Date: 10/03/2021

No. MMRDA/MTHL-PIU/CRZ/HYR-10/ 0184 /2021

To, The Sub Regional (Taloja) Nirmal Bhawan, 3rd& 4th floor, Plot No. P-3, MIDC Industrial Area, Near Ghansoli Railway Station, Mahape, Navi Mumbai - 400701

Sub: Mumbai Trans Harbour Link Project

Submission of Six-monthly compliance report (July to December 2020) of CRZ Clearance for the project

Ref: CRZ Clearance Letter No.: F. No. 11-65/2012-IA.III dated 25th January, 2016

Sir/Madam,

- 1. The Mumbai Trans Harbour Link Project has received CRZ clearance vide the letter referred above.
- 2. As stipulated in the CRZ clearance, the six-monthly compliance report for the period of July to December 2020 is attached herewith for information.

Thanking You,

Yours faithfully,

(Dr. D. T. Thube Chief Engineer, MTHL-PIU

Encl.: As above



# **Submitted to Maharashtra Pollution Control Board (MPCB)**

Submitted by



## Information of Project officer and Nodal officer

1.	Name of Project officer	Executive Engineer, MTHL- Project Implementation Unit		
	,			
	Email Phone /Fax Number	2 <sup>nd</sup> floor, New Administrative building, MMRDA, Engineering Division, Mumbai Metropolitan Region Development Authority (MMRDA), E-Block, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051 Phone No.: 022-26594034		
2.	Name of Nodal officers	Chief Engineer, MTHL Project Implementation Unit		
		2 <sup>nd</sup> floor, New Administrative building, MMRDA,		
		Engineering Division, Mumbai Metropolitan Region		
	Email	Development Authority (MMRDA), E-Block, BKC, Bandra		
		Kurla Complex, Bandra East, Mumbai, Maharashtra 400051		
	Phone /Fax Number	Email: chiefengineer1@mailmmrda.maharashtra.gov.in Phone No.: 022-26594034		

### Photographs showing present progress of work

Please refer to the Quarterly Progress Report No. 13 and 14 for the photographs of the progress

### Monitoring the Implementation of Environmental Safeguards

### Ministry of environmental & Forest Western Region, Regional Office, Bhopal Monitoring Report PART - I

### **DATA SHEET**

No.	Particular		Information
1.	Project type: River Valley / Mining / Industry / Thermal / Nuclear / Others (specify)	:	Infrastructure
2.	Name of the Project	:	Mumbai Trans Harbour Link Project
3.	Clearance letter (s) / OM No. and date	:	F. No. 11-65/2012-IA.III on 25 <sup>th</sup> January, 2016
4.	Location		Start point: Sewri in Mumbai City
	a) District (s)	:	End Point: Chirle in Raigad District
	b) State (s)	:	Maharashtra
	c) Location latitude / longitude	:	Start: Latitude: 18°59'48.57"N Longitude: 72°51'20.67"E
			End: Latitude: 18°56'18.33"N Longitude: 73° 1'52.92"E
5.	Address for	:	Chief Engineer,
	a) Address of the Concerned Project Chief Engineer (with Pin code &		MTHL Project Implementation Unit  2nd floor, New Administrative building, MMRDA, Engineering Division, Mumbai Metropolitan Region
	Telephone / Telex / Fax Numbers)		Development Authority (MMRDA), E-Block, BKC, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051
	b) Address of the Concerned Project Chief Engineer (with Pin code & Telephone / Telex / Fax Numbers)		Phone No.: 022-26594034
6.	Salient features  a) of the Project	:	The proposed Mumbai Trans Harbour Link ('MTHL') is proposed to facilitate decongestion of the island city by improving connectivity between Island city and main land (Navi Mumbai) and development of Navi Mumbai Region.

No.	Particular		Information
			Mumbai Trans Harbour Link Project is 22 km long 6- lane bridge across the Mumbai bay connecting Sewri on Mumbai side to Chirle on Navi Mumbai side.
			<ul> <li>Benefits:</li> <li>Saving in travel time, Vehicle Operating Cost and Fuel Savings</li> <li>Accelerated growth of Navi Mumbai</li> <li>Decongestion of island city of Mumbai</li> <li>Connectivity to MbPT and JNPT Ports</li> <li>Faster access to Navi Mumbai International Airport</li> <li>Connectivity to Pune Expressway and to South India</li> </ul>
	b) of the Environmental Management Plans		Various measures stipulated in the Environmental Management Plan mentioned in the CRZ clearance are being complied.
7.	Breakup of the Project Area	:	Total Area of Right of Way: 120.228 Ha
	a) Submergence area: forest & non forest		Forest area: 47.417 Ha Non-Forest area: 72.811 Ha
	b) Others		
8.	Breakup of the project affected population with the enumeration of those losing Houses / Dwelling units only, Agricultural Land & Landless Laborers / Artisans:  a) SC, ST / Adivasi b) Others (please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out give details & year of survey)	п	Project affected population: Please refer to the Quarterly Progress Report No. 13 and 14 for the project affected population.
9	Financial Details: Project	:	The total cost of the project is Rs. 17,843 Crore
a)	cost as originally planned and subsequent revised estimates and the year of price reference		Year of reference: 2016
b)	Allocation made for	:	Allocation of Rs. 335 Crore has been made for the

No.	Particular		Information
	environmental management plans with item wise and year wise breakup		implementation of Environment Management Plan for the MTHL project.  The item-wise cost breakup of the EMP is attached as <b>Annexure-II.</b>
c)	Benefit cost ratio/Internal rate of Return and the year of assessment		-
d)	Whether (c)includes the cost of environmental management as shown in the above		-
e)	Actual expenditure incurred on the project so far	:	Rs. 6652.6 Crore
f)	Actual expenditure incurred on the environmental management plans so far	:	Please refer <b>Annexure-V</b> for actual expenditure incurred on the environmental management plans so far.
10	Forest Land Requirement		
a)	The status of approval for diversion of forest land for non-forestry use	:	Stage – I clearance approval for diversion of forest land for non-forestry use has been received from MoEF & CC on 22 <sup>nd</sup> January 2016 vide letter F.No.8-89/2013-FC.
b)	The status of clearing felling	:	NOC from Hon. High Court for cutting of mangroves is received on 28th November 2016.  Working Permission from Forest Department received on 22 May 2017.
c)	The status of compensatory afforestation, if any Comments on the viability & sustainability of compensatory afforestation program in the light of actual field experience so far		Rs. 91.42 crores have been transferred to Mangrove cell of Mangroves & Marine Biodiversity Foundation, setup under Maharashtra State Forest Department for Compensatory Afforestation (CA).  Mangrove cell, Mumbai submitted updated status report of plantation (Attached as <b>Annexure-VII</b> )
11	The status of clear felling in non-forest areas (such as submergence area or reservoir, approach roads.), if any with quantitative information required.	:	Commencement Letters have been issued to the Contractors of Package-1, Package-2 and Package-3 on 23 March 2018.

No.	Particular		Information
12	Status of construction (Actual&/or planned)		Commencement Letters have been issued to the Contractors of Package-1, Package-2 and Package-3 on 23 March 2018.  Please refer to the Quarterly Progress Report No. 13 and 14 attached with this report as <b>Annexure-VI</b> .
a)	Date of commencement (Actual & / or planned)		Commencement Letters have been issued to the Contractors of Package-1, Package-2 and Package-3 on 23 March 2018.
b)	Date of completion (Actual&/or planned)	:	
13	<b>Reasons for the delay</b> if the project is yet to start	:	Not Applicable.
14	Dates of Site Visits		
a)	The dates on which the project was monitored by the Regional Office on previous occasions, if any	:	
b)	Date of site visits for this monitoring report	:	

Name: - Dr. D.T. Thube

### Chief Engineer, MTHL Project Implementation Unit

New Administrative building, MMRDA,  $2^{\rm nd}$  floor, Engineering Department, Mumbai Metropolitan Region Development Authority (MMRDA), E-Block, BKC, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051

Phone No.: 022-26594034

Signature ENGINE

Stamp:

### HALF YEARLY COMPLIANCE REPORT

1.	Project Type	:	Infrastructure
2.	Name of the Project	:	Mumbai Trans Harbour Link (MTHL) Project
3.	Clearance letter and date	:	F. No. 11-65/2012-IA.III on 25th January, 2016
4.	Location	:	
	a. District	:	Start point: Sewri in Mumbai City
			End Point: Chirle in Raigad District
	b. State	:	Maharashtra
	c. Latitude/Longitude	:	Start:
			Latitude: 18°59'48.57"N
			Longitude: 72°51'20.67"E
			_ ,
			End:
			Latitude: 18°56'18.33"N
			Longitude: 73° 1'52.92"E
5.	Address of		
	correspondence		
6.	a. Address of concerned	:	Chief Engineer,
	project Head		
			MTHL Project Implementation Unit
			2 <sup>nd</sup> floor, New Administrative building, MMRDA, Engineering Division, Mumbai Metropolitan Region Development Authority (MMRDA), E-Block, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051 Phone No.: 022-26594034

## **Compliance to the Conditions Recommended in CRZ Clearance-2013**

S. No.	Condition of 2013 clearance	Compliance
7. Spec	ific Conditions	
(i)	As per the CRZ Notification 2011, at least five times the number of mangroves destroyed/cut during the construction process shall be replanted. Mangrove plantation in an area of 30 ha shall be carried out as committed against loss of 0.1776 ha mudflats/mangroves. Permission from the High Court of Bombay shall be obtained with respect to mangrove cutting.	Noted, about 25 Crores have been contributed by MMRDA to Mangroves Fund, as an initiative by Govt. of Maharashtra for Conservation and Protection of Mangroves in Coastal areas. The amount is used for Survey & Demarcation of Notified areas. Purchase of vehicles and equipment for anti-Encroachment drives, etc.
		Permission copy of High court for mangrove cutting attached as <b>Annexure-I</b>
(ii)	Proponent shall provide lighting in consulting with the Bombay Natural History Society (BNHS) so as to minimize the likely impacts to the migratory birds.	Noted and being complied
(iii)	All the construction equipment's shall be provided with exhaust silencers as committed.	Noted, all the construction equipment used by contractors are provided with exhaust silencers to reduce noise.
		Photographic evidences of same attached as <b>Annexure-III</b>
(iv)	Noise containment barriers shall be provided on both sides of the bridge in mudflat areas (CRZ-IA) so as to minimize the likely impacts to the migratory birds as committed	Noise containment barriers have to be provided by the Package-I and Package-II on both sides of the bridges to minimize the likely impact to the migratory birds.
(v)	There shall be no dredging and reclamation for the project	The proposed project is for the construction of 6 lane road bridge across the Mumbai harbour between Sewari in MbPT area and Chirle in Navi Mumbai to improve connectivity and facilitate traffic decongestion and hence does not involve

S. No.	Condition of 2013 clearance	Compliance
		dredging and reclamation works
(vi)	Pre-stressed super structure shall be used in the mud flat area for construction as committed	Noted and is being proposed in the mudflat area
(vii)	The muck materials shall be analyses prior to dumping/disposal in the identified locations with the approval of the competent authority to ensure that it do not cause any impact to the environment.	Noted and is being complied. Muck materials are collected and analyzed prior to dumping/disposal at identified locations.
		Muck sample analysis report of Package-I and Package-II attached as <b>Annexure-IV</b>
(viii)	Proponent informed that there is no fishing activity in the area since it is a navigation channel for the nearby ports. However, navigational channel is provided with 25 m from ships and 9.1 m from fishing boats.	Noted and being complied
(ix)	All the recommendations of the MCZMA shall be strictly complied with.	Noted and being complied
(x)	There shall be no building construction beyond 20,000 sqm.	The proposed project is for the construction of 6 lane road bridge across the Mumbai Harbour between Sewri in MbPT area and Chirle in Navi Mumbai to improve connectivity and does not involve construction of buildings. However, during construction phase of the project temporary site offices and work camps will be constructed which will be well within 20,000 sqm area
(xi)	There shall be no water drawl in CRZ area.	The proposed project does not involve abstraction of the ground water in CRZ area. The water demand for the proposed project is being met through tanker water
(xii)	There shall be no disposal of solid or liquid waste on coastal area. Solid waste management shall be as per Municipal Solid (Management and Handling) Rules, 2000.	The project strictly complies with the new SWM rules 2016 and subsequent amendments and the solid and liquid waste and segregated at source, collected and disposed as per the abovesaid rules.  Biodegradable waste is being used for

S. No.	Condition of 2013 clearance	Compliance
		composting at site and non-biodegradable waste will be handed over to authorized agencies for disposal.
(xiii)	Sewage shall be treated and Treatment Facility shall be provided in accordance with the Coastal Regulation Zone Notifications 2011, The disposal of treated water shall conform to the regulation of the State Pollution Control Board.	Noted and will be complied
(xiv)	The project proponent shall set up a separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of senior executive	Noted and complied,  An Environmental Monitoring Committee has been set up and the structure of the committee comprise experts from National Institute of Oceanography; Representative of BNHS; renowned expert in Ornithology; Director, Fisheries Institute, Versova, Andheri; Head of Coastal Engineering, IIT, Mumbai and Representative of Environment Department and Maharashtra Pollution Control Board. The officer of MMRDA is acting as a Member Secretary to coordinate the quarterly meetings of the committee.  Periodical meetings of the committee / Cell are being held.
(xv)	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purpose.	Noted,  Total fund allocated for the environmental management is 335 crores and till date 244.1949 Cr has been spent as a part of environmental management Plan.  EMP expenditure details attached as Annexure-V

S. No.	Condition of 2013 clearance	Compliance
8. Gene	eral Conditions	
(i)	Full support shall be extended to the officers of the Ministry/Regional Office of Bhopal by the project proponent during inspection of the project for monitoring purpose by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities	Noted and being complied
(ii)	A six-monthly monitoring report shall need to be submitted by the project proponent to the regional office of this ministry at Bhopal regarding the implementation of the stipulated conditions	Noted and is being complied
(iii)	Ministry of Environment and Forest or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary, in the interest of environment and same shall be complied with	Noted and will be adhered
(iv)	The Ministry reserve the right to revoke this clearance if any of the conditions stipulated are not complied with to the satisfaction of the Ministry	Noted and will be adhered
(v)	In the event of a change in project profile or change in the implementation agency, afresh reference shall be made to the Ministry of Environment and Forests	Noted and will be adhered
(vi)	The project proponents shall inform to the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work	Noted and will be adhered
(vii)	A copy of the clearance letter shall be marked to concerned Panchayat/local NGO if any, from whom any suggestions/representations has been made a received while processing the	Noted and complied.

S. No.	Condition of 2013 clearance	Compliance
	proposal	
(viii)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office/Tehsildar's office for 30 days.	
9.	The above stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance Act), 1991 and EIA notification 1994 including the amendments and rules made thereafter	Noted and complied
10.	All other statuary clearances such as approvals for storage of diesel from Chief Controller of Explosive, Fire Department, Civil Aviation Department and clearances under the Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities	Noted and Complied.  Clearances under Forest Conservation Act, 1980 has been taken by MMRDA from MoEF & CC on 22nd January 2016 vide letter F.No.8- 89/2013-FC.  The project proponent had allotted the construction work to the Contractors through contract and the statuary clearances such as approvals for storage of diesel from Chief Controller of Explosive, Fire Department, Civil Aviation Department has been taken by them.
11.	The project proponent shall advertise in at least two local newspapers widely circulate in the region, one of which shall be in a vernacular language informing that the project has been accorded CRZ Clearance and copies of the clearance letter are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forest at http://www.envfor.nic.in. The advertisement should be made within 10 days from the date of the receipt of the clearance letter and a copy of the same	Noted and Complied.  The advertisement for accord of the CRZ clearance was published in the (Lok Satta and Indian Express on 30.01. 2016)

S. No.	Condition of 2013 clearance	Compliance
	should be forwarded to the Regional office of this ministry at Bhopal	
12	The clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.	
13	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010	Noted
14	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent on its website.	Noted and being complied  The status of the compliance of stipulated CRZ conditions are uploaded on the website of MMRDA
15	A copy of the clearance letter shall be sent by the proponent to be concerned Panchayat, Zilla parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The Clearance letter shall also be put on the website of the company by the proponent.	Noted and Complied
16	The proponent shall upload the status of the compliance of stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF, the respective Zonal Office of CPCB and the SPCB	Noted and complied  The status of the compliance of stipulated CRZ conditions, including results of monitored data are uploaded on the website of MMRDA and also submitted to Regional Office of the MoEF&CC, the respective Zonal Office of CPCB and the SPCB
17	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated EC conditions including results of monitoring data (both in hard copies as well as by e-mail) to the	Noted and being complied

S. No.	Condition of 2013 clearance	Compliance
	respective Zonal Office of CPCB and the	
	SPCB	
18	The environmental statement for each	Noted and Complied
	financial year ending 31st March in Form-	
	V as is mandated to be submitted by the	
	project proponent to the concerned State	
	Pollution Control Board as prescribed	
	under the Environment (Protection) Rule	
	1986 as amended subsequently, shall also	
	be put on the website of the company	
	along with the status of the compliance of	
	EC conditions and shall also be sent to the	
	respective Regional Offices of MoEF & CC	
	by e-mail.	

## $Compliance \ to \ the \ Conditions \ Recommended \ in \ CRZ \ Clearance -2016$

Sr. No.	SPECIFIC CONDITIONS	COMPLIANCE STATUS			
i.	All the terms and conditions stipulated by	Noted. MMRDA is following the			
	the MCZMA in their letter No. CRZ	conditions stipulated in the CRZ			
	2015/CR236/TC 4 dated 26 <sup>th</sup> November	Clearance.			
	2015 shall be strictly complied with.				
ii.	All the terms and conditions as mentioned	Noted.			
	in the earlier CRZ Clearance dated 19th July	MMRDA is following the conditions			
	2013, shall also be complied with in letter	stipulated in the CRZ Clearance dated			
	and spirit,	19th July 2013.			
iii.	The Environment Management Plan as	MMRDA is implementing the			
	presented during the meeting shall be	Environment Management plan as			
	implemented in consultation with all the	stipulated in CRZ clearance. The			
	stakeholders.	implementation plan with detailed EMP			
		is attached as an <b>Annexure V</b>			
iv.	The project/activity shall be carried out	Noted and is being complied			
	strictly be in accordance with the provisions				
	of CRZ Notification, 2011, and shall not				
	affect the coastal ecology of the area				
	including flora and fauna.				
v.	The project proponent shall obtain all	Noted and will be complied			
	permissions from concerned authorities				
	prior to commencement of the project and				
	shall observe all safety requirements				

Sr. No.	SPECIFIC CONDITIONS	COMPLIANCE STATUS			
	onshore and offshore.				
vi.	The project proponent shall not undertake any blasting/construction activities during night hours.	This condition has been revised by MoEF& CC vide letter dated 28th August, 2017 having file no F. No. 11-65/2012-IA. III.			
vii.	The proposal indicates the diversion of 47.417 ha forest land for which the proponent shall obtain the requisite Forest Clearance. The project may be executed in the entire stretch in non-forest land, and while making application to get the Forest Clearance, the execution of work on nonforest land shall not be cited as a reason for grant of FC and in case FC is declined, the forest land shall be maintained at its existing condition. The PP shall submit an undertaking to this effect at the earliest to the concerned Regional Office to this				
viii.	All the wildlife mitigation measures as proposed by BNHS in their report dated 23.09.2015 for original alignment shall be implemented with the following modification	Noted and shall be complied			
	<ul> <li>a) Construction of jetty on both the ends passing through mud flats and mangroves must not exceed 30 months and construction of actual spans must not exceed more that further 12 months.</li> <li>b) The distance between the supporting</li> </ul>	Noted  The distance between the piers is			
	b) The distance between the supporting pillars shall remain 50 m as currently proposed by the MMRDA.	maintained more than 50 m.			
	c) MMRDA will partly bear the cost of setting of effluent treatment plant in the region as suggested by BNHS.	Noted and being complied			
ix.	The project proponent shall not undertake any blasting/construction activities during night hours.	This condition has been revised by MoEF&CC vide letter dated 28th August 2017 having file no F. No. 11-65/2012-IA. III.			

Sr.No.	GENERAL CONDITIONS	COMPLIANCE STATUS
1	Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment.	Noted and is being complied.
2	Full support shall be extended to the officers of this Ministry/Regional Office at Nagpur by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Noted and shall be complied.
3	A Six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Nagpur regarding the implementation of the stipulated conditions.	Noted and is being complied. List of Six-monthly compliance report uploaded are:  1. January to June 2016. 2. July to December 2016. 3. January to June 2017. 4. July to December 2017. 5. January to June 2018. 6. July to December 2018. 7. January to June 2019. 8. July to December 2019 9. January to June 2020
4	MoEF&CC or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary, in the interest of environment and the same shall be complied with.	Noted and shall be complied
5	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with to the satisfaction of the Ministry.	Noted.
6	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the MoEF & CC.	Noted.
7	The project proponents shall inform to the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Noted.
8	A copy of the clearance letter shall be marked to	Noted and complied

Sr.No.	GENERAL CONDITIONS	COMPLIANCE STATUS
	concerned Panchayat/ local NGO, if any, from whom any suggestion/ representation has been made received while processing the proposal	
9	A copy of the CRZ Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/Tehsildar's Office for 30 days.	Noted and complied.
10	The above stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.	Noted and will be complied.
11	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, and clearances under the Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Noted and are being complied.
12	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest & Climate Change at. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Nagpur.	Complied.
13	This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ	Noted.

Sr.No.	GENERAL CONDITIONS	COMPLIANCE STATUS
	Petition (Civil) No.460 of 2004 as may be applicable to this project.	
14	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.
15	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent on its website.	Stipulated environmental conditions as mentioned in CRZ are complied in six monthly compliance reports.  Environmental Safeguards are incorporated in Environmental Management Plan which is being implemented as per the budgetary provisions mentioned in CRZ.  Reports & Publications: Half Yearly Report (https://mmrda.maharashtra.gov.in)
16	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied.
17	The proponent Shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Noted. Six monthly reports on compliance & monitoring results of conditions stipulated in CRZ clearance is being submitted to MPCB Regional, sub regional office, Nagpur MPCB office, MCZMA & SEIAA.
18	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF & CC, the respective Zonal Office of CPCB and the SPCB.	Noted. Six monthly reports on compliance & monitoring results of conditions stipulated in CRZ clearance is being submitted to MPCB Regional, sub regional office, Nagpur MPCB office, MCZMA & SEIAA.
19	The environmental statement for each financial year ending 31st March in Form-V as is	Noted.

Sr.No.	GENERAL CONDITIONS	COMPLIANCE STATUS
	mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF & CC by e-mail.	Individual construction packages have obtained CTE for batching plant and casting yards and the stipulations are being adhered to and are uploaded on the website of MMRDA

### **Annexures**

Annexure I	Permission copy of High court for mangrove cutting		
Annexure II	Item wise cost breakup of the Environmental Management Plan		
Annexure III	Annexure III Photographic evidences of construction equipment used l contractors are provided with exhaust silencers to reduce noise		
Annexure IV	Annexure IV Muck analysis report from Package-I and Package-II		
Annexure V	Annexure V EMP expenditure details		
Annexure VI	Annexure VI Quarterly Progress Reports 13 & 14		
Annexure VII	Annexure VII Status report on Mangrove plantation		

NM/307/2016

**BDPPS** 

## IN THE HIGH COURT OF JUDICATURE AT BOMBAY ORDINARY ORIGINAL CIVIL JURISDICITON NOTICE OF MOTION NO.307 OF 2016

IN

PUBLIC INTEREST LITIGATION NO.87 OF 2006

Mumbai Metropolitan Region **Development Authority** 

Applicant.

In the matter between

Bombay Environment Action Group and Another

.....Petitioners.

V/s

State of Maharashtra and Others.

.... Respondents.

Mr. Saket Mone axw Mr. Subit Chakrabarti i/b Vidhi Partners for applicant in Notice of Motion No. 307 of 2016 in PIL No.87 of 2016.

Mr. Navroz Seeryai, Senior Counsel a/w Ms. Shreya Parikh for the Petitioner in PIL No.87 of 2006.

Mrs. P.H. Kantharia, AGP for Respondent/State in PIL No.87 of 2006.

Ms. Trupti Puranik for Respondent/BMC.

Ms. Sharmila Deshmukh for CRZ.

CORAM: V. M. KANADE &

MS. NUTAN D. SARDESSAI, JJ.

28th November, 2016 DATE:

::: Unloaded on .. 30/11/2016

### P.C.:-

- 1. This Notice of Motion is taken out by the Applicant for carrying out construction of the proposed Mumbai Trans Harbour Link (a proposed 22 km freeway grade road bridge connecting the island city of Mumbai with Navi Mumbai).
- 2. The learned Counsel appearing on behalf of the Applicant submits that Applicant has obtained clearance from all the concerned authorities. He submitted that Ministry of Environment and Forest, Government of India has granted approval on 22/01/2016 and CRZ clearance has been granted on 25/01/2016. Applicant has given an undertaking in paras 12 and 27 of the affidavit in support of the Notice of Motion. The said undertaking is accepted. Applicant shall comply with all the conditions which are imposed in the said letters of sanction granted by both the authorities.
- We are satisfied that the said project is public utility project and we grant leave in terms of prayer clause (a) of the Notice of Motion subject to conditions imposed by both the authorities.
- 4. Notice of Motion is accordingly allowed in terms of prayer clause (a) and disposed of.

(MS. NUTAN D. SARDESSAI, J. ) (V.M. KANADE, J.)

## Annexure-II Environment Management Plan stipulated in CRZ clearance

Sr. No	Environmental attribute			
1.	Environmental Monitoring- Air Act, Water Act, Noise levels			
2.	Compensatory Restoration Plan (Mangroves)			
3.	Implementation of the suggestions given by BNHS	25		
4.	Noise barriers	45		
5.	Mitigation of marine water pollution caused due to the surrounding industries and Sewage from Urban Bodies, by providing Funding and Capacity Building for Enabling Effluent Treatment	40		
6.	<ul> <li>Contribution to Mangroves Fund, an initiative by Govt. of Maharashtra for Conservation and Protection of Mangroves in Coastal areas by depositing Seed Money.</li> <li>This can be used for Survey &amp; Demarcation of Notified areas</li> <li>Purchase of vehicles and equipment for anti-Encroachment drives, etc.</li> </ul>			
7.	Oil Spill Mitigation Plan			
8.	Habitat quality assessment and monitoring Surveillance management and monitoring team for migratory birds, marine flora, turbidity in sea floor, etc Corpus fund for mudflat restoration program			
9.	Appointment of Bird Monitor and his assistant till Restoration of Baseline data			
10.	DMP, Firefighting, Risk Analysis			
11.	Sustainable development including establishing Nature Interpretation Centre			
12.	Safety and Security	15		
13.	Energy conservation	10		
14.	Landscaping-Plantation of trees, flower in plants etc.	8		
15.	Compensation and Capacity Building of Fisher folks due to Temporary and Permanent Loss of Fishing round	75		
		335 crores		

## Photographic evidences of construction equipment used by contractors are provided with exhaust silencers to reduce noise







## Photographic evidences of construction equipment used by contractors are provided with exhaust silencers to reduce noise







## Photographic evidences of construction equipment used by contractors are provided with exhaust silencers to reduce noise







### TEST REPORT

Name of Organization: M/s. L & T Constructions						
Address	vri(East), Mumbai.					
Sample Code	: N	IL/SO/08/20/008	Sample Location :	Jeety MP-53		
Sample Source	: Je	ety MP-53	Sample Qty. & Packing :	1 Kg Zip Lock Bag		
Sample Type : Muck Sample		Sample Drawn By : Netel (India) Limited.				
Sampling Date		Sample Received Date	Date of Analysis	Report Date		
27.08.2020		28.08.2020	29.08.2020-07.09.2020	09.09.2020		
100 0000				T		

Sr. No.	Test Parameter	Method	Unit	Result
	1000 1 41.44.10001	Michiga		NIL/SO/08/20/008
	Gene	eral Analyzed Parameters		
1	Cadmium (Cd)	Lab SOP No:NIL/SOP/15 dt 01/07/14	mg/kg	0.78
2	Lead (Pb)	Lab SOP No:NIL/SOP/15 dt 01/07/14	mg/kg	6.5
3	Chromium (as Cr <sup>6+</sup> )	APHA 3500-Cr-B	mg/kg	< 0.05
4	Arsenic (As)	EPA 3050B & By FIAS	mg/kg	< 0.01
5	Total Mercury (Hg)	EPA 3050B & By FIAS	mg/kg	< 0.01
-6	Copper (Cu)	Lab SOP No:NIL/SOP/15 dt 01/07/14	mg/kg	141.8
7	Dichloromethane	By GC-FID	mg/kg	<1
8	Carbon Tetrachloride	By GC-FID	mg/kg	<1
9	Benzene	APHA 6200-C	mg/kg	<1
10	Selenium (Se)	EPA 3050B & By FIAS	mg/kg	< 0.01

#### Note: -

- This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- \* This Test Report refers only to the sample tested.
- ❖ Any correction in this certificate invalidates the certificate.
- The testing results reported reflects the quality of sample at the time of testing.
- \* The Complaint register is available with the Laboratory as per Environment Protection Act 1986.

