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INTERNATIONAL

General Consultant for Mumbai Trans Harbour Link Project

Ref No.: MTHL/GC/MMRDA/QPR/2018/120

Date: 03/01/2018

To,  
**The Chief Engineer**  
Engineering Division  
Mumbai Metropolitan Regional Development Authority (MMRDA)  
2<sup>nd</sup> Flr., New MMRDA Building,  
Plot No. R-06 & R-12, 'E' Block,  
Bandra Kurla Complex, Bandra East,  
Mumbai, Maharashtra, India 400051

**Subject: Quarterly Performance Report (QPR) No.3**

Dear Sir,

With reference to above Subject We are pleased to submit the MTHL-GC Quarterly Progress Report No-3 copy for the Month of Oct-17 to Dec-17, this report format is compiled as per GC-RFP and JAIC Project Format.

Assuring you of our best services always.

Thanking you

Yours truly,

V. D. Sharma  
Dy. Team Leader  
General Consultants (MTHL)



Encl: Quarterly Progress Report No-2- Modified (Two Hard Copies)



# MMRDA

Mumbai Metropolitan Region Development Authority

## Mumbai Trans Harbour Link Project

### Quarterly Progress Report-No.3 From 1<sup>st</sup> October 2017 to 31<sup>st</sup> December 2017



**Mumbai Trans Harbour Link Project**  
**Quarterly Progress Report No. 3**  
**1<sup>st</sup> October 2017 to 31<sup>st</sup> December 2017**  
**Loan Agreement No. ID-P255**

**ORGANIZATION INFORMATION**

<b>Borrower</b>	<b>Mumbai Metropolitan Region Development Authority</b>	
	Person in Charge	<b>Shri. Urvinder Pal Singh Madan</b> , IAS, Metropolitan Commissioner, MMRDA
	Contact Address	M.M.R.D.A. New OFFICE BUILDING, BANDRA-KURLA COMPLEX, Plot no. R5,6&12, E BLOCK BANDRA (EAST), MUMBAI - 400 051 Phone : +91-22-2659 0001 / 4000 Fax No. : +91-22-2659 1264
<b>Executing Agency</b>	<b>Mumbai Trans Harbour Link Project Implementation Unit</b>	
	Headed by:	Chief Engineer Mumbai Trans Harbour Link Project Implementation Unit
	Contact Address	M.M.R.D.A. New OFFICE BUILDING, BANDRA-KURLA COMPLEX, Plot no. R5,6&12, E BLOCK BANDRA (EAST), MUMBAI - 400 051 Phone : +91-22-2659 0001 / 4000 Fax No. : +91-22-2659 1264

**OUTLINE OF LOAN AGREEMENT**

<b>Source of Finance</b>	JICA ODA Loan : ¥ 276,333Million Tranche -1 : ¥ 144,795Million Tranche -2 : ¥ 131,538 Million
<b>Terms and Conditions</b>	For JICA - Interest Rate: 0.10150% (LIBOR- 0.00150%+ SPREAD RATE – 0.1000%) from 20 <sup>th</sup> September 2017 to 19 <sup>th</sup> March 2018. - Repayment Period: 30 years, including 10 years of grace period.



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## 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. It also conforms to the national and state laws.**

#### **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**

1. Although the urbanization in India has been rapidly progressing, infrastructure development in the urban areas has not caught up its progress. The traffic congestion in the urban areas due to a lack of road network hinders the economic development. Given this situation, the necessity of comprehensive infrastructure development plan was given the importance for the growing economic developments in the 12<sup>th</sup> Five –Year Plan (April 2012 to Mar 2017).
2. Mumbai Metropolitan Region which includes Mumbai and Navi Mumbai, has about 13.59 million population as of 2011(census 2011) and population density has reached 17,400 People per Square km in the center of Mumbai, it is one of the over populated City, having highest population density in the world.
3. Mumbai the narrow stretch of land, 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), has been facilitating various development plans particularly in Navi Mumbai area. The Navi Mumbai stands at the opposite

side of Mumbai across the Mumbai bay and still has spacious area for development such as 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 faster communication and transport infrastructures with in Mumbai has stunned its growth. The GoM has given importance to construct the faster connection of Mumbai with Navi Mumbai International Airport, Jawaharlal Nehru Port, Mumbai- Pune express way and Mainland.
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.
7. The Comprehensive Transportation Study (CTS) for Mumbai Metropolitan Region (MMR), which was conducted by MMRDA and supported by World Bank, was completed in July 2008 over 25 years after the issuance of the last comprehensive transport study. The report provided a vision for Mumbai's future transportation as seamless, 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 in MMR to take care of the varied travel demands of the region for the horizon period up to 2031.
8. Accordingly, whereas the CTS recommended developing the metro and suburban railway network in the Mumbai it also proposed to develop the highway network in the region.
9. The MTHL has been regarded as the priority road for MMR for a long time, considering its function and importance of connecting Greater Mumbai and Navi Mumbai
10. The MTHL is proposed to be developed as an expressway link comprising of a dual three lane main-carriageway bridge connecting Sewri in Mumbai to Chirle in Navi Mumbai.
11. When completed, MTHL will reduce the travel distance between Mumbai and Navi Mumbai and will help save approximately an hour in travel time.
12. 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.
13. Consequently, the Project is envisaged to:
  - improving accessibility between Mumbai and Navi Mumbai,
  - accelerate the growth of Navi Mumbai,
  - improving smooth traffic flow from Navi Mumbai airport to Mumbai,
  - accelerate the economic development of Navi Mumbai and surrounding regions.
  - greater economic integration of Mumbai with Navi Mumbai extended regions of Pune, Goa, Panvel and Alibaug and decongestion of Mumbai, and
  - dispersal of Population to Navi Mumbai region and Beyond.
14. Thus, 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

#### Demand Analysis

- At the opening year 2022, the daily traffic on the main bridges 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 on the main bridge link, by vehicle class, is presented in the **Table 1.3** below:

**Table 1.3, Demand Projections Over The Period**

Vehicle Type	Between Sewri IC-Shivaji Nagar			Between Shivaji Nagar IC -Chirle IC		
	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
<b>Total</b>	<b>39,300</b>	<b>103,900</b>	<b>145,500</b>	<b>9,800</b>	<b>29,600</b>	<b>55,000</b>

LCV: Light Commercial Vehicle; HCV: Heavy Commercial Vehicle; MAV: Multi Axle Vehicle (Four axis or more)

- 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.
- The lane requirement was reviewed based on the forecasted result of future traffic volume by manual of specification and standards for Expressways (IRC: SP99-2013). The result of the review shows that 6-lane will be required in 2032 (10 years later after traffic open to Public in 2022). Although 8-lane will be required in 2042, it is assumed that the level of service of MTHL would be maintained as an additional Metro might be constructed parallel with MTHL in future

#### Design Parameters

- The MTHL which is about 21.8 Km long road on the Sea across the Mumbai Bay between Sewri in Mumbai and Chirle in Navi Mumbai, is to be constructed with the approach sections, interchanges, ITS (Intelligence Transport System) and the other necessary facilities for full access-controlled motorway marine bridges.
- Under IRC (Indian Road Congress) SP:99-2013, the Width of each lane of the Main Carriageway is 3.5 meters
- When the design speed is 100Km/h according to the traffic demand forecast the large vehicle, ratio will be as low as 9.4%(2022).
- The lane width at 3.5 meters will ensure adequate safety and road functions.
- The shoulder width of bridge towards outside of main carriageway is 2.5 meters and towards median is 0.75 meters as per design requirements for the design speed of 100 Km/h.
- 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.

10. On the land portion, the PC box girder with 30m span is commonly used.
11. As for 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 construction period.
12. 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 2015 monetary value.

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

Vehicle Type	Sewri-Shivaji Nagar	Shivaji Nagar-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)

#### Toll Management System(TMS)

13. The toll management system introduced in MTHL, shall collect tolls from all road users of MTHL. Two types of toll collection method will be adopted; Electronic Toll Collection (ETC) and Manual (paying in cash).
14. 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.

#### Traffic management System

15. 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-Classifer (ATCC) and Meteorological Data System(MDS), and Information Dissemination System including Variable message Sign (VMS)
16. 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.
17. 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.

**1.4 Contract Packages**

1. **Package-1** includes the Sewri Interchange on land, Mumbai side and the adjoining 10.380 km (CH 0+000 km to CH 10+380 km) bridge above sea/creek. The typical width of carriageway will be approximately 14 M for each way.
2. **Package-2** includes about 7.8 km long bridge (CH 10+380 km to CH18+187 km) above sea/creek and Shivaji Nagar Interchange on land, Navi Mumbai side. The typical width of carriageway will be approximately 14 M for each way.
3. **Package-3** includes about 3.6 km long bridge and road (CH18+187 – CH21+800) having interchanges at State Highway-54, National Highway-4B near Chirle and Rail-over-Bridges (ROB) at two locations in Navi Mumbai side. The typical width of the carriageway will be approximately 14 M for each way.
4. **Package-4** consisting of Intelligent Transport Systems (ITS) including Operation & Maintenance Facility and Equipment Installation for the Project. Bid for the Package-4 will be issued at a later stage.

**Actual (P/R, PCR)**

There is no change in the Contract Package

## 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**

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

**Table 2.1.2 Comparison of Original and Actual Scope**

Items	Original	Actual
<b>Construction work: 6-lane Marine Bridge Road (21.8 km)</b>		
Package 1 Ch 0+000-10+380 (10.380 Km)	<ul style="list-style-type: none"> <li>➤ 1 interchange (Sewri)</li> <li>➤ Viaduct superstructure (Marine Portion: PC Box Girder &amp; Steel Box Girder with Steel Slab Land Portion: PC Box Girder &amp; PC-I Girder)</li> <li>➤ Viaduct Substructure (RC Concrete Structure)</li> <li>➤ Viaduct Foundation (Bored piles)</li> <li>➤ High way Lighting (Whole Sections. Low-positioned lighting for some sections)</li> <li>➤ Road Furniture and road side facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers)</li> </ul>	(P/R and PCR)
Package 2 Ch 10+380-18+190 (7.81 km)	<ul style="list-style-type: none"> <li>➤ 1 interchange (Shivaji Nagar)</li> <li>➤ Viaduct superstructure (Marine Portion: PC Box Girder &amp; Steel Box Girder with Steel Slab Land Portion: PC Box Girder &amp; PC-I Girder)</li> <li>➤ Viaduct Substructure (RC Concrete Structure)</li> <li>➤ Viaduct Foundation (Bored piles)</li> <li>➤ High way Lighting (Whole Sections. Low-positioned lighting for some sections)</li> <li>➤ Road Furniture and road side facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers)</li> </ul>	(P/R and PCR)
Package3 Ch 18+190-21+830 (3.64 Km)	<ul style="list-style-type: none"> <li>➤ 2 interchanges (State Highway-54, National Highway-4B)</li> <li>➤ Viaduct superstructure (Marine Portion: PC Box Girder &amp; Steel Box Girder with Steel Slab Land Portion: PC Box Girder &amp; PC-I Girder &amp; Steel Truss Girder for Rail-over-Bridges (ROB)</li> <li>➤ Viaduct Substructure (RC Concrete Structure)</li> <li>➤ Viaduct Foundation (Bored piles)</li> <li>➤ Highway Lighting Whole Sections</li> <li>➤ Road Furniture and road side facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures )</li> </ul>	(P/R and PCR) Actual: No Marine Portion in Package-3

Items	Original	Actual
Package 4 ITS (Intelligent Transport System)	<ul style="list-style-type: none"> <li>➤ Toll Booths (1 for Main Alignment and one each “on and off” ramps for 3 Interchanges)</li> <li>➤ Traffic Management System (Traffic Control Centre, Closed Circuit Television (CCTV), Meteorological Data System (MDS), Emergency Call Box (ECB), Automatic traffic Counter-Cum-Classifer (ATCC), Variable Message Sign (VMS))</li> </ul>	(P/R and PCR)
Consulting Service	<ul style="list-style-type: none"> <li>➤ Tender Assistance</li> <li>➤ Construction Supervision</li> <li>➤ Facilitation of Implementation of Environmental Management Plan (EMP), Environmental Monitoring plan (EMoP) and Resettlement Action Plan (RAP)</li> </ul>	(P/R and PCR)

## 2.2 Implementation Schedule

### 2.2.1 The Original Implementation Schedule

The original project implementation schedule for commissioning the project from Sewri Interchange to Chirle Interchange at State Highway-54 by June 2021 and the updated project implementation schedule as on September 2017, is provided in the following Table 2.2.1

**Table 2-2-1 Comparison of Original and Updated Schedule**

Items	Original	Updated (Dec-17)
Employment of General Consultant	June 2016	December 2016
Completion of land acquisition and Resettlement	November 2016	June 2018
Stage-2 Main Tender for construction of Package-1,2 &3	June 2016	January-17
Award and Commencement of construction of Package-1,2&3	January 2016	November 2017
Completion of construction of Package-3	June 2020	September 2021
Completion of construction of Package-1&2	June 2021	September 2022
Stage-2 Main Tender for construction of Package-4	September 2018	September 2019
Award and Commencement of ITS Package-4	July2019	September 2020
Completion of ITP Package-4	June 2021	September 2022
Commercial Operation Date	June 2021	September 2022

**Attachment:**

Project Implementation Program (Dec-17)

### 2.2.2 Reasons for any changes of the schedule and their effects in the Project

**Actual (P/R and PCR)**

Tender Invitation and the date of Bid Submissions were delayed, because of the following reason:

- Enormous number of queries (3224) had to be answered and 15 addenda for all the 3 packages were to be issued.
- A large number of Technical issues had to be discussed with Technical Advisory Committee and incorporated in the addenda.
- A large number of coordination issues especially with environment agency have to addressed and incorporated in the bid documents.

