

ECOM PADECO



General Consultant for Mumbai Trans Harbour Link Project

Ref No: MTHL/GC/MMRDA/LT/QPR- 6G1 /2019

8th February 2019

To, The Chief Engineer Engineering Division Mumbai Metropolitan Regional Development Authority (MMRDA) 2nd Floor, New MMRDA Building, Plot No R-06 & R-12, 'E' Block Bandra Kurla Complex, Bandra (E), Mumbai, Maharashtra, India 400051

Project: General Consultancy services for Mumbai Trans Harbour Link (MTHL)

Sub: Quarterly Progress Report (QPR) No.7 for October-December 2018

Dear Sir,

With reference to the above subject, please find enclosed 2 copies of Quarterly Progress Report (QPR) No. 7 for the period of October-December 2018. You may forward the same to JICA at your earliest convenience.

Thanking you,

Yours faithfully,

カス

Dr. S H Robin Sham, CBE (BSc, PhD, DIC, FCGI, FRSA, CEng, FICE, FIStructE, FHKIE) The Engineer General Consultant (MTHL)

Encl: Two copies of Quarterly Progress Report No. 7-(Oct-Dec 2018)

CC: Superintendent Engineer – MMRDA - Mr. Sakhalkar Superintendent Engineer – MMRDA - Mr. Varaskar Executive Engineer – MMRDA – Mr. Bhisikar Executive Engineer – MMRDA – Mr. Vishal Jambhale





Mumbai Trans Harbour Link Project Quarterly Progress Report No. 7 1st October 2018 to 31st December 2018 Loan Agreement No. ID-P255 (Tranche–I)

ORGANIZATION INFORMATION

	Mumbai Metropolitan Region Development Authority					
_	Person in Charge	Metropolitan Commissioner, MMRDA				
Borrower	Contact Address	M.M.R.D.A. New Office Building, Bandra-Kurla Complex, Plot no. R-5, R-6 & R-12, E Block, Bandra (East), Mumbai - 400051 Phone: +91-22-26594000 Fax No:+91-22-2659 1264				
	Mumbai Trans Harbour Link Project Implementation Unit					
Executing	Headed by:	Chief Engineer Mumbai Trans Harbour Link Project Implementation Unit				
Agency	Contact Address	M.M.R.D.A. New Office Building, Bandra-Kurla Complex, Plot no. R-5, R-6 & R-12, E Block Bandra (East), Mumbai - 400 051 Phone: +91-22-2659 4034 Fax No: +91-22-2659 4179				

Details of JICA Loan

	JICA ODA Loan	238,572 million Japanese YEN (JPY)
Source of	Portion:	
Finance	Tranche-I:	144,795 million Japanese YEN (JPY)
	Tranche-i.	(Loan Agreement signed on 31 st March 2017)
	Tranche-II:	66,909 Million Japanese YEN (JPY)
	Tranche-II.	(Loan Agreement to be signed)
Terms and	Interest	0.12233% (LIBOR-0.02233% + SPREAD RATE -0.1000%)
Conditions	Rate:	from 20 th September 2018 to 19 th March 2019.
of JICA Repayment		20 years, including 10 years of grass pariod
ODA Loan (Tranche-1)	Period:	30 years, including 10 years of grace period.

PROJE	ECT NAME	Mumbai Trans Harbour Link Project																													
DOC N	10.	7		DATE O	F ISSUE	08/	02/2019																								
DOC T	TITLE	Quarterly Progress Report No. 7																													
REV No.	DATE OF ISSUE	DESCRIPTION	PREPARED BY																										CHECKED	BY	APPROVED BY
R0	05/07/2017	Quarterly Progress Report No 1 (Apr-Jun 17)	JS	Senthil	Dr T K Sunda	ıram	Team Leader																								
R0	05/10/2017	Quarterly Progress Report No 2 (Jul-Sep 17)	JS	Senthil	Dr T K Sunda	ıram	Team Leader																								
R0	05/01/2018	Quarterly Progress Report No 3 (Oct-Dec 17)	JS	Senthil	Dr T K Sunda	iram	Team Leader																								
R0	05/04/2018	Quarterly Progress Report No 4 (Jan-Mar 18)	JS	Senthil	Dr T K Sunda	ıram	Team Leader																								
R0	24/07/2018	Quarterly Progress Report No 5 (Apr-Jun 18)	Pra	ishant B	Dr T K Sunda	iram	Team Leader																								
R0	10/10/2018	Quarterly Progress Report No 6 (Jul-Sep 18)	Pra	ishant B	Dr T K Sunda	iram	Team Leader																								
R1	08/02/2019	Quarterly Progress Report No 7 (Oct-Dec 18)	Pra	ishant B	J Senthil, Dr T K Sunda		Team Leader																								

DOCUMENT VERIFICATION AND REVISION RECORD

Contents

1.0 PROJECT DESCRIPTION	5
1.1 Project Objective	
1.2 Necessity of the Project.1.3 Rationale of the Project Design.	
2.0 PROJECT IMPLEMENTATION	
2.1 Project Scope	
2.2 Implementation Schedule	
2.3 Project Cost	
2.3.1.a Comparison of Originally Planned and Actually Incurred Cost BY ITEM2.3.1.b Comparison of Originally Planned and Actually Incurred Cost BY YEAR	
2.4 Organization for Implementation	
2.4.1 Executing Agency	
 2.4.2 Contractor(s)/ Supplier(s), and Consultant(s) and their Performance: 2.4.2.1 Procurement & Consultant. 	
2.4.2.2 Performance	
Consultant's Progress:	17
Contractor's Progress: Package-1 Physical Progress	
Package-2 Physical Progress	
Package-3 Physical Progress	
Package-4 (ITS) Health & Safety and Environment (HSE)	
Package-1 Safety Report	
Package-2 Safety Report	
Package-3 Safety Report	20
3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)	21
3.1 Operational and Physical Condition	
3.2 Precautions3.3 Environmental and Social Impacts	
3.4 Qualitative and Quantitative Data of Monitoring Indicators	
3.5 Monitoring Plan for the indicators	27
3.6 Achievement of the Project Objective	
4.0 OPERATION AND MAINTENANCE (O&M) (SUSTAINABILITY)	
4.1 O&M and Management	
4.2 O&M Cost and Budget	
5.0 EVALUATION	
5.1 JICA and Borrower / Executing Agency performance	
1.2 Overall Evaluation5.3 Lessons Learnt and Recommendations	
Attachment 1- MMRDA & PIU Organization Chart	
Attachment 2- Environmental & Social Impacts Attachments	
Attachment 3- JICA's Concurrence Status Attachment 4- Project Procurement and Financial Status till 31st Dec 2018	
Attachment 5- Project Progress Photos	
Attachment 6- S-Curve for Cumulative Planned Vs Actual Amount in JPY Million	
Attachment 7- Project Implementation Programme Updated Till 31st Dec 2018	

1.0 PROJECT DESCRIPTION

1.1 **Project Objective**

Original:

To improve connectivity in Mumbai Metropolitan region by constructing the Mumbai Trans Harbour Link connecting Mumbai with Navi Mumbai, thereby contributing to mitigation of traffic congestion and promoting regional economic development.

Actual (P/R, PCR)

There is no change in the Project Objective.

1.2 Necessity of the Project

The Project is consistent with the development policy, sector plan, national/regional development plans and demand of target group of the recipient country.

Benefits from MTHL Project

- Saving in travel time for commuters from Mumbai to Navi Mumbai.
- Improved comfort and accessibility between the island and the mainland.
- Reduced operating costs of vehicles due to lesser congestion.
- Smooth traffic flow from Navi Mumbai airport to Mumbai Island.
- Accelerated economic development of Navi Mumbai and nearby regions.
- Greater economic integration of Mumbai island with Navi Mumbai and extended regions of Pune, Goa, Panvel and Alibaug.
- Improvement in environment and reduced pollution levels.
- Improved safety due to reduction in accidents.
- Improvement in trade competitiveness through faster and improved logistics.
- Accelerated growth of Navi Mumbai.
- Decongestion of Mumbai Island and dispersal of population to Navi Mumbai region & beyond.

Necessity of the Project

- Although the urbanization in India has been rapidly progressing, infrastructure development in the urban areas has not caught up its progress. Particularly, the traffic congestion in the urban areas due to a lack of road network hinders the economic development. Thus, Government of India (GOI) places transport and connectivity as one of the "Growth Enablers" and plans to enhance road network in the "Three Year Acton Agenda 2017-2018 to 2019-20 (NITI Aayog)".
- 2. Mumbai Metropolitan Region, which includes Mumbai and Navi Mumbai, has about 18.4 million people in population as of 2011 (Census 2011) and the population density reaches 20,694 people per square km in the center of Mumbai, which is one of the most overpopulated and high-density cities in the world.
- 3. Mumbai, the narrow stretch of land that has traditionally been the epicentre of India's commerce, has seen a steady increase in population in the last three decades despite obvious spatial constraints. Thus, the development of Navi Mumbai has been identified as

an urgent requirement for broad development in Mumbai Metropolitan Region.

- 4. The Government of Maharashtra (GoM), of which Mumbai Metropolitan Region is under jurisdiction, has been facilitating various development plans particularly in Navi Mumbai area, which stands at the opposite site of Mumbai across the Mumbai Bay and still has spacious area for development, such as a new international airport, Special Economic Zone (SEZ) and expansion of Jawaharlal Nehru Port in order to promote the sustainable economic development in Mumbai Metropolitan Region.
- 5. Furthermore, a lack of connectivity in Mumbai has stunted its growth. The GoM has given importance to construct the faster connection with Mumbai to Navi Mumbai International Airport, Jawaharlal Nehru Port, Mumbai-Pune expressway and main hinterland.
- 6. Accordingly, the Mumbai Trans Harbour Link (MTHL) has been identified as the important infrastructure to improve the connectivity between Mumbai and Navi Mumbai and continue economic development in Mumbai Metropolitan Region.

The MTHL is proposed to be developed as an expressway link comprising of a dual threelane main carriageway bridge connecting Sewri in Mumbai to Chirle in Navi Mumbai. When completed, MTHL will reduce the distance between Mumbai and Navi Mumbai and will help save approximately an hour in travel time. Also, development of Navi Mumbai along with the imminent construction of the Navi Mumbai airport will lead to increased traffic between Mumbai and Navi Mumbai. Consequently, the project is envisaged to; improving accessibility between Mumbai and Navi Mumbai, accelerating growth of Navi Mumbai, smooth traffic flow from Navi Mumbai airport to Mumbai, accelerating economic development of Navi Mumbai and surrounding regions, greater economic integration of Mumbai with Navi Mumbai and extended regions of Pune, Goa, Panvel and Alibaug, and decongestion of Mumbai and dispersal of population to Navi Mumbai region and beyond.

- 7. The Comprehensive Transportation Study (CTS) for Mumbai Metropolitan Region which was guided by Mumbai Metropolitan Region Development Authority (MMRDA) and supported by World Bank, was completed in July 2008, which was over 25 years after the issuance of the last comprehensive transport study. The report provided a vision for Mumbai's future transportation as seamless and integrated system, in which commuters can make their journeys safely and conveniently by various modes of transport, particularly by public transport, and recommended the development of Multi Modal Corridor to take care of the varied travel demands of the region for the period up to 2031. The CTS proposed to develop the highway network in the region. The MTHL has been regarded as the priority road for Mumbai, considering its function and importance connecting between Mumbai and Navi Mumbai.
- 8. Necessity of the Project: To promote economic development in Mumbai Metropolitan Region it is essential to improve the connectivity between Mumbai and Navi Mumbai, by constructing MTHL.

Actual (P/R, PCR)

There is no change in the Necessity of the Project preamble.

1.3 Rationale of the Project Design

- Timing, Scale, Technology of the Project:

Demand Analysis

1. At the opening year 2022, the daily traffic on the main bridge is expected to be 39,300 PCU. The traffic is projected to increase up to 103,900 by 2032 and up to 145,500 by the year 2042. The daily breakdown by vehicle class on the main bridge link is presented in the Table 1.3.1 below:

Vehicle Type		Sewri Intercl er Interchange	•	Between Shivaji Nager Interchange an Chirle Interchange			
	2022	2032	2042	2022	2032	2042	
Car	24,100	66,400	94,100	4,900	21,300	43,300	
Taxi	2700	14,100	20,200	100	400	2,300	
Bus	2,700	3,700	3,700	2,700	3,700	3,700	
LCV	2,200	4,100	5,600	700	1,300	1,800	
HCV	3,000	6,500	8,100	1,000	2,000	2,200	
MAV	4,600	9,100	13,800	400	900	1,700	
Total	39,300	103,900	145,500	9,800	29,600	55,000	

Table 1.3.1 Demand Projections Over the Period

LCV: Light Commercial Vehicle; HCV: Heavy Commercial Vehicle; MAV: Multi Axle Vehicle

- 2. At the opening year in 2022, the traffic flow on MTHL represents a diversion of 10% on the traffic across Thane creek which will increase up to 16% in 2032. If only Thane Creek Bridge is considered, then the diverted traffic from the bridge will be 21% in 2022 which will rise up to 35% in 2032.
- 3. 6-lane of main carriageway was decided by GoM. It was reviewed based on the forecasted result of future traffic volume by Manual of Specification and Standards for Expressways (IRC: SP:99-2013). The result of the review shows that 6-lane will be required in 2032 (10 years later after traffic open). Although, 8-lane will be required in 2042, it is assumed that the level of service of MTHL would be maintained as additionally metro might be constructed in parallel with MTHL.

Design Parameters / Overall Design

- 4. The MTHL which is 21.8 km long road bridge partly on the land and partly over the creek across the Mumbai Bay between Sewri in Mumbai and Chirle in Navi Mumbai, is to be constructed with the approach sections and interchanges. ITS (Intelligence Transport System) and the other necessary facilities will be provided for full access-controlled bridges.
- 5. As per the provisions of IRC (Indian Road Congress) SP:99-2013, the Width of each lane of the Main Carriageway is 3.5 meters.
- 6. When the design speed is 100 km/h according to the traffic demand forecast the large vehicle, ratio will be as low as 9.4% (2022).
- 7. The shoulder width of bridge towards outside of each carriageway is 2.5 meters and towards median side of each carriageway is 0.75 meters.
- 8. The major portion of MTHL structure is on sea and partly towards ends is on land with

different type and with different span, viz., PC box girder with 50 m spans which is typically applied on marine viaduct since, it is economical, easy to construct and maintain.

- 9. On the land portion, the PC box girder having span of generally 30m is used.
- 10. As far as the location in which long span (150-180 m) is required to cross significant obstacles, such as navigation channels, pipelines and creeks, the steel box girder bridge with steel deck is proposed with large block erection method to shorten the construction period.
- 11. The project is coded with three lanes of traffic in each direction. The reference toll is presented in the Table 1.3.2 below for each vehicle class in Year 2022 (based on 2015 monetary value reflecting price escalation).

Table 1.3.2: Base Toll Rates (Rs) for different class of vehicles between Interchanges

Vehicle Type	Sewri to Shivaji Nagar	Shivaji Nagar to Chirle	Total
Car	180	60	240
Bus	420	130	550
LCV	240	70	310
HCV	420	130	550
MAV	600	180	780

Intelligent Transport Systems (ITS) and Toll Management System (TMS)

- 12. The Toll Management System will be implemented in MTHL to collect tolls from all road users of MTHL. Two types of toll collection method will be adopted; Electronic Toll Collection (ETC) and Manual (paying by cash).
- 13. The lanes corresponding to these toll collection methods are dedicated ETC lanes and Manual lanes, and Manual system shall be installed to ETC lanes for backup to be able to cope at the time of the trouble of ETC equipment failure.

Traffic management System

- 14. Traffic Management System is a support system to Manage the traffic on MTHL safely and efficiently. The System consists of the information collection system including Closed-Circuit Television (CCTV), Emergency Call Box (ECB), Automatic Traffic Counter-Cum-Classifier (ATCC) and Meteorological Data System (MDS), and Information Dissemination System including Variable message Sign (VMS).
- 15. CCTV Cameras shall be installed at around three places per 1 km, on Both side of main route and the monitoring of the traffic condition of the whole stretch of MTHL will be almost enabled in the Traffic Control Centre and VMS displays the appropriate information for road users on the collated information.
- 16. The Information collected by these devices shall be transmitted to the Traffic Control Centre through the medium of an Optical Fiber Cable laid in MTHL.

Actual (P/R, PCR)

There is no change in the Rationale of the Project Design.

2.0 PROJECT IMPLEMENTATION

2.1 Project Scope

Refer Table 2.1.1 and 2.1.2 for details on Scope of the Project.

Table 2.1.1 Comparison of Original and Actual location

	Original: (P/M)	
Location	Mumbai Metropolitan Region Development	Actual: (P/R and PCR)
	Authority, Mumbai, State of Maharashtra	

Table 2.1.2 Comparison of Original and Actual Scope

Items	Original	Actual
Construction	work: 6-lane Marine Bridge Road (21.8 km)	
Package-1 Ch 0+000- 10+380 (10.380 km)	 1 Interchange (Sewri) Viaduct superstructure (Marine Portion: PC Box Girder & Steel Box Girder with Steel Slab Land Portion: PC Box Girder & PC-I Girder) Viaduct Substructure (RC Concrete Structure) Viaduct Foundation (Bored piles) Road Furniture and road side facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers) 	(P/R and PCR)
Package-2 Ch 10+380- 18+187 (7.80 km)	 1 Interchange (Shivaji Nagar) Viaduct superstructure (Marine Portion: PC Box Girder & Steel Box Girder with Steel Slab Land Portion: PC Box Girder & PC-I Girder) Viaduct Substructure (RC Concrete Structure) Viaduct Foundation (Bored piles) Road Furniture and road side facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers) 	(P/R and PCR) Actual: No View Barriers
Package-3 Ch 18+187- 21+800 (3.61 km)	 2 Interchanges (State Highway-54, National Highway-4B) Viaduct superstructure (Marine Portion: PC Box Girder & Steel Box Girder with Steel Slab Land Portion: PC Box Girder & PC-I Girder & Steel Truss Girder for Rail-over-Bridges (ROB) Viaduct Substructure (RC Concrete Structure) Viaduct Foundation (Bored piles) Cutting Section (6-lane with Slope Protection) Road Furniture and road side facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers) 	(P/R and PCR) Actual: No Noise Barriers & View Barriers

Items	Original	Actual
Package-4 ITS (Intelligent Transport System)	 Administrative Buildings Toll Booths (1 for main alignment and each on and off rumps for 3 interchanges) Traffic Management System (Traffic Control Centre, Closed Circuit Television (CCTV), Meteorological Observation System (MET), Emergency Call Box (ECB), Automatic traffic Counter-cum-Classifier (ATCC), Variable Message Sign (VMS)) Highway Lighting (Whole sections Low-positioned lighting for some sections) Electrical Powering System including HV/ LV Ring Network across the Bridge. 	(P/R and PCR)
Consulting Services	 Tender Assistance Construction Supervision Facilitation of Implementation of Environmental Management Plan (EMP), Environmental Monitoring plan (EMoP). 	(P/R and PCR)

2.2 Implementation Schedule

2.2.1 The Original Implementation Schedule

Table 2-2-1 Comparison of Original and Actual Schedule

	Items	Original	Status (P/R and PRC) as on 31 st Dec 2018
	on of Land on and Resettlement	March 2019	March 2019
2) Consultin	g Services		
a) Seleo	ction of Consultant	May – December 2016	May – December 2016
b) Cons	sultancy Works	December 2016 – September 2024	December 2016 – September 2024
3) Selection	of Contractor		
Package 1-3	(Civil)		
a) Pre-0	Qualification Process	May – December 2016	May – December 2016
b) Main	Bidding	January – December 2017	January – December 2017
c) JICA Cont	's Concurrence of ract	February-2018	February-2018
Package 4 (I	rs)		
a) Pre-0	Qualification Process	January 2019 – May 2019	March 2019 – May 2019
b) Main	Bidding	June 2019 – September 2020	June 2019 – September 2020
Package 5 (G	Geotechnical Investigati	on)	
a) Main Bio	dding	March-2016	March-2016
4) Civil Cons	struction		
Package 1 ar	nd 2	March 2018 – September 2022	March 2018 – September 2022
Package 3		March 2018 – September 2021	March 2018 – September 2021
Package 4		October 2020 – September 2022	October 2020 – September 2022
Package 5 (G Investigation)		March 2016– June 2016	March 2016– June 2016
5) Defect Lia	ability Period		
Package 1, 2	and 4	October 2022 – September 2024	October 2022 – September 2024
Package 3		October 2021 – September 2023	October 2021 – September 2023
6) Comment Collection	cement of Toll	September -2022	September -2022
7) Selection Organizat		October 2020 – September 2021	October 2021 – September 2022

Attachment: Project Implementation Programme updated till the quarter (Oct-Dec 2018) end, 31st December 2018.

2.2.2 Reasons for changes of the schedule and their effects to the Project

(P/R and PCR)

No change in the Implementation Schedule except the selection of O&M Organization timeline.

2.3 Project Cost

2.3.1.a Comparison of Originally Planned and Actually Incurred Cost BY ITEM

Table 2.3.1.a.(i) Originally Planned Cost BY ITEM

	Foreign	Currency	Portion	Local (Currency P	ortion	Total			
Cost Breakdown	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)	Total (Rs. mil)	JICA Portion (Rs. mil)	Others (Rs. mil)	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)	
Package-1	34,398	34,398	0	45,376	45,376	0	105,713	105,713	0	
Package-2	26,513	26,513	0	32,617	32,617	0	77,774	77,774	0	
Package-3	759	759	0	8,276	8,276	0	13,766	13,766	0	
Package-4 (ITS)	0	0	0	1,444	1,444	0	2,269	2,269	0	
Package-5 (Geotechnical Investigation)	0	0	0	166	0	166	260	0	260	
Dispute Boards (Package-1, 2, 3 & 4)	63	63	0	45	45	0	134	134	0	
Price Escalation	2,251	2,251	0	7,133	7,133	0	13,460	13,460	0	
Physical Contingency	6,398	6,398	0	9,506	9,489	17	21,338	21,312	26	
Consulting Services	1,650	1,650	0	1,587	1,587	0	4,145	4,145	0	
Land Acquisition*	0	0	0	11,293	0	11,293	17,748	0	17,748	
Administration Cost	0	0	0	4,898	0	4,898	7,698	0	7,698	
GST	0	0	0	18,238	0	18,238	28,663	0	28,663	
Import Tax	0	0	0	13,435	0	13,435	21,114	0	21,114	
Interest during construction	2,942	0	2,942	0	0	0	2,942	0	2,942	
Front End Fee	477	0	477	0	0	0	477	0	477	
Total	75,451	72,032	3,419	154,013	105,967	48,046	317,501	238,572	78,929	

(Note) 1. Exchange Rate: US\$1=Rs. 71.9, US\$1=JPY 113.0, Rs.1 = JPY 1.57

2. Price Escalation (a) Foreign Currency Portion: 1.83% p.a.

(b) Local Currency Portion: 4.13% p.a.

3. Physical Contingency: 10%

4. Base Year for Cost Estimation: December 2018

* Base Cost for Land Acquisition considered in the year 2016 was INR 9,062,669,696. The base cost has been revised to INR 11,293 million considering Price Escalation and 10% Physical Contingency.

	Foreigr	n Currency	Portion	Local C	urrency l	Portion	Total		
Cost Breakdown	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)	Total (Rs. mil)	JICA Portion (Rs. mil)	Others (Rs. mil)	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)
Package-1	2,753	2,753	-	6,688	6,688		13,309	13,309	
Package-2	2,394	2,394	-	2,450	2,450		5,234	5,234	
Package-3	73	73	-	431	431		737	737	
Package-4 (ITS)	-		-	-			-		
Package-5 (Geotechnical Investigation)	-			196		196	308		308
Dispute Boards (Package-1, 2, 3 & 4)	-			-			-		-
Price Escalation	-			4	4		6	6	-
Physical Contingency	-			-			-		-
Consulting Services	321	321		256	256		736	736	
Land Acquisition*	-			3,420		3,420	5,369		5,369
Administration Cost	-			1,302		1,302	2,044		2,044
GST	-			761		761	1,195		1,195
Import Tax	-			-			-		-
Interest during construction	-			-			-		-
Front End Fee	-			-			-		-
Total	5,541	5,541	-	15,508	9,828	5,679	28,938	20,021	8,916

Table 2.3.1.a.(ii)	Actually Incurred	Cost BY ITEM
--------------------	--------------------------	--------------

(Note) 1. Exchange Rate: Rs.1 = JPY 1.57 for MMRDA Portion only

2. Price Escalation (a) Foreign Currency Portion: 1.83% p.a.

(b) Local Currency Portion: 4.13% p.a.

3. Physical Contingency: 10%

4. Base Year for Cost Estimation: December 2018

* Base Cost for Land Acquisition considered in the year 2016 was INR 9,062,669,696. The base cost has been revised to INR 11,293 million considering Price Escalation and 10% Physical Contingency.