Verified by:

Issued by:

Surekha Jamdar

Dy. Technical Manager

Shraddha Kere Technical Manager

\*\*\*End of Report\*\*\*







Name of Organization: M/s. L & T Constructions						
Address : Gate No. 1 Sewri Timber Pond, Near Gadi Adda, Sewri(East), Mumbai.						
Sample Code	: ]	NIL/SO/08/20/008	Sample Location :	Jeety MP-53		
Sample Source : Jeety MP-53		Sample Qty.& Packing :	1 Kg Zip Lock Bag			
Sample Type : Muck		Muck Sample	Sample Drawn By :	Netel (India) Limited.		
Sampling Date		Sample Received Date	Date of Analysis	Report Date		
27.08.2020		28.08.2020	29.08.2020-07.09.2020	09.09.2020		

27.08.2020 28.08.20		28.08.202	0 29.08.2020-07.09.2020	09.09.2020		
Sr. No.	Test Parameter		Method	Unit	Result NIL/SO/08/20/008	
		TCL	JP Analyzed Parameters			
1	Cadmium (Cd)		EPA Method 1311	mg/lit	0.15	
2	Lead (Pb)		EPA Method 1311	mg/lit	0.77	
3	Chromium (as Cr6+	)	EPA Method 1311	mg/lit	0.4	
4	Arsenic (As)		EPA Method 1311	mg/lit	<0.01	
5	Total Mercury (Hg)	)	EPA Method 1311	mg/lit	< 0.01	
6	Copper (Cu)		EPA Method 1311	mg/lit	5.1	
7	Dichloromethane		EPA Method 1311 & By GC-FID	mg/lit	<1	
8	Silver (Ag)		EPA Method 1311	mg/lit	0.44	
9	Zinc (Zn)		EPA Method 1311	mg/lit	4.1	
10	Selenium (Se)		EPA Method 1311	mg/lit	< 0.01	
11	Antimony		EPA Method 1311	mg/lit	<1	
12	Barium (as Ba) EPA Method 1311		mg/lit	<1		
13	Beryllium	eryllium EPA Method 1311		mg/lit	<1	
14	Fluoride (F <sup>-</sup> )	Fluoride (F <sup>-</sup> ) EPA Method 1311		mg/lit	9.8	
15	Nitrate (NO <sub>3</sub> -)	Nitrate (NO <sub>3</sub> <sup>-</sup> ) EPA Method 1311		mg/lit	5.3	
16	Ammonium Compo	mmonium Compound EPA Method 1311		mg/lit	6.7	
17	Chlorobenzene		EPA Method 1311 & By GC-FID		<1	
18	Methyl Ethyl Keton	e	EPA Method 1311 & By GC-FID	mg/lit	<1	
19	Naphthanlene	e EPA Method 1311 & By HPLC		mg/lit	<1	
20	Benzo (a) Pyrene	(a) Pyrene EPA Method 1311 & By HPLC		mg/lit	<1	
21	Aldrin	EPA Method 1311		mg/lit	< 0.01	
22	Dieldrin		EPA Method 1311		< 0.01	
23	Chlordane	nlordane EPA Method 1311		mg/lit	< 0.01	
24	Dichlorodiphenyltrich	loroethane (DDT)	EPA Method 1311	mg/lit	< 0.01	
25	Methoxychlor Dichlorodiphenydichloroethylene (DDE)		EPA Method 1311	mg/lit	<0.01	
26	Dichlorodiphenyldich		EPA Method 1311	mg/lit	< 0.01	
27	2,4-Dichlorophenoxya	cetic Acid (2,4-D)	EPA Method 1311	mg/lit	< 0.01	
28	Endrin		EPA Method 1311	mg/lit	<0.01	
29	Heptachlor		EPA Method 1311	mg/lit	< 0.01	

A Neterwala Group Company

CIN: U74999MH2003PLC142228

Office & Laboratory: W-408, Rabale MIDC, TTC Industrial Area, Navi Mumbai - 400 701.

Phone: 022-27607102 / 27607103 / 27606 016 / 20877101 • Website: www.netel-india.com • E-mail: ems@netel-india.com

Registered office: Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020.





## **Netel (India) Limited**

Sr. No.	Test Parameter	Method	Unit	Result NIL/SO/08/20/008
30	Lindance	EPA Method 1311	mg/lit	< 0.01

#### Note:-

- \* This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- \* This Test Report refers only to the sample tested.
- ❖ Any correction in this certificate invalidates the certificate.
- The testing results reported reflects the quality of sample at the time of testing.
- \* The Complaint register is available with the Laboratory as per Environment Protection Act 1986.

Verified by:

Issued by:

Surekha Jamdar Dy. Technical Manager Shraddha Kere Technical Manager

A Neterwala Group Company

CIN: U74999MH2003PLC142228





### TEST REPORT

			Marin Marine Marine	TESTR	EPORT			
Name	of Organization		Daewoo-TPL-J\				0.0	
Custo	mer Address	: MTH 4102		o – TPL JV,S	Shivaji Naga	r Post Kha	ar Kopar, Sector	8,Ulwe,Navi Mumbai -
Dat	e of Sampling	Sample	Received Date	Analysis S	Start Date	Date Analysis Complete Date		Report on Date
	29.09.2020	30	.09.2020	30.09.	2020	03	.10.2020	05.10.2020
		Muck		,	Sample Dra	awn By	: Netel (Indi	a) Limited
		Plastic Ba			Packaging		: 2 Kgs	
	T	NIL/50/0	9/20/012	;	Sampling L	ocation	: MP 202	
Sr. No.	. Test Param	neter	N	lethod		Unit	MDL*	Result
1	Organic Phosphor	rus	Leachate - La Analysis -	b SOP* NIL/IF APHA 4500-P		mg/kg	0.5	BDL
2	Cynide	0.00	APH	4 4500-CN		mg/kg	0.005	BDL
3	Lead		Lab SOF	P* NIL/SOP/15		mg/kg	0.1	0.12
4	Cadmium		Lab SOF	o* NIL/SOP/15		mg/kg	0.1	BDL
5	Hexavalent Chron	nium	EPA 3050B			mg/kg	0.1	BDL
6	Copper		Lab SOP* NIL/SOP/1			mg/kg	0.1	36.3
7	Mercury		EPA 3050B / By FIAS			mg/kg	0.1	BDL
9	Selenium	Ð	EPA 305	50B / By FIAS		mg/kg	0.1	BDL
10	Arsenic		EPA 305	60B / By FIAS		mg/kg	0.1	BDL
11	Polychlorinated Bip	ohenyls	G	CECD		mg/kg	0.01	BDL
12	Dichloromethane		G	C FID	Ĭ	mg/kg	0.1	BDL
13	Carbon Tetrachlori	de	G	C FID	3	mg/kg	0.1	BDL
14	1,2-Dichloroethane	•	EPA	-8260 B	2	mg/kg	0.1	BDL
15	1,1-Dichloroethyler	ne	EPA	-8260 B	1	mg/kg	0.1	BDL
16	cis-1,2-Dichloroeth	ylene	EPA-8260 B			mg/kg	0.1	BDL
17	1,1,1-Trichloroetha	ne	EPA	-8260 B		mg/kg	0.1	BDL
18	1,1,2-Trichloroetha	ne	EPA	-8260 B		mg/kg	0.1	BDL
19	Trichloroethylene		EPA	-8260 B		mg/kg	0.1	BDL
20	Tetrachloroethylene	9	EPA	-8260 B	1	mg/kg	0.1	BDL

A Neterwala Group Company

CIN: U74999MH2003PLC142228





### Netel (India) Limited

Sample	Code : NIL/SO/09/	/20/012 S	ampling Location	: MP 202	
Sr. No.	Test Parameter	Method	Unit	MDL*	Result
21	1,3-Dichloropropane	EPA-8260 B	mg/kg	0.1	BDL
22	Thiuram	GC-MS	mg/kg	0.1	BDL
23	Simazine	GC-MS	mg/kg	0.1	BDL
24	Thiobencarb	GC-MS	mg/kg	0.1	BDL
25	Benzene	GC FID	mg/kg	0.1	1.4
26	Oil & Grease	EPA Method 9071 B	mg/kg	1	1.8

### Note:

- 1. MDL Method Detectible Limit.
- 2. BDL Below Detectible Limit.
- 3. \* Based on Manual of Soil testing in India, Ministry of Agriculture, GOI, 2011
- 4. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- 5. This Test Report refers only to the sample tested.
- 6. The complaint register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar Dy. Technical Manager

\*\*\*End of Report\*\*

Issued by:

Shraddha Kere Technical Manager



CIN: U74999MH2003PLC142228





### **TEST REPORT**

Name of Organization	: M/s. Daewoo-TPL-JV
Customer Address	: MTHL Pkg-2, Daewoo – TPL JV,Shivaji Nagar Post Khar Kopar, Sector 8,Ulwe,Navi Mumbai - 410206

Custor	mer Address	: MTH 4102		00 – TPL JV,S	Shivaji Naga	ar Post Kha	r Kopar, Sector	8,Ulwe,Navi Mumbai -
Dat	Date of Sampling Sample F		Received Date	Analysis Start Date		Analysis Complete Date		Report on Date
2	29.09.2020	30.	09.2020	30.09	.2020	03	.10.2020	05.10.2020
Sample		Muck			Sample Dr		: Netel (Indi	ia) Limited
		Plastic Ba			Packaging		: 2 Kgs	
		NIL/SO/09	9/20/013		Sampling I	Location	: MP 191	
Sr. No.	Test Paran	neter	ı	Method		Unit	MDL*	Result
1	Organic Phospho	rus	EUROPONISMONI MADERINAS -ST-977	ab SOP* NIL/II APHA 4500-F	ACCUSAGE CONTRACTOR OF THE PROPERTY OF THE PRO	mg/kg	0.5	BDL
2	Cynide		APH	A 4500-CN		mg/kg	0.005	BDL
3	Lead		Lab SO	P* NIL/SOP/18	5	mg/kg	0.1	0.1
1	Cadmium		Lab SOF	P* NIL/SOP/18	5	mg/kg	0.1	BDL
5	Hexavalent Chron	nium	EP	A 3050B		mg/kg	0.1	BDL
6	Copper		Lab SOF	P* NIL/SOP/15	5	mg/kg	0.1	18.2
7	Mercury		EPA 30	50B / By FIAS		mg/kg	0.1	BDL
9	Selenium		EPA 30	50B / By FIAS		mg/kg	0.1	BDL
10	Arsenic		EPA 30	50B / By FIAS		mg/kg	0.1	BDL
11	Polychlorinated Bi	phenyls	G	C ECD		mg/kg	0.01	BDL
12	Dichloromethane		C	GC FID		mg/kg	0.1	BDL
13	Carbon Tetrachlor	ide	C	GC FID		mg/kg	0.1	BDL
14	1,2-Dichloroethane	Э	EP/	4-8260 B		mg/kg	0.1	BDL
15	1,1-Dichloroethyle	ne	EPA	4-8260 B		mg/kg	0.1	BDL
16	cis-1,2-Dichloroeth	iylene	EPA	A-8260 B		mg/kg	0.1	BDL
17	1,1,1-Trichloroetha	ane	EPA	4-8260 B		mg/kg	0.1	BDL

A Neterwala Group Company

18

19

20

1,1,2-Trichloroethane

Trichloroethylene

Tetrachloroethylene

CIN: U74999MH2003PLC142228

BDL

**BDL** 

BDL



EPA-8260 B

EPA-8260 B

EPA-8260 B

mg/kg

mg/kg

mg/kg

0.1

0.1

0.1



## Netel (India) Limited

Sample Code : NIL/SO/09/20/013 Sampling Location : MP 191							
Sr. No.	Test Parameter	Method	Unit	MDL*	Result		
21	1,3-Dichloropropane	EPA-8260 B	mg/kg	0.1	BDL		
22	Thiuram	GC-MS	mg/kg	0.1	BDL		
23	Simazine	GC-MS	mg/kg	0.1	BDL		
24	Thiobencarb	GC-MS	mg/kg	0.1	BDL		
25	Benzene	GC FID	mg/kg	0.1	2.1		
26	Oil & Grease	EPA Method 9071 B	mg/kg	1	2.1		

#### Note:

- 1. MDL Method Detectible Limit.
- 2. BDL Below Detectible Limit.
- 3. \* Bacod on Manual of Soil tooting in India, Miniotry of Agriculture, COI, 2011
- 4. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- 5. This Test Report refers only to the sample tested.
- 6. The complaint register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surakha Jamdar

Dy. Technical Manager

Issued by:

Shraddha Kere Technical Manager

\*\*\*End of Report\*\*



CIN: U74999MH2003PLC142228

Office & Laboratory: W-408, Rabale MIDC, TTC Industrial Area, Navi Mumbai - 400 701.

Phone: 022-27607102 / 27607103 / 27606 016 / 20877101 • Website: www.netel-india.com • E-mail: ems@netel-india.com

Registered office: Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020.



### Annexure-V

	EMP break up for	Cumulative		
Sr. No	Environmental attribute	Cost in crores (As stipulated in CRZ clearance) (Rs. in Crore)	Expenditure incurred on the environmental management plans (Rs. in Crore)	Expenditure (Rs. In Crore)
1.	Environmental Monitoring- Air Act, Water Act, Noise levels	8	0.10	0.8101
2.	Compensatory Restoration Plan (Mangroves)	25	0	50.82
3.	Implementation of the suggestions given by BNHS	25	0	41.98
4.	Noise barriers	45	0.04	1.0876
5.	Mitigation of marine water pollution caused due to the surrounding industries and Sewage from Urban Bodies, by providing Funding and Capacity Building for Enabling Effluent Treatment	40	0	5.8
6.	Contribution to Mangroves Fund, an initiative by Govt. of Maharashtra for Conservation and Protection of Mangroves in Coastal areas by depositing Seed Money. This can be used for Survey & Demarcation of Notified areas. Purchase of vehicles and equipment for anti-Encroachment drives, etc.	25	0	25
7.	Oil Spill Mitigation Plan	10	0.26	1.1901
8.	Habitat quality assessment and monitoring Surveillance management and monitoring team for migratory birds, marine flora, turbidity in sea floor, etc Corpus fund for mudflat restoration program	20	0	0
9.	Appointment of Bird Monitor and his assistant till Restoration of Baseline data	4	0	0
10.	DMP, Firefighting, Risk	15	0.278	2.2003

	EMP break up fo	r July to Decembe	r 2020	Cumulative	
Sr. No	Environmental attribute	Cost in crores (As stipulated in CRZ clearance) (Rs. in Crore)	Expenditure incurred on the environmental management plans (Rs. in Crore)	Expenditure (Rs. In Crore)	
	Analysis				
11.	Sustainable development including establishing Nature Interpretation Centre	10	0	10	
12.	Safety and Security	15	2.71	12.25	
13.	Energy conservation	10	0.18	3.0838	
14.	Landscaping-Plantation of trees, flower in plants etc.	8	0.10	0.673	
15.	Compensation and Capacity Building of Fisher folks due to Temporary and Permanent Loss of Fishing round	75	0	89.3	
	TOTAL	335 Crores	3.6643	244.1949	











### General Consultant for Mumbai Trans Harbour Link Project

Ref No: MTHL/GC/MMRDA/LT/QPR-1856/2021

23<sup>rd</sup> January 2021

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

Sub: General Consultancy services for Mumbai Trans Harbour Link (MTHL) project -

Submission of Quarterly Progress Report (QPR) No. 13 for April - June 2020

Ref: MTHL/GC/MMRDA/LT/QPR – 1781/ 2020 dated 24<sup>th</sup> December 2020

Dear Sir,

With reference to the above subject, please find enclosed 1 hard copy of the corrected Quarterly Progress Report (QPR) No. 13 for the period of 1<sup>st</sup> April to 30<sup>th</sup> June 2020. In this report, we have incorporated all the corrections after your review of the draft report.

You may forward the same to JICA, India at your earliest convenience.

Thanking you, Yours faithfully,

m Men

23 January 2021

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

**Encl:** 1 copy of Quarterly Progress Report No. 13 (April- May-June 2020)

CC: Superintendent Engineer – MMRDA - Mr. Sakhalkar

Executive Engineer – MMRDA – Mr. Bhisikar

Executive Engineer – MMRDA – Mr. Vishal Jambhale

Executive Engineer – MMRDA – Mr. Ganesh Deshpande

By Email



**Mumbai Metropolitan Region Development Authority** 

# **Mumbai Trans Harbour Link Project**

**Quarterly Progress Report - No.13** 

(From 1<sup>st</sup> April 2020 to 30<sup>th</sup> June 2020)



Mumbai Trans Harbour Link Project Quarterly Progress Report No. 13 1<sup>st</sup> April 2020 to 30<sup>th</sup> June 2020 Loan Agreement No. ID-P255 (Tranche–I)

## **ORGANIZATION INFORMATION**

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

## **Details of JICA Loan**

	JICA ODA Loan	238,572 million Japanese YEN (JPY)
Source of Finance	Portion: Tranche-I:	144,795 million Japanese YEN (JPY) (Loan Agreement signed on 31 <sup>st</sup> March 2017)
	Tranche-II:	66,909 Million Japanese YEN (JPY) (Loan Agreement signed on 27 <sup>th</sup> March 2020)
Terms and Conditions	Interest Rate:	0.10000% (LIBOR (-0.04817%) + SPREAD RATE (0.10000%)) from 20 <sup>th</sup> September 2019 to 19 <sup>th</sup> March 2020.
of JICA ODA Loan (Tranche-1)	Repayment Period:	30 years, including 10 years of grace period.

## DOCUMENT VERIFICATION AND REVISION RECORD

PROJI	ECT NAME	Mumbai Trans Harbour Link Project				
DOC N	NO.	13	DATE OF	ISSUE	19/0	1/2021
DOC	<b>TITLE</b>	Quarterly Progress Report No. 13				
REV No.	DATE OF ISSUE	DESCRIPTION	PREPARED BY	CHECKED	CHECKED BY	
R0	05/07/2017	Quarterly Progress Report No. 1 (Apr-Jun 17)	J Senthil	Dr T K Sund	Dr T K Sundaram	
R0	05/10/2017	Quarterly Progress Report No. 2 (Jul-Sep 17)	J Senthil	Dr T K Sund	aram	Dr Robin Sham
R0	05/01/2018	Quarterly Progress Report No. 3 (Oct-Dec 17)	J Senthil	Dr T K Sund	aram	Dr Robin Sham
R0	05/04/2018	Quarterly Progress Report No. 4 (Jan-Mar 18)	J Senthil	Dr T K Sund	aram	Dr Robin Sham
R0	24/07/2018	Quarterly Progress Report No. 5 (Apr-Jun 18)	Prashant B	Dr T K Sund	aram	Dr Robin Sham
R0	10/10/2018	Quarterly Progress Report No. 6 (Jul-Sep 18)	Prashant B	Dr T K Sund	aram	Dr Robin Sham
R1	08/02/2019	Quarterly Progress Report No. 7 (Oct-Dec 18)	Prashant B	-	J Senthil/ Dr T K Sundaram	
R0	05/04/2019	Quarterly Progress Report No. 8 (Jan-Mar 19)	Prashant B	J Senthil		V. D. Sharma/ Dr Robin Sham
R0	18/09/2019	Quarterly Progress Report No. 9 (Apr-Jun 19)	Prashant B	Mr. Som Gl	Mr. Som Ghosh	
R0	13/11/2019	Quarterly Progress Report No. 10 (Jul-Sep 19)	Prashant B	Mr. Som Gl	Mr. Som Ghosh	
R0	11/02/2020	Quarterly Progress Report No.11 (Oct-Dec 19)	Prashant B	Mr. Som Gl	nosh	Dr Robin Sham
R0	25/11/2020	Quarterly Progress Report No.12 (Jan-Mar 20)	Prashant B	Mr. Som Gl	nosh	Dr Robin Sham
R0	19/01/2021	Quarterly Progress Report No.13 (Apr-Jun 20)	Prashant B	Mr. Som Gl	nosh	Dr Robin Sham

## **Contents**

1.0 P	ROJECT DESCRIPTION	5
1.1	Project Objective	5
1.2	Necessity of the Project	
1.3	Rationale of the Project Design	
2.0 P	ROJECT IMPLEMENTATION	9
2.1	Project Scope	9
2.2	Implementation Schedule	
2.3	Project Cost	
2.3.1. 2.3.1.	, ,	
2.4	Organization for Implementation	
2.4.1	Executing Agency	
2.4.2	(-),(-),(-)	
2.4.2.		
2.4.2.	2 Performanceultant's Progress:	
	actor's Progress:	
	age-1 Physical Progress till 30 <sup>th</sup> June 2020	
	age-2 Physical Progress till 30 <sup>th</sup> June 2020	
	age-3 Physical Progress till 30 <sup>th</sup> June 2020	
	age-4 (ITS) Progress till 30 <sup>th</sup> June 2020	
	h & Safety and Environment (HSE)	
	age-1 Safety Reportage-2 Safety Report	
	age-3 Safety Report	
3.0 B	ENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)	24
3.1	Operational and Physical Condition	24
3.2	Precautions (Measures To Be Adopted/ Points Which Require Special Attention)	
3.3	Environmental and Social Impacts	26
3.4	Qualitative and Quantitative Data of Monitoring Indicators	
3.5	Monitoring Plan for the indicators	
3.6	Achievement of the Project Objective	
4.0	OPERATION AND MAINTENANCE (O&M) (SUSTAINABILITY)	31
4.1	O&M and Management	
4.2	O&M Cost and Budget	31
5.0 E	VALUATION	32
5.1	JICA and Borrower / Executing Agency performance	32
5.2	Overall Evaluation	32
5.3	Lessons Learnt and Recommendations	
Atta	achment 1- MMRDA & PIU Organization Chart	33
	achment 2- Environmental & Social Impacts Attachments	
	achment 3- JICA's Concurrence Statusachment 4- Project Procurement and Financial Status till 30th June 2020	
	achment 5- S-Curve for Cumulative Planned Vs Actual Amount in JPY Million	
	achment 6- Package-1's Construction Programme Updated as on 25th June 2020	
	achment 7- Package-2's Construction Programme Updated as on 25th June 2020	
	achment 8- Package-3's Construction Programme Updated as on 25th June 2020	
Att:	achment 9- Project Progress Photos	45

#### 1.0 PROJECT DESCRIPTION

## 1.1 Project Objective

## Original:

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

Actual (P/R, PCR)

There is no change in the Project Objective.

#### 1.2 Necessity of the Project

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

## Benefits from MTHL Project

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

#### **Necessity of the Project**

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

- 4. The Government of Maharashtra (GoM), of which Mumbai Metropolitan Region is under jurisdiction, has been facilitating various development plans particularly in Navi Mumbai area, which stands at the opposite site of Mumbai across the Mumbai Bay and still has spacious area for development, such as a new international airport, Special Economic Zone (SEZ) and expansion of Jawaharlal Nehru Port in order to promote the sustainable economic development in Mumbai Metropolitan Region.
- 5. Furthermore, a lack of connectivity in Mumbai has stunted its growth. The GoM has given importance to construct the faster connection with Mumbai to Navi Mumbai International Airport, Jawaharlal Nehru Port, Mumbai-Pune expressway and main hinterland.
- 6. Accordingly, the Mumbai Trans Harbour Link (MTHL) has been identified as the important infrastructure to improve the connectivity between Mumbai and Navi Mumbai and continue economic development in Mumbai Metropolitan Region.
  - The MTHL is proposed to be developed as an expressway link comprising of a dual three-lane main carriageway bridge connecting Sewri in Mumbai to Chirle in Navi Mumbai. When completed, MTHL will reduce the distance between Mumbai and Navi Mumbai and will help save approximately an hour in travel time. Also, development of Navi Mumbai along with the imminent construction of the Navi Mumbai airport will lead to increased traffic between Mumbai and Navi Mumbai. Consequently, the project is envisaged to; improving accessibility between Mumbai and Navi Mumbai, accelerating growth of Navi Mumbai, smooth traffic flow from Navi Mumbai airport to Mumbai, accelerating economic development of Navi Mumbai and surrounding regions, greater economic integration of Mumbai with Navi Mumbai and extended regions of Pune, Goa, Panvel and Alibaug, and decongestion of Mumbai and dispersal of population to Navi Mumbai region and beyond.
- 7. The Comprehensive Transportation Study (CTS) for Mumbai Metropolitan Region which was guided by Mumbai Metropolitan Region Development Authority (MMRDA) and supported by World Bank, was completed in July 2008, which was over 25 years after the issuance of the last comprehensive transport study. The report provided a vision for Mumbai's future transportation as seamless and integrated system, in which commuters can make their journeys safely and conveniently by various modes of transport, particularly by public transport, and recommended the development of Multi Modal Corridor to take care of the varied travel demands of the region for the period up to 2031. The CTS proposed to develop the highway network in the region. The MTHL has been regarded as the priority road for Mumbai, considering its function and importance connecting between Mumbai and Navi Mumbai.
- 8. Necessity of the Project: To promote economic development in Mumbai Metropolitan Region it is essential to improve the connectivity between Mumbai and Navi Mumbai, by constructing MTHL.

Actual (P/R, PCR)

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

### 1.3 Rationale of the Project Design

- Timing, Scale, Technology of the Project:

#### **Demand Analysis**

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

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

**Table 1.3.1 Demand Projections Over the Period** 

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

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

#### **Design Parameters / Overall Design**

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

- different type and with different span, viz., PC box girder with 50 m spans which is typically applied on marine viaduct since, it is economical, easy to construct and maintain.
- 9. On the land portion, the PC box girder having span of generally 30m is used.
- 10. As far as the location in which long span (150-180 m) is required to cross significant obstacles, such as navigation channels, pipelines and creeks, the steel box girder bridge with steel deck is proposed with large block erection method to shorten the construction period.
- 11. The project is coded with three lanes of traffic in each direction. The reference toll is presented in the Table 1.3.2 below for each vehicle class in Year 2022 (based on 2015 monetary value reflecting price escalation).

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

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

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

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

#### **Traffic management System**

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

Actual (P/R, PCR)

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

## 2.0 PROJECT IMPLEMENTATION

## 2.1 Project Scope

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

**Table 2.1.1 Comparison of Original and Actual location** 

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

Table 2.1.2 Comparison of Original and Actual Scope

Items	Original	Actual
Construction	work: 6-lane Marine Bridge Road (21.8 km)	
Package-1 Ch 0+000- 10+380 (10.380 km)	<ul> <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>Road Furniture and roadside 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+187 (7.80 km)	<ul> <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>Road Furniture and roadside facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers)</li> </ul>	(P/R and PCR) Actual: No View Barriers
Package-3 Ch 18+187- 21+800 (3.61 km)	<ul> <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>Cutting Section (6-lane with Slope Protection)</li> <li>Road Furniture and roadside facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers)</li> </ul>	(P/R and PCR) Actual: No Noise Barriers & View Barriers

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

## 2.2 Implementation Schedule

## 2.2.1 The Original Implementation Schedule

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

Items	Original	Status (P/R and PCR) as on 30 <sup>th</sup> June 2020
Completion of Land     Acquisition and Resettlement	March 2019	December 2020
2) Consulting Services		
a) Selection of Consultant	May – December 2016	May – December 2016
b) Consultancy Works	December 2016 – September 2024	December 2016 – September 2024
3) Selection of Contractor		
Package-1, Package-2 & Package-3	(Civil)	
a) Pre-Qualification Process	May – December 2016	May – December 2016
b) Main Bidding	January – December 2017	January – December 2017
c) JICA's Concurrence of Contract	February-2018	February-2018
Package-4 (ITS)		
a) Pre-Qualification Process	January 2019 – May 2019	January 2020 – April 2020
b) Main Bidding	June 2019 – September 2020	May 2020 – September 2020
4) Civil Construction		
Package-1 and Package-2	March 2018 – September 2022	March 2018 – September 2022
Package-3	March 2018 – September 2021	March 2018 – September 2021
Package-4	October 2020 – September 2022	June 2021 – September 2022
5) Defect Liability Period		
Package-1, Package-2 and Package-4	October 2022 – September 2024	October 2022 – September 2024
Package-3	October 2021 – September 2023	October 2021 – September 2023
6) Commencement of Toll Collection	September -2022	September -2022
Selection of O&M     Organization	October 2020 – September 2021	October 2021 – September 2022

**Attachment 6, 7 & 8:** Package wise construction schedules updated at the end of 1st quarter (April-June 2020).

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

## (P/R and PCR)

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

## 2.3 Project Cost

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

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

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

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

2. Price Escalation (a) Foreign Currency Portion: 1.83% p.a. (b) Local Currency Portion: 4.13% p.a.

- 3. Physical Contingency: 10%
- 4. Base Year for Cost Estimation: December 2018
- \* Base Cost for Land Acquisition considered in the year 2016 was INR 9,062,669,696. The base cost has been revised to INR 11,293 million considering Price Escalation and 10% Physical Contingency.

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

Foreign		oreign Currency Portion		Local Currency Portion			Total		
Cost Breakdown	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)	Total (Rs. mil)	JICA Portion (Rs. mil)	Others (Rs. mil)	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)
Package-1	5,618	5,618	-	17,446	17,446		32,653	32,653	
Package-2	5,417	5,417	-	12,299	12,299		23,427	23,427	
Package-3	72	72	-	3,185	3,185		4,950	4,950	
Package-4 (ITS)	-		-	-			-		
Package-5 (Geotechnical Investigation)	-			196		196	308		308
Dispute Boards (Package-1, 2, 3 & 4)	-			-			-		ı
Price Escalation	-			4	4		6	6	ı
Physical Contingency	-			-			-		-
Consulting Services	253	253		362	362		899	899	
Land Acquisition*	-			6,014		6,014	9,442		9,442
Administration Cost	-			2,281		2,281	3,582		3,582
GST	-			4,639		4,639	7,283		7,283
Import Tax	-			-			-		-
Interest during construction	-			-			-		-
Front End Fee	-			-			-		-
Total	11,360	11,360	-	46,426	33,295	13,130	82,550	61,935	20,614

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

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

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

3. Physical Contingency: 10%

4. Base Year for Cost Estimation: December 2018

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

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

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

(All Figures are in JPY mil)

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

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

(All Figures are in JPY mil)

Cost	Total		Others (MMRDA			
Breakdown	Total	Tranche I	Tranche II	Tranche III	Sub Total	Portion)
FY 2017	13,738	9,232	-	-	9,232	4,506
FY 2018	26,813	21,695	-	-	21,695	5,118
FY 2019	40,404	31,008			31,008	9,396
FY 2020	1,594	-	-	-	-	1,594
FY 2021						
FY 2022						
FY 2023						
FY 2024						
Total	82,549	61,935	-	-	61,935	20,614

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

- 2. Fiscal Year starting from 1<sup>st</sup> April and ending on 31<sup>st</sup> March.
- **2.3.2** Reason(s) for the wide gap between the original and actual, if there have been any, the remedies you have taken, and their results.