**2.3 Project Cost**

2.3.1: Comparison of Originally planned and actually incurred Cost by year is given **Table 2.3.1**

**Table 2.3.1, Comparison of Originally Planned and Actually Incurred Cost by year**

Breakdown of Cost	Originally Planned			Actually Incurred		
	JICA Portion	MMRDA	Total	JICA Portion	MMRDA	Total
Year	In Rs Cr	In Rs Cr	In Rs Cr	In Rs Cr	In Rs Cr	In Rs Cr
Budget	15,100.16	2743.06	17,843.22			
FY2016-2017					176.39	176.39
FY2017-2018				31.82	107.80	139.62
<b>Total</b>			17,843.22			<b>316.01</b>

\* Fiscal Year starting in April and ending in March Unit: (All Figures: in Crores INR)

**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.**

**To be updated after finalisation of Revised Cost Estimate**

**Actual (P/R, PCR)**

## 2.4 Organization for Implementation

### 2.4.1 Executing Agency:

#### Executing Agency:

1. Mumbai Metropolitan Region Development Authority (MMRDA)  
MMRDA was established on 26th January 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.
2. The GoM appointed the 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 vid Government Resolution dated 8th June 2011.

#### Organization's Role:

3. The broad responsibilities of the Mumbai Metropolitan Region Development Authority includes:
  - Preparation of Regional Development Plans
  - Providing financial assistance for significant regional projects
  - Providing help to local authorities and their infrastructure projects
  - Coordinating execution of projects and/or schemes in MMR
  - Restricting any activity that could adversely affect appropriate development of MMR, etc.
4. In particular, it conceives, promotes and monitors the key projects for developing new growth centers and brings about improvement in sectors like transport, housing, water supply and environment in the Region.

#### Project Implementation Unit (PIU)

5. The PIU will be in charge of the Projects. The PIU will be headed and Coordinated by Chief Engineer. PIU comprising of 6 Division/cells (Engineering Division, Finance Division, Land Cell, Social Development Cell, Administrative Division and Environmental Cell), Supervision/ITS Consultant and support staff.

#### Procurement

6. 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.
7. 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

Annexure III Organizational Chart

## 2.4.2 Performance of Consultants / Contractor(s):

### 2.4.2.1 Consultants Progress

#### October 2017:

- 1 In the month of October, we received JICA's concurrence for Financial Evaluation Reports for all the three Packages, JICA had very few comments on our reports submitted on 28/10/2017 and the JICA's comments were received on 12/10/2017. We attended to the comments on the same day and JICA gave its concurrence on the same day for the three Packages. It is a record.
- 2 During the JICA workshop on 13/10/2017 at Delhi, the JICA team and Chief of Indian mission of JICA conveyed that our Technical Evaluation Reports and Financial Evaluation Reports were very systematic, contained all relevant information in sequence and could serve as model documents for other projects.
- 3 They also conveyed their appreciation to the evaluation work and the MTHL Team.
- 4 Subsequently in this month, GC prepared the points to be discussed with the Bidders, presented the same to the Chief Engineer, AMC/MC and to the Bidders. GC also helped to draft the letters seeking the clarifications from the bidders.
- 5 When the clarifications were received, GC prepared a detailed Clarifications Report which was very useful for making important decisions on the reduction of 6% GST uniformly on all items of all the Schedules including Price Schedule of Variations. GC has prepared a document for issuing the Letter of Acceptance for two packages and submitted the same for review, which includes the necessary attachments for checking the correctness of Letter of Acceptance.

#### November 2017:

- 6 Package 1 has been allotted to a consortium of L & T and IHI Japan (M/s Larson & Toubro Limited, India, and M/s IHI Infrastructure Systems Co. LTD, Japan), Package 2 has been allotted to a Joint Venture of Daewoo and Tata projects (M/S DAEWOO Engineering and Construction company Ltd and M/s Tata Project Ltd), Package 3 has been allotted to M/s Larson & Toubro Limited, Chennai.
- 7 The lowest evaluator bidders have been requested to submit the Performance Security. GC provided the draft "Points for Discussion" and Draft "Letter of Acceptance" for all the three Packages.
- 8 In November 2017, we have achieved one important milestone-the issue of "Letter of Acceptance" to all the three Packages, Package 1, Package 2 and Package 3 on 17/11/2017, ahead of anticipated schedule, by 2 months.
- 9 In spite of in a more then 3000 queries, we could issue the "Letter of Acceptance" for Three Package on 17th Nov 2017 with JICA's concurrence.
- 10 The contractors have signed and returned one copy of the Letter of Acceptance in token of the acceptance of the LOA and terms and conditions of the Bid Documents
- 11 Meantime, GC has compiled the Contract Agreement Documents, for all the three Packages. Copies of the draft of "Contract Agreement" have been submitted on 28/11/2017.

#### December 2017:

- 12 In the month of December, the major achievement is organizing the "Kick off Meeting" with the Contractors in which MMRDA participated in full. It was conducted on 13th Dec 2017 for Package 1 & 3 and 15th Dec for Package 2.
- 13 The Contractors, M/s L&T and IHI Consortium for Package 1, Larsen & Toubro Limited for Package 3 and DAEWOO – TPL Joint Venture for Package 2 made presentations on methodology of execution, mobilization schedule and Project Management Plan etc. There was good interaction between the Contractors, GC and MMRDA.
- 14 GC has compiled the Contract Agreement Documents, for all the three Packages for signing by MMRDA and the Contractors.
- 15 The draft Contract Agreement Document in 16 Volumes for Package 1 and 12 Volumes for Package 3, have been handed over to MMRDA on 20/12/2017. These documents have been reviewed and agreed upon by the Contractors.
- 16 The Contract agreement document for Package 2 has been compiled and are being verified by the Contractor's Representatives.
- 17 The GC reviewed and advised on the Performance Security format and the final version received. Based on GC's advice the securities have been revised and reissued by the Contractors for Package 1 and Package 3
- 18 GC also advised and prepared documents for the presentation by Chief Minister's Office on



- the Contract signing ceremony.
- 19 Advice was given to MMRDA on the consortium Agreement of L&T & IHI Consortium for Package 1 and Payment separately.
  - 20 Advice was also provided on the letter of M/s IL&FS TRANSPORTATION and SP SINGLA JV seeking clarifications on their disqualification of the Bid.
  - 21 The number of Volumes and pages in each volume of the Contract Agreement which are to be signed is given in Table below:

**No. of Volumes and Pages in each Package**

Package-1		Package-2		Package-3	
Volume	No. of Pages	Volume	No. of Pages	Volume	No. of Pages
Volume-I	215	Volume-I	1324	Volume-I	400
Volume-II	799	Volume-II	290	Volume-II	283
Volume-III	799	Volume-III	133	Volume-III	133
Volume-IV	657	Volume-IV	440	Volume-IV	436
Volume-V	290	Volume-V	23	Volume-V	15
Volume-VI	134	Volume-VI	198	Volume-VI	287
Volume-VII	16	Volume-VII	237	Volume-VII	488
Volume-VIII	466	Volume-VIII	165	Volume-VIII	482
Volume-IX	434	Volume-IX	187	Volume-IX	825
Volume-X	312	Volume-X	135	Volume-X	1124
Volume-XI	523	Volume-XI	222	Volume-XI	39
Volume-XII	115	Volume-XII	234	Volume-XII	6
Volume-XIII	825	Volume-XIII	173		
Volume-XIV	1104	Volume-XIV	294		
Volume-XV	44	Volume-XV	352		
Volume-XVI	4	Volume-XVI	118		
		Volume-XVII	215		
		Volume-XVIII	140		
		Volume-XIX	174		
		Volume-XX	255		
		Volume-XXI	230		
		Volume-XXII	330		
		Volume-XXIII	61		
		Volume-XXIV	04		
<b>Total</b>	<b>6737</b>	<b>Total</b>	<b>5934</b>	<b>Total</b>	<b>4518</b>

**Grand Total -6737+5934+4518=17189 Pages**

**1 Tender assistance Time line Dates.**

**Table 2.4.2 Tender Assistance Time line Dates**

Sr. No	Description	Actual Date			No. of Days
		Package-1	Package-2	Package-3	
1	Tender document issued	04-01-2017	04-01-2017	04-01-2017	
2	Pre-Bid meeting	30-01-2017	30-01-2017	30-01-2017	26
3	Last Pre-Bid queries were received	26-06-2017	26-06-2017	26-06-2017	173
4	Addendum No. 1 issued/uploaded	23-05-2017	31-05-2017	30-05-2017	139
5	Addendum No. 2 issued/uploaded	01-06-2017	01-06-2017	01-06-2017	148
6	Addendum No. 3 issued/uploaded	21-06-2017	22-06-2017	22-06-2017	168
7	Addendum No. 4 issued/uploaded	21-06-2017	07-07-2017	22-06-2017	168
8	Addendum No. 5 issued/uploaded	07-07-2017	07-07-2017	07-07-2017	184
9	Response No.1 issued/uploaded	23-05-2017	31-05-2017	30-05-2017	139
10	Response No.2 issued/uploaded	01-06-2017	01-06-2017	01-06-2017	148
11	Response No.3 issued/uploaded	21-06-2017	22-06-2017	22-06-2017	168
12	Response No.4 issued/uploaded	07-07-2017	07-07-2017	07-07-2017	184
13	GC prepared the response and issued the Last Addenda	07-07-2017	07-07-2017	07-07-2017	184
14	Technical & Financial Bids submitted by Bidders (Last Date of Submission)	17-07-2017	18-07-2017	18-07-2017	194

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15	Envelop A for Tender Fee & EMD opened	19-07-2017	19-07-2017	19-07-2017	196
16	Envelop B Technical Bid opened	25-07-2017	25-07-2017	25-07-2017	202
17	Envelop B Technical Bid issued to GC	26-07-2017	26-07-2017	26-07-2017	203
18	GC submitted Technical Bid Evaluation Report up to Stage -3 to MTHL/JICA	22-08-2017	22-08-2017	22-08-2017	230
19	GC submitted Technical Bid Evaluation Report Stage -4 to MTHL/JICA	22-08-2017	22-08-2017	22-08-2017	230
20	JICA comments on technical Bid Evaluation Report-up to Stage-4 received	07-09-2017	07-09-2017	07-09-2017	246
21	Responses for JICA comments	08-09-2017	08-09-2017	11-09-2017	247
22	JICA Concurrence for up to Stage -4 Technical Report Received	12-09-2017	12-09-2017	15-09-2017	251
23	MTHL-PIU/JICA Approved Evaluation Reports (Technical)	14-09-2017	14-09-2017	15-09-2017	253
24	Envelop C Financial Bid opened	14-09-2017	14-09-2017	15-09-2017	253
25	Envelop C Financial Bid issued to GC	18-09-2017	18-09-2017	18-09-2017	257
26	GC Submitted Financial Bid Evaluation Report Stage-5 to MTHL/JICA	28-09-2017	28-09-2017	28-09-2017	267
27	JICA comments on Financial Bid Evaluation Report- Stage-5 receives	12-10-2017	12-10-2017	12-10-2017	281
28	Responses for JICA comments	12-10-2017	12-10-2017	12-10-2017	281
29	JICA Concurrence for upto Stage -5 Financial Bid Evaluation Report Received	12-10-2017	12-10-2017	12-10-2017	281
30	Clarification Meeting with Lowest Evaluated Substantial Responsive Bidder	16-10-2017	17-10-2017	16-10-2017	285
31	Executive Committee approval for Award of Work	09-11-2017	09-11-2017	09-11-2017	309
32	GC Prepared LOA of Successful Bidder	16-11-2017	16-11-2017	16-11-2017	316
33	MMRDA Issued LOA to Successful Bidder	17-11-2017	17-11-2017	17-11-2017	317
34	Kick-off Meeting	13-12-2017	15-12-2017	13-12-2017	

2 Other Activities:

- a. GC has rendered assistance in the Evaluation of the structures to be acquired and dismantled in Sewri Area. This is in progress.
- b. GC is rendering assistance in the execution of Barbed Wire fencing at Sewri side.
- c. GC is assisting still for:
  - Shifting of High Tension Tower in Navi Mumbai area at Chirle
  - Land acquisition and Environmental issues for finalizing the compensation for Project affected People.
  - Preparation of "Road Access" plan for MbPT for Sewri Area.
  - Identification and assessment of compensation for the Project Affected People
- d. GC has also organized/conducted a number of meeting with MMRDA/Fisheries department for working on the compensation to be paid to the Project Affected People.
- e. NIO and MTHL-GC have conducted Seismic Survey, Magnetic Survey, Bathymetry Survey on entire Sea alignment and a Report is under Preparation by NIO

