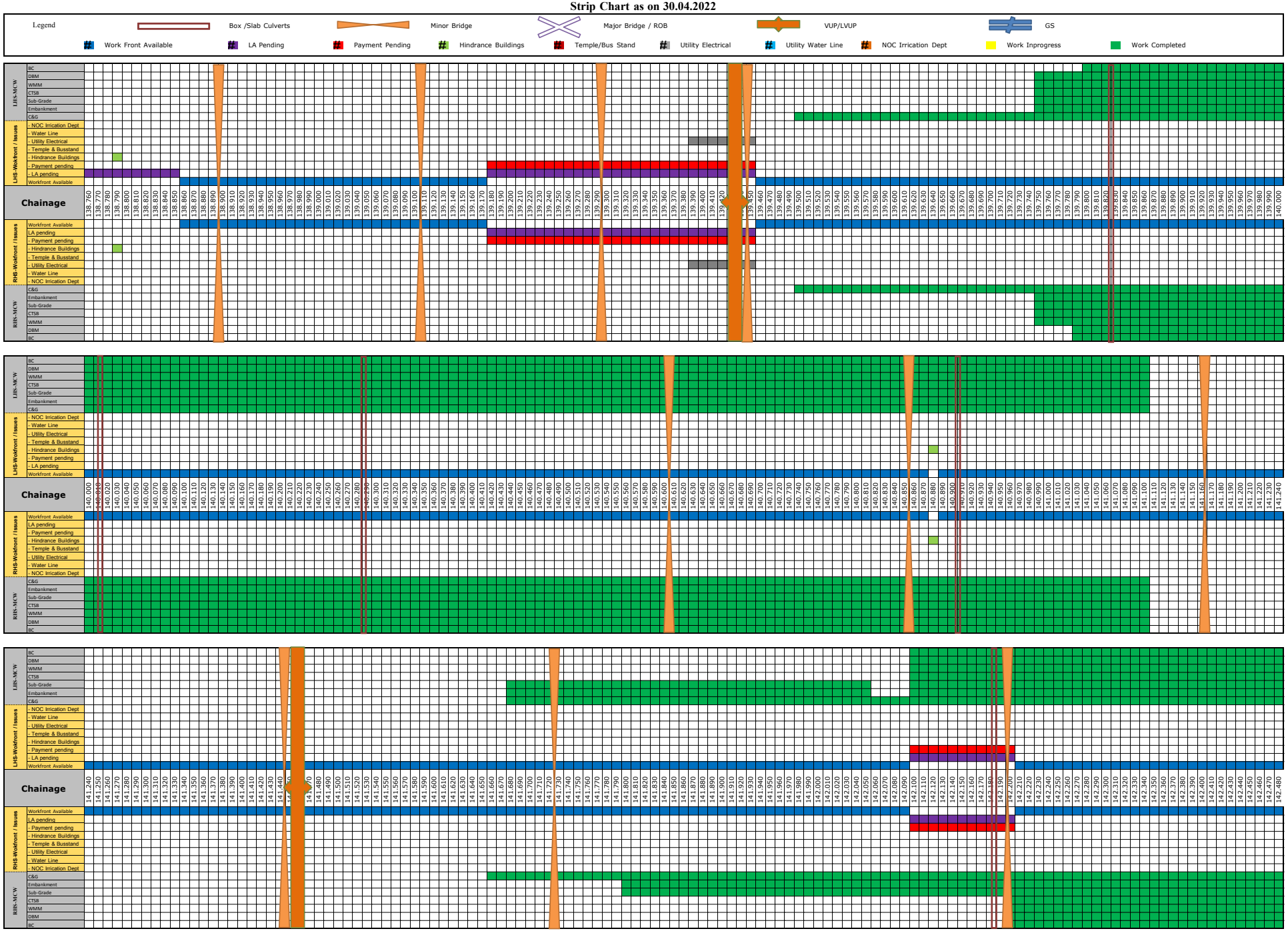

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Cholopuram - Thanjavur Project

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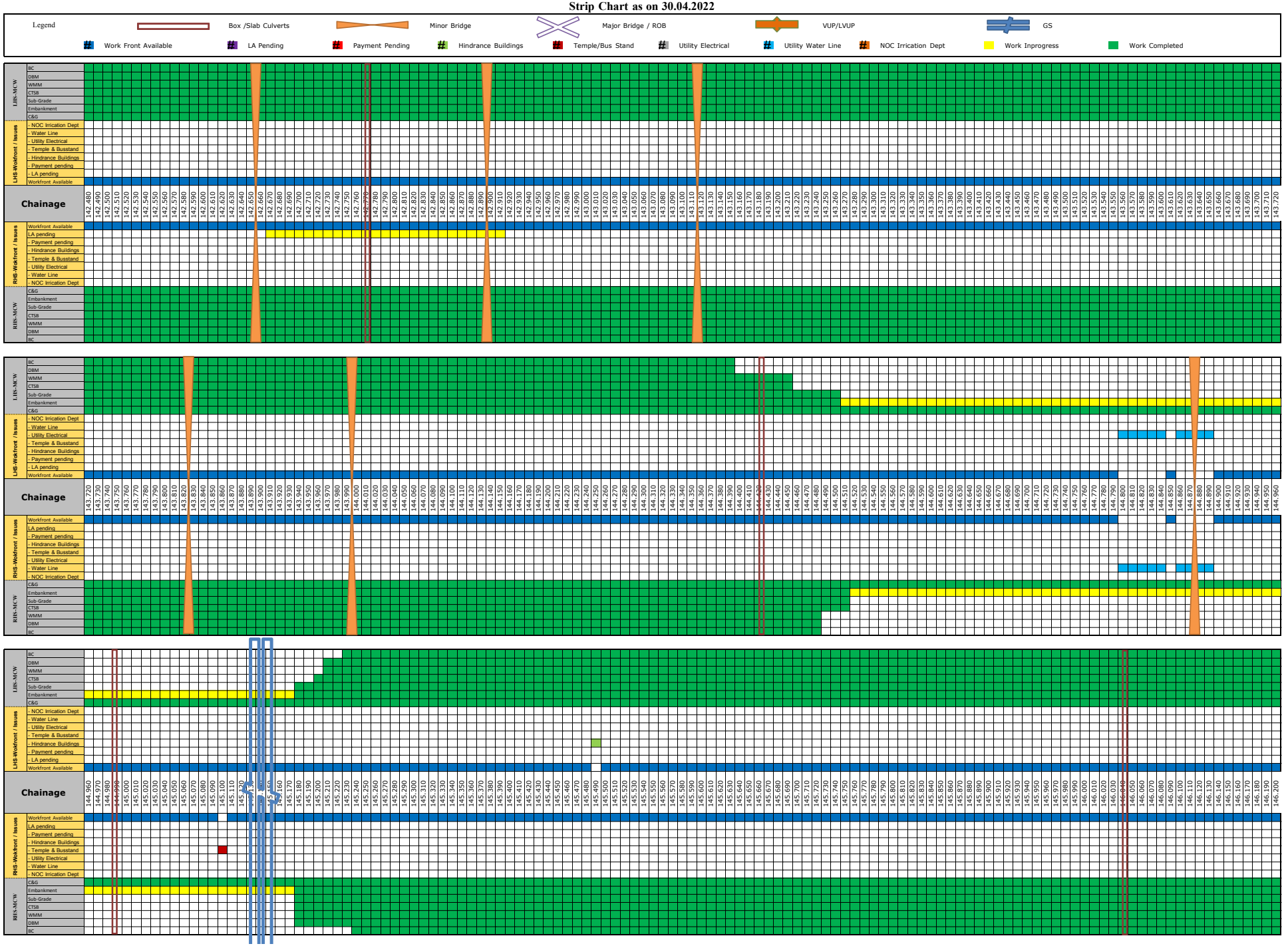

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Cholopuram - Thanjavur Project

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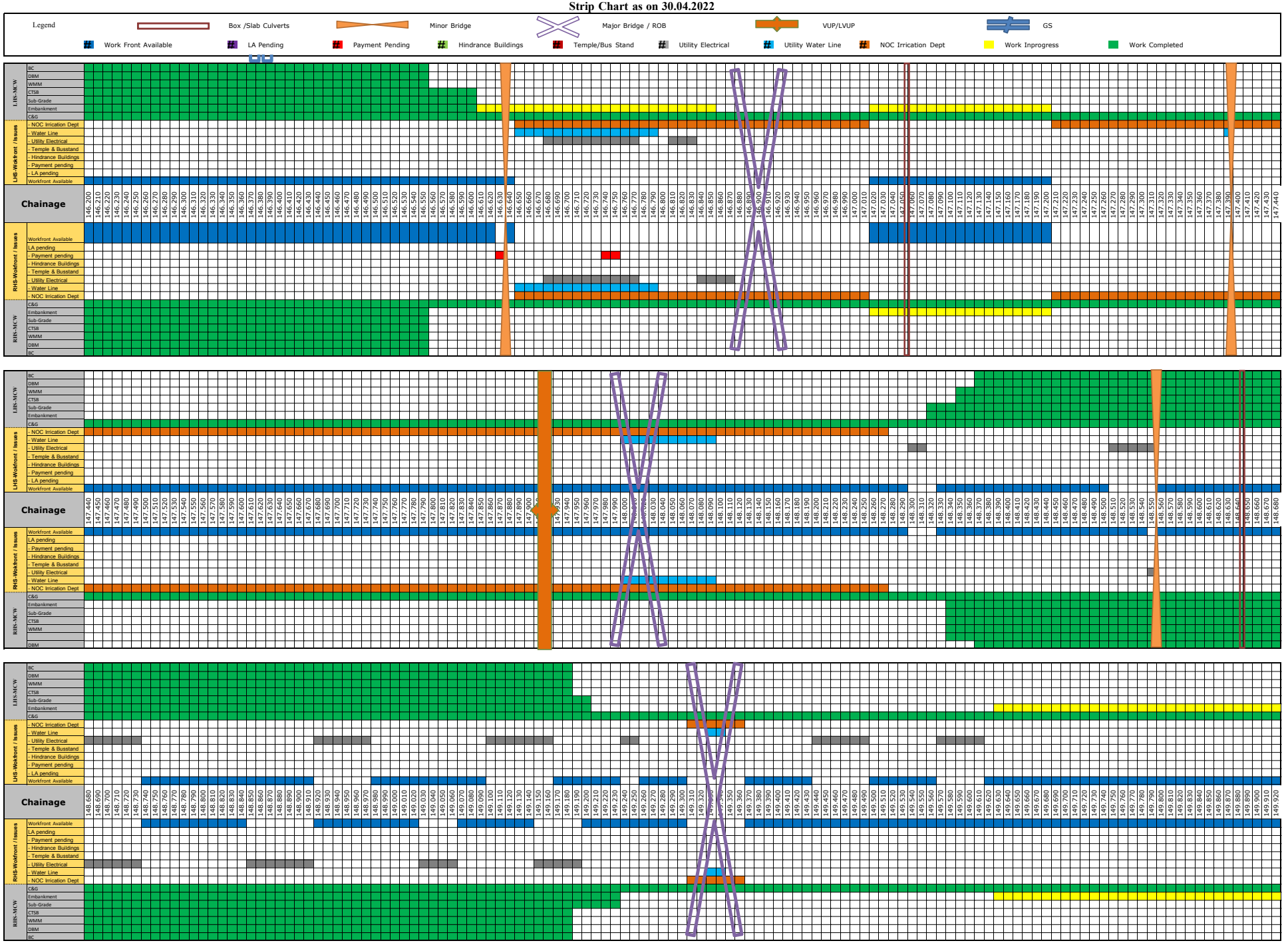

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Cholopuram - Thanjavur Project

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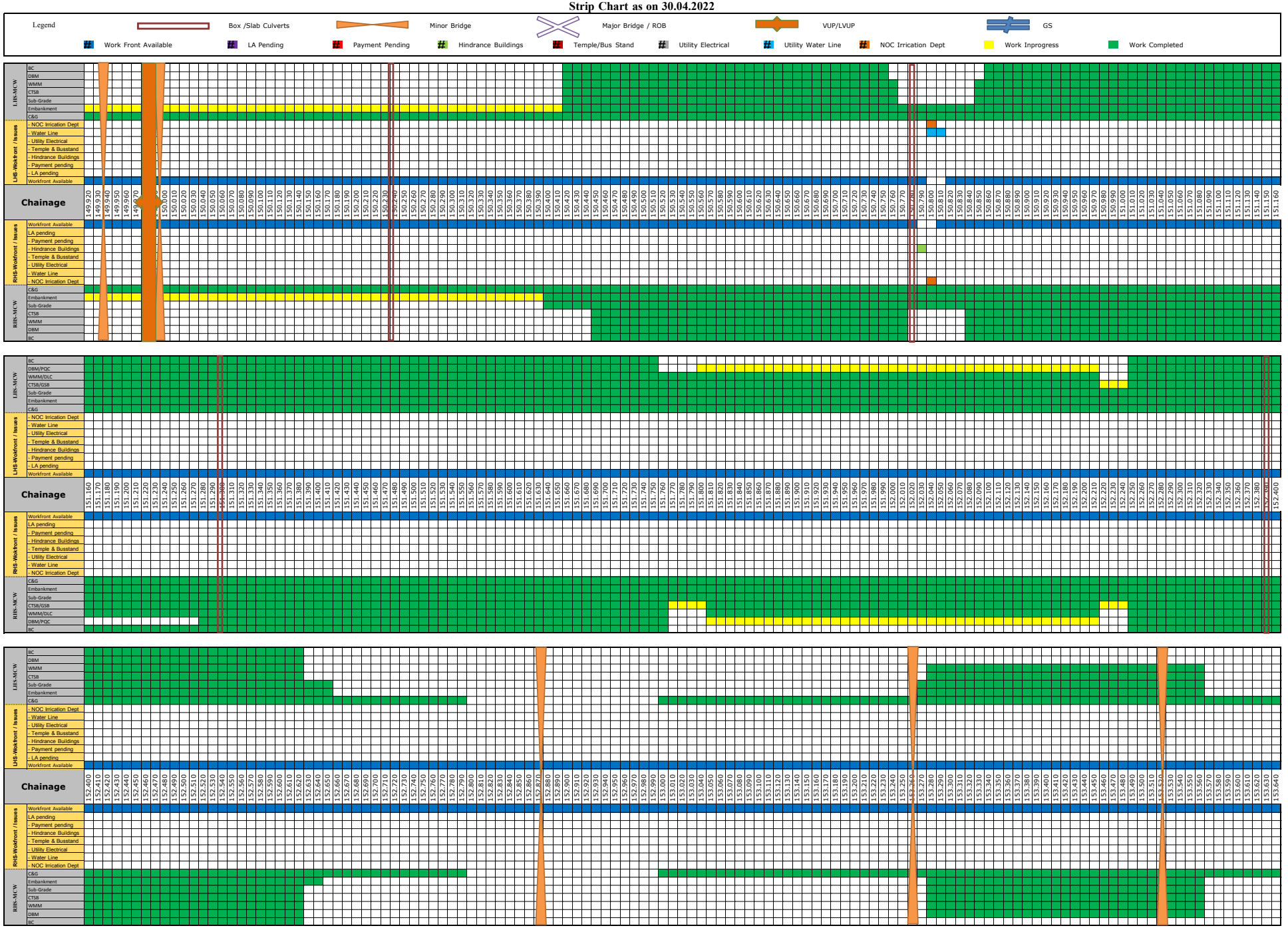