(P/R and PCR)

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

#### 2.4 Organization for Implementation

#### 2.4.1 Executing Agency

#### Original:

#### **Executing Agency**

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

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

#### Organization's Role

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

#### Project Implementation Unit (PIU)

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

#### Procurement

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

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

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

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

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

## 2.4.2.1 Procurement & Consultant

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

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

#### 2.4.2.2 Performance

#### **Consultant's Progress:**

#### **April 2020:**

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
  - i) Package-1: IPC-026 (80% ad-hoc) & IPC-027 (80% ad-hoc) and IPC-024 (20% detailed verification) & IPC-024 (20% detailed verification) Mobilization Advance Recovery done for INR and EURO.
  - ii) Package-2: IPC-021 (20% detailed verification)
  - iii) Package-3: IPC-016 (80% ad-hoc) and IPC 015 (20% detailed verification) Mobilization Advance Recovery done for INR
- 2 GC has prepared and submitted a total reimbursement claim of 3158.89 Million JPY to MMRDA / JICA in April 2020.
- 3 Due to Corona Virus Pandemic, countrywide lockdown has been implemented since 23rd March 2020. The construction activities were completely stopped across all the 3 Packages of MTHL. During this period, most of the GC staff were working from home.

#### May 2020:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
  - i) Package-1: No AIPC certification done in May 2020
  - ii) Package-2: Recovery of Mobilization Advance after 6% legislation adjustment in IPC-023
  - iii) Package-3: No AIPC certification done in May 2020.
- 2 GC has prepared and submitted a total reimbursement claim of 1391.68 Million JPY to MMRDA / JICA in May 2020.
- 3 Due to Corona Virus Pandemic, there was a countrywide lockdown throughout May 2020. However, the construction works has been partially resumed since 26<sup>th</sup> April 2020 onwards with mobility restriction conditions. During this period, although the GC staff started working from home, the required number of staff were present at the site for the supervision purpose.

#### June 2020:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
  - i) Package-1: IPC-26 (20% Detailed Verification) & IPC-27 (20% Detailed Verification) and IPC-28 (80% Ad-hoc) & IPC-29 (80% Ad-hoc).
  - ii) Package-2: IPC-22 (20% Detailed Verification) which was certified in May'20 is now superseded in June'20 (with updated submission as IPC-23)
  - iii) Package-3: IPC-16 (20% Detailed Verification) and IPC-18 (80% Ad-hoc).
- 2 GC has prepared and submitted a total reimbursement claim of 1472.03 Million JPY to MMRDA / JICA in June 2020.
- 3 Government announced some relaxation in the lockdown from 26<sup>th</sup> April 2020 for resumption of some critical and monsoon preparedness activities at the site.

## **Contractor's Progress:**

## Package-1 Physical Progress till 30<sup>th</sup> June 2020

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
1	Temporary Access Bridge					
1.1	Bridge Deck	2953	Rmt	2953	100%	
2	Test Pile					
2.1	Test Piles	5	No.	4	80%	
3	Permanent Bridge Works - L	and/ Inte	rchange	Zone		
3.1	Piles	524	No.	249	48%	
3.2	Pile Caps	158	No.	42	27%	
3.3	Piers	228	No.	81	36%	
3.4	Pier Caps	215	No.	0	0%	
4	Permanent Bridge Works - Ir	ntertidal 2	Zone			
4.1	Piles	316	No.	206	65%	
4.2	Pile Caps	76	No.	44	58%	
4.3	Piers	148	No.	76	51%	
4.4	Pier Caps	148	No.	45	30%	
5	Permanent Bridge Works - M	larine Zo	ne			
5.1	Piles	399	No.	270	68%	
5.2	Pile Caps	79	No.	25	32%	
5.3	Piers	160	No.	7	4%	
5.4	Pier Caps	160	No.	3	2%	
6	Permanent Bridge Works - T	otal				
6.1	Piles	1239	No.	725	59%	
6.2	Pile Caps	313	No.	111	35%	
6.3	Piers	536	No.	164	31%	
6.4	Pier Caps	523	No.	48	9%	
7	Precast Segments					
7.1	Segment Casting	6713	No.	423	6%	
7.2	Segment Erection	446	Spans	3	1%	

## Package-2 Physical Progress till 30<sup>th</sup> June 2020

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
1	Temporary Access Bridge					
1.1	Bridge Deck	2682	Rmt	2682	100%	
2	Test Pile					
2.1	Test Piles	2	No.	2	100%	
3	Permanent Bridge Works -	Land/ Inte	erchange	Zone		
3.1	Open Foundation	113	No.	70	62%	
3.3	Piers	119	No.	24	20%	
3.3	Pier Caps	104	No.	0	0%	
3.4	Portal Beams- Land	6	No.	0	0%	
3.5	Pier Head Segments -Land	42	No.	0	0%	
4	Permanent Bridge Works -	Intertidal	& CRZ Z	one		
4.1	Piles	290	No.	270	93%	
4.2	Pile Caps	70	No.	37	53%	
4.3	Piers	70	No.	13	19%	
4.4	Pier Caps	18	No.	0	0%	
4.5	Pier Head Segments	52	No.	0	0%	
5	Permanent Bridge Works -	Marine Zo	one			
5.1	Piles	514	No.	76	15%	
5.2	Pile Caps	122	No.	0	0%	
5.3	Piers	122	No.	0	0%	
5.4	Pier Caps	48	No.	0	0%	
5.5	Pier Head Segments	74	No.	0	0%	
6	Permanent Bridge Works -	Total				
6.1	Open Foundation	113	No.	70	62%	
6.2	Piles	804	No.	346	43%	
6.3	Pile Caps	192	No.	37	19%	
6.4	Piers	311	No.	37	12%	
6.5	Pier Caps	170	No.	0	0%	
6.6	Portal Beams	6	No.	0	0%	
6.7	Pier Head Segments	168	No.	0	0%	
7	Precast Segments					
7.1	Segment Casting	3142	No.	151	5%	
7.2	Segment Erection	271	Spans	0	0%	

## Package-3 Physical Progress till 30th June 2020

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks	
1	1 Permanent Bridge Works						
1.1	Open Foundations	195	No.	132	68%		
1.2	Piers	195	No.	68	35%		
1.3	Pier Caps	189	No.	22	12%		
1.4	Segment Casting	750	No.	92	12%		
1.5	Segment Erection	53	Span	0	0%		

## Package-4 (ITS) Progress till 30th June 2020

Preparation of Bid Documents for the Civil Works & ITS (Intelligent Transport system) system is in progress. GC has resolved the queries raised by the bidders during the PQ (Pre-Qualification) Stage. Employer received only one PQ Application from M/S Tata Projects Ltd & Efcon India Pvt Ltd (Joint Venture). Further line of action is under progress.

Please refer Attachment 9 - Site Progress Photos showing the development of the project.

## **Health & Safety and Environment (HSE)**

The HSE Plans have been submitted by the respective construction agencies for the Packages which are being monitored by the GC on a regular basis.

## Package-1 Safety Report

Sr. No	Description	From April to June 2020	Cumulative
1	Total Man Hours Since Inception	4,33,734	15111282
2	Number of Man-Hours (Accident Free Man-Hours)	4,33,734	2601294
3	Number of Man-Days	54,217	1888909
4	Number of Reportable Fatal Accidents	0	2
5	Number of Non-Fatal Accidents	0	1
6	Number of Near Miss Incidents	11	55
7	Number of First Aid Cases	2	100
8	Number of Dangerous Occurrences	0	1
9	Number of Reportable Sick Cases	0	0
10	Number of Man-Hours Lost	0	96448
11	Number of Man-Days Lost	0	12058
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	0	3
13	Number of Inspections done for Offices & Sites	354	597
14	Number of Training/ Induction done for Offices & Sites	38	248
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	1,213	1680
16	Details of Safety Committee meetings	0	21
17	No. of toolbox talks	1,423	27718
18	No. of critical excavations.	0	16
19	Pre-employment Medical check-up	151	14141
20	No. of Safety Walk down	0	119
21	No. of Safety Inductions completed	151	14141

## Package-2 Safety Report

Sr. No	Description	From April to June 2020	Cumulative
1	Total Man Hours Since Inception	9,80,023	7028074
2	Number of Man-Hours (Accident Free Man-Hours)	4,37,173	560692
3	Number of Man-Days	39,743	640163
4	Number of Reportable Fatal Accidents	0	0
5	Number of Non-Fatal Accidents	0	3
6	Number of Near Miss Incidents	0	33
7	Number of First Aid Cases	3	57
8	Number of Dangerous Occurrences	1	5
9	Number of Reportable Sick Cases	0	1
10	Number of Man-Hours Lost	88	924
11	Number of Man-Days Lost	8	97
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	0	3
13	Number of Inspections done for Offices & Sites	52	619
14	Number of Training/ Induction done for Offices & Sites	16	437
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	1,851	818
16	Details of Safety Committee meetings	2	24
17	No. of toolbox talks	314	3292
18	No. of critical excavations.	0	0
19	Pre-employment Medical check-up	95	6360
20	No. of Safety Walk down	3	72
21	No. of Safety Inductions completed	95	6570

## Package-3 Safety Report

Sr. No	Description	From April to June 2020	Cumulative
1	Total Man Hours Since Inception	1,16,831	1309669
2	Number of Man-Hours (Accident Free Man-Hours)	1,16,831	1309669
3	Number of Man-Days	14,604	163709
4	Number of Reportable Fatal Accidents	0	0
5	Number of Non-Fatal Accidents	0	0
6	Number of Near Miss Incidents	0	6
7	Number of First Aid Cases	3	43
8	Number of Dangerous Occurrences	0	0
9	Number of Reportable Sick Cases	0	0
10	Number of Man-Hours Lost	0	0
11	Number of Man-Days Lost	0	0
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	0	0
13	Number of Inspections done for Offices & Sites	15	196
14	Number of Training/ Induction done for Offices & Sites	4	123
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	346	4024
16	Details of Safety Committee meetings	1	20
17	No. of toolbox talks	420	3134
18	No. of critical excavations.	0	3
19	Pre-employment Medical check-up	27	2899
20	No. of Safety Walk down	3	79
21	No. of Safety Inductions completed	27	2899

### 3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)

#### 3.1 **Operational and Physical Condition**

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

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

#### 3.2 Precautions (Measures To Be Adopted/ Points Which Require Special Attention)

#### **Original Issues and Countermeasure(s) Actual Issues and Countermeasure(s)** 3.2.1 General Issues (P/R and PCR) 1. Toll Arrangement/ Toll Rate Fixed toll rate as per the type of vehicle Appropriate Tolling Policy/ Rates will be finalized will be levied for the road users after the by December 2021. 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. 2. Operation and Maintenance MMRDA proposes to appoint separate agencies for Operation & Maintenance of Single Operation and Maintenance Contractor the bridge and for Toll Management will be appointed by December 2021. System. Both the agencies for O & M and Toll Management System may be open tendering appointed through process. Overall monitoring of the two agencies would be done by MMRDA in house through a separate cell which could be constituted for the purpose. MMRDA has confirmed to allocate adequate budget for engaging the Contractors. 3.2.2 Environmental Social (P/R and PCR) and

## Consideration

#### a. CRZ Clearance

- i. Supplemental EIA has been approved by MMRDA and disclosed on the website of JICA. Supplemental EIA report has been disclosed also on the website of MMRDA.
- ii. Furthermore, renewed CRZ Clearance has been obtained in January 2016.
- iii. In accordance with the conditions for

- MMRDA has disclosed Supplemental EIA & SIA on MMRDA website.
- The renewed CRZ clearance was granted on 25/1/2016 from MoEF&CC and the approval conditions have been imposed on the Contractors as the Employer's requirements. MMRDA has actively monitored compliances of the approval conditions and maintains throughout the construction phase.
- MMRDA appointed Mangroves & Marine

CRZ Clearance, appropriate measures Biodiversity Foundation for bird monitoring shall be taken, and necessary budget and implementation of Flamingos and bird shall be secured by MMRDA. monitoring program for the MTHL project during the construction as well as the longterm monitoring after the construction. • Rs 91.42 Crore has been transferred to Mangroves Marine Biodiversity & Foundation, Mumbai for the development & conservation of mangrove area and its afforestation. Such funds will be managed by the Mangrove Foundation of Maharashtra State. • As per the renewed CRZ clearance condition, IIT Mumbai has been appointed for the DPR study to develop a Mahul creek Effluent Treatment Plant (ETP). Rs 4.98 Crore was secured for IIT services. The Draft DPR has been reviewed and approved by MMRDA.

#### b. Required Permits

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

**Table 3.2.2 Present Status of some Important Permits** 

Clearance Required	Approving Authority	Responsible Organization	Obtained by when	Remark /Status
Mangrove Cutting	Hon. Bombay High Court	MMRDA/ Contractor	Approval received from Hon. Bombay High Court on 28 <sup>th</sup> November 2016	Mangrove cutting operation was completed with full compliance and as of now, no further follow up work is required.
Tree Cutting /Transplantati on	Respective Tree Authorities	Contractor for respective Packages	-	Pkg-1: Tree Cutting/ Transplantation permission is awaited from the Tree Authority. Pkg-2: Tree Cutting/ Transplantation permission obtained & completed. Pkg-3: Forest Department has issued a concurrence on 19/05/2019. CIDCO's permission for Tree Cutting/ Transplantation obtained on 25 <sup>th</sup> November 2019.
Consent to Establish	Maharashtra Pollution Control Board	Contractor for respective Packages	Pkg-1-18.07.2018 Pkg-2-16.08.2018 Pkg-3-29.05.2019	

## 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				
4	Establishment of Effective	remaining problem(s)  Cell is established by MMRDA				
1.	Environmental and Social Cell in PIU	(Annexure III, Organization chart)				
	MMRDA confirmed that Social Development Cell (2 Officers), Land Cell (3 Officers), and Environmental Cell (2 Officers) had been set up.					
2.	Rehabilitation and Land Acquisition Issues	<b>Sewri:</b> Involuntary resettlement in Sewri section has been further validated by Social Development				
a.	Affected Area and Population  Due to the Project, 1282 non-	Cell of MMRDA. Out of 297 Project Affected Households (PAHs) have given consents as follows:				
	titleholders will be involuntary resettled, and 108.09 ha of land will be handed over by CIDCO.	164 PAHs Kanjurmarg for residential				
		25 PAHs Kanjurmarg for commercial				
		<ul> <li>7 PAHs (Satsangi Plot) Kanjurmarg for Commercial</li> </ul>				
		1 PAHs (commercial to residential) for Bhakti Park				
		100 PAHs HDIL Kurla for residential				
		Navi Mumbai: CIDCO has been finalizing the land acquisition closely monitored by Land Cell of MMRDA. Except private land and forest, CIDCO has possessed all required land of 108.09 ha. Out of the 108.09 ha, 106.345 ha has been handed over by CIDCO to MMRDA. CIDCO is going to acquire the balance 1.745 Ha with the help of Collector, Raigad.				
b.	Entitlement Policy					
	MMRDA prepared the entitlement matrix for resettlement of non-title holders in Sewri, which meets the Resettlement and Rehabilitation Policy for Mumbai Urban Transportation Project (1997, amended in 2000) and JICA guidelines for Environmental and social considerations (2010)	There have been no changes during the enforcement. As per the <b>Attachment 2-5</b> of JICA MoD, MMRDA has committed to enforce the agreed/ approved policy.				

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)			
("Guidelines") (Attachment 2-5).				
c. Compensation to Project affected Fishermen	Updated Attachments 2-8 and 2-10 are enclosed			
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.	in the report.			
d. Implementation Schedule  The Implementation schedule for land acquisition, resettlement and rehabilitation is attached as per Attachment 2-10.	Updated <b>Attachment 2-10</b> is enclosed in the report.			
e. Grievance Redressal Mechanism  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.	Sewri: FLGRC (Field Level Grievance Redressal Committee) and SLGRC (Senior Level Grievance Redressal Committee) were set as per the RAP and in operation.  Compensation Committee has been constituted to address the issues of Compensation to Lease Holders at Sewri.  Fishermen: GRC for resolving grievances of the fisherfolk was set up as per the compensation policy and is in operation.			
f. Internal Monitoring  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.	Internal Monitoring updates are mentioned in Attachment 2-8.			

Issue(s)	Action or countermeasure(s) taken and			
10040(0)	remaining problem(s)			
g. Qualitative Independent Evaluation	promon(e)			
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.	Updated Attachment 2-10 is enclosed in the report.			
h. RAP Implementation Budget				
The amount of estimated resettlement and compensation budget is Rs.906.26 Cr MMRDA informed to the JICA Mission that RAP implementation cost would be borne by MMRDA and ensured sufficient and timely allocation of funds for smooth implementation.	As updated in MOD dated 03/09/2019 for MTHL-II, the base cost Budget towards RAP Implementation is updated as Rs 1129.3 Cr.			
i. Environmental Management Plan				
("EMP")  The mitigation measures against air pollution, waste, noise, and water pollution etc. shall be taken during construction and operation phase. Mitigation measures such as installation of noise barrier, appropriate waste management, etc. have been prepared by MMRDA. The mitigation measures are listed in the EMP matrix. (Attachment 2-1). During the detailed design stage, MMRDA, with assistance of the Consultant, will update the EMP, as necessary.	EMP will be updated, if required, in due course of construction activities/progress.			
j. Environmental Monitoring Plan				
("EMoP")  MMRDA takes overall responsibility for implementation of EMoP. During construction, environmental monitoring will be carried out by contractors under supervision by Construction Supervision consultant. The result shall be reported to the JICA India Office on a quarterly basis	Updated Environmental Monitoring Plan with package wise updated cost is reported in <b>Attachment 2-3</b> .  Environmental Monitoring Results during the construction phase are reported in <b>Attachment 2-4</b> .			

Issue(s)	Action or countermeasure(s) taken and				
	remaining problem(s)				
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.					
k. Long Term Bird Monitoring  MMRDA committed to conduct the long-term monitoring of birds and its habitat in Sewri mud-flats with the assistance of hired bird expert. During the long-term monitoring, MMRDA will share information and receive advices from external experts including the one from NGOs and civil society.	<ul> <li>MMRDA has entrusted the work of bird monitoring and implementation of Flamingos and birds related mitigation measures &amp; bird monitoring program to Mangrove and Marine Biodiversity Foundation.</li> <li>Rs. 31.92 Crore deposited to Mangrove foundation, Mumbai 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 (Year 2015)	Target (Year 2024) 2 Years After Commercial Operation
Average Annual Daily Traffic (PCU/ day)	-	47,400
Daily Average Travel Time (min) * 1	61 min	15.8 min
Number of Users (Persons/ year) * 2	-	46,077,504
Cargo Volume (tons/ year) * 3	-	13,511,759

<sup>\*1</sup> Section on Sewri - Chirle

<sup>\*2</sup> Assumptions: average passengers of car and taxi (2.6 persons), bus (37.2 persons) based on JICA study. Number of passengers of LCV, HCV and MAV is assumed as 1 person each.

<sup>\*3</sup> Assumptions: the maximum capacity of respective vehicle (LCV: 1 ton, HCV and MAV: 15 tons) is used for estimation.

	Original:	Actual: (PCR)
EIRR	15.4% Cost: Project cost (excluding Price Escalation, Tax and Duties and Administration cost) O&M cost, Land Acquisition Benefit: Travel Time cost and Vehicle Operation cost Project Life: 32 Years	Cost: Benefit: Project Life: Attachment(s): Supporting data for computing EIRR
FIRR	Original: 1.5% Cost: Project Cost, O&M cost, Land Acquisition cost Benefit: Toll Revenue Project Life: 32 Years	Actual: (PCR)

## 3.5 Monitoring Plan for the indicators

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

**Original**: (P/M and PCR)

**Monitoring Organization** 

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

Submission of QPR and PCR

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

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

Actual: (P/R and PCR)

### **Monitoring Organization**

PIU for MTHL has been established for monitoring the Project.

#### Submission of QPR and PCR

This QPR No. 13 is submitted for the period of 1<sup>st</sup> April to 30<sup>th</sup> June 2020.

#### 3.6 Achievement of the Project Objective

(PCR)		

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

#### 4.1 O&M and Management

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

Original: (P/M)

Operation & Maintenance, Toll Management and ITS

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

Actual: (PCR)

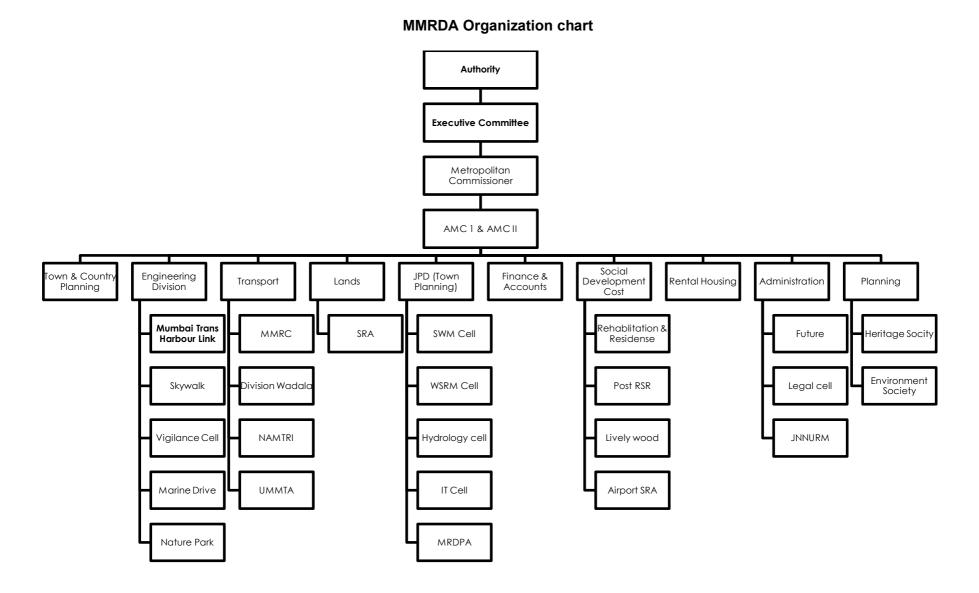
#### 4.2 O&M Cost and Budget

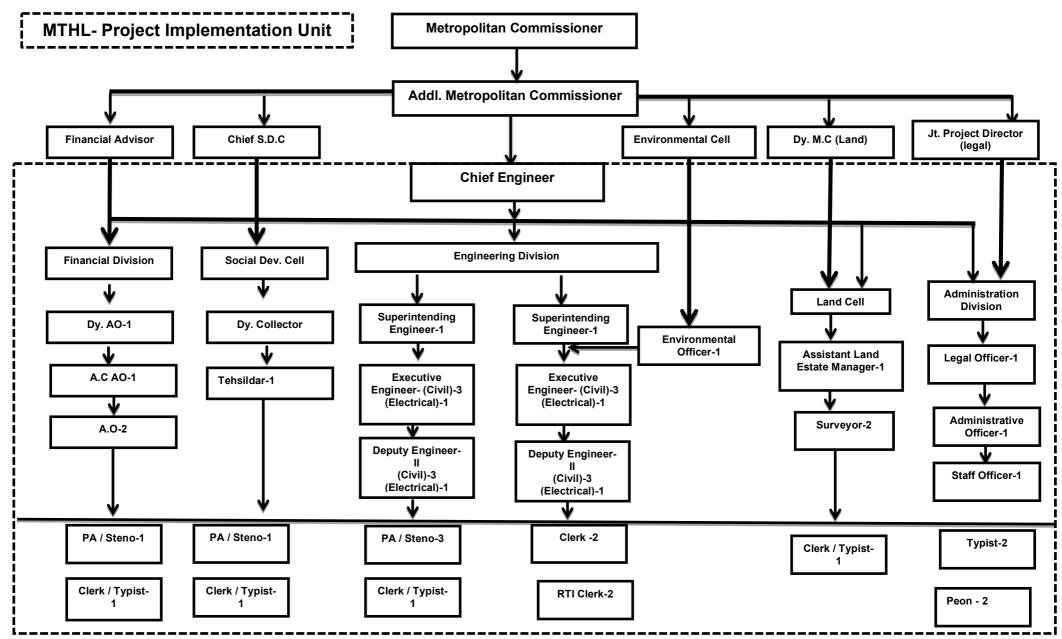
- The actual annual O&M cost for the duration of the project, as well as the annual O&M budget.

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

5.0 EVALUATION	
5.1 JICA and Borrower / Executing Agency performance	<u> </u>
JICA:	
(PCR)	
Borrower/ Executing Agency:	
(PCR)	
5.2 Overall Evaluation	
Please describe your evaluation on the overall outcome of the project.	
(PCR)	
5.3 Lessons Learnt and Recommendations	
Please raise any lessons learned from the project experience, which might be valuable the future JICA assistance or similar type of projects, as well as any recommendation which might be beneficial for better realization of the project effect, impact and assurate of sustainability.	ns,
(PCR)	

/lumbai	<b>Trans</b>	Harbour	Link	Project -	- Quarterly	<b>Progress</b>	Report No.	13 (Apr-Jun 2020)
Att	ach	ment	1- N	MMRI	<b>DA &amp; P</b>	IU Org	ganizati	ion Chart





# Attachment 2- Environmental & Social Impacts Attachments

Attachment 2-3 - Environmental Monitoring Plan
Attachment 2-4 - Environmental Monitoring Result Reporting Form
Attachment 2-6 - MTHL Land Acquisition Status
Attachment 2-8 - RAP Internal Monitoring Form
Attachment 2-10 - Schedule of the RAP Implementation

#### Updated Environmental Monitoring Plan with Packagewise Estimated Cost

Category	No.	Impacted Item on JICA Guidelines	Parameter	Method	Location	Frequency a year	Cost (INR)	Cost Pkg.1 (INR)	Cost Pkg.2 (INR)	Cost Pkg.3 (INR)	Total Cost (INR)	Standard Central Pollution Control Board (CPCB) – Ministry of Environment & Forest (MoEF)	Remarks
Ī	1	Air pollution	SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub> , PM <sub>2.5</sub> , O <sub>3</sub> , CO, (6 Items)	National Ambient Air Quality Standards, 2009		Fortnightly at all locations except 2 locations each near Batching plants	1,800,000	15,000,000	1,800,000	742,500	17,542,500	National Ambient Air Quality Standards (NAAQS) by Central Pollution Control Board (CPCB)	P1 contractor team is conducting Ambient air quality monitoring with reference to National Standards and clause 1.2 of Employer's requirement.
					2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year						(Standard for 24hrs: Industrial and Residential/ Ecological Sensitive area)	P 2 contractor Monitoring plan has been designed as per EIA of 2015
					package III	Fortnightly only for 3 months (jan-2019 to Mar-2019). Then quarterly monitoring as per MOEF and CPCB norms						· SO <sub>2</sub> : 80 / 80µg/m <sup>3</sup>	P3 contractor team is conducting Ambient air quality monitoring with reference to National Standards and clause 1.2 of Employer's requirement.
												. NO <sub>2</sub> : 80 / 80µg/m <sup>3</sup>	P 1 received Consents CTE & CTO from MPCB and they are following MPCB frequency in addition to frequency set by Environment Expert from GC. The NAAQ standards are showing High rate as that is the usual procedure. The frequency of monitoring is set by us which varies for different parameters as either Statutory requirements or as required by us to ensure we have sufficient data in hands if there are additional claims for Compensation in C5 category. Summary: Although the contract conditions for all packages were same at the time of biding. Later modifications suggested by GC were not accepted by P 2. P1 and P3 accepted the modifications and hence the difference. Second point is P 1 carrying out monitoring as per the obatiend CTE and CTO. Both other packages have applied for CTE but haven't obtained it yet. So we expect the monitoring frequecy would change after obtaining CTE.
												<ul> <li>PM<sub>10</sub>: 100 / 100µg/m<sup>3</sup></li> <li>PM<sub>2.5</sub>: 60 / 60µg/m<sup>3</sup></li> <li>O<sub>3</sub>: 180 / 180µg/m<sup>3</sup></li> <li>CO: 0.4 / 0.4mg/m<sup>3</sup></li> </ul>	- - - -
	2	Water pollution	pH, BOD, DO, Turbidity and O&G	IS / AWWA	Sewri & Sewri bay area for package I      Nhava temporary bridge & casting yard in Gavhan for package II	Quarterly 4 Times / Year	810,000	2,400,000	810,000	0	3,210,000	Marine water quality Standards – Class SW-IV Harbour Waters (MPCB)  • pH: 6.5-9	Water Pollution not applicable for Pkg. 3
g					3. Gavhan & Chirle for package III	Not applicable						<ul> <li>D0: 3 mg/l</li> <li>Turbidity: 30 NTU</li> <li>B0D: 5 mg/l</li> <li>0 &amp; G: 10 mg/l</li> </ul>	1
Pollution	3	Waste	Volume of waste soil, cutting tree and domestic garbage	Volumetric	1. Sewri & Sewri bay area for package I	Daily	500,000	299,200,000	500,000	600,000	300,300,000		The cost of waste disposal for P1 includes C&D waste, Pile muck etc. from all areas like, interchange, intertidal and marine. The disposal location is at MCGM approved location Bhayandarpada, Thane.