**9. Documents Prepared for assistance**

Sr. No.	Description	Total No. Pages	Date of Submission
1	Evaluation Report on Clarifications with attachments forwarded to MMRDA	124	31-10-2017
2	Report on Letter of Acceptance forwarded to MMRDA	49	31-10-2017
3	Reply to DAEWOO-TPL JV letter submitted on 02.11.2017		09.11.2017
4	First Submission of Letter of Acceptance draft to MMRDA for Package -1,2 & 3 with attachments	30	09.11.2017
5	Second submission of Letter of Acceptance draft to MMRDA for Package-1 & 3 with attachments	50	15.11.2017
6	Draft Letter to ILFSTNL-SPSCPL JV	1	18.11.2017
7	Final Submission of Letter of Acceptance draft to MMRDA for Package -1,2 & 3 with attachments	50	16.11.2017
8	Clarification to L&T for "Performance Security" with Performance Security Amount for Package-1 & 3	1	22.11.2017
9	"Note on Performance Security for Package 1 by L&T for Package-1 & 3	10	25.11.2017
10	Draft Letters on "Performance Security" to Bidders on Package 1 and Package 3	2	26.11.2017
11	Draft "Contract Agreement" (abridged) for all the three Package	171	28.11.2017
12	Attachments in all the Packages as prepared	6447	28.11.2017

**2.4.2.2 Chronology of Works Completed on the all Packages**

**Package-1**

- Tender document issued on 4th January 2017 for JICA Concurrence on the PQ qualified contractors
- Pre-Bid meeting was held on 31st January 2017,
- 1564 Nos of PreBid queries were received up to 26th Jun 2017, and GC prepared the response and issued Addenda Nos. -1,2,3,4 & 5 to Bidder before 7th July 2017.
- 186 nos. Contractual/ Technical Amendments were issued to bidder after getting the concurrence of JICA.
- Technical & Financial Bids were submitted by Bidders on 17th July 2017.
- 6 nos. of Bids were received
- Envelope A for Tender Fee & EMD were opened 19th Jul 2017
- Envelope B Technical Bid were opened on 25th Jul 2017
- GC submitted Technical Report up to Stage -3, to MMRDA-PIU /JICA on 19th August 2017
- Stage-1 Preliminary Examination of technical Bids
- Stage-2 Evaluation of Compliance with the Qualification Requirements
- Stage-3 Determination of Responsiveness of Technical Bids
- GC submitted Technical Evaluation Report upto Stage 3 and Stage -4, to MMRDA-PIU which was forwarded to JICA on 21st August 2017.
- GC Submitted the Revised (R1) Technical Bid Evaluation Reports to MMRDA which were forwarded to JICA on 12th September 2017.
- GC submitted Financial Evaluation Report to MMRDA which were submitted to JICA on 28th September 2017

- JICA cleared the Financial Evaluation Report on 12/10/2017.
- GC Submitted Evaluation Report on clarification to MMRDA on 27th October 2017
- GC submitted draft Letter of Acceptance to MMRDA on 31st October 2017 and revised on 16th November 2017.
- MMRDA issued the Letter of Acceptance on 17th November 2017.
- GC gave a note on the format of Bank guarantee for the Performance Security on 25th November 2017
- After receipt of bank guaranty and its verification, Kick-off Meeting held at MMRDA office with Contractor L&T-IHI (consortium), GC and MMRDA on 13<sup>th</sup> Dec 2017 for Package 1

### Package-2

- Tender document issued on 4th January 2017 for JICA Concurrence on the PQ qualified contractors
- Pre-Bid meeting was held on 31<sup>st</sup> January 2017,
- 1226 Nos of Pre-Bid queries were received up to 26<sup>th</sup> Jun 2017, and GC prepared the response and issued Addenda Nos. -1,2,3,4 & 5 to Bidder before 7<sup>th</sup> Jul 2017.
- 182 nos. Contractual/ Technical Addendum were issued to bidder after getting the concurrence of JICA.
- Technical & Financial Bids were Submitted by Bidders on 18<sup>th</sup> Jul 2017
- 6 nos. of Bids were received
- Envelope A for Tender Fee & EMD were opened 19<sup>th</sup> Jul 2017
- Envelope B Technical Bid were opened on 25<sup>th</sup> Jul 2017
- GC submitted Technical Report up to Stage -3, to MMRDA-PIU/JICA on 19<sup>th</sup> August 2017
  - Stage-1 Preliminary Examination of technical Bids
  - Stage-2 Evaluation of Compliance with the Qualification Requirements
  - Stage-3 Determination of Responsiveness of Technical Bids
- GC submitted Technical Report upto Stage 3 and Stage -4, to MMRDA-PIU which was forwarded to JICA on 21<sup>st</sup> August 2017
- GC Submitted the Revised (R1) Technical Bid Evaluation Reports to MMRDA which were forwarded to JICA on 12<sup>th</sup> September 2017. Financial Bid Evaluation Reports were submitted to JICA on 28<sup>th</sup> September 2017.
- GC submitted Financial Evaluation Report to MMRDA which were submitted to JICA on 28<sup>th</sup> September 2017
- JICA cleared the Financial Evaluation Report on 12/10/2017
- GC Submitted Evaluation Report on clarification to MMRDA on 27th October 2017
- GC submitted draft Letter of Acceptance to MMRDA on 31st October 2017 and revised on 16th November 2017.
- MMRDA issued the Letter of Acceptance on 17th November 2017.
- GC gave a note on the format of Bank guarantee for the Performance Security on 25th November 2017.
- After receipt of bank guaranty and its verification Kick-off Meeting held at MMRDA office with Contractor Daewoo & TPL (JV), GC and MMRDA on 15<sup>th</sup> Dec 2017.

### Package-3

- Tender document issued on 4th January 2017 to JICA's Concurrence PQ qualified contractors
- Pre-Bid meeting was held on 31st January 2017,
- 434 Nos of Pre-Bid queries were received up to 26<sup>th</sup> Jun 2017, and GC prepared the response and issued Addenda Nos. -1,2,3,4 & 5 to Bidder before 7<sup>th</sup> Jul 2017.
- 172 nos. Contractual/ Technical Addendum were issued to bidder after getting the concurrence of JICA.
- Technical & Financial Bids were Submitted by Bidders on 17<sup>th</sup> Jul 2017

- 5 nos. of Bids were received
- Envelop A for Tender Fee & EMD were opened 19th Jul 2017
- Envelop B Technical Bid were opened on 25th Jul 2017
- GC submitted Technical Report up to Stage -3, to MMRDA-PIU/JICA on 19th August 2017
- Stage-1 Preliminary Examination of technical Bids
- Stage-2 Evaluation of Compliance with the Qualification Requirements
- Stage-3 Determination of Responsiveness of Technical Bids
- GC submitted Technical Report upto Stage 3 and Stage -4, to MMRDA-PIU which was forwarded to JICA on 21st August 2017
- GC Submitted the Revised (R1) Technical Bid Evaluation Reports to MMRDA which were forwarded to JICA on 12th September 2017. Financial Bid Evaluation Reports were submitted to JICA on 28th September 2017.
- GC submitted Financial Evaluation Report to MMRDA which were submitted to JICA on 28th September 2017
- JICA cleared the Financial Evaluation Report on 12/10/2017.
- GC Submitted Evaluation Report on clarifications obtained from Bidders to MMRDA on 27th October 2017
- GC submitted draft Letter of Acceptance to MMRDA on 31st October 2017 and revised on 16th November 2017.
- MMRDA issued the Letter of Acceptance on 17th November 2017.
- GC gave a note on the format of Bank guarantee for the Performance Security on 25th November 2017
- GC gave draft letters to the contractors on approval of the format for Bank Guarantee.
- After receipt of bank guaranty and its verification Kick-off Meeting held at MMRDA office with Contractor L&T, GC and MMRDA on 13<sup>th</sup> Dec 2017

#### Package-4

The Salient features of Package-4 are given below. For Facility Development Plan refer Table 2.4.2.3.

- Employer's Requirements
- General requirements
- Design requirements
- Toll management system
  - System outline and scope of works
  - Operational procedure of manual lane
  - Functional requirements for ETC system
  - Data communication with plaza computer system
  - Plaza computer system functions
  - Traffic control center functions
  - Specifications for manual lane equipment
  - Specifications for ETC lane equipment
  - Specifications for toll plaza equipment
  - Specifications for Control Center system equipment
- Toll management system (continued)
- Software
- Specifications for closed circuit television for toll management system
- Network equipment
- Cabling (OFC, power)
- Power supply system
- Traffic management system
- Traffic control center system
- Emergency call box
- Traffic surveillance closed circuit television system

- Automatic traffic counter-cum-classifier system
- Meteorological Data system
- Variable message sign system
- Digital transmission system
- Fiber optic cable system
- Power conditioning equipment system

**Table 2.4.2.2, Facility Development Plan**

Facility	Quantity	Interval	Location
CCTV (on-road)	132	Approx. 333 m	Roadside (both directions)
CCTV (under girder)	22	Approx. 1 km	Under slab of median
ECB	44	Approx. 1 km	Roadside (both directions)
VMS	4	-	Entrance of toll plaza After getting on toll road / Sewri side
MET	3	Approx. 7 km	Roadside
ATCC	4		Between Sewri IC and Shivaji Nagar IC (each direction) Between Shivaji Nagar IC and SH54 (each direction)

### 2.4.3 Health Safety and Environment (HSE)

The HSE Plan will be prepared by the respective construction agency for the Packages. This will be monitored and implemented by GC.

#### 2.4.4 Procurement Status

Financial Evaluation Reports have been submitted to JICA and bids are likely to be allotted soon.

**Table 2.4.4 Present Status of Procurement**

Type	Contract	Estimated Value (in Rs. Cr.)	Award Value (in Rs. Cr.)	Current Status	Bidders	Award Date as per PIP Sep 2017	Status / Remarks
CIVIL	Package-1(CH 0+000 km to CH 10+380 km)	6,599.56	<b>7637.30</b>	Award	<b>L&amp;T-IHI (Consortium)</b>	Nov 2017	LOA issued on 17.11.2017
	Package-2 (CH 10+380 km to CH18+187 km)	4,902.90	<b>5612.61</b>	Award	<b>DAEWOO-TPL (JV)</b>	Nov 2017	LOA issued on 17.11.2017
	Package-3 (CH18+187 – CH21+800)	1,306.61	<b>1013.79</b>	Award	<b>L&amp;T</b>	Nov 2017	LOA issued on 17.11.2017
ITS	Package-4 Intelligent Transport System	144.26	--	Design Stage	--	Jul 2020	--

#### Financial Report

The following is a breakdown of JICA and MMRDA share of project Cost:

- i. Package-1 – 100% JICA Contribution – Budget INR 6,599.56 Cr
- ii. Package-2 – 100% JICA Contribution – Budget INR 4,902.90 Cr
- iii. Package-3 – 100% JICA Contribution – Budget INR1, 306.61Cr.
- iv. Package-4 – 100% JICA Contribution – Budget INR144.26Cr

### 3.0 BENEFITS DERIVED FROM THE PROJECT

#### 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)
<p><b>3.2.1 General Issues</b></p> <p><b>1. Toll Arrangement/ Toll Rate</b> Fixed toll rate by 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.</p> <p><b>2. Operation and Maintenance</b> MMRDA will appoint a toll collection agency during project implementation period. Thereafter, a single operation and maintenance contractor shall be appointed through open tendering process. MMRDA has confirmed to allocate adequate budget for engaging the contractors.</p>	<p>(P/R and PCR)</p> <p>No significant event.</p> <p>No significant event.</p>
<p><b>3.2.2 Environmental and Social Consideration</b></p> <p><b>a. CRZ Clearance</b></p> <ul style="list-style-type: none"> <li>Supplemental EIA has been approved by MMRDA, and disclosed on the website of JICA. Supplemental EIA report will be disclosed also on the website of MMRDA.</li> <li>Renewed CRZ Clearance will be obtained in a timely manner.</li> <li>In accordance with the conditions for CRZ Clearance, appropriate measures shall be taken, and necessary budget shall be</li> </ul>	<p>(P/R and PCR)</p> <ul style="list-style-type: none"> <li>MMRDA has Uploaded Supplemental EIA &amp; SIA on MMRDA website.</li> <li>The CRZ clearance for MTHL was acquired on 25/1/2016 from MoEFCC and enclosed in the contractor's bid documents. MMRDA has been actively committing the conditions of the MOEFCC approval condition and will continue during the construction phase.</li> <li>MMRDA appointed (BNHS) Bombay Natural History Society 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.</li> </ul>



secured by MMRDA.	<ul style="list-style-type: none"> <li>Rs33 Cr has been deposited to Mangrove foundation of State government for the development of a new mangrove area and its afforestation as well as the birds' monitoring by MNHS. Such funds will be managed by the mangrove foundation of MH state and disbursed periodically to BNHS.</li> <li>As per the new CRZ clearance condition, 4.98Cr has been allocated for the consulting services to develop a Mahul creek Effluent Treatment Plant (ETP). IIT Mumbai is appointed for the DPR study and completed for the pre-monsoon season study and will complete post-monsoon study with the draft policy and implementation plan for the ETP.</li> </ul>
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### 3.2.3 Permits