2.3.1.b Comparison of Originally Planned and Actually Incurred Cost BY YEAR

Table 2.3.1.b.(i) Originally Planned Cost BY YEAR

(All Figures are in JPY mil)

Cost	Total		Others (MMRDA			
Breakdown	Total	Tranche I	Tranche II	Tranche III	Sub Total	Portion)
FY 2017	12,679	10,134	0	0	10,134	2,545
FY 2018	30,771	22,707	0	0	22,707	8,064
FY 2019	72,379	56,816	0	0	56,816	15,563
FY 2020	92,944	55,138	16,040	0	71,178	21,765
FY 2021	66,397	0	50,869	0	50,869	15,527
FY 2022	27,683	0	0	20,113	20,113	7,570
FY 2023	3,723	0	0	565	565	3,158
FY 2024	10,925	0	0	6,189	6,189	4,735
Total	317,501	144,795	66,909	26,868	238,571	78,929

Table 2.3.1.b.(ii) Actually Incurred Cost BY YEAR

(All Figures are in JPY mil)

Cost	Total		Others (MMRDA			
Breakdown	TOtal	Tranche I	Tranche II	Tranche III	Sub Total	
FY 2017	13,738	9,232	-	-	9,232	4,506
FY 2018	15,199	10,789	-	-	10,789	4,410
FY 2019						
FY 2020						
FY 2021						
FY 2022						
FY 2023						
FY 2024						
Total	28,937	20,021	-	-	20,021	8,916

(Note) 1. Exchange Rate used: Rs.1 = JPY 1.57 for MMRDA Portion only

2. Fiscal Year starting from 1st April and ending on 31st March.

2.3.2 Reason(s) for the wide gap between the original and actual, if there have been any, the remedies you have taken, and their results.

(P/R and PCR)

There is No major gap between the original and actual cost.

2.4 Organization for Implementation

2.4.1 Executing Agency

Original:

Executing Agency

Mumbai Metropolitan Region Development Authority (MMRDA) was established on 26thJanuary 1975 in accordance with the Mumbai Metropolitan Development Act, 1974 to make Mumbai Metropolitan Region (MMR) a destination for economic activity by promoting infrastructure and regional planning. MMRDA takes all the necessary measures, required from time to time, in an effective manner and be fully responsible for the Project implementation. After completion of the Project, MMRDA continues to be responsible for the efficient operation and maintenance of the Project.

The GoM appointed MMRDA as the implementing/ executing agency of MTHL vide Government Resolution dated 4th February 2009 and further the ownership of MTHL would be with MMRDA vide Government Resolution dated 8th June 2011.

Organization's Role

To construct, execute, carryout, improve, work, develop, administer, manage, control or maintain in MMR all types of roads, highways, express routes, paths, streets, bridges, sideways, tunnels and other infrastructure, works and conveniences, approach road, etc. Under the Project, MMRDA is responsible for all the tendering process including employment of consultants, as well as for the construction process.

Project Implementation Unit (PIU)

The PIU is in charge of the Projects. The PIU is headed by Chief Engineer, comprising of 6 Divisions/Cells (Finance Division, Social Development Cell, Engineering Division, Land Cell, Administrative Division and Environmental Cell), Supervision/ ITS Consultant and supporting staff.

Procurement

MMRDA shall have to adopt the JICA's Standard Biding Documents of the latest version, as stipulated in Section 4.01 (2) of "Guidelines for Procurement under Japanese ODA Loans.

Procurement of goods and services, except for consulting services, converted by the Japanese ODA Loan should be implemented in accordance with "Guidelines for Procurement under Japanese ODA Loans", dated in April 2012. Employment of consultants should be implemented in accordance with "Guidelines of Employment of Consultant under Japanese ODA Loans", dated in April 2012. "Principles of Procurement under the Project" is attached for brief explanation of the above Guidelines.

Actual, if changed: (*P/R and PCR*)

There is no change made in original Organisation Set-up & Implementation methods. Refer Annexure III Organisation Chart.

2.4.2 Contractor(s)/ Supplier(s), and Consultant(s) and their Performance:

2.4.2.1 Procurement & Consultant

Table 2.4.2 Procurement of Contractor(s)/ Supplier(s) and Consultant(s)

Contract	Selection Method						
Package	Original: (P/M)	Actual: (P/R and PCR)					
Constructio	Construction Works						
1	1 Package-1: From CH 0+000 - To CH 10+380 (10.38 km) International Competitive Bidding Process (With PQ, Single stage with two envelopes)		No Change				
2	<u>Package-2:</u> From CH 10+380 - To CH 18+187 (7.80 km)	International Competitive Bidding Process (With PQ, Single stage with two envelopes)	No Change				
3	<u>Package-3:</u> From CH 18+187 - To CH 21+800 (3.61 km)	International Competitive Bidding Process (With PQ, Single stage with two envelopes)	No Change				
4	Package-4: To install ITS (Toll Management System and Highway Traffic Management System)	International Competitive Bidding Process (With PQ, Single stage with two envelopes)	No Change				
5	Package-5: To conduct the geotechnical investigation	Local Competitive Bidding Process	No Change				
Consulting	Services						
1	Consulting Service for Supervision	Short List Method (QCBS)	No Change				

2.4.2.2 Performance

Consultant's Progress:

October 2018:

- 1 Mr. R A Rajeev, Metropolitan Commissioner (MC), MMRDA along with MMRDA & GC officials visited MTHL Project all the three packages on 17th October 2018 to monitor the progress.
- 2 GC scrutinized & certified Invoice No. IPC-002 for the Package-2.
- 3 Monthly Progress Review Meetings (PRM) with the Package-1 & 2 Contractors were conducted at the GC Office on 3rd October 2018. Whereas, for the Package-3, the monthly PRM was conducted on 8th October 2018.
- 4 Interface Coordination Meeting with all the 3 Package Contractors was conducted on 24th October 2018 to discuss interface issues/ requirement between the packages.
- 5 GC reviewed GIR (Geotechnical Interpretative Report) Phase 1 for the Package-1 and a "NONO" has been issued. GIR Phase 2 for Package-1 was under review by GC.

November 2018:

- 1 JICA Fact-finding Mission comprising of Mr. TAKANAO Kanda, Assistant Director JICA – South Asia Department, Mr. KENJI Isomoto, Senior Technical Advisor, JICA HQ – Infrastructure Engineering Department and Mr. Anurag Sinha – Lead Development Specialist JICA-India visited MMRDA from 29th October to 2nd November 2018 to review & recommend Tranche-II Ioan amount. GC briefed the project progress status in various scheduled meetings and provided necessary documents to the Mission during the aforesaid period.
- 2 JICA Representatives along with MMRDA & GC officials also visited sites of all three Packages on 1st November 2018 to monitor the progress.
- 3 GC scrutinized & certified following invoices under ad-hoc basis (i.e., 80% amount of the submitted invoices): i) IPC-002 for the Package-1 ii) IPC-003 for the Package-2
- 4 Mr. Khandare, Additional Metropolitan Commissioner (AMC), chaired the Project Review Meetings with all the 3 Package Contractors on 12th November 2018.

December 2018:

- 1 JICA Mission comprising of Mr. NISHI Yosuke, Sr. Deputy Director, JICA HQ, Mr. IRIE Masuru, Asst. Director, JICA HQ, Mr. ISOMOTO Kenji, Sr. Technical Advisor, JICA HQ and Mr. MOMOKO Furuhashi, Representative, JICA-India visited MMRDA from 10th December to 14th December 2018 to study the feasibility of Tranche-II loan amount. During the aforesaid period, MMRDA assisted the Mission and provided necessary documents with the assistance from GC.
- 2 JICA Representatives along with MMRDA & GC officials also visited the site of Package-1 on 12th December 2018 to monitor the progress.
- 3 Monthly Progress Review Meetings with the Package-1 & 2 Contractors conducted at the GC Office on 5th December 2018. Whereas, for the Package-3, the meeting took place on 6th December 2018.
- 4 GC scrutinized & certified Invoice No. IPC-005 & IPC-006 for the Package-1 under adhoc basis (i.e., 80% amount of the submitted invoices).
- 5 GC completed enumerating the affected fishermen in the Mumbai Suburban and Navi Mumbai Area and the report submitted to MMRDA. MMRDA approved and provided compensation to the affected fishermen of the Mumbai Suburban.

Contractor's Progress:

Package-1 Physical Progress

S. No	Activity	Unit	Total Scope	Cumulative Achieved till 31 st Dec 2018	% of Work done Progress	Remarks
1	Geotechnical investigation (field wo	rks only	()			
1.1	Marine	Nos.	194	194	100%	
1.2	Intertidal	Nos.	117	114	97%	
1.3	Interchange	Nos.	228	169	74%	
	Total	Nos.	539	477	88%	
2	Temporary Access Bridge					
2.1	No. of Piles	Nos.	624	126	20%	
2.2	Bridge Deck Erection	RMT	2900	462	16%	
3	3 Gantry Track Foundation for PC Yard					
3.1	Gantry Track Foundation for PC Yard	RMT	1840	1493	81%	

Package-2 Physical Progress

S. No	Activity	Unit	Total Scope	Cumulative Achieved till 31 st Dec 2018	% of Work done Progress	Remarks
1	Geotechnical investigation (Field W	orks on	ıly)			
1.1	Marine	Nos.	154	142	92%	
1.2	Intertidal	Nos.	84	84	100%	
1.3	Interchange	Nos.	66	66	100%	
	Total	Nos.	304	292	96%	
2	Temporary Access Bridge					
2.1	No. of Piles	Nos.	804	82	10%	
2.2	Bridge Deck Erection	RMT	2100	110	5%	
3	Gantry Track Foundation for PC Yard					
3.1	Gantry Track Foundation for PC Yard	RMT	1480	850	57%	

Package-3 Physical Progress

S. No	Activity	Unit	Total Scope	Cumulative Achieved till 31 st Dec 2018	% of Work done Progress	Remarks
1	Centre Line Fixing (Temp. Marking)	km ²	3.61	3.39	94%	
2	Survey Pillars Fixing in the Casting Yard & ROW	Nos.	108	80	74%	
3	Tree Survey	km ²	3.61	1.869	52%	
4	Topography Survey	km ²	3.61	3.26	90%	
5	Geotechnical Investigation Works	Nos.	210	136	65%	

Package-4 (ITS)

Pre-Qualification documents will be submitted to MMRDA soon.

Health & Safety and Environment (HSE)

The HSE Plan has been submitted by the respective construction agency for the Packages which is being monitored by the GC on a regular basis.

Package-1 Safety Report

Sr. No	Description	For Oct- Dec 2018	Cumulative till 31 st Dec 2018
1	Number of Man-Hours (Accident Free Man-Hours)	1048284	1971612
2	Number of Man-Days	101600	217014
3	Number of Reportable Fatal Accidents	0	0
4	Number of Non-Fatal Accidents	0	0
5	Number of Near Miss Incidents	3	3
6	Number of First Aid Cases	5	12
7	Number of Dangerous Occurrences	0	0
8	Number of Reportable Sick Cases	0	0
9	Number of Man-Hours Lost	0	0
10	Number of Man-Days Lost	0	0
11	Number of Reportable Accidents per 100,000 Man- Hours Worked	0	0
12	Number of Inspections done for Offices & Site	16	32
13	Number of Training/ Induction done for Office & Site	15	44
14	Daily Average Manpower (Including all Workmen & Staff) for the Month	2829	655

Package-2 Safety Report

Sr. No	Description	For Oct- Dec 2018	Cumulative till 31 st Dec 2018
1	Number of Man-Hours (Accident Free Man-Hours)	479490	821552
2	Number of Man-Days	43590	77876
3	Number of Reportable Fatal Accidents	0	0
4	Number of Non-Fatal Accidents	0	0
5	Number of Near Miss Incidents	3	10
6	Number of First Aid Cases	5	12
7	Number of Dangerous Occurrences	1	1
8	Number of Reportable Sick Cases	0	0
9	Number of Man-Hours Lost	0	0
10	Number of Man-Days Lost	0	0
11	Number of Reportable Accidents per 100,000 Man- Hours Worked	0	0
12	Number of Inspections done for Offices & Site	82	167
13	Number of Training/ Induction done for Office & Site	670	1297
14	Daily Average Manpower (Including all Workmen & Staff) for the Month	1453	307

Package-3 Safety Report

Sr. No	Description	For Oct- Dec 2018	Cumulative till 31 st Dec 2018
1	Number of Man-Hours (Accident Free Man-Hours)	46260	81003
2	Number of Man-Days	5783	10125
3	Number of Reportable Fatal Accidents	0	0
4	Number of Non-Fatal Accidents	0	0
5	Number of Near Miss Incidents	0	0
6	Number of First Aid Cases	0	0
7	Number of Dangerous Occurrences	0	0
8	Number of Reportable Sick Cases	0	0
9	Number of Man-Hours Lost	0	0
10	Number of Man-Days Lost	0	0
11	Number of Reportable Accidents per 100,000 Man- Hours Worked	0	0
12	Number of Inspections done for Offices & Site	12	17
13	Number of Training/ Induction done for Office & Site	16	20
14	Daily Average Manpower (Including all Workmen & Staff) for the Month	174	279

Please refer Attachment 5 - Site Progress Photos for the development of the project.

3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)

3.1 Operational and Physical Condition

(This section will be developed when the operational plan is available)

Facilities	Description of condition	Problems, its Background and Remedial Action Plan
(P/R and PCR)	(P/R and PCR)	(P/R and PCR)

3.2 Precautions

Original Issues and Countermeasure(s)	Actual Issues and Countermeasure(s)
 3.2.1 General Issues 1. Toll Arrangement/ Toll Rate Fixed toll rate as per the type of vehicle will be levied for the road users after the completion of the Project. An appropriate tolling policy/ rates will be finalized in consultation with the state government prior to the completion of Civil works.	(<i>P/R and PCR</i>) Appropriate Tolling Policy/ Rates will be finalized by December 2020.
2. Operation and Maintenance MMRDA proposes to appoint separate agencies for Operation & Maintenance of the bridge and for Toll Management System. Both the agencies for O & M and Toll Management System may be appointed through open tendering process. Overall monitoring of the two agencies would be done by MMRDA in house through a separate cell which could be constituted for the purpose. MMRDA has confirmed to allocate adequate budget for engaging the Contractors.	Single Operation and Maintenance Contractor will be appointed by December 2020.
3.2.2 Environmental and Social Consideration	(P/R and PCR)
 a. CRZ Clearance Supplemental EIA has been approved by MMRDA and disclosed on the website of JICA. Supplemental EIA report has been disclosed also on the website of MMRDA. Furthermore, renewed CRZ Clearance has been obtained in January 2016. In accordance with the conditions for CRZ Clearance, appropriate measures shall be 	 MMRDA has Uploaded Supplemental EIA & SIA on MMRDA website. The CRZ clearance for MTHL was granted on 25/1/2016 from MoEF&CC and same has been communicated to the contractors. MMRDA has been actively monitoring the conditions of the MoEF&CC approval condition and will continue during the construction phase. MMRDA appointed Mangroves &

taken, and necessary budget shall be secured by MMRDA.	 Marine Biodiversity Foundation for bird monitoring and implementation of Flamingos and bird monitoring program for the MTHL project during the construction as well as the long-term monitoring after the construction. Rs 91.42 Crore had been deposited to Mangroves & Marine Biodiversity Foundation, Mumbai for the development & conservation of mangrove area and its afforestation. Such funds will be managed by the mangrove foundation of Maharashtra State. As per the revised CRZ clearance condition, Rs 4.98 Crore has been paid for the consulting services to develop a Mahul creek Effluent Treatment Plant (ETP). IIT Mumbai is appointed for the DPR study. DPR is under preparation by IIT, Mumbai.
---	---

b. Required Permits

The Permits to be obtained by MMRDA/ Contractors and the present status is given in the following Table.

Clearance Required	Approving Authority	Responsible Organization	Obtained by when	Remark /Status
Mangrove Cutting	Hon. Bombay High Court	MMRDA/ Contractor	Approval received from Hon. Bombay High Court on 28 th November 2016	
Tree Cutting /Transplanta tion	Respective Tree Authorities	Contractor for respective Packages	-	Pkg-1 Tree cutting/ Transplantation is yet to be confirmed. Pkg-2 Tree Cutting/ Transplantation permission obtained & completed. Pkg- 3 Tree Cutting Survey is in progress.

Clearance Required	Approving Authority	Responsible Organization	Obtained by when	Remark /Status
Consent to Establish	Maharashtra Pollution Control Board	Contractor for respective Packages	Pkg-1-18.07.2018 Pkg-2-16.08.2018	Pkg-3 has applied for obtaining the Consent to Establish to MPCB.

3.3 Environmental and Social Impacts

Major environmental and social impacts have occurred during project implementation (e.g. involuntary resettlement, poverty reduction, impacts on the natural environment).

	Issue(s)	Action or countermeasure(s) taken and
		remaining problem(s)
1.	Establishment of Effective	Cell is established by MMRDA
	Environmental and Social Cell in PIUMMRDAconfirmedthatSocial	(Annexure III, Organization chart)
	Development Cell (2 Officers), Land	
	Cell (3 Officers), and Environmental	
	Cell (2 Officers) had been set up.	
2.	Rehabilitation and Land Acquisition	Sewri: Involuntary resettlement in Sewri section
a.	Issues Affected Area and Population Due to the Project, 1282 non- titleholders will be involuntary resettled, and 108.09 ha of land will be handed	has been further validated by Social Development Cell of MMRDA. Out of 298 Project Affected Households (PAHs), MMRDA has confirmed the consent of the 232 PAHs for the resettlement site in HDIL buildings at Kurla (E).
	over by CIDCO.	Out of 67 PAH's (included 1 R+C) 38 PAHs had given their consent to shift to Kanjurmarg East for commercial, 23 PAHs had given their consent to shift to HDIL Kurla for residential, 5 PAHs had given their consent to shift to Kanjurmarg East for residential, 1 PAH had given their consent to shift to Bhakti Park Wadala for residential.
		Navi Mumbai: CIDCO is finalizing the land acquisition on Navi Mumbai side monitored by Land Cell of MMRDA. Out of 108.09 ha ROW 98.75 ha has been handed over by CIDCO to MMRDA. CIDCO is in the process of handing over the balance 9.34 ha land to MMRDA.
b.	Entitlement Policy	
	MMRDA prepared the entitlement matrix for resettlement of non-title holders in Sewri, which meets the Resettlement and Rehabilitation Policy for Mumbai Urban Transportation Project (1997, amended in 2000) and	There are no changes to enforce the entitlement policy. As per the Attachment 2-5 of JICA MoD, MMRDA has committed to enforce the agreed/ approved policy.

lssue(s)	Action or countermeasure(s) taken and
	remaining problem(s)
JICA guidelines for Environmental and	
social considerations (2010)	
("Guidelines") (Attachment 2-5).	
c. Compensation to Project affected	
Fishermen	Updated Attachments 2-8 and 2-10 are enclosed
Detailed baseline survey will be	in the report.
undertaken by MMRDA in order to	
identify fishermen who are affected by	
the Project. Based on the result of the	
baseline survey, MMRDA will	
compensate them in accordance with	
compensation policy prior to the	
construction. Monitoring will be	
conducted by MMRDA with assistance	
of the Consultant to gasp the exact	
impact during construction and operation phase.	
operation phase.	
d. Implementation Schedule	
The Implementation schedule for land	Updated Attachment 2-10 is enclosed in the
acquisition, resettlement and	report.
rehabilitation is attached as per	
Attachment 2-10.	
e. Grievance Redressal Mechanism	
Grievance Redressal Committee	GRC for resolving grievances of the fisherfolk has
("GRC") set under MMRDA will deal	been set up.
with grievances raised by PAPs in	
Sewri and fishermen to be affected by	
the Project. Any grievances raised by	
PAPs whose land is acquired by	
CIDCO shall be resolved by CIDCO.	
f. Internal Monitoring	
Internal Monitoring of the Resettlement	
Action Plan (RAP) implementation will	Attachment 2-8.
be conducted by MMRDA in	
accordance with the RAP with	
necessary assistance of the consultant.	
RAP Internal Monitoring Form	
(Attachment 2-8) will be submitted to	
JICA on a quarterly basis as a part of	
PSR during the RAP implementation.	
g. Qualitative Independent Evaluation	
An Independent Evaluation Agency will	

Issue(s)	Action or countermeasure(s) taken and
	remaining problem(s)
be hired by MMRDA for evaluation of RAP implementation. An external evaluation report will be submitted to MMRDA at mid-term and end-term. MMRDA would submit the evaluation report to JICA in a timely manner.	Updated Attachment 2-10 is enclosed in the report.
h. RAP Implementation Budget The amount of estimated resettlement and compensation budget is Rs.906.26 Cr MMRDA informed to the JICA Mission that RAP implementation cost would be borne by MMRDA and ensured sufficient and timely allocation of funds for smooth implementation.	As updated in Aid Memoire dated 14/12/18, the base cost Budget towards RAP Implementation is updated as Rs 1129.3 Cr.
 i. Environmental Management Plan ("EMP") The mitigation measures against air pollution, waste, noise, and water pollution etc. shall be taken during construction and operation phase. Mitigation measures such as installation of noise barrier, appropriate waste management, etc. have been prepared by MMRDA. The mitigation measures are listed in the EMP matrix. (Attachment 2-1). During the detailed design stage, MMRDA, with assistance of the Consultant, will update the EMP, as necessary. 	EMP will be updated, if required, in due course of time.
 j. Environmental Monitoring Plan ("EMoP") MMRDA takes overall responsibility for implementation of EMoP. During construction, environmental monitoring will be carried out by contractors under supervision by Construction Supervision consultant. The result shall be reported to the JICA India Office on a quarterly basis as a part of Progress Status Report (PSR) by filling in the Reporting Form of Environmental Monitoring Result. (Attachment 2-4). 	Environmental Monitoring Results during the construction phase are mentioned in Attachment 2-4 and is attached with the report.

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
After completion of the construction, EMoP shall be implemented by MMRDA, and the results shall be submitted to the JICA India Office semi- annually until two years after complementation of construction. The required amount of estimated environmental monitoring budget is borne by MMRDA.	
k. Long Term Bird Monitoring MMRDA committed to conduct the long-term monitoring of birds and its habitat in Sewri mud-flats with the assistance of hired bird expert. During the long-term monitoring, MMRDA will share information and receive advices from external experts including the one from NGOs and civil society.	 MMRDA has entrusted the work of bird monitoring and implementation of Flamingos and birds related mitigation measures & bird monitoring program to Mangrove and Marine Biodiversity Foundation. Rs. 31.92 Crore deposited to Mangrove foundation, Mumbai for periodical disbursement to BNHS.

3.4 Qualitative and Quantitative Data of Monitoring Indicators

Operation and Effect Indicator EIRR and/ or FIRR

Supporting data for Computing EIRR and/ or FIRR

Indicators	Original (Year 2015)	Target (Year 2024) 2 Years After Commercial Operation
Average Annual Daily Traffic (PCU/ day)	-	47,400
Daily Average Travel Time (min) * 1	61 min	15.8 min
Number of Users (Persons/ year) * 2	-	46,077,504
Cargo Volume (tons/ year) * 3	-	13,511,759

*1 Section on Sewri – Chirle

^{*2} Assumptions: average passengers of car and taxi (2.6 persons), bus (37.2 persons) based on JICA study. Number of passengers of LCV, HCV and MAV is assumed as 1 person each. *3 Assumptions: the maximum capacity of respective vehicle (LCV: 1 ton, HCV and MAV: 15 tons) is used for estimation.

EIRR	Original: 15.4% Cost: Project cost (excluding Price Escalation, Tax and Duties and Administration cost) O&M cost, Land Acquisition Benefit: Travel Time cost and Vehicle Operation cost Project Life: 32 Years	Actual: (PCR) % Cost:
FIRR	Original: 1.6% Cost: Project Cost, O&M cost, Land Acquisition cost Benefit: Toll Revenue Project Life: 32 Years	Actual: <i>(PCR)</i> %

3.5 Monitoring Plan for the indicators

Monitoring Methods, Section(s)/ department(s) in charge of monitoring, frequency, the term and so forth are given below:

Original: (*P/M and PCR*)

Monitoring Organization

PIU shall be In-Charge of Monitoring activities for the Project.

Submission of QPR and PCR

The timely submission of the following documents is required by MMRDA.

- a. Quarterly Progress Report (QPR): The progress report for the Project should be submitted by MMRDA to JICA on quarterly basis, not later than 30 days after the concerned quarter, in the form of Project Status Report (PSR) attached hereto as per Annex I; Updated status land Acquisition, milestone achieved with respect to Action Plan with Timetable, the monitoring form for environmental and social consideration should also be appended to the PSR. In addition, MMRDA shall also forward the Monthly & Quarterly Progress Reports (including S-Curve Chart) prepared by the Consultant to JICA India Office on regular basis till project completion.
- b. Project Completion Report (PCR): A project completion report should be submitted by MMRDA to JICA promptly, but in any event not later than six months after completion of the Project, in the form of Project Status Report (PSR) attached hereto as per Annex I.

Actual: (P/R and PCR)

Monitoring Organization

PIU for MTHL has been established for monitoring the Project.

Submission of QPR and PCR

This QPR No. 7 is submitted for a period of 1st October to 31st December 2018.