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Cholopuram - Thanjavur Project

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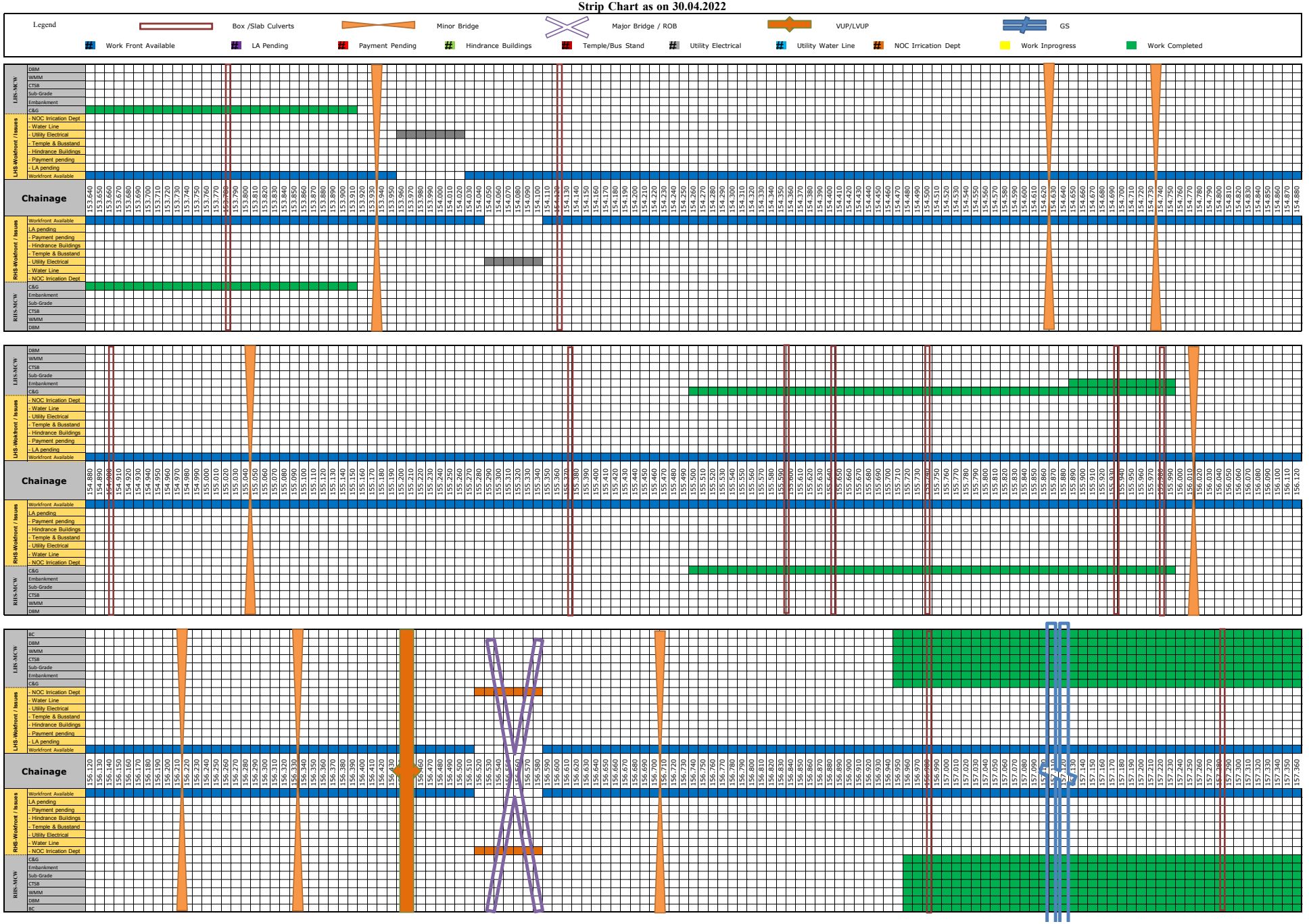

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Cholopuram - Thanjavur Project

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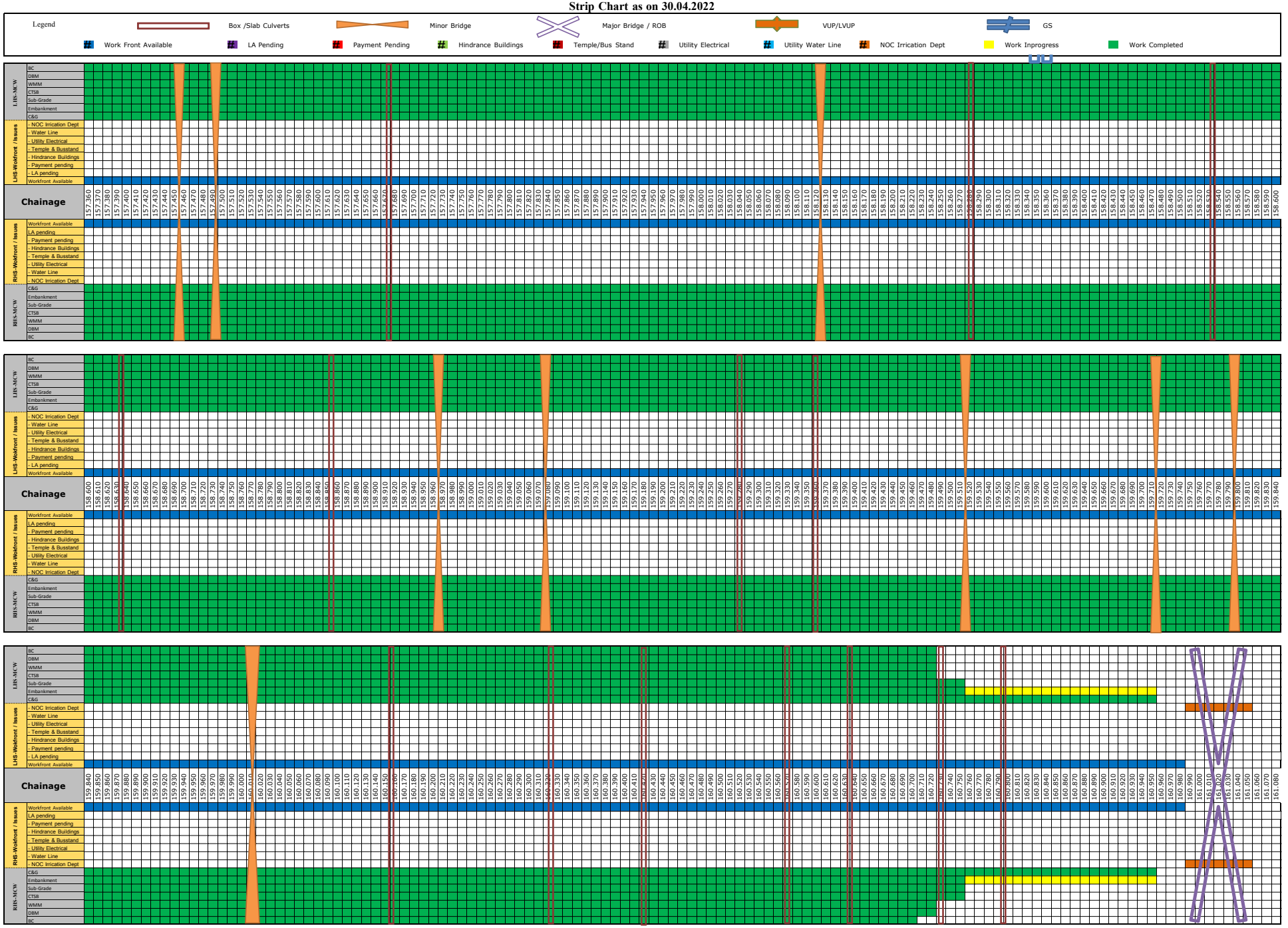

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Cholopuram - Thanjavur Project

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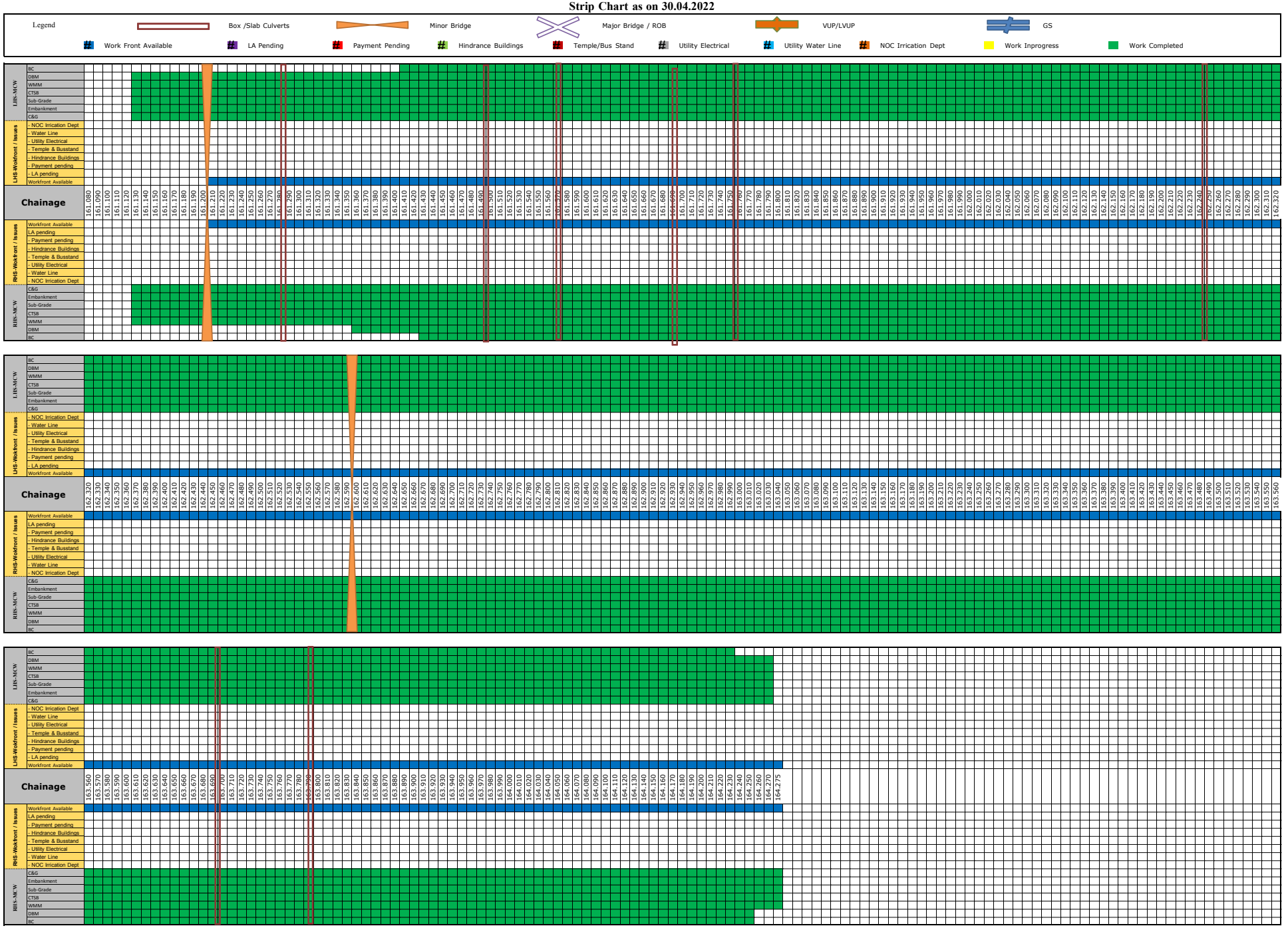


Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 1 : Strip Chart for status of Box Culverts on Existing Road (Main Carriageway)