The Permits to be obtained by MMRDA and the Present Status are given in **Table 3.2.2**

**Table 3.2.2 Present Status of the Permits**

Clearance Required	Approved authority	Responsible Organization	Obtained by When	Status
Mangrove cutting	Bombay High Court	MMRDA	Before start of Construction	Approval received from Bombay High Court on 28 <sup>th</sup> Nov 2016
Tree cutting	Respective tree authorities	Contractor for respective Packages	To be obtained before start of Construction	Contractors to be submit the proposals to the Tree authorities

### 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)
<p><b>1. Establishment of Effective Environmental and Social Cell in PIU</b> MMRDA confirmed that Social Development Cell, Land Cell, and Environmental Cell had been set up, which consists of two officers at each cell.</p>	Cell is established by MMRDA (Annexure III, Organization chart)
<p><b>2. Rehabilitation and Land Acquisition Issues</b> <b>a. Affected Area and Population</b> Due to the Project, 1,272 non-titleholders will be involuntary resettled, and 96.36 ha of land will be handed</p>	<p>a. SEWRI: Involuntary resettlement in Sewri section has been further validated by R&amp;R cell of MMRDA. Out of 229 project affected</p>

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p>over by CIDCO.</p>	<p>households (PAHs), MMRDA confirmed the consent of the 150PAHs for the resettlement site in HDIL buildings. MMRDA confirmed the consent of the rest of the 79PAHs of Kanjurmarg resettlement site.</p> <p>NaviMumbai: CIDOCO is finalizing the land acquisition in Navi Mumbai side and monitored by Land Cell of MMRDA. Out of 108.62Ha, 78.05Ha had been handed over and 21.57Ha will be shortly transferred by other state department and the rest of 9.00Ha shall be handed over shortly.</p>
<p><b>b. Entitlement Policy</b> MMRDA prepared the entitlement matrix for resettlement of non-titleholders in Sewri, which meets the Resettlement and Rehabilitation Policy for Mumbai Urban Transportation Project (1997, amended in 2000) and JICA guidelines for Environmental and social considerations (2010) (“Guidelines”) (Attachment 2-5).</p>	<p>There are no changes to enforce the entitlement policy. As per the Attachment 2-5, MMRDA has committed to enforce the agreed/approved policy.</p>
<p><b>c. Compensation to Project affected Fishermen</b> Detailed baseline survey will be 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.</p>	<p>With vigorous follow up with the Commissioner of fisheries, Jt. Commissioner of fisheries and Asst. Commissioner of fisheries (Thane, Raigad and Mumbai suburban) about the submitted initial list of 829 PAP’s from Mumbai suburban has been authenticated by the department. However, MMRDA-PIU instructed GC to re-validated the existing data.</p> <p>The Assistant Commissioner, Raigad has also validated the list of PAPs in Raigad district through a letter. There are over 3000 PAPs already surveyed but may not be entitled due to lack of proof of their being Fishermen. AMC, MMRDA, has suggested to get a validation certificate from either Registered Fishers Societies/Local Authority/Revenue Department. About 3000 forms have been updated and Revised list shall be handed over to the MMRDA in the last week of December 2017.</p> <p>In addition to above a joint meeting with MMRDA and all the ACFs for the inclusion of left out fishermen if any have to be included in the final compensation list. For the response to the fisheries department’s instruction to cover the all concerned fishermen, MMRDA appointed GC to</p>

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
	<p>conduct an additional fisheries survey 1) to Collect Proof from fisherman and validate the data for their eligibility, and 2) confirm the additional claims including the C1 fishermen category with proper proofs with the presence of MMRDA and Fisheries Department. The additional survey shall be completed within January 2018 and concerned state authorities shall initiate the disbursement of the compensation shortly after the final approval of the survey results by the MMRDA fisheries compensation committee.</p>
<p><b>d. Implementation Schedule</b> The Implementation schedule for land acquisition, resettlement and rehabilitation.</p>	<p>Land cell of MMRDA has managed any land acquisition related to the MTHL. Expected schedule as of 22/12/2017</p> <ul style="list-style-type: none"> <li>a) Sewri: November 2018</li> <li>b) Sealink (MbPT): January 2018</li> <li>c) Sealink (JNPT): January 2018</li> <li>d) Navi Mumbai: November 2018</li> </ul> <p>R&amp;R cell of MMRDA has managed resettlement and rehabilitation in parallel. a) Sewri: November 2018</p>
<p><b>e. Grievance Redressal Mechanism</b> Grievance Redressal Committee ("GRC") set under MMRDA will deal 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.</p>	<p><u>SEWRI</u>: The Chief Social Development Cell, dealing with the grievances raised by PAP's in Sewri as per the approved RAP, will appoint the single committee officer by 08<sup>th</sup> September 2017</p> <p>A part from the GRC, a compensation committee, chaired by a former judge, has been formulated to address the issues/grievances of the plot lessees at MbPT area, Sewri, which had never been provided valid lease contract to MMRDA. MMRDA is expecting</p> <p><u>SEALINK</u>: GRC be set up as per fisher folk compensation policy dated 23<sup>rd</sup> December 2015</p> <p><u>NAVI MUMBAI</u>: CIDCO is the Land Acquiring body for Land on Navi Mumbai side. GRC has already set up by CIDCO and has been functioning.</p>

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p><b>f. Internal Monitoring</b> Internal Monitoring of the Resettlement Action Plan (RAP) implementation will 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.</p>	<p><b>Sewri Area:</b></p> <ul style="list-style-type: none"> <li>• 150 PAHs out of 229 PAHs had given their consent to shift to HDIL buildings in Kurla, and preparation work is in progress for PAP</li> <li>• 54 commercial structures are proposed to shift to Kanjurmarg East, another resettlement complex based on the demand by the affected businesses.</li> <li>• As reported above, the compensation committee is formed for finalisation for total 13 Lessees (claims), 6 out of 13 are presently vacant and 7 plots are with structures. The compensation committee for the leases shall finalize the counter measures in November 2018</li> </ul>
<p><b>g. Qualitative Independent Evaluation</b> An Independent Evaluation Agency will 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.</p>	<p>MMRDA will form the independent evaluation before the mid-term and end-term in a timely manner.</p>
<p><b>h. RAP Implementation Budget</b> The amount of estimated resettlement and compensation budget is Rs. XX. 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</p>	<p>For the Year Financial year for 2017-2018 Estimated tentative Budget for</p> <ul style="list-style-type: none"> <li>• Sewri Side for MbPT Lessees: 30Cr.</li> <li>• Fishermen Compensation: 70Cr</li> <li>• Navi Mumbai Side CIDCO Land: 21Cr</li> </ul>
<p><b>i. Environmental Management Plan (“EMP”)</b> 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.</p>	<p>The EMP followed by MMRDA has to coincide with the compliance points set by MOEF and MCZMA during the CRZ clearance of MTHL. This also includes adhering to the implementation of construction schedule as decided by MMRDA.</p> <p>Due to the concerns of the very limited workable time with the CRZ clearance by MoEFCC in January 2016, MMRDA requested relaxation of two conditions set by MOEF &amp; MCZMA namely;</p> <ul style="list-style-type: none"> <li>• “MMRDA to ensure that Construction activities near Flamingo habitat area may be restricted to the season when Flamingos are not on the site or not in larger flocks.”</li> <li>• “The project proponent shall not undertake any blasting/construction activities during night hours.”</li> </ul> <p>Technical assistance was provided by GC to</p>

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
	<p>MMRDA for correspondence to MOEF by providing data &amp; valid evidence related to the compliance conditions set by MOEF.</p> <ul style="list-style-type: none"> <li>• The case was presented in front of the MCZMA committee in the 119th meeting of MCZMA and defending the case for relaxation of conditions set by MCZMA &amp; MOEF</li> <li>• The subsequent follow-up for the relaxation of conditions that were recommended for MOEF was also carried out.</li> <li>• MoEF permitted the night work on 28/8/2017</li> </ul> <p>As a part of the MTHL GC, technical assistance was provided to MMRDA in the validation of the bird monitoring program process. Suggestions were also provided for the methodology that was being carried out for bird monitoring.</p> <p>As per the Employer's requirement, contractor JVs will prepare their EMP and GC will review and instruct necessary changes in compliances with all regulatory compliances as well as the approved JICA EIA.</p>
<p><b>j. Environmental Monitoring Plan ("EMoP")</b>                      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). 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.</p>	<p>Environmental monitoring will start during the Construction period.                      (As per the MOM Attachment of 2-4)</p>

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p><b>k. Long Term Bird Monitoring</b> 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.</p>	<ul style="list-style-type: none"> <li>MMRDA has appointed (BNHS) Bombay Natural History Society for bird monitoring and implementation of Flamingos and birds related mitigation measures &amp; bird monitoring program</li> <li>Rs31.92 Cr. deposited to Mangrove foundation of State government for periodical disbursement to BNHS</li> </ul>

### 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 (Yr 2015)	Target (Yr 2023) 2 Years After Commercial Operation
Average Annual Daily Traffic (PCU/ day)		45,700
Daily Average Travel Time (min)*1	61 min	15.8 Min

\*1 Section on Sewri-Chirle

<b>EIRR</b>	<p><b>Original:</b> 13.7% Cost : Project cost (excluding Price Escalation, Tax and Duties and Administration cost) O&amp;M cost, Land Acquisition Benefit: Travel Time cost and Vehicle Operation cost Project Life: 32 Years</p>	<p><b>Actual: (PCR)</b> _____% Cost:</p>
<b>FIRR</b>	<p><b>Original:</b> 1.77% Cost : Project Cost, O&amp;M cost, Land Acquisition cost Benefit: Toll Revenue Project Life: 32 Years</p>	<p><b>Actual: (PCR)</b> _____%</p>

### 3.5 Monitoring Plan for the indicators

Monitoring Methods, Section(s)/department(s) in Charge of monitoring, 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 as per annex II: 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 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 Project in the form of Project status Report (PSR) attached as per Annex II

Actual (P/R and PCR)

Monitoring Organization

PIU for MTHL has been established and monitoring the Project

Submission of QPR and PCR

Quarterly Progress Report will be prepared and Submitted to JICA on Quarterly basis.  
(1st October 2017 to 31st December 2017 being Submitted)

### 3.6 Achievement of the Project Objective

(Achievement of Project Objective shall be communicated after start of revenue Operation of the Project)

Actual (PCR)

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

### 4.1 O&M and Management

Original:

Overall

MMRDA will be responsible for O&M after the Completion of the Project. O&M Budget will be allocated by MMRDA. O&M and increase in Toll rate will be done in accordance with Toll notification issued by Maharashtra Government.

Operation & Maintenance, Tolling and ITS

MMRDA will appoint Operation, Maintenance and Tolling Contractor for the road maintenance and Toll collection and allocated adequate budget for engaging the Contractor. The Budget for O&M will be provided by MMRDA.

Actual:

### 4.2 O&M Cost and Budget

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

It is assumed that O&M cost in Feasibility Study Report, 2012 is one percent of the total project cost, amounts 1,010 million INR at the year of Commercial Operation Date (COD). And it is annually escalated 5% of escalation.

JICA report



## 5.0 EVALUATION

### 5.1 JICA and Borrower / Executing Agency performance

JICA:  
(PCR)

Borrower/Executing Agency:  
(PCR)

### 5.2 Overall evaluation

(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.