3.6 Achievement of the Project Objective

(PCR)

4.0 OPERATION AND MAINTENANCE (O&M) (SUSTAINABILITY)

4.1 O&M and Management

- Organization Chart of O&M

- Operational and maintenance system (structure and the number, qualification and skill of staff or other conditions necessary to maintain the outputs and benefits of the project soundly, such as manuals, facilities and equipment for maintenance, and spare part stocks etc.)

Original: (P/M)

Operation & Maintenance, Toll Management and ITS

MMRDA proposes to engage two separate agencies for O&M and Toll Management System. Though MMRDA will not directly carry out O&M, the overall monitoring over the O&M agency will be the responsibility of MMRDA. O&M Budget will be allocated by MMRDA. O&M and increase in toll rate will be done in accordance with the NHAI's manuals such as "NHAI Works manuals".

Actual: (PCR)

4.2 O&M Cost and Budget

- The actual annual O&M cost for the duration of the project, as well as the annual O&M budget.

(PCR) This will be reported when the outcome of the above work study is available.

5.0 EVALUATION

5.1 JICA and Borrower / Executing Agency performance

JICA:

(PCR)

Borrower/ Executing Agency:

(PCR)

1.2 Overall Evaluation

Please describe your evaluation on the overall outcome of the project.

(PCR)

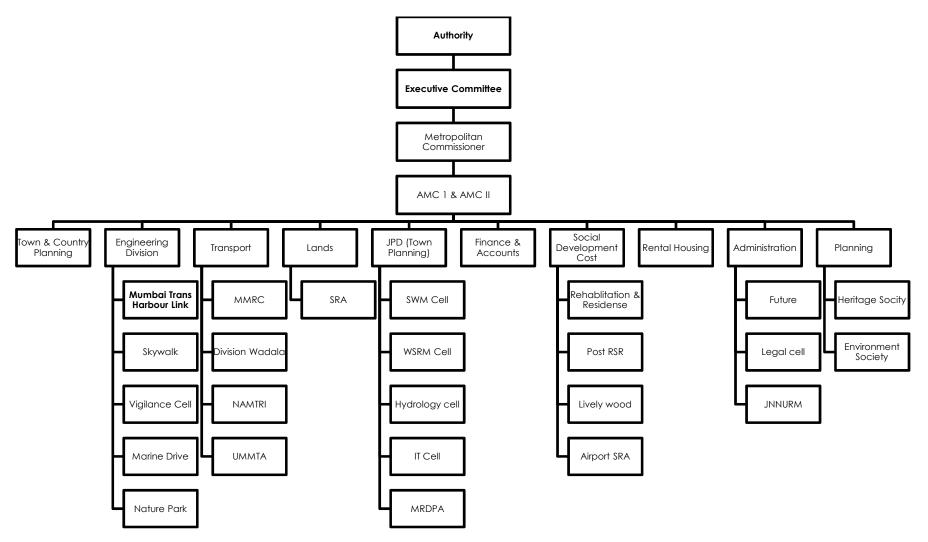
5.3 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future JICA assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

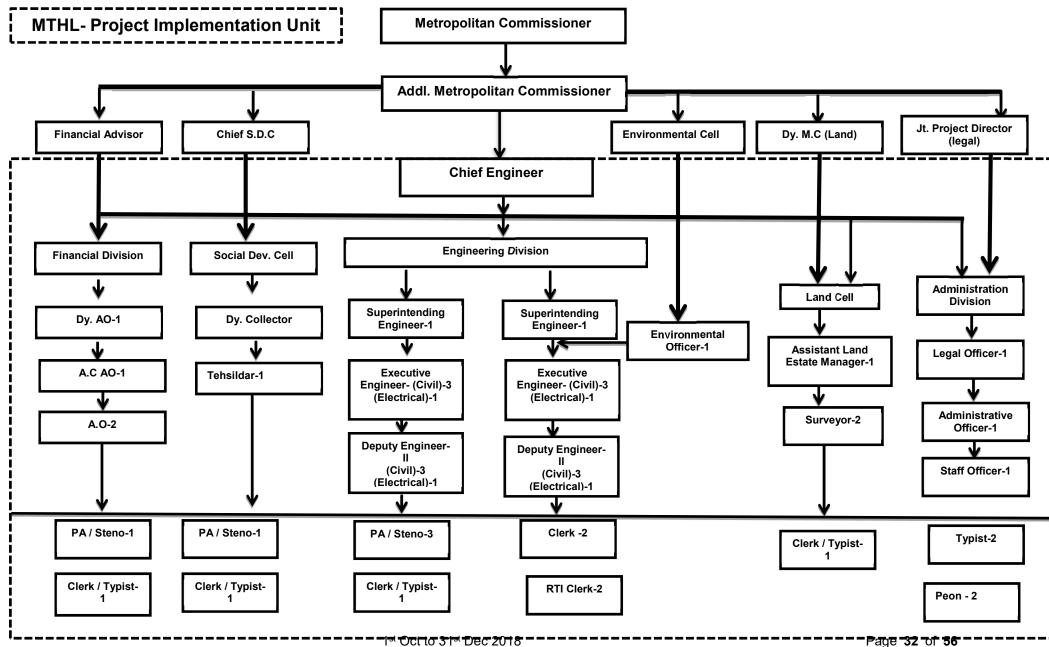
(PCR)

Attachment 1- MMRDA & PIU Organization Chart

MMRDA Organization chart



Mumbai Trans Harbour Link Project - Quarterly Progress Report No. 7 – MTHL



Attachment 2- Environmental & Social Impacts Attachments

Attachment 2-4 – Environmental Monitoring Result Reporting Form Attachment 2-6 – MTHL Land Acquisition Status Attachment 2-8 – RAP Internal Monitoring Form Attachment 2-10 – Schedule of the RAP Implementation

The Project for Construction of Mumbai Trans Harbour Link

Reporting Form of Environmental Monitoring during Construction Attachment 2-4

-	Attachment 2-4				Monitoring Period - October to December 2018		minimum required parameters are included in this form, and not all perameters in EMoP				
1. Enviro	nmental I	Monitoring du	ring Construction for 4	4.5 years					are covered.		
ea						Item and Stanadard		Monitor	ring Result		Remark - reasons why the data is exceeding standard
Ar	INO.	Item	Parameter	Location	Frequency a year	item and Stanadard	Location 1- Pkg 1	Location 2- Pkg 2	Location 3- Pkg 3	Location 4	- reasons why the data is exceeding standard - counter measures when the data is exceeding
				1. Sewri & Sewri bay area for package I	Fortnightly at all locations except 2 locations each near Batching plants	National Ambient Air Quality Standards (NAAQS)					
	1	Air pollution	SO ₂ , NO ₂ , PM ₁₀ , PM _{2.5}	2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	(Standard for 24hrs: Industrial and Residential)	Sewri	Shivaji Nagar	Chirle		
				3. Gavhan & Chirle for	Fortnightly only for 3	1. SO ₂ : 80µg/m ³	BDL [DL=10]	17	12		
				package III	months (jan-2019 to Mar-		16	56	20		
					2019). Then quarterly	2. NO ₂ : 80μg/m ³	10				PM10 is high due to the ancillary development taking
					monitoring as per MOEF and CPCB norms	3. PM ₁₀ : 100µg/m ³	68	248	651		place around the area around Pkg II & III
					and CPCB norms	4. PM _{2.5} : 60μg/m ³	39	79	80		
				1. Sewri & Sewri bay area for package I	Quarterly	Marine water quality Standards – Class SW-IV Harbour Waters (MPCB)	Zone I	Zone II	Zone III		
	2	Water pollution	pH, BOD, DO, Turbidity and O&G	2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	1. pH : 6.5-9		7.6			
				3. Gavhan & Chirle for	Not applicable	2. DO: 3 mg/l		6.9			
				package III		-					
						3. Turbidity: 30 NTU		7.8			NOT applicable For MTHL Package-03
						4. BOD: 5 mg/l		BDL[DL=2]			
				1. Sewri & Sewri bay	Daily	5. O & G: 10 mg/l		BDL[DL=10]			
				area for package I		Municipal Soild Waste Management Rules, 2013	Sewri Camp Site	Shivaji Nagar Camp Site	Chirle Camp Site		
	3	Waste	Volume of waste soil, cutting tree and domestic garbage		4 Times / Year	Generated waste soil (t) total		Collected in jumbo bags			
				package III wo	Once site clearing work/execution part of work start.	Generated cutting treel (ha) total					
						Generated domestic waste (t/month) total		Camp not established yet, site municipal waste is collected and disposed by CIDCO.			
						Confirmation of adequate disposal (visualt survey)		Yes			
				1. Sewri & Sewri bay 1. Muck: 1 Time / Year	Soil Pollution Standard in India (MOEF)	AB-12 TAB Sewri, dated 21/07.2018					
				2. Nhava temporary bridge & casting yard in Gavhan for package II		1. Cadmium: 0.01mg/l	0.5				
				3. Gavhan & Chirle for	*If any spillage/ leakage	2. total cyanide : not detected					+
				package III	take place from chemical,						1
					fuel storage area.	4 lead: 0.01mg/l	0.48				
					*One time grab sample to be collected during	5. chromium (VI): 0.05mg/l	BDL				
Ę					Bridge Construction	6. arsenic: 0.01mg/l or 15mg/kg (agri-land soil)	BDL				
Pollution					*Pre & Post Monsoon at	7. total mercury: 0.005mg/l	BDL				
Poll					Storage area only	8. alkyl mercury: not detected					tation, some items shall be selected from the total
		Soil	Heavy Metals & Oil &			9. PCBs: not detected					d Design. Only the selected items shall be reported to
	4	Contamination/se	Grease			10. copper: 125mg/kg (only paddy field soil)	0.96		JICA, and t	he rest of items shall be dele	eted from this form.
		dimentation				11. dichloromethane: 0.02mg/l	3.84				
						12. carbon tetrachloride: 0.002mg/l					
						13. 1,2-dichloroethane: 0.004mg/l					
						14. 1,1-dichloroethylene: 0.02mg/l					
						15. cis-1,2-dichloroethylene: 0.04mg/l 16. 1,1,1-trichloroethane: 1mg/l					
						17. 1,1,2-trichloroethane: 0.006 mg/l					
						17. 1,1,2-trichloroethane: 0.006 mg/l 18. trichloroethylene: 0.03mg/l	+	+			+
						19. tetrachloroethylene: 0.01mg/l					+
						20. 1,3-dichloropropene: 0.002mg/l					+
						21. thiuram: 0.006mg/l	1	1			1
						22. simazine: 0.003mg/l					1
1		1	1	1	1	0	L	1			

Pre- Construction Environmental Monitoring Baseline Data

		Attachment 2-4
•		nitoring results to JICA India Office. Only d in this form, and not all perameters in EMoP
		Remark
		- reasons why the data is exceeding standard
tion 3- Pkg 3	Location 4	- counter measures when the data is exceeding

The Project for Construction of Mumbai Trans Harbour Link

Reporting Form of Environmental Monitoring during Construction Attachment 2-4

Pre- Construction Environmental Monitoring Baseline Data	This form is prepared t
Monitoring Period - October to December 2018	minimum required pa are covered.
	are covered.

1. Environmental Monitoring during Construction for 4.5 years

	T					23. thiobencarb: 0.02mg/l				
						24. benzene: 0.01mg/l				
						25. selenium: 0.01mg/l				
				1. Sewri & Sewri bay area for package I	Fortnightly	Construction area Standard 85 dB(A) daytime (Japan standard) Not constuction area : Ambient Noise Standard in India (dB(A) Lacq)	Sewri (ST 200-500) (Industrial area)	Sea Section (ST5000-5500) Migratory Bird Area (no standard on sea section)	Shivaji Nagar (Commercial area)	
				2. Nhava temporary bridge & casting yard in Gavhan for package II	2 Times / Year	Day time : 6-22 hr (continious) dB(A)	71.8	70.2	58.9	
			Ambient and road side noise (dB(A)LAeq)	3. Gavhan & Chirle for package III	Fortnightly	Night time: 22-6 hr (continious) dB(A) (only sea section) Day time : 6-22 hr (10 min during 9-17 hrs)	64.7	68.1	47.5	
						Night time: 22-6 hr (10 min 22-24 hr)				
	5	Noise and vibratio				Note (standard values in Not construction area) 1.Industrial Area Day Time: 75 (6-22hr)				
						Night Time: 70 (22-6hr) 2.Commercial Area:				
				1 Location Gavan area	Halfyearly	Day Time: 65 (6-22hr) Night Time: 55 (22-6hr) Construction area Standard 75 dB daytime (Japan				
				for package III		standard) Not constuction area : Vibration Standard (Japan Standard along the road)	Sewri (ST 200-500) (Industrial area)	Shivaji Nagar (Commercial area)		
			Vibration			Day time : 6-22 hr (continious)		0.2		
1			(dB)			Night time: 22-6 hr (continious)		0.2		I
			shall be converted from				25		Regarding protect	
			mm/s to dB			Note (standard values in Not construction area)			term monitoring	
						1. Commercial /Industrial Area			monitoring form :	shall be updated b
						Day Time: 70 (7-20hr)				
						Night Time: 65 (20-7hr)				
				Along MTHL alignment and mangrove replant area for Package I	Quarterly during the construction	Standard is not existing, but quantity and quality should not be worsen	Sewri side (ST500-5500)	Sea Section (ST5500-16000)	Shivaji Nagar side (app. ST16000-19000)	Mangorove Rep area appointed Governm
			1.Monitoring of mudflat conditions including fauna-	Along MTHL alignment and mangrove replant area for package II	Period 4 Times / Year	1-1. Fauna-Flora (number of species and quantity				Governmi
				Not applicable for		(1) Number of species of bird				
			2. Monitoring of Cutting	Package III		(2) Number of species of fish				1
			Tree and			(3) Estimated number of Flamingo				1
			replantation/transplation			1-2: Mangrove density and community survey		not required		
			area			(1) Number of species of mangorve		not required		1
			3.Monitoring of Mangrove			(1) Number of species of mangolve (2) Density of mangrove (xx trees/10m x 10m)		not required		
			Plantation area appointed by MoEF			1-3: Benthos Survey		not required		<u> </u>
	6		by MoEF 4. Monitoring of			(1) Number of species and quantity by species	152 Species and 95No/m2	not required		+
	0		sedimentation soil and				152 Species and 95100/m2		20	
			ecological parameter (25			2-1: Cutting tree confirmation (1) Number of outting tree and appaies		not required	20	+
			items on EIA main text			(1) Number of cutting tree and species		not required		+
			Table 6.1.15 for soil and 7			3-1: Mangrove survey in the replant area	not required	not required	not required	
			items such as 1)Net			(1) Number of species of mangorve	not required	not required	not required	
			primary productivity,			(2) Density of mangrove (xx trees/10m x 10m)	not required	not required	not required	
			2)Chlorophyll-a,			4. Ecologial Parameter				
			3)Phosphate, 4)Nitrate, 5)Nitrite, 6)Particulate Organic Carbon, 7) SiO2)			 (1) Net primary Productivity : <1,500 mgC/m3/day at surface (2) Chlorophyll-a: <4mg/m3 	460			
			-			(3) Phosphate: 0.1-90µg/l	119			
						(4) Nitrate: 1.0-500µg/l	4402			1
							4402			
						(5) Nitrite: <125µg/l				<u> </u>
						(6) Particulate Organic Carbon: 10-100mg/m ³				<u> </u>
		Ecosystem				(7) SiO2: 10-5,000µg/l	2019			<u> </u>
				Not applicable for Package I		Criteria for evaluation Project activities and structures does not cause	Sewri	Shivaji Nagar		

	Attachment 2-4
d for reporting the moni	toring results to JICA India Office. Only
	in this form, and not all perameters in EMoP
rea (CR7 and Important F	Bird Area) and ecosystem, detailed long-
	g baseline survay of birds. This tentative
	e detailed long-term monitoring plan.
be updated based on the	
be updated based on the	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	
be updated based on the langorove Replantation rea appointed by State	

The Project for Construction of Mumbai Trans Harbour Link

Reporting Form of Environmental Monitoring during Construction Attachment 2-4

Pre- Construction Environmental Monitoring Baseline Data Monitoring Period - October to December 2018

This form is prepared for rep
minimum required paramete
are covered.

1. Environmental Mon	itoring during	Construction	for 4.5 years
IT BHITH OHINGHTER FILOR		competition.	ior ne jears

 momouri		ing Construction for 4	ie jeurs						
7	Tryurology -	1 looung situation	2 Locations (CRZ at Sewri and Shivaji Nagar) for Package II	4 Times / Year	Monitoring of flooding situation		No flooding		
			Not applicable for Package III						
8	Topography and Geology	Conditions in embankment area	2 Locations (1. Embankment of Inter Change in Shibaji Nagar	4 times / year x 4.5 years	Criteria for evaluation Embankment shall be stabilized without any landslide and cracks	Shivaji Nagar	Chilre		
			and 2 Cutting area at toll		Monitoring of embankment	No cracks observed			
9		Construction worker's township	2 Locations (major camp site in Sewri and Shivaji	4 times / year x 4.5 years	Criteria for evaluation Employment opportunity shall be provided fairly	Sewri Camp Site	Shivaji Nagar Camp Site		
	interests	township	Nagar)		Number of hired workers by community		100-125		
10	Infectious diseases such as	Number of infected patient	2 Locations (major camp	4 times / year x 4.5 years	Criteria for evaluation Infection disease rate shall not be caused by the project	Sewri Camp Site	Shivaji Nagar Camp Site		
10	HIV/AIDS	· ·	Nagar)	4 times / year x 4.5 years	Confirmation of health check record and inspect project s	ite	Health Checks carried out but HIV/AIDS parameter is not there.		
11	Labour Environm	Construction worker's cond	2 Locations (major camp site in Sewri and Shivaji Nagar)	2 times / year x 4.5 years	Criteria for evaluation "Building And Other Construction Workers (Regulation of Employment and Conditions of Service) Act,1996", "The building and other construction worker's welfare cess Act, 1996" and international standards such as "IFC Performance Standard 2 Labor and Working Conditions"	Sewri Camp Site	Shivaji Nagar Camp Site		
					Site Visual Inspection		Conforming with BOCW Act 1996		
12	Accident	Number of accidents	2 Locations (major camp site in Sewri and Shivaji	4 times / year x 4.5 years	Criteria for evaluation Any accidents are not caused by construction	Sewri Camp Site	Shivaji Nagar Camp Site	Other area	
			Nagar)		Number of recorded accident		Nil		

Attachment 2-4 orting the monitoring results to JICA India Office. Only ers are included in this form, and not all perameters in EMOP						
	- However,					

MTHL Land Acquisition Status (Attachment 2-6):

Total land required on Navi Mumbai side- 108.09ha Land in possession in MMRDA – 98.75 ha Balance land acquisition- 9.34 ha

Note: The land acquisition of 27 ha which was in progress in year 2016 is acquired by CIDCO and handed over to MMRDA. But during joint measurement of land, the area of 9.34 ha was detected as not acquired. The acquisition for this 9.34 ha is in progress by CIDCO. The balance acquisition will be likely completed by end of March 2019.

Land Required in ha			Acquired ha	Balance Land to be acquired in ha	Anticipated date for Land Acquisition	Payment status (Payment made to Land Owners by CIDCO)	Remarks
Govt.	Private	Govt.	Private	Private*			
98.75	9.34	98.75	0	9.34	31/03/2019		 CIDCO is the land acquisition authority for land acquisition for Navi Mumbai. MMRDA has paid an amount of INR 32.16 Cr to CIDCO as per their demand. The payment status to the land owners is awaited from CIDCO. The same would be communicated to JICA immediately on receipt of the same.
	otal	98.75	0	9.34			
10	8.09	50110	~	010-1			

*Portions of Private Land

Sr. No.	Name of Village	Area (Hectare)
1	Gavhan	0.15
2	Jasai	8.72
3	Chirle	0.47
	Total Area	9.34

RAP Implementation Monitoring Form For Mumbai Trans Harbour Link Project (MTHL)

1. General Information

a.	RAP Implementation Monitoring Results:	Progress Status Report (PSR) of 4th quarter of 2018
b.	Date of Preparing This form	31.12.2018
c.	Person Preparing This form	Name: Robin Sham
		Position: Engineer and Team Leader
		Department/Organizations: General Consultants

2. Scale of Impact

2.1 Project Affected Households (PAHs) and Project Affected Persons (PAPs) for Sewri side

Total Project Affected Households (PAHs)	298 Hhs	Titleholders: 0 Hhs
		Non-titleholders: 298 Hhs
Total PAPs	1,282 persons*	Titleholders: 0 persons
		Non-titleholders: 1,282 persons*
PAHs who need relocation (as residents)	232Hhs	Titleholders: 0 persons
		Non-titleholders:232 (1,088 persons)*
PAPs who do not need relocation (as residents)	0 persons	Titleholders: 0 persons
		Non-titleholders: 0 persons
Commercial PAPs who need relocation	66	Titleholders: 0 persons
	(194 persons)*	Non-titleholders:53 (194 persons)*
Commercial PAPs who do not need relocation	0 persons	Titleholders: 0 persons
		Non-titleholders: 0 persons

* - Figures for number of persons do not include no. of family members of few additional PAPs.

2.2 Structures

St. t	
Structures	Residential : 232
	Commercial: 66
	Residential + Commercial : 1 (counted in Commercial)
	Community : 9 (Religious Properties 6, Public Toilets 3)
	Government : 15 (MbPT Structures 8, Occupants of Leased Plots 6 & Police Chowky)
	Total : 322

2.3 Fishery

Categories of Fisher-folks	Identifi	ed Number	Total	Remarks
	Mumbai side	Navi Mumbai side		
C1: Fishing stakes and nets in	137	Survey in progress	137	Nil
RoW (250 m.)	For Trombay,			
	Sewri & Mahul in			
	process of			
	approval			
C2 : Fishing Stakes and Nets	749	126	875	Scrutiny of the
within 500 m. of RoW (Southern				balance
side)				applications is
C3 : Hand-pickers	416	1279	1695	in progress.