IN PROGRESS

COMPLETED

MPR APRIL 2022

						LHS								RHS							
Sr. No.	Design Chainage As per CA	Revised Design Chainage	Number and Length of Spans (m)	Remarks (As per Schd B)	Type of Existing Structure	Protection Work	Return Wall & Parapet	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Return Wall & Parapet	Protection Work
1	116.602	116.612	1 x 2.0m	Widening	Slab Culvert																
2	116.837	116.846	1 x 2.0m	Widening	Slab Culvert																
3	116.954	116.963	1 x 1.6m	Widening	Slab Culvert																
4	120.068	120.077	1 x 3.0m	Reconstruction	Slab Culvert																
5	120.280	120.289	1 x 1.5m	Reconstruction	Slab Culvert																
6	120.346	120.356	1 x 1.5m	Reconstruction	Box Culvert																
7	120.836	120.845	1 x 2.0m	Widening	Box Culvert																
8	121.540	121.550	1 x 3.0m	Widening	Slab Culvert																
9	121.683	121.693	1 x 1.5m	Widening	Slab Culvert																
10	121.885	121.895	2 x 1.0m	Widening	Pipe Culvert																
11	122.375	122.385	1 x 1.0m	Widening	Pipe Culvert																
12	122.497	122.508	2 x 1.0m	Widening	Pipe Culvert																
13	122.678	122.688	2 x 1.0m	Widening	Pipe Culvert																
14	122.835	122.845	1 x 3.0m	Widening	Slab Culvert																
15	122.943	122.952	2 x 1.0m	Widening	Pipe Culvert																
16	124.118	124.120	1 x 1.5m	Widening	Slab Culvert																
17	124.820	124.823	1 x 1.0m	Widening	Pipe Culvert																
18	125.682	125.685	1 x 1.5m	Widening	Slab Culvert																
19	126.836	126.854	1 x 3.0m	Reconstruction	Slab Culvert																
20	126.987	127.007	1 x 2.0m	Reconstruction	Slab Culvert																
21	127.488	127.498	1 x 1.2m	Reconstruction	Pipe Culvert																
22	127.600	127.612	3 x 1.2m	Reconstruction	Pipe Culvert																
23	127.788	127.800	1 x 0.9m	Widening	Pipe Culvert																
24	128.267	128.279	1 x 0.9m	Widening	Pipe Culvert																
25	128.494	128.505	1 x 1.2m	Reconstruction	Pipe Culvert																
26	128.675	128.667	1 x 2.0m	Reconstruction	Box Culvert																
27	128.682	128.693	1 x 2.0m	Reconstruction	Slab Culvert																
28	128.727	128.724	3 x 1.2m	Reconstruction	Pipe Culvert																
29	128.904	128.916	1 x 1.2m	Reconstruction	Pipe Culvert																
30	129.067	129.079	1 x 1.2m	Reconstruction	Pipe Culvert																
31	129.246	129.260	1 x 0.9m	Widening	Pipe Culvert																
32	129.507	129.519	1 x 3.0m	Widening	Slab Culvert																
33	129.707	129.719	1 x 2.5m	Widening	Slab Culvert																
34	129.823	129.835	1 x 0.9m	Widening	Pipe Culvert																
35	130.096	130.109	1 x 1.2m	Reconstruction	Pipe Culvert																
36	130.307	130.318	1 x 1.5m	Reconstruction	Slab Culvert																
37	130.357	130.369	1 x 1.5m	Reconstruction	Slab Culvert																
38	130.680	130.693	2 x 1.2m	Reconstruction	Pipe Culvert																
39	130.827	130.839	1 x 0.9m	Widening	Pipe Culvert																
40	130.989	130.999	1 x 3.0m	Widening	Slab Culvert																
41	131.146	131.159	1 x 0.9m	Widening	Pipe Culvert																
42	131.505	131.517	1 x 3.0m	Reconstruction	Slab Culvert																
43	131.722	131.733	1 x 1.2m	Reconstruction	Pipe Culvert																
44	131.780	131.792	1 x 1.2m	Reconstruction	Pipe Culvert																
45	132.300	132.319	1 x 3.0m	Widening	Slab Culvert																
46	132.557	132.571	1 x 3.0m	Widening	Slab Culvert																
47	132.730	132.742	1 x 3.0m	Widening	Slab Culvert																
48	132.789	132.803	1 x 2.0m	Widening	Slab Culvert																
49	133.115	133.128	1 x 5.0m	Widening	Slab Culvert																
50	133.210	133.222	1 x 2.0m	Widening	Slab Culvert																
51	133.240	133.268	1 x 0.9m	Widening	Pipe Culvert																
52	133.635	133.579	1 x 2.0m	Reconstruction	Slab Culvert																
53	133.734	133.748	1 x 2.0m	Reconstruction	Slab Culvert																
54	133.935	133.948	1 x 1.2m	Reconstruction	Pipe Culvert																
55	133.987	133.979	1 x 1.5m	Reconstruction	Slab Culvert																
56	163.700	163.700	2 x 0.9m	Widening	Pipe Culvert																
57	163.793	163.828	1 x 0.9m	Widening	Pipe Culvert																

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 1 : Strip Chart for status of Box Culverts on Existing Road (Service Road)

IN PROGRESS

COMPLETED

MPR APRIL 2022

Sr. No.	Design Chainage As per CA	Revised Design Chainage	Number and Length of Spans (m)	Remarks (As per Schd B)	Type of Existing Structure	LHS								RHS							
						Protection Work	Return Wall & Parapet	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Return Wall & Parapet	Protection Work
1	120.068	120.077	1 x 3.0	Reconstruction	Slab Culvert																
2	120.280	120.289	1 x 1.5	Reconstruction	Slab Culvert																
3	120.346	120.356	1 x 1.5	Reconstruction	Box Culvert																
4	126.836	126.854	1 x 3.0	Reconstruction	Slab Culvert																
5	126.987	127.007	1 x 2.0	Reconstruction	Slab Culvert																
6	127.488	127.498	1 x 1.2	Reconstruction	Pipe Culvert																
7	127.600	127.612	3 x 1.2	Reconstruction	Pipe Culvert																
8	128.494	128.505	1 x 1.2	Reconstruction	Pipe Culvert																
9	128.675	128.667	1 x 2.0	Reconstruction	Box Culvert																
10	128.682	128.693	1 x 2.0	Reconstruction	Slab Culvert																
11	128.727	128.724	3 x 1.2	Reconstruction	Pipe Culvert																
12	128.904	128.916	1 x 1.2	Reconstruction	Pipe Culvert																
13	129.067	129.079	1 x 1.2	Reconstruction	Pipe Culvert																
14	130.096	130.109	1 x 1.2	Reconstruction	Pipe Culvert																
15	130.307	130.318	1 x 1.5	Reconstruction	Slab Culvert																
16	130.357	130.369	1 x 1.5	Reconstruction	Slab Culvert																
17	130.680	130.693	2 x 1.2	Reconstruction	Pipe Culvert																
18	131.146	131.159	1 X 0.9	Widening	Pipe Culvert																
19	131.505	131.517	1 x 3.0	Reconstruction	Slab Culvert																
20	131.722	131.733	1 x 1.2	Reconstruction	Pipe Culvert																
21	131.780	131.792	1 x 1.2	Reconstruction	Pipe Culvert																
22	133.635	133.579	1 x 2.0	Reconstruction	Slab Culvert																
23	133.734	133.748	1 x 2.0	Reconstruction	Slab Culvert																
24	133.935	133.948	1 x 1.2	Reconstruction	Pipe Culvert																
25	133.987	133.979	1 x 1.2	Reconstruction	Pipe Culvert																

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 2 : Strip Chart for status of Box Culverts on Bypass (Main Carriageway)

IN PROGRESS — COMPLETED

MPR APRIL 2022

Sr. No.	Design Chainage As per CA	Revised Design Chainage	Number and Length of Spans (m)	Remarks	Type of Structure	LHS								RHS							
						Protection Work	Return Wall & Parapet	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Return Wall & Parapet	Protection Work
1	119.971	119.879	1 x 1.5m	Reconstruction	Slab Culvert																
2	134.500	134.514	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
3	138.492	138.523	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
4	139.827	139.856	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
5	140.010	140.040	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
6	140.292	140.322	1 x 3.0m x 2.0m	New Costruction	Box Culvert																
7	140.911	140.945	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
8	142.189	142.048	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
9	142.776	142.812	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
10	144.426	144.500	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
11	146.049	146.079	1 x 3.0m x 2.0m	New Costruction	Box Culvert																
12	147.060	147.075	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
13	148.650	148.650	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
14	150.237	150.265	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
15	150.780	150.791	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
16	152.390	152.418	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
17	153.781	153.809	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
18	154.129	154.157	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
19	154.900	154.927	1 x 3.0m x 2.0m	New Costruction	Box Culvert																
20	155.381	155.407	1 x 3.0m x 2.0m	New Costruction	Box Culvert																
21	155.601	155.628	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
22	155.645	155.672	1 x 3.0m x 2.0m	New Costruction	Box Culvert																
23	155.743	155.770	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
24	155.938	155.962	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
25	156.984	157.012	1 x 3.0m x 2.0m	New Costruction	Box Culvert																
26	157.283	157.310	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
27	157.678	157.701	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
28	158.283	158.310	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
29	158.531	158.558	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
30	158.639	158.665	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
31	158.852	158.882	1 x 5.0m x 2.0m	New Costruction	Box Culvert																
32	159.282	159.300	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
33	159.361	159.385	1 x 3.0m x 2.0m	New Costruction	Box Culvert																
34	160.157	160.176	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
35	160.326	160.350	1 x 3.0m x 2.0m	New Costruction	Box Culvert																
36	160.420	160.445	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
37	160.572	160.594	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
38	160.635	160.658	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
39	160.733	160.754	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
40	160.798	160.850	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
41	161.288	161.310	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
42	161.499	161.501	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
43	161.573	161.595	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
44	161.693	161.717	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
45	161.757	161.759	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
46	162.243	162.255	1 x 4.0m x 2.0m	New Costruction	Box Culvert																

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 2 : Strip Chart for status of Box Culverts on Bypass (Service Road)

IN PROGRESS

COMPLETED

MPR APRIL 2022						LHS								RHS							
Sr. No.	Design Chainage As per CA	Revised Design Chainage	Number and Length of Spans (m)	Remarks	Type of Structure	Protection Work	Return Wall & Parapet	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Return Wall & Parapet	Protection Work
1	119.971	119.879	1 x 1.5m	Reconstruction	Slab Culvert																
2	134.500	134.514	1 x 2.0m x 2.0m	New Costruction	Box Culvert																
3	138.492	138.523	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
4	144.426	144.500	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
5	150.237	150.265	1 x 4.0m x 2.0m	New Costruction	Box Culvert																
6	156.984	157.012	1 x 3.0m x 2.0m	New Costruction	Box Culvert																
7	157.283	157.310	1 x 4.0m x 2.0m	New Costruction	Box Culvert																

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 3 : Strip Chart for status of MNB - Box (Main Carriageway)

IN PROGRESS | COMPLETED

MPR APRIL 2022

Sr. No.	Design Chainage As per CA	Revised Chainage	Number and Length of Spans (m)	Type of Structure	Stretch	LHS								RHS							
						Protection Work	Retaining Wall + CB	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Retaining Wall + CB	Protection Work
MNB IN EXISTING LENGTH																					
1	121.024	121.035	1 x 6.0m	MNBB	Existing																
2	122.046	122.058	3 x 7.5m	MNBB	Existing																
MNB IN BYPASS																					
1	117.764	117.779	2 x 10.0m	MNBB	Bypass																
2	118.217	118.110	1 x 8.0m	MNBB	Bypass																
3	118.400	119.570	1 x 6.0m	MNBB	Bypass																
4	118.480	118.480	1 x 6.0m	MNBB	Bypass																
5	118.539	118.548	1 x 8.0m	MNBB	Bypass																
6	118.919	119.100	1 x 6.0m	MNBB	Bypass																
7	126.134	126.134	2 X 10.0m	MNBB	Bypass																
8	134.320	134.320	2x 10.0m	MNBB	Bypass																
9	134.770	134.774	1 x 10.0m	MNBB	Bypass																
10	136.705	136.738	1 x 6.0m	MNBB	Bypass																
11	138.555	138.585	1 x 6.0m	MNBB	Bypass																
12	138.901	138.935	6 x 7.5m	MNBB	Bypass																
13	139.105	139.138	2 x 15m	MNBB	Bypass																
14	139.299	139.335	4 x 7.5m	MNBB	Bypass																
15	139.453	139.485	1 x 7.0m	MNBB	Bypass																
16	140.605	140.637	1 x 6.0m	MNBB	Bypass																
17	140.860	140.892	1 x 8.0m	MNBB	Bypass																
18	141.164	141.145	1 x 10.0m	MNBB	Bypass																
19	141.445	141.466	1 x 8.0m	MNBB	Bypass																
20	141.727	141.760	1 x 8.0m	MNBB	Bypass																
21	142.204	142.235	1 x 8.0m	MNBB	Bypass																
22	142.657	142.687	1 x 6.0m	MNBB	Bypass																
23	142.897	142.932	2 x 8.0m	MNBB	Bypass																
24	143.115	143.136	6 x 7.5m	MNBB	Bypass																
25	143.823	143.852	2 x 8.0m	MNBB	Bypass																
26	144.000	143.995	2 x 10.0m	MNBB	Bypass																
27	144.880	144.916	4 x 7.5m	MNBB	Bypass																
28	146.639	146.671	1 x 10.0m	MNBB	Bypass																
29	147.396	147.426	1 x 8.0m	MNBB	Bypass																
30	148.560	148.592	1 x 8.0m	MNBB	Bypass																
31	149.940	149.962	1 x 10.0m	MNBB	Bypass																
32	149.997	150.028	1 x 6.0m	MNBB	Bypass																
33	152.876	152.911	2 x 10.0m	MNBB	Bypass																
34	153.263	153.287	1 x 10.0m	MNBB	Bypass																
35	153.528	153.557	1 x 6.0m	MNBB	Bypass																
36	153.939	153.968	1 x 10.0m	MNBB	Bypass																
37	154.626	154.659	1 x 6.0m	MNBB	Bypass																
38	154.739	154.764	1 x 10.0m	MNBB	Bypass																
39	155.049	155.082	2 x 7.5m	MNBB	Bypass																
40	156.014	156.040	1 x 8.0m	MNBB	Bypass																
41	156.216	156.244	1 x 6.0m	MNBB	Bypass																
42	156.336	156.366	1 x 6.0m	MNBB	Bypass																
43	156.707	156.734	1 x 10.0m	MNBB	Bypass																
44	157.458	157.485	1 x 7.0m	MNBB	Bypass																
45	157.494	157.517	1 x 8.0m	MNBB	Bypass																
46	158.128	158.155	1 x 7.0m	MNBB	Bypass																
47	158.972	158.994	1 x 6.0m	MNBB	Bypass																
48	159.076	159.103	1 x 8.0m	MNBB	Bypass																
49	159.723	159.742	1 x 6.0m	MNBB	Bypass																
50	159.801	159.835	1 x 6.0m	MNBB	Bypass																
51	161.208	161.227	1 x 8.0m	MNBB	Bypass																
52	162.595	162.618	2 x 15m	MNBB	Bypass																

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 3 : Strip Chart for status of MNB - Deck Type (Main Carriageway)

IN PROGRESS

COMPLETED

MPR APRIL 2022

SR. NO.	MNB at Chainage	Span	Pier/ Abutment	LHS								RHS							
				Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtc ap	Pier/Abt	Open Foundation	PCC For foundation	PCC For foundation/Piling work	Open Foundation/Pile Cap	Pier/Abt	Piercap/Abtc ap	Girder Casting	Girder Launching	Slab	Crash Barrier
1	133+345	3x12.5m	A1	EXISTING STRUCTURE															
			P1																
			P2																
			A2																
2	159+522	1x15.0m	A1																
			A2																

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 3 : Strip Chart for status of MNB - Box (Service Road)