**Experience learnt**

# Annexure I

## Land Acquisition

**Land Acquisition:**

No	Description	Area	Status
1	<b>Land acquisition ROW (permanent)</b>		
1.1	<b>Sewri side</b>		
a.	Land Acquisition on Sewri Side for ROW (permanent)	10.089 Ha	<ul style="list-style-type: none"> <li>• Handing over of ROW area Partly from MbPT by Jan 2018</li> <li>• 54 commercial Structures proposed to shift to Kanjurmarg East</li> <li>• MbPT Total 13 Lessees, out of which 6 Plots are vacant and 7 Plots are with Structures</li> <li>• Out of 18 Plots at Sewri Gadi Adda, 5 plots are in position and Notices to remaining 13 plot issued, under MR&amp; TP Act ,1966 Section 126 ,1(a) &amp; (b).</li> <li>• The process of compensation to lessees &amp; rehabilitation of PAPS is in Progress</li> </ul>
1.2	<b>Navi Mumbai side</b>		
a.	Area handed over by CIDCO to MMRDA	77.97 Ha	In possession of CIDCO. Being handed over to MMRDA.
b.	Area handed over by other Departments (Railway, JNPT and Forest department) to MMRDA	21.58 Ha	In possession of CIDCO. Being handed over to MMRDA.
c.	Area remaining to be acquired by CIDCO	9.33 Ha	Handing over process is in progress
	<b>Total Land for ROW</b>	<b>118.88 Ha</b>	
2	<b>Land allocation for Casting yards (Temporary)</b>		
2.1	<b>Sewri side</b>		
a.	Package -1	15.17 Ha	Handing over of ROW area and Casting yard area from MbPT by Jan 2018
2.2	<b>Navi Mumbai Side</b>		
a.	Package -2	15 Ha	Both casting yard areas are being handed over by CIDCO to MMRDA.
b.	Package -3	11 Ha	
	<b>Total Area for Casting Yards</b>	<b>42.17 Ha</b>	

# **ANNEXURE II PROCUREMENT AND PROJECT STATUS**

**PROCUREMENT AND PROJECT STATUS**

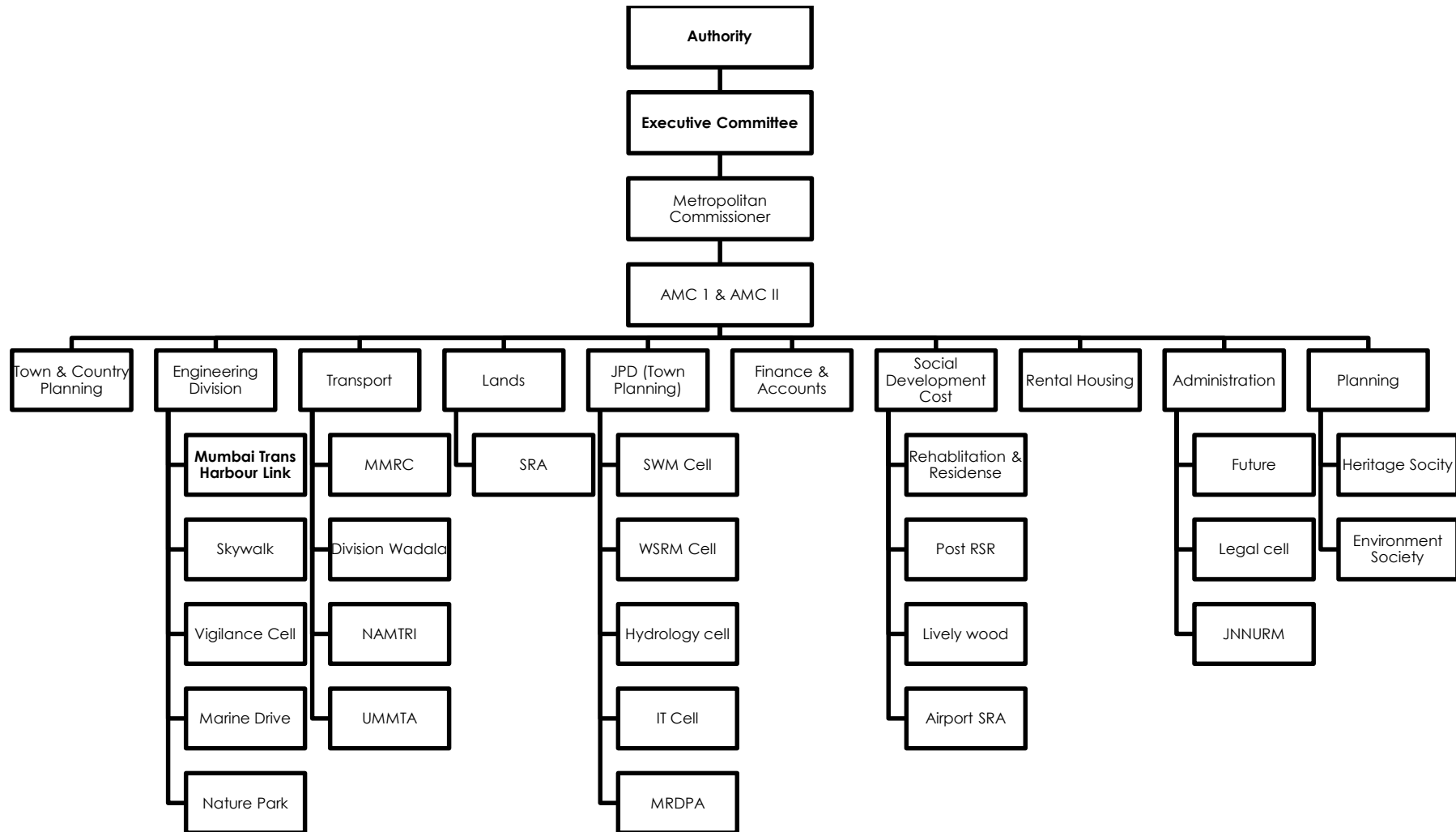
Type	Contract	Awarded or Estimated Value (in Rs. Cr.)	Current Status	Contractors	Award Date/As per PIP -Dec 17	Original Date of completion	Actual/ Projected as per PIP -Dec 17	Physical % complete Dec 17	Present Financial Progress (Up To 31-12-2017)
CIVIL	Package-1 (CH 0+000 km to CH 10+380 km)	7637.30	Award	L&T-IHI (Consortium)	Nov 2017	Jun 2021	May 2022	0%	
	Package-2 (CH 10+380 km to CH18+187 km)	5612.61	Award	DAEWOO-TPL (JV)	Nov 2017	Jun 2021	May 2022	0%	
	Package-3 (CH18+187 – CH21+800)	1013.79	Award	L&T	Nov 2017	Jun 2020	May 2021	0%	
ITS	Package-4 Intelligent Transport System	144.26	Design Stage	--	Jul 2020	Jun 2021	May 2022	0%	

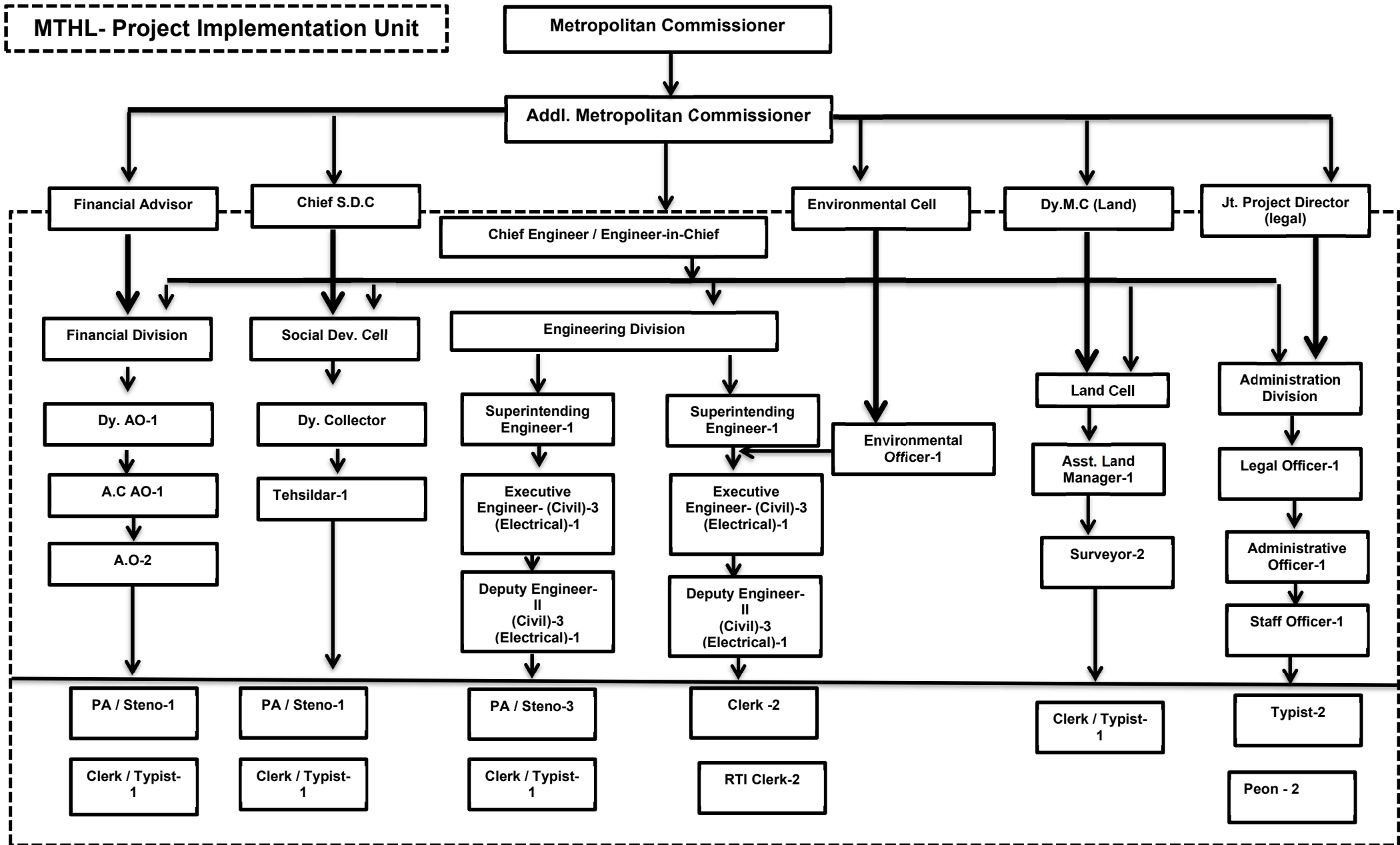
# **ANNEXURE III**

# **ORGANIZATION CHART**

(MMRDA Organization chart)

**MMRDA Organization chart**







# **ANNEXURE IV JICA'S CONCURRENCE STATUS**

### JICA'S CONCURRENCE STATUS

Sl. No.	Brief description	Procurement procedure	Bid Cost		JICA's Concurrence on					
			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 2106	JICA's Concurrence - 22nd Dec 2016	JICA's Concurrence -4th Jan 2017	JICA's Concurrence -12th Sep 2017	JICA's Concurrence - 12th Oct 2017	
2.	Package-2 (CH 10+380 km to CH18+187 km)	ICB with PQ (2P)	5612.61	5612.61	JICA's Concurrence -9th May 2106	JICA's Concurrence - 22nd Dec 2016	JICA's Concurrence -4th Jan 2017	JICA's Concurrence -12th Sep 2017	JICA's Concurrence - 12th Oct 2017	
3.	Package-3 (CH18+187 to CH21+800)	ICB with PQ (2P)	1013.79	1013.79	JICA's Concurrence -9th May 2106	JICA's Concurrence -4th Jan 2017	JICA's Concurrence -4th Jan 2017	JICA's Concurrence -15th Sep 2017	JICA's Concurrence - 12th Oct 2017	
4.	Packag-4 Intelligent Transport System	ICB with PQ (2P)	144.26	144.26	-	-	-			

**ANNEXURE V**  
**GC STAFF DEPLOYMENT POSITION**  
**1st October 2017 to 31st December**  
**2017**

**GC's Staff Deployment for Oct 2017**

	Organisation	Home Office	Expert's In India	Indian Personnel	Total
PA-1& PA2	AECOM	-	1	2	3
	PADECO	-	6	2	8
	Dar Al-Handasah	-	-	1	1
	T.Y.LIN	-	0	-	-
	Sub-total	0	7	5	12
PB-1, PB2 & PB3	AECOM	-	-	6	6
	PADECO	-	-	7	7
	Dar Al-Handasah	-	-	-	-
	T.Y.LIN	-	-	-	-
	Sub-total	0	0	13	13
Support Person	AECOM	-	-	3	3
	PADECO	-	-	5	5
	Dar Al-Handasah	-	-	-	-
	T.Y.LIN	-	-	-	-
	Sub-total	0	0	8	8
<b>Total</b>		<b>0</b>	<b>7</b>	<b>26</b>	<b>33</b>

**GC's Staff Deployment for Nov 2017**

	Organisation	Home Office	Expert's In India	Indian Personnel	Total
PA-1& PA2	AECOM	-	1	2	3
	PADECO	-	3	2	5
	Dar Al-Handasah	-	-	1	1
	T.Y.LIN	-	-	-	-
	Sub-total	0	4	5	9
PB-1, PB2 & PB3	AECOM	-	-	6	6
	PADECO	-	-	7	7
	Dar Al-Handasah	-	-	-	-
	T.Y.LIN	-	-	-	-
	Sub-total	0	0	13	13
Support Person	AECOM	-	-	3	3
	PADECO	-	-	5	5
	Dar Al-Handasah	-	-	-	-
	T.Y.LIN	-	-	-	-
	Sub-total	0	0	8	8
<b>Total</b>		<b>0</b>	<b>4</b>	<b>26</b>	<b>30</b>

**GC's Staff Deployment for Dec 2017**

	Organisation	Home Office	Expert's In India	Indian Personnel	Total
<b>PA-1&amp; PA2</b>	AECOM	-	3	2	5
	PADECO	-	6	1	7
	Dar Al-Handasah	-	-	1	1
	T.Y.LIN	-	0	0	0
	<b>Sub-total</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>13</b>
<b>PB-1, PB2 &amp; PB3</b>	AECOM	-	0	7	7
	PADECO	-	0	7	7
	Dar Al-Handasah	-	0	0	0
	T.Y.LIN	-	0	0	0
	<b>Sub-total</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>
<b>Support Person</b>	AECOM	-		3	3
	PADECO	-	-	6	6
	Dar Al-Handasah	-	-	-	0
	T.Y.LIN	-	-	-	0
	<b>Sub-total</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>9</b>
	<b>Total</b>	<b>0</b>	<b>9</b>	<b>27</b>	<b>36</b>