Category	No.	Impacted Item on JICA Guidelines	Parameter	Method	Location	Frequency a year	Cost (INR)	Cost Pkg.1 (INR)	Cost Pkg.2 (INR)	Cost Pkg.3 (INR)	Total Cost (INR)	Standard Central Pollution Control Board (CPCB) - Ministry of Environment & Forest (MoEF)	Remarks
					2. Nhava temporary bridge & casting yard in Gavhan for package II							Municipal Soild Waste Management Rules, 2013 Generated waste shall be reused or disposed at designated site. Sites have been identified and the location for Pkg. 1 is at Bhayandar Pada in Thane. For Pkg. 2 & 3 is in Navi Mumbai at Pushpak Node nera	P2 contractor has considered only Domestic garbage with respect to CIDCO. Other wastes are not considered. Construction wastes will be
					3. Gavhan & Chirle for package III	Once site clearing work/execution part of work start.						"Teen Taki Junction" along the Amar Marg.	
	4 and 8	Soil Contamination/ sedimentation	Heavy Metals & Oil & Grease	IS / Methods Manual Soil Testing in India by	1. Sewri & Sewri bay area for package I	1. Muck: 1 Time / Year 2. Sediments: 4 Times / Year	150,000	1,500,000	150,000	100,000	1,750,000	Soil Pollution Standard in India (MOEF)	
			(5-10 items shall be selected from Soil pollution standards)	Department of Agriculture and Cooperation, January 2011	Nhava temporary bridge & casting yard in Gavhan for package II							· Cd: 0.01mg/l	
					3. Gavhan & Chirle for package III	*If any spillage/ leakage take place						· Lead: 0.01mg/l	
						from chemical, fuel storage area.						Chromium (VI): 0.05mg/l      Arsenic: 0.01mg/l	-
						*One time grab sample to be collected during						· T-Mercury: 0.0005mg/l	]
						Bridge Construction *Pre & Post Monsoon						Copper: 125mg/kg  (some items shall be selected from totally 25 standards)	-
	5	Noise and	Ambient and road	IS Standard	1. Sewri & Sewri bay area	at Storage area only Fortnightly	150,000	54,000	150,000	369,000	573,000	items) -Construction Noise; 85dB(A)	
	3		side noise (dB(A)L <sub>Aeq</sub> )	13 Standard	for package I		130,000	34,000	130,000	309,000	373,000		
					Nhava temporary bridge     casting yard in Gavhan for package II							-Ambient Noise Standards in India (dB (A) <sub>Leq</sub> )	
					3. Gavhan & Chirle for package III	Fortnightly						1.Industrial Area	-
					package III							Day Time: 75 (6-22hr)	]
												Night Time: 70 (22-6hr)	]
												2.Commercial Area: Day Time: 65 (6-22hr)	-
												Night Time: 55 (22-6hr)	1
												3.Residential Area:	]
												Day Time: 55 (6-22hr)	
												Night Time: 45 (22-6hr)  4.Silence Zone	
												Day Time: 50 (6-22hr)	
												Night Time: 40 (22-6hr)	
			Vibration (dB L10 or mm/sec)		1 Location Gavan area for package III	Half yearly	75,000	0	75,000	400,000	475,000	- Construction vibration 75dB	Not applicable for Pkg. 1
												-Vibration Standards roadside	-
												1. Commercial /Industrial Area	
												Day Time: 70 (7-20hr)	_
												Night Time: 65 (20-7hr)  2. Residential Area:	
												Day Time: 65 (7-20hr)	
												Night Time: 60 (20-7hr)	<u> </u>
	9 and 10	Protected Area /Ecosystem	1.Monitoring of mudflat conditions including fauna-flora	Ocular inspection and quantitative survey	Along MTHL alignment and mangrove replant area for Package I	Quarterly during the construction Period	6,500,000	7,200,000	6,500,000	0	13,700,000		Not applicable for Pkg. 3
			2. Monitoring of Cutting Tree and replantation/		Along MTHL alignment and mangrove replant area for package II	4 Times / Year						Significant impacts are not caused by the project	
			transplanting area	1-1. Fauna-Flora	Not applicable for Package III								]
			3.Monitoring of Mangrove Plantation area appointed by MoEF	Line-Point census and record number and appeared species								Note)	
		I		<u> </u>			]		I	1 1			J

Category	No.	Impacted Item on JICA Guidelines	Parameter	Method	Location	Frequency a year	Cost (INR)	Cost Pkg.1 (INR)	Cost Pkg.2 (INR)	Cost Pkg.3 (INR)	Total Cost (INR)	Standard Central Pollution Control Board (CPCB) – Ministry of Environment & Forest (MoEF)	Remarks
Natural environment			4. Monitoring of sedimentation soil and ecological parameter (18items on Supplemental EIA Table 6.1.15 for soil and 7 items such as 1)Netprimary productivitye, 2)Chlorophyll-a, 3)Phosphate, 4)Nitrate, 5)Nitrite, 6)Particulate Organic Carbon, 7) SiO <sub>2</sub> )	1-2: Mangrove density and community survey								Detailed monitoring plan will be setup during basic design stage	
				1-3: Benthos Survey 2-1: Cutting trees confirmation 3-1: Mangrove survey in the replanted area								Standard for Soil; Supplemental EIA Table 6.1.15  Standard for Ecological Parameter:  Netprimary Productivity <1,500 mgC/m3/day at surface Chlorophyll-a <4mg/m3 Phosphate: 0.1-90µg/l Nitrate: 1.0-500µg/l	
												<ul> <li>Nitrite: &lt;125μg/l</li> <li>Particulate Organic Carbon: 10-100mg/m³</li> <li>SiO2: 10-5,000μg/l</li> </ul>	
	11	Hydrology	Flooding situation	Flood level measurement during high precipitation periods	Not applicable for Package I		350,000	0	350,000	0	350,000	Project activities and structures does not cause flooding and impacts on tidal conditions	Not applicable for Pkg. 1 & 3
					2 Locations (CRZ at Sewri and Shivaji Nagar) for Package II	4 Times / Year							
					Not applicable for Package								
	12	Topography and Geology	Conditions in embankment area	Stability of	Not applicable for Package I Interchange in Shivaji Nagar for Package II	4 Times / Year	115,000	0	115,000	0	115,000	Embankment shall be stabilized without any landslide and cracks	Not applicable for Pkg. 1 & 3
	13	Local acanamii			Not applicable for Package		As per Actuals						
		Local economy such as employment and livelihood			Affected area		•						
ıment	14	Local conflict of interests	Construction worker's township	Confirmation of workers list from	2 Locations (camp site in Sewri and Shivaji Nagar) for	2 Times / Year	125,000	0	125,000	0	125,000	Employment opportunity shall be provided fairly	
Social environme	15	Infectious diseases such as	Number of infected patient	contractor Confirmation of health check list	Package II 2 Locations	4 times / year x 4.5 years	525,000	0	525,000	0	525,000	Infection disease rate shall not be caused by the project	
cial e	16	HIV/AIDS Labour	Construction	from contractor Confirmation of	2 Location (camp site in	2 times / year	500,000	0	500,000	0	500,000	"Building And Other Construction Workers (Regulation	
So		Environment	worker's condition	safety devices and conditions via interviews	Sewri and Shivaji Nagar) for Package II		·					of Emloyment and Conditions of Service) Act,1996", "The building and other construction worker's welfare cess Act, 1996" and international standards such as "IFC Performance Standard 2 Labor and Working Conditions"	
Other	17	Accidents	Number of accidents		Package II	4 Times / Year	400,000	0	400,000	0	400,000	Any accidents are not caused by construction	
				Total	<u> </u> 	l	8140500	325,354,000	12,000,000	2,211,500	339,565,500		

### The Project for Construction of Mumbai Trans Harbour Link Reporting Form of Environmental Monitoring during Construction Attachment 2-4

1. Environmental Monitoring during Construction for 4.5 years

Monitoring Period - April to June 2020

Attachment 2-4

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all perameters in EMOP are covered.

		l l	g Construction for 4.5	jeurs				Monitoring Resul	t		Remark			
Area	No.	Item	Parameter	Location	Frequency a year	Item and Stanadard	Location 1- Pkg 1	Location 2	Location 3- Pkg 3	Location 4	- reasons why the data is exceeding standard - counter measures when the data is exceeding			
				1. Sewri & Sewri bay area for package I	Quarterly monitoring ia conducted at all locations.	National Ambient Air Quality Standards (NAAQS)								
	1	Air pollution	SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	(Standard for 24hrs: Industrial and Residential)	Sewri	Shivaji Nagar	Chirle					
				3. Gavhan & Chirle for package III	From march -2019 onwards monitoring is conducted quarterly as	1. SO <sub>2</sub> : 80µg/m <sup>3</sup>								
					per MOEF and CPCB norms	2. NO <sub>2</sub> : 80μg/m <sup>3</sup>			Refer Remark		Due to COVID 19 Lockdown, Ambient air monitoring			
						3. PM <sub>10</sub> : 100μg/m <sup>3</sup>	Refer Remark	Refer Remark			could not be conducted for this quarter.			
						4. PM <sub>2.5</sub> : 60μg/m <sup>3</sup>	]							
						5.CO:02mg/m3	]							
				1 Carrei 9 Carrei harr	Occastowler	6.VOCs								
				Sewri & Sewri bay area for package I	Quarterly	Marine water quality Standards – Class SW-IV Harbour Waters (MPCB)	Zone I	Zone II	Zone III					
	2	Water pollution	pH, BOD, DO, Turbidity	2. Nhava temporary bridge & casting yard in Gavhan for package II	1	1. pH : 6.5-9								
	-	water politicon	and O&G	3. Gavhan & Chirle for	Not applicable	2. DO: 3 mg/l	Ī				D 4 COMB 10 L 1 L			
				package III		3. Turbidity: 30 NTU	Refer Remark	Refer Remark			Due to COVID 19 Lockdown, water monitoring could not be conducted for this quarter.			
						4. BOD: 5 mg/l	†				· ·			
						5. O & G: 10 mg/l	Ī							
						6.COD								
				1. Sewri & Sewri bay Daily area for package I		Municipal Soild Waste Management Rules, 2013	Sewri Camp Site	Shivaji Nagar Camp Site	Chirle Camp Site					
		Waste		2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	Generated waste soil (t) total	<u>117.02 m3</u>	Approx 1000 kg waste generated in total from the labour camp	NIL		The site work was restricted due to COVID 19 Lockdown in this period			
	3		Volume of waste soil, cutting tree and domestic garbage	3. Gavhan & Chirle for package III	Once site clearing work/execution part of work start.	Generated cutting treel (ha) total	Tree cutting proposal has been submitted and approval from MCGM is awaited. Tree Cutting so far NIL		Permission from both CIDCO and forest department, Tree cutting so far is nil					
						Generated domestic waste (t/month) total	2.45 T for the quarter		0.750 T quarter is disposed through Gram panchayat.					
						Confirmation of adequate disposal (visualt survey)								
							1. Sewri & Sewri bay area for package I	1. Muck: 1 Time / Year 2. Sediments: 4 Times / Year	Soil Pollution Standard in India (MOEF)		Testing Done on september 2019 and Reports submitted to			
				2. Nhava temporary bridge & casting vard in 3. Gavhan & Chirle for		1. Cadmium: 0.01mg/l		de			Muck analysis was conducted in April 2019, and report is already submitted to GC.			
				package III	*If any spillage/ leakage take place from chemical,	total cyanide : not detected     organic phosphorus: not detected	Refer Remark							
ion					fuel storage area. *One time grab sample to be collected during Bridge Construction *Pre & Post Monsoon at									
Pollution					Storage area only	5. chromium (VI): 0.05mg/l			1					
P.						6. arsenic: 0.01mg/l or 15mg/kg (agri-land soil)								
						7. total mercury: 0.005mg/l								
						8. alkyl mercury: not detected					ation, some items shall be selected from the total			
	4	Soil Contamination/sedim	Heavy Metals & Oil &			9. PCBs: not detected					Design. Only the selected items shall be reported			
	*	entation	Grease			10. copper: 125mg/kg (only paddy field soil ) 11. dichloromethane: 0.02mg/l			JICA, and t	he rest of items shall be dele	ted from this form.			
						11. dichloromethane: 0.02mg/l 12. carbon tetrachloride: 0.002mg/l								
						13. 1,2-dichloroethane: 0.004mg/l			<del> </del>					
						14. 1,1-dichloroethylene: 0.02mg/l								
						15. cis-1,2-dichloroethylene: 0.04mg/l								
						16. 1,1,1-trichloroethane: 1mg/l								
						17. 1,1,2-trichloroethane: 0.006 mg/l								
						18. trichloroethylene: 0.03mg/l								
						19. tetrachloroethylene: 0.01mg/l 20. 1,3-dichloropropene: 0.002mg/l			<del> </del>					
1 1		I	I	I	I	20. 1,5-dictitoroptopene. 0.002Hig/1	I	l	1	I.	l			

The Project for Construction of Mumbai Trans Harbour Link Reporting Form of Environmental Monitoring during Construction Attachment 2-4

Monitoring Period - April to June 2020

Attachment 2-4

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all perameters in EMOP are covered.

1. Environmental Monitoring during Construction for 4.5 years 21. thiuram: 0.006mg/l 22. simazine: 0.003mg/l 23. thiobencarb: 0.02mg/l 24. benzene: 0.01mg/l 25. selenium: 0.01mg/l l. Sewri & Sewri bay ortnightly Construction area Standard 85 dB(A) daytime (Japan Sea Section (ST5000-5500) rea for package I standard) Sewri (ST 200-500) Shivaji Nagar Migratory Bird Area(no Not constuction area: Ambient Noise Standard in (Industrial area) (Commercial area) standard on sea section) India (dB(A) Laeq) 2. Nhava temporary 2 Times / Year bridge & casting yard in Due to COVID 19 Lockdown, ambient noise Day time: 6-22 hr (continious) dB(A) Refer Remark 66.8 Gavhan for package II monitoring could not be conducted for this quarter. 3. Gavhan & Chirle for Night time: 22-6 hr (continious) dB(A) Fortnightly Refer Remark 65.3 package III (only sea section) Day time: 6-22 hr (10 min during 9-17 hrs) Ambient and road side Night time: 22-6 hr (10 min 22-24 hr) noise (dB(A)LAeq) Note (standard values in Not construction area) 1.Industrial Area Day Time: 75 (6-22hr) Due to covid -19 lockdown april vibration monitoring was not conducted but in June we planned it again as suggested by GC but vendor denied due to covid-19 Noise and vibration Night Time: 70 (22-6hr) Refer Remark ockdown ( same mail we sendto GC/ MMRDA along with letter). Ref letter No.0001810 Dated on 2.Commercial Area: 14.07.2020 Day Time: 65 (6-22hr) Night Time: 55 (22-6hr) 1 Location Gavan area Half yearly Construction area Standard 75 dB daytime (Japan for package III Sewri (ST 200-500) Shivaji Nagar (Commercial area) Chirle Not constuction area: Vibration Standard (Japan (Industrial area) Standard along the road) There is no reference standard in India for Vibration Day time: 6-22 hr (continious) Vibration Refer Remark monitoring in marine area. GC has confirmed that vibration monitoring is not required for the project. shall be converted from nm/s to dB Night time: 22-6 hr (continious) Note (standard values in Not construction area) Regarding protected area (CRZ and Important Bird Area) and ecosystem, detailed long-1. Commercial /Industrial Area term monitoring plan will be extablished during baseline survay of birds. This tentative Day Time: 70 (7-20hr) monitoring form shall be updated based on the detailed long-term monitoring plan. Night Time: 65 (20-7hr) Along MTHL alignment Quarterly Mangorove Replantation Shivaji Nagar side (app. ST16000-19000) Standard is not existing, but quantity and quality Sewri side Sea Section (ST5500-16000) and mangrove replant during the area appointed by State
Government (ST500-5500) should not be worsen area for Package I construction Period Along alignment 1 Times / Year 1-1. Fauna-Flora (number of species and quantity mangrove replant area for package II (1) Number of species of bird (2) Number of species of fish (3) Estimated number of Flaming 1.Monitoring of mudflat onditions including fauna 1-2: Mangrove density and community survey 2. Monitoring of Cutting

The Project for Construction of Mumbai Trans Harbour Link Reporting Form of Environmental Monitoring during Construction Attachment 2-4

Monitoring Period - April to June 2020

Attachment 2-4

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all perameters in EMOP are covered.

1. Environmental Monitoring during Construction for 4.5 years (1) Number of species of mangorve replantation/transplation (2) Density of mangrove (xx trees/10m x 10m) 3.Monitoring of Mangrove 1-3: Benthos Survey Plantation area appointed Due to COVID 19 Lockdown, marine biology bv MoEF Protected Area (1) Number of species and quantity by species Refer Remark ampling and monitoring could not be conducted for 4. Monitoring of sedimentation soil and All the tree cutting and ecological parameter (25 angrove cutting had been items on EIA main text carried Out as per approval Table 6.1.15 for soil and Tree cutting proposal has been submitted and received from GC and MMRDA items such as 1)Net 2-1: Cutting tree confirmation approval from MCGM is awaited. Tree Cutting Nil and job was completed in 2018 primary productivity, itself and after that no trees and 2)Chlorophyll-a, angroves have been cut till 3)Phosphate, 4)Nitrate, 5)Nitrite, 6)Particulate Organic Carbon, 7) SiO2) (1) Number of cutting tree and species 3-1: Mangrove survey in the replant area Nil (1) Number of species of mangorve (2) Density of mangrove (xx trees/10m x 10m) 4. Ecologial Parameter Due to COVID 19 Lockdown, marine biology (1) Net primary Productivity: <1,500 mgC/m3/day at impling and monitoring could not be conducted for (2) Chlorophyll-a: <4mg/m3 (3) Phosphate: 0.1-90μg/l (4) Nitrate: 1.0-500μg/l (5) Nitrite: <125μg/l (6) Particulate Organic Carbon: 10-100mg/m<sup>3</sup> cosystem (7) SiO2: 10-5,000μg/l Not applicable for Criteria for evaluation Package I Project activities and structures does not cause Sewri Shivaji Nagar oding and impacts on tidal conditions Hydrology Flooding situation 2 Locations (CRZ at 4 Times / Year Monitoring of flooding situation No Flooding Sewri and Shivaji Nagai for Package II Not applicable for Package III Criteria for evaluation Embankment shall be stabilized without any landslid Shivaji Nagar Chilre Chirle 2 Locations (1. Embankment of Inter and cracks Topography and onditions in embankme times / year x 4.5 years Change in Shivaji Nagar Geology and 2 Cutting area at toll Monitoring of embankment gate in Chirle) 2 Locations (major camp Criteria for evaluation ocal conflict of nstruction worker's Sewri Camp Site Shivaji Nagar Camp Site Chirle Employment opportunity shall be provided fairly times / year x 4.5 years site in Sewri and Shivaii wnship Vagar) imber of hired workers by com 165 in May 2020 and 260 in June 2020 Criteria for evaluation Shivaji Nagar Camp Site Infection disease rate shall not be caused by the Sewri Camp Site project 2 Locations (major camp nfections diseases mber of infected patient site in Sewri and Shivaji 4 times / year x 4.5 years During this quarter three COVID 19 positive such as HIV/AIDS Confirmation of health check record and inspect project Nil Nil cases reported in this quarter who have been reated and discharged. Criteria for evaluation "Building And Other Construction Workers (Regulation of Employment and Conditions of Service) Act,1996", "The building and other Sewri Camp Site Shivaji Nagar Camp Site Gavan Camp site construction worker's welfare cess Act, 1996" and international standards such as "IFC Performance Standard 2 Labor and Working Conditions' 2 Locations (major camp Labour Environment | Construction worker's condisite in Sewri and Shivaji | 2 times / year x 4.5 years All provisions as per BOCW have been provided. nos. for Food (lunch & Dinner) provided to workmen from BOCW, \* Face mask provided to workmen, All provisions as per BOCW have been All provisions as per BOCW have Site Visual Inspection \* Calcium & Vitamins tablets provided to workmen to boost up the immunity of workmen, \* Sanitizers & Liquids soaps also provides to different location for workmen. 2 Locations (major camp Criteria for evaluation Sewri Camp Site Shivaji Nagar Camp Site Other area 12 Accident umber of accidents site in Sewri and Shivaji times / year x 4.5 years Any accidents are not caused by construction NIL imber of recorded accident Vagar)

#### MTHL Land Acquisition Status (Attachment 2-6):

Total land required on Navi Mumbai side- 108.09 ha Land in possession in MMRDA – 106.5 ha Balance land acquisition- 1.59 ha

Note: The acquisition of 1.59 ha is in progress by CIDCO. The balance acquisition would be likely completed by the end of September 2020.

Land Required in ha			Acquired I ha	Balance Land to be acquired in ha	Anticipated date for Land Acquisition	Payment status (Payment made to Land Owners by CIDCO)	Remarks
Govt.	Govt. Private		Private	Private*			
98.75	9.34	98.75	7.595	1.745	30-09-2020		The payment status to the land owners are awaited from CIDCO. The same would be communicated to JICA on receipt of the same.
Total 108.09		98.75	7.595	1.745			

#### \*Portions of Private Land

Sr. No.	Name of Village	Area (Hectare)	Acquired	Non-acquired
1	Gavhan	0.15	0.15	0.00
2	Jasai	8.72	7.306	1.414
3	Chirle	0.47	0.139	0.331
	Total Area	9.34	7.595	1.745

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

#### 1. General Information

a. RAP Implementation Monitoring Results: Progress Status Report (PSR) of 2<sup>nd</sup> quarter of 2020

b. Date of Preparing This form 30-06-2020

c. Person Preparing This form Name: Robin Sham
Position: Engineer and Team Leader
Department/Organizations: General Consultants

#### 2. Scale of Impact

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

Total Project Affected Households (PAHs)	297 Hhs	Titleholders: 0 Hhs
		Non-titleholders: 297 Hhs
Total PAPs	1,282 persons*	Titleholders: 0 persons
		Non-titleholders: 1,282 persons*
PAHs who need relocation (as residents)	231 Hhs	Titleholders: 0 persons
		Non-titleholders:231 (1,088 persons) *
PAPs who do not need relocation (as residents)	0 persons	Titleholders: 0 persons
		Non-titleholders: 0 persons
Commercial PAPs who need relocation	66	Titleholders: 0 persons
	(194 persons) *	Non-titleholders:66 (194 persons) *
Commercial PAPs who do not need relocation	0 persons	Titleholders: 0 persons
		Non-titleholders: 0 persons

<sup>\* -</sup> Figures for number of persons do not include no. of family members of few additional PAPs.

#### 2.2 Structures

Structures	Residential: 231
	Commercial: 65
	Residential + Commercial: 1 (counted in Commercial)
	Community: 9 (Religious Properties 6, Public Toilets 3)
	Government: 16 (MbPT Structures 9, Occupants of Leased Plots 6 & Police Chowky1)
	Total: 322

#### 2.3 Fishery

Categories of Fisher-folks	Identifi	ed Number	Total	Remarks
	Mumbai side	Navi Mumbai side		
C1: Fishing stakes and nets in	178	52	230	Funds for 230 nos C1
RoW (250 m.)				category fishermen are
				transferred to
				Commissioner of
				Fisheries on 17.03.2020
				for payment to the
				beneficiaries.

C2: Fishing Stakes and Nets	430	552	982	1. Funds for 496 nos C2
within 500 m. of RoW (Southern		552	702	category fishermen are
side)				transferred to
side)				Commissioner of
				Fisheries in the
				2017-18.
				2. The list of balance
				440 Nos. of C2 category
				fishermen are submitted
				to ACF Raigad, ACF
				Thane and ACF
				Mumbai suburban for
		2.504		their verifications.
C3: Hand Pickers	1453	3691	5144	Funds for 4205 nos of
				C3 category fishermen
				are already transferred
				to Commissioner of
				Fisheries and balance
				939 Nos. of C3 category
				fishermen are in process
				of transfer to
				Commissioner of
				Fisheries.
C4: Commercial and Artisanal	Will be observed	Will be observed		Nil
Fisher-folks	during	during construction		
(Loss of Time and Increased	construction	period		
Operating Costs)	period			
C5: Fisher-folks with Loss due to	Will be observed	Will be observed		Nil
Turbidity	during	during construction		
	construction	period		
	period			
C6: Fisher-folks with Damages	Will be observed	Will be observed		Nil
due to Accidents	during	during construction		
	construction	period		
	period			

### 2.4 Land Acquisition / Transfer

Location		Land Required in Ha.		uired in Ha.	Balance Land to be acquired in Ha	Remarks
	Govt.	Private	Govt.	Private		
Sewri	10.089	0	10.089	0	0	
Navi Mumbai	98.75	9.34	98.75	7.595	1.745	
Total	118.	179	108.839	7.595	1.745	

#### 3. Monitoring Results

#### 3.1 Sewri Section

Activity	Indicator	Total Target	Progress till Last Quarter	Progress during reporting Quarter	Cumulative Progress till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, If Any
Resettlement	No. of Residential PAHs provided with Allotment Letters of Alternate Tenements	231	141	0	141	62%	
	No. of Residential PAHs given possession of Alternate Tenements	231	139	0	139	60%	
	No. of Commercial/R+C PAPs provided with Allotment Letters of Alternate Shops/Tenements	66	21	0	21	30%	
	No. of Commercial R+C PAPs given possession of Alternate Shops/Tenements	66	20	0	20	26%	
	No. of Occupants of MbPT Leased Plots provided Compensation	6	5	0	5	84%	
	No. of Religious properties Relocated / Removed	6	1	0	1	17%	Jivdani Mandir allotment letter given
	No. of Other Community properties Relocated / Removed	4	0	0	0	0%	
	No. of Structures in possession of MbPT Dismantled / Cleared	9	0	0	0	0%	
	No. of PAHs/PAPs provided Shifting Charges / Arrangement	297	0	0	0	0%	
Rehabilitation	No. of PAHs / PAPs identified for Livelihood Support in Post Resettlement Assessment						
	No. of PAHs / PAPs provided Livelihood Support under Program-I (to be identified)						
	No. of PAHs / PAPs provided Livelihood Support under Program-II (to be identified)						
	No. of PAHs / PAPs provided Livelihood Support under Program-III (to be identified)						
	No. of new enterprises started						

Activity	Indicator	Total Target	Progress till Last Quarter	Progress during reporting Quarter	Cumulative Progress till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, If Any
Grievance Redress	No. of Grievances Received by FLGRC	4					
Rediess	No. of Grievances Disposed by FLGRC	1					
	No. of Grievances Received by SLGRC	0					
	No. of Grievances Disposed by SLGRC	0					
Post Resettlement	No. of CHSs Registration helped						
Assistance	No. of CHSs provided Tenements for Social Amenities						
	No. of CHSs' Maintenance Fund Invested						
	No. of CHSs' Office Bearers provided training						

SUI	SUMMARY OF FISHER FOLKS OF MTHL PROJECT (Influence Zone of 23 villages)										
	Up to 30 <sup>th</sup> June 2020.										
C		Total	Tota	al appro family	ved elig units	gible	No. of				
Sr. No.	Village Name	number of forms Received	<b>C1</b>	C2	С3	Total	Rejected Applications				
1	2	3	6	7	8	10	11				
1	Bamandongri	273	1	0	25	26	230				
2	Belapur	110	0	5	14	19	86				
3	Belpada	1185	0	7	473	480	476				
4	Diwale	455	10	236	12	258	132				
5	Ganeshpuri	276	0	33	32	65	164				
6	Gavhan	2167	0	14	1305	1319	575				
7	Jasai	926	0	0	18	18	908				
8	Jawale	51	0	1	0	1	50				
9	Kombadbhuja	413	1	24	126	151	219				
10	Kopar	994	2	5	230	237	551				
11	Mahul	1198	129	170	600	899	190				
12	Moha	475	22	34	134	190	212				
13	Mora	466	0	75	213	288	175				
14	Morave	539	14	17	79	110	301				
15	Nhava	1646	0	32	304	336	1009				
16	Sarsole	266	0	30	83	113	135				
17	Sewri	305	0	1	70	71	234				
18	Shelghar	241	0	0	15	15	214				
19	Shivajinagar	200	1	4	61	66	133				
20	Trombay	1253	49	259	783	1091	121				
21	Ulwa	218	1	4	12	17	173				
22	Uran & Hanuman Koliwada	685	0	29	554	583	87				
23	Vahal	411	0	2	1	3	367				
	Total	14753	230	982	5144	6356	6742				
					I						
	Total applications						14753				
	Duplicate/Repeated	Application					1655				
	Net Applications						13098				
	Approved application						6356				
	Rejected application	1					6742				

	SUMMARY OF FISHER FOLKS OF MTHL PROJECT (Out of Influence Zone of 21 villages)									
Sr.	William Name	Total number of		ed eligible inits	No. of Rejected					
No.	Village Name	Applications Received	<b>C1</b>	<b>C2</b>	Total	Applications				
1	2	3	6	7	10	11				
1	Airoli	76	0	29	29	47				
2	Dhutun	398	0	1	1	395				
3	Dighode	708	0	17	17	662				
4	Diwa-Koliwada	122	0	12	12	107				
5	Fanaspada	4	0	1	1	3				
6	Ghansoli	340	0	30	30	310				
7	Gharapuri	261	0	17	17	222				
8	Juhugaon	201	0	7	7	171				
9	Karave	178	0	44	44	126				
10	Kelavane	105	0	2	2	102				
11	Kopar Khairane	245	0	5	5	236				
12	Koproli	70	0	4	4	66				
13	Kundegaon	548	0	33	33	323				
14	Nerul	5	0	1	1	4				
15	Shahabaj	6	0	1	1	5				
16	Takigaon	21	0	1	1	20				
17	Talvali	54	0	2	2	51				
18	Targhar	110	0	2	2	85				
19	Vashigaon	257	0	51	51	176				
20	Vindhane	12	0	2	2	10				
21	Waghivali	112	0	4	4	104				
	398Total	3833	0	0		3225				

### **Grievance Redressal Committee (GRC) for Fisher-folk Compensation**

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

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

#### A. Implementation Schedule for Fisher-folks Compensation: -

Sr. No.	Task Designation	Approving authority	Start Date	Completion Date
1	Approval of fisher-folks' compensation	Fisher-folks Compensation	08-10-2015	23-12-2015
	Policy	Committee (FCC)		
2	Approval by MMRDA	MMRDA	10-12-2015	23-12-2015
3	Submission to JICA	MMRDA		04-01-2016
4	Detailed list of PAP and compensation plan	Detailed list of Fisher-folk PAP	23-12-2015	Up to 30.06.2020
		upto list 1 (1165 Nos) & 2 (1399		Total up to date applications scrutinized = 13098 Nos.
		Nos) are finalized by the		2. Eligible = 6356 nos
		Fisheries Department.		3. Rejected = 6742 nos
		2. From 2018, FEVC committee		
		is the approval authority of PAF		
		and approved C1- 230 Nos;		
		C2-440 Nos and C3- 2580 Nos		
		are approved.		
5	Validation of compensation plan	Fisher-folks Compensation	23-12-2015	Approval to the Fisher-folk PAP list obtained from Fisheries
		Committee (FCC)		Department for Fisherfolk from Sewri, Mahul & Trombay
				(Mumbai side) – 12th September 2017 and 20th November
				2018 for C-2 & C3 Category only.