IN PROGRESS

COMPLETED

MPR APRIL 2022

Sr. No.	Design Chainage As per CA	Revised Chainage	Number and Length of Spans (m)	Type of Structure	Stretch	LHS							RHS						
						Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Protection Work
MNB SERVICE ROAD IN BYPASS																			
1	117.764	117.779	2 x 10.0m	MNBB	Bypass														
2	126.134	126.134	2 X 10.0m	MNBB	Realign														
3	134.320	134.320	2x 10.0m	MNBB	Bypass														
4	134.770	134.774	1 x 10.0m	MNBB	Bypass														
5	138.555	138.585	1 x 6.0m	MNBB	Bypass														
6	138.901	138.935	6 x 7.5m	MNBB	Bypass														
7	139.105	139.138	2 x 15m	MNBB	Bypass														
8	139.299	139.335	4 x 7.5m	MNBB	Bypass														
9	139.453	139.485	1 x 7.0m	MNBB	Bypass														
10	141.164	141.145	1 x 10.0m	MNBB	Bypass														
11	141.445	141.466	1 x 8.0m	MNBB	Bypass														
12	141.727	141.760	1 x 8.0m	MNBB	Bypass														
13	144.880	144.916	4 x 7.5m	MNBB	Bypass														
14	149.940	149.962	1 x 10.0m	MNBB	Bypass														
15	149.997	150.028	1 x 6.0m	MNBB	Bypass														
16	156.014	156.040	1 x 8.0m	MNBB	Bypass														
17	156.216	156.244	1 x 6.0m	MNBB	Bypass														
18	156.336	156.366	1 x 6.0m	MNBB	Bypass														
19	156.707	156.734	1 x 10.0m	MNBB	Bypass														

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 4 : Strip Chart for status of PUP — IN PROGRESS — COMPLETED

MPR APRIL 2022

Sr. No.	Design Chainage As per CA	Chainage as Per Site	Number and Length of Spans (m)		LHS: Protection Work	LHS: Slab	LHS: Wall	LHS: Raft	LHS: PCC	LHS: Excavation	RHS: Excavation	RHS: PCC	RHS: Raft	RHS: Wall	RHS: Slab	RHS: Protection Work
1	147.917	147.951	1 X 7 m	BYPASS												
2	149.988	150.023	1 X 7 m	BYPASS												

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3- 5 : Strip Chart for status of MJB
(Main Carriageway)

IN PROGRESS

COMPLETED

MPR APRIL 2022

MJB at Chainage 131+980 (3x20) -WIDENING RHS

	LHS/LSR								RHS/RSR							
	Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier
A1	Existing Bridge (Repair Only)															
P1																
P2																
A2																

MJB at Chainage 149+334 (3x20)- BYPASS

	LHS/LSR								RHS/RSR							
	Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier
A1																
P1																
P2																
P3																
A2																

MJB at Chainage 156+559 (6x20)- BYPASS

	LHS/LSR								RHS/RSR							
	Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier
P2																
P3																
P4																
P5																
P6																
A2																

MJB at Chainage 161+019 (6x20)- BYPASS

	LHS/LSR								RHS/RSR							
	Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier
A1																
P1																
P2																
P3																
P4																
P5																
P6																
A2																

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu
Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 6 : Strip Chart for status of FLYOVER — IN PROGRESS — COMPLETED

MPR APRIL 2022					LHS									RHS								
Sr. No.	FO at Chainage	Span			Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtcap	Pier/Abt	Pile Cap	PCC	Pile	Pile	PCC	Pile Cap	Pier/Abt	Piercap/Abtcap	Girder Casting	Girder Launching	Slab	Crash Barrier
1	117+600	1 x 30 m	BYPASS+ EXISTING	A1																		
				A2																		
2	120+000	1 x 30 m	BYPASS+ EXISTING	A1																		
				A2																		
3	127+300	1 x 30 m	EXISTING	A1																		
				A2																		
4	134+000	1 x 30 m	BYPASS+ EXISTING	A1																		
				A2																		
5	145+140	1 x 30 m	BYPASS	A1																		
				A2																		
6	157+100	1 x 30 m	BYPASS	A1																		
				A2																		

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu
Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 7 : Strip Chart for status of VUP — IN PROGRESS — COMPLETED

MPR APRIL 2022

SR. NO.	VUP at Chainage	Span			LHS: Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtcap	Pier/Abt	Pile Cap	PCC	Pile	RHS: Pile	PCC	Pile Cap	Pier/Abt	Piercap/Abtcap	Girder Casting	Girder Launching	Slab	Crash Barrier
1	126+100	1x25	EXISTING	A1																		
				A2																		
2	126+600	1x25	EXISTING	A1																		
				A2																		
3	128+700	1x25	EXISTING	A1																		
				A2																		
4	130+335	1x25	EXISTING	A1																		
				A2																		
5	131+500	1x25	EXISTING	A1																		
				A2																		
6	136+282	1x25	BYPASS	A1																		
				A2																		
7	138+720	1x25	BYPASS	A1																		
				A2																		
8	139+440	1x25	BYPASS	A1																		
				A2																		
9	141+450	1x25	BYPASS	A1																		
				A2																		
10	156+446	1x25	BYPASS	A1																		
				A2																		

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu
Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 8 : Strip Chart for status of ROB — IN PROGRESS — COMPLETED

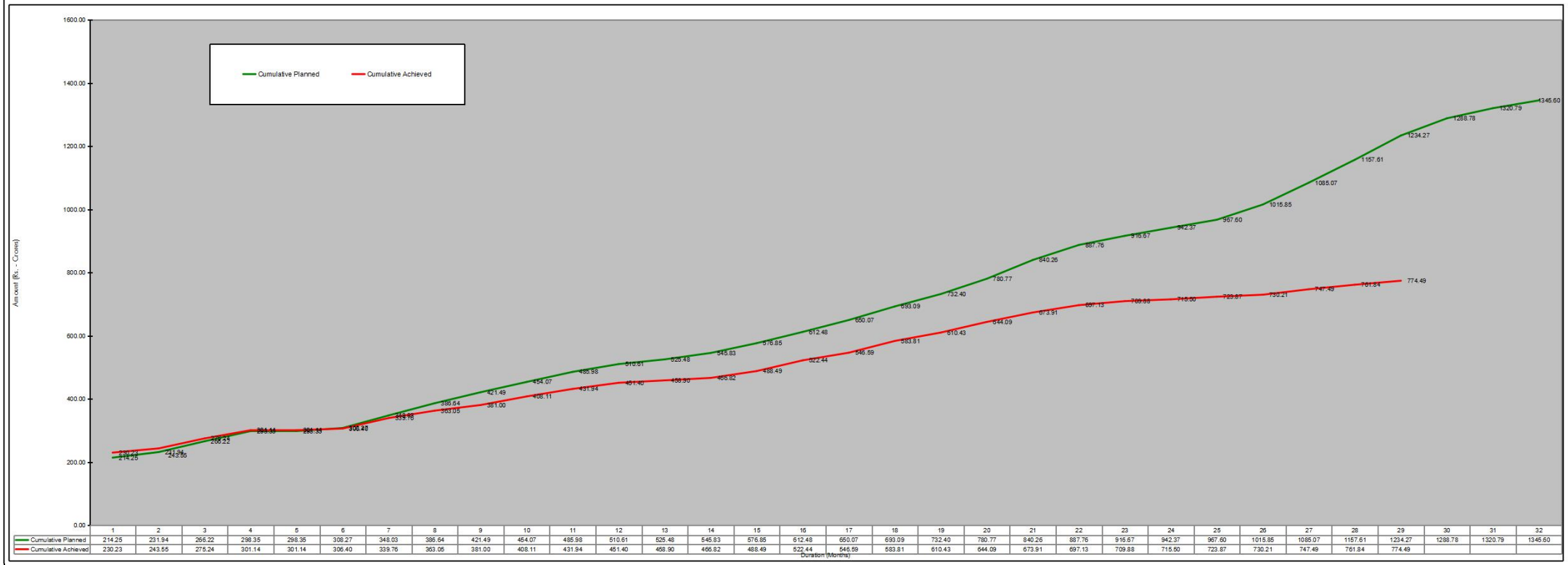
MPR APRIL 2022 — ROB at Chainage 134+345 (1 x 20.285m+1 x 30.426m+1 x 20.285m (Skew 9.6 °))- EXISTING

	LHS/LSR										RHS/RSR									
	Crash Barrier	Slab	Steel Girder Launching	Steel Girder Fabrication	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Steel Girder Fabrication	Steel Girder Launching	Slab	Crash Barrier
A1			NA	NA													NA	NA		
P1					NA	NA									NA	NA				
P2					NA	NA									NA	NA				
A2			NA	NA													NA	NA		

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

Four Laning of Cholopuram – Thanjavur from Km. 116.440 to 164.275 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode

Fig. 03a- Financial Progress (S-Curve) as per revised target

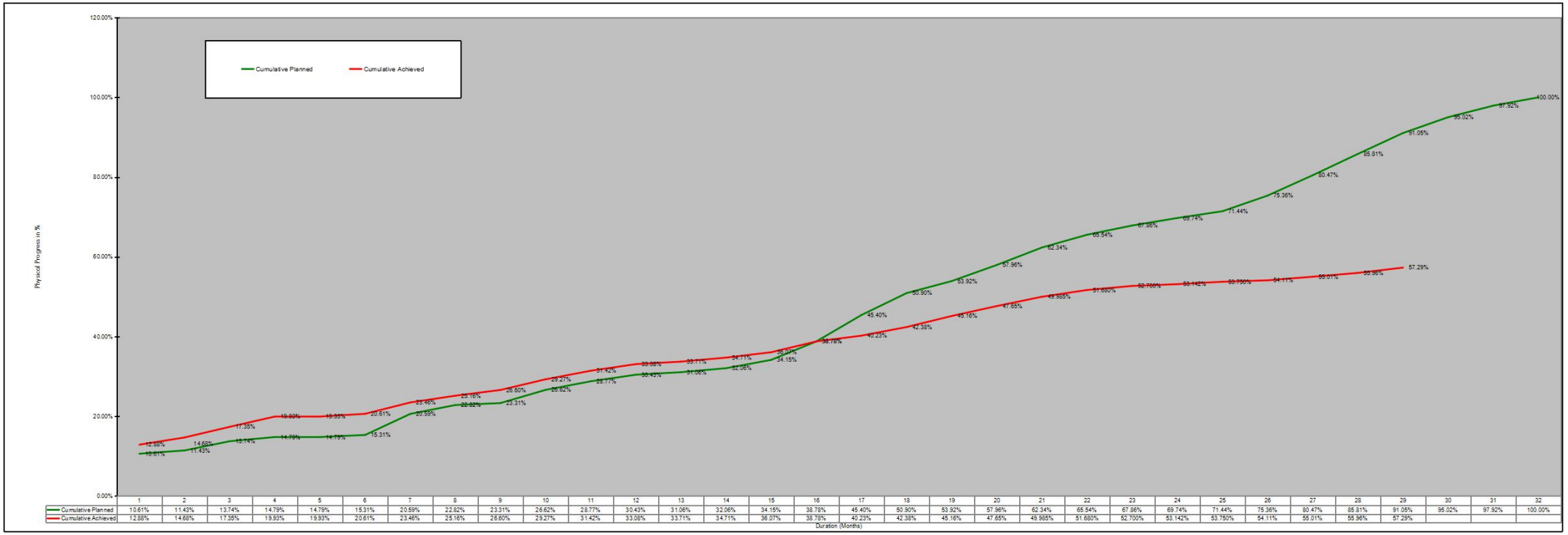


		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cumulative Planned		214.25	231.94	266.22	298.35	298.35	308.27	348.03	386.64	421.49	454.07	485.98	510.61	525.48	545.83	576.85	612.48	650.07	693.09	732.40	780.77	840.26	887.76	916.67	942.37	967.60	1015.85	1085.07	1157.61	1234.27	1288.78	1320.79	1345.60
Cumulative Achieved		230.23	243.55	275.24	301.14	301.14	306.40	339.76	363.05	381.00	408.11	431.94	451.40	458.90	466.82	488.49	522.44	546.59	583.81	610.43	644.09	673.91	697.13	709.88	715.50	723.87	730.21	747.49	761.84	774.49			

	Schedule	2019	2020												2021												2022						
		Upto Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Revised Target vs Achieved as per revised target	Monthly Planned	214.25	17.68	34.28	32.13	0.00	9.92	39.76	38.61	34.85	32.58	31.91	24.64	14.86	20.36	31.02	35.63	37.59	43.02	39.31	48.38	59.49	47.49	28.92	25.70	25.23	48.25	69.22	72.54	76.67	54.51	32.01	24.80
	MonthlyAchieved	16.43	13.33	31.69	25.90	0.00	5.26	33.36	23.29	17.95	27.11	23.83	19.46	7.50	7.92	21.67	33.95	24.15	37.21	26.63	33.66	29.81	23.23	12.75	5.61	8.37	6.34	17.28	14.35	12.65			
	Cumulative Planned	214.25	231.94	266.22	298.35	298.35	308.27	348.03	386.64	421.49	454.07	485.98	510.61	525.48	545.83	576.85	612.48	650.07	693.09	732.40	780.77	840.26	887.76	916.67	942.37	967.60	1015.85	1085.07	1157.61	1234.27	1288.78	1320.79	1345.60
	Cumulative Achieved	230.23	243.55	275.24	301.14	301.14	306.40	339.76	363.05	381.00	408.11	431.94	451.40	458.90	466.82	488.49	522.44	546.59	583.81	610.43	644.09	673.91	697.13	709.88	715.50	723.87	730.21	747.49	761.84	774.49			
	Monthly Planned (%)	15.92%	1.31%	2.55%	2.39%	0.00%	0.74%	2.95%	2.87%	2.59%	2.42%	2.37%	1.83%	1.10%	1.51%	2.31%	2.65%	2.79%	3.20%	2.92%	3.60%	4.42%	3.53%	2.15%	1.91%	1.88%	3.59%	5.14%	5.39%	5.70%	4.05%	2.38%	1.84%
	Monthly Achieved (%)	1.22%	0.99%	2.35%	1.92%	0.00%	0.39%	2.48%	1.73%	1.33%	2.01%	1.77%	1.45%	0.56%	0.59%	1.61%	2.52%	1.80%	2.77%	1.98%	2.50%	2.22%	1.73%	0.95%	0.42%	0.62%	0.47%	1.28%	1.07%	0.94%			
	Cumulative Planned (%)	15.92%	17.24%	19.78%	22.17%	22.17%	22.91%	25.86%	28.73%	31.32%	33.74%	36.12%	37.95%	39.05%	40.56%	42.87%	45.52%	48.31%	51.51%	54.43%	58.02%	62.45%	65.97%	68.12%	70.03%	71.91%	75.49%	80.64%	86.03%	91.73%	95.78%	98.16%	100.00%
	Cumulative Achieved (%)	17.11%	18.10%	20.45%	22.38%	22.38%	22.77%	25.25%	26.98%	28.31%	30.33%	32.10%	33.55%	34.10%	34.69%	36.30%	38.83%	40.62%	43.39%	45.36%	47.87%	50.08%	51.81%	52.76%	53.17%	53.80%	54.27%	55.55%	56.62%	57.56%			