# **ANNEXURE VI PROJECT PROGRESS PHOTOS**



Material for Package 2 Casting Yard Fencing Site 24/11/2017



MMRDA & MTHL-GC attend the Seminar on Procurement of JICA ODI Loan at Delhi



Hypack Navigation Software - National Institute Of Oceanography (NIO) 18/11/2017



Bathymetry Survey (NIO) 19/11/2017





Magnetic Survey-NIO 20/11/2017



Seismic Reflection-Chirpsonar-Sub Bottom Profile System –NIO 20/11/2017



Survey Close To Sewdi Side Mudflats and Mangroves-25/11/2017



Survey Close To Nahava Side Mudflats and Mangroves-23/11/2017



Package-1 &3 Kick-off Meeting with MMRDA, MTHL-GC, L&T IHI 13/12/2017



Package-1 &3 Kick-off Meeting with MMRDA, MTHL-GC, L&T IHI 13/12/2017



Package-2 Kick-off Meeting with MMRDA, MTHL-GC, DAWOO AND TPL 15/12/2017



Package-2 Kick-off Meeting with MMRDA, MTHL-GC, DAWOO AND TPL 15/12/2017



Honourable Chief Minister of Maharashtra **Mr. Devendra Fadnavis** and Honourable Japan's Minister of Land, Infrastructure, Transport and Tourism, **Mr. Keiichi ISHII** present on the occasion of Contract Sign for Package-1&3 with MMRDA, MTHL-GC, L&T IHI 26/12/2017



Honourable Chief Minister of Maharashtra **Mr. Devendra Fadnavis** and Honourable Japan's Minister of Land, Infrastructure, Transport and Tourism, **Mr. Keiichi ISHII** present on the occasion of Contract Sign for Package-1&3 with MMRDA, MTHL-GC, L&T IHI 26/12/2017

**ANNEXURE VI  
PROJECT IMPLEMENTATION  
PROGRAMME  
AND  
UPDATED PROGRESS UP TO 31<sup>ST</sup> DEC 2017**

Activity ID	Activity Name	Duration in Days	BL Project Start	BL Project Finish	Start	Finish	Activity % Complete	2017				2018				2019				2020				2021				2022				2023				2024				2025
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
<b>Mumbai Trans Harbour Link (MTHL) PIP (TA-Stage)</b>																																								
<b>Milestones</b>																																								
<b>MTHL-GC</b>																																								
A1000	Commencement of GC Services	0	30-Jun-17		14-Dec-16 A		100%																																	
A1020	Completion of GC Services	0		15-Jun-24		04-Jul-24	0%																																	
<b>Package of Civil &amp; ITS</b>																																								
A2750	Package-3 Completion & Handover to MMRDA	0		14-Jun-21		01-Jul-21	0%																																	
A2730	Package-1 Completion & Handover to MMRDA	0		15-Jun-22		02-Jul-22	0%																																	
A2740	Package-2 Completion & Handover to MMRDA	0		15-Jun-22		04-Jul-22	0%																																	
A2760	Package-4 Completion & Handover to MMRDA	0		16-Jun-22		05-Jul-22	0%																																	
A2770	Commercial Operation Date	0		16-Jun-22		05-Jul-22	0%																																	
<b>GC's Regular Progress Report &amp; Status Reports</b>																																								
A2790	Monthly Reports	1630	25-Jul-17	08-Oct-22	25-Jul-17 A	08-Oct-22	8.35%																																	
A2800	Quarterly Reports	1545	25-Jul-17	01-Jul-22	25-Jul-17 A	09-Jul-22	8.35%																																	
A2870	Special occurrence report Monthly, Quarterly & Annual Reports	1545	25-Jul-17	01-Jul-22	25-Jul-17 A	09-Jul-22	8.35%																																	
A2810	Annual Reports	1400	14-Dec-17	04-Jun-22	01-Jan-18	22-Jun-22	0%																																	
A2820	Supervision Reports	1407	30-Nov-17	29-May-22	01-Jan-18	30-Jun-22	0%																																	
A2830	Engineering Reports	1407	30-Nov-17	29-May-22	01-Jan-18	30-Jun-22	0%																																	
A2840	Draft Final Reports	365	24-Oct-20	24-Dec-21	12-Nov-20	12-Jan-22	0%																																	
A2850	Final Reports	365	10-Apr-21	10-Jun-22	29-Apr-21	29-Jun-22	0%																																	
A2860	Completion reports	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
<b>Preparation/ Finalization of O&amp;M Manuals by GC</b>																																								
A2780	Civil Works Manual including offshore and On shore	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
A2880	Signalling / Traffic Control Manual	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
A2890	Intelligent Transport Systems (ITS) Manual	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
A2900	Commercial Manual	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
A2910	Operating Manual	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
A2920	Accident and Safety Manual	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
A2930	Disaster Management Manual	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
A2940	General Electrical Services and Equipment Manual	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
A2950	Safety, Health and Environmental Manual	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
A2960	Quality Assurance Manual	180	18-Nov-21	16-Jun-22	07-Dec-21	05-Jul-22	0%																																	
<b>Tender Assistance stage</b>																																								
<b>Package-1</b>																																								
A1040	Tender Assistant Leading Team	328	14-Dec-16	28-Dec-17	14-Dec-16 A	01-Jan-18	100%																																	
<b>Tender Assistant</b>																																								
A1030	Tender Document Review	40	14-Dec-16	29-Jan-17	14-Dec-16 A	29-Jan-17 A	100%																																	
A1050	Pre bid Meeting	1	30-Jan-17	31-Jan-17	30-Jan-17 A	31-Jan-17 A	100%																																	
<b>Addendum -1</b>																																								
A1060	Preparing the Tender Pre Bid Quarry 1st Set replay	30	31-Jan-17	07-Mar-17	31-Jan-17 A	05-Apr-17 A	100%																																	
A1080	Preparing the Tender Addenda -1 Contractual Part	30	31-Jan-17	07-Mar-17	31-Jan-17 A	07-Mar-17 A	100%																																	
A1070	Preparing the Tender Addenda -1 Technical Part	30	31-Jan-17	07-Mar-17	08-Feb-17 A	07-Mar-17 A	100%																																	
A1090	Tender Addenda -1 Submitting to MTHL-PIU/JICA	24	07-Mar-17	04-Apr-17	07-Mar-17 A	29-Apr-17 A	100%																																	
A1100	Reviewing Tender Addenda -1 byMTHL-PIU/JICA	24	04-Apr-17	02-May-17	29-Apr-17 A	24-May-17 A	100%																																	
<b>Addendum -2</b>																																								
A1110	Preparing the Tender Pre Bid Quarry 2nd Set replay	21	07-Apr-17	02-May-17	07-Apr-17 A	25-May-17 A	100%																																	

█ Actual Work      █ Remaining Work      █ Critical Remaining Work  
▬ Summary  
◆ Milestone

Project Implementation Programme Progress Updated up to 31st Dec 2017

Date	Revision	C...	Approved
30-J...	Progress Updated up to 30 Jun ...	JS	TL
30-S...	Progress Updated up to 30 Sep ...	JS	TL
31-D...	Progress Updated up to 31 Dec ...	JS	TL

Activity ID	Activity Name	Duration in Days	BL Project Start	BL Project Finish	Start	Finish	Activity % Complete	2017				2018				2019				2020				2021				2022				2023				2024				2025
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1				
A1120	Preparing the Tender Addenda -2 Technical Part	21	15-Apr-17	10-May-17	15-Apr-17 A	10-May-17 A	100%																																	
A1130	Preparing the Tender Addenda -2 Contractual Part	21	15-Apr-17	10-May-17	15-Apr-17 A	10-May-17 A	100%																																	
A1140	Tender Addenda -2 Submitting to MTHL-PIU/JICA	12	10-May-17	24-May-17	10-May-17 A	01-Jun-17 A	100%																																	
A1150	Reviewing Tender Addenda -2 by MTHL-PIU/JICA	12	24-May-17	07-Jun-17	24-May-17 A	01-Jun-17 A	100%																																	
<b>Addendum -3,4&amp;5</b>		<b>40</b>	<b>22-May-17</b>	<b>07-Jul-17</b>	<b>22-May-17 A</b>	<b>05-Jul-17 A</b>																																		
A1160	Preparing the Tender Pre Bid Quarry 3rd Set replay	14	22-May-17	07-Jun-17	22-May-17 A	22-Jun-17 A	100%																																	
A1170	Preparing the Tender Addenda -3 Technical Part	14	30-May-17	15-Jun-17	30-May-17 A	15-Jun-17 A	100%																																	
A1180	Preparing the Tender Addenda -3 Contractual Part	14	30-May-17	15-Jun-17	30-May-17 A	15-Jun-17 A	100%																																	
A1190	Tender Addenda -3,4&5 Submitting to MTHL-PIU/JICA	6	15-Jun-17	22-Jun-17	15-Jun-17 A	22-Jun-17 A	100%																																	
A1200	Reviewing Tender Addenda -3,4&5 by MTHL-PIU/JICA	12	22-Jun-17	06-Jul-17	22-Jun-17 A	28-Jun-17 A	100%																																	
A1210	Addendum-3,4&5 Issued to Bidders (including Addendum & Extension)	1	06-Jul-17	07-Jul-17	28-Jun-17 A	05-Jul-17 A	100%																																	
<b>Bid submission to MTHL &amp; Technical Bid Opening</b>		<b>14</b>	<b>30-Jun-17</b>	<b>17-Jul-17</b>	<b>30-Jun-17 A</b>	<b>17-Jul-17 A</b>																																		
A1220	Bid submission to MTHL & Technical Bid Opening	14	30-Jun-17	17-Jul-17	30-Jun-17 A	17-Jul-17 A	100%																																	
<b>Technical Evaluation</b>		<b>42</b>	<b>25-Jul-17</b>	<b>12-Sep-17</b>	<b>19-Jul-17 A</b>	<b>12-Sep-17 A</b>																																		
A2590	Envelop A for Tender Fee & EMD is opened	2	25-Jul-17	26-Jul-17	19-Jul-17 A	21-Jul-17 A	100%																																	
A2990	Stage-1,2 & 3 Evaluation	14	25-Jul-17	10-Aug-17	21-Jul-17 A	04-Aug-17 A	100%																																	
A2970	Envelop B Technical Bid are opened	0	26-Jul-17	26-Jul-17	25-Jul-17 A	25-Jul-17 A	100%																																	
A2980	Stage-4 Evaluation (Technical)	26	25-Jul-17	24-Aug-17	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	07-Aug-17	31-Jul-17 A	19-Aug-17 A	100%																																	
A3000	Evaluation Final Report (Technical ) Submitting to MTHL-PIU/JICA	6	24-Aug-17	31-Aug-17	18-Aug-17 A	22-Aug-17 A	100%																																	
A1270	Evaluation Reports (Technical ) Approved by MTHL-PIU/JICA	10	31-Aug-17	12-Sep-17	31-Aug-17 A	12-Sep-17 A	100%																																	
<b>Financial Evaluation</b>		<b>36</b>	<b>12-Sep-17</b>	<b>24-Oct-17</b>	<b>12-Sep-17 A</b>	<b>09-Nov-17 A</b>																																		
A1250	Envelop C Financial Bid Opening Stage-5	0	12-Sep-17	12-Sep-17	12-Sep-17 A	12-Sep-17 A	100%																																	
A1280	Bid Evaluation Report ( Financial)	12	12-Sep-17	26-Sep-17	12-Sep-17 A	26-Sep-17 A	100%																																	
A1290	Tender Committee approval by MTHL-PIU/JICA	7	26-Sep-17	04-Oct-17	26-Sep-17 A	27-Sep-17 A	100%																																	
A1300	Evaluation Reports ( Financial) approved by JICA	10	12-Oct-17	24-Oct-17	28-Sep-17 A	12-Oct-17 A	100%																																	
A3010	Management Committee approval by MTHL-PIU/JICA	10	30-Sep-17	12-Oct-17	30-Sep-17 A	09-Nov-17 A	100%																																	
<b>Tender Award</b>		<b>58</b>	<b>25-Oct-17</b>	<b>28-Dec-17</b>	<b>25-Oct-17 A</b>	<b>01-Jan-18</b>																																		
A1260	GC Preparing LOA for Successful Bidder	6	25-Oct-17	01-Nov-17	25-Oct-17 A	01-Nov-17 A	100%																																	
A1310	Finalization and Award of Contract by MMRDA	21	01-Nov-17	25-Nov-17	01-Nov-17 A	16-Nov-17 A	100%																																	
A1320	MMRDA Issue LOA to Successful Bidder	0	25-Nov-17	25-Nov-17	17-Nov-17 A	17-Nov-17 A	100%																																	
A1530	Contract Agreement	24	30-Nov-17	28-Dec-17	17-Nov-17 A	26-Dec-17 A	100%																																	
A1560	Notice to Commencement of Work	0	15-Dec-17	15-Dec-17	01-Jan-18	01-Jan-18	0%																																	