Sr. No.	Task Designation	Approving authority	Start Date	Completion Date
			23-12-2015	<ol> <li>Approval to the Fisher-folk PAP list obtained from Fisheries         Department for Fisherfolk of Navi Mumbai of C2 &amp; C3 on         25th April 2018.     </li> <li>Validation of compensation is in progress and would be         completed in phases.     </li> </ol>
6	Approval of compensation plan	FCC	23-11-2015	28-12-2017
7	Approval by MMRDA	MMRDA	23-11-2015	09-03-2021

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

	and Required in Ha.  Land Acquired		uired in Ha.	Balance Land to be acquired in Ha	Anticipated date for Land Acquisition	Payment status (Payment made to Landowners by CIDCO)	Remarks
Govt.	Private	Govt.	Private	Private			
98.75	9.34	98.75	7.595	1.745	30-09-2020		1. CIDCO is the land acquisition authority for land acquisition for Navi Mumbai 2. MMRDA has paid an amount of INR 59.16 Cr to CIDCO as per their demand. 3. The payment status to the landowners is awaited from CIDCO. The same would be communicated to JICA on receipt of the same.
Total	108.09	106	6.345	1.745			

## Implementation Schedule for SIA (Sewri Section)

Task	Total Books office	01- 4 D-1-	Completion /
No.	Task Designation	Start Date	Forecast Date
1	Preparation of Final SIA		
1.1	MMRDA Approval	October 2015	January 2016
1.2	JICA Approval	November 2015	January 2016
1.3	Posting of project Information on MMRDA		
1.4	Translation and disclosure of entitlement policy in local language to all PAP's	December 2015	January 2016
2	LARP Implementation		
2.1	Grievance redress mechanism established	August 2016	August 2016
2.2	Staff deployment SIA implementation	June 2016	Dec. 2020
2.3	Staff Deployment Public Relation	June 2016	June 2016
2.4	Hiring of Independent Evaluation Agency	November 2018	November 2020
2.5	Preparation and issue of allotment letters to PAPs	June 2018	Dec. 2020*
2.6	Notice of PAPs for shifting (Sewri Section)	December 2018	Dec. 2020
2.7	Allotment of dwelling units to PAP's	September 2016	Dec. 2020
2.8	Shifting of PAPs to resettlement Colony	December 2018	Dec. 2020
2.9	Transfer of compensation / allowance/ assistance to PAPs	December 2018	Dec. 2020
2.10	Creation of Community Revolving fund (within 3 months post handing over)	April 2019	Feb. 2021
2.11	Assessment of economic rehabilitation needs by individual household (within 6 months after handing over	September 2019	June 2021
2.12	Registration of Co-operative housing societies, transfer of maintenance funds. (6 months period)	December 2019	June 2021
2.13	Signing of Civil Contract		January 2018
2.14	Notice of Civil works to proceed		March 2018
3	Monitoring & Evaluation		
3.1	Internal Monitoring- Monthly/ Quarterly	June 2016	January 2020
3.2	Independent Evaluation Mid-term and End term evaluation		
	Mid Term	May 2019	June 2020
	End Term	November 2019	March 2021

<sup>\*</sup>Subject to opening of the lockdown upto September 2020 and get the Occupation certificate of Kurla Bhandari R&R site from SRA department upto Jan. 2021.

Mumbai Trans Harbour Link Project - Quarterly Progress Report No	o. 13 (Apr-Jun 2020)
Attachment 3- JICA's Concurrence	Status
Attachment of old A of ochodinomos	Otatao
1st April to 20th June 2020	Dogo 27 of 62

### **Status of JICA'S Concurrence**

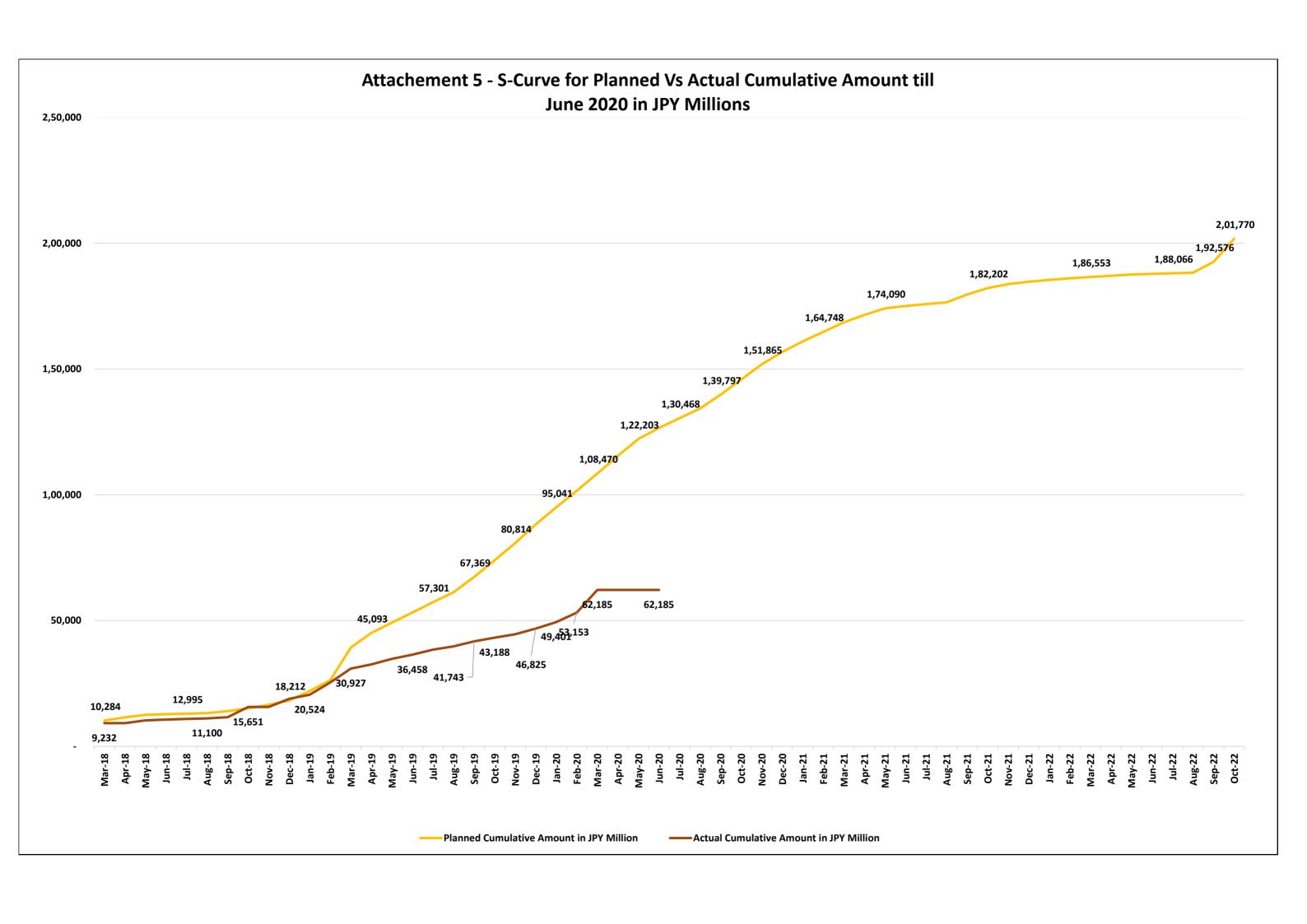
			Bid C	ost			JICA's Cond	currence on		
SI. No		Procurement procedure	Local Currency (Cr Rs.)	Total (Cr Rs)	PQ Documents	PQ Evaluation	Bid Documents	Technical Evaluation	Financial Evaluation	Contract
1.	Package-1 (CH 0+000 km to CH10+380 km)	ICB with PQ (2P)	7637.30	7637.30	JICA's Concurrence - 9th May 2016	JICA's Concurrence - 22 <sup>nd</sup> Dec 2016	JICA's Concurrence - 4 <sup>th</sup> Jan 2017	JICA's Concurrence - 12 <sup>th</sup> Sep 2017	JICA's Concurrence - 12 <sup>th</sup> Oct 2017	JICA's Concurrence – 15 <sup>th</sup> Feb 2018
2.	Package-2 (CH 10+380 km to CH18+187 km)	ICB with PQ (2P)	5612.61	5612.61	JICA's Concurrence - 9 <sup>th</sup> May 2016	JICA's Concurrence - 22 <sup>nd</sup> Dec 2016	JICA's Concurrence - 4 <sup>th</sup> Jan 2017	JICA's Concurrence - 12 <sup>th</sup> Sep 2017	JICA's Concurrence - 12 <sup>th</sup> Oct 2017	JICA's Concurrence – 15 <sup>th</sup> Feb 2018
3.	Package-3 (CH18+187 to CH21+800)	ICB with PQ (2P)	1013.79	1013.79	JICA's Concurrence - 9 <sup>th</sup> May 2016	JICA's Concurrence - 4 <sup>th</sup> Jan 2017	JICA's Concurrence - 4 <sup>th</sup> Jan 2017	JICA's Concurrence - 15 <sup>th</sup> Sep 2017	JICA's Concurrence - 12 <sup>th</sup> Oct 2017	JICA's Concurrence – 15 <sup>th</sup> Feb 2018
4.	Package-4 Intelligent Transport System	ICB with PQ (2P)	181.49	181.49	JICA's Concurrence - 23 <sup>rd</sup> August 2019	JICA's Concurrence – 18 <sup>th</sup> June 2020	-	-	-	-

	i i i alio i iai bi	our Link Froje	ci - Qualtell	y Fiogress i	report ivo. I	3 (Apr-Jun 2020)
A 11	l	4.4 Dual	4 D		-4 d F	-in a maial
Att	acnmen	it 4- Proje	ect Proc	curemei	nt and F	Financial
		Status	till 30 <sup>th</sup>	June 20	J <b>Z</b> U	

#### PROJECT PROCUREMENT AND FINANCIAL STATUS TILL 30th JUNE 2020

Туре	Contract	Awarded or Estimated Value (in Rs. Crore)	Current Status	Contractors	Project Commencement Date	Stipulated Project Completion Date	% of Overall Project completion (Design/ Procurement/ Construction) till 25 <sup>th</sup> June 2020	% of Overall Financial Progress (Including Mobilization Advance) till 30 <sup>th</sup> June 2020
	Package-1 (CH 0+000 km to CH 10+380 km)	7637.30	Awarded	L&T-IHI Consortium	March 2018	Sep 2022	26.92%	36.40%
CIVIL	Package-2 (CH 10+380 km to CH18+187 km)	5612.61	Awarded	DAEWOO- TPL JV	March 2018	Sep 2022	21.01%	35.36%
	Package-3 (CH18+187 to CH21+800)	1013.79	Awarded	L&T	March 2018	Sep 2021	29.51%	44.91%
ITS	Package-4 Intelligent Transport System (ITS)	181.49 (Estimated)	Design Stage		June 2021 (Estimated)	Sep 2022	NA	NA

lumbai Trans	<b>Harbour Link Project</b>	- Quarterly Progres	s Report No. 13 (Apı	r-Jun 2020)
Attachn	nent 5- S-Cur	ve for Cumu	lative Planne	ed Vs
		ount in JPY		
	Actual Alli	ount in JP i	WIIIIOII	



	٥,
umbai Trans Harbour Link Project - Quarterly Progress Report No. 13 (Apr-Jun 202	U)
tto abreaut C. Dookseys 41s Comptunation Drawns	_
ttachment 6- Package-1's Construction Programm	e
Updated as on 25 <sup>th</sup> June 2020	
TINGSTOR SE ON 75" HIND 7H7H	
opuated as on 25 Julie 2020	
Opuated as on 25 June 2020	
opuated as on 25 June 2020	
Opuated as on 25 June 2020	
Opuated as on 25 June 2020	
Opuateu as on 25 June 2020	
Opuateu as on 25 June 2020	
Opuateu as on 25 June 2020	
Opuated as on 25 June 2020	
Opuateu as on 25 Sune 2020	
Opuated as on 25 Julie 2020	
Opuated as on 25 Julie 2020	
Opuated as on 25 Sune 2020	
Opuated as on 25 Sune 2020	
Opuateu as on 25 June 2020	
Opuated as on 25 Julie 2020	
Opuateu as on 25 June 2020	
Opuateu as on 25 Julie 2020	
Opuated as on 25 Julie 2020	
Opuated as On 25 Suite 2020	
Opuated as on 25 June 2020	
Opuateu as on 25 June 2020	
Opdated as on 25 Julie 2020	
Opuated as on 25 June 2020	
Opuated as on 25 June 2020	
Opuated as on 25 June 2020	
Opuateu as on 25 Sune 2020	
Opuateu as on 25 Sune 2020	
Opuateu as on 25 Sune 2020	
Opuateu as on 25 Sune 2020	



Actual Work

Critical Remaining Work summary

#### MUMBAI TRANS HARBOUR LINK PACKAGE 1, **UPDATED BASELINE PROGRAMME FOR JUNE 2020**



submitted with the EOT-03 proposal for the contractor's eligibility for extension of time



AECOM PADECO dar al-handasah shar and partners shar and partners

General Consultant for Mumbai Trans Harbour Link Project

Activity ID Performance % Variance - BL1 Start Variance - BL1 Total Float Activity Name BL1 BL1 Start BL1 Finish Original Start Schedule % 2018 Duration Duration Complete Finish Date Complete A JJASONDJEMA JJASONDJE AMJJAS NDJE AMJJAS NDJE AMJJAS NDJE AMJJAS NDJE AMJJAS NDJE AMJJAS NDJ 1446 23-Mar-18 A 22-Dec-23 51.93% 26.92% -384 MPR27 MTHL P1 - June'20 Month Progress 1062 | 23-Mar-18 | 22-Sep-22 MPR27.1 Mumbai Trans Harbour Link - Package 1 1062 23-Mar-18 22-Sep-22 1446 23-Mar-18 A 22-Dec-23 51.93% 26.92% -384 Commencement Date 0 23-Mar-18 0 23-Mar-18 A 100% 100% 0 0 MPR27.1.1 Key Milestones 1464 19-Sep-18 22-Sep-22 1735 15-Feb-19 A 22-Dec-23 0% 0% -148 -456 MPR27.1.2 Contractual Interface 1243 09-Oct-18 05-Mar-22 1243 09-Oct-18 A 05-Mar-22 0% MPR27.1.3 Access to Site 165 23-Mar-18 03-Sep-18 165 23-Mar-18 A 26-Jun-20 0% 0% -662 MPR27.1.4 Document Submittals 180 23-Mar-18 18-Sep-18 180 23-Mar-18 A 09-Dec-19 A 0% 0% -446 MPR27.1.5 Survey 73 23-Mar-18 03-Jun-18 73 23-Mar-18 A 03-Jun-18 A 0% 0% MPR27.1.6 Geotechnical Investigation 165 23-Mar-18 03-Sep-18 165 23-Mar-18 A 23-Jul-19 A -322 MPR27.1.6.1 Phase 1 60 23-Mar-18 21-May-18 60 23-Mar-18 A 21-May-18 A MPR27.1.6.2 Phase 2 25 22-May-18 A 15-Jun-18 A 25 | 22-May-18 | 15-Jun-18 0% MPR27.1.6.3 Phase 3 50 16-Jun-18 04-Aug-18 50 16-Jun-18 A 30-Dec-18 A 0% 0% -147 0% MPR27.1.6.4 Phase 4 45 21-Jul-18 03-Sep-18 45 05-Oct-18 A 23-Jul-19 A 0% -322 MPR27.1.7 Infrasturcture Facilties 188 23-Mar-18 05-Feb-19 376 23-Mar-18 A 26-Sep-20 0% 0% 0 -346 MPR27.1.7.1 Project Site Office Construction (Contractor + Employer + GC 120 04-Apr-18 27-Nov-<u>18</u> 120 04-Apr-18 A 25-Nov-18 A 0% MPR27.1.7.2 Casting Yard 164 20-Apr-18 05-Feb-19 355 20-Apr-18 A 26-Sep-20 0% -346 -122 MPR27.1.7.3 Fabrication Yard 133 23-Mar-18 30-Nov-18 133 23-Mar-18 A 26-Apr-19 A 0% 0% MPR27.1.7.4 Rebar Yard 133 23-Mar-18 30-Nov-18 376 23-Mar-18 A 18-Sep-20 0% 0% -393 MPR27.1.7.5 Batching Plant Installation - CP30 & CP60 164 20-Apr-18 05-Feb-19 164 08-Sep-18 A 08-Dec-18 A 0% 0% MPR27.1.8 Procurement Plan 1618 04-Apr-18 07-Sep-22 2088 04-Apr-18 A 27-Nov-23 0% 0% 0 -446 MPR27.1.8.1 Plant & Machinery Deployment Plan 2088 04-Apr-18 A 27-Nov-23 1618 04-Apr-18 07-Sep-22 -446 0% MPR27.1.8.4 Bulk Material Procurement Plan 1412 01-Sep-18 13-Jul-22 1679 31-Aug-18 A 13-Oct-23 0% 0% -457 0% MPR27.1.9 Design & Engineering (Civil) 302 23-Mar-18 21-Sep-19 638 23-Mar-18 A 24-Feb-21 0 -357 -286 0% MPR27.1.9.1 Initial Design (General & Preliminary Design, DBR) 79 23-Mar-18 09-Jun-18 79 23-Mar-18 A 29-Nov-18 A 0% -172 88 23-Mar-18 18-Jun-18 MPR27.1.9.2 Finalization of Alignment 88 23-Mar-18 A 10-Sep-18 A MPR27.1.9.3 Detailed Design and Construction Design 638 01-May-18 A 24-Feb-21 0% -357 269 01-May-18 21-Sep-19 0% MPR27.1.9.3.1 GIR 133 22-May-18 01-Oct-18 193 22-May-18 A 09-Dec-19 A 0% -433 113 01-May-18 15-Dec-18 525 01-May-18 A 23-Jul-20 0% MPR27.1.9.3.2 Test Pile -379 0% MPR27.1.9.3.3 Design Phase -1 (Accelerated Design of Initial Items) 137 19-Jun-18 02-Nov-18 137 27-Jun-18 A 25-Jun-20 -559 MPR27.1.9.3.4 Design Phase -2 (Accelerated Design of Initial Items) 163 04-Jul-18 13-Dec-18 163 26-Jul-18 A 25-Jun-20 221 19-Jun-18 25-Jan-19 0% -548 MPR27.1.9.3.5 Design Phase -3 144 25-Aug-18 A 26-Jul-20 MPR27.1.9.3.6 Design Phase -4 220 07-Jul-18 11-Feb-19 220 05-Oct-18 A 20-Jul-20 0% -525 242 07-Jul-18 05-Mar-19 579 19-Dec-18 A 25-Jul-20 0% -507 **MPR27.1.9.3.7 Design Phase -5** 0% MPR27.1.9.3.8 Design Phase -6 221 26-Aug-18 03-Apr-19 799 24-Dec-18 A 08-Aug-20 -492 **MPR27.1.9.3.9 Design Phase -7** 272 26-Aug-18 24-May-19 850 11-Jan-19 A 04-Sep-20 -469 MPR27.1.9.3.10 Design Phase -8 543 08-Feb-19 A 24-Feb-21 0% 0% -522 355 02-Oct-18 21-Sep-19 -129 MPR27.1.10 Design, Engineering & Material Procurement (OSD) 697 23-Mar-18 17-Feb-20 1179 23-Mar-18 A 13-Jun-21 0% 0% 0 -482 53 23-Mar-18 A 29-Nov-18 A MPR27.1.10.1 Initial Design 53 23-Mar-18 14-May-18 0% MPR27.1.10.3 Aerodynamic Analysis 145 23-Mar-18 14-Aug-18 145 23-Mar-18 A 30-Jul-19 A 0% -349 311 15-May-18 21-Mar-19 MPR27.1.10.4 Technical Design 813 15-May-18 A 15-Jul-20 MPR27.1.10.4.1 OS01NS/SS 150 | 15-May-18 | 11-Oct-18 150 | 15-May-18 A | 09-Sep-19 A 0% MPR27.1.10.4.2 OS02NS/SS 164 26-Jun-18 06-Dec-18 530 26-Jun-18 A 30-Jan-20 A 0% -419 MPR27.1.10.4.3 OS03NS/SS 164 14-Aug-18 24-Jan-19 722 04-Nov-18 A 15-Jul-20 0% -538 0% MPR27.1.10.4.4 OS04NS/SS 164 09-Oct-18 21-Mar-19 425 06-Feb-19 A 20-Jan-20 A -120 -304 1008 02-Feb-19 A 14-Jan-21 344 12-Oct-18 20-Sep-19 MPR27.1.10.5 Construction Design MPR27.1.10.5.1 OS01NS/SS 731 02-Feb-19 A 14-May-20 A 201 | 12-Oct-18 | 30-Apr-19 MPR27.1.10.5.2 OS02NS/SS 231 07-Dec-18 25-Jul-19 369 01-Oct-19 A 12-Nov-20 0% 0% -476 MPR27.1.10.5.3 OS03NS/SS 183 25-Jan-19 26-Jul-19 244 06-Apr-20 A 14-Jan-21 0% -538 0% -437 MPR27.1.10.5.4 OS04NS/SS 183 22-Mar-19 20-Sep-19 289 01-Oct-19 A 24-Aug-20 -339 545 15-Mar-19 A 13-Jun-21 353 02-Mar-19 17-Feb-20 MPR27.1.10.6 Material Procurement (1st Lot) MPR27.1.10.6.1 OS01NS/SS 210 02-Mar-19 27-Sep-19 287 | 15-Mar-19 A | 08-Nov-19 A 227 11-Nov-19 A 17-Mar-20 A MPR27.1.10.6.2 OS02NS/SS 210 27-May-19 22-Dec-19 0% MPR27.1.10.6.3 OS03NS/SS 210 28-May-19 23-Dec-19 210 19-Jun-20 A 13-Jun-21 -538 MPR27.1.10.6.4 OS04NS/SS 210 23- Jul-19 17-Feb-20 175 28-Oct-19 A MPR27.1.11 Tree Cutting and Transplantation 225 23-Mar-18 02-Nov-18 927 23-Mar-18 A 04-Oct-20 0% 0% -702 0% -653 **MPR27.1.12 Utility Diversion** 210 19-Jun-18 14-Jan-19 951 01-Oct-18 A 28-Oct-20 0% -104 -397 **MPR27.1.13 Construction** 50.72% 21.39% 919 11-Jun-18 22-Jun-22 1383 11-Jun-18 A 07-Oct-23 MPR27.1.13.1 Sewri Interchange Section 1211 29-Mar-19 A 10-Jun-23 13.69% 779 03-Nov-18 28-Feb-22 -393 52.68% -121 MPR27.1.13.1.1 Sewri Interchnage - Work Front - 1 13.19% 779 03-Nov-18 28-Feb-22 1188 18-May-19 A 16-May-23 56.46% -370 MPR27.1.13.1.1.1 Sewri Interchange - Work Front - 1 - Piling 43.73% 490 03-Nov-18 15-Dec-20 743 18-May-19 A 30-Nov-21 86.33% -163 -214 MPR27.1.13.1.1.1 Piling - Land Viaduct -53 -271 -222 54 13-Apr-19 16-Sep-19 100% 90% 298 25-Jun-19 A 10-Nov-20 MPR27.1.13.1.1.1.2 Piling - Ramp A 442 03-Nov-18 17-Oct-20 04-Oct-21 93.04% 41.65% -163 -214 698 18-May-19 A MPR27.1.13.1.1.1.3 Piling - Ramp E 36 20-Oct-20 01-Dec-20 36 04-Oct-21 16-Nov-21 0% 0% -214 -214 MPR27.1.13.1.1.1.4 Piling - Ramp F 12 02-Dec-20 15-Dec-20 0% -214 -214 12 16-Nov-21 30-Nov-21 MPR27.1.13.1.1.2 Sewri Interchange - Work Front - 1 - Pile Cap 24-Mar-21 76.82% 22.14% -266 560 19-Nov-18 809 21-Jun-19 A 10-May-22 -175 MPR27.1.13.1.1.2.1 Pile Cap - Land Viaduct 100% 77.78% -43 -292 68 25-Apr-19 15-Oct-19 110 06-Sep-19 A 02-Jan-21 Actual Level of Effort ♦ Milestone Remaining Work © Oracle Corporation Page 1 of 4 Please note that this Monthly Rolling Plan has been updated based on the actual progress and will not match with impacted sched



Critical Remaining Work summary

Actual Work

#### MUMBAI TRANS HARBOUR LINK PACKAGE 1, UPDATED BASELINE PROGRAMME FOR JUNE 2020



submitted with the EOT-03 proposal for the contractor's eligibility for extension of time