C4 : Commercial and Artisanal	Will be observed	Will be observed	 Nil
Fisher-folks	during	during construction	
(Loss of Time and Increased	construction	period	
Operating Costs)	period		
C5 : Fisher-folks with Loss due to	Will be observed	Will be observed	 Nil
Turbidity	during	during construction	
	construction	period	
	period		
C6 : Fisher-folks with Damages	Will be observed	Will be observed	 Nil
due to Accidents	during	during construction	
	construction	period	
	period		

2.4 Land Acquisition / Transfer

Location	Land Required in Ha.		-		Land Acq	uired in Ha.	Balance Land to be acquired in Ha	Remarks
	Govt.	Private	Govt.	Private				
Sewri	10.089	0	10.089	0	0			
Navi Mumbai	98.75	9.34	98.75	0	9.34			
Total	118.179		108.839	0	9.34			

3. Monitoring Results

3.1 Sewri Section

Activity	Indicator	Total Target	Progress Till Last Quarter	Progress during reporting Quarter	Cumulative Progress Till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, If Any
Resettlement	No. of Residential PAHs provided with Allotment Letters of Alternate Tenements	232	75	0	75	32%	
	No. of Residential PAHs given possession of Alternate Tenements	232	0	0	0	0%	
	No. of Commercial/R+C PAPs provided with Allotment Letters of Alternate Shops/Tenements	66	0	0	0	0%	
	No. of Commercial R+C PAPs given possession of Alternate Shops/Tenements	66	0	0	0	0%	

Activity	Indicator	Total Target	Progress Till Last Quarter	Progress during reporting Quarter	Cumulative Progress Till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, If Any
	No. of Occupants of MbPT Leased Plots provided Compensation	6	0	0	0	0%	
	No. of Religious properties Relocated / Removed	6	0	0	0	0%	
	No. of Other Community properties Relocated / Removed	4	0	0	0	0%	
	No. of Structures in possession of MbPT Dismantled / Cleared	8	0	0	0	0%	
	No. of PAHs/PAPs provided Shifting Charges / Arrangement	298	0	0	0	0%	
Rehabilitation	No. of PAHs / PAPs identified for Livelihood Support in Post Resettlement Assessment						
	No. of PAHs / PAPs provided Livelihood Support under Program-I (to be identified)						
	No. of PAHs / PAPs provided Livelihood Support under Program-II (to be identified)						
	No. of PAHs / PAPs provided Livelihood Support under Program-III (to be identified)						
	No. of new enterprises started						
Grievance Redress	No. of Grievances Received by FLGRC	4					
Redress	No. of Grievances Disposed by FLGRC	0					
	No. of Grievances Received by SLGRC	0					
	No. of Grievances Disposed by SLGRC	0					
Post Resettlement	No. of CHSs Registration helped						
Assistance	No. of CHSs provided Tenements for Social Amenities						
	No. of CHSs' Maintenance Fund Invested						
	No. of CHSs' Office Bearers provided training						

3.2 Fishery Compensation

Categories of Fisher-folks	Identifi	ed Number	Total	Remarks
	Mumbai side	Navi Mumbai side		
C1: Fishing stakes and nets in RoW (250 m.)	137 For Trombay,	Survey in progress	137	Nil
	Sewri & Mahul in			
	process of approval			
C2 : Fishing Stakes and Nets within 500 m. of RoW (Southern side)	749	126	875	An amount of about 49 crores has been deposited with the Fisheries Department towards disbursement of
C3 : Hand-pickers	416	1279	1695	compensation to 2564 Nos. of beneficiaries.
				Further, the Fisheries Department has started disbursing the amount to the individual PAPs on following due procedure.
				The scrutiny of the balance Nos. of applications of fisherfolk is in the process of scrutiny for deciding their eligibility for the compensation.
C4 : Commercial and Artisanal	Will be observed	Will be observed		Nil
Fisher-folks	during	during construction		
(Loss of Time and Increased Operating Costs)	construction period	period		
C5 : Fisher-folks with Loss due to	Will be observed	Will be observed		Nil
Turbidity	during	during construction		
	construction period	period		
C6 : Fisher-folks with Damages	Will be observed	Will be observed		Nil
due to Accidents	during	during construction		
	construction period	period		

List as per C2 & C3 category

Sr.	Village name	Total No of family units	No of eligible						
No		surveyed	family units						
	Mumbai side								
1.	Mahul & Sewri	336	336						
2.	Trombay	829	829						
	Total Mumbai side	1165	1165						
Navi Mumbai side									
3.	Bamandongri	235	25						

Sr. No	Village name	Total No of family units surveyed	No of eligible family units	
4.	Belpada	484	329	
5.	Ganeshpuri	25	50	
6.	Jasai	26	18	
7.	Gavhan	5	4	
8.	Morave	190	83	
9.	Kopar	548	228	
10.	Mora	70	1	
11.	Uran	65	0	
12.	Jawale	232	1	
13.	Shelghar	1	15	
14.	Shivaji Nagar	2	64	
15.	Ulwe	29	14	
16.	Vahal	119	3	
17.	Navakhadi	673	326	
18.	Moha	222	146	
19.	Kombadbhuja	134	92	
Т	otal Navi Mumbai side	3060	1399	
(Mu	Total mbai side + Navi Mumbai	4225	2564	
	side)			

Note: MMRDA has received 13,112 new applications from Fishing families which are yet to be scrutinized. Note: The category of fishermen is as per the Fishermen Compensation Policy

Grievance Redressal Committee (GRC) for Fisher-folk Compensation

No. of Cases referred to GRC]	No. of Cases	No. of Cases Rejected	No. of Cases under Consideration
	Allowed	Compensation Paid		
Nil	Nil	Nil	Nil	Nil

Implementation Schedule for Fisher-folks Compensation & Land Acquisition in Navi Mumbai

A. Implementation Schedule for Fisher-folks Compensation:-

Sr. No.	Task Designation	Approving authority	Start Date	Completion Date
1	Approval of fisher-folks'	Fisher-folks Compensation	08-10-2015	23-12-2015
	compensation Policy	Committee (FCC)		
2	Approval by MMRDA	MMRDA	10-12-2015	23-12-2015
3	Submission to JICA	MMRDA		04-01-2016
4	Detailed list of PAP and compensation plan	Detailed list of Fisher-folk PAP & disbursement is finalized by the Fisheries Department.	23-12-2015	 Ist round of scrutiny of applications is completed on 12th September 2017. 2nd round of scrutiny of applications is completed on 25th April 2018. 3rd round of scrutiny of applications is completed on 20th November 2018. 4th Round of scrutiny of applications is will be completed in January 2019.
5	Validation of compensation plan	Fisher-folks Compensation Committee (FCC)	23-12-2015	1. Approval to the Fisher-folk PAP list obtained from Fisheries Department for Fisherfolk from Sewri, Mahul & Trombay (Mumbai side) – 12 th September 2017 and 20 th November 2018 for C-2 & C3 Category only.

Sr. No.	Task Designation	Approving authority	Start Date	Completion Date		
			23-12-2015	2. Approval to the Fisher-folk PAP list		
				obtained from Fisheries Department for		
				Fisherfolk of Navi Mumbai of C2 & C3 of		
				25 th April 2018.		
				3. Validation of compensation is forecasted t		
				be completed in April 2019.		
6	Approval of compensation plan	FCC	23-11-2015	28-12-2017		
7	Approval by MMRDA	MMRDA	23-11-2015	09-03-2018		

B. Implementation Schedule for Land Acquisition in Navi Mumbai:-

Land Required in Ha.		Land Acquired in Ha.		-		Balance Land to be acquired in Ha	Anticipated date for Land Acquisition	Payment status (Payment made to Land Owners by CIDCO)	Remarks
Govt.	Private	Govt.	Private	Private					
98.75	9.34	98.75	0	9.34	31/03/2019		 CIDCO is the land acquisition authority for land acquisition for Navi Mumbai MMRDA has paid an amount of INR 32.16 Cr to CIDCO as per their demand. The payment status to the land owners is awaited from CIDCO. The same would be communicated to JICA immediately on receipt of the same. 		
To	otal	108.839	0	9.34					

Implementation	Schedule for SIA	(Sewri Section)
----------------	------------------	-----------------

Task No.	Task Designation	Start Date	Completion / Forecast Date
1	Preparation of Final SIA		Forecast Date
1.1	MMRDA Approval	October 2015	January 2016
1.2	JICA Approval	November 2015	January 2016
1.3	Posting of project Information on MMRDA		January 2010
1.4	Translation and disclosure of entitlement policy in local language to all PAP's	December 2015	January 2016
2	LARP Implementation		
2.1	Grievance redress mechanism established	August 2016	August 2016
2.2	Staff deployment SIA implementation	June 2016	March 2020
2.3	Staff Deployment Public Relation	June 2016	June 2016
2.4	Hiring of Independent Evaluation Agency	November 2018	April 2019
2.5	Preparation and issue of allotment letters to	June 2018	June 2019
2.6	Notice of PAPs for shifting (Sewri Section)	December 2018	June 2019
2.7	Allotment of dwelling units to PAP's	September 2016	June 2019
2.8	Shifting of PAPs to resettlement Colony	December 2018	July 2019
2.9	Transfer of compensation / allowance/ assistance to PAPs	December 2018	July 2019
2.10	Creation of Community Revolving fund (within 3 months post handing over)	April 2019	July 2019
2.11	Assessment of economic rehabilitation needs by individual household (within 6 months after handing over	September 2019	December 2019
2.12	Registration of Co-operative housing societies, transfer of maintenance funds. (6 months period)	December 2019	June 2020
2.13	Signing of Civil Contract		January 2017
2.14	Notice of Civil works to proceed		March 2017
3	Monitoring & Evaluation		
3.1	Internal Monitoring- Monthly/ Quarterly	June 2016	January 2020
3.2	Independent Evaluation Mid-term and End term evaluation		
	Mid Term	May 2019	July 2019
	End Term	November 2019	January 2020

Attachment 3- JICA's Concurrence Status

Status of JICA'S Concurrence

			Bid C	ost		JICA's Concurrence on						
SI No		Procurement procedure	Local Currency (Cr Rs.)	Total (Cr Rs)	PQ Documents	PQ Evaluation	Bid Documents	Technical Evaluation	Financial Evaluation	Contract		
1	Package-1 (CH 0+000 km to CH10+380 km)	ICB with PQ (2P)	7637.30	7637.30	JICA's Concurrence - 9th May 2016	JICA's Concurrence - 22 nd Dec 2016	JICA's Concurrence - 4 th Jan 2017	JICA's Concurrence - 12 th Sep 2017	JICA's Concurrence - 12 th Oct 2017	JICA's Concurrence – 15 th Feb 2018		
2	Package-2 (CH 10+380 km to CH18+187 km)	ICB with PQ (2P)	5612.61	5612.61	JICA's Concurrence - 9 th May 2016	JICA's Concurrence - 22 nd Dec 2016	JICA's Concurrence - 4 th Jan 2017	JICA's Concurrence - 12 th Sep 2017	JICA's Concurrence - 12 th Oct 2017	JICA's Concurrence – 15 th Feb 2018		
3	Package-3 (CH18+187 to CH21+800)	ICB with PQ (2P)	1013.79	1013.79	JICA's Concurrence - 9 th May 2016	JICA's Concurrence - 4 th Jan 2017	JICA's Concurrence - 4 th Jan 2017	JICA's Concurrence - 15 th Sep 2017	JICA's Concurrence - 12 th Oct 2017	JICA's Concurrence – 15 th Feb 2018		
4	Package-4 Intelligent Transport System	ICB with PQ (2P)	144.26	144.26	-	-	-	-	-	-		

Attachment 4- Project Procurement and Financial Status till 31st Dec 2018

Туре	Contract	Awarded or Estimated Value (in Rs. Crore)	Current Status	Contractors	Award Date/ As per PIP Mar- 2018	Actual/ Projected Completion as per PIP Mar-2018	Physical % completion up to Dec. 2018	Project Amount Disbursement including Mobilization Advance (Till 31 st Dec. 2018) in %
	Package-1 (CH 0+000 km to CH 10+380 km)	7637.30	Awarded	L&T-IHI Consortium	Nov 2017	Sep 2022	Nil	14.38%
CIVIL	Package-2 (CH 10+380 km to CH18+187 km)	5612.61	Awarded	DAEWOO- TPL JV	Nov 2017	Sep 2022	Nil	6.98%
	Package-3 (CH18+187 to CH21+800)	1013.79	Awarded	L&T	Nov 2017	Sep 2021	Nil	5.40%
ITS	Package-4 Intelligent Transport System	144.26 (Estimated)	Design Stage		Jul 2020 (Estimated)	Sep 2022	Nil	Nil

PROJECT PROCUREMENT AND FINANCIAL STATUS TILL 31ST DEC 2018

Attachment 5- Project Progress Photos

JICA- Site Visit Photos

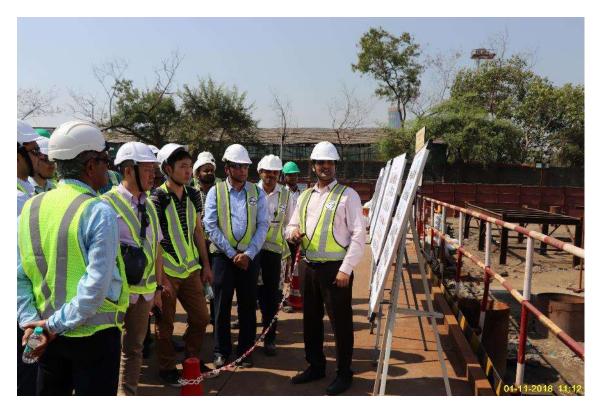


Photo No. 1: JICA Site visit – Package 1 dated 1st November 2018



Photo No. 2: JICA Site visit – Package 1 dated 1st November 2018



Package 1- Site Progress Photos

Photo No. 1: Permanent Pile Casting at MP6 Location in progress



Photo No. 2: Marine Test Pile boring at MP72 Location in progress



Photo No. 3: Piling Gantry Assembly Works at MP43 Location in progress



Photo No. 4: Floating Batching Plant is anchored at MP95 Location



Photo No. 5: Reinforcement cage erection for Test Piling in intertidal portion in progress



Photo No. 6: Reinforcement cage erection for Test Piling in intertidal portion in progress

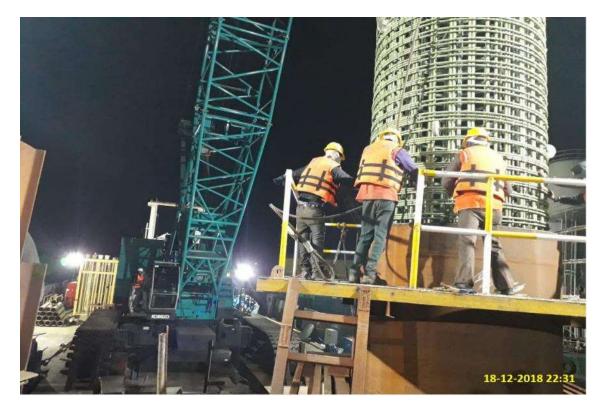


Photo No. 7: Reinforcement cage installation at MP 95 in Marine Portion in progress



Photo No. 8: Bi-directional Pile Load test monitoring at AP 42 B location



Photo No. 9: Jack-up Barge installation at MP 95 location in progress



Photo No. 10: M1T Batching Plant commissioned at STP Yard



Photo No. 11: Cross-hole Sonic Test at MP 95 Location in progress



Photo No. 12: Marine Piling Survey Works in progress



Photo No. 13: Trenching Works for physically identifying the utilities at AP 15 Location



Photo No. 14: Gantry Track Foundation Casting Works at STP Yard in progress



Package 2 – Site Progress Photos

Photo No. 15: Temporary Access Bridge (TAB) Decking works in progress



Photo No. 16: Temporary Access Bridge (TAB) - Front Side Piling works in progress



Photo No. 17: Temporary Access Bridge (TAB) Piling works in progress



Photo No. 18: TAB - Composite Slab Concreting Works in progress



Photo No. 19: Marine Batching Plant Set-up



Photo No. 20: Overall set-up view of Test Pile at Location MP 179 L



Photo No. 21: Test Pile Boring using RCD Machine in progress



Photo No. 22: Test Pile Concreting Works in progress



Photo No. 23: Bay-1 Segment Stacking Foundation concrete in progress



Photo No. 24: Aggregate Shed Construction Works in Progress



Package 3 – Site Progress Photos

Photo No. 25: OGL Survey at CH 18+200 in progress



Photo No. 26: Survey Works (Traversing) at Point S1 in progress



Photo No. 27: Fencing Works at Casting Yard in progress



Photo No. 28: Excavation work at Pier No 269 RMP (CH 18+325) in progress

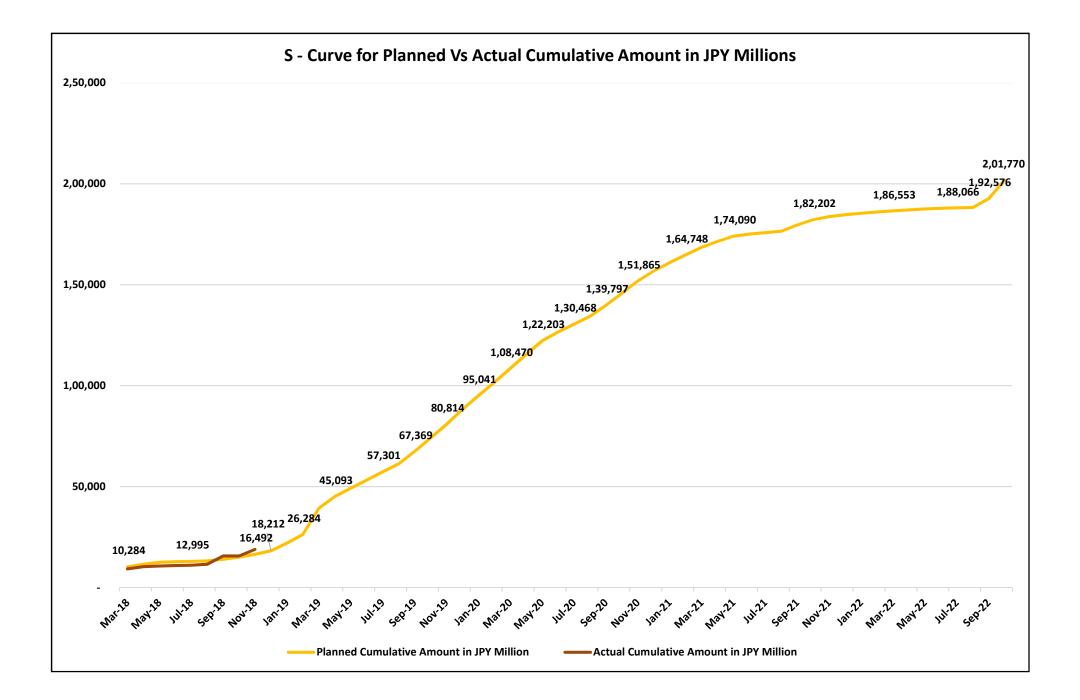


Photo No. 29: MMRDA & MSEDCL Officials site visit on 12th Dec 2018 at Chirle Inter.



Photo No. 30: Weekly Safety tool box talk in progress

Attachment 6- S-Curve for Cumulative Planned Vs Actual Amount in JPY Million



Attachment 7- Project Implementation Programme Updated Till 31st Dec 2018

Mumbai Trans Harbour Link (MTHL) PIP

Project Implementation Programme

ty ID Activity Name	Duration in	Start	Finish	Activity %		2017		2018		2019		2020		2021		2022		2023		2024	
	Days			Complete 4	Q1 C	Q2 Q3	Q4 Q1 Q2	2 Q3 C	24 Q1 (Q2 Q3	Q4 Q ²	I Q2 Q3	Q4 Q1	Q2 Q3	Q4 Q1	Q2 Q3	Q4 Q1	Q2 Q3	Q4 Q1	Q2 Q3	Q4
Mumbai Trans Harbour Link (MTHL) PIP	2448	14-Dec-16 A		· ·																	T
Milestones	2278	14-Dec-16 A	09-Oct-24	•																	7
MTHL-GC	2658	14-Dec-16 A	09-Oct-24	•																	7
A1000 Commencement of GC Services	0	14-Dec-16 A		100% •																	
A1020 Completion of GC Services	0		09-Oct-24	0%																	•
Package of Civil & ITS	1535	23-Mar-18 A		070					····			<u>ii</u>		·····;····;···		·· <u>}····</u>		†	· †	11	Ť
A2750 Package-3 Completion & Handover to MMRDA	0		21-Mar-22	0%												•					
A2740 Package-2 Completion & Handover to MMRDA	0		28-Sep-22	0%													•				
A2730 Package-1 Completion & Handover to MMRDA	0		09-Oct-22	0%													•				
A2760 Package-4 Completion & Handover to MMRDA	0		10-Oct-22	0%													•				
A2770 Commercial Operation Date	0		10-Oct-22	0%													•				1
Package - 1 Millstones	1753	23-Mar-18 A	16-Feb-23																		
P1-1170 Project Commencement Date	0	23-Mar-18 A		100%			•														
P1-1180 KD-1 Construction Programme, completion of Soil Investigation, Submit Final plans	0		22-Oct-18 A	100%				•													
P1-1190 KD-2 Technical Design documents & Drawings for Foundation /substructure Superstruct (concrete and Steel)	ture 0		23-Mar-19	0%					•												
P1-2170 KD-3 GFC for Foundation /Substructure, Superstructure (concrete & Steel)	0		18-Dec-19	0%							•							†	*****		+
P1-2180 KD-4 Substantial completion of Foundation, Piles, Piers, Abutments, Earthworks and dolphins.	0		30-Aug-21	0%										•							
P1-2190 KD-5 Substantial completion of Pile Caps, Piers and Abutments and Pre-Casting Segme Completion.			10-Oct-21	0%										٠							
P1-2210 KD-7 Substantial completion of Kerbs /Traffic Signs, Marking & Noise barriers, Remova jetties, Restoration			11-Jul-22	0%																	
P1-2200 KD-6 Substantial completion of Concrete Superstructure /cast-in-situ concrete structure: Steel structures			31-Jul-22	0%												•					
P1-2220 KD-8 Substantial completion of all works in all respects and Starting the Trail Run operation.	0		16-Feb-23	0%																	
Package - 2 Millstones	1650																				
P2-2110 Project Commencement Date	0	23-Mar-18 A		100%			•														
P2-2120 KD-1 Construction Programme, completion of Soil Investigation, Submit Final plans	0		22-Oct-18 A	100%				•													
P2-2130 KD-2 Technical Design documents & Drawings for Foundation /substructure Superstruct (concrete and Steel)	ture 0		23-Mar-19	0%					•												
P2-2140 KD-3 GFC for Foundation /Substructure, Superstructure (concrete & Steel)	0		23-Jan-20	0%							•										
P2-2150 KD-4 Substantial completion of Foundation, Piles, Piers, Abutments, Earthworks and dolphins.	0		01-Jul-21	0%										•							
P2-2160 KD-5 Substantial completion of Pile Caps, Piers and Abutments and Pre-Casting Segme Completion.	ent O		25-Dec-21	0%											•						
P2-2170 KD-6 Substantial completion of Concrete Superstructure /cast-in-situ concrete structure: Steel structures	s, & O		24-Jun-22	0%												•					
P2-2180 KD-7 Substantial completion of Kerbs /Traffic Signs, Marking & Noise barriers, Remova jetties, Restoration	l of 0		30-Jun-22	0%												•					
P2-2190 KD-8 Substantial completion of all works in all respects and Starting the Trail Run operation.	0		28-Sep-22	0%																	
Package - 3 Millstones	1459	23-Mar-18 A														•					
P3-1860 Project Commencement Date	0	23-Mar-18 A		100%																	
P3-1870 KD-1 Construction Programme, completion of Soil Investigation, Submit Final plans	0		31-Dec-18	0%																	
P3-1880 KD-2 Technical Design documents & Drawings for Foundation /substructure Superstruct	•		29-Jul-19	0%						•											
(concrete and Steel) P3-1890 KD-3 GFC for Foundation /Substructure, Superstructure (concrete & Steel)	0		26-Nov-19	0%	+						•••								·		+
P3-1890 KD-3 GFC for Foundation /Substructure, Superstructure (concrete & Steel) P3-1900 KD-4 Substantial completion of Foundation, Piles, Piers, Abutments, Earthworks and	0			0%							•										
dolphins.	U		31-Aug-20	0%																	
P3-1910 KD-5 Substantial completion of Pile Caps, Piers and Abutments and Pre-Casting Segme Completion.	ent 0		05-Feb-21	0%									•								
Actual Work Summary										Date			rision		Checked	d		A	pproved		
Remaining Work									31-D	Progress	Updated	up to 31 Dec 2	2018 JS		DYTL	/TL					
Critical Remaining Work	i i oject iilij		Syrannie Frog	Jissa opualet	a up 10		chrennner	_010													
◆ Milestone								Page n	o 1/15												
								i age ii	0 11 10												

Actual Work Summary		Date	Revision
Remaining Work	Project Implementation Programme Progress Updated up to 30th September 2018	31-D	Progress Updated up to 31
	Project implementation Programme Progress optiated up to Souri September 2018		
Critical Remaining Work			
◆ ♦ Milestone	Page no 1/15		

ATTACHMENT 7

Mumbai Trans Harbour Link (MTHL) PIP

Project Implementation Programme

						0047	0040		2010	2020	0004	0000	0000		2024
ivity ID	Activity Name	Duration in Days	Start	Finish		2017 Q1 Q2 Q3	2018 Q4 Q1 Q2 (3 Q3 Q4 Q	2019 1 Q2 Q3 Q4 C	2020 1 Q2 Q3 Q4 Q1	2021 Q2 Q3 Q4 Q1	2022 I Q2 Q3 C	2023 Q4 Q1 Q2 Q3	3 Q4 Q1	2024 20 Q2 Q3 Q4 Q1
P3-1920	KD-6 Substantial completion of Concrete Superstructure /cast-in-situ concrete structures, of Steel structures	& 0		19-Sep-21	0%						•				
	KD-7 Substantial completion of Kerbs /Traffic Signs, Marking	0		20-Jan-22	0%						•				
P3-1940	KD-8 Substantial completion of all works in all respects and Starting the Trail Run operation.	0		21-Mar-22	0%							•			
GC's Rea	ular Progress Report & Status Reports	1631	25-Jul-17 A	09-Oct-22											
	Monthly Reports	1630	25-Jul-17 A	08-Oct-22	27.55%										
A2800	Quarterly Reports	1545	25-Jul-17 A	01-Jul-22	29.06%										
A2870	Special occurrence report Monthly, Quarterly & Annual Reports	1545	25-Jul-17 A	01-Jul-22	29.06%										
A2810	Annual Reports	1400	01-Jan-18 A	22-Jun-22	22.29%										
A2820	Supervision Reports	1407	01-Jan-18 A	30-Jun-22	22.17%										
A2830	Engineering Reports	1407	01-Jan-18 A	30-Jun-22	22.17%										
A2840	Draft Final Reports	365	17-Feb-21	19-Apr-22	0%							📥			
A2850	Final Reports	365	04-Aug-21	04-Oct-22	0%										
	Completion reports	180	14-Mar-22	09-Oct-22	0%										
Preparati	on/ Finalization of O&M Manuals by GC	180	14-Mar-22	09-Oct-22											
	Civil Works Manual including offshore and On shore	180	14-Mar-22	09-Oct-22	0%										
A2880	Signalling / Traffic Control Manual	180	14-Mar-22	09-Oct-22	0%										
	Intelligent Transport Systems (ITS) Manual	180	14-Mar-22	09-Oct-22	0%										
	Commercial Manual	180	14-Mar-22	09-Oct-22	0%										
	Operating Manual	180	14-Mar-22	09-Oct-22	0%										
	Accident and Safety Manual	180	14-Mar-22	09-Oct-22	0%										
	Disaster Management Manual	180	14-Mar-22	09-Oct-22	0%										
	General Electrical Services and Equipment Manual	180	14-Mar-22	09-Oct-22	0%										
	Safety, Health and Environmental Manual	180	14-Mar-22	09-Oct-22	0%										
	Quality Assurance Manual	180	14-Mar-22	09-Oct-22	0%										
Tender As	ssistance stage	1153	14-Dec-16 A	A 20-Aug-20											
Package-	1	378	14-Dec-16 A	A 23-Mar-18 A	-										
A1040	Tender Assistant Leading Team	378	14-Dec-16 A	A 23-Mar-18 A	100%										
Tender A	Assistant	41	14-Dec-16 A	31-Jan-17 A		,									
	Tender Document Review	40		A 29-Jan-17 A	100%										
/11000			11 200 107	20 0001 11 / (100 / 0										
A1050	Pre bid Meeting	1	30-Jan-17 A	31-Jan-17 A	100%	i i									
		-													
Addendu	um -1	78	31-Jan-17 A	24-May-17 A											
	Preparing the Tender Pre Bid Quarry 1st Set replay	30	31-Jan-17 A	05-Apr-17 A	100%										
				•											
A1080	Preparing the Tender Addenda -1 Contractual Part	30	31-Jan-17 A	07-Mar-17 A	100%										
A1070	Preparing the Tender Addenda -1 Technical Part	30	08-Feb-17 A	07-Mar-17 A	100%										
A1090	Tender Addenda -1 Submitting to MTHL-PIU/JICA	24	07-Mar-17 A	29-Apr-17 A	100%	-									
A1100	Reviewing Tender Addenda -1 byMTHL-PIU/JICA	24	29-Apr-17 A	24-May-17 A	100%	•									
Addendu	um 2	52	07-Apr-17-A	01-Jun-17 A											
A1110	Preparing the Tender Pre Bid Quarry 2nd Set replay	21	07-Apr-17 A	25-May-17 A	100%										
A1120	Preparing the Tender Addenda -2 Technical Part	21	15-Apr-17 A	10-May-17 A	100%	-									
A1130	Preparing the Tender Addenda -2 Contractual Part	21	15-Apr-17 A	10-May-17 A	100%	•									
Actual Wor	k Summary								Date	Revision	Checke	d		Approved	
			lomontation 5			un to 2046 0	ntomber 204	•		s Updated up to 31 Dec		DYTL/TL			
Remaining		Project Imp	nementation P	Programme Prog	gress updated	ip to such Se	plember 201	o							
	naining Work						-								
 Milestone 							Pa	ige no 2/1							