- Actual Work      Summary
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

**Project Implementation Programme Progress Updated up to 31st Dec 2017**

Date	Revision	C...	Approved
30-J...	Progress Updated up to 30 Jun ...	JS	TL
30-S...	Progress Updated up to 30 Sep ...	JS	TL
31-D...	Progress Updated up to 31 Dec ...	JS	TL



Activity ID	Activity Name	Duration in Days	BL Project Start	BL Project Finish	Start	Finish	Activity % Complete	2017				2018				2019				2020				2021				2022				2023				2024				2025
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
<b>Package-2</b>																																								
<b>Tender Assistant</b>																																								
A1330	Tender Document Review	40	14-Dec-16	29-Jan-17	14-Dec-16 A	29-Jan-17 A	100%																																	
A1340	Tender Assistant Leading Team	41	14-Dec-16	31-Jan-17	14-Dec-16 A	31-Jan-17 A	100%																																	
A1350	Pre bid Meeting	1	30-Jan-17	31-Jan-17	30-Jan-17 A	31-Jan-17 A	100%																																	
<b>Addendum -1</b>																																								
A1360	Preparing the Tender Pre Bid Quarry 1st Set replay	30	31-Jan-17	07-Mar-17	31-Jan-17 A	05-Apr-17 A	100%																																	
A1370	Preparing the Tender Addenda -1 Technical Part	30	31-Jan-17	07-Mar-17	31-Jan-17 A	07-Mar-17 A	100%																																	
A1380	Preparing the Tender Addenda -1 Contractual Part	30	31-Jan-17	07-Mar-17	31-Jan-17 A	07-Mar-17 A	100%																																	
A1390	Tender Addenda -1 Submitting to MTHL-PIU/JICA	24	07-Mar-17	04-Apr-17	07-Mar-17 A	29-Apr-17 A	100%																																	
A1400	Reviewing Tender Addenda -1 by MTHL-PIU/JICA	24	04-Apr-17	02-May-17	29-Apr-17 A	24-May-17 A	100%																																	
<b>Addendum -2</b>																																								
A1410	Preparing the Tender Pre Bid Quarry 2nd Set replay	21	07-Apr-17	02-May-17	07-Apr-17 A	25-May-17 A	100%																																	
A1420	Preparing the Tender Addenda -2 Technical Part	21	15-Apr-17	10-May-17	15-Apr-17 A	10-May-17 A	100%																																	
A1430	Preparing the Tender Addenda -2 Contractual Part	21	15-Apr-17	10-May-17	15-Apr-17 A	10-May-17 A	100%																																	
A1440	Tender Addenda -2 Submitting to MTHL-PIU/JICA	12	10-May-17	24-May-17	10-May-17 A	01-Jun-17 A	100%																																	
A1450	Reviewing Tender Addenda -2 by MTHL-PIU/JICA	12	24-May-17	07-Jun-17	24-May-17 A	01-Jun-17 A	100%																																	
<b>Addendum -3,4&amp;5</b>																																								
A1460	Preparing the Tender Pre Bid Quarry 3rd Set replay	14	22-May-17	07-Jun-17	22-May-17 A	22-Jun-17 A	100%																																	
A1470	Preparing the Tender Addenda -3,4&5 Technical Part	14	30-May-17	15-Jun-17	30-May-17 A	15-Jun-17 A	100%																																	
A1480	Preparing the Tender Addenda -3,4&5 Contractual Part	14	30-May-17	15-Jun-17	30-May-17 A	15-Jun-17 A	100%																																	
A1490	Tender Addenda -3,4&5 Submitting to MTHL-PIU/JICA	6	15-Jun-17	22-Jun-17	15-Jun-17 A	22-Jun-17 A	100%																																	
A1500	Reviewing Tender Addenda -3,4&5 by MTHL-PIU/JICA	12	22-Jun-17	06-Jul-17	22-Jun-17 A	28-Jun-17 A	100%																																	
A1510	Addendum-3,4&5 Issued to Bidders (including Addendum & Extension)	1	06-Jul-17	07-Jul-17	28-Jun-17 A	05-Jul-17 A	100%																																	
<b>Bid submission to MTHL &amp; Technical Bid Opening</b>																																								
A1520	Bid submission to MTHL & Technical Bid Opening	14	30-Jun-17	17-Jul-17	30-Jun-17 A	17-Jul-17 A	100%																																	
<b>Technical Evaluation</b>																																								
A3170	Envelop A for Tender Fee & EMD is opened	2	25-Jul-17	26-Jul-17	19-Jul-17 A	21-Jul-17 A	100%																																	
A3180	Stage-1,2 & 3 Evaluation	14	25-Jul-17	10-Aug-17	21-Jul-17 A	04-Aug-17 A	100%																																	
A3190	Envelop B Technical Bid are opened	0	26-Jul-17	26-Jul-17	25-Jul-17 A	25-Jul-17 A	100%																																	
A3200	Stage-4 Evaluation (Technical)	26	28-Jul-17	28-Aug-17	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	16-Aug-17	08-Aug-17 A	19-Aug-17 A	100%																																	
A3220	Evaluation Final Report (Technical ) Submitting to MTHL-PIU/JICA	6	28-Aug-17	04-Sep-17	18-Aug-17 A	22-Aug-17 A	100%																																	

■ Actual Work      ▼ Summary  
■ Remaining Work  
■ Critical Remaining Work  
◆ Milestone

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Activity ID	Activity Name	Duration in Days	BL Project Start	BL Project Finish	Start	Finish	Activity % Complete	2017	2018	2019	2020	2021	2022	2023	2024	2025
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
A1780	Tender Addenda -3,4&5 Submitting to MTHL-PIU/JICA	6	15-Jun-17	22-Jun-17	15-Jun-17 A	22-Jun-17 A	100%									
A1790	Reviewing Tender Addenda -3,4&5 by MTHL-PIU/JICA	12	22-Jun-17	06-Jul-17	22-Jun-17 A	28-Jun-17 A	100%									
A1800	Addendum-3,4&5 Issued to Bidders (including Addendum & Extension)	1	06-Jul-17	07-Jul-17	28-Jun-17 A	05-Jul-17 A	100%									
<b>Bid submission to MTHL &amp; Technical Bid Opening</b>		<b>14</b>	<b>01-Jul-17</b>	<b>18-Jul-17</b>	<b>01-Jul-17 A</b>	<b>17-Jul-17 A</b>										
A1810	Bid submission to MTHL & Technical Bid Opening	14	01-Jul-17	18-Jul-17	01-Jul-17 A	17-Jul-17 A	100%									
<b>Technical Evaluation</b>		<b>40</b>	<b>25-Jul-17</b>	<b>09-Sep-17</b>	<b>19-Jul-17 A</b>	<b>09-Sep-17 A</b>										
A3240	Envelop A for Tender Fee & EMD is opened	2	25-Jul-17	26-Jul-17	19-Jul-17 A	21-Jul-17 A	100%									
A3250	Stage-1,2 & 3 Evaluation	14	25-Jul-17	10-Aug-17	21-Jul-17 A	09-Aug-17 A	100%									
A3260	Envelop B Technical Bid are opened	0	26-Jul-17	26-Jul-17	25-Jul-17 A	25-Jul-17 A	100%									
A3270	Stage-4 Evaluation (Technical)	24	01-Aug-17	29-Aug-17	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	18-Aug-17	10-Aug-17 A	19-Aug-17 A	100%									
A3290	Evaluation Final Report (Technical ) Submitting to MTHL-PIU/JICA	7	29-Aug-17	05-Sep-17	17-Aug-17 A	22-Aug-17 A	100%									
A3300	Evaluation Reports (Technical ) Approved by MTHL-PIU/JICA	8	31-Aug-17	09-Sep-17	31-Aug-17 A	09-Sep-17 A	100%									
<b>Financial Evaluation</b>		<b>37</b>	<b>11-Sep-17</b>	<b>24-Oct-17</b>	<b>11-Sep-17 A</b>	<b>09-Nov-17 A</b>										
A1830	Envelop C Financial Bid Opening Stage-5	0	11-Sep-17	11-Sep-17	11-Sep-17 A	11-Sep-17 A	100%									
A1860	Bid Evaluation Report ( Financial)	12	11-Sep-17	24-Sep-17	11-Sep-17 A	24-Sep-17 A	100%									
A1870	Tender Committee approval by MTHL-PIU/JICA	7	25-Sep-17	03-Oct-17	25-Sep-17 A	28-Sep-17 A	100%									
A1880	Evaluation Reports ( Financial) approved by JICA	10	12-Oct-17	24-Oct-17	28-Sep-17 A	12-Oct-17 A	100%									
A3090	Management Committee approval by MTHL-PIU/JICA	10	30-Sep-17	12-Oct-17	30-Sep-17 A	09-Nov-17 A	100%									
<b>Tender Award</b>		<b>58</b>	<b>25-Oct-17</b>	<b>28-Dec-17</b>	<b>25-Oct-17 A</b>	<b>01-Jan-18</b>										
A1840	GC Preparing LOA for Successful Bidder	6	25-Oct-17	01-Nov-17	25-Oct-17 A	01-Nov-17 A	100%									
A1890	Finalization and Award of Contract by MMRDA	21	01-Nov-17	25-Nov-17	01-Nov-17 A	16-Nov-17 A	100%									
A1900	MMRDA Issue LOA to Successful Bidder	0	25-Nov-17	25-Nov-17	17-Nov-17 A	17-Nov-17 A	100%									
A3020	Contract Agreement	24	30-Nov-17	28-Dec-17	17-Nov-17 A	26-Dec-17 A	100%									
A3030	Notice to Commencement of Work	0	15-Dec-17	15-Dec-17	01-Jan-18	01-Jan-18	0%									
<b>Package-4</b>		<b>876</b>	<b>25-Oct-17</b>	<b>26-Jul-20</b>	<b>25-Oct-17 A</b>	<b>12-Aug-20</b>										
<b>GC Tender Assistance Activities - Prequalification</b>		<b>280</b>	<b>25-Oct-17</b>	<b>15-Aug-18</b>	<b>25-Oct-17 A</b>	<b>16-Sep-18</b>										
A2580	GC to Prepare PQ Applications Including MMRDAS/JICA Approval	90	25-Oct-17	07-Feb-18	25-Oct-17 A	20-Mar-18	25%									
A2550	MMRDA to Invite PQ Applications (including Addendum & Extension)	60	16-Feb-18	17-Apr-18	20-Mar-18	19-May-18	0%									
A2560	GC to Evaluate PQ Applications and Prepare PQ Evaluation Report	60	17-Apr-18	16-Jun-18	19-May-18	18-Jul-18	0%									
A2570	MMRDA & JICA Approve PQ Evaluation Report	60	16-Jun-18	15-Aug-18	18-Jul-18	16-Sep-18	0%									
<b>GC Tender Assistance Activities - Bidding</b>		<b>528</b>	<b>14-Feb-19</b>	<b>26-Jul-20</b>	<b>03-Mar-19</b>	<b>12-Aug-20</b>										
P4-010	GC to Prepare Bidding Documents Including MMRDAS/JICA Approval	180	14-Feb-19	13-Aug-19	03-Mar-19	30-Aug-19	0%									
P4-1000	MMRDA to Invite Bids	0	13-Aug-19		30-Aug-19		0%									
P4-1010	Pre Bid Meeting	0	09-Sep-19		26-Sep-19		0%									
P4-1020	Pre Bid Queries submissions final	75	09-Sep-19	23-Nov-19	26-Sep-19	10-Dec-19	0%									
P4-1030	Addendum Preparation	60	02-Oct-19	01-Dec-19	19-Oct-19	18-Dec-19	0%									
P4-1040	Addendum Submission to MTHL-PIU/JICA	60	16-Oct-19	15-Dec-19	02-Nov-19	01-Jan-20	0%									
P4-1050	Addendum Approved by MTHL-PIU/JICA	60	23-Oct-19	22-Dec-19	09-Nov-19	08-Jan-20	0%									
P4-1060	Addendum Issued to Bidders (including Addendum & Extension)	60	30-Oct-19	29-Dec-19	16-Nov-19	15-Jan-20	0%									