**AECOM** PADECO

dar al-handasah shairand partners

General Consultant for Mumbai Trans Harbour Link Project

TY-LIN INTERNATIONAL

Activity ID Performance % Variance - BL1 Start Variance - BL1 Activity Name BL1 Finish Original Start Schedule % Finish Date Duration Duration Date Complete Complete A JJASQNDJAMA JJASQNDJA IAMJJAS NDJA IAMJJAS NDJA IAMJJAS NDJA IAMJJAS NDJA IAMJJAS NDJA IAMJJAS NDJ MPR27.1.13.1.1.2.2 Pile Cap - Ramp A 504 19-Nov-18 15-Jan-21 26-Mar-22 14.76% -175 771 21-Jun-19 A 81.45% -284 MPR27.1.13.1.1.2.3 Pile Cap - Ramp E -272 -112 44 07-Jan-21 27-Feb-21 42 26-Jan-20 A 23-Apr-22 0% 16.67% 211 24-Mar-21 MPR27.1.13.1.1.2.4 Pile Cap - Ramp F 0% -266 -177 20 01-Mar-21 20 16-Apr-22 10-May-22 0% -266 MPR27.1.13.1.1.3 Sewri Interchange - Work Front - 1 - Pier 50.94% 17.97% -270 588 12-Dec-18 20-May-21 507 30-Jul-19 A 09-Jul-22 -155 77.78% -312 MPR27.1.13.1.1.3.1 Pier - Land Viaduct 52 29-May-19 30-Oct-19 55 21-Oct-19 A 10-Feb-21 100% -43 MPR27.1.13.1.1.3.2 Pier - Ramp A 72.34% 9.68% -294 504 12-Dec-18 09-Feb-21 459 30-Jul-19 A 30-Apr-22 MPR27.1.13.1.1.3.3 Pier - Ramp E 20-May-21 09-Jul-22 0% 27.27% 337 -270 96 27-Jan-21 106 31-Jul-19 A 83 23-Dec-20 MPR27.1.13.1.1.3.4 Pier - Ramp F 01-Apr-21 63 05-Mar-22 18-May-22 0% 0% -286 -266 MPR27.1.13.1.1.4 Sewri Interchange - Work Front - 1 - Pier Cap 48.47% -302 587 05-Jan-19 11-Jun-21 481 11-Nov-20 08-Sep-22 0% -408 -360 MPR27.1.13.1.1.4.1 Pier Cap - Land Viaduct 49 16-Sep-19 14-Nov-19 52 19-Feb-21 22-Apr-21 100% MPR27.1.13.1.1.4.2 Pier Cap - Ramp A 499 05-Jan-19 26-Feb-21 386 11-Nov-20 19-May-22 68.06% -295 MPR27.1.13.1.1.4.3 Pier Cap - Ramp E 100 13-Feb-21 11-Jun-21 -302 110 02-May-22 08-Sep-22 MPR27.1.13.1.1.4.4 Pier Cap - Ramp F 13-Apr-21 -266 86 31-Dec-20 66 14-Mar-22 30-May-22 0% 0% -286 MPR27.1.13.1.1.5 Sewri Interchange - Embankment Works - Ramp F 90 14-Apr-21 01-Nov-21 90 30-May-22 14-Sep-22 0% 0% -266 -370 -328 MPR27.1.13.1.1.6 Sewri Interchange - Work Front - 1 - Super Structure 628 04-May-19 28-Feb-22 594 05-Mar-21 16-May-23 43.27% MPR27.1.13.1.1.6.1 Erection - Land Viaduct 100% -356 96 19-Nov-19 11-Mar-20 96 21-Apr-21 16-Nov-21 MPR27.1.13.1.1.6.2 Erection - Ramp A -374 -334 09-Apr-21 61.02% 0% -455 486 04-May-19 405 05-Mar-21 31-Aug-22 MPR27.1.13.1.1.6.3 Erection - Ramp E -374 -374 -334 146 10-Apr-21 02-Dec-21 20-Feb-23 0% 146 31-Aug-22 MPR27.1.13.1.1.6.4 Erection - Ramp F -374 52 28-Dec-21 28-Feb-22 52 16-Mar-23 16-May-23 0% 0% -332 MPR27.1.13.1.2 Sewri Interchange - Work Front - 2 765 03-Nov-18 11-Feb-22 1211 29-Mar-19 A 10-Jun-23 17.88% -407 54.98% MPR27.1.13.1.2.1 Sewri Interchange - Work Front - 2 - Piling 553 03-Nov-18 01-Mar-21 819 29-Mar-19 A 01-Mar-22 64.91% 39.63% -121 -227 MPR27.1.13.1.2.1.1 Piling - Ramp C2 325 03-Nov-18 -181 27-Feb-20 100% 95.92% -121 -240 586 29-Mar-19 A 16-Mar-21 MPR27.1.13.1.2.1.2 Piling - Ramp C1 166 12-Nov-19 A 100% 8.57% -293 140 03-Apr-19 18-Dec-19 08-Mar-21 -108 MPR27.1.13.1.2.1.3 Piling - Ramp B -181 84 21-Nov-20 01-Mar-21 117 22-Nov-19 A 01-Mar-22 0% 8.32% 227 -227 23.44% -140 -223 MPR27.1.13.1.2.2 Sewri Interchange - Work Front - 2 - Pile Cap 591 19-Nov-18 29-Apr-21 864 05-May-19 A 25-Apr-22 62.39% -161 MPR27.1.13.1.2.2.1 Pile Cap - Ramp C2 100% 81.77% -140 -253 361 19-Nov-18 24-Apr-20 664 05-May-19 A 27-May-21 MPR27.1.13.1.2.2.2 Pile Cap - Ramp C1 172 12-Apr-19 04-Feb-20 194 14-Dec-19 A 19-Apr-21 100% 6.67% -128 -289 MPR27.1.13.1.2.2.3 Pile Cap - Ramp B 7.14% 184 -223 131 25-Nov-20 29-Apr-21 167 16-Jan-20 A 25-Apr-22 0% MPR27.1.13.1.2.3 Sewri Interchange - Work Front - 2 - Pier 65.13% 38.74% -220 589 12-Dec-18 21-May-21 512 04-Sep-19 A 12-May-22 -155 82.04% -253 MPR27.1.13.1.2.3.1 Pier - Ramp C2 353 12-Dec-18 09-May-20 309 04-Sep-19 A 10-Jun-21 100% MPR27.1.13.1.2.3.2 Pier - Ramp C1 -289 194 01-Apr-19 18-Feb-20 238 10-Sep-19 A 04-May-21 100% 25.51% MPR27.1.13.1.2.3.3 Pier - Ramp B 21-May-21 20.83% 34 09% 168 -220 248 25-Apr-20 230 08-Oct-19 A 12-May-22 -241 MPR27.1.13.1.2.4 Sewri Interchange - Work Front - 2 - Pier Cap 583 26-Dec-18 28-May-21 457 02-Dec-19 A 13-Jun-22 60.03% 0.35% -206 MPR27.1.13.1.2.4.1 Pier Cap - Ramp C2 -274 356 26-Dec-18 27-May-20 264 02-Dec-19 A 27-Oct-21 100% 2.1% -206 MPR27.1.13.1.2.4.2 Pier Cap - Ramp C1 198 18-Apr-19 12-Mar-20 172 25-Nov-20 21-Sep-21 100% -308 -241 MPR27.1.13.1.2.4.3 Pier Cap - Ramp B 8.48% -276 235 19-May-20 28-May-21 200 18-Oct-21 13-Jun-22 -322 MPR27.1.13.1.2.5 Sewri Interchange - Embankment Works - Ramp C2 60 23-May-19 02-Nov-19 25-Feb-21 0% 0% -322 60 15-Dec-20 MPR27.1.13.1.2.6 Sewri Interchange - Work Front - 2 - Super Structure 654 18-Mar-19 40.45% -360 -407 11-Feb-22 701 23-Nov-20 10-Jun-23 0% MPR27.1.13.1.2.6.1 Erection - Ramp C2 343 18-Mar-19 02-Nov-20 368 23-Nov-20 10-May-22 52.94% 0% -360 -385 -313 -411 -339 MPR27.1.13.1.2.6.2 Erection - Ramp C1 194 08-Oct-19 26-May-20 194 13-Apr-21 02-Feb-22 100% MPR27.1.13.1.2.6.3 Erection - Ramp B -411 11-Feb-22 0% -411 -339 316 28-Nov-20 316 03-Jun-22 10-Jun-23 0% MPR27.1.13.1.3 Sewri Interchange - Work Front - 3 (Cast in situ Spans) -240 431 28-Feb-20 01-Feb-22 431 | 16-May-20 A 14-Nov-22 29.82% 0.71% MPR27.1.13.1.3.1 Sewri Interchange - Work Front - 3 - Piling 4.17% -234 144 28-Feb-20 20-Nov-20 138 16-May-20 A 29-Nov-21 62.5% -65 MPR27.1.13.1.3.1.1 Piling - Ramp B 02-May-20 0% -240 54 28-Feb-20 54 16-Mar-21 19-May-21 100% -240 MPR27.1.13.1.3.1.2 Piling - Ramp E 54 04-May-20 07-Oct-20 63 16-May-20 A 16-Oct-21 66.67% 11.11% -11 -234 MPR27.1.13.1.3.1.3 Piling - Ramp C1 36 08-Oct-20 20-Nov-20 36 16-Oct-21 29-Nov-21 0% 0% -234 MPR27.1.13.1.3.2 Sewri Interchange - Work Front - 3 - Pile Cap 51.39% -234 159 07-Mar-20 15-Dec-20 153 23-Mar-21 23-Dec-21 0% -240 MPR27.1.13.1.3.2.1 Pile Cap - Ramp B -240 -240 81 07-Mar-20 10-Jun-20 81 23-Mar-21 29-Sep-21 100% 0% MPR27.1.13.1.3.2.2 Pile Cap - Ramp E -234 81 11-May-20 17-Nov-20 81 19-May-21 25-Nov-21 37.04% 0% -234 -234 -234 MPR27.1.13.1.3.2.3 Pile Cap - Ramp C1 45 23-Oct-20 15-Dec-20 45 01-Nov-21 23-Dec-21 0% MPR27.1.13.1.3.3 Sewri Interchange - Work Front - 3 - Pier 14-Mar-22 26.67% -240 -234 216 18-Mar-20 05-Mar-21 210 02-Apr-21 MPR27.1.13.1.3.3.1 Pier - Ramp B 135 18-Mar-20 27-Nov-20 135 02-Apr-21 13-Dec-21 55.56% -240 -240 135 21-May-20 01-Feb-21 MPR27.1.13.1.3.3.2 Pier - Ramp E 09-Feb-22 15.56% -234 -234 135 29-May-21 MPR27.1.13.1.3.3.3 Pier - Ramp C1 90 18-Nov-20 05-Mar-21 90 25-Nov-21 14-Mar-22 MPR27.1.13.1.3.4 Sewri Interchange - Work Front - 3 - Pier Cap 196 24-Apr-20 19-Mar-21 190 11-May-21 28-Mar-22 17.01% -234 MPR27.1.13.1.3.4.1 Pier Cap - Ramp B 115 11-May-21 -240 11-Dec-20 39.81% 0% -240 115 24-Apr-20 27-Dec-21 MPR27.1.13.1.3.4.2 Pier Cap - Ramp E 132 08-Jun-20 15-Feb-21 132 18-Sep-21 23-Feb-22 5.56% 0% -234 -234 -234 MPR27.1.13.1.3.4.3 Pier Cap - Ramp C1 77 17-Dec-20 19-Mar-21 77 24-Dec-21 28-Mar-22 0% 0% -234 MPR27.1.13.1.3.5 Sewri Interchange - Work Front - 3 - Super Structure 360 23-May-20 01-Feb-22 3.77% 0% -240 360 08-Jun-21 14-Nov-22 MPR27.1.13.1.3.5.1 Super Structure - Ramp B -240 132 23-May-20 30-Jan-21 132 08-Jun-21 15-Feb-22 10.83% MPR27.1.13.1.3.5.2 Super Structure - Ramp E -240 132 16-Jan-21 24-Sep-21 132 01-Feb-22 06-Jul-22 0% 0% -240 MPR27.1.13.1.3.5.3 Super Structure - Ramp C1 0% 0% -240 -240 -144 120 09-Jun-21 01-Feb-22 120 22-Jun-22 14-Nov-22 MPR27.1.13.2 Intertidal Section 715 11-Jun-18 23-Oct-21 1183 11-Jun-18 A 13-Feb-23 7.01% -401 65.51% MPR27.1.13.2.1 Intertidal - Temporary Access Bridge Work 467 11-Jun-18 555 11-Jun-18 A 22-Oct-20 26-Sep-20 0% -21| MPR27.1.13.2.1.1 Access Bridge 457 11-Jun-18 12-Jun-20 528 11-Jun-18 A 18-Sep-20 0% 0% 0 -3 161 MPR27.1.13.2.1.2 Fingers 555 26-Sep-18 A 22-Oct-20 0% 0% 16 -21 441 13-Oct-18 26-Sep-20 MPR27.1.13.2.2 Intertidal - Main Bridge Work 638 | 14-Dec-18 | 23-Oct-21 65.51% 57.01% 26 -401 1118 | 14-Nov-18 A | 13-Feb-23 Actual Level of Effort Remaining Work ♦ Milestone © Oracle Corporation Page 2 of 4 Please note that this Monthly Rolling Plan has been updated based on the actual progress and will not match with impacted sched



Activity ID

# MUMBAI TRANS HARBOUR LINK PACKAGE 1,





**AECOM** PADECO

dar al-handasah shairand partners

General Consultant for Mumbai Trans Harbour Link Project **UPDATED BASELINE PROGRAMME FOR JUNE 2020 MMRDA** Performance % Variance - BL1 Start Variance - BL1 Activity Name BL1 BL1 Start BL1 Finish Original Start Schedule % Duration Duration Complete Finish Date Complete Date A JJASQNDJFMA JJASQNDJF AMJJAS NDJF AMJJAS NDJF AMJJAS NDJF AMJJAS NDJF AMJJAS NDJF MPR27.1.13.2.2.1 Intertidal - Main Bridge Work - Piling 531 14-Dec-18 16-Mar-21 75.42% 88.98% 686 14-Nov-18 A 15-Jun-21 26 MPR27.1.13.2.2.2 Intertidal - Main Bridge Work - Pile Cap -210 536 29-Dec-18 06-Apr-21 838 17-Jan-19 A 17-Mar-22 72.2% 75.44% -15 -181 MPR27.1.13.2.2.3 Intertidal - Main Bridge Work - Pier 70.09% 67.26% -197 562 17-Jan-19 25-May-21 866 29-Mar-19 A 19-Apr-22 MPR27.1.13.2.2.4 Intertidal - Main Bridge Work - Pier Cap -197 562 30-Jan-19 05-Jun-21 615 10-Aug-19 A 30-Apr-22 68.32% 41.59% -115 -110 MPR27.1.13.2.2.5 Intertidal - Main Bridge Work - Super Structure Erec 534 18-Apr-19 23-Oct-21 720 29-Nov-19 A 13-Feb-23 42.04% 2.78% -401 -374 MPR27.1.13.2.3 Intertidal - Finger Removal & Reuse 400 07-Mar-19 29-Dec-20 354 20-Jun-19 A 0% -85 -108 1343 14-Dec-18 A 07-Oct-23 MPR27.1.13.3 Marine Section 17-Jun-22 MPR27.1.13.3.1 Temporary Access Bridge Work -2 (MP70 to MP51- 21 St 911 18-Sep-18 17-Jun-22 982 14-Nov-19 A 07-Oct-23 0% MPR27.1.13.3.2 Marine - Main Bridge 23-Feb-22 1246 14-Dec-18 A 15-Jun-23 22.72% -34 -401 MPR27.1.13.3.2.1 Marine - Piling 564 03-Nov-18 15-Mar-21 959 14-Dec-18 A 07-Jul-22 72.77% 56.4% -34 -325 -207 MPR27.1.13.3.2.1.1 Piling - Stretch - 1 - OSD-1 MP51 to MP53 (320m) -451 104 20-Sep-19 22-Jan-20 104 16-Sep-21 18-Jan-22 0% MPR27.1.13.3.2.1.2 Piling - Stretch - 2 - Marine - MP54 to MP68 (856) 13-Oct-20 07-Jul-22 90.42% -451 -263 344 25-Feb-19 344 20-Feb-21 MPR27.1.13.3.2.1.3 Piling - Stretch - 3 - OSD-2&3 MP69 to MP80 (1.5 63.69% -234 521 10-Dec-18 26-Feb-21 370 16-Sep-20 08-Mar-22 0% MPR27.1.13.3.2.1.4 Piling - Stretch - 4 - Marine MP81 to MP123 (2.6 ) 370 03-Nov-18 21-Apr-20 489 14-Dec-18 A 22-Feb-20 A 100% 100% 43.33% MPR27.1.13.3.2.1.5 Piling - Stretch - 5 - OSD-4 MP124 to MP128 (600 147 22-Apr-20 16-Jan-21 128 04-Feb-20 A 26-Dec-20 30.61% MPR27.1.13.3.2.1.6 Piling - Stretch - 6 - Marine MP129 to MP148 (1.2 95% 395 25-May-19 15-Mar-21 148 06-Dec-19 A 11-Mar-21 23.44% 572 23-Nov-18 MPR27.1.13.3.2.3 Marine - Pile Cap 24.34% 12-Apr-21 14-Oct-22 61.92% -43 -383 1016 14-Jan-19 A MPR27.1.13.3.2.3.1 Pile Cap - Stretch - 1 - OSD-1 MP51 to MP53 (320 -451 -341 23-Mar-20 21-Mar-22 100% 0% 75 25-Dec-19 75 21-Dec-21 MPR27.1.13.3.2.3.2 Pile Cap - Stretch - 2 - Marine - MP54 to MP68 (8! 400 28-Mar-19 20-Jan-21 400 24-Mar-21 14-Oct-22 58.67% 0% -451 -330 MPR27.1.13.3.2.3.3 Pile Cap - Stretch - 3 - OSD-2&3 MP69 to MP80 (1 505 28-Jan-19 27-Mar-21 354 04-Nov-20 05-Apr-22 59.72% -234 MPR27.1.13.3.2.3.4 Pile Cap - Stretch - 4 - Marine MP81 to MP123 (2. 444 23-Nov-18 10-Nov-20 648 14-Jan-19 A 30-Apr-21 87.73% 54.76% -144 MPR27.1.13.3.2.3.5 Pile Cap - Stretch - 5 - OSD-4 MP124 to MP128 (6 -144 -144 125 11-Nov-20 08-Apr-21 125 30-Apr-21 29-Dec-21 0% MPR27.1.13.3.2.3.6 Pile Cap - Stretch - 6 - Marine MP 129 to MP 148 407 08-Jun-19 18.67% -111 12-Apr-21 0% -234 284 16-Sep-20 24-Nov-21 MPR27.1.13.3.2.4 Marine - Pier 3.54% -394 590 22-Dec-18 02-Jun-21 784 12-Sep-19 A 17-Dec-22 55.64% MPR27.1.13.3.2.4.1 Pier - Stretch - 1 - OSD-1 MP51 to MP53 (320m) 75 24-Jan-20 21-Apr-20 19-Apr-22 100% -451 75 20-Jan-22 MPR27.1.13.3.2.4.2 Pier - Stretch - 2 - Marine - MP54 to MP68 (856m) -451 429 26-Apr-19 26-Mar-21 429 22-Apr-21 17-Dec-22 52.22% MPR27.1.13.3.2.4.3 Pier - Stretch - 3 - OSD-2&3 MP69 to MP80 (1.5 K 504 26-Feb-19 24-Apr-21 354 03-Dec-20 03-May-22 55.21% -234 MPR27.1.13.3.2.4.4 Pier - Stretch - 4 - Marine MP81 to MP123 (2.6 Kn 472 22-Dec-18 12-Jan-21 530 12-Sep-19 A 18-Feb-22 80.21% 8.03% -146 -258 MPR27.1.13.3.2.4.5 Pier - Stretch - 5 - OSD-4 MP124 to MP128 (600m 118 13-Jan-21 02-Jun-21 126 29-Jan-22 28-Jun-22 0% 0% -249 -152 MPR27.1.13.3.2.4.6 Pier - Stretch - 6 - Marine MP129 to MP148 (1.2 K 419 27-Sep-19 28-Apr-21 324 05-Oct-20 14-Jan-22 12.5% MPR27.1.13.3.2.2 Marine - Pier Cap 576 21-Jan-19 52.6% 1.49% -394 14-Jun-21 720 26-Dec-19 A 29-Dec-22 MPR27.1.13.3.2.2.1 Pier Cap - Stretch - 1 - OSD-1 MP51 to MP53 (320 16-May-20 -451 -231 87 04-Feb-20 87 01-Feb-22 13-May-22 100% 0% 29-Dec-22 MPR27.1.13.3.2.2.2 Pier Cap - Stretch - 2 - Marine - MP54 to MP68 (8 414 27-May-19 07-Apr-21 414 22-May-21 46.67% -451 -451 0% MPR27.1.13.3.2.2.3 Pier Cap - Stretch - 3 - OSD-2&3 MP69 to MP80 ( 497 28-Mar-19 17-May-21 348 31-Dec-20 24-May-22 50% 0% -234 MPR27.1.13.3.2.2.4 Pier Cap - Stretch - 4 - Marine MP81 to MP123 (2 458 21-Jan-19 23-Jan-21 465 26-Dec-19 A 03-Mar-22 77.22% 3.42% -258 MPR27.1.13.3.2.2.5 Pier Cap - Stretch - 5 - OSD(4) MP124 to MP128 ( 103 12-Feb-21 14-Jun-21 111 28-Feb-22 09-Jul-22 0% -249 MPR27.1.13.3.2.2.6 Pier Cap - Stretch - 6 - Marine MP129 to MP148 ( 403 12-Oct-19 11-May-21 13.92% 0% -234 -140 309 21-Oct-20 27-Jan-22 MPR27.1.13.3.2.5 Marine - Super Structure Erection 23-Feb-22 38.37% -326 -401 636 19-Apr-19 711 17-Nov-20 15-Jun-23 0% MPR27.1.13.3.2.5.1 Erection - Main Concrete Viaduct 636 19-Apr-19 23-Feb-22 711 17-Nov-20 15-Jun-23 37.82% 0% -326 -401 -326 -326 MPR27.1.13.3.2.5.2 Rescue Span (MP98 to MP99) 120 07-Mar-20 29-Oct-20 120 06-Oct-21 26-Feb-22 70% 0% MPR27.1.13.4 Precast Segments 6.94% 778 06-Feb-19 21-Aug-21 957 07-Aug-19 A 01-Feb-23 52.55% -154 -441 MPR27.1.13.4.1 Precast Segement - Sewri Interchange 63.8% 1.02% MPR27.1.13.4.1.1 Precast Segement - Land Viaduct 276 04-Apr-19 27-Feb-20 100% -425 -425 276 24-Aug-20 19-Jul-21 0% MPR27.1.13.4.1.2 Precast Segement - Ramp A 396 30-Mar-19 14-Jul-20 474 20-Feb-20 A 25-Feb-22 97.31% 1.04% -273 -493 MPR27.1.13.4.1.3 Precast Segement - Ramp B 297 17-Mar-20 06-Mar-21 337 26-Jul-21 31-Aug-22 23.14% 0% -417 -457 -323 MPR27.1.13.4.1.4 Precast Segement - Ramp C1 -417 290 04-Apr-19 16-Mar-20 320 18-Mar-20 A 26-Jul-21 100% 3% -291 MPR27.1.13.4.1.5 Precast Segement - Ramp C2 3.59% 100% -329 -498 -334 143 06-Feb-19 24-Jul-19 255 06-Mar-20 A 13-Mar-21 MPR27.1.13.4.1.6 Precast Segement - Ramp E 14-May-21 0% -493 -493 -351 253 15-Jul-20 253 25-Feb-22 24-Dec-22 0% MPR27.1.13.4.1.7 Precast Segement - Ramp F -468 107 16-Jan-21 24-May-21 117 14-Jul-22 03-Dec-22 0% 0% -458 -334 MPR27.1.13.4.2 Precast Segement - Intertidal 18% 753 28-Feb-19 14-Aug-21 701 | 18-Oct-19 A 08-Oct-22 58.03% -194 -351 MPR27.1.13.4.3 Precast Segement - Marine 44.6% 1.54% -441 MPR27.1.13.5 Orthotropic Steel Deck (OSD) - Fabrication, Shipping, Asser 608 11-Jun-19 15-Mar-22 795 23-Sep-19 A 12-May-23 MPR27.1.13.5.1 OSD - Fabrication 746 28-Sep-19 12-Oct-21 949 23-Sep-19 A 05-Nov-22 0% -389 MPR27.1.13.5.1.1 Fabrication - Factory A 720 28-Sep-19 16-Sep-21 949 23-Sep-19 A 05-Nov-22 -415 0% 0% MPR27.1.13.5.1.1.1 OSD 01 - RHS Fabrication - MP50 to MP53 (320n 330 28-Sep-19 22-Aug-20 415 23-Sep-19 A 20-May-21 -271 MPR27.1.13.5.1.1.2 OSD 03 - RHS Fabrication - MP75 to MP81 (770n -505 -400 450 26-Jan-20 19-Apr-21 450 14-Jun-21 06-Sep-22 MPR27.1.13.5.1.1.3 OSD 04 - RHS Fabrication - MP124 to MP128 (56 360 22-Sep-20 16-Sep-21 0% 0% 181 -415 -392 331 25-Mar-20 A 05-Nov-22 MPR27.1.13.5.1.2 Fabrication - Factory B 720 28-Sep-19 16-Sep-21 796 23-Sep-19 A 05-Jun-22 0% -262 MPR27.1.13.5.1.2.1 OSD 01 - LHS Fabrication - MP50 to MP53 (320n -235 -105 330 28-Sep-19 22-Aug-20 379 23-Sep-19 A 14-Apr-21 0% MPR27.1.13.5.1.2.2 OSD 02 - RHS Fabrication - MP69 to MP75 (683n 450 26-Jan-20 19-Apr-21 450 13-Nov-20 -292 -211 05-Feb-22 MPR27.1.13.5.1.2.3 OSD 04 - LHS Fabrication - MP124 to MP128 (56 0% 242 -262 360 22-Sep-20 16-Sep-21 330 24-Jan-20 A 05-Jun-22 0% MPR27.1.13.5.1.3 Fabrication - Factory C 660 23-Dec-19 12-Oct-21 0% 0% -221 583 27-Jan-20 A 21-May-22 -35 MPR27.1.13.5.1.3.1 OSD 02 - LHS Fabrication - MP69 to MP75 (683n 420 23-Dec-19 14-Feb-21 343 27-Jan-20 A -221 0% 0% -35 23-Sep-21 MPR27.1.13.5.1.3.2 OSD 03 - LHS Fabrication - MP75 to MP81 (770n 420 19-Aug-20 12-Oct-21 420 28-Mar-21 21-May-22 0% 0% -221 -221 MPR27.1.13.5.2 OSD - Shipping 536 24-Jun-20 11-Dec-21 794 02-Nov-20 04-Jan-23 0.1% 0% -389 MPR27.1.13.5.2.1 Shipping - Factory A 510 24-Jun-20 15-Nov-21 04-Jan-23 0.14% -237 -415 688 16-Feb-21 0%

19-Jul-21

0.71%

0%

-237

-271

-120

MPR27.1.13.5.2.1.1 OSD 01 - RHS Shipping - MP50 to MP53 (320m)

154 16-Feb-21

21-Oct-20

120 24-Jun-20



#### MUMBAI TRANS HARBOUR LINK PACKAGE 1, **UPDATED BASELINE PROGRAMME FOR JUNE 2020**





<b>AECOM</b>	PADECO	dar al-handasah shair and partners	INTERNATIONAL
General Cons	sultant for Mum	bai Trans Harbour L	ink Project

Activity ID	Activity Name	BL1 BL1 Start Duration	BL1 Finish	Original Start Duration	Finish	Schedule % Complete	Performance % Variar Complete	ce - BL1 Start Date	Variance - BL1 Finish Date	Total Float	t 2018 2019 2020 2021 2022 2023 4 A JJJASONDJEMA JJJASONDJE AMJJAS NDJE AMJJAS NDJE AMJJAS NDJE AMJJAS NDJE AMJJAS NDJ
	MPR27.1.13.5.2.1.2 OSD 03 - RHS Shipping - MP75 to MP81 (770m)	240 22-Oct-20	18-Jun-21	240 11-Mar-22	05-Nov-22	0%	0%	-505	-505	-344	
	MPR27.1.13.5.2.1.3 OSD 04 - RHS Shipping - MP124 to MP128 (560n	180 20-May-21	15-Nov-21	150 08-Aug-22	04-Jan-23	0%	0%	-445	-415	-212	A
	MPR27.1.13.5.2.2 Shipping - Factory B	510 24-Jun-20	15-Nov-21	641 02-Nov-20	04-Aug-22	0.15%	0%	-131	-262	-198	
	MPR27.1.13.5.2.2.1 OSD 01 - LHS Shipping - MP50 to MP53 (320m)	120 24-Jun-20	21-Oct-20	224 02-Nov-20	13-Jun-21	0.71%	0%	-131	-235	83	
	MPR27.1.13.5.2.2.2 OSD 02 - RHS Shipping - MP69 to MP75 (683m)	240 21-Nov-20	18-Jul-21	240 09-Sep-21	06-May-22	0%	0%	-292	-292	-241	A : : : : : : : : : : : : : : : : : : :
	MPR27.1.13.5.2.2.3 OSD 04 - LHS Shipping - MP124 to MP128 (560n	180 20-May-21	15-Nov-21	150 08-Mar-22	04-Aug-22	0%	0%	-292	-262	-198	
	MPR27.1.13.5.2.3 Shipping - Factory C	450 18-Sep-20	11-Dec-21	416 31-May-21	20-Jul-22	0%	0%	-255	-221	-139	
	MPR27.1.13.5.2.3.1 OSD 02 - LHS Shipping - MP69 to MP75 (683m)	210 18-Sep-20	15-Apr-21	176 31-May-21	22-Nov-21	0%	0%	-255	-221	-57	
	MPR27.1.13.5.2.3.2 OSD 03 - LHS Shipping - MP75 to MP81 (770m)	210 16-May-21	11-Dec-21	210 23-Dec-21	20-Jul-22	0%	0%	-221	-221	-139	<u> </u>
	MPR27.1.13.5.3 OSD - Custom Clearance and Inland Transport (Last Mo	482 07-Sep-20	01-Jan-22	740 16-Jan-21	25-Jan-23	0%	0%	-131	-389	-212	
	MPR27.1.13.5.3.1 OSD 1 - MP50 to MP53 (320m)	75 07-Sep-20	20-Nov-20	215 16-Jan-21	18-Aug-21	0%	0%	-131	-271	47	<u> </u>
	MPR27.1.13.5.3.2 OSD 2 - MP69 to MP75 (683m)	274 17-Nov-20	17-Aug-21	311 30-Jul-21	05-Jun-22	0%	0%	-255	-292	-222	<u>/</u>
	MPR27.1.13.5.3.3 OSD 3 - MP75 to MP81 (770m)	377 21-Dec-20	01-Jan-22	288 21-Feb-22	05-Dec-22	0%	0%	-427	-338	-256	<u>/</u>
	MPR27.1.13.5.3.4 OSD 4 - MP124 to MP128 (560m)	141 19-Jul-21	06-Dec-21	264 07-May-22	25-Jan-23	0%	0%	-292	-415	-212	<u>/</u>
	MPR27.1.13.5.4 OSD - Assembly	337 07-Oct-20	16-Feb-22	566 15-Feb-21	24-Mar-23	0%	0%	-108	-337	-176	<u> </u>
	MPR27.1.13.5.4.1 OSD 1 - MP50 to MP53 (320m)	80 07-Oct-20	11-Jan-21	144 15-Feb-21	06-Nov-21	0%	0%	-108	-172	15	<u>/</u>
	MPR27.1.13.5.4.2 OSD 2 - MP69 to MP75 (683m)	252 17-Dec-20	13-Oct-21	281 30-Aug-21	29-Jul-22	0%	0%	-215	-244	-174	<u>/</u>
	MPR27.1.13.5.4.3 OSD 3 - MP75 to MP81 (770m)	329 20-Jan-21	16-Feb-22	261 23-Mar-22	26-Jan-23	0%	0%	-357	-289	-241	<u>/</u>
	MPR27.1.13.5.4.4 OSD 4 - MP124 to MP128 (560m)	142 18-Aug-21	04-Feb-22	246 06-Jun-22	24-Mar-23	0%	0%	-244	-348	-177	<u>/</u>
	MPR27.1.13.5.5 OSD - Erection	608 11-Jun-19	15-Mar-22	555 17-Apr-21	12-May-23	0%	0%	-409	-356	-196	
	MPR27.1.13.5.5.1 OSD 1 - MP50 to MP53 (320m)	157 21-May-20	26-Feb-21	95 18-May-22	06-Sep-22	0%	0%	-451	-389	-220	<u>/</u>
	MPR27.1.13.5.5.2 OSD 2 - MP69 to MP75 (683m)	542 11-Jun-19	24-Dec-21	337 17-Apr-21	24-Aug-22	0%	0%	-409	-204	-154	<u> </u>
	MPR27.1.13.5.5.3 OSD 3 - MP75 to MP81 (770m)	279 07-Jan-21	10-Mar-22	346 15-Jan-22	03-Mar-23	0%	0%	-234	-301	-253	<u> </u>
	MPR27.1.13.5.5.4 OSD 4 - MP124 to MP128 (560m)	185 05-May-21		300 19-May-22	12-May-23	0%	0%	-241	-356	-196	<u>/</u>
	MPR27.1.13.6 Post Erection Segmental Stitch Concrete (incl. Bearing Insta	644 24-Apr-19	10-Mar-22	724 01-Feb-20 A	19-Jun-23	0%	0%	-159	-392	-228	
	MPR27.1.13.6.1 Stitch Concrete - Sewri Interchange	644 24-Apr-19	10-Mar-22	676 30-Dec-20	19-Jun-23	0%	0%	-360	-392	-228	
	MPR27.1.13.6.2 Stitch Concrete - Intertidal	475 29-Nov-19		648 01-Feb-20 A	21-Mar-23	0%	0%	-54	-380	-374	
	MPR27.1.13.6.3 Stitch Concrete - Marine	563 21-Oct-19	26-Feb-22	638 16-Feb-21	19-Jun-23	0%	0%	-326	-401	-228	
	MPR27.1.13.7 Crash Barrier Works	585 05-Oct-19		718 23-Nov-20	29-Jun-23	0%	0%	-267	-400	-237	
	MPR27.1.13.7.1 Crash Barrier - Sewri Interchange	585 05-Oct-19		625 13-Mar-21	29-Jun-23	0%	0%	-360	-400	-237	
	MPR27.1.13.7.2 Crash Barrier - Intertidal	470 17-Dec-19		643 23-Nov-20	01-Apr-23	0%	0%	-207	-380	-194	
	MPR27.1.13.7.3 Crash Barrier - Marine	541 26-Nov-19		616 24-Mar-21	28-Jun-23	0%	0%	-326	-401	-240	
	MPR27.1.13.7.4 Crash Barrier - Orthotropic Steel Deck	291 23-Dec-20		248 11-Jul-22	03-May-23	0%	0%	-395	-352	-193	
	MPR27.1.13.8 Bridge Deck (Superstructure) Water Proofing	581 15-Oct-19		713 04-Dec-20	05-Jul-23	0%	0%	-269	-401	-242	
	MPR27.1.13.8.1 Water Proofing - Sewri Interchange	579 15-Oct-19		622 23-Mar-21	05-Jul-23	0%	0%	-360	-403	-242	
	MPR27.1.13.8.2 Water Proofing - Intertidal	465 28-Dec-19		638 04-Dec-20	07-Apr-23	0%	0%	-207	-380	-167	
	MPR27.1.13.8.3 Water Proofing - Marine	526 18-Dec-19		601 15-Apr-21	03-Jul-23	0%	0%	-326	-401	-240	
	MPR27.1.13.8.4 Water Proofing - Orthotropic Steel Deck	281 11-Jan-21		238 28-Jul-22	09-May-23	0%	0%	-395	-352	-193	
	MPR27.1.13.9 Stone Mastic Asphalt Pavement	74 23-Dec-21		307 11-Jul-22	11-Jul-23	0%	0%	-168	-401	-303	
	MPR27.1.13.9.1 Sewri Interchange	70 27-Dec-21		116 24-Feb-23	11-Jul-23	0%	0%	-356	-402	-303	
	MPR27.1.13.9.2 Main Bridge	74 23-Dec-21		306 11-Jul-22	10-Jul-23	0%	0%	-168	-400	-360	
	MPR27.1.13.10 Bridge Anclilaries and Misc. Works	575 31-Jan-20	22-Jun-22	746 07-Jan-21	15-Sep-23	0%	0%	-207	-378	-303	
	PR27.1.15 Handing Over	148 31-Mar-22		159 16-Jun-23	22-Dec-23	0%	0%	-373		-385	
N	PR27.1.14 Invoice Schedule (Shows the Invoice items which are not covered	1062 23-Mar-18	22-Sep-22	1446 23-Mar-18 A	22-Dec-23	52.8%	30.89%	0	-384	-385	