Actual Work	✓ Summary	
Remaining Work		Project Implementation Pro
Critical Remaining Work		

ATTACHMENT 7

Project Implementation Programme

ctivity ID	Activity Name	Duration in	Stort	Finish	A other by 0/	2017		2018		2010		2020	2024		2022		2023	2024	00	25
	Activity Name	Duration in Days			Activity % Complete 4	Q1 Q2 Q3	Q4 Q1	Q2 Q3	Q4 Q1	2019 Q2 Q3	Q4 Q1 C	2020 2 Q3 Q4	2021 Q1 Q2 (Q3 Q4 Q1	2022 Q2 Q3		2023 Q3 Q4	Q1 Q2 Q	202 3 Q4 Q1	
A1140	Tender Addenda -2 Submitting to MTHL-PIU/JICA		10-May-17 A		100%															
A1150	Reviewing Tender Addenda -2 by MTHL-PIU/JICA	12	24-May-17 A	01-Jun-17 A	100%															
Addend	um -3,4&5	40	22-May-17 A	05-Jul-17 A																
A1160	Preparing the Tender Pre Bid Quarry 3rd Set replay	14	22-May-17 A	22-Jun-17 A	100%															
A1170	Preparing the Tender Addenda -3 Technical Part	14	30-May-17 A	15-Jun-17 A	100%															
A1180	Preparing the Tender Addenda -3 Contractual Part	14	30-May-17 A	15-Jun-17 A	100%															
A1190	Tender Addenda -3,4&5 Submitting to MTHL-PIU/JICA	6	15-Jun-17 A	22-Jun-17 A	100%															
A1200	Reviewing Tender Addenda -3,4&5 by MTHL-PIU/JICA	12	22-Jun-17 A		100%															
A1210	Addendum-3,4&5 Issued to Bidders (including Addendum & Extension)		28-Jun-17 A		100%															
					100 %															
A1220	mission to MTHL & Technical Bid Opening Bid submission to MTHL & Technical Bid Opening		30-Jun-17 A 30-Jun-17 A		100%															
						-														
A2590	al Evaluation Envelop A for Tender Fee & EMD is opened		19-Jul-17 A 19-Jul-17 A	12-Sep-17 A	100%						+									
A2990	Stage-1,2 & 3 Evaluation		21-Jul-17 A	-	100%	-														
A2970	Envelop B Technical Bid are opened	0	25-Jul-17 A	25-Jul-17 A	100%															
A2980	Stage-4 Evaluation (Technical)	26	25-Jul-17 A	22-Aug-17 A	100%															
A3160	Evaluation Report for Stage-1,2,3 Submitting to MTHL-PIU	7	31-Jul-17 A	19-Aug-17 A	100%															
A3000	Evaluation Final Report (Technical) Submitting to MTHL-PIU/JICA	6	18-Aug-17 A	22-Aug-17 A	100%	1														
A1270	Evaluation Reports (Technical) Approved by MTHL-PIU/JICA	10	31-Aug-17 A	12-Sep-17 A	100%	•														
Financi	al Evaluation	36	12-Sep-17 A	09-Nov-17 A			-													
A1250		0	12-Sep-17 A	12-Sep-17 A	100%	1														
A1280	Bid Evaluation Report (Financial)	12	12-Sep-17 A	26-Sep-17 A	100%	•														
A1290	Tender Committee approval by MTHL-PIU/JICA	7	26-Sep-17 A	27-Sep-17 A	100%															
A1300	Evaluation Reports (Financial) approved by JICA	10	28-Sep-17 A	12-Oct-17 A	100%	•														
A3010	Management Committee approval by MTHL-PIU/JICA	10	30-Sep-17 A	09-Nov-17 A	100%	-														
Tender	Award	108	25-Oct-17 A	23-Mar-18 A																
A1260	GC Preparing LOA for Successful Bidder		25-Oct-17 A		100%		•													
A1310	Finalization and Award of Contract by MMRDA	21	01-Nov-17 A	16-Nov-17 A	100%		•													
A1320	MMRDA Issue LOA to Successful Bidder	0	17-Nov-17 A	17-Nov-17 A	100%		1													
A1530	Contract Agreement		17-Nov-17 A		100%															
	Notice to Commencement of Work				100%															
A1560			28-Feb-18 A		100%															
	-2 Assistant			23-Mar-18 A 31-Jan-17 A							+									
	ASSISTANT	41	14-Dec-10A	ST-Jdll-T/A																-
Actual Wo	ork Summary									Date		Revision		Checked			Approve	ed		
Remaining		Project Impl	ementation Pr	ogramme Progre	ess Updated	l up to 30th Se	eptembe	er 2018			Progress Up		1 Dec 2018		DYTL/1	Ľ				
	emaining Work	· ·		2	-				no 3/4F		I			1						\neg
 Milestone 								Page	no 3/15											

	Actual Work Summary		Date	Revision
_		Project land and the Program Program by the date day to 20th Protocols 2010	31-D	Progress Updated up to 31
	Remaining Work	Project Implementation Programme Progress Updated up to 30th September 2018		
	Critical Remaining Work			
•	◆ Milestone	Page no 3/15		

Project Implementation Programme

Activity ID	Adjuity Nama	Duration in	Chart	Finish	A otivity 0/		2017		2018		2019		2020		202	1	202	2	201	23	2024	2025
	Activity Name	Duration in Days				Q1 Q2	Q3 Q4	Q1	Q2 Q3	3 Q4 (2010 21 Q2 Q	3 Q4 Q1	Q2 Q3	Q4 Q	1 Q2	Q3 Q4	Q1 Q2	Q3 Q4	Q1 Q2	Q3 Q4 Q	1 Q2 Q3	2025 3 Q4 Q1 Q2
A1330	Tender Document Review	40	14-Dec-16 A	29-Jan-17 A	100%																	
A1340	Tender Assistant Leading Team	41	14-Dec-16 A	31-Jan-17 A	100%																	
A1350	Pre bid Meeting	1	30-Jan-17 A	31-Jan-17 A	100%	1																
Addenc	lum -1	78	31-Jan-17 A	24-May-17 A																		
A1360	Preparing the Tender Pre Bid Quarry 1st Set replay	30	31-Jan-17 A	05-Apr-17 A	100%	-																
A1370	Preparing the Tender Addenda -1 Technical Part	30	31-Jan-17 A	07-Mar-17 A	100%	-																
A1380	Preparing the Tender Addenda -1 Contractual Part	30	31-Jan-17 A	07-Mar-17 A	100%	-																
A1390	Tender Addenda -1 Submitting to MTHL-PIU/JICA	24	07-Mar-17 A	29-Apr-17 A	100%	-																
A1400	Reviewing Tender Addenda -1 by MTHL-PIU/JICA	24	29-Apr-17 A	24-May-17 A	100%	•																
Addenc		52	07-Apr-17 A	01-Jun-17 A			'															
A1410	Preparing the Tender Pre Bid Quarry 2nd Set replay	21	-	25-May-17 A	100%	-																
A1420		21		10-May-17 A	100%	-																
A1430	Preparing the Tender Addenda -2 Contractual Part	21	15-Apr-17 A	10-May-17 A	100%	•																
A1440	-	12		01-Jun-17 A	100%																	
A1450	Reviewing Tender Addenda -2 by MTHL-PIU/JICA	12	_	01-Jun-17 A	100%																	
	lum -3,4&5	40	22-May-17 A				7															
A1460	Preparing the Tender Pre Bid Quarry 3rd Set replay	14	22-May-17 A	22-Jun-17 A	100%																	
A1470	Preparing the Tender Addenda -3,4&5 Technical Part	14	30-May-17 A	15-Jun-17 A	100%																	
A1480	Preparing the Tender Addenda -3,4&5 Contractual Part	14	30-May-17 A	15-Jun-17 A	100%																	
A1490	Tender Addenda -3,4&5 Submitting to MTHL-PIU/JICA	6	15-Jun-17 A	22-Jun-17 A	100%		0															
A1500	Reviewing Tender Addenda -3,4&5 by MTHL-PIU/JICA	12	22-Jun-17 A	28-Jun-17 A	100%		•															
A1510	Addendum-3,4&5 Issued to Bidders (including Addendum & Extension)	1	28-Jun-17 A	05-Jul-17 A	100%		0															
Bid sub	omission to MTHL & Technical Bid Opening	14	30-Jun-17 A	17-Jul-17 A			7															
A1520	Bid submission to MTHL & Technical Bid Opening	14	30-Jun-17 A	17-Jul-17 A	100%		•															
Technic	al Evaluation	41	19-Jul-17 A	10-Sep-17 A										·								
	Envelop A for Tender Fee & EMD is opened	2	19-Jul-17 A		100%		I															
A3180	Stage-1,2 & 3 Evaluation	14	21-Jul-17 A	04-Aug-17 A	100%																	
A3190	Envelop B Technical Bid are opened	0	25-Jul-17 A	25-Jul-17 A	100%		T															
A3200	Stage-4 Evaluation (Technical)	26	28-Jul-17 A	21-Aug-17 A	100%																	
A3210	Evaluation Report for Stage-1,2,3 Submitting to MTHL-PIU	7	08-Aug-17 A	19-Aug-17 A	100%		B															
A3220	Evaluation Final Report (Technical) Submitting to MTHL-PIU/JICA	6	18-Aug-17 A	22-Aug-17 A	100%		T															
A3230	Evaluation Reports (Technical) Approved by MTHL-PIU/JICA	9	31-Aug-17 A	10-Sep-17 A	100%																	
Financi	al Evaluation	37	11-Sep-17 A	09-Nov-17 A																		
A - 4 1 14/											Date	e	Revi	sion		Che	cked			Approved		
Actual W		Drojaat Iraa	Iomontation D	rogramme Progi	occ Indeted	un 4- 1	Oth Car	tomb-	r 2040	2			s Updated u		ec 2018			FL/TL			. <u> </u>	
Remainin	g vvork emaining Work	Froject imp	ementation Pl	ogramme Progr	ess opualed	սիւՕւ	ээсн зөр	lennbe	1 2010	,												
 ♦ Milestone 									Par	ge no 4/	15											
										/ ۱ - ۲۰۱۰ -ر	·•											

Project Implementation Programme

Activity I	D	Activity Name	Duration in Days	Start	Finish	Activity % Complete	Q1 Q2 Q3	Q4 Q1 (2018 Q2 Q3 Q4	2019 Q1 Q2	9 Q3 Q4 (2020 Q1 Q2 Q3	Q4 Q1	2021 Q2 Q3 (Q4 Q1 Q2	2022 2 Q3 Q4	2023 Q1 Q2 Q3	Q4 Q1	2024 Q2 Q3 Q4	2025 Q1 Q2
	A1540	Envelop C Financial Bid Opening Stage-5	0	11-Sep-17 A	11-Sep-17 A	100%														
	A1570	Bid Evaluation Report (Financial)	12	11-Sep-17 A	24-Sep-17 A	100%														
	A1580	Tender Committee approval by MTHL-PIU/JICA	7	25-Sep-17 A	28-Sep-17 A	100%		t i												
	A1590	Evaluation Reports (Financial) approved by JICA	10	28-Sep-17 A	12-Oct-17 A	100%														
	A3080	Management Committee approval by MTHL-PIU/JICA	10	30-Sep-17 A	09-Nov-17 A	100%														
	Tender /	Award	108	25-Oct-17 A	23-Mar-18 A															
		GC Preparing LOA for Successful Bidder	6		01-Nov-17 A	100%		1												
	A1600	Finalization and Award of Contract by MMRDA	21	01-Nov-17 A	16-Nov-17 A	100%														
	A1610	MMRDA Issue LOA to Successful Bidder	0	17-Nov-17 A	17-Nov-17 A	100%		1												
	A1820	Contract Agreement	24	30-Nov-17 A	19-Jan-18 A	100%		-												
	A1850	Notice to Commencement of Work	0	28-Feb-18 A	23-Mar-18 A	100%														
			378		23-Mar-18 A															
	Package-		41		31-Jan-17 A															
		As sistant Tender Document Review	40	14-Dec-16 A		100%	•													
	A1630	Tender Assistant Leading Team	41	14-Dec-16A	31-Jan-17 A	100%	-													
	A1640	Pre bid Meeting	1	30-Jan-17 A	31-Jan-17 A	100%	1													
			78	21 Jon 17 A	24-May-17 A															
	Addend A1650	Preparing the Tender Pre Bid Quarry 1st Set replay	30	31-Jan-17 A		100%														
					-															
	A1660	Preparing the Tender Addenda -1 Technical Part	30	31-Jan-17 A	07-Mar-17 A	100%														
	A1670	Preparing the Tender Addenda -1 Contractual Part	30	31-Jan-17 A	07-Mar-17 A	100%														
	A1680	Tender Addenda -1 Submitting to MTHL-PIU/JICA	24	07-Mar-17 A	29-Apr-17 A	100%	-													
	A1690	Reviewing Tender Addenda -1 by MTHL-PIU/JICA	24	04-Apr-17 A	24-May-17 A	100%	-													
	Addend	um 0	52	07-Apr-17 A	01_ lup_17 A															
		Preparing the Tender Pre Bid Quarry 2nd Set replay	21		25-May-17 A	100%	-													
	A1710	Preparing the Tender Addenda -2 Technical Part	21	15-Apr-17 A	10-May-17 A	100%														
	A1720	Preparing the Tender Addenda -2 Contractual Part	21	15-Apr-17 A	10-May-17 A	100%														
	A1730	Tender Addenda -2 Submitting to MTHL-PIU/JICA	12	10-May-17 A	01-Jun-17 A	100%		·												
	A1740	Reviewing Tender Addenda -2 by MTHL-PIU/JICA	12	24-May-17 A	01-Jun-17 A	100%														
				_			-													
	Addend A1750	um -3,4 &5 Preparing the Tender Pre Bid Quarry 3rd Set replay	40 14	22-May-17 A 22-May-17 A		100%														
	A1760	Preparing the Tender Addenda -3,4&5 Technical Part	14	30-May-17 A	15-Jun-17 A	100%														
	A1770	Preparing the Tender Addenda -3,4&5 Contractual Part	14	30-May-17 A		100%														
	A1780	Tender Addenda -3,4&5 Submitting to MTHL-PIU/JICA	6	15-Jun-17 A	22-Jun-17 A	100%														
										Da	te	Revi	sion		Checked		٨	nnroved		$ \longrightarrow $
	Actual Wo											ss Updated u				DYTL/TL	A	pproved		—
	Remaining		Project Im	plementation Pr	rogramme Progre	ess Update	d up to 30th	September	r 2018											+
		maining Work							D -		•			I	I					
•	 Milestone 								Page no 5	o/15										

	Actual Work	—	Summary	
	Remaining Work			
	Critical Remaining Work			
• •	Milestone			

Project Implementation Programme

Activity Name	Duration in Days	Start Finish		2017 Q1 Q2 Q3 Q4 Q1	2018 Q2 Q3 Q4 Q1	2019 Q2 Q3 Q4	2020 Q1 Q2 Q3	2021 Q4 Q1 Q2 Q	3 Q4 Q1 (2022 Q2 Q3 Q4	2023 Q1 Q2 Q3	2024 Q4 Q1 Q2 Q3
A1790 Reviewing Tender Addenda -3,4&5 by MTHL-PIU/JICA	12	22-Jun-17 A 28-Jun-17 A	100%	E								
A1800 Addendum-3,4&5 Issued to Bidders (including Addendum & Extension)	1	28-Jun-17 A 05-Jul-17 A	100%									
Bid submission to MTHL & Technical Bid Opening	14	01-Jul-17 A 17-Jul-17 A		•								
A1810 Bid submission to MTHL & Technical Bid Opening	14	01-Jul-17 A 17-Jul-17 A	100%	•								
Technical Evaluation	40	19-Jul-17 A 09-Sep-17 A										
A3240 Envelop A for Tender Fee & EMD is opened	2	19-Jul-17 A 21-Jul-17 A	100%									
A3250 Stage-1,2 & 3 Evaluation	14	21-Jul-17 A 09-Aug-17 A	100%									
A3260 Envelop B Technical Bid are opened	0	25-Jul-17 A 25-Jul-17 A	100%	1								
A3270 Stage-4 Evaluation (Technical)	24	01-Aug-17 A 18-Aug-17 A	100%	•								
A3280 Evaluation Report for Stage-1,2,3 Submitting to MTHL-PIU	7	10-Aug-17 A 19-Aug-17 A	100%									
A3290 Evaluation Final Report (Technical) Submitting to MTHL-PIU/JICA	7	17-Aug-17 A 22-Aug-17 A	100%	1								
A3300 Evaluation Reports (Technical) Approved by MTHL-PIU/JICA	8	31-Aug-17 A 09-Sep-17 A	100%	I								
Financial Evaluation	37	11-Sep-17 A 09-Nov-17 A		→ → →								
A1830 Envelop C Financial Bid Opening Stage-5	0	11-Sep-17A 11-Sep-17A	100%									
A1860 Bid Evaluation Report (Financial)	12	11-Sep-17A 24-Sep-17A	100%	•								
A1870 Tender Committee approval by MTHL-PIU/JICA	7	25-Sep-17 A 28-Sep-17 A	100%									
A1880 Evaluation Reports (Financial) approved by JICA	10	28-Sep-17 A 12-Oct-17 A	100%	•								
A3090 Management Committee approval by MTHL-PIU/JICA	10	30-Sep-17 A 09-Nov-17 A	100%									
Tender Award	108	25-Oct-17 A 23-Mar-18 A			•							
A1840 GC Preparing LOA for Successful Bidder	6	25-Oct-17 A 01-Nov-17 A	100%									
A1890 Finalization and Award of Contract by MMRDA	21	01-Nov-17 A 16-Nov-17 A	100%									
A1900 MMRDA Issue LOA to Successful Bidder	0	17-Nov-17 A 17-Nov-17 A	100%	1								
A3020 Contract Agreement	24	17-Nov-17 A 26-Dec-17 A	100%									
A3030 Notice to Commencement of Work	0	28-Feb-18 A 23-Mar-18 A	100%		•							
ackage-4	883	25-Oct-17 A 20-Aug-20										
GC Tender Assistance Activities - Prequalification	533	25-Oct-17 A 09-Jul-19										
A2580 GC to Prepare PQ Applications Including MMRDA/JICA Approval	90	25-Oct-17 A 10-Jan-19	90%									
A2550 MMRDA to Invite PQ Applications (including Addendum & Extension)	60	10-Jan-19 11-Mar-19	0%			1						
A2560 GC to Evaluate PQ Applications and Prepare PQ Evaluation Report A2570 MMRDA & JICA Approve PQ Evaluation Report	60 60	11-Mar-19 10-May-19 10-May-19 09-Jul-19	0%									
GC Tender Assistance Activities - Bidding	528	11-Mar-19 20-Aug-20	0%									
P4-010 GC to Prepare Bidding Documents Including MMRDA/JICA Approval	180	11-Mar-19 07-Sep-19	0%			÷						
P4-1000 MMRDA to Invite Bids	0	07-Sep-19	0%			•						
P4-1010 Pre Bid Meeting	0	04-Oct-19	0%			•						
P4-1020 Pre Bid Queries submissions final	75	04-Oct-19 18-Dec-19	0%				: :					
P4-1030 Addendum Preparation	60	27-Oct-19 26-Dec-19	0%									
P4-1040 Addendum Submission to MTHL-PIU/JICA	60	10-Nov-19 09-Jan-20	0%									
P4-1050 Addendum Approved by MTHL-PIU/JICA	60	17-Nov-19 16-Jan-20	0%		·	- i i i		·			·····	
P4-1060 Addendum Issued to Bidders (including Addendum & Extension) P4-1070 Bid submission to MTHL & Technical Bid Opening	60 0	24-Nov-19 23-Jan-20	0%									
		06-Feb-20	0%							<u> </u>		
Actual Work Summary						Date	Rev Rev	ision ip to 31 Dec 2018	Checked JS	DYTL/TL	Арр	roved
	Project Imp	elementation Programme Program	ess Updated	up to 30th Septem	oer 2018				100			
Remaining Work												
I Remaining Work I Critical Remaining Work			•									