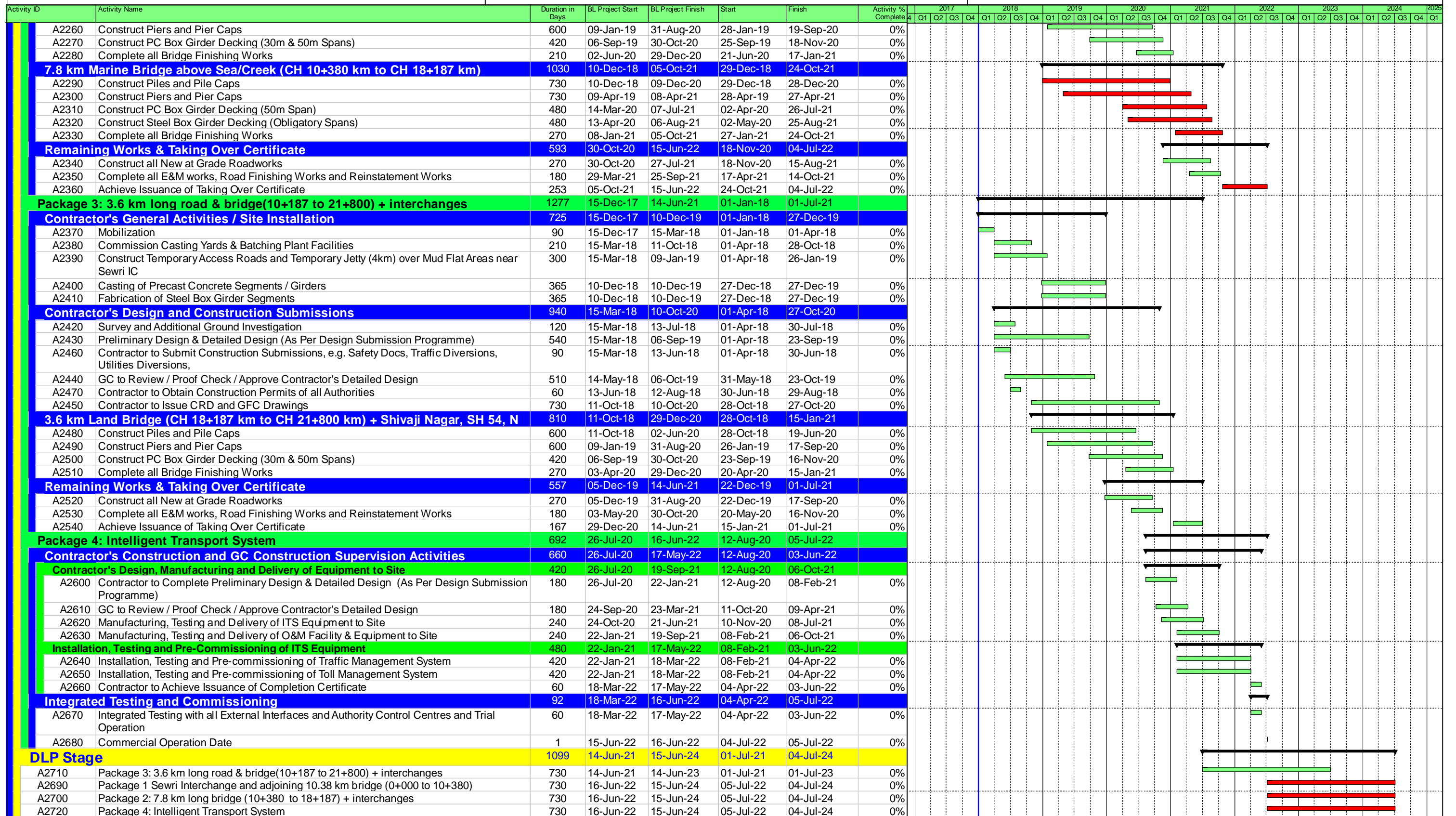
█ Actual Work	↔ Summary
█ Remaining Work	
█ Critical Remaining Work	
◆ Milestone	

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30-S...	Progress Updated up to 30 Sep ...	JS	TL
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Activity ID	Activity Name	Duration in Days	BL Project Start	BL Project Finish	Start	Finish	Activity % Complete	2017				2018				2019				2020				2021				2022				2023				2024				2025
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
P4-1070	Bid submission to MTHL & Technical Bid Opening	0		12-Jan-20		29-Jan-20	0%																																	
P4-1080	Evaluate Bids, Prepare Bid Evaluation Report (Technical)	45	13-Jan-20	27-Feb-20	30-Jan-20	15-Mar-20	0%																																	
P4-1090	Evaluation Reports (Technical) Approved by MTHL-PIU/JICA	45	12-Feb-20	28-Mar-20	29-Feb-20	14-Apr-20	0%																																	
P4-1100	Financial Bid Opening	0		28-Mar-20		14-Apr-20	0%																																	
P4-1110	Evaluate Bids, Prepare Bid Evaluation Report (Financial)	30	29-Mar-20	28-Apr-20	15-Apr-20	15-May-20	0%																																	
P4-1120	Tender Committee approval by MTHL-PIU/JICA	30	28-Apr-20	28-May-20	15-May-20	14-Jun-20	0%																																	
P4-1130	Evaluation Reports (Financial) approved by JICA	30	28-May-20	27-Jun-20	14-Jun-20	14-Jul-20	0%																																	
P4-1140	MMRDA Issue LOA to Successful Bidder	1	27-Jun-20	28-Jun-20	14-Jul-20	15-Jul-20	0%																																	
P4-1150	Works Commencement	14	28-Jun-20	12-Jul-20	15-Jul-20	29-Jul-20	0%																																	
P4-1160	Prepare Contract Agreement & MMRDA/Contractor to Sign CA	28	28-Jun-20	26-Jul-20	15-Jul-20	12-Aug-20	0%																																	
<b>Construction Stage</b>		1646	15-Dec-17	16-Jun-22	01-Jan-18	05-Jul-22																																		
<b>Package 1 Sewri Interchange and adjoining 10.38 km bridge (0+000 to 10+380)</b>		1643	15-Dec-17	15-Jun-22	01-Jan-18	02-Jul-22																																		
<b>Contractor's General Activities / Site Installation</b>		1090	15-Dec-17	09-Dec-20	01-Jan-18	26-Dec-20																																		
A1910	Mobilization	90	15-Dec-17	15-Mar-18	01-Jan-18	01-Apr-18	0%																																	
A1920	Commission Casting Yards & Batching Plant Facilities	210	15-Mar-18	11-Oct-18	01-Apr-18	28-Oct-18	0%																																	
A1930	Construct Temporary Access Roads and Temporary Jetty (4km) over Mud Flat Areas near Sewri IC	300	15-Mar-18	09-Jan-19	01-Apr-18	26-Jan-19	0%																																	
A1940	Casting of Precast Concrete Segments / Girders	730	10-Dec-18	09-Dec-20	27-Dec-18	26-Dec-20	0%																																	
A1950	Fabrication of Steel Box Girder Segments	730	10-Dec-18	09-Dec-20	27-Dec-18	26-Dec-20	0%																																	
<b>Contractor's Design and Construction Submissions</b>		575	15-Mar-18	11-Oct-19	01-Apr-18	28-Oct-19																																		
A2000	Survey and Additional Ground Investigation	120	15-Mar-18	13-Jul-18	01-Apr-18	30-Jul-18	0%																																	
A2010	Preliminary Design & Detailed Design (As Per Design Submission Programme)	365	15-Mar-18	15-Mar-19	01-Apr-18	01-Apr-19	0%																																	
A2040	Contractor to Submit Construction Submissions, e.g. Safety Docs, Traffic Diversions, Utilities Diversions,	90	15-Mar-18	13-Jun-18	01-Apr-18	30-Jun-18	0%																																	
A2020	Review / Proof Check / Approve Contractor's Detailed Design	365	14-May-18	14-May-19	31-May-18	31-May-19	0%																																	
A2050	Contractor to Obtain Construction Permits of all Authorities	60	13-Jun-18	12-Aug-18	30-Jun-18	29-Aug-18	0%																																	
A2030	Issue CRD and GFC Drawings	365	11-Oct-18	11-Oct-19	28-Oct-18	28-Oct-19	0%																																	
<b>Sewri Access Ramps/Viaducts &amp; Sewri Interchange on Land on Mumbai Side</b>		930	11-Oct-18	28-Apr-21	28-Oct-18	15-May-21																																		
A1960	Construct Piles and Pile Caps	600	11-Oct-18	02-Jun-20	28-Oct-18	19-Jun-20	0%																																	
A1970	Construct Piers and Pier Caps	600	09-Jan-19	31-Aug-20	26-Jan-19	17-Sep-20	0%																																	
A1980	Construct PC Box Girder Decking (30m & 50m Spans)	548	29-Aug-19	27-Feb-21	15-Sep-19	16-Mar-21	0%																																	
A1990	Complete all Bridge Finishing Works	210	30-Sep-20	28-Apr-21	17-Oct-20	15-May-21	0%																																	
<b>10.38 km Marine Bridge above Sea/Creek (CH 0+000 km to CH 10+380 km)</b>		1030	10-Dec-18	05-Oct-21	27-Dec-18	22-Oct-21																																		
A2060	Contractor to Construct Piles and Pile Caps	730	10-Dec-18	09-Dec-20	27-Dec-18	26-Dec-20	0%																																	
A2070	Contractor to Construct Piers and Pier Caps	730	09-Apr-19	08-Apr-21	26-Apr-19	25-Apr-21	0%																																	
A2080	Contractor to Construct PC Box Girder Decking (50m Span)	480	14-Mar-20	07-Jul-21	31-Mar-20	24-Jul-21	0%																																	
A2090	Contractor to Construct Steel Box Girder Decking (Obligatory Spans)	480	13-Apr-20	06-Aug-21	30-Apr-20	23-Aug-21	0%																																	
A2100	Contractor to Complete all Bridge Finishing Works	270	08-Jan-21	05-Oct-21	25-Jan-21	22-Oct-21	0%																																	
<b>Remaining Works &amp; Taking Over Certificate</b>		473	27-Feb-21	15-Jun-22	16-Mar-21	02-Jul-22																																		
A2110	Contractor to Construct all New at Grade Roadworks	270	27-Feb-21	24-Nov-21	16-Mar-21	11-Dec-21	0%																																	
A2120	Contractor to Complete all E&M works, Road Finishing Works and Reinstatement Works	180	27-Jul-21	23-Jan-22	13-Aug-21	09-Feb-22	0%																																	
A2130	Contractor to Achieve Issuance of Taking Over Certificate	143	23-Jan-22	15-Jun-22	09-Feb-22	02-Jul-22	0%																																	
<b>Package 2: 7.8 km long bridge (10+380 to 18+187) + interchanges</b>		1643	15-Dec-17	15-Jun-22	03-Jan-18	04-Jul-22																																		
<b>Contractor's General Activities / Site Installation</b>		725	15-Dec-17	10-Dec-19	03-Jan-18	29-Dec-19																																		
A2140	Mobilization	90	15-Dec-17	15-Mar-18	03-Jan-18	03-Apr-18	0%																																	
A2150	Commission Casting Yards & Batching Plant Facilities	210	15-Mar-18	11-Oct-18	03-Apr-18	30-Oct-18	0%																																	
A2160	Temporary Access Roads and Temporary Jetty (4km) over Mud Flat Areas near Sewri IC	300	15-Mar-18	09-Jan-19	03-Apr-18	28-Jan-19	0%																																	
A2170	Casting of Precast Concrete Segments / Girders	365	10-Dec-18	10-Dec-19	29-Dec-18	29-Dec-19	0%																																	
A2180	Fabrication of Steel Box Girder Segments	365	10-Dec-18	10-Dec-19	29-Dec-18	29-Dec-19	0%																																	
<b>Contractor's Design and Construction Submissions</b>		940	15-Mar-18	10-Oct-20	03-Apr-18	29-Oct-20																																		
A2190	Survey and Additional Ground Investigation	120	15-Mar-18	13-Jul-18	03-Apr-18	01-Aug-18	0%																																	
A2200	Preliminary Design & Detailed Design (As Per Design Submission Programme)	540	15-Mar-18	06-Sep-19	03-Apr-18	25-Sep-19	0%																																	
A2230	Contractor to Submit Construction Submissions, e.g. Safety Docs, Traffic Diversions, Utilities Diversions,	90	15-Mar-18	13-Jun-18	03-Apr-18	02-Jul-18	0%																																	
A2210	GC to Review / Proof Check / Approve Contractor's Detailed Design	510	14-May-18	06-Oct-19	02-Jun-18	25-Oct-19	0%																																	
A2240	Contractor to Obtain Construction Permits of all Authorities	60	13-Jun-18	12-Aug-18	02-Jul-18	31-Aug-18	0%																																	
A2220	Contractor to Issue CRD and GFC Drawings	730	11-Oct-18	10-Oct-20	30-Oct-18	29-Oct-20	0%																																	
<b>Shivaji Nagar Interchange &amp; Viaducts on Land on Navi Mumbai Side</b>		810	11-Oct-18	29-Dec-20	30-Oct-18	17-Jan-21																																		
A2250	Construct Piles and Pile Caps	600	11-Oct-18	02-Jun-20	30-Oct-18	21-Jun-20	0%																																	

█ Actual Work
 ▶ Summary
 █ Remaining Work
 █ Critical Remaining Work
 ◆ Milestone

Date	Revision	C...	Approved
30-J...	Progress Updated up to 30 Jun ...	JS TL	
30-S...	Progress Updated up to 30 Sep ...	JS TL	
31-D...	Progress Updated up to 31 Dec ...	JS TL	



█ Actual Work     █ Remaining Work     █ Critical Remaining Work  
◆ Milestone     █ Summary

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Date	Revision	C...	Approved
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