Four Laning of Cholopuram – Thanjavur from Km. 116.440 to 164.275 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode

Fig. 03b- Physical Progress (S-Curve) as per revised target



	Schedule	2019	2020												2021												2022						
		Upto Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Revised Target vs Achieved as per revised target	Monthly Planned	0.50%	0.82%	2.31%	1.05%	0.00%	0.52%	5.28%	2.23%	0.49%	3.31%	2.15%	1.66%	0.63%	1.00%	2.09%	4.63%	6.62%	5.50%	3.02%	4.04%	4.38%	3.20%	2.32%	1.88%	1.70%	3.92%	5.11%	5.34%	5.24%	3.97%	2.90%	2.08%
	MonthlyAchieved	0.73%	1.80%	2.67%	2.58%	0.00%	0.69%	2.85%	1.70%	1.44%	2.67%	2.15%	1.66%	0.63%	1.00%	1.35%	2.71%	1.45%	2.16%	2.78%	2.49%	2.333%	1.695%	1.02%	0.44%	0.61%	0.36%	0.90%	0.96%	1.33%			
	Cumulative Planned	10.61%	11.43%	13.74%	14.79%	14.79%	15.31%	20.59%	22.82%	23.31%	26.62%	28.77%	30.43%	31.06%	32.06%	34.15%	38.78%	45.40%	50.90%	53.92%	57.96%	62.34%	65.54%	67.86%	69.74%	71.44%	75.36%	80.47%	85.81%	91.05%	95.02%	97.92%	100.00%
	Cumulative Achieved	12.88%	14.68%	17.35%	19.93%	19.93%	20.61%	23.46%	25.16%	26.60%	29.27%	31.42%	33.08%	33.71%	34.71%	36.07%	38.78%	40.23%	42.38%	45.16%	47.65%	49.985%	51.680%	52.700%	53.142%	53.750%	54.11%	55.01%	55.96%	57.29%			

6.1. List of Lab Equipment's

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

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

Sl. No	Equipment List	Quantity
A)	SOIL	
1	Proctor Moulds (Big) Collar or Base plate & Rammer 4.89 kg	6
2	Proctor Moulds (Small) Collar or Base plate & Rammer 2.6 kg	4
3	Atterberg Limits Test(Apparatus)	1
4	Soil Cone Penetrometer	1
5	CBR Moulds with collar or Base Plate	60
6	CBR Plunger	4
7	Proving Ring(25 KN)	1
8	Proving Ring(10 KN)	1
9	Proving Ring(2.5 KN)	1
10	FSI JARS BOROSIL -100 ml	40
11	Spacer Disc(with Handle)	4
12	CBR Testing Machine	1
13	CBR Surcharge Central Hole Weights 2.5 kg	60
14	CBR Surcharge Slotted Weights 2.5 kg	60
15	CBR Perorated Brass plates	60
16	Sand Pouring Cylinders (100 mm Dia) Complete with Calibrating Container with Trays	2
17	Sand Pouring Cylinders (150 mm Dia) Complete with Calibrating Container with Trays	2
18	Sand Pouring Cylinders (200 mm Dia) Complete with Calibrating Container with Trays	2
19	Rapid Moisture Meters	4
20	Calcium Carbide Bottles	10
21	Spatula Big	10
22	Spatula Small	10
23	Hammers big	4
24	Chisels big	20
25	Electronic Balance Capacity 100 kg (10 gram accuracy)	1
26	Electronic Balance Capacity 50 kg (1 gram accuracy)	2
27	Electronic Balance Capacity 30 kg (1 gram accuracy)	2
28	Electronic Balance Capacity 10 kg (1 gram accuracy)	1
29	Electronic Balance Capacity 5 kg (0.5 gram accuracy)	1
30	Electronic Balance Capacity 600gram(0.01 gram accuracy)	2
31	Hot Air Oven (Big)250oC	1
32	Hot Air Oven (Small)250oC	1
33	Direct Shear Test Apparatus	1

34	Filter Paper Dia 100 mm	10
35	Filter Paper Dia 150 mm	10
36	Pipettes	4
37	Plastic Bottles	4
38	Enamel tray -450x300x40 mm	12
39	G.I tray-1500x1500x100mm	4
40	French Curves	2
B)	CONCRETE WORKS	
41	Compressive Testing machine(2000KN)	1
42	Flextural strength testing machine digital	1
43	Concrete Cube Moulds With Base Plate(15cm)	200
44	Concrete Cube Moulds With Base Plate(10cm)	18
45	Motor Cube Moulds (7.06cm) with Base Plate	12
46	Motor Cube Vibrating Machine(12000 Rmp)	1
47	Concrete Mixer Electrically Operated	1
48	Cube Vibrating Machine (Big)	1
49	Slump Cone Testing Appratus	10
50	Vicat Needle Apparatus , with dash pot complete with set of needles and brass mould	2
51	Soundness Testing Apparatus	2
52	Trowels With Wodden Handles	4
53	A I V Testing Machine	1
54	Loss Angels abrasion Testing Machine	1
55	Sand Equvivalant Testing Apparatus	1
56	Flakiness Index Test Guage	1
57	Elongation Index Test Guage	1
58	Density Basket	2
59	Bulk Density Cylinder (5lt)	1
60	Bulk Density Cylinder (15lt)	1
61	Bulk Density Cylinder (30lt)	1
62	Gi trays -450x600x50mm	9
63	Enamal trays -300x250x40 mm	9
64	Trays for Samples Collections	12
65	Riffle Box (40 MM)	1
66	Riffle Box (20 MM)	1
67	PYcnometer Bottels (1000 ml)	4
68	Specific Gravity & water absorotion test apparatus with Electronic balance	1
69	DLC Compaction vibrating hammer	1
70	Cement mortar cube mould 5.0 cm	12
71	Sandard Sand Grade-1 bag of 25 kg	2
72	Sandard Sand Grade-2 bag of 25 kg	2
73	Sandard Sand Grade-3 bag of 25 kg	2
C)	BITUMINOUS WORKS	
74	Specific Gravity Bottels (50 ml)	2
75	Specific Gravity Bottels (100 ml)	2
76	Pen Sky- Martins closed Tester (Flash & Fire point)	2

77	Dial gauge 0.01x30 mm adis make	4
78	Ring & Ball Apparatus (Softening Point)	1
79	Bitumen Penetrometer (automatic)	1
80	Marshall Stability Apparatus (set)	1
81	Marshall Compaction Pedestal	2
82	Marshall Compaction Rammer 4.53 KG	4
83	Marshall Moulds (101.6 mm Dia)	30
84	Modified Marshall Compaction Pedestal	1
85	Modified Marshall Compaction Rammer 10.2 KG	4
86	viscometer u tub size no 12	2
87	Breaker - glass 600 ml for ring and ball apparatus	4
88	Bitumen Extraction Apparatus (centrifuge Type)	1
89	Proving Ring(50 KN)	1
90	Proving Ring(100 KN)	1
91	Digital Thermometers	10
92	Glass Thermometer	10
93	IR Thermometer	5
94	Core Cutting Machine With Apparatus (set)	1
95	Diamond Core Cutting Bit (100mm Dia)	1
96	Core Barrels for Core Cutting Machine	1
97	Vacuum Pump (specific Gravity of Bitumen Mix GMM)	1
98	Constant temperature Water bath (Digital)	2
99	Penetration cup 55x70 mm	2
100	penetration cup 55x35 mm	2
101	Specific Gravity Flask (2000 ml)	1
102	Specific Gravity Flask (5000 ml)	1
103	Specimen Extractor (Tikki, Goli & Rod)Marshall	1
104	Emulsion Trays	6
105	Viscometer viscosity of emulsified bitumen	1
106	Stop Watch	4
107	Hot Plates Electrical	2
108	Viscometer viscosity of bitumen	1
FOR I.S SIEVES 450 MM DIA		
109	100MM	2
110	90MM	2
111	75MM	2
112	63MM	2
113	53MM	2
114	50MM	2
115	45MM	2
116	40MM	2
117	37.5MM	2
118	31.5MM	2
119	26.5MM	2
120	25MM	2
121	22.4MM	2
122	20MM	2

123	19MM	2
124	16 MM	2
125	14MM	2
126	13.2MM	2
127	12.5MM	2
128	11.2MM	2
129	10MM	2
130	9.5MM	2
131	6.3MM	2
132	5.6MM	2
133	4.75MM	2
134	2.36 MM	2
FOR I.S SIEVES 200 MM DIA		
135	37.5MM	2
136	6.5MM	2
137	22.4MM	2
138	19MM	2
139	16MM	2
140	14 MM	2
141	13.2MM	2
142	12.5MM	2
143	11.2MM	2
144	10MM	2
145	9.5MM	2
146	5.6MM	2
147	4.75MM	2
148	2.80MM	2
149	2.36MM	2
150	2.00MM	2
151	1.80MM	2
152	1.40MM	2
153	1.18MM	2
154	1.00MM	2
155	0.710 mc	1
156	0.600 mc	2
157	0.500 mc	1
158	0.45 mc	1
159	0.425 mc	2
160	0.355 mc	2
161	0.300 mc	2
162	0.150 mc	2
163	0.090 mc	2
164	0.075 mc	6
GENERAL & CONTROL OF PROFILE AND SURFACE EVENNESS		
165	Rain Guage	1
166	Vernier Calliper	1
167	Glass Measuring Cylinder -1000 ml	2

168	Glass Measuring Cylinder -500 ml	2
169	Glass Measuring Cylinder -250 ml	2
170	Glass Measuring Cylinder -250 ml	2
171	Plastic Measuring Cylinder- 1000 ml	2
172	Plastic Measuring Cylinder- 500 ml	2
173	Plastic Measuring Cylinder- 250 ml	2
174	Plastic Measuring Cylinder- 250 ml	2
175	Depth gauge	4
176	Digital thermo hygrometer	2
177	Sampling containers 100 gms	200
178	3 Meter straight edge and measuring wedge	1
179	Camber template board	2
180	5 mtr tape	2
181	10 mtr tape	2
182	30 mtr tape	4
183	50 mtr tape	4

6.2 Quality Control Test Summary

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

The detailed list of quality control test conducted up to the month of April 2022 are tabulated below:-

Four Laning of Cholopuram - Thanjavur From km 116.440 to km 164.275 Section of NH-45C in the State of TamilNadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Summary of Quality Control Report / Monthly Progress Report (QC) - MONTH : April 2022

Sr. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month April 2022				Test conducted upto this month			
				No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE
1.0 Tests on OGL															
1.1	Grain size analysis	IS:2720 (Part4)	1 test / 250 meters	421	421	0	224	0	0	0	0	421	421	0	224
1.2	Atterberg Limits	IS:2720 (Part5)	1 test / 250 meters	421	421	0	224	0	0	0	0	421	421	0	224
1.3	Proctor	IS:2720 (Part8)	1 test / 250 meters	233	233	0	68	0	0	0	0	233	233	0	68
1.4	Free Swell index	IS:2720 (Part40)	1 test / 250 meters	421	403	18	224	0	0	0	0	421	403	18	224
2.0 Cutting portion & Existing for EMB/SG (MoRT&H 305)															
2.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m^3	112	112	0	41	0	0	0	0	112	112	0	41
2.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m^3	112	112	0	41	0	0	0	0	112	112	0	41
2.3	Proctor	IS:2720 (Part8)	1 test /1500 m^3	112	112	0	41	0	0	0	0	112	112	0	41
2.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m^3	112	112	0	41	0	0	0	0	112	112	0	41
2.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m^3	107	107	0	43	0	0	0	0	107	107	0	43
3.0 Borrow Area for EMB/Subgrade (MoRT&H 305)															
3.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m^3	2082	2082	0	490	99	99	0	18	2181	2181	0	508
3.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m^3	2082	2082	0	490	99	99	0	18	2181	2181	0	508
3.3	Proctor	IS:2720 (Part8)	1 test /1500 m^3	2082	2082	0	490	99	99	0	18	2181	2181	0	508
3.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m^3	2082	2082	0	490	99	99	0	18	2181	2181	0	508
3.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m^3	271	271	0	118	1	1	0	1	272	272	0	119
3.6	Angle of Internal Friction(ø)	IS:2720 (Part13)	As required	201	201	0	48	16	16	0	3	217	217	0	51
4.0 Field Density Test (MoRT&H 305)															
4.1	Field density (OGL)	IS:2720 (Part28)	10 test /3000 sqm	6655	6640	15	2238	10	10	0	2	6665	6650	15	2240
4.2	Field density (EMB)	IS:2720 (Part28)	10 test /3000 sqm	82953	82744	209	13650	2630	2630	0	473	85583	85374	209	14123
4.3	Field density (SG)	IS:2720 (Part28)	10 test / 2000 sqm	11615	11612	3	2071	110	110	0	22	11725	11722	3	2093
4.4	Field density (Shoulder)	IS:2720 (Part28)	10 test / 2000 sqm	422	422	0	104	0	0	0	0	422	422	0	104
5.0 Safe Bearing capacity of soil (Highway & Structure)															
5.1	Grain size analysis	IS:2720 (Part40)	As required	169	169	0	41	0	0	0	0	169	169	0	41
5.2	Atterberg Limits	IS:2720 (Part4)	As required	169	169	0	41	0	0	0	0	169	169	0	41
5.3	Proctor	IS:2720 (Part5)	As required	169	169	0	40	0	0	0	0	169	169	0	40
5.4	Free Swell index	IS:2720 (Part8)	As required	169	162	7	41	0	0	0	0	169	162	7	41
5.5	Bearing Capacity	IS:6403 / IS 1888	As required	169	18	151	41	0	0	0	0	169	18	151	41
5.6	Plate Load Test	IS:6403 / IS 1888	As required	36	36	0	27	0	0	0	0	36	36	0	27
6.0 Filter Media & Back filling MoRT&H 2500															
6.1	Gradation		As required	355	355	0	100	10	10	0	2	365	365	0	102
6.2	Backfilling field density		1 test /1000 m^3	48	48	0	36	0	0	0	0	48	48	0	36
7.0 Granular Bedding Material (For Structures-Ground Improvement) - Stock & Site Testing															
7.1	Gradation	Table 400-1	As required	222	222	0	48	4	4	0	1	226	226	0	49
7.2	Atterberg Limits	IS:2720 (Part5)	As required	222	222	0	48	4	4	0	1	226	226	0	49
7.3	Proctor	IS:2720 (Part8)	As required	133	133	0	21	1	1	0	1	134	134	0	22
7.4	CBR Test	IS:2720 (Part16)	As required	25	25	0	20	1	1	0	1	26	26	0	21
7.5	Aggregate Impact value	IS:2386 Part-4	As required	37	37	0	25	1	1	0	1	38	38	0	26
7.6	Field Density	IS:2720 (Part28)	As required	2106	2106	0	459	30	30	0	5	2136	2136	0	464
8.0 CTSB															
8.1	Gradation	Table 400-4	1 test/400m^3	429	429	0	107	7	7	0	1	436	436	0	108
8.2	Atterberg Limits	IS:2720 (Part5)	1 test/400m^3	427	427	0	106	7	7	0	1	434	434	0	107
8.3	Proctor	IS:2720 (Part8)	As required	20	20	0	18	1	1	0	1	21	21	0	19
8.4	Aggregate Impact value	IS:2386 Part-4	As required	118	18	0	69	1	1	0	1	119	19	0	70
8.5	Field Density	IS:2720 (Part28)	1 set of 2 Test per 500 Sqm	4949	4949	0	926	87	87	0	17	5036	5036	0	943
8.6	Specific gravity & Water absorption	IS:2386 (Part3)	As required	5	5	0	5	0	0	0	0	5	5	0	5
8.7	Cubes casting & Testing (Sets)	IRC SP 89 (2010)	A set of 3 specimens	989	989	0	211	10	10	0	2	999	999	0	213
8.8	CBR Test	IS:2720 (Part16)	As required	15	15	0	12	1	1	0	1	16	16	0	13