Mumbai Trans Harbour Link Project - Quarterly Progress Report No. 13 (Apr-Jun 2020)
<b>Attachment 7- Package-2's Construction Programme</b>
Updated as on 25 <sup>th</sup> June 2020
Opuated as on 25 June 2020

#### ANNEXURE-5 CONSTRUCTION UPDATED PROGRAMME (PACKAGE-2)

ctivity ID Activity Name	Original BL Project Star Duration	IL DEFIOJECTIII	Actual State	Actual Finish	Schedule % Performance Complete % Complete	2018 2019 2020 2021 2 
MTHL-PKG2-DETAILED WORK PROGRAMME_25062020_APPROVED_MPR.27	2989.13 17-Nov-17	21-Sep-24	17-Nov-17		45.96% 21.01%	123434719311111111111111422222222233333333333344444444
PROJECT PRE-COMMENCEMENT ACTIVITY	126.00 17-Nov-17	22-Mar-18	17-Nov-17	16-Mar-18	0% 0%	, ENGLANDE CONTRACTOR OF THE PROPERTY OF THE P
PRE-COMMENCEMENT ACTIVITY	55.00 15-Dec-17	07-Feb-18	15-Dec-17	20-Mar-18	0% 0%	, 20-Mar-18A, PRE-COMMENCEMENT ACTIVITY
PROJECT EVENT MILESTONE	2279.50 23-Mar-18	21-Mar-23	23-Mar-18		0% 0%	
PROJECT KEY MILESTONE	2133.38 23-Mar-18	22-Sep-22	23-Mar-18		0%	5 Project Commencement Bate Ney Wilesone
INTERFACE MILESTONE_ERG19	2251.50 19-Apr-18	21-Mar-23	03-Apr-18		0%	
PHYSICAL PROGRESS AND INTERFACE DATE_ADD2-ATTACHMENT 25	1890.38 18-Sep-18	22-Jun-22	31-Aug-18		0% 0%	
CONSTRUCTION KEY MILESTONES  MANAGEMENT	974.50 03-Sep-18 613.00 20-Jan-18	06-Jul-21 18-Aug-18	25-Oct-18 12-Jan-18	22-Aug-19	0% 0% 0% 0%	22-Aug-19'A, MANAGEMENT
MANAGEMENT SITE ORGANISATION	35.00 20-Jan-18	23-Feb-18	07-Mar-18	07-Mar-18	0% 0%	
DEVELOPMENT OF MANAGEMENT SYSTEM	613.00 20-Jan-18	27-May-18	20-Jan-18	22-Aug-19	0% 0%	▼ 22-Aug-19A, DEVELOPMENT OF MANAGEMENT SYSTEM
COUMMUNICATION / DOCUMENT CONTROL SYSTEM	315.38 20-Jan-18	10-May-18	20-Jan-18	24-Oct-18	0% 0%	e ENA SILLA III
QUALITY ASSURANCE AND MANAGEMENT SYSTEM	254.00 23-Mar-18	10-May-18	23-Mar-18	24-Oct-18	0%	Cobean se contrata de la contratación des en la contratación de la con
HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEM	551.00 23-Mar-18 49.00 23-Mar-18	10-May-18	23-Mar-18	22-Aug-19	0% 0%	20-bijartin & Schindator et McDidjerinte (at Nacional International State Internationa
INTERFACE MANAGEMENT SYSTEM  RISK MANAGEMENT PLAN	49.00 23-War-18	10-May-18 27-May-18	23-Mar-18 23-Mar-18	24-Oct-18 24-Oct-18	0% 0% 0% 0%	DANGLINE A RIBEANANA NE DENGROUP Project Risk Management System
DEVELOPMENT OF WORK PROGRAMME	63.00 23-Mar-18	24-May-18	23-Mar-18	21-Sep-18	0% 0%	LI L
CONTRACTOR'S WORK PROGRAMME	63.00 23-Mar-18	24-May-18	23-Mar-18	21-Sep-18	0% 0%	
OTHER CONTRACTUAL SUBMITTALS	28.00 24-Mar-18	20-Apr-18	24-Mar-18	23-Apr-18	0% 0%	<u> </u>
PERMIT & APPROVAL SURVEYING & GEOTECHNICAL INVESTIGATION	389.00 20-Jan-18 35.00 20-Jan-18	18-Aug-18 23-Feb-18	12-Jan-18 12-Jan-18	03-Aug-19 09-Feb-18	0% 0% 0% 0%	▼ 03-Aug+19A, PERMIT & APPROVAL  ▼ 09-Feb-18A, SURVEYING & GEOTECHNICAL INVESTIGATION
CUTTING OF MANGROVES	70.00 20-Jan-18	30-Mar-18	12-Jan-18 25-Jan-18	23-Apr-18	0% 0% 0% 0%	23-Apr-18A, CUTTING OF MANGROVES
SETTING UP BATCHING PLANT	313.00 06-Apr-18	18-Aug-18	06-Apr-18	28-Nov-18	0% 0%	28-Nov-18A, SETTING UPBATCHING PLANT
PC YARD & CAMP	28.00 04-May-18	01-Jun-18	21-Mar-18	01-Oct-18	0% 0%	01-Oct-18A, PCYARD& CAMP
CONNECTION FOR ELECTRICITY & WATER  CUTTING OF TREES	63.00 18-May-18 35.00 23-Mar-18	20-Jul-18 26-Apr-18	06-Apr-18 10-May-18	03-Aug-19 02-Aug-18	0% 0% 0% 0%	03-Aug-19A, CONNECTION FOR ELECTRICITY& WATER
IMPORT PERMITS/LICENCES FOR EQUIPMENTS & GOODS	70.00 23-Mar-18	31-May-18	15-May-18	31-May-18	0% 0%	31-May-18A, MPORT PERMITS/LICENCES FOR EQUIPMENTS & GOODS
NOC FOR PLANT & FACLITIES TO BE USED AT SITE	51.00 23-Mar-18	31-May-18	16-Aug-18	28-Nov-18	0% 0%	28-Nov-18A, NOC FOR PLANT, & FACILITIES, TO BE USED AT SITE
TEMPORARY ACCESS ROAD FOR MAIN BRIDGE & INTERCHANGE	58.00 23-Mar-18	19-May-18	23-Mar-18	28-Jul-18	0% 0%	28-Juli-18A, TEMPORARYACCESS ROAD FÖR MAIN BRIDGE & INTERCHANGE
DESIGN	1149.38 20-Jan-18	04-Sep-19	01-Jan-18		100% 96.03%	
EARLY STAGE DESIGN WORK / INFORMATION COLLECTION	678.38 20-Jan-18	17-Jul-18	01-Jan-18	12-Nov-19	100% 100%	12-Nov-19A, EARL YSTAGE DESIGN WORK/INFORMATION 19A, EARL YSTAGE DESIGN 19A, EARL YSTAGE DESIG
INDEPENDENT DESIGN CHECKER APPROVAL TOPOGRAPHIC SURVEY	35.00 20-Jan-18 116.33 20-Jan-18	23-Feb-18 16-May-18	20-Jan-18 01-Jan-18	13-Apr-18 20-Apr-18	0% 0% 0% 0%	20-Apri-18A, TOPOGRAPHICSURVEY
BATHYMETRIC SURVEY	75.00 20-Jan-18	04-Apr-18	25-Jan-18	20-Mar-18	0% 0%	20-Mai-18A, BATHMVETRIC SURVEY
ADDITIONAL TIME FOR ONGC & BPCL PHYSCIAL VERIFICATION	309.00		21-Mar-18	05-Aug-19	0% 0%	05-Aug; 19A, ADDITIONAL TIME FOR ONGC & BPCL PHYSCIAL N
GEOTECHNICAL INVESTIGATION  ADDITIONAL WORKS FOR DESIGN INITIATION OF STEEL MODULE 1	548.08 20-Jan-18 63.00	17-Jul-18	12-Jan-18 26-Jun-19	25-Jun-19 12-Nov-19	100% 100% 0% 0%	25-JUN-19A, GEO JECHNICAL INVESTIGATION  12-Nov-19A, ADDITIONAL WORKS FOR DESIGN INITIATIO
TEMPORARY WORK	975.17 22-Jan-18	01-Nov-18	20-Jan-18	12-1107-19	100% 100%	DO G - DO TENEDRA DIVINICIPALI
PROJECT OFFICE LAYOUT	241.13 04-May-18	02-Jun-18	04-May-18	17-Jul-18	0%	17-Jul-18A, PROJECT OFFICE LAYOUT
CASTING YARD LAYOUT	72.33 22-Jan-18		20-Jan-18	09-Oct-18	0% 0%	09-Oct-18A, CASTING YARD LAYOUT
TEMPORARY BRIDGE	94.33 26-Feb-18 199.38 10-May-18	31-May-18 10-Aug-18	24-Feb-18 20-Mar-18	30-Aug-18 20-Nov-18	100% 100% 0% 0%	30-Aug-18A, TEMPORARY BRIDGE 20-Nov-18A, CASTING YARD STRUCTURE
STEEL BRIDGE FABRICATION YARD	303.17 20-Jul-18	01-Nov-18	11-Nov-19	204100-10	0% 0%	<u> </u>
CONCRETE MIX DESIGN	274.38 23-Mar-18	31-Aug-18	12-May-18	15-Nov-18	0%	15-Nov-18A, CONCRETE MIX DESIGN
JFE DESIGN PROGRAMME	1048.04 01-May-18	04-Sep-19	09-Apr-18		100% 88.86%	6 V 07-Apr-21, PROCUREV
PROCUREMENT, MANUFACTURING AND LOGISTICS	1305.38 20-Jan-18	23-Aug-20	22-Dec-17		100% 91.67%	<u> </u>
SURVEY & INVESTIGATION	72.33 20-Jan-18	02-Apr-18	22-Dec-17	04-Apr-18	0%	04-Apr-18A, SURVEY& INVESTIGATION
TEMPORARYWORK	933.33 20-Jan-18	20-Oct-18	20-Jan-18		0% 0%	III 10-Aug-20, TEMPORARYWORK
MAIN WORK_SUBCONTRACT WORK	848.63 23-Mar-18 975.00 23-Mar-18	20-Jul-19 12-Sep-19	23-Mar-18 23-Mar-18		0% 0% 100% 100%	21-Nov-20, EQUIPMENTS
EQUIPMENTS  BATCHING PLANT	975.00 23-War-18 437.00 23-Mar-18	31-Jul-18	23-Mar-18	23-Mar-19	0% 0%	VIII. L. B. V. 23-Mar-19A, BATCHING PLANT
RCD MACHINE	514.00 23-Mar-18	11-Nov-18	23-Mar-18	24-Aug-19	0% 0%	24-Aug-19A; RCD MACHINE:
GANTRYCRANE	975.00 23-Mar-18	08-Feb-19	23-Mar-18		100% 100%	21-Nov-20, GANTRY.CRANE
SEGMENT LAUNCHER  PRECAST MOULD AND SYSTEM FORM	770.41 24-Jul-18 714.91 07-Aug-18	12-Sep-19 24-Mar-19	24-Jul-18 04-Sep-18	09-Mar-20	0% 0% 100% 83.33%	09-Mar-20A, SEGMENT L'AUNCHER  ▼ 16-Aug-20, PREÇAST MÖULDAND SY
PRECAST MOULD AND SYSTEM FORM PRECAST MOULD CASTING BED	332.00 20-Aug-18	24-Mar-19 24-Mar-19	04-Sep-18 03-Jun-19		100% 83.33%	16-Aug-20, PRECAST MOULD_CASTIN
SYSTEM FORM	446.91 07-Aug-18	04-Mar-19	04-Sep-18		0% 0%	6 06-Jul-20 SYSTEM FORM
MATERIAL SUPPLIERS	943.38 02-Jun-18	15-Oct-19	20-Apr-18		0%	s the state of th
,	OYER:	NON 5 = 1 = 1	DME: : : : :	I .	CONTRACTOR:	Date Revision Checked Appro
■ Actual Work ◆ ◆ Milestone MUMI	BAI METROPOLITAN REG	SION DEVELO	PMFNT AUT	HORITY	DAEWOO - TPL J	T()

#### MUMBAI TRANS HARBOUR LINK PROJECT (PACKAGE 2) CONSTRUCTION OF 7.807 KM LONG BRIDGE SECTION (CH 10+380 - CH 18+187) ACROSS THE MUMBAI BAY INCL SHIVAJI NAGAR INTERCHANGE UNDER IDENTIFICATION NO MMRDA/ENG/000753

# Ac	tivity ID	Activity Name	Original BL ProjectStart Duration	BL Project Fini	ish Actual Start	Actual Finish		erformance 6 Complete	2018 2019   DJF   4   JJAS   N   JF   A   JJAS			
59	MATERIAL PROCUREMENT	•	0.00		08-Aug-18		0%	0%	234567891111111111112222	2442443333333	un-20, MATERIAL PROCI	UREMENT
60	TEMPORARY BRIDGE		0.00		08-Aug-18		0%	0%	<u> </u>		un-20, TEMPORARYBRII	
61 62	PERMANENT WORKS  PROCUREMENT OF STEEL	CIDDED	0.00 673.00 07-May-19	23-Aug-20	25-Mar-19 01-Aug-19		0%	0% 0%		7 25~	un-20, PERMANENT WC	, PROCUREMENT OF S
63	STEEL PLATE FOR (RHS.STEEL		513.00 07-Way-19	13-Jul-20	01-Aug-19 08-Aug-19		0%	0%		1,5	Jul-20, STEEL PLATE FC	
64	STEEL PLATE FOR (LHS.STEE		438.00 07-May-19	16-Apr-20		12-May-20	0%	0%			-20A, STEEL PLATE FOR	
65	<del></del>	L MOUDLE-3_MP183 - MP186)	315.00 01-Jul-19	10-May-20	01-Nov-19		0%	0%			Jul-20, STEEL PLATE FC	
66	STEEL PLATE FOR (LHS.STEE	L MOUDLE-3_MP183 - MP186) :L MOUDLE-1_MP176 - MP171)	315.00 04-Jun-19	14-Apr-20	01-Oct-19		0%	0%		7 24	-Jul-20, STEEL PLATE FO	OR (LHS.STEEL MOUDL STEEL PLATE FOR (RI
67 68	STEEL PLATE FOR (LHS.STEE		280.00   30-Jul-19 357.00   02-Jul-19	23-Aug-20 26-Jul-20	01-Apr-20 29-Mar-20		0%	0% 0%			07-Apr-21	,STEEL PLATE FOR (LI
69	IMPACT OF COVID-19		43.00		22-Mar-20	25-May-20	0%	0%			y-20A, IMPACTOF COVID	
70	IMP.COVID.1000	Impact of COVID-19 during Lockdown (22-Mar-20 to 3-May-20)	43.00		22-Mar-20	03-May-20	0%	100%		lmpacto	of COVID-19 during Lockd	lown (22-Mar-20 to 3-Ma
71	IMP.COVID.1010	Impact of COVID-19 during Lockdown (4-May-20 to 25-May-20)	1.67		04-May-20	25-May-20	0%	100%		<b>≣ I</b> mpac	tof COVID-19 during Lack	kdown (4-May-20 to 25-M
72	CONSTRUCTION		2060.13 02-Apr-18	21-Jun-22	02-Apr-18		43.81%	18.55%	[			
73	TEMPORARYWORK		2060.13 02-Apr-18	21-Jun-22	02-Apr-18		97.95%	97.67%	· · · · · · · · · · · · · · · · · · ·			
74	PREPARATION WORK		368.33 02-Apr-18	16-Jan-19	02-Apr-18	25-Jul-19	0%	0%		Jul-19A, PREPARATIOI		
75	ESTABLISHMENT OF EMPOLY		194.04 20-Jun-18	27-Nov-18	27-Jun-18	18-Jan-19	100%	100%	18-Jan-19A,ES	SI;ABLISHMENTOF EMI A, ESTABLISHMENTOF		ROFFICE: : : : : :
76 77	ESTABLISHMENT OF LABOUR ESTABLISHMENT OF CONCRE		463.92   20-Jun-18 960.00   04-May-18	05-Apr-19 25-Apr-19	03-Jul-18 14-Jun-18	04-Apr-19	100%	99.33%	193		19-Dec-20, ESTA	BLISHMENT OF CONCE
78	ESTABLISHMENT OF STEELS		409.35 02-Nov-18	06-Mar-20	01-Nov-19		0%	0%				17-Dec-21, EST/
79	TEMPORARY BRIDGE		2007.79 20-May-18	21-Jun-22	27-Jul-18		96.49%	96.49%	· · · · · · · · · · · · · · · · · · ·			
80	A13700	Removal of Temporary Bridge & Casting Yard	365.00 21-Jun-21	21-Jun-22			0%	0%			5000 0000000000000000000000000000000000	TWACCOUNTY OF THE CONTROL OF THE CON
81 82		Y-EQUIPMENT MOBILIZATION FROM MP226(16+010) - MP249(17+320)	372.33   20-May-18 467.97   04-Jun-18	19-Oct-18 17-Aug-19	27-Jul-18 08-Aug-18	25-Apr-19 23-Dec-19	100%	0% 100%			GE FACILITY EQUIPMENT MPORARY BRDIGE TYPE	
83	<b>_</b>	_FROM MP207(14+870) - MP226(16+010)	467.97 04-Jun-18 566.29 24-Jul-18	17-Aug-19 12-Sep-19	16-Nov-18	15-Feb-20	100%	100%	· · · · · · · · · · · · · · · · · · ·	15-Feb-20A	TEMPORARY BRDIGE T	YPE 3_FROMMP207(14
84	MATERIAL LOADING JETTY		470.88 31-Aug-18	08-Aug-19	08-Mar-19	10.0020	100%	100%			24-Dec-20, MATE	ERIAL LOADING JETTY
85	PERMANENT WORK		1744.21 03-Sep-18	24-May-22	08-Dec-18		36.73%	8.21%				
86	PRE-FABRICATION AND ASSEI		1084.33 18-Apr-19	19-Feb-22	16-Oct-19		17.37%	3.98%				
87	CONCRETE PRE-FABRICATION AS		594.43 18-Apr-19	15-Sep-21	06-Nov-19		51.77%	7.02%				
88 89		THE SUPPLIER'S WORK SHOP INCLUDING LOGISTIC THE CONTRACTOR'S ASSEMBLY YARD	1049.38   02-Jun-19 539.78   05-Sep-20	24-Jan-22 17-Feb-22	16-Oct-19	+	10.77%	3.49% 0%				
90		RANSPORTING TO THE ERECTION AREA	456.15 30-Sep-20	19-Feb-22	+	+	0%	0%				and************************************
91	MAIN BRIDGE		1703.13 03-Sep-18	24-May-22	08-Dec-18		50.08%	13.88%				
92	MAIN BRIDGE FOUNDATION		1213.13 03-Sep-18	23-Mar-21	08-Dec-18		67.69%	39.57%	<u> </u>			7 21-Apr-2 15-Jan-22.MA
93 94	MAIN BRIDGE PILE FOUNDAT	TION	1117.13 03-Sep-18 259.25 03-Sep-18	23-Jan-21 19-Nov-18	08-Dec-18 08-Dec-18	11-Nov-19	82.04% 100%	54.26% 100%		11-Nov-19 A, PILE I	OADTEST	13-3dii-22,iVi-1
95	The second secon	ATION_LAND 17+414~18+187 FROM MP250 TO MP266	244 23 30-Nov-18	15-May-19	17-Jan-19	11-Jun-20	100%	100%		<b>1</b> 11-Ju	in-20 A, MAIN BRIDGE PIL	
96	MAIN BRIDGE PILE FOUNDA	ATION_CRZ 15+890~17+414 FROM MP226 TO MP250	268.00 20-Dec-18	27-Nov-19	12-Jun-19	21-Feb-20	100%	100%		21-Feb-20A	MAIN BRIDGE PILE FOU	INDATION_CRZ 15+890
97		ATION_INTERTIDAL 14+800~15+890 FROM MP206 TO MP225	317.00 27-Feb-19	06-Jun-20	15-Oct-19		100%	88.46%		<del></del>	7 07-Oct-20, MAIN BRID	
98		ATION_MARINE 13+610~14+800 FROM MP187 TO MP205 ATION_MARINE (STEEL) 11+880~13+610 FROM MP171 TO MP186	361.75 12-Dec-19 358.50 27-Nov-19	28-Nov-20 23-Jan-21	01-Oct-19 17-Mar-20		60.95% 34.9%	23.93% 3.11%				T 16-Oct-21 MAIN BRII
100		ATION_MARINE (STEEL) 11+000~13+610 FROM MP171 TO MP100	533.88 24-Nov-18	28-Dec-19	19-Feb-19		100%	24.82%			26-Apr-2	
101	MAIN BRIDGE PILE CAP INST	<del>-</del>	726.00 22-Dec-18	23-Mar-21	01-May-19		52.7%	24.23%				21-Apr-2
102	MAIN BRIDGE PILE CAP BO	TTOM SLAB INSTALLATION	703.00 22-Dec-18	17-Feb-21	19-Aug-19		0%	0%	· · · · · · · · · · · · · · · · · · ·			25-Mar-22
103		OTTOM SLAB_CRZ 15+890~17+414 FROM MP226 TO MP250	259.63 17-Jan-19	12-Dec-19	19-Aug-19		0%	0%		<b>1</b>	0-Aug-20, MAIN BRIDGE MINIMUM 16-Jan-21, MAI	NIBRIDGE PILE CAP BO
104 105		DTTOM SLAB_INTERTIDAL14+800~15+890 FROM MP2 06 TO MP225 DTTOM SLAB_MARINE 13+610~14+800 FROM MP187 TO MP205	237.00 06-Apr-19 349.75 21-Jan-20	18-Jul-20 10-Dec-20	30-Dec-19 16-Nov-19		0% 0%	0% 0%				
106		RECAST SHELL_MARINE (STEEL) 11+880~13+610 FROM MP171 TO MP186	308.00 08-Jan-20	17-Feb-21	10 1404-10		0%	0%				10-Nov-21, MAIN B
107		OTTOM SLAB_MARINE 10+380~11+880 FROM MP146 TO MP170	250.00 22-Dec-18	21-Jan-20			0%	0%	بعض من صنب منه	<b>1</b>	<b>26-J</b>	lun-21, MAIN BRIDGE PI
108	MAIN BRIDGE PILE CAP INS		715.50 27-Dec-18	23-Mar-21	01-May-19	07.1	52.7%	24.23%	<u> </u>	107	Inp 50,7 Vivivi bbibcc u	21-Apr-2
109 110		AND 17+414~18+188 FROM MP251 TO MP266 RZ 15+890~17+414 FROM MP226 TO MP250	284.63 27-Dec-18 197.38 04-Mar-19	13-Jun-19 08-Jan-20	01-May-19 28-Aug-19	27-Jun-20	100% 100%	100% 91.11%			lun-20A, MAIN BRIDGE P 21-Sep-20, MAIN BRIDG	
111		RZ 15+690~17+414 FROM MP226 TO MP250 ITERTIDAL 14+800~15+890 FROM MP206 TO MP225	245.25 18-Apr-19	05-Sep-20	28-Aug-19 29-Jan-20		85.31%	22.5%			09-Apr-21	, MAIN BRIDGE PILE CA
112		IARINE 13+610~14+800 FROM MP187 TO MP205	342.75 01-Feb-20	06-Jan-21	13-Jan-20		43.88%	4.76%		<b>4</b>		21-Apr-2
113	<u> </u>	ARINE (STEEL) 11+880~13+610 FROM MP171 TO MP186	411.00 20-Jan-20	23-Mar-21			4.43%	0%				24-Mar-22
114 115		IARINE 10+380~11+880 FROM MP146 TO MP170	263.00 03-Jan-19	17-Feb-20	04 Nov 40		100%	6.10%				
115	MAIN BRIDGE SUB-STRUCTU MAIN BRIDGE PIER INSTALL		1011.25 09-Jan-19 713.50 09-Jan-19	24-Sep-21 28-Jul-21	04-Nov-19 04-Nov-19		72.59% 73.01%	6.19%		<u> </u>		11-Ju
117		7+414~18+188 FROM MB251 TO MB266	282.88 09-Jan-19	08-Nov-19	06-Nov-19		100%	9.85%			▼ 08-Oct-20, MAIN BRIDO	GE PIER_LAND 17+414
118		+890~17+414 FROM MB226 TO MB250	228.75 26-Mar-19	06-Feb-20	04-Nov-19		100%	50.31%			05-Feb-21,M	
119	MAIN BRDIGE PIER_INTERT	IDAL 14+800~15+890 FROM MB206 TO MB225	439.00 11-May-19	16-Oct-20	10-Feb-20		77%	1.14%				18-Mar-22,
	Project Resoline Per	Critical Pamainina Work	EMDI OVED:			Ι	CONTRACTOR		Date	Revision	Checked	Approved
	Project Baseline Bar	Critical Remaining Work Summary	EMPLOYER:	או הבערו ה	DMENT ALIT	IODITY	CONTRACTOR	_	25 Jun 20	R0		FF
	■ Actual Work ◆	♦ Milestone	MUMBAI METROPOLITAN REGION (MMRDA)	ON DEVELO	r⊏IVI⊑IN I AUTF	IURIT	DAEWOO -	IPL J	V			
	Remaining Work	% Complete										
						- 1				'	•	•

# MUMBAI TRANS HARBOUR LINK PROJECT (PACKAGE 2) CONSTRUCTION OF 7.807 KM LONG BRIDGE SECTION (CH 10+380 - CH 18+187) ACROSS THE MUMBAI BAY INCL SHIVAJI NAGAR INTERCHANGE UNDER IDENTIFICATION NO MMRDA/ENG/000753