Project Implementation Programme

Activity ID Activity Name	Duration in Days	Start	Finish	Activity % Complete 4 Q1		2018	2019	2020 3 Q4 Q1 Q2 Q3 Q4			2022	2023 01 02 03		2024	2025
P4-1080 Evaluate Bids, Prepare Bid Evaluation Report (Technical)	45	07-Feb-20	23-Mar-20	0%	<u> </u>	u. u. u. u.	<u>u.</u> <u>u</u> <u>u</u>		u. u. u.	<u>u.</u> u. u.		<u>u. u. u</u> u			~.
P4-1090 Evaluation Reports (Technical) Approved by MTHL-PIU/JICA	45	08-Mar-20	22-Apr-20	0%											
P4-1100 Financial Bid Opening	0		22-Apr-20	0%				•							
P4-1110 Evaluate Bids, Prepare Bid Evaluation Report (Financial)	30	23-Apr-20	23-May-20	0%											
P4-1120 Tender Committee approval by MTHL-PIU/JICA	30	23-May-20		0%											
P4-1130 Evaluation Reports (Financial) approved by JICA	30	22-Jun-20	22-Jul-20	0%											
P4-1140 MMRDA Issue LOA to Successful Bidder P4-1150 Works Commencement	14	22-Jul-20 23-Jul-20	23-Jul-20 06-Aug-20	0% 0%											
P4-1160 Prepare Contract Agreement & MMRDA/Contractor to Sign CA	28	23-Jul-20	20-Aug-20	0%											
Construction Stage	1833	23-Mar-18 A		070											
			16-Feb-23									-			
Package 1 Sewri Interchange and adjoining 10.38 km bridge (0+000 to 10+380 Mobilisation	180		19-Sep-18A												
P1-2250 Mobilisation			22-Apr-18 A	100%											
F 1-2250 Wobilisation	30	23-1VIAI - 10 P	22-Api-10A	100 %											
P1-2260 Construction Programme, completion of Soil Investigation, Submit Final plans	150	22-Apr-18 A	19-Sep-18A	100%											
	100	227001070		100 /0											
Schedule No. 1: General Items	1643	30-Apr-18 A	21-Sep-22												
P1-1070 Allow for DNP Services (Section VII GC Clause 11)	2		01-May-18 A	100%		1									
			.,												
P1-1080 Provision and maintenance of health and safety measures during the Time for Comp	letion 1643	30-Apr-18 A	21-Sep-22	17.2%											
(Section VII GC Sub-Clause 6.7)		•													
P1-1090 Provision (construction) of office facilities with furniture and office equipment	1643	30-Apr-18 A	21-Sep-22	17.2%											
				 						<u></u>					
P1-1100 Maintenance of above office facilities for the Employer during the Time for Completic	on 1643	30-Apr-18 A	21-Sep-22	17.2%											
(Section VII GC Sub-Clause 6.6)															
P1-1110 Removal/clearing of above office facilities for the Employer and for the Engineer (Se	ection 2	30-Apr-18 A	01-May-18 A	100%											
VII GC Sub-Clause 6.6)		20.4== 10.4	04 14-11 40 4	4000/											
P1-1120 Provision and removal of diversion roads (Section VII GC Sub-Clause 4.15)	2	30-Apr-18 A	01-May-18 A	100%											
P1-1130 Operation and maintenance of diversion roads during the Time for Completion (Section	ion VII 2	30-Apr-18 A	01-May-18 A	100%		1									
GC Sub-Clause 4.15)		00-Api - 10 A	or-way-roa	100 /0											
P1-1140 Clearing from Site and Works after Taking-Over (Section VII GC SubClause 4.23)	2	30-Apr-18 A	01-May-18 A	100%		1									
······································			,,												
P1-1150 Supply of vehicles, boats, etc. for the Employer (Section VII GC Sub-Clause 6.6)	1643	30-Apr-18 A	21-Sep-22	17.2%			1 1								
P1-1160 Operation and maintenance of above vehicles, boats, etc. for the Employer during the	e Time 1643	30-Apr-18 A	21-Sep-22	17.2%											
for Completion															
P1-1000 Performance Security (Section VII. GC Sub-Clause 4.2)	1	30-May-18 A	A 31-May-18 A	100%											
P1-1010 Insurance for Works (Section VII GC Sub-Clause 18.2)	1	20 May 19 A	10 A May 19 A	100%											
PT-1010 Insurance for works (Section VII GC Sub-Clause 16.2)	1	30-1VIAy-10 F	A 31-May-18 A	100 %											
P1-1020 Insurance for Contractor's Equipment (Section VII GC Sub-Clause 18.2)	1	31-May-18 A	A 01-Jun-18 A	100%		1									
		or may ror		100 /0											
P1-1030 Insurance against Injury to Persons and Damage to Property (Section VII GC Sub-CI	ause 2	31-May-18 A	A 01-Jun-18 A	100%		1							+		
18.3)															
P1-1040 Insurance for Contractor's Personnel (Section VII GC Sub-Clause 18.4)	2	31-May-18 A	A 01-Jun-18 A	100%		I									
P1-1050 Insurance for Design Liability (Section VIII, PC Sub-Clause 18.5)	2	31-May-18 A	A 01-Jun-18 A	100%											
		04.14		4000/											
P1-1060 Automobile Liability Insurance (Section VIII, PC Sub-Clause 18.6)	2	31-May-18 A	A 01-Jun-18 A	100%											
Schedule No. 2: Contractoria Decumenta	1553	21 <u> Jun 18 A</u>	21-Sep-22												
Schedule No. 2: Contractor's Documents P1-1200 Technical Design documents of highway and interchange alignments	90		19-Sep-22	100%									.+		
F 1-1200 Technical Design documents of highway and interchange angrinnents	30	21-3011-10A	19-3ep-10A	100 %											
P1-1220 Technical Design documents of earthwork	90	21-, lun-18 A	19-Sep-18A	100%											
P1-1230 Technical Design documents of foundation	180	21-Jul-18 A	18-Apr-19	40%		│ │ │ ─────	-								
P1-1260 Technical Design documents of superstructure (steel)	365	21-Jul-18 A	19-Oct-19	20%				-							
Actual Work Summary							Date			Checked		A	pproved]
Remaining Work	Project Imp	lementation P	Programme Progr	ess Updated up	to 30th Septe	ember 2018	31-D	Progress Updated up to	31 DeC 2018	JS [DYTL/TL				—
Critical Remaining Work			-		-			1							
♦ Milestone						Page no 7	//15								

Actual Work Summary		Date	Revision
	Design fundamentation Descenteres Descences Undeted on to 20th Sectomber 2019	31-D	Progress Updated up to 31
Remaining Work	Project Implementation Programme Progress Updated up to 30th September 2018		
Critical Remaining Work			
◆ ♦ Milestone	Page no 7/15		

Project Implementation Programme

D Activity Name	Duration in Days	Start Finish	Activity %	2017 2 Q1 Q2 Q3 Q4 Q1 Q2	018	201	03 04 4	2020 01 02 03 04		3 04 01	2022			24
P1-1240 Technical Design documents of substructure	210	19-Sep-18 A 17-Jun-19	20%		<u>4</u> 4		40 44	<u>u uz u</u> o U4			<u>ve</u> us u4			<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>
		-												<u> </u>
P1-1270 Technical Design documents of dolphins	150	19-Sep-18 A 30-Apr-19	20%											
P1-1400 Submission of samples (GC Sub-Clause7.2)	150	19-Sep-18 A 30-Apr-19	20%											
														.
P1-1310 Construction Design documents of foundation	180	31-Oct-18 A 17-Jul-19	33.89%											
							_							
P1-1320 Construction Design documents of substructure	210	18-Nov-18 A 16-Aug-19	0%		-									
	0.40													
P1-1250 Technical Design documents of superstructure (concrete) P1-1300 Construction Design documents of earthwork	240	31-Dec-18 28-Aug-19 31-Dec-18 30-Mav-19	0%			ii								/ -
P1-1330 Construction Design documents of superstructure (concrete)	150 240	31-Dec-18 30-May-19 01-Mar-19 27-Oct-19	0% 0%											
P1-1210 Aesthetic Strategy Report and Desktop study for Wind Tunnel Test	1	22-Mar-19 23-Mar-19	0%											
P1-1340 Construction Design documents of superstructure (steel)	240	22-Apr-19 18-Dec-19	0%											
P1-1280 Technical Design documents of pavement	120	30-Apr-19 28-Aug-19	0%				-							
P1-1350 Construction Design documents of dolphins	90	30-Apr-19 29-Jul-19	0%		1									
P1-1290 Technical Design documents of bridge ancillaries	120	21-Jun-19 19-Oct-19	0%											
P1-1360 Construction Design documents of pavement	90	28-Aug-19 26-Nov-19	0%				<u> </u>							
P1-1370 Construction Design documents of bridge ancillaries	90	19-Oct-19 17-Jan-20	0%											
P1-1380 Preparation and supply of as-built documents (GC Sub-Clause 5.6)	120	24-May-22 21-Sep-22	0%											,l
P1-1390 Preparation and supply of Maintenance Manual (Section VII GC Sub-Clause 5.7)	120	24-May-22 21-Sep-22	0%											
P1-1410 Tests	30	22-Aug-22 21-Sep-22	0%											
Schedule No. 3: Temporary Works	1753	30-Apr-18 A 16-Feb-23												
P1-1420 Construction of temporary jetties including materials	180	30-Apr-18 A 27-Oct-18 A	100%											
P1-1430 Casting yards preparation (50%)	210	30-Apr-18 A 15-Apr-19	50%											
P1-1490 Casting yards maintenance and clearing after Contract completion (50%)	1313	15-Apr-19 18-Nov-22	0%											
P1-1450 Salvage value to Contractor (negative cost)	1313	30-May-19 02-Jan-23	0%											
P1-1440 Removal of temporary jetties	90	18-Nov-22 16-Feb-23	0%											
P1-1460 Removal of casting yards	45	18-Nov-22 02-Jan-23	0%											,
P1-1470 Clearing of casting yards	45	02-Jan-23 16-Feb-23	0%											·····
Schedule No. 4: Construction of Foundation Piles and Pile Caps for Piers and A P1-1500 "Materials on the Site (refer to GC Sub-		21-Jun-18 A 30-Aug-21	21 4 4 9/											
Clause 14.5 (c) (i)): steel reinforcing bars	900	21-Jun-18 A 05-Feb-21	21.44%						\top					
P1-1510 Ditto: steel liner pipes	900	21-Jun-18A 05-Feb-21	21.44%											
	500		21.7770											, 1
P1-1530 Loading tests and test reports on bridge pier foundation piles	60	21-Jun-18 A 20-Aug-18 A	100%		—									
														,
P1-1550 Loading tests and test reports on abutment foundation piles	60	30-Sep-18 A 29-Nov-18 A	100%		-									
P1-1520 Construction of Open foundation/Spread foundation/Raft foundation, piles and pile cap	945	29-Nov-18 A 30-Aug-21	3.39%		•									.
P1-1540 Construction of abutment foundation piles and pile caps including geotechnical	180	29-Dec-18 A 25-Sep-19	1.11%											
investigation														
P1-1570 Loading tests and test reports on electrical platform pier foundation piles	60	30-Dec-18 A 28-Feb-19	1.67%											
P1-1590 Loading tests and test reports on emergency rescue station platform pier foundation piles	60	28-Feb-19 29-Apr-19	0%											
D1 1560 Construction of electrical platform plan foundation piles and pile and including	400	25 Son 10 02 Mar 00	00/											,
P1-1560 Construction of electrical platform pier foundation piles and pile caps including geotechnical investigation	180	25-Sep-19 23-Mar-20	0%											
P1-1580 Construction of emergency rescue station platform pier foundation piles and pile cap	180	23-Mar-20 19-Sep-20	0%								·····			/
Schedule No. 5: Construction of Piers and Abutments including Pier Caps	1170	18-Dec-18 A 02-Mar-22	078											
P1-1670 Construction of cast-in-situ concrete bridge piers and pier caps	1009	18-Dec-18 A 10-Oct-21	1.29%							-				
r refore construction of cast in site consider bridge piers and pier caps	1000	10-Dec 10A 10-001-21	1.2370											
P1-1600 "Materials on the Site (refer to GC Sub-	900	29-Mar-19 14-Sep-21	0%											,
Clause 14.5 (c) (i)): steel reinforcing bars	000		0,0											,
P1-1610 Ditto: structural steel shapes	900	29-Mar-19 14-Sep-21	0%											.
P1-1620 Ditto: pre-stressing cables	900	29-Mar-19 14-Sep-21	0%	+	1			·····		■				·
P1-1630 Construction of cast-in-situ concrete bridge pier caps	1009	28-May-19 02-Mar-22	0%			📫	<u> </u>		1 1 1					
P1-1640 Construction of cast-in-situ concrete abutment caps	450	25-Sep-19 18-Dec-20	0%						1					
Actual Work Summary							ate	Revision		Checked		Ap	proved	
Remaining Work	Project Imp	lementation Programme Prog	iress l Indator	d up to 30th September 3	018	31-	D Progre	ss Updated up to 3	31 Dec 2018	JS	DYTL/TL			
5	i i oject inip	ionioniation i rogramme Prog												
						1								
Critical Remaining Work ♦ Milestone					Page no	8/15								

Project Implementation Programme

Activity ID Activity Name	Duration in Days	Start	Finish	Activity % Complete 4	2 Q1 Q2	2017 Q3 Q4	Q1 Q2	18 Q3 Q4 (2019 1 Q2 Q3	20 Q4 Q1 Q2	20 Q3 Q4 Q1	2021 Q2 Q3 Q4	2022 Q1 Q2 Q3	3 Q4 Q1	2023 Q2 Q3 C	20 24 Q1 Q2	024 2025 Q3 Q4 Q1
P1-1680 Construction of cast-in-situ concrete abutment structures	450	25-Sep-19	18-Dec-20	0%													
P1-1650 Construction of cast-in-situ concrete electrical platform pier caps	180	23-Mar-20	19-Sep-20	0%													
P1-1660 Construction of cast-in-situ concrete emergency rescue station platform pier caps	180	19-Sep-20	18-Mar-21	0%													
P1-1690 Construction of cast-in-situ concrete electrical platform piers and pier caps	180	19-Sep-20	18-Mar-21	0%													
P1-1700 Construction of cast-in-situ concrete emergency rescue station platform piers and piers	er 180	19-Sep-20	18-Mar-21	0%													
caps																	
P1-1710 Construction of earthwork (backfill, compaction, etc.) and other works for abutments		18-Dec-20	16-Jun-21	0%													
Schedule No. 6: Construction of Concrete Superstructure	1203	15-Apr-19	31-Jul-22							L							
P1-1740 Fabrication of precast concrete structural elements for bridges	1040	15-Apr-19	18-Feb-22	0%													
P1-1730 Ditto: pre-stressing cables	900	20-Apr-19	06-Oct-21	0%													
P1-1750 Transportation and erection of precast concrete structural elements for bridges	990	-	19-Jan-22	0%													
P1-1720 Materials on the Site (refer to GC Sub-Clause 14.5 (c) (i)): steel reinforcing bars	900	15-May-19	31-Oct-21	0%													
P1-1760 Construction of cast-in-situ concrete bridge structures	1025	19-Jun-19	09-Apr-22	0%							· · · · · · · · · · · · · · · · · · ·				·····		ļļ
P1-1780 Construction of cast-in-situ /Pre Cast concrete emergency rescue station structures	450	03-Nov-20	27-Jan-22	0%													
P1-1770 Construction of cast-in-situ concrete electrical platform structures	500		31-Jul-22	0%								: :					
Schedule No. 7: Fabrication and Erection of Steel Superstructure	1202	23-Dec-18 A															
P1-1790 Materials on the Site (refer to GC SubClause 14.5 (c) (i)): structural steel materials	990	23-Dec-18 A	07-Dec-21	0.81%													
P1-1800 Fabrication of steel structural elements for bridges	900	22-Apr-19	08-Oct-21	0%													<u>∔</u> ,
P1-1810 Fabrication of steel structural elements for others	900	20-Aug-19	05-Feb-22	0%													
P1-1820 Transportation to and erection at the Site of fabricated steel structural elements for b	ridges 900	20-Aug-19	05-Feb-22	0%									-				
D4 4020 Transmentation to and second an other Other of the Second distribution of the second se	th a ra	10 Dec 10	17 Mar 00														
P1-1830 Transportation to and erection at the Site of fabricated steel structural elements for o	thers 820	18-Dec-19	17-Mar-22	0%													
D1 4040 Curfeee entities and in a stimulation of another state to the fact of the state	700	00 14 00	00 14 00														
P1-1840 Surface anti-corrosion coating of erected steel structure for bridges	730	09-Mar-20	09-Mar-22	0%													
P1-1850 Surface anti-corrosion coating of erected steel structure for others	450 660	13-Jan-21	08-Apr-22	0%													·
Schedule No. 8: Construction of Earthworks		26-Aug-19	16-Jun-21	0%													
P1-1860 Materials on the Site (refer to GC SubClause 14.5 (c) (i)): steel reinforcing bars for	450	26-Aug-19	18-Nov-20	0%													
retaining walls, etc.	000	05 0 1 40	40.1.04														
P1-1870 Construction of reinforced concrete retaining walls	600	25-Oct-19	16-Jun-21	0%													
P1-1880 Construction of earthwork (fill, compaction, etc.)	600	25-Oct-19 31-Dec-18	16-Jun-21 17-Apr-21	0%								,					
Schedule No. 9: Construction of Dolphins and Fenders	838			0%													<i>۱</i>
P1-1920 Loading tests and test reports on dolphin foundation piles	60		01-Mar-19	0%													
P1-1890 "Materials on the Site (refer to GC Sub-	180	28-Jan-19	27-Jul-19	0%													
Clause 14.5 (c) (i)): steel reinforcing bars	400	00 law 10	07 1.1 40	0%													
P1-1900 Ditto: steel liner pipes P1-1910 Construction of dolphin foundation piles including geotechnical investigation	180 210	28-Jan-19 27-Feb-19	27-Jul-19 25-Sep-19	0%													
P1-1910 Construction of dolphin foundation piles including geotechnical investigation	300		21-Jul-20	0%													
P1-1930 Construction of concrete structure P1-1940 Fenders including Materials	270	21-Jul-20	17-Apr-21	0%						}{{							++
Schedule No. 10: Fabrication and Installation of Bridge Ancillaries	660	28-Jun-20	19-Apr-22	070													
P1-1950 Materials on the Site (refer to GC SubClause 14.5 (c) (i)): bridge bearings (shoes)		28-Jun-20		0%													
P1-1950 Materials on the Site (refer to GC Subclause 14.5 (c) (i)). Druge bearings (shoes) P1-1960 Ditto: expansion joints	600	28-Jun-20	18-Feb-22	0%													
P1-1990 Crash barriers including Materials	600	28-Jul-20	20-Mar-22	0%													
P1-2000 Deck waterproofing including Materials	600	05-Aug-20	28-Mar-22	0%													f
P1-1970 Installation of bridge bearings (shoes)	450	24-Jan-21	19-Apr-22	0%													
P1-1980 Installation of expansion joints	450	24-Jan-21	19-Apr-22	0%													
Schedule No. 11: Construction of Asphalt Pavement	270	10-Oct-21	07-Jul-22														
P1-2010 Asphalt pavement including Materials	270	10-Oct-21	07-Jul-22	0%													
Schedule No. 12: Fabrication and Installation of Miscellaneous Items	600	16-Feb-21	09-Oct-22											-			
P1-2020 Materials on the Site (refer to GC SubClause 14.5 (c) (i)): noise barriers	365	16-Feb-21	16-Feb-22	0%							📫		-				
P1-2030 Ditto: view barriers	365	16-Feb-21	16-Feb-22	0%													
P1-2070 Drainage facility including Materials	450	13-Apr-21	07-Jul-22	0%													
P1-2040 Installation of noise barriers	450	17-Apr-21	11-Jul-22	0%													
P1-2050 Installation of view barriers	450	17-Apr-21	11-Jul-22	0%													
P1-2060 Safety fences including Materials	365	07-Jul-21	07-Jul-22	0%									; ;				
P1-2080 Kerbs including Materials	365	07-Jul-21	07-Jul-22	0%													
P1-2090 Road furniture including Materials	270	10-Oct-21	07-Jul-22	0%													
P1-2100 Pavement marking including Materials	180	08-Jan-22	07-Jul-22	0%							·						ļļ
P1-2120 Gantry/overhang (cantilever)-type signage support structures including Materials	180	08-Jan-22	07-Jul-22	0%													
P1-2110 Road signage including Materials	120	09-Mar-22	07-Jul-22	0%													
P1-2130 Median openings including Materials	120	09-Mar-22	07-Jul-22	0%													
P1-2140 Traffic signals including Materials and testing	90	11-Jul-22	09-Oct-22	0%													
Actual Work Summary									Date		Revision	Che	cked		Appr	oved	
Remaining Work	Project Imr	lementation P	rogramme Prog	ress Undated	un to ?	30th Sent	tember 20	18	31-D	Progress Updat	ted up to 31 Dec	2018 JS	DYTL	/TL			
Critical Remaining Work			- granne riog	opualeu	ap 10 c	Section Och											
 ♦ Milestone 							6	Page no 9/	15								
							ſ	ago 110 3/									
									•								

Project Implementation Programme

ctivity IE	Activity Name	Duration in Days	Start	Finish	Activity % Complete	2017 Q1 Q2 Q3	Q4 Q1 Q	2018 2 Q3 Q4	2019 Q1 Q2 Q3	Q4 Q1	2020 Q2 Q3 0	24 Q1	2021 Q2 Q3 Q	2022 4 Q1 Q2 Q3 Q4	202 Q1 Q2	3 Q3 Q4	2 Q1 Q2	024 Q3 Q4	2025 Q1 Q2
	P1-2150 Restoration of removed items	90	11-Jul-22	09-Oct-22	0%														
	P1-2160 Other miscellaneous items including Materials and testing as required	90		09-Oct-22	0%														
	Schedule No. 13: Provisional Sums	2	31-Oct-18 A	01-Jan-19															
	P1-2240 Schedule No. 13: Provisional Sums	2	31-Oct-18 A	01-Jan-19	10%														
	Remaining Works & Taking Over Certificate	0	09-Oct-22	09-Oct-22										•					
	A2130 Contractor to Achieve Issuance of Taking Over Certificate	0		09-Oct-22	0%									•					
	Package 2: 7.8 km long bridge (10+380 to 18+187) + interchanges	1833	23-Mar-18 A	30-Mar-23														1 1	
	Mobilisation	180	23-Mar-18 A	19-Sep-18 A															
	P2-2200 Mobilisation	30	23-Mar-18 A		100%														
		00	20101011071	22 / 10/ 10/ 10/ 10/ 10/ 10/ 10/ 10/ 10/ 1	100 /0														
	P2-2210 Construction Programme, completion of Soil Investigation, Submit Final plans	150	22-Apr-18 A	19-Sep-18A	100%														
	· · · · · · · · · · · · · · · · · · ·																		
	Schedule No. 1: General Items	1643	23-Mar-18 A	21-Sep-22															
	P2-1000 Performance Security (Section VII. GC Sub-Clause 4.2)	1	23-Mar-18 A		100%													+	·
	1 2-1000 1 chomanec occurry (occurr vii: 00 oub olduse 4.2)		20-Wal-10 A	20-Wai - 10 A	100 /0														
	P2-1010 Insurance for Works (Section VII GC Sub-Clause 18.2)	1	23-Mar-18 A	17-Apr-18 A	100%														
			20 1007	17 7 67 107 1	100 /0														
	P2-1020 Insurance for Contractor's Equipment (Section VII GC Sub-Clause 18.2)	1	23-Mar-18 A	10-Apr-18 A	100%		🕴												
			20-1010 A	10-Api-10A	100 /0														
	P2-1030 Insurance against Injury to Persons and Damage to Property (Section VII GC Sub-Cla	ause 2	23-Mar-18 A	17_Δpr_18 Δ	100%		<u> </u>												
			20-1010 A		100 /0														
	P2-1040 Insurance for Contractor's Personnel (Section VII GC Sub-Clause 18.4)	2	23-Mar-18 A	16-Apr-18 A	100%														
		2	23-1viai - 10 A	10-201-102	100 /0														
	P2-1050 Insurance for Design Liability (Section VIII, PC Sub-Clause 18.5)	2	23-Mar-18 A	16-Apr-18 A	100%													+	
	1 2-1000 Insurance for Design Elability (Deciden Vill, 1 O oub Olduse 10.0)	2	20-1011-10 A	10-Api-10A	100 /0														
	P2-1060 Automobile Liability Insurance (Section VIII, PC Sub-Clause 18.6)	2	23-Mar-18 A	19-Δpr-18 Δ	100%														
		2	20-Wal-10 A	10-Api-10A	100 /0														
	P2-1080 Provision and maintenance of health and safety measures during the Time for Comple	etion 1643	31-May-18 A	21-Sen-22	17.2%														
	(Section VII GC Sub-Clause 6.7)		01-Way-107A	21-009-22	17.270														
	P2-1090 Provision (construction) of office facilities with furniture and office equipment	1643	31-May-18 A	21-Sen-22	17.2%														
		1040	01-Way-107A	21-009-22	17.270														
	P2-1100 Maintenance of above office facilities for the Employer during the Time for Completion	n 1643	31-May-18 A	21-Sen-22	17.2%														
	(Section VII GC Sub-Clause 6.6)	10-10	or may rorr	21 000 22	17.270														
	P2-1150 Supply of vehicles, boats, etc. for the Employer (Section VII GC Sub-Clause 6.6)	1643	31-May-18 A	21-Sep-22	17.2%													++	
		1010	or may rore	21 000 22															
	P2-1160 Operation and maintenance of above vehicles, boats, etc. for the Employer during the	Time 1643	31-May-18 A	21-Sep-22	17.2%														
	for Completion		o :	cop															
	P2-1070 Allow for DNP Services (Section VII GC Clause 11)	2	19-Sep-22	21-Sep-22	0%									1					
	P2-1110 Removal/clearing of above office facilities for the Employer and for the Engineer (Sec	ction 2		21-Sep-22	0%									1					
	VII GC Sub-Clause 6.6)			•															
	P2-1120 Provision and removal of diversion roads (Section VII GC Sub-Clause 4.15)	2	19-Sep-22	21-Sep-22	0%														
	P2-1130 Operation and maintenance of diversion roads during the Time for Completion (Section	on VII 2		21-Sep-22	0%									1					
	GC Sub-Clause 4.15)																		
	P2-1140 Clearing from Site and Works after Taking-Over (Section VII GC SubClause 4.23)	2	19-Sep-22		0%														
	Schedule No. 2: Contractor's Documents	1553	21-Jun-18 A	21-Sep-22															
	P2-1170 Technical Design documents of highway and interchange alignments	90	21-Jun-18 A	13-Mar-19	20%														
	P2-1190 Technical Design documents of earthwork	90	21-Jun-18 A	13-Mar-19	20%				-										
	P2-1200 Technical Design documents of foundation	180	21-Jul-18 A	11-Jun-19	10%														
	P2-1230 Technical Design documents of superstructure (steel)	365	21-Jul-18 A	24-Nov-19	10%														
	P2-1210 Technical Design documents of substructure	210	19-Sep-18 A	08-Jul-19	10%														
	P2-1240 Technical Design documents of dolphins	150	19-Sep-18 A	26-Jul-19	10%														
	P2-1370 Submission of samples (GC Sub-Clause7.2)	150	19-Sep-18 A	26-Jul-19	10%														
	Actual Work Summary								Date		Revisio			hecked		Approve	ed		
	Remaining Work	Project Imr	lementation Pr	ogramme Prog	ress Update	d up to 30th S	eptember	2018	31-D F	rogress	Updated up to	o 31 Dec 2	2018 JS	DYTL/TL					
	Critical Remaining Work			J					L										
•	♦ Milestone							Page no 10	/15										
•									-										