Sr. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month April 2022				Test conducted upto this month			
				No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE
9.0 WMM															
9.1	Individual / Combined Gradation	Table 400-3	1 test/200m^3	447	447	0	97	4	4	0	1	451	451	0	98
9.2	Aggregate Impact Value	IS:2386 Part-4	1 test/1000 m^3	273	273	0	66	4	4	0	1	277	277	0	67
9.3	Flakiness & Elongation index	IS:2386 Part1	1 test/500 m^3	266	266	0	70	4	4	0	1	270	270	0	71
9.4	Atterberg Limits	IS:2720 (Part5)	1 test/200m^3	413	413	0	91	4	4	0	1	417	417	0	92
9.5	Proctor	IS:2720 (Part8)	As required	14	14	0	12	1	1	0	1	15	15	0	13
9.6	CBR	IS:2720 (Part16)	As required	12	12	0	10	1	1	0	1	13	13	0	11
9.7	Field Density	IS:2720 (Part28)	1 set Test per 1000 Sq.m / 3 pits	1647	1647	0	380	27	27	0	5	1674	1674	0	385
10.0 Dense Bituminous Macadam (Grade - II)															
10.1	Gradation	MoRT&H Section-500/Clause-507 & Table 500-10	One set for individual constituent and mixed aggregate from dryer for each 400 tonnes of mix subject to minimum of two Tests per day per plant	402	402	0	129	9	9	0	2	411	411	0	131
10.2	Flakiness & Elongation Index	IS: 2386 (Part 1)1963	1 Test for 350 m^3	134	134	0	51	3	3	0	1	137	137	0	52
10.3	Aggregate Impact Value Test	IS: 2386 (Part 4)1963	1 Test for 350 m^3	134	134	0	51	3	3	0	1	137	137	0	52
10.4	Binder content and grading of mix	IRC: SP 11-1988 (APP-5)	One Test for each 400 tonnes of mix produced subject to a minimum of two test per day per plant	146	146	0	59	3	3	0	1	149	149	0	60
10.5	Marshall Stability of mix	ASTM D 2726/1188	3 Tests for stability flow value density and void contents for each 400 tonnes of mix subject to minimum of two Tests per plant per day	240	240	0	74	3	3	0	1	243	243	0	75
10.6	Core Cutting and Density Of Compacted Layer	Table 900-4 of MoRT&H	1 set Test per 700 Sq.m / 1 pits	714	714	0	225	11	11	0	2	725	725	0	227
10.7	Sand Equivalent Test	IS: 2720 Part 37)1963	One Test for each each source	16	16	0	15	0	0	0	0	16	16	0	15
10.8	Los Angeles Abrasion Value	IS: 2386 (Part 3)1963	1 Test for 350 m^3	92	92	0	31	3	3	0	1	95	95	0	32
10.9	Stripping	IS : 6241	One Test for each each source	7	7	0	7	0	0	0	0	7	7	0	7
10.10	Retained Tensile Strength	AASHTO 284	One Test for each each source	8	8	0	8	0	0	0	0	8	8	0	8
10.11	Water absorption of Aggregates	IS:2386 (Part3)	One Test for each each source	3	3	0	1	0	0	0	0	3	3	0	1
10.12	Plasticity Index	IS: 2720(Part 5)	One Test for each each source	6	6	0	5	0	0	0	0	6	6	0	5
11.0 Bituminous Concrete Grade - (II)															
11.1	Gradation	MoRT&H Section-500/Clause-507 & Table 500-10	One set for individual constituent and mixed aggregate from dryer for each 400 tonnes of mix subject to minimum of two Tests per day per plant	213	213	0	49	3	3	0	1	216	216	0	50
11.2	Flakiness & Elongation Index	IS: 2386 (Part 1)1963	1 Test for 350 m^3	76	76	0	20	1	1	0	1	77	77	0	21
11.3	Aggregate Impact Value Test	IS: 2386 (Part 4)1963	1 Test for 350 m^3	76	76	0	20	1	1	0	1	77	77	0	21
11.4	Binder content and grading of mix	IRC: SP 11-1988(APP-5)	One Test for each 400 tonnes of mix produced subject to a minimum of two test per day per plant	106	106	0	32	1	1	0	1	107	107	0	33
11.5	Marshall Stability of mix	ASTM D 2726/1188	3 Tests for stability flow value density and void contents for each 400 tonnes of mix subject to minimum of two Tests per plant per day	529	529	0	30	1	1	0	1	530	530	0	31
11.6	Core Cutting and Density Of Compacted Layer	Table 900-4 of MoRT&H	1 set Test per 700 Sq.m / 1 pits	760	760	0	199	1	1	0	1	761	761	0	200
11.7	Sand Equivalent Test	IS: 2720 Part 37)1963	One Test for each each source	1	1	0	1	0	0	0	0	1	1	0	1
11.8	Los Angeles Abrasion Value	IS: 2386 (Part 3)1963	1 Test for 350 m^3	76	76	0	21	1	1	0	1	77	77	0	22
11.9	Stripping	IS : 6241	One Test for each each source	2	2	0	2	0	0	0	0	2	2	0	2
11.10	Retained Tensile Strength	AASHTO 284	One Test for each each source	2	2	0	2	0	0	0	0	2	2	0	2
11.11	Water absorption of Aggregates	IS:2386 (Part3)	One Test for each each source	2	2	0	2	0	0	0	0	2	2	0	2
11.12	Plasticity Index	IS: 2720 (Part 5)	One Test for each each source	2	2	0	2	0	0	0	0	2	2	0	2

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				No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE
12.0 Bitumen test															
12.1	Absolute Viscosity at 60° C poise, Minimum	IS: 1206-1978 part-2	As per table 2 of IS 73-2013	160	160	0	50	0	0	0	0	160	160	0	50
12.2	Penetration Test at 25° C, 100gr, 0.1mm, 5 sec	IS: 1203-1978	As per table 2 of IS 73-2013	231	231	0	50	0	0	0	0	231	231	0	50
12.3	Softening point(R&B) Min	IS: 1205-1978	As per table 2 of IS 73-2013	273	273	0	69	0	0	0	0	273	273	0	69
12.4	Elastic Recovery of half thread in ductilometer at 15**°C, Percent, min**	IS:15462 -2019	As per table 2 of IRC SP 53	113	113	0	33	0	0	0	0	113	113	0	33
12.5	Separation, Difference in Softening Point (R&B)° C max	IS:15462 -2019	As per table 2 of IRC SP 53	113	113	0	33	0	0	0	0	113	113	0	33
12.6	Test on Residue from TFOT														
12.7	Viscosity ratio at 60° C max	IS: 1206-1978 part-2	1 Test per Lot	39	39	0	23	0	0	0	0	39	39	0	23
12.8	Ductility at 25° C, cm, Min	IS: 1208-1978	1 Test per Lot	39	39	0	23	0	0	0	0	39	39	0	23
13.0 EMULSION SS1 & RS1															
13.1	Saybolt furol Viscosity	IS: 13117	1 Test per Lot	30	30	0	19	0	0	0	0	30	30	0	19
13.2	Residue on 600 micron IS sieve	IS: 8887	1 Test per Lot	30	30	0	19	0	0	0	0	30	30	0	19
13.3	Water Content, Percent by mass	IS: 8887	1 Test per Lot	30	30	0	19	0	0	0	0	30	30	0	19
14.0 EMULSION Prime coat & Tack Coat															
14.1	Rate of Spread of Binder	IRC: SP 16	Three test per Day	656	656	0	156	12	12	0	3	668	668	0	159
15.0 Coarse/Fine Aggregate MoRT&H 1007															
15.1	Gradation	IS:2386 (Part2)	As required	1181	1181	0	363	4	4	0	1	1185	1185	0	364
15.2	Specific gravity & Water absorption	IS:2386 (Part3)	As required	64	64	0	35	1	1	0	1	65	65	0	36
15.3	Aggregate Impact Value	IS:2386 (Part4)	As required	222	222	0	74	2	2	0	1	224	224	0	75
15.4	Flakiness index	IS:2386 (Part1)	As required	220	220	0	72	2	2	0	1	222	222	0	73
16.0 Cement MoRT&H 1006															
16.1	Fineness	IS:4031 (Part1)	500mt (or) Every week	247	247	0	97	7	7	0	2	254	254	0	99
16.2	Normal Consistency	IS:4031 (Part4)	500mt (or) Every week	247	247	0	97	7	7	0	2	254	254	0	99
16.3	Initial & Final setting time	IS:4031 (Part5)	500mt (or) Every week	247	247	0	97	7	7	0	2	254	254	0	99
16.4	Soundness of Cement	IS:4031 (Part3)	500mt (or) Every week	163	163	0	72	0	0	0	0	163	163	0	72
16.5	Compressive Strength-set	IS:4031 (Part6)													
	3 days		500mt (or) Every week	270	270	0	104	6	6	0	2	276	276	0	106
	7 days		500mt (or) Every week	263	263	0	101	6	6	0	2	269	269	0	103
	28 days		500mt (or) Every week	264	264	0	80	6	6	0	2	270	270	0	82
17.0 Concrete Cube Strength of Site Cubes 28 Days															
17.1	M15 PCC	IS:516 / IS:456	MoRT&H Sec. 1700	1574	1574	0	426	20	20	0	4	1594	1594	0	430
17.2	M20 PCC	IS:516 / IS:456	MoRT&H Sec. 1700	46	46	0	15	0	0	0	0	46	46	0	15
17.3	M20 RCC	IS:516 / IS:456	MoRT&H Sec. 1700	396	396	0	44	0	0	0	0	396	396	0	44
17.4	M20 KERB	IS:516 / IS:456	MoRT&H Sec. 1700	559	559	0	125	0	0	0	0	559	559	0	125
17.5	M25 RCC	IS:516 / IS:456	MoRT&H Sec. 1700	307	307	0	71	14	14	0	4	321	321	0	75
17.6	M30 RCC	IS:516 / IS:456	MoRT&H Sec. 1700	2575	2575	0	656	0	0	0	0	2575	2575	0	656
17.7	M30 RCC PUMPABLE	IS:516 / IS:456	MoRT&H Sec. 1700	591	591	0	164	68	68	0	13	659	659	0	177
17.8	M35 RCC	IS:516 / IS:456	MoRT&H Sec. 1700	1067	1050	17	368	0	0	0	0	1067	1050	17	368
17.9	M35 RCC PILING	IS:516 / IS:456	MoRT&H Sec. 1700	2699	2699	0	949	20	20	0	4	2719	2719	0	953
17.1	M35 RCC PUMPABLE	IS:516 / IS:456	MoRT&H Sec. 1700	4327	4327	0	1272	125	125	0	23	4452	4452	0	1295
17.11	M35 RE BLOCK	IS:516 / IS:456	MoRT&H Sec. 1700	1916	1916	0	613	0	0	0	0	1916	1916	0	613
17.12	M40 RCC	IS:516 / IS:456	MoRT&H Sec. 1700	1690	1690	0	327	63	63	0	10	1753	1753	0	337
17.13	M45 PUMP	IS:516 / IS:456	MoRT&H Sec. 1700	602	602	0	150	13	13	0	4	615	615	0	154
17.14	Cement Grout	IS:516 / IS:456	MoRT&H Sec. 1700	56	56	0	13	0	0	0	0	56	56	0	13

Sr. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month April 2022				Test conducted upto this month			
				No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos.of test witnessed by IE
18.0 BENTONITE															
18.1	Density	MoRT&H Sec. 1115.2.3	As required	430	430	0	131	5	5	0	1	435	435	0	132
18.2	Marsh Cone Viscosity			430	430	0	131	5	5	0	1	435	435	0	132
18.3	pH Value			430	430	0	131	5	5	0	1	435	435	0	132
18.4	Silt Content			15	15	0	6	0	0	0	0	15	15	0	6
18.5	Liquid Limit			18	18	0	7	0	0	0	0	18	18	0	7
19.0 Fine Aggregate MoRT&H 1008-(RE-Block)															
19.1	Grade / Sieve analysis	IS:2386 (Part1)	As required	728	728	0	223	0	0	0	0	728	728	0	223
19.2	Fineness Modulus	MoRT&H Sec. 1008 & 383	As required	728	728	0	223	0	0	0	0	728	728	0	223
19.3	Specific gravity & Water absorption	IS:2386 (Part2)	As required	24	24	0	12	0	0	0	0	24	24	0	12
20.0 Coarse/Fine Aggregate MoRT&H 1007-(RE-Block)															
20.1	Gradation	IS:2386 (Part2)	As required	676	676	0	182	0	0	0	0	676	676	0	182
20.2	Specific gravity & Water absorption	IS:2386 (Part3)	As required	27	27	0	19	0	0	0	0	27	27	0	19
20.3	Aggregate Impact Value	IS:2386 (Part4)	1 test/each source & monthly	72	72	0	36	0	0	0	0	72	72	0	36
20.4	Flakiness index	IS:2386 (Part1)	1 test/each source & monthly	52	52	0	23	0	0	0	0	52	52	0	23
21.0 DLC															
21.1	Gradation	MoRT&H Section-601	1 test/400m^3	10	10	0	4	0	0	0	0	10	10	0	4
21.2	Field Density	MoRT&H Sec 903.5.1	3 Sample for 2000 Sqm	40	40	0	9	0	0	0	0	40	40	0	9
21.3	Cubes casting& Testing(Sets)	IS : 516	1 set for 1000 Sqm	19	19	0	5	0	0	0	0	19	19	0	5
22.0 Pavement Quality Concrete															
22.1	Gradation	IS : 2386 (P-1)	1 Test per day	18	18	0	6	6	6	0	1	24	24	0	7
22.2	Aggregate Impact Value	IS: 2386 (Part 4)1963	As required	6	6	0	3	2	2	0	1	8	8	0	4
22.3	Los Angeles Abrasion Value	IS: 2386 (Part 4)1963	As required	6	6	0	3	2	2	0	1	8	8	0	4
22.4	Compressive Strength	IS 516	2 Cubes /150 cum (min 6 cubes)	23	23	0	7	8	8	0	2	31	31	0	9
22.5	Flexural Strength	IS 516	2 Beams /150 cum (min 6 Beams)	23	23	0	8	8	8	0	2	31	31	0	10
22.6	Thickness of measurement for trial length	IS 516	3 cores per trial length	4	4	0	2	6	6	0	1	10	10	0	3
23.0 Steel Third Party															
23.1	8 mm Dia	IS 1786	Physical & Chemical Properties (1) Test on first lot. (2) Further supply will be provided with mtc. (3) As required by engineer.	20	20	0	11	0	0	0	0	20	20	0	11
23.2	10 mm Dia	IS 1786		23	23	0	15	0	0	0	0	23	23	0	15
23.3	12 mm Dia	IS 1786		26	26	0	15	0	0	0	0	26	26	0	15
23.4	16 mm Dia	IS 1786		29	29	0	17	0	0	0	0	29	29	0	17
23.5	20 mm Dia	IS 1786		22	22	0	10	0	0	0	0	22	22	0	10
23.6	25 mm Dia	IS 1786		24	24	0	13	0	0	0	0	24	24	0	13
23.7	32 mm Dia	IS 1786		10	10	0	5	0	0	0	0	10	10	0	5

Date	Temperature (Celsius)		Humidity (%)		Rainfall (mm)	Remarks
	Min	Max	Min	Max		
01.04.2022	28.5	38.4	43	83	0.00	Sunny
02.04.2022	28.4	40.1	39	85	0.00	Sunny
03.04.2022	27.9	40.4	40	84	0.00	Sunny
04.04.2022	27.3	39.3	38	82	0.00	Sunny
05.04.2022	27.1	39.3	36	80	0.00	Sunny
06.04.2022	27.5	40.8	35	79	0.00	Sunny
07.04.2022	27.9	40.7	36	84	0.00	Sunny
08.04.2022	27.7	38.5	40	85	0.00	Sunny
09.04.2022	26.9	40.8	39	86	15.00	Rainy
10.04.2022	28.2	36.5	59	89	10.00	Rainy
11.04.2022	28.8	36.8	62	89	12.00	Rainy
12.04.2022	28.4	34.9	66	91	8.00	Rainy
13.04.2022	28.2	34.7	68	92	0.00	Sunny
14.04.2022	28.2	39.9	45	87	0.00	Sunny
15.04.2022	28.7	38.6	45	86	0.00	Sunny
16.04.2022	26.8	39.5	45	85	38.00	Rainy
17.04.2022	25.9	38.4	57	85	0.00	Sunny
18.04.2022	28.5	39.6	39	84	0.00	Sunny
19.04.2022	28.5	39.9	40	82	0.00	Sunny
20.04.2022	29.5	40.5	36	82	0.00	Sunny
21.04.2022	27.9	40.0	38	82	0.00	Sunny
22.04.2022	28.4	40.5	41	84	0.00	Sunny
23.04.2022	28.1	39.8	40	79	0.00	Sunny
24.04.2022	27.0	41.0	40	86	0.00	Sunny
25.04.2022	30.4	40.0	39	85	0.00	Sunny
26.04.2022	27.5	41.0	35	85	0.00	Sunny
27.04.2022	27.6	40.5	37	71	0.00	Sunny
28.04.2022	28.6	40.1	33	71	0.00	Sunny
29.04.2022	29.2	40.3	42	84	0.00	Sunny
30.04.2022	29.6	41.8	34	82	0.00	Sunny

Various issues related to environment and safety, such as traffic management, safety signage's, 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:-

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

1. Pending Disbursement of Payment to the beneficiaries from CALA towards Land and Buildings in Thanjavur District. – Request Authority to advise/instruct the Competent Authority of Land Acquisition to speed up the process of disbursement of pending payment.
2. Permission from Local Authorities for procurement of Borrow Earth for Irrigation Tanks.
3. NOC from PWD/WRO, Govt. of Tamil Nadu for construction of Major Bridge (02 Nos)
4. NOC from PWD/WRO, Govt. of Tamil Nadu for construction of project highways in the existing ponds (in a length of 1.667 Kms).
5. Additional land acquisition for Toll plaza location, Bus bays. Turning radius at Major junctions.
6. Removal of Religious structures of 10 Nos. and Bus stand from the proposed ROW.
7. Removal of Government Buildings like VAO office, School, Post Office & Ration Shop etc. in 15 nos. of locations.
8. Removal of unauthorized occupations in 25 nos. of locations in the project highways.
9. Required State Support Agreement between NHAI & Govt. of Tamil Nadu as due priority will be given to NH Projects by the State Govt. officials.
10. Removal of Fuel Stations at Km: 120+400
11. Estimate for shifting of water supply utilities in Missing locations-Request Authority for earlier Approval.
12. Removal of Existing Motor Rooms of 22 nos. from the project highway. – Request Authority to advise/instruct the competent department to take the possession of land.
13. 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 14th 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)(l) 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.

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.

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.

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 of control of Concessionaire.

14. 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 2nd 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 2nd 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 to 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 Project i.e. have been infected by COVID-19.

15. COVID-19 cases due to 3rd 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 3rd 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 2nd wave was 36,184 cases per day on 21st 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.

Table 10.1. Details of Important Events			
Sl. No	Date of Events	Description of Events	Remarks
		-	

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

1. Fig. 4 - Organization Chart - EPC Team

2. Fig. 5 - Organization Chart - SPV Team

Figure - 4 Organization Chart of EPC

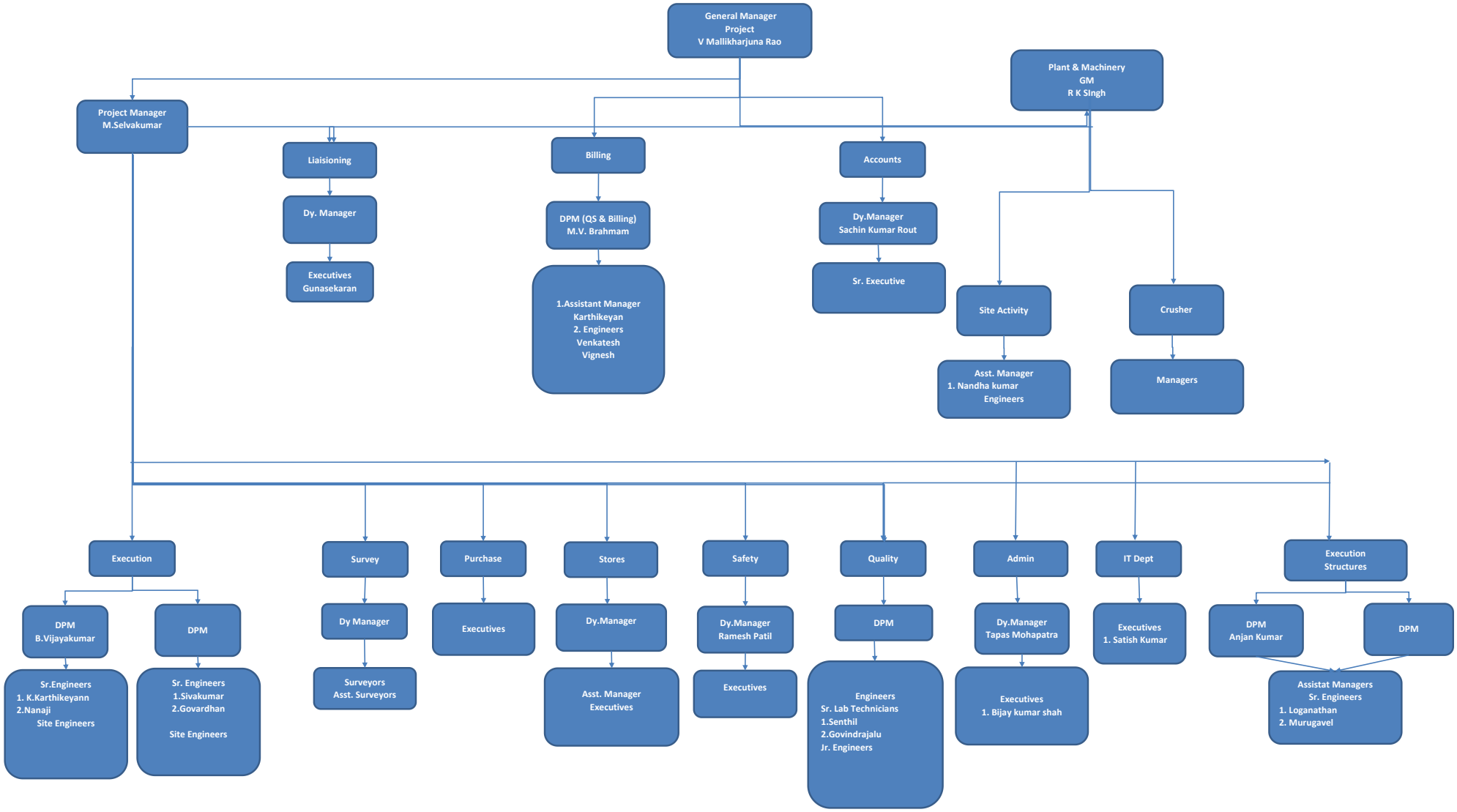
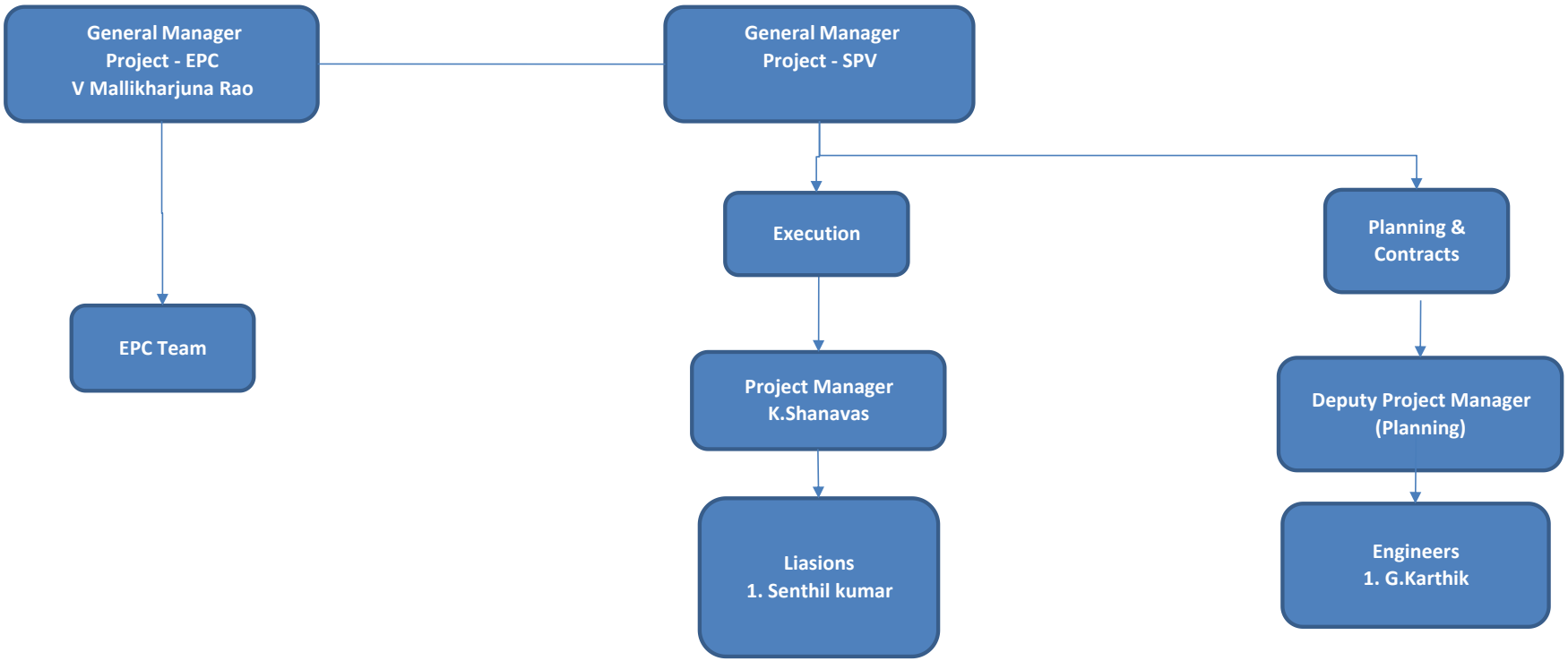