Actual Wor
Remaining

Project Implementation Programme

Activity Name	Duration in Days	Start Finis	sh	Activity %		2018		2019 1 Q2 Q3 Q4		2021		2022	2023	01
P2-1270 Construction Design documents of earthwork	150	30-Sep-18 A 15-	-Mav-19	10%		4 Q1 Q2 G				<u>4 UI UZ U</u>			Q2 Q3 Q4 (
P2-1220 Technical Design documents of superstructure (concrete)	240	19-Oct-18 A 11-	-Jul-19	20%										į
P2-1280 Construction Design documents of foundation	180	31-Oct-18 A 09-	-Sep-19	20%										
P2-1290 Construction Design documents of substructure	210	18-Nov-18A 06-	-Sep-19	20%										
			-											
P2-1300 Construction Design documents of superstructure (concrete)	240	12-Jan-19 09-	-Sep-19	0%										
P2-1250 Technical Design documents of pavement	120	13-Mar-19 11-	-Jul-19	0%										
P2-1180 Aesthetic Strategy Report and Desktop study for Wind Tunnel Test	1	22-Mar-19 23-	-Mar-19	0%				I						
P2-1310 Construction Design documents of superstructure (steel)	240	28-May-19 23-	-Jan-20	0%										
P2-1330 Construction Design documents of pavement	90	11-Jul-19 09-	-Oct-19	0%										
P2-1320 Construction Design documents of dolphins	90		-Oct-19	0%										
P2-1260 Technical Design documents of bridge ancillaries	120	27-Jul-19 24-	-Nov-19	0%										
P2-1340 Construction Design documents of bridge ancillaries	90	24-Nov-19 22-	-Feb-20	0%										
P2-1350 Preparation and supply of as-built documents (GC Sub-Clause 5.6)	120	24-May-22 21-	-Sep-22	0%										
P2-1360 Preparation and supply of Maintenance Manual (Section VII GC Sub-Clause 5.7)	120	24-May-22 21-		0%										
P2-1380 Tests	30	22-Aug-22 21		0%				<u> </u>	<u></u>	<u> </u>	<u></u>	<u></u>		
Schedule No. 3: Temporary Works		31-May-18 A 30-												
P2-1390 Construction of temporary jetties including materials	180	31-May-18 A 13-	-Mar-19	60%										
P2-1400 Casting yards preparation (50%)	210	31-May-18 A 27	-May-19	30%		-	-							
			-											
P2-1450 Casting yards maintenance and clearing after Contract completion (50%)	1313	27-May-19 30-	-Dec-22	0%										
P2-1420 Salvage value to Contractor (negative cost)	1313		-Feb-23	0%								· · · · ·		
P2-1410 Removal of temporary jetties	90		-Mar-23	0%										
P2-1430 Removal of casting yards	45		-Feb-23	0%										
P2-1440 Clearing of casting yards	45	13-Feb-23 30-	-Mar-23	0%										
Schedule No. 4: Construction of Foundation Piles and Pile Caps for Piers and A	1106	21-Jun-18A 01-	-Jul-21			-								
P2-1460 "Materials on the Site (refer to GC Sub-	900	21-Jun-18 A 07-	-Dec-20	21.44%		-								
Clause 14.5 (c) (i)): steel reinforcing bars														
P2-1470 Ditto: steel liner pipes	900	21-Jun-18 A 07-	-Dec-20	21.44%			·	····i·····i-···i-···i-	······					•••
P2-1490 Loading tests and test reports on bridge pier foundation piles	60	31-Oct-18 A 30-	-Jan-19	50%										
			our ro	0070										
P2-1510 Loading tests and test reports on abutment foundation piles	60	31-Oct-18 A 30-	lan-19	50%										
			our ro	0070										
P2-1480 Construction of Open foundation/Spread foundation/Raft foundation, piles and pile cap	945	29-Nov-18A 01-	-Jul-21	3.39%			. i 📭							
			· ··· -·											
P2-1500 Construction of abutment foundation piles and pile caps including geotechnical	180	29-Dec-18A 27-	-Jun-19	1.11%										
investigation	100	20 200 10/1 2/	our ro											
P2-1530 Loading tests and test reports on electrical platform pier foundation piles	60	30-Dec-18 A 30-	-Mar-19	1.67%										•••
	00	30 D 00- 10 A 30	17101 - 10	1.07 /0										
P2-1550 Loading tests and test reports on emergency rescue station platform pier foundation piles	60	30-Mar-19 29-	-Mav-19	0%										
	00	55 Mai - 15 29	May-10	070										
P2-1520 Construction of electrical platform pier foundation piles and pile caps including	180	27-Jun-19 24	-Dec-10	0%										
geotechnical investigation	100	21-Juli-13 24	000-19	070										
P2-1540 Construction of emergency rescue station platform pier foundation piles and pile cap	180	24-Dec-19 21-	- lun-20	0%										
Schedule No. 5: Construction of Piers and Abutments including Pier Caps	1069		-Jun-20 -Jan-22	070							→→→			
P2-1560 "Materials on the Site (refer to GC Sub-	900	28-Jan-19 16		0%				<u> </u>	<u> </u>					
Clause 14.5 (c) (i)): steel reinforcing bars	900	20-Jali-19 10	-Jui-∠I	0%										
	000	29 Jan 10 40	Jul 04											
P2-1570 Ditto: structural steel shapes	900		-Jul-21	0%										
P2-1580 Ditto: pre-stressing cables P2-1630 Construction of cast-in-situ concrete bridge piers and pier caps	900		-Jul-21	0%										
P2-1630 Construction of cast-in-situ concrete bridge pier caps P2-1590 Construction of cast-in-situ concrete bridge pier caps	1009		-Dec-21 -Jan-22	0% 0%										
P2-1590 Construction of cast-in-situ concrete bridge pier caps P2-1600 Construction of cast-in-situ concrete abutment caps			-Jan-22 -Sep-20	11										
P2-1600 Construction of cast-in-situ concrete abutment caps P2-1640 Construction of cast-in-situ concrete abutment structures	450 450			0% 0%										
P2-1640 Construction of cast-in-situ concrete abutment structures P2-1610 Construction of cast-in-situ concrete electrical platform pier caps	450		-Sep-20 -Jun-20	0%										
P2-1610 Construction of cast-in-situ concrete energency rescue station platform pier caps	180		-Jun-20 -Dec-20	0%						_ ! !				
P2-1620 Construction of cast-in-situ concrete electrical platform pier caps	180		-Dec-20 -Dec-20	0%						■ ! !				
P2-1650 Construction of earthwork (backfill, compaction, etc.) and other works for abutments	180		-Dec-20 -Mar-21	0%										•••
	100	18-36p-20 18	-11101-21	070										_
Actual Work Summary								Date	Revision		Checked		Approved	_
Remaining Work	Project Imp	lementation Progra	amme Pro <u>g</u> r	ess Updated	up to 30th Ser	otember 201	8	31-D Progre	ss Updated up to	0 31 DEC 2018		DYTL/TL		_
		5	5	•				1 1						
Critical Remaining Work														

Project Implementation Programme

Activity ID Activity Name	Duration in Days	Start	Finish	Activity % Complete 4	2017 Q1 Q2 Q3 Q4	2018 Q1 Q2 Q3 Q4	2019 Q1 Q2 Q3	2020 2021 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q	2022 3 Q4 Q1 Q2 Q3 Q4	2023 2024 Q1 Q2 Q3 Q4 Q1 Q2 Q3	2025 3 Q4 Q1 Q2
P2-1660 Construction of cast-in-situ concrete emergency rescue station platform piers and p	pier 180	18-Dec-20	16-Jun-21	0%							
caps	4404	07 May 40	04 hm 00								
Schedule No. 6: Construction of Concrete Superstructure	1124	27-May-19		00/							
P2-1700 Fabrication of precast concrete structural elements for bridges P2-1680 Materials on the Site (refer to GC Sub-Clause 14.5 (c) (i)): steel reinforcing bars	1040 900	27-May-19 26-Jun-19	01-Apr-22 12-Dec-21	0% 0%							
P2-1660 Materials on the site (refer to GC Sub-Clause 14.5 (C) (f)), steer reinforcing bars P2-1690 Ditto: pre-stressing cables	900	26-Jul-19 05-Jul-19	21-Dec-21	0%							
P2-1710 Transportation and erection of precast concrete structural elements for bridges	990	20-Jul-19	05-Apr-22	0%							
P2-1720 Construction of cast-in-situ concrete bridge structures	1025	03-Sep-19	24-Jun-22	0%							
P2-1740 Construction of cast-in-situ /Pre Cast concrete emergency rescue station structures		01-Feb-21	27-Apr-22	0%							
P2-1730 Construction of cast-in-situ concrete electrical platform structures	500	09-Feb-21		0%							
Schedule No. 7: Fabrication and Erection of Steel Superstructure	1217	23-Dec-18 A									
P2-1750 Materials on the Site (refer to GC SubClause 14.5 (c) (i)): structural steel materials	990	23-Dec-18 A	A 12-Jan-22	0%							
D2 1700 Exhibition of starl structural elements for bridges	000	20 May 10	12 Nov 01	00/							
P2-1760 Fabrication of steel structural elements for bridges P2-1770 Fabrication of steel structural elements for others	900	28-May-19 25-Sep-19	13-Nov-21 13-Mar-22	0% 0%							
P2-1770 Pradication of steel structural elements for others P2-1780 Transportation to and erection at the Site of fabricated steel structural elements for		25-Sep-19 25-Sep-19		0%							
	billageo oco	20 000 10		0,0							
P2-1790 Transportation to and erection at the Site of fabricated steel structural elements for	others 820	23-Jan-20	22-Apr-22	0%							
			•								
P2-1800 Surface anti-corrosion coating of erected steel structure for bridges	730	24-Feb-20	23-Feb-22	0%							
P2-1810 Surface anti-corrosion coating of erected steel structure for others	450	30-Dec-20	25-Mar-22	0%							
Schedule No. 8: Construction of Earthworks	660	28-May-19	18-Mar-21								
P2-1820 Materials on the Site (refer to GC SubClause 14.5 (c) (i)): steel reinforcing bars for	450	28-May-19	20-Aug-20	0%							
retaining walls, etc.	000	07 1.1 40	10 Mar 01					<u></u>			
P2-1830 Construction of reinforced concrete retaining walls P2-1840 Construction of earthwork (fill, compaction, etc.)	600 600	27-Jul-19 27-Jul-19	18-Mar-21 18-Mar-21	0% 0%							
Schedule No. 9: Construction of Dolphins and Fenders	780	31-Dec-18		078							
P2-1850 "Materials on the Site (refer to GC Sub-	180			0%							
Clause 14.5 (c) (i)): steel reinforcing bars	100	01 200 10	20 0011 10	0,0							
P2-1860 Ditto: steel liner pipes	180	31-Dec-18	29-Jun-19	0%							
P2-1870 Construction of dolphin foundation piles including geotechnical investigation	210	31-Dec-18	29-Jul-19	0%							
P2-1880 Loading tests and test reports on dolphin foundation piles	60	31-Dec-18		0%			_				
P2-1890 Construction of concrete structure	300	29-Jul-19	24-May-20	0%							
P2-1900 Fenders including Materials	270	24-May-20		0%							
Schedule No. 10: Fabrication and Installation of Bridge Ancillaries	660	12-Sep-20									
P2-1910 Materials on the Site (refer to GC SubClause 14.5 (c) (i)): bridge bearings (shoes) P2-1920 Ditto: expansion joints	600 600	12-Sep-20 12-Sep-20		0% 0%							
P2-1950 Crash barriers including Materials	600	12-Oct-20	04-Jun-22	0%							
P2-1960 Deck waterproofing including Materials	600	03-Nov-20	26-Jun-22	0%				┊┊┊┊┊╡			
P2-1930 Installation of bridge bearings (shoes)	450	10-Apr-21	04-Jul-22	0%							
P2-1940 Installation of expansion joints	450	10-Apr-21	04-Jul-22	0%							
Schedule No. 11: Construction of Asphalt Pavement	270	29-Sep-21									
P2-1970 Asphalt pavement including Materials	270	29-Sep-21		0%							
Schedule No. 12: Fabrication and Installation of Miscellaneous Items	600	05-Feb-21									
P2-1980 Materials on the Site (refer to GC SubClause 14.5 (c) (i)): noise barriers	365	05-Feb-21	05-Feb-22	0%				······································			
P2-2010 Drainage facility including Materials P2-1990 Installation of noise barriers	450	02-Apr-21	26-Jun-22 30-Jun-22	0% 0%							
P2-1990 Installation of holse barriers P2-2000 Safety fences including Materials	450 365	06-Apr-21 26-Jun-21	26-Jun-22	0%							
P2-2020 Kerbs including Materials	365	26-Jun-21	26-Jun-22	0%							
P2-2030 Road furniture including Materials	270	29-Sep-21	26-Jun-22	0%							
P2-2040 Pavement marking including Materials	180	28-Dec-21		0%							
P2-2060 Gantry/overhang (cantilever)-type signage support structures including Materials	180	28-Dec-21		0%							
P2-2050 Road signage including Materials	120	26-Feb-22		0%							
P2-2070 Median openings including Materials P2-2080 Traffic signals including Materials and testing	120 90	26-Feb-22	26-Jun-22	0% 0%							
P2-2080 Iraffic signals including Materials and testing P2-2090 Restoration of removed items	90	30-Jun-22 30-Jun-22	28-Sep-22 28-Sep-22	0%				- * - * - * - * - = * - = * * - = * * * *			
P2-2100 Other miscellaneous items including Materials and testing as required	90	30-Jun-22		0%							
Schedule No. 13: Provisional Sums	2		1 01-Jan-19			+ 					
P2-2220 Schedule No. 13: Provisional Sums	2		A 01-Jan-19	20%							
Remaining Works & Taking Over Certificate	0	28-Sep-22							▼		
A2360 Achieve Issuance of Taking Over Certificate	0		28-Sep-22	0%					•		
Actual Work Summary							Date	Revision	Checked	Approved	
Remaining Work	Project Imp	lementation P	Programme Prog	gress Updated u	up to 30th Sept	ember 2018	31-D	Progress Updated up to 31 Dec 2018	JS DYTL/TL		
Critical Remaining Work			_					I			
♦ ♦ Milestone						Page no 12	2/15				