Figure - 5 Organization Chart of Concessionaire



S.No	Name of the Machinery	Capacity / Model	Mobilized at Site	Remarks
1	Grader	120K2	7	
2	Excavator/JCB	JCB-220	14	
3	Dozer		4	
4	Soil Compactor	HAMM 311	8	
5	Backhoe Loader	JCB 3DX	5	
6	Tipper	Bharat Benz- 3128C	290	
7	Transit Mixer	2523C	11	
8	Loader	455 ZX	6	
9	Trailer		4	
10	Water Tanker		8	
11	Diesel Tanker		3	
12	Boom Placer	S-36	1	
13	Tractor	5036 D V-2	3	
14	Mobile Service Van		1	
15	Tower Light	AJASKY	3	
16	Hydra Crane		4	
17	Asphalt Batch Mix Plant		1	
18	Wet Mix Plant	250 TPH	1	
14	Concrete Batch Mix Plant 45 cum	45 cum	2	
15	Concrete Batch Mix Plant 60 cum	60 cum	1	
16	Crusher Plant (3 Stage)	250 TPH	4	
17	Weigh Bridge for Camp 100MT	100MT	4	
18	Weigh Bridge for Crusher 100MT	100MT	1	
19	Genset Base Camp	25KV	8	
20	Genset (Crusher) 63KVA	63KVA	6	
21	Genset (H.M & B/P)	82.50KV	3	
22	Genset (B/P-CP-45)	125KV	1	
23	Genset 650 KVA	650 KVA	1	
26	Genset (Crusher)	1010KVA	4	
27	Genset 15KVA	15KVA	6	

Table 13.1 - Status of Change of Scope Proposals

Sl. No.	Proposal Details	Date of Proposal	Current Status	COS Amount	Actual Date of Approval
1	Replacement of Pipe Culvert with box Culvert	25.04.2018	Approval obtained from the Authority.	3.76 Cr.	06.02.2020
2	Upgradation strengthening the Incident Management services.	10.05.2019	IE recommended to Authority vide ref. 148 for issuance under COS and is under scrutiny with Authority	NA	NA
3	Comprehensive Change of Scope proposal	19.03.2019	Approval obtained from the Authority.	9.37 Cr.	23.03.2022
4	Interchanging of Structures	26.09.2020	In-Principle Approval obtained from the Competent Authority (-6.04 Cr)	NA	NA

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

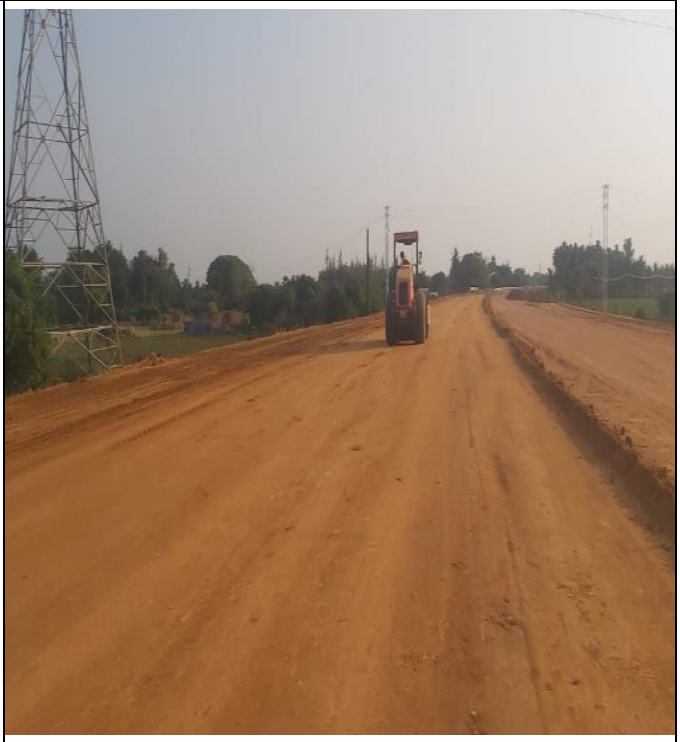
Project Name:- Four Laning of Cholopuram – Thanjavur from Km. 116.440 to 164.275 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode				
TABLE 14.1 - CORRESPONDANCE - CONCESSIONAIRE TO NHAI				
S.No	Date	Letter No	Subject	Remarks
1	01.04.2022	PCTHPL/CTP/NHAI/2022/1407	Lifting of pond Ash From Stage I Pond from M/s NLC India Limited	
2	07.04.2022	PCTHPL/CTP/NHAI/2022/1409	Recording of Drone videos	
3	18.04.2022	PCTHPL/CTP/NHAI/2022/1418	Regarding invoke of Clause 38.1 & 38.2 of CA to resolve the issue of providing rain water harvesting & pedestrian guard rails	
4	19.04.2022	PCTHPL/CTP/NHAI/2022/1420	Completion of balance Punch list items	

Project Name:- Four Laning of Cholopuram – Thanjavur from Km. 116.440 to 164.275 Section of NH45C 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	04.04.2022	NHAI/PIU/Thanj/11026/12/2018/889	Vaiyachery village of papanasam taluk in Thanjavur District -Provision of Service Road	
2	06.04.2022	NHAI/PIU/Thanj/11019/51/2017/913	Independent Consultancy services for the month of Jan' 2022 50% Claim	
3	07.04.2022	NHAI/PIU/Thanj/11026/15/2019/932	Status of Punch list items-Requested to complete balance work	
4	12.04.2022	NHAI/PIU/Thanj/11021/112/CWSS-67/2022/975	Request for permission to lay underground Water supply pipeline under combined water supply scheme to 67 habitations in Kumbakonam Thirupanathal of Thanjavur district under Jal jeevan mission fund	
5	12.04.2022	NHAI/PIU/Thanj/11021/112/2022/976	Request for permission to lay underground Combined water supply scheme to 134 habitation in kumbakonam Union of Thanjavur district	
6	12.04.2022	NHAI/PIU/Thanj/11026/06/2018/984	Vaiyachery village of papansam taluk in thanjavur-Request provision of serivce road and underpass	
7	13.04.2022	NHAI/PIU/Thanj/11019/51/2017/997	Independent Consultancy services for the month of Feb'2022 50% Claim	
8	19.04.2022	NHAI/PIU/Thanj/11026/12/2018/1021	Payment of IPC 02 of 4th payment Milestone against monthly executed works-payment intmation	
9	19.04.2022	NHAI/PIU/Thanj/11026/12/2018/1022	Details of payment made for 20% advance against COS order	
10	23.04.2022	NHAI/PIU/Thanj/11023/01/2009/1060	GIS mapping of national highways under the control of NHAI	
11	26.04.2022	NHAI/PIU/Thanj/11026/15/2018/1081	First & Final bill of Construction of Oxygen plants work-Payment intimation	
12	27.04.2022	NHAI/14013/19/2020/RO Madurai/1194	Site Preparation activities and reservation of quality seedlings for planting in the moonsoon season 2022-23	

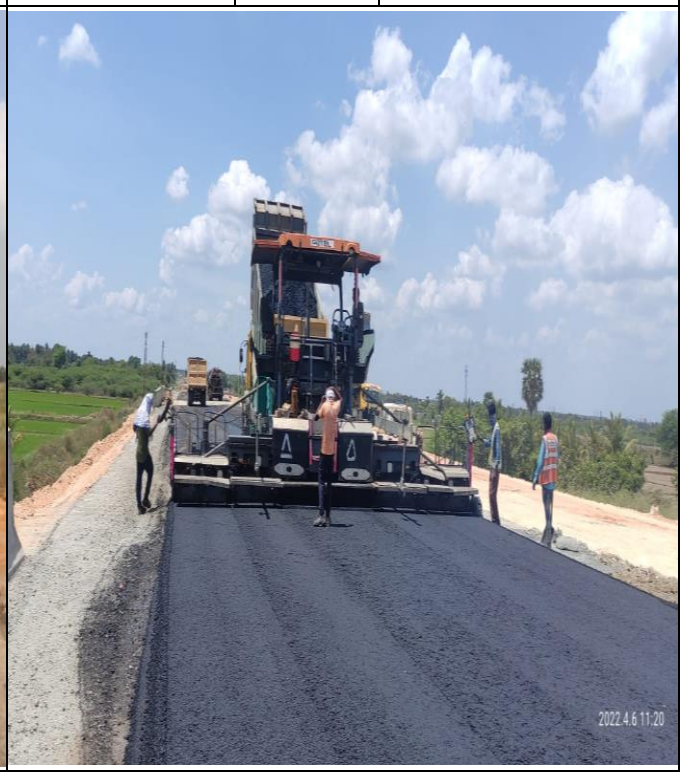
Project Name:- Four Laning of Cholopuram – Thanjavur from Km. 116.440 to 164.275 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode				
TABLE 14.3 - CORRESPONDANCE - CONCESSIONAIRE TO INDEPENDENT ENGINEER				
S.No	Date	Letter No	Subject	Remarks
1	07.04.2022	PCTHPL/CTP/IE/2022/1410	Submission of Monthly progress report for the month of march 2022	
2	08.04.2022	PCTHPL/CTP/IE/2022/1411	Submission of drawing of 06 Nos of Minor intersections	
3	11.04.2022	PCTHPL/CTP/IE/2022/1413	Completion of 1st PCC of 22.846 Kms as per provision of settlement agreement - Request to release 1st year biannual annuity Payment as per clause 23.6.3 of CA	
4	12.04.2022	PCTHPL/CTP/IE/2022/1414	Submission of Brrow area test report for Borrow area No 61,62 & 63	
5	12.04.2022	PCTHPL/CTP/IE/2022/1415	Submission of Monthly status & management report for the month of March 2022	
6	22.04.2022	PCTHPL/CTP/IE/2022/1423	Electronic toll collection system-Submission of documents	
7	22.04.2022	PCTHPL/CTP/IE/2022/1424	Electronic toll collection system-Submission of documents	
8	22.04.2022	PCTHPL/CTP/IE/2022/1425	Submission of lighting arrangements for Toll Plaza	
9	26.04.2022	PCTHPL/CTP/IE/2022/1427	Submission of plate load test report for RE Wall foundation level at km 141+455 (A1 Side)	
10	30.04.2022	PCTHPL/CTP/IE/2022/1429	Completion of 1st PCC of 22.846 Kms as per provision of settlement agreement - Request to release 1st year biannual annuity Payment as per clause 23.6.3 of CA	

Project Name:- Four Laning of Cholopuram – Thanjavur from Km. 116.440 to 164.275 Section of NH45C 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	01.04.2022	THEME/NHAI/CHO-TNJR/ATH/0422/780	Failed in achieving the Project Targets as per Settlement Agreement and request for necessary action	
2	04.04.2022	THEME/NHAI/CHO-TNJR/ATH/0422/783	Advance payment against Change of Scope order No. 2 as per clause 16.3 of Concession Agreement	
3	07.04.2022	THEME/NHAI/CHO-TNJR/ATH/0422/785	Revised BPC and Descoping of 8.691 Km of Non-workable stretches. Compliance report submitted for the observations of RO Madurai	
4	07.04.2022	THEME/NHAI/CHO-TNJR/ATH/0422/786	Invoice for Construction of Oxygen Plants submitted by Concessionaire-Review and Comments of IE	
5	07.04.2022	THEME/NHAI/CHO-TNJR/ATH/0422/787	Concessionaire submission of IPC 03 of PMS 04 against monthly executed works as per NHAI Policy Guidelines dated 22.06.2020 – Necessary recommendation	
6	09.04.2022	THEME/NHAI/CHO-TNJR/CON/0422/1139	Balance documents required in the submission for Annuity payment	
7	13.04.2022	THEME/NHAI/CHO-TNJR/CON/0422/1142	Mandatory Monthly Drone Video Recording of Project Highway during the development, construction, and O&M period for the month of March-2022	
8	18.04.2022	THEME/NHAI/CHO-TNJR/CON/0422/1143	Review of Monthly Progress Report for the Month of March 2022	
9	18.04.2022	THEME/NHAI/CHO-TNJR/ATH/0422/791	O&M Inspection Report for the month of March 2022 for PCC-I	
10	19.04.2022	THEME/NHAI/CHO-TNJR/CON/0422/1144	Concessionaire Request to release 1st year Biannual Annuity & biannual O&M Payment on achieving of 1st PCC for 22.846 km as per Settlement Agreement –Request to resubmit with details	
11	20.04.2022	THEME/NHAI/CHO-TNJR/ATH/0422/793	Inspection Report for the Month of March 2022	
12	20.04.2022	THEME/NHAI/CHO-TNJR/CON/0422/1146	Vaiyachery Village of Papanasam Taluk in Thanjavur-Request provision of service Road and Underpass	
13	20.04.2022	THEME/NHAI/CHO-TNJR/ATH/0422/794	Submission of Accident Report on datalake by AE/IE/SC on daily basis	
14	20.04.2022	THEME/NHAI/CHO-TNJR/CON0422/1145	Mandatory Monthly Drone Video Recording of Project Highway during the development, construction, and O&M period for the month of July-2021, September-2021 & November-2021	
15	22.04.2022	THEME/NHAI/CHO-TNJR/CON/0422/1148	Construction of MNB- Service Road Structure at Km.141+466 RHS deviating from the approved drawings	
16	22.04.2022	THEME/NHAI/CHO-TNJR/CON0422/1149	Provisional Approval of Soil Test Reports for the Borrow Area No. 61, 62 & 63	
17	23.04.2022	THEME/NHAI/CHO-TNJR/CON/0422/1151	Quality concern over structure works-poor curing of structures	
18	26.04.2022	THEME/NHAI/CHO-TNJR/CON/0422/1152	Package of practices and calendar of operations for raising the avenue/median plantations along the National Highways – A booklet prepared by Joint Advisor (Plantation), RO-Madurai	
19	26.04.2022	THEME/NHAI/CHO-TNJR/CON/0422/1153	Review of Monthly Status & Management Report (O&M) for the month of March 2022	
20	30.04.2022	THEME/NHAI/CHO-TNJR/CON/0222/1156	Submission of Drawings for 06 nos of minor intersections	
21	30.04.2022	THEME/NHAI/CHO-TNJR/CON/0222/1157	Electronic Toll collection system and Lighting arrangements of Toll Plaza	

Sl. No	Description	Location	Side	Remarks
1.	RE Wall – Embankment Layer work in Progress	149+794	LHS	
2.	Subgrade work in Progress	141+910	RHS	



Sl. No	Description	Location	Side	Remarks
3.	WMM Laying work in progress	153+290	RHS	
4.	DBM Laying work in progress	161+130	LHS	



Sl. No	Description	Location	Side	Remarks
5.	MJB Pier Cap work in Progress	131+980	RHS	
6.	MNB Raft work in progress	141+466	RSR	

Sl. No	Description	Location	Side	Remarks
7.	MJB Deck Slab work in Progress	156+584	RHS	
8.	MNB Superstructure work in Progress	150+800	RHS	

Sl. No	Description	Location	Side	Remarks
9.	MNB – Piling work in Progress	133+345	RHS	
10.	MJB Crash Barrier work in progress	161+030	LHS	

Sl. No	Description	Location	Side	Remarks
11.	Toll Plaza Admin Building work in progress	152+000