Project Implementation Programme

Note: Note: <th< th=""><th>ity ID Activity Name</th><th>Duration in</th><th>Start</th><th>Finish</th><th>Activity %</th><th>2017</th><th>2018</th><th>2019</th><th>2020</th><th></th><th>2021</th><th>2022</th><th>20</th><th>23</th><th>2024</th></th<>	ity ID Activity Name	Duration in	Start	Finish	Activity %	2017	2018	2019	2020		2021	2022	20	23	2024
Model The Subscript		Days	23-Mar 18 A	21_Mar_22	Complete 4 C	1 Q2 Q3 Q4 Q1	Q2 Q3 Q4 Q1	Q2 Q3 (Q4 Q1 Q2 C	Q3 Q4 Q1 Q	2 Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q2	Q3 Q4 Q1	Q2 Q3 Q4
P3 Hold Modulation Programe Computing of Soft Integrame day units and soft Programme day units and programme day un				-											
10:10:10:10:10:10:10:10:10:10:10:10:10:1					100%		•								
Photo: No. Provide and weathing wea	P3-1960 Construction Programme, completion of Soil Investigation, Submit Final plans	150	22-Apr-18 A	19-Sep-18 A	100%										
P3:000 Products and relations and submitted in the Submitted i		4070	02 Mar 40 A	21 Con 21											
Clearter VIII Clia Status of VIII Clia Status and and a copymont VIII VIII VIII VIII VIII VIII VIII VII					22 14%										
91100 Ministrant of a double of the Employee doing in Em	(Section VII GC Sub-Clause 6.7)			•											
State VM CO Should will Solve State VM CO Shull Should will Solve State VM CO Should will Solve		1278		•											
Phi 1100 Operation and minimum of above variables, back, etc. for the Engineer during the Tim 1223, 22 April 16, 22	(Section VII GC Sub-Clause 6.6)	1278	23-Mar-18 A	21-Sep-21	22.14%										
Inter-Computer Computer Inter-Computer Inter-Computer PA:100 Printing Section VIII CS: Sub-Chause 4(2) 1 22Apr-18A 1000 PA:100 Printing Section VIII CS: Sub-Chause 4(2) 1 27Apr-18A 1000 PA:100 Printing Section VIII CS: Sub-Chause 142) 1 17Apr-18A 24Apr-18A 1000 PA:100 Printing Section VIII CS: Sub-Chause 142) 2 7Abr/18A 24Apr-18A 1000 1 1 1 1 1 7Abr/18A 24Apr-18A 1000 1	P3-1150 Supply of vehicles, boats, etc. for the Employer (Section VII GC Sub-Clause 6.6)	1278	23-Mar-18 A	21-Sep-21	22.14%										
P3.100 insurance for Works (Sector VI GC Sub-Clause 16.2) i		ne 1278	23-Mar-18 A	21-Sep-21	22.14%										
P3-100 Insurance for Contractor's Equipment (Section VI GC Sub-Clause 18.) 0	P3-1000 Performance Security (Section VII. GC Sub-Clause 4.2)	1	22-Apr-18 A	23-Apr-18 A	100%		1								
P3-100 insurance sganst flury to Persons and Damage to Property (Section VII of Sub-Clause 12.4) 2 07-409-18A 08-409-18A 100% P3-100 insurance for Contractor's Personnel (Section VII of Sub-Clause 13.4) 2 07-409-18A 08-409-18A 100% P3-100 insurance for Contractor's Personnel (Section VII of Sub-Clause 16.5) 2 22-400-18A 23-400-18A 100% P3-100 insurance for Contractor's Personnel (Section VII of C Clause 11) 2 22-22-400-18A 23-400-18A 100% P3-100 insurance for Contractor's Personnel (Section VII of C Clause 11) 2 19-89-21 11-89-21 0.5% P3-101 insurance for Contractor's Personnel (Section VII of C Clause 11) 2 19-89-21 21-89-21 0.5% P3-103 Operation and International Clause 100 2 19-89-21 21-89-21 0.5% P3-1100 International Clause 100 2 19-89-21 21-89-21 0.5% P3-1100 International Clause 100 2 0.5% 14-80-20% 14-80-20% 14-80-20% P3-1101 International Design documents of functional Clause 100 20 0-4-4-1-19 20% 14-80-40-4-19	P3-1010 Insurance for Works (Section VII GC Sub-Clause 18.2)	1	22-Apr-18 A	23-Apr-18 A	100%		1								
16.3) 0 0/May 16A 0/	P3-1020 Insurance for Contractor's Equipment (Section VII GC Sub-Clause 18.2)	1	07-May-18 A	08-May-18 A	100%		1								
P3:160 Insurance for Contracture Resconnel (Section VIII CC Sub Clause 18.4) 2 07.May:18.A 000% P3:1000 Insurance for Contracture Resconnel (Section VIII CC Sub Clause 18.6) 2 22.May:18.A 20.May 1<		e 2	07-May-18 A	08-May-18 A	100%										
P3-1080 Automobile Liability Insurance 2 22-May-18A 100% P3-1070 Altom for UP Sorvices (Section VI GC Clauge 11) 2 19-Sep-21 21-Sep-21 0% P3-1071 Network (MP Sorvices (Section VI GC Clauge 15) 2 19-Sep-21 21-Sep-21 0% P3-1071 VII GC Sub-Clauge 40) 2 19-Sep-21 21-Sep-21 0% P3-1120 Poorsion and removal diversion roads during the Time for Completion (Section VII 2 19-Sep-21 21-Sep-21 0% P3-1120 Poorsion and removal diversion roads during the Time for Completion (Section VII 2 19-Sep-21 21-Sep-21 0% P3-1120 Poorsion and removal diversion roads during the Time for Completion (Section VII 2 19-Sep-21 0% P3-1120 Poortinate Segun documents of foundation 210 30-Jun-18A 17-Jun-19 20% P3-1200 Technical Design documents of foundation 210 30-Jun-18A 17-Jun-19 20% P3-1210 Technical Design documents of superstructure (steel) 150 30-Sep-16A 30-May 1A 15-Sep-19 20% P3-1210 Technical Design documents of supenstructure (steel) <td></td> <td>2</td> <td>07-May-18 A</td> <td>08-May-18 A</td> <td>100%</td> <td></td>		2	07-May-18 A	08-May-18 A	100%										
P3-1070 Allow for DNP Services (Section VII GC Classe 11) 2 19-Sep-21 21-Sep-21 0% P3-1100 Removal clearing of above office families for the Employer and for the Engineer (Section 12 19-Sep-21 21-Sep-21 0% P3-1100 Removal clearing of above office families for the Employer and for the Engineer (Section VII 2 19-Sep-21 21-Sep-21 0% P3-1120 Clearing from Site and Works after Taking-Over (Section VII 2C) 19-Sep-21 21-Sep-21 0% P3-1120 Clearing from Site and Works after Taking-Over (Section VII 2C) 24 19-Sep-21 0% Schedule Mo.2. Contract-offs Documents of superstructure (Section VII CC) 24 19-Sep-21 21-Sep-21 0% P3-1120 Technical Design documents of superstructure (setel) 210 33-May-18A 18-Jan-19 85% P3-1201 Technical Design documents of superstructure (setel) 210 30-Jun-18A 17-Jun-19 20% P3-1202 Technical Design documents of superstructure (setel) 210 30-Jun-18A 17-Jun-19 20% P3-1201 Technical Design documents of superstructure (setel) 100 30-Jun-18A 17-Jun-19 20% P3-1202 <td>P3-1050 Insurance for Design Liability (Section VIII, PC Sub-Clause 18.5)</td> <td>2</td> <td>22-May-18 A</td> <td>23-May-18 A</td> <td>100%</td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	P3-1050 Insurance for Design Liability (Section VIII, PC Sub-Clause 18.5)	2	22-May-18 A	23-May-18 A	100%		1								
P-1110 Removal/decing of above effore facilities for the Employer and for the Engineer (Section 11 2 19-Sep-21 21-Sep-21 0% P-1120 Provision and removal of diversion roads during the Employer and for the Engineer (Section 11) 2 19-Sep-21 21-Sep-21 0% P-1120 Provision and removal of diversion roads during the Employer and for the Engineer (Section 11) 2 19-Sep-21 21-Sep-21 0% P-1120 Provision and mainternoor of diversing the Engineer (Section 11) 2 19-Sep-21 21-Sep-21 0% P-31400 Costab-Clause 4.150 2 19-Sep-21 21-Sep-21 0% P-31400 Costab-Clause 4.150 2 19-Sep-21 21-Sep-21 0% P-31400 Exclusion tool Sing the time for Completion (Section VII GC SubClause 4.23) 2 19-Sep-21 0% P-31400 Technical Design documents of superstructure (sizel) 210 30-Jun-18A 17-Jun-19 20% P-31400 Technical Design documents of substructure (sizel) 210 30-Jun-18A 17-Jun-19 20% P-3120 Technical Design documents of substructure (sizel) 150 30-Sep-18A 30-Alu-18 30-Alu-18 10-Sep-19 20% P-3120 Technical Design documents of substructure (socnrels) 150	P3-1060 Automobile Liability Insurance	2	22-May-18 A	23-May-18 A	100%		1								
P-1110 Removal/Letaring of above office faulties for the Employer and for the Engineer (Section VI) 2 19-Sep-21 21-Sep-21 0% P-1120 Provision and removal of diversion roads (Section VI) GC Sub-Clause 4.15) 2 19-Sep-21 21-Sep-21 0% P-1120 Provision and removal of diversion roads during the Time for Completion (Section VI) GC Sub-Clause 4.25) 2 19-Sep-21 21-Sep-21 0% P-31100 CC Sub-Clause 4.15) 2 19-Sep-21 21-Sep-21 0% P-31100 Contractor's Documents of hump the Time for Completion (Section VI) GC Sub-Clause 4.23) 2 19-Sep-21 21-Sep-21 0% P-31100 Contractor's Documents of foundation 210 30-Jun-18A 17-Jun-19 20% P-31200 Technical Design documents of superstructure (seel) 210 30-Jun-18A 17-Jun-19 20% P-31201 Technical Design documents of superstructure (seel) 10 30-Jun-18A 17-Jun-19 20% P-31201 Technical Design documents of superstructure (seel) 10 30-Jun-18A 17-Jun-19 20% 10 10 10 10 10 10 10 10 10 10	P3-1070 Allow for DNP Services (Section VII GC Clause 11)	2	19-Sep-21	21-Sep-21	0%						I				
P3130 Operation and maintenance of diversion roads during the Time for Completion (Section VII 2 19-Sep-21 21-Sep-21 0% P3140 Clearing from Site and Works after Taking-Over (Section VIII CC Subclause 4.23) 2 19-Sep-21 0% Schediule 4.15) P3-1140 Clearing from Site and Works after Taking-Over (Section VIII CC Subclause 4.23) 2 13-Sep-21 0% Schediule 4.15) P3-1140 Clearing from Site and Works after Taking-Over (Section VIII CC Subclause 4.23) 2 13-Sep-21 0% Schediule 4.15) P3-1140 Technical Design documents of highway and interchange alignments 90 31-May-18A 18-Jan-19 80% P3-1200 Technical Design documents of superstructure (stele) 210 30-Jun-18A 17-Jun-19 20% P3-1300 Technical Design documents of substructure (stele) 150 30-Jun-18A 13-Mar-19 20% P3-1200 Technical Design documents of substructure (concrete) 150 30-Jun-18A 13-Mar-19 20% P3-1200 Technical Design documents of substructure (concrete) 150 30-Apr-18A 30-Mar-19 20% P3-1200 Technical Design documents of substructure (concrete) 150 <td>P3-1110 Removal/clearing of above office facilities for the Employer and for the Engineer (Section</td> <td>n 2</td> <td></td> <td></td> <td>0%</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>I</td> <td></td> <td></td> <td></td> <td></td>	P3-1110 Removal/clearing of above office facilities for the Employer and for the Engineer (Section	n 2			0%						I				
P3-1400 Clearing from Site and Works after Taking-Over (Section VII CC Stud-Clause 4.23) 2 2 95-95-21 27-36p-21 075 075 Scheduld No. 21: Contractor's Documents 90 31-May-18A 18-Jan-19 80% 1 <t< td=""><td>P3-1130 Operation and maintenance of diversion roads during the Time for Completion (Section \</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>I</td><td></td><td></td><td></td><td></td></t<>	P3-1130 Operation and maintenance of diversion roads during the Time for Completion (Section \										I				
P3-1170 Technical Design documents of highway and interchange alignments 90 31-May-18A 18-Jan-19 80% P3-1200 Technical Design documents of foundation 210 30-Jun-18A 17-Jun-19 20% P3-1200 Technical Design documents of superstructure (steel) 210 30-Jun-18A 17-Jun-19 20% P3-1300 Submission of samples (GC Sub-Clause7.2) 90 30-Jun-18A 13-Mar-19 20% P3-1210 Technical Design documents of substructure 150 30-Jun-18A 13-Mar-19 20% P3-1200 Technical Design documents of substructure 150 30-Jul-18A 30-Apr-19 20% P3-1200 Technical Design documents of substructure (concrete) 150 30-Sep-18A 30-May-19 0% P3-1202 Technical Design documents of superstructure (concrete) 150 30-Sep-18A 30-May-19 0% P3-1202 Technical Design documents of superstructure (steel) 100 31-Oct-18A 15-Sep-19 10% P3-1202 Technical Design documents of superstructure (steel) 10 31-Oct-18A 27-Oct-19 10% P3-1202 Construction Design documents of su		2			0%						I				
P3-1200 Technical Design documents of Superstructure (steel) 210 30-Jun-18A 17-Jun-19 20% P3-1230 Technical Design documents of superstructure (steel) 210 30-Jun-18A 17-Jun-19 20% P3-1230 Technical Design documents of superstructure (steel) 210 30-Jun-18A 13-Mar-19 20% P3-1210 Technical Design documents of substructure 150 30-Jun-18A 13-Mar-19 20% P3-1210 Technical Design documents of substructure 150 30-Jun-18A 17-Feb-19 20% P3-1220 Technical Design documents of superstructure (concrete) 150 30-Sep-18A 30-May-19 0% P3-1220 Construction Design documents of substructure 150 30-Sep-18A 30-May-19 0% P3-1220 Construction Design documents of substructure 150 30-Sep-18A 30-May-19 0% P3-1200 Construction Design documents of substructure 140 31-Oct-18A 15-Sep-19 10% P3-1200 Construction Design documents of superstructure (steel) 90 31-Oct-18A 17-Oct-18 10% 10% P3-1180 Aesthetic Strategy Rep									•						
P3-1230 Technical Design documents of superstructure (steel) 210 30-Jun-18A 17-Jun-19 20% P3-1330 Submission of samples (GC Sub-Clause7.2) 90 30-Jun-18A 13-Mar-19 20% P3-1210 Technical Design documents of substructure 150 30-Jun-18A 13-Mar-19 20% P3-1200 Technical Design documents of substructure 150 30-Jun-18A 17-Feb-19 20% P3-1200 Technical Design documents of substructure (concrete) 150 30-Sep-18A 30-May-19 0% P3-1200 Construction Design documents of fundation 180 31-Oct-18A 15-Sep-19 10% P3-1200 Construction Design documents of substructure 240 31-Oct-18A 25-Oct-19 10% P3-1200 Construction Design documents of substructure 240 31-Oct-18A 15-Sep-19 10% P3-1200 Construction Design documents of substructure (steel) 240 31-Oct-18A 15-Sep-19 10% P3-1200 Construction Design documents of substructure 240 31-Oct-18A 27-Oct-19 10% 15-Sep-19 0% 15-Sep-19 0% 15-Sep-19	P3-1170 Technical Design documents of highway and interchange alignments	90	31-May-18 A	18-Jan-19	80%										
P3-1350 Submission of samples (GC Sub-Clause7.2) 90 30-Jun-18A 13-Mar-19 20% P3-1350 Technical Design documents of substructure 150 30-Jul-18A 30-Apr-19 20% P3-1360 Tests 60 31-Aug-18A 17-Feb-19 20% P3-1200 Technical Design documents of substructure (concrete) 150 30-Sep-18A 30-May-19 0% P3-1220 Technical Design documents of substructure (concrete) 150 30-Sep-18A 30-May-19 0% P3-1220 Construction Design documents of foundation 180 31-Oct-18A 15-Sep-19 10% P3-1280 Construction Design documents of substructure 240 31-Oct-18A 27-Oct-19 10% P3-1280 Construction Design documents of substructure (steel) 90 31-Dec-18 01-Jan-19 0% P3-1280 Construction Design documents of substructure (steel) 240 15-Sep-19 10% 17-Sep-19 0% P3-1280 Construction Design documents of thidge ancillaries 10 30-Jan-19 0% 18-Jan-19 0% P3-1280 Construction Design documents of superstructure (steel) <td>P3-1200 Technical Design documents of foundation</td> <td>210</td> <td>30-Jun-18 A</td> <td>17-Jun-19</td> <td>20%</td> <td></td>	P3-1200 Technical Design documents of foundation	210	30-Jun-18 A	17-Jun-19	20%										
P3-1210 Technical Design documents of substructure 150 30-Jul-18A 30-Apr-19 20% P3-1300 Tests 60 31-Aug-18A 17-Feb-19 20% P3-1220 Technical Design documents of superstructure (concrete) 150 30-Sep-18A 30-May-19 0% P3-1270 Construction Design documents of foundation 180 31-Oct-18A 15-Sep-19 10% P3-1280 Construction Design documents of substructure 240 31-Oct-18A 27-Oct-19 10% P3-1280 Construction Design documents of superstructure (steel) 13 - Dec-18 01-Jan-19 0% P3-1180 Aesthetic Strategr Report 1 31-Dec-18 01-Jan-19 0% P3-1280 Construction Design documents of purcents of superstructure (steel) 240 18-Jan-19 0% P3-1280 Technical Design documents of birdge ancillaries 120 30-Jan-19 0% P3-1280 Technical Design documents of birdge ancillaries 120 30-Jan-19 0% P3-1280 Technical Design documents of birdge ancillaries 120 30-Jan-19 0% P3-1280 Technical Design documents of birdge ancillaries 120 30-Jan-19 0% Ptoject Implementation Programme Progress Updated up to 30th September 2018	P3-1230 Technical Design documents of superstructure (steel)	210	30-Jun-18 A	17-Jun-19	20%										
P3-1300 Tests 60 31-Aug-18A 17-Feb-19 20% P3-1300 Tests 60 31-Aug-18A 17-Feb-19 20% P3-1220 Technical Design documents of superstructure (concrete) 150 30-Sep-18A 30-May-19 0% P3-1220 Construction Design documents of foundation 180 31-Oct-18A 15-Sep-19 10% P3-1280 Construction Design documents of substructure 240 31-Oct-18A 27-Oct-19 10% P3-1180 Aesthetic Strategy Report 1 31-Dec-18 01-Jan-19 0% P3-1200 Construction Design documents of substructure (steel) 240 13-Dec-18 01-Jan-19 0% P3-1200 Construction Design documents of superstructure (steel) 240 18-Jan-19 0% 0	P3-1350 Submission of samples (GC Sub-Clause7.2)	90	30-Jun-18 A	13-Mar-19	20%										
P3-1220 Technical Design documents of superstructure (concrete) 150 30-Sep-18A 30-May-19 0% P3-1270 Construction Design documents of foundation 180 31-Oct-18A 15-Sep-19 10% P3-1280 Construction Design documents of substructure 240 31-Oct-18A 27-Oct-19 10% P3-1180 Aesthetic Strategy Report 1 31-Dec-18 01-Jan-19 0% P3-1190 Technical Design documents of superstructure (steel) P3-1190 Technical Design documents of superstructure (steel) P3-120 Construction Design documents of superstructure (steel) P3-1180 Aesthetic Strategy Report P3-1180 Aesthetic Strategy Report P3-1180 Technical Design documents of superstructure (steel) P3-1190 Technical Design documents of superstructure (steel) P3-120 Construction Design documents of superstructure (steel) P3-120 Technical Design documents of bridge ancillaries 120 30-Jan-19 0% P3-120 Structure Progress Updated up to 30th September 2018 Determing Work	P3-1210 Technical Design documents of substructure	150	30-Jul-18 A	30-Apr-19	20%										
P3-1270 Construction Design documents of foundation 180 31-Oct-18 A 15-Sep-19 10% P3-1280 Construction Design documents of substructure 240 31-Oct-18 A 27-Oct-19 10% P3-1180 Aesthetic Strategy Report 1 31-Dec-18 01-Jan-19 0% P3-1180 Construction Design documents of substructure 240 31-Oct-18 A 27-Oct-19 10% P3-1180 Aesthetic Strategy Report 1 31-Dec-18 01-Jan-19 0% P3-1180 Construction Design documents of substructure (steel) 90 31-Dec-18 1-Mar-19 0% P3-1250 Technical Design documents of superstructure (steel) 240 30-Jan-19 35-Sep-19 0% P3-1250 Technical Design documents of bridge ancillaries 120 30-Jan-19 30-May-19 0% P3-1250 Technical Design documents of bridge ancillaries 120 30-Jan-19 30-May-19 0% Actual Work Summary Semining Work Semining Work Sinter Stategy Report 1/S Sinter Stategy Report 1/S Sinter Stategy Report 1/S Sinter Stategy Report Critical Remaining Work <	P3-1360 Tests	60	31-Aug-18 A	17-Feb-19	20%										
P3-1280 Construction Design documents of substructure 240 31-Oct-18 A 27-Oct-19 10% P3-1280 Construction Design documents of substructure 1 31-Dec-18 01-Jan-19 0% P3-1190 Technical Design documents of earthwork 90 31-Dec-18 31-Mar-19 0% P3-1200 Construction Design documents of superstructure (steel) 240 18-Jan-19 15-Sep-19 0% P3-1250 Technical Design documents of bridge ancillaries 120 30-Jan-19 30-May-19 0% P3-1250 Technical Design documents of bridge ancillaries 120 30-Jan-19 30-May-19 0% 1	P3-1220 Technical Design documents of superstructure (concrete)	150	30-Sep-18 A	30-May-19	0%										
P3-1180 Aesthetic Strategy Report 1 31-Dec-18 01-Jan-19 0% P3-1180 Aesthetic Strategy Report 90 31-Dec-18 31-Mar-19 0% P3-1190 Technical Design documents of earthwork 90 31-Dec-18 31-Mar-19 0% P3-1300 Construction Design documents of superstructure (steel) 240 18-Jan-19 15-Sep-19 0% P3-1200 Technical Design documents of bridge ancillaries 120 30-Jan-19 30-May-19 0% 1 <td< td=""><td>P3-1270 Construction Design documents of foundation</td><td>180</td><td>31-Oct-18 A</td><td>15-Sep-19</td><td>10%</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	P3-1270 Construction Design documents of foundation	180	31-Oct-18 A	15-Sep-19	10%										
P3-1190 Technical Design documents of earthwork 90 31-Dec-18 31-Mar-19 0% P3-1300 Construction Design documents of superstructure (steel) 240 18-Jan-19 15-Sep-19 0% P3-1250 Technical Design documents of bridge ancillaries 120 30-Jan-19 30-May-19 0% Actual Work Summary Remaining Work Critical Remaining Work Critical Remaining Work	P3-1280 Construction Design documents of substructure	240	31-Oct-18 A	27-Oct-19	10%										
P3-1300 Construction Design documents of superstructure (steel) 240 18-Jan-19 15-Sep-19 0% P3-1250 Technical Design documents of bridge ancillaries 120 30-Jan-19 30-May-19 0% Actual Work Summary Remaining Work Critical Remaining Work Critical Remaining Work															
P3-1250 Technical Design documents of bridge ancillaries 120 30-Jan-19 30-Jan-19 30-May-19 0% Image: Chical Design documents of bridge ancillaries Actual Work Summary Remaining Work Summary Critical Remaining Work Project Implementation Programme Progress Updated up to 30th September 2018 Date Remaining Work Critical Remaining Work															
Actual Work Summary Remaining Work Project Implementation Programme Progress Updated up to 30th September 2018 Critical Remaining Work Implementation Programme Progress Updated up to 30th September 2018															
Actual Work Summary Actual Work Summary Remaining Work Project Implementation Programme Progress Updated up to 30th September 2018 Critical Remaining Work Implementation Programme Progress Updated up to 30th September 2018		120	JO-Jan-19	30-1VIAy-19	0%	: : i				<u> </u>		· · · ·		· · ·	1 I İ
Remaining Work Project Implementation Programme Progress Updated up to 30th September 2018 Critical Remaining Work Implementation Programme Progress Updated up to 30th September 2018	Actual Work Summary												ті	Approved	
	Remaining Work	Project Imp	plementation P	rogramme Prog	ress Updated u	p to 30th Septem	ber 2018	PI PI							
◆ Milestone	Critical Remaining Work										1	I			
	◆ Milestone						Page no 13/15								

Project Implementation Programme

Activity ID	Activity Name	Duration in Days	Start	Finish	Activity % Complete 4	2017	201	8 03 04 01	2019 Q2 Q3 Q4 Q1	2020	2021	2022		3 04 01 0	2024 2025
P3-1240	Technical Design documents of pavement	120	31-Mar-19	29-Jul-19	0%										
	Construction Design documents of earthwork	150	31-Mar-19	28-Aug-19	0%										
	Construction Design documents of superstructure (concrete)	240	31-Mar-19	26-Nov-19	0%										
P3-1310	Construction Design documents of pavement	180	31-Mar-19	27-Sep-19	0%										
	Construction Design documents of bridge ancillaries	120	30-May-19	27-Sep-19	0%										
P3-1330	Preparation and supply of as-built documents (GC Sub-Clause 5.6)	120	30-May-19	27-Sep-19	0%										
	Preparation and supply of Maintenance Manual (Section VII GC Sub-Clause 5.7)	90	28-Aug-19	26-Nov-19	0%										
	e No. 3: Construction of Foundation for Piers and Abutments	550	31-Oct-18 A	31-Aug-20											
P3-1370	"Materials on the Site (refer to GC Sub-	540	31-Oct-18 A	28-Jul-20	11.3%			-							
	Clause 14.5 (c) (i)): steel reinforcing bars														
P3-1380	Ditto: steel liner pipes	540	31-Oct-18 A	28-Jul-20	11.3%										
P3-1400	Loading tests and test reports on bridge pier foundation piles	90	31-Oct-18 A	29-Jan-19	67.78%										
P3-1420	Loading tests and test reports on abutment foundation piles	90	31-Oct-18 A	29-Jan-19	67.78%										
P3-1390	Construction of pier foundation piles Spread foundation including geotechnical	540	10-Nov-18 A	31-Aug-20	5%			-							
	investigation					ļļ.							ļļ		
P3-1410	Construction of abutment foundation piles/Spread foundation including geotechnical	I 540	10-Nov-18 A	31-Aug-20	5%			-							
	investigation														
	e No. 4: Construction of Piers, Pier caps and Abutments,	660	17-Apr-19	05-Feb-21							'				
P3-1430	"Materials on the Site (refer to GC Sub-	600	17-Apr-19	06-Dec-20	0%										
	Clause 14.5 (c) (i)): steel reinforcing bars														
	Ditto: structural steel shapes	600	17-Apr-19	06-Dec-20	0%										
	Ditto: pre-stressing cables	600	17-Apr-19	06-Dec-20	0%					·····					
	Construction of cast-in-situ concrete pier and pier caps	180	30-Apr-19	27-Oct-19	0%										
	Construction of cast-in-situ concrete abutment structure including caps	180	30-Apr-19	27-Oct-19	0%										
	Construction of earthwork (backfill, compaction, etc.) and other works for abutments		30-Apr-19	23-Jul-20	0%										
	Construction of cast-in-situ concrete pile caps for abutment Construction of cast-in-situ concrete pile caps for pier	450 600	16-Jun-19	07-Aug-20 05-Feb-21	0% 0%										
	e No. 5: Construction of Concrete Superstructure	1025	29-Nov-18 A		078	+	· · · · · · · · · · · · · · · · · · ·								
	Materials on the Site (refer to GC Sub-Clause 14.5 (c) (i)): steel reinforcing bars	600	29-Nov-18 A		5.33%										
F3-1310		000	29-1107-107	19-Sep-20	5.55%										
P3-1530	Fabrication of precast concrete structural elements for bridges	600	30-Apr-19	20-Dec-20	0%										
	Ditto: pre-stressing cables	600	18-May-19	07-Jan-21	0%										
	Fabrication of precast concrete structural elements for electrical platforms	600	18-May-19	07-Jan-21	0%										
	Transportation and erection of precast concrete structural elements for bridges	730	17-Jul-19	16-Jul-21	0%										
	Transportation and erection of precast concrete structural elements for electrical pla		28-Jan-20	19-Sep-21	0%										
	· · · · · · · · · · · · · · · · · · ·														
P3-1570	Construction of cast-in-situ concrete	450	26-Jun-20	19-Sep-21	0%										
Schedul	e No. 6: Fabrication and Erection of Steel Superstructure	975		19-Sep-21											
	Materials on the Site (refer to GC SubClause 14.5 (c) (i)): structural steel materials	600	18-Jan-19	09-Sep-20	0%			-							
P3-1590	Fabrication of steel structural elements for bridges superstructure	730	19-Mar-19	18-Mar-21	0%						-				
P3-1600	Fabrication of steel structural elements for other components	730	19-Mar-19	18-Mar-21	0%										
P3-1610	Transportation to and erection at the Site of fabricated steel structural elements for b	ridges 540	23-Jan-20	16-Jul-21	0%				-						
P3-1620	Transportation to and erection at the Site of fabricated steel structural elements for o	other 540	23-Jan-20	16-Jul-21	0%										
	components														
	Surface anti-corrosion coating of erected steel structure for bridges	210	16-Feb-21	14-Sep-21	0%				<u>↓</u>						
	Surface anti-corrosion coating of erected steel structure for other components	210	21-Feb-21	19-Sep-21	0%										
	e No. 7: Construction of Earthworks	660	01-Mar-19	20-Dec-20	00/										
P3-1650	Materials on the Site (refer to GC SubClause 14.5 (c) (i)): steel reinforcing bars for	300	01-Mar-19	26-Dec-19	0%										
D0 4000	retaining walls, etc.	000	20 4 - 40	20 Dec 20	00/										
	Construction of reinforced concrete retaining/compound walls	600	30-Apr-19	20-Dec-20	0%										
	Construction of earthwork (fill, compaction, etc.)	600 240	30-Apr-19 23-Mar-21	20-Dec-20 18-Nov-21	0%	+	•••••••••••••••••••••••••••••••••••••••		+		····		·		
	e No. 8: Fabrication and Installation of Bridge Ancillaries		23-Mar-21	22-May-21	0%										
	Deck waterproofing including Materials	60 180	23-Mar-21	19-Sep-21	0%										
	Materials on the Site (refer to GC Sub-	180	22-Apr-21	19-Sep-21 19-Oct-21	0%										
1 3-1000	Clause 14.5 (c) (i)): Bridge bearings (shoes)	100	22 Api-2 i	10-001-21	0 /0										
P3-1690	Ditto: expansion joints	180	22-Apr-21	19-Oct-21	0%										
	Crash barriers including Materials	210	22-Apr-21	18-Nov-21	0%	+	· • · · · · · · · · · · · · · · · · · ·		tttt				1		
Actual Wo		2.13			0,0	<u> </u>	<u> i i</u>		Date	Revision		necked	<u></u>	Approved	<u> </u>
		Drain at los	alamontation D	Rogromme D		tun to 20th	Contombor 00	10		Updated up to 31		DYTL/			·
Remaining		Project imp	plementation P	rogramme Pro	yress updated	up to suth	September 20	10							
	maining Work						P-	00 00 4 4141							
♦ Milestone							Ра	ge no 14/1	'						
L															

Project Implementation Programme

ity ID	Activity Name	Duration in	Start	Finish	Activity %	2017		2018	2019	2020	2021	2022	2023	2	2024
		Days				Q1 Q2 Q	3 Q4 Q1 Q2	Q3 Q4 0	Q1 Q2 Q3 Q4	Q1 Q2 Q3 0	Q4 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q2	2 Q3 C
	0 Installation of bridge bearings (shoes)	180	22-May-21	18-Nov-21	0%							,			
	Ile No. 9: Construction of Asphalt Pavement	270	25-Apr-21	20-Jan-22											
	0 Asphalt pavement including Materials	270	25-Apr-21	20-Jan-22	0%					_					
	Ile No. 10: Fabrication and Installation of Miscellaneous Items	510	27-Oct-20	21-Mar-22											
	0 Drainage facility including Materials	450	27-Oct-20	20-Jan-22	0%										
	0 Safety fences including Materials	365	20-Jan-21	20-Jan-22	0%										
	0 Kerbs including Materials	365	20-Jan-21	20-Jan-22	0%										
	0 Road furniture including Materials	270	25-Apr-21	20-Jan-22	0%										
	0 Pavement marking including Materials	180	24-Jul-21	20-Jan-22	0%										
	0 Gantry/overhang (cantilever)-type signage support structures including Materials	180	24-Jul-21	20-Jan-22	0%										
	0 Road signage including Materials	120	22-Sep-21	20-Jan-22	0%										
	0 Median openings including Materials for movable barrier	120	22-Sep-21	20-Jan-22	0%										
	0 Traffic signals including Materials and testing	60	20-Jan-22	21-Mar-22	0%										
	0 Restoration of removed items	60	20-Jan-22	21-Mar-22	0%	+									
	0 Other miscellaneous items including Materials and testing as required	60 600	20-Jan-22 30-May-20	21-Mar-22 20-Jan-22	0%							,			
	Ile No. 11: Provisional Sums				00/										
	0 Schedule No. 11: Provisional Sums	600	30-May-20		0%										
Remai	ning Works & Taking Over Certificate	0	21-Mar-22												
	Achieve Issuance of Taking Over Certificate	0	21-Mar-22		0%										
	4: Intelligent Transport System	781	20-Aug-20												
	ctor's Construction and GC Construction Supervision Activities	660	20-Aug-20												
	ctor's Design, Manufacturing and Delivery of Equipment to Site	420	20-Aug-20												
A260	O Contractor to Complete Preliminary Design & Detailed Design (As Per Design Submission	180	20-Aug-20	16-Feb-21	0%										
	Programme)														
	O GC to Review / Proof Check / Approve Contractor's Detailed Design	180	19-Oct-20	17-Apr-21	0%										
	0 Manufacturing, Testing and Delivery of ITS Equipment to Site	240	18-Nov-20	16-Jul-21	0%										
	0 Manufacturing, Testing and Delivery of O&M Facility & Equipment to Site	240	16-Feb-21	14-Oct-21	0%										
	tion, Testing and Pre-Commissioning of ITS Equipment	480	16-Feb-21	11-Jun-22											
	0 Installation, Testing and Pre-commissioning of Traffic Management System	420	16-Feb-21	12-Apr-22	0%										
	0 Installation, Testing and Pre-commissioning of Toll Management System	420	16-Feb-21	12-Apr-22	0%										
	0 Contractor to Achieve Issuance of Completion Certificate	60	12-Apr-22	11-Jun-22	0%										
	ted Testing and Commissioning	181	12-Apr-22	10-Oct-22											
A2670		60	12-Apr-22	11-Jun-22	0%										
	Operation														
A2680		1	09-Oct-22	10-Oct-22	0%										
LP Sta		933	21-Mar-22	09-Oct-24											
A2710	Package 3: 3.6 km long road & bridge(10+187 to 21+800) + interchanges	730	21-Mar-22	20-Mar-24	0%										
A2690	Package 1 Sewri Interchange and adjoining 10.38 km bridge (0+000 to 10+380)	730	10-Oct-22	09-Oct-24	0%							-			
A2700	Package 2: 7.8 km long bridge (10+380 to 18+187) + interchanges	730	10-Oct-22	09-Oct-24	0%							-			1
A2720	Package 4: Intelligent Transport System	730	10-Oct-22	09-Oct-24	0%										

Date	Revision	Checked	Approved
31-D	Progress Updated up to 31 Dec 2018	JS	DYTL/TL