# Ac	ivity ID Activity Name	Original BL Project Star	t BL Project Finis	sh Actual Start	Actual Finish	Schedule % F	Performance	2018	2022 AIS IN JI I IN IJJAS
120	MANUPPINCE DIED MARINE 421040 441000 FROMMP407 TO MP20F		40 Feb 04			20.470/	00/	J	4 4 4 4 5 5 5 5 5 5 5 5 5
120 121	MAIN BRIDGE PIER_MARINE 13+610~14+800 FROM MB187 TO MB205  MAIN BRIDGE PIER_MARINE (STEEL) 11+880~13+610 FROM MB171 TO MB186	217.00 19-Mar-20 452.00 17-Feb-20	18-Feb-21 28-Jul-21			30.17% 12.51%	0%		11-Ju
122	MAIN BRIDGE PIER_MARINE 10+380~11+880 FROM MB146 TO MB170	269.00 07-Feb-19	13-Mar-20			100%	0%		22-Sep-21, MAIN BRID(
123	MAIN BRIDGE PIER CAP INSTALLATION	568.75 08-Feb-19	27-Aug-21	25-Feb-20		69.86%	0.42%	24.04.201448	OF DEDICAD LANDIA
124 125	MAIN BRIDGE PIER CAP_LAND 17+414~18+188 FROM MB251 TO MB266  MAIN BRDIGE PIER CAP_CRZ15+890~17+414 FROM MB226 TO MB250	73.13 08-Feb-19 177.00 19-Apr-19	23-Nov-19 25-Feb-20	25-Feb-20		100% 100%	0% 2.22%	##### 24-90-20, WAIN	BRIDGE PIER:CAP_LAND:17 21: MAIN BRDIGE PIER CAP
126	MAIN BRIDGE PIER CAP_INTERTIDAL 14+800~15+890 FROM MB206 TO MB225	434.00 06-Jun-19	05-Nov-20	25-1-60-20		71.67%	0%		06-Apr-22
127	MAIN BRIDGE PIER CAP_MARINE 13+610~14+800 FROM MB187 TO MB205	203.00 23-Apr-20	10-Mar-21			20.77%	0%		02-
128	MAIN BRIDGE PIER CAP_MARINE (STEEL) 11+880~13+610 FROM MB171 TO MB186	421.00 30-Apr-20	27-Aug-21			7.42%	0%		0/ 14+Oct;21, MAIN BRID
129 130	MAIN BRIDGE PIER CAP_MARINE 10+380~11+880 FRO MMB146 TO MB170  MAIN BRIDGE BEARING PAD AND BEARING INSALLATION	255.00 15-War-19 776.00 22-Feb-19	01-Apr-20 24-Sep-21			100% 89.26%	0% 0%		
131	MAIN BRIDGE SUPER STRUCTURE BOX GIRDER INSTALLATION	1026.83 12-Sep-19	01-Mar-22			30.29%	0%	· · · · · · · · · · · · · · · · · · ·	
132	MAIN BRIDGE CONCRETE GIRDER INSTALLATION	1015.83 12-Sep-19	02-Feb-22			35.48%	0%	05.04	
133 134	MAIN BRIDGE PC GIRDER_LAND 15+890~17+414 FROM MIP251 TO MIP266  MAIN BRIDGE PRECAST GIRDER_CRZ 15+890~17+414 FROM MIP226 TO MIP250	238.04 12-Sep-19 146.13 04-Feb-20	27-Feb-20 25-Sep-20			100% 85.61%	0%		r-21, MAIN BRIDGE PC GIRDE
135	MAIN BIDGE PRECAST GIRDER_INTERTIDAL 14+800~15+890 FROM MP206 TO MP225	144.25 12-Sep-20	23-Jan-21			0%	0%	andredentaria in	02-May-
136	MAIN BRIDGE PRECAST GIRDER_MARINE 13+610~14+800 FROM MP187 TO MP205	126.00 12-Jan-21	10-Jun-21			0%	0%		4
137	MAIN BRIDGE PRECAST GIRDER_MARINE 10+380~11+880 FROM MP146 TO MP170	156.00 04-Jun-21	02-Feb-22			0%	0%		
138 139	STITCH JOINT CASTING  MAIN BRIDGE STEEL GIRDER INSTALLATION	674.00 07-Dec-19 451.25 03-Oct-20	12-Feb-22 01-Mar-22			0% 0%	0%		
140	MAN BRIDGE STEEL GIRDER INSTALLATION MARINE 11+880~13+610 FROM MP171 TOMP186	451.25 03-Oct-20	01-Mar-22			0%	0%	<del>y</del>	
141	STEEL MODULE-01_MP176 - MP171 (INSTALLATION)	121.00 07-Dec-21	01-Mar-22			0%	0%		
142	STEEL MODULE-02_MP182 - MP177 (INSTALLATION)	155.38 03-Oct-20	30-Sep-21			0%	0%		25-Dec-21, STEE
143 144	STEEL MODULE-03_MP186 - MP183 (INSTALLATION) MISCELLANEOUS & FINISHING WORKS	167.15 30-Sep-21 663.51 16-May-19	07-Dec-21 24-May-22			0% 14%	0% 0%	VIIIII	
145	INTERCHANGE	1257.21 24-Dec-18	28-Apr-22	09-Oct-19		72.21%	7.95%	V	
146	INTERCHANGE FOUNDATION	599.08 24-Dec-18	22-Oct-20	09-Oct-19		98.34%	33.04%	· · · · · · · · · · · · · · · · · · ·	15-Dec-21, INTER
147	INTERCHANGE RAMP PILE FOUNDATION	286.23 24-Dec-18	05-Mar-20	09-Oct-19		100%	33.89%	27	-May-21, INTERCHANGE RA
148 149	INTERCHANGE RAMP PILE FDN_MA INTERCHANGE RAMP PILE FDN_AC	83.50 05-Aug-19 88.88 01-Oct-19	03-Jan-20 05-Mar-20	09-Oct-19 25-Oct-19		100% 100%	62.82% 69.51%	16:Mai	, INTERCHANGE RAMP PILE
150	INTERCHANGE RAMP PILE FDN_AC	143.00 03-Jan-19	05-Aug-19	26-Nov-19		100%	8.29%		, INTERCHANGE RAMP PILE
151	INTERCHANGE RAMP PILE FDN_MJ	104.00 03-Jan-19	01-Oct-19	04-Dec-19		100%	43.14%		TERCHANGE RAMP PILE FL
152	INTERCHANGE RAMP PILE FDN_CA	143.00 28-May-19	23-Jan-20	01-Nov-19		100%	8.29%		-May-21, INTERCHANGE RA
153 154	INTERCHANGE RAMP PILE FDN_AM INTERCHANGE RAMP PILE CAP INSTALLATION	143.23 24-Dec-18 329.00 08-Jan-19	27-May-19 22-Oct-20	07-Feb-20 22-Oct-19		100% 95.94%	23.53% 31.82%	08-Dec20, IN	
155	INTERCHANGE RAMP PILE CAP IN A	88.00 06-Dec-19	15-May-20	22-Oct-19		100%	75%		
156	INTERCHANGE RAMP PILE CAP_AC	145.00 15-Jan-20	22-Oct-20	02-Nov-19		73.97%	70%	<b>***********************</b> 29	-May-21, INTERCHANGE RA
157	INTERCHANGE RAMP PILE CAP_JM	187.00 18-Jan-19	06-Dec-19	11-Dec-19		100%	8.33%	19-A	pr-21, INTERCHANGE RAMP
158 159	INTERCHANGE RAMP PILE CAP_MJ	173.00 18-Jan-19 187.00 15-Oct-19	15-Jan-20 27-Jun-20	16-Dec-19 02-Dec-19		100% 99.39%	28.57% 8.33%		r-21, INTERCHANGE RAMP ( 15-Dec-21, INTER
160	INTERCHANGE RAMP PILE CAP_CA INTERCHANGE RAMP PILE CAP_AM	142.00 08-Jan-19	15-Oct-19	15-Feb-20		100%	20%		1, INTERCHANGE RAMP PIL
161	INTERCHANGE SUBSTRUCTURE & BEARING	620.88 29-Jan-19	31-May-21	19-Feb-20		66.8%	8.05%	\	
162	INTERCHANGE RAMP PIER INSTALLATION	592.88 29-Jan-19	27-Apr-21	19-Feb-20		66.8%	8.05%	· · · · · · · · · · · · · · · · · · ·	
163 164	INTERCHANGE RAMP PIER_MA INTERCHANGE RAMP PIER_AC	111.00 18-Mar-20	29-Dec-20 27-Apr-21	19-Feb-20		32.08% 3.82%	54.44% 0%	<del></del>	05-Mar-22, I
165	INTERCHANGE RAMP PIER_AC	250.00 16-May-20 300.00 08-Feb-19	18-Mar-20			100%	0%		06-Nov-21, INTERCI
166	INTERCHANGE RAMP PIER_MJ	342.88 08-Feb-19	16-May-20			100%	0%		27-Dec-21, INTE
167	INTERCHANGE RAMP PIER_CA	280.38 08-Jan-20	16-Feb-21	27-Apr-20		41.57%	8.81%	· · · · · · · · · · · · · · · · · · ·	05 14 24 NTE 20 MACE P
168 169	INTERCHANGE RAMP PIER_AM INTERCHANGE READING INSTALLATION	225.00 29-Jan-19 595.88 27-Feb-19	08-Jan-20			100%	0%		05-Jul-21, INTERCHANGER
170	INTERCHANGE BEARING INSTALLATION INTERCHANGE SUPERSTRUCTURE INSTALLATION	632.13 20-Sep-19	31-May-21 15-Feb-22			0% 27.16%	0% 0%		
171	INTERCHANGE BOX GIRDER INSTALLATION_MA	255.00 09-Jan-21	03-Jan-22			0%	0%		
172	INTERCHANGE BOX GIRDER INSTALLATION_AC	210.03 27-Feb-21	27-Dec-21			0%	0%		1
173 174	INTERCHANGE BOX GIRDER INSTALLATION_JM INTERCHANGE BOX GIRDER INSTALLATION_MJ	250.00 11-Mar-20 343.38 20-Sep-19	26-Feb-21 08-Jan-21			19.97% 42.31%	0%		124
174	INTERCHANGE BOX GIRDER INSTALLATION_CA	343.36 20-Sep-19 342.13 30-Oct-20	15-Feb-22			42.31% 0%	0%		
176	INTERCHANGE BOX GIRDER INSTALLATION_AM	223.88 14-Oct-19	19-Aug-20			95.56%	0%		12-Feb-22, IN
177	INTERCHANGE RETAINING STRUCTURE	374.75 11-Mar-19	06-Nov-20			80.14%	0%		05-Apr-22
178 179	MISCELLANEOUS & FINISHING WORKS	468.63 19-Aug-20 65.00 24-May-22	28-Apr-22 22-Sep-22			0%	0%		
	PROJECT HANDINGOVER						070		
180	DEFECT LIABILITY PERIOD (DLP)	763.88 22-Sep-22	21-Sep-24	00.14		0%	0%		
181	PRICE SCHEDULE	2313.13 23-Mar-18	21-Mar-23	23-Mar-18		59.83%	32.01%		
	Project Baseline Bar Critical Remaining Work Summary	EMPLOYER:			C	ONTRACTO	R:	Date Revision Checked	Approved
	Actual Work ♦ Milestone	MUMBAI METROPOLITAN REG	ION DEVELO	PMENT AUTH	-	AEWOO		7 25-Jun-20 R0	
	Remaining Work	(MMRDA)				111111100	11123		
	gg								
		1						I	

Mumbai Trans Harbour Link Project - Quarterly Progress Report No. 13 (Apr-Jun 2020)
manibal frans harbour Ellik Froject - Quarterly Frogress Report No. 15 (Apr-5an 2020)
<b>Attachment 8- Package-3's Construction Programme</b>
Updated as on 25 <sup>th</sup> June 2020

D D	Construction Schedule Jun''20   Activity Name	Original DI 4 Chart			dule upda				Durdmeted Total Cont	A et vel Tetal Const	Cabaddal	Cont	Diamand Value Cont	29-Jun-20 14
,	Activity Name	Original BL1 Start Duration	BL1 Finish	Start	Finish	Activity % Complete	Schedule % Complete	Performance % Complete	Budgeted Total Cost	Actual Total Cost	Schedule Performance Index	Cost Performance Index	Planned Value Cost	Earned Value Cost
THL Pkg	3_Construction Schedule Jun"20	1493 23-Mar-18	21-Sep-21	23-Mar-18 A	27-May-23		85.84%	29.51%	Rs10,137,901,022.17	Rs2,601,274,496.15	0.34	1.18	Rs8,959,138,364.66	Rs3,080,097,215.30
	nent of Mumbai Trans Harbour Link Projec	1493 23-Mar-18	21-Sep-21	23-Mar-18 /	27-May-23		85.84%	29.51%	Rs10,137,901,022.17	Rs2,601,274,496.15	0.34	1.18	Rs8,959,138,364.66	Rs3,080,097,215.30
t	Commencement Date (CD)	0		23-Mar-18 /		100%	0%	100%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
Physical I	` '	979 18-Sep-18	21-Sep-21	20-Sep-20	27-May-23		0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
■ KD1001		0 18-Sep-18	18-Sep-18	20-Sep-20	20-Sep-20	0%	100%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
■ KD1002	KD 2 [NOC for technical design doc & drawing for foundation,	0 17-Dec-18	17-Dec-18	06-Nov-20	06-Nov-20	0%	100%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
■ KD1003	KD 3 [NOC for Good for construction drawing for foundation, §	0 15-Jun-19	15-Jun-19	22-Mar-21	22-Mar-21	0%	100%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
■ KD1004	KD 4 [Substantial completion of foundation, piles (if applicable)	0 21-Mar-20	21-Mar-20	04-Sep-21	04-Sep-21	0%	100%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
■ KD1005	KD 5 [Substantial completion of pile caps (if applicable), piers	0 19-Sep-20	19-Sep-20	21-Dec-21	21-Dec-21	0%	0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
■ KD1006	KD 6 [Substantial completion superstructure (PC/CIS/SS) & a	0 20-Mar-21	20-Mar-21	09-Nov-22	09-Nov-22	0%	0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
KD1007	KD 7 [Substantial completion of kerb/traffic signs, Marking & I	0 24-Jul-21	24-Jul-21	19-Apr-23	19-Apr-23	0%	0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
■ KD1008	KD 8 [Final completion & handing over]	0 21-Sep-21	21-Sep-21	27-May-23	27-May-23	0%	0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
Financial	Milestone	758 18-Sep-18	21-Sep-21	23-Mar-18 /	21-Sep-21		0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
Interface N		867 17-Dec-18	06-Mar-21	25-Jun-20	09-Nov-22		0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
_	nt Submittals	45 23-Mar-18	06-May-18	06-Apr-18 A	25-Jun-20		100%	80%	Rs74,992,895.00	Rs59,994,316.00	0.80	1.00	Rs74,992,895.00	Rs59,994,316.00
	r's Obligation / Land Handover	151 19-Apr-18	18-Sep-18	23-Mar-18 /	29-Jun-20		0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
	5 Ha [CD +180 days]	0 19-Apr-18	18-Sep-18	23-Mar-18 /	29-Jun-20	2007	0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
	o1( ROW 24 Ha (from ch 18+187 to 18+930 and ch 20+170 to 21-	0 19-Apr-18	19-Apr-18	23-Mar-18 / 23-Mar-18 /	29-Jun-20 25-Jun-20	90%	100%	90% 65%	Rs0.00 Rs0.00	Rs0.00 Rs0.00	0.00	0.00	Rs0.00 Rs0.00	Rs0.00 Rs0.00
	o1( ROW [51 Ha, unencumbered (Part 1) from ch 21+232 to 21+8 o1( ROW [51 Ha, unencumbered (Part 2) from ch 18+930 to 20+1	0 16-May-18 0 18-Sep-18	16-May-18 18-Sep-18	23-Mar-18 /	29-Jun-20	97%	100%	97%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
_	Yard 9.16 Ha [CD+120 days]	0 20-Jul-18	20-Jul-18	20-Dec-18 /	21-Dec-18	91 70	0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
	o1( Unobstructed access to casting yard with fence [4.08 Ha (459)	0 20-Jul-18	20-Jul-18	20-Dec-18 /	21-Dec-18	100%	100%	100%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
	r Office (Sch 01- General Item)	801 20-Aug-18	16-Sep-21	25-Jan-19 A	02-Feb-22		90.49%	87.54%	Rs142,351,965.01	Rs124,615,965.01	0.97	1.00	Rs128,808,688.89	Rs124,615,995.01
	Geotechnical Investigation Works	346 19-Apr-18	22-Oct-18	19-Apr-18 A	20-Sep-20		100%	95.75%	Rs242.300.772.92	Rs181.725.579.44	0.96	1.28	Rs242.300.944.92	Rs232.003.161.23
Design W		558 07-May-18	14-Jun-19	25-Apr-18 A	22-Mar-21		100%	79.35%	Rs159,122,500.04	Rs99,962,833.96	0.79	1.26	Rs159,123,270.04	Rs126,266,665.85
	Basis Report	48 07-May-18	30-Jun-18	25-Apr-18 A	08-Dec-18		100%	100%	Rs0.00	Rs0.00	1.00	0.00	Rs51.00	Rs51.00
Prelimin	nary Design	47 02-Jul-18	25-Aug-18	26-Jul-18 A	25-Jun-20		100%	80%	Rs286,875.00	Rs286,875.00	0.80	0.80	Rs286,875.00	Rs229,500.00
Geotech	nnical Interpretative Report Submission & GC Approval (NONC	24 11-Sep-18	08-Oct-18	07-Dec-18 /	24-Sep-20		100%	91%	Rs0.00	Rs0.00	0.91	0.00	Rs42.00	Rs38.22
	Profile Al ignment	77 06-Jun-18	14-Aug-18	25-Jun-18 A	03-Jul-20		100%	80%	Rs0.00	Rs0.00	0.80	0.00	Rs102.00	Rs81.60
	tructure Design	458 16-Aug-18 380 16-Aug-18	26-Feb-19 24-Nov-18	05-Mar-19 / 05-Mar-19 /	21-Dec-20 19-Sep-20		100% 100%	69.03% 43.75%	Rs85,075,000.00 Rs0.00	Rs43,007,599.58 Rs0.00	0.69 0.44	0.00	Rs85,075,144.00 Rs144.00	Rs58,729,192.38 Rs63.00
	ving Submissions Approval (NONO)	389 09-Sep-18	15-Dec-18	22-Jul-19 A	10-Oct-20	+	100%	73.25%	Rs78,603,750.00	Rs41,855,717.08	0.73	1.38	Rs78,603,750.00	Rs57,577,246.88
	e of GFC Drawings	223 01-Oct-18	26-Feb-19	26-Feb-20 /	21-Dec-20		100%	17.8%	Rs6,471,250.00	Rs1,151,882.50	0.18	1.00	Rs6,471,250.00	Rs1,151,882.50
	tion & Pier	324 05-Oct-18	14-Jun-19	06-Nov-18 /	22-Mar-21		100%	83.66%	Rs28,434,375.04	Rs13,147,734.38	0.84	1.81	Rs28,434,435.04	Rs23,786,988.34
Phas	se 1 [24 Ha (from ch 18+187 to 18+930 and ch 20+170 to 21+232]	54 05-Oct-18	01-Dec-18	06-Nov-18 /	21-Sep-20		100%	89%	Rs12,791,250.00	Rs12,791,250.00	0.89	0.89	Rs12,791,280.00	Rs11,384,239.20
Phas	se 1 [24 Ha (from ch 18+187 to 18+930 and ch 20+170 to 21+232)	141 03-Dec-18	19-Mar-19	08-Dec-18 /	30-Nov-20		100%	64.33%	Rs1,069,453.14	Rs356,484.38	0.64	1.93	Rs1,069,453.14	Rs688,014.85
Phas	se 2 [51 Ha (rest area)], Drawing Submissions & GC Approval	47 09-Oct-18	05-Dec-18	14-Mar-19 /	14-Oct-20		100%	83%	Rs12,791,250.00	Rs0.00	0.83	0.00	Rs12,791,280.00	Rs10,616,762.40
	se 2 [51 Ha (rest area)], Issue of GFC Drawings	248 06-Dec-18	14-Jun-19	30-Aug-19 /	22-Mar-21		100%	61.6%	Rs1,782,421.90	Rs0.00	0.62	0.00	Rs1,782,421.90	Rs1,097,971.89
	ent & Foundation	255 15-Oct-18	16-Jan-19	31-Dec-18 /			100%	81.48%	Rs0.00	Rs0.00	0.81	0.00	Rs81.00	Rs66.00
Pier Cap	<u> </u>	438 24-Oct-18	10-May-19	11-Jan-19 A			100%	42.52%	Rs0.00	Rs0.00	0.43	0.00	Rs290.00	Rs123.31
	se 1 [24 Ha (from ch 18+187 to 18+930 and ch 20+170 to 21+232]	329 24-Oct-18	04-Apr-19	11-Jan-19 A			100%	49.74%	Rs0.00	Rs0.00	0.50	0.00	Rs139.00	Rs69.14
	se 2 [51 Ha (rest area)]	376 15-Nov-18	10-May-19	02-Apr-19 A	18-Mar-21		100%	35.87%	Rs0.00	Rs0.00	0.36	0.00	Rs151.00	Rs54.17
	s & Drainage	296 17-Nov-18	03-Apr-19	21-Jan-19 A		1005	100%	89.97%	Rs18,005,625.00	Rs16,200,000.00	0.90	1.00	Rs18,005,625.00	Rs16,200,000.00
	Drawing Submissions & GC Approval (NONO)	30 17-Nov-18	16-Dec-18	21-Jan-19 A		100%	100%	100%	Rs16,200,000.00	Rs16,200,000.00	1.00	1.00	Rs16,200,000.00	Rs16,200,000.00
	e of GFC Drawings ent Design	166 17-Dec-18 71 01-Jul-18	03-Apr-19 27-Aug-18	28-Nov-19 /	08-Jan-21 18-Feb-19		100%	100%	Rs1,805,625.00 Rs27,320,625.00	Rs0.00 Rs27.320.625.00	0.00 1.00	1.00	Rs1,805,625.00 Rs27,320,625.00	Rs0.00 Rs27.320.625.00
		71 01-Jul-18 1126 12-Sep-18	27-Aug-18 08-Jun-21	15-Oct-18 /- 15-Feb-19 /-			90.17%	9.31%	Rs27,320,625.00 Rs1,387,160,466.00	Rs27,320,625.00 Rs44,849,209.01	0.10	3.50	Rs27,320,625.00 Rs1,519,472,020,61	Rs27,320,625.00 Rs156,879,722,11
	nent Works in Bridge	1126 12-Sep-18	08-Jun-21	15-Feb-19 /			81.13%	6.38%	Rs877,933,218.00	Rs44,849,209.01 Rs27,990,308.01	0.10	2.00	Rs1,519,472,020.61 Rs712,281,063.00	Rs156,879,722.11 Rs55,980,814.01
	nching Girder with factory testing(Using Underslung	180 22-Jan-19	23-Aug-19	26-Nov-19 /	18-Jun-21		100%	50%	Rs0.00	Rs27,990,308.01	0.50	0.00	Rs712,281,063.00 Rs180.00	Rs30,960,614.01
	ments Moulds	60 12-Dec-18	21-Feb-19	26-Apr-19 A	02-Jul-19 A		100%	100%	Rs0.00	Rs0.00	1.00	0.00	Rs60.00	Rs60.00
	I Structure	300 08-Dec-18	30-Nov-19	26-Oct-20	18-Oct-21		100%	0%	Rs203,366,072.00	Rs0.00	0.00	0.00	Rs203,366,072.00	Rs0.00
	I for superstructure	68 16-Oct-18	26-Dec-18	22-Aug-19 /	24-Oct-20		100%	11%	Rs508,914,691.00	Rs27,990,308.01	0.11	2.00	Rs508,914,691.00	Rs55,980,616.01
Form	nwork & stagging requirement	104 12-Sep-18	23-Nov-18	15-Feb-19 /	03-Oct-20		100%	80%	Rs0.00	Rs0.00	0.80	0.00	Rs60.00	Rs48.00
						Page	1 of 2			TASK filter: A	All Activities	3		

Original BLI Start Duration   180   27-Jun-20   141   22-Dec-20   709   04-Apr-19   502   04-Apr-19   120   19-Aug-20   22-Jan-19   350   22-Jan-19   713   27-Sep-18   683   27-Sep-18	BL1 Finish  27-Jan-21  08-Jun-21  13-Jan-21  24-Apr-20  13-Jan-21  10-Aug-19  10-Aug-19	18-May-22 11-Oct-22 01-Mar-19 / 01-Mar-19 /	Finish 13-Dec-22	Activity % Complete	Schedule % Complete	Performance %	Budgeted Total Cost	Actual Total Cost	Schedule Performance	Cost Performance	Planned Value Cost	Earned Value Cost
141 22-Dec-20 709 04-Apr-19 502 04-Apr-19 120 19-Aug-20 350 22-Jan-19 350 22-Jan-19 713 27-Sep-18	08-Jun-21 13-Jan-21 24-Apr-20 13-Jan-21 10-Aug-19	11-Oct-22 01-Mar-19 / 01-Mar-19 /	13-Dec-22		Complete	Complete						
709 04-Apr-19 502 04-Apr-19 120 19-Aug-20 350 22-Jan-19 713 27-Sep-18	13-Jan-21 24-Apr-20 13-Jan-21 10-Aug-19	01-Mar-19 / 01-Mar-19 /			0%	0%	Rs165,652,455.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
502 04-Apr-19 120 19-Aug-20 350 22-Jan-19 350 22-Jan-19 713 27-Sep-18	24-Apr-20 13-Jan-21 10-Aug-19	01-Mar-19 /	23-Mar-23		0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
120 19-Aug-20 350 22-Jan-19 350 22-Jan-19 713 27-Sep-18	13-Jan-21 10-Aug-19				71.43%	18.07%	Rs0.00	Rs0.00	0.25	0.00	Rs300.00	Rs75.90
350 22-Jan-19 350 22-Jan-19 713 27-Sep-18	10-Aug-19		22-Nov-21	++	100%	25.3%	Rs0.00	Rs0.00	0.25	0.00	Rs300.00	Rs75.90
350 22-Jan-19 713 27-Sep-18		18-Feb-22	08-Jul-22		0%	0%	Rs0.00	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
713 27-Sep-18	1 10-Aug-19	04-Dec-19 /	04-Jun-21 04-Jun-21		100% 100%	12.5% 12.5%	Rs509,227,248.00 Rs509,227,248.00	Rs16,858,901.00 Rs16,858,901.00	0.13 0.13	5.98 5.98	Rs807,190,657.61 Rs807.190.657.61	Rs100,898,832.20 Rs100.898.832.20
	10-Feb-20	21-Feb-19 /	28-Dec-21		100%	0%	Rs390,605,952.99	Rs0.00	0.00	0.00	Rs390,606,722.99	Rs470.00
000 Z1-00p-10	06-Jan-20	21-Feb-19 /			100%	0%	Rs390,605,952.99	Rs0.00	0.00	0.00	Rs390,606,182.99	Rs230.00
45 17-Jan-19	29-Mar-19	26-Apr-19 A			100%	100%	Rs0.00	Rs0.00	1.00	0.00	Rs60.00	Rs60.00
66 27-Sep-18	28-Dec-18	21-Feb-19 /	07-Nov-20	+	100%	100%	Rs0.00	Rs0.00	1.00	0.00	Rs60.00	Rs60.00
238 27-Sep-18	06-Feb-19	10-Jul-19 A	15-Feb-20 .		100%	100%	Rs0.00	Rs0.00	1.00	0.00	Rs110.00	Rs110.00
255 19-Feb-19	06-Jan-20	22-Dec-20	23-Nov-21		100%	0%	Rs390,605,952.99	Rs0.00	0.00	0.00	Rs390,605,952.99	Rs0.00
683 22-Oct-18		25-Feb-19 F	28-Dec-21			44.44%	Rs0.00				Rs540.00	Rs240.00
95 22-Feb-19		26-Jun-19 A	10-Dec-19.			100%						Rs60.00
				++								Rs60.00
				+								Rs120.00
		20 001121						3-13-1				Rs2,359,584,149.10
												Rs280.00
				+								Rs1,726,855,525.88
		<del></del>										Rs794,560,508.76
				+								Rs191,316,439.20
414 20-May-19	05-Sep-20	30-Sep-18 /	18-Mar-22	<del>                                     </del>	96.36%	46.64%	Rs874,987,055.32	Rs408,094,298.80	0.48	1.00	Rs843, 138, 292.83	Rs408,094,298.80
302 09-Sep-19	07-Nov-20	21-Aug-19 /	15-Feb-22		14.38%	71.7%	Rs464,278,845.68	Rs332,884,279.12	4.99	1.00	Rs66,742,841.93	Rs332,884,279.12
767 27-Feb-19	12-Apr-21				76.04%	4.87%	Rs1,408,927,165.15	Rs59,387,195.25	0.06	1.16	Rs1,071,340,065.56	Rs68,626,858.92
509 30-Mar-19	09-Nov-20	11-Sep-19 F	11-Jan-22		80.31%	8.98%	Rs760,156,099.20	Rs59,387,195.25	0.11	1.15	Rs610,502,022.17	Rs68,295,455.44
							7					Rs331,403.48
												Rs0.00
												Rs0.00
												Rs0.00
			21-Feb-23	+				RS0.00	0.00	0.00		Rs0.00
142 12-Oct-20	1270pr-21		214 60-20		00/4	09/4	De3 680 803 08	Pen m	0.00	nm	Pen m	Pen no
	30-Mar-21	31-Aug-22	11-Feb-23	++	0% 0%	0% 0%	Rs3,689,893.08 Rs3,074,910.90	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
	30-Mar-21 23-Jul-21		11-Feb-23 18-Apr-23		0% 0% 0%	0%	Rs3,074,910.90	Rs0.00	0.00	0.00	Rs0.00	Rs0.00
412 12-Aug-20 364 12-Aug-20	30-Mar-21 23-Jul-21 12-Apr-21	31-Aug-22	11-Feb-23 18-Apr-23 21-Feb-23		0%							
412 12-Aug-20	23-Jul-21	31-Aug-22 24-Dec-21	18-Apr-23		0% 0%	0% 0%	Rs3,074,910.90 Rs180,921,987.01	Rs0.00 Rs0.00	0.00	0.00	Rs0.00 Rs0.00	Rs0.00 Rs0.00
412 12-Aug-20 364 12-Aug-20 133 28-Jan-21 188 03-Mar-21	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23		0% 0% 0% 0% 0%	0% 0% 0% 0% 0%	Rs3,074,910.90 Rs180,921,987.01 Rs38,328,587.01 Rs39,808,055.00 Rs96,849,390.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00
412 12-Aug-20 364 12-Aug-20 133 28-Jan-21 188 03-Mar-21 174 08-Apr-21	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 07-Jul-21	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 28-Sep-22	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23		0% 0% 0% 0% 0% 0%	0% 0% 0% 0% 0% 0%	Rs3,074,910.90  Rs180,921,987.01  Rs38,328,587.01  Rs39,808,055.00  Rs96,849,390.00  Rs5,935,955.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00
412 12-Aug-20 364 12-Aug-20 133 28-Jan-21 188 03-Mar-21 174 08-Apr-21 529 27-Feb-19	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 07-Jul-21 18-Feb-21	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 28-Sep-22 23-Oct-20	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-22		0% 0% 0% 0% 0% 0% 0% 97.5%	0% 0% 0% 0% 0% 0% 0%	Rs3,074,910.90 Rs180,921,987.01 Rs38,328,587.01 Rs39,808,055.00 Rs96,849,390.00 Rs5,935,955.00 Rs461,687,248.20	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs450,167,535.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00
412 12-Aug-20 364 12-Aug-20 133 28-Jan-21 188 03-Mar-21 174 08-Apr-21 529 27-Feb-19 232 27-Feb-19	23Ju-21 12-Apr-21 07-Ju-21 23-Ju-21 07-Ju-21 18-Feb-21 06-Feb-20	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 28-Sep-22 23-Oct-20 23-Oct-20	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-22 23-Aug-21		0% 0% 0% 0% 0% 0% 0% 97.5% 100%	0% 0% 0% 0% 0% 0% 0% 0% 0%	Rs3,074,910.90 Rs180,921,987.01 Rs38,328,587.01 Rs39,808,055.00 Rs96,849,390.00 Rs5,935,955.00 Rs461,667,248.20 Rs71,575,695.00	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	Rs0.00 Rs71,575,695.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00
412 12Aug-20 364 12-Aug-20 133 28-Jan-21 188 05-Mar-21 174 08-Apr-21 529 27-Feb-19 243 10-May-19	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 07-Jul-21 18-Feb-21 06-Feb-20 24-Apr-20	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 28-Sep-22 23-Oct-20 04-Jan-21	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-22 23-Aug-21 22-Nov-21		0% 0% 0% 0% 0% 0% 0% 97.5% 100%	0% 0% 0% 0% 0% 0% 0% 0%	Rs3,074,910.90 Rs180,921,987.01 Rs38,328,587.01 Rs39,808,055.00 Rs96,849,390.00 Rs5,935,955.00 Rs461,687,248.20 Rs71,575,695.00 Rs378,591,600.00	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs71.575.696.00 Rs378.591,720.00	Rs000 Rs000 Rs000 Rs000 Rs000 Rs000 Rs000
412 12Aug-20 364 12Aug-20 133 28Jan-21 188 05Mar-21 174 08Apr-21 503 27-Feb-19 243 10May-19 120 20Jan-20	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 07-Jul-21 18-Feb-21 06-Feb-20 24-Apr-20 09-Jun-20	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 28-Sep-22 23-Oct-20 04-Jan-21 06-Sep-21	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-22 23-Aug-21 22-Nov-21 27-Jan-22		0% 0% 0% 0% 0% 0% 0% 97.5% 100% 100%	0% 0% 0% 0% 0% 0% 0% 0% 0%	Rs3,074,910.90 Rs180,921,987,01 Rs38,328,587,01 Rs39,808,056,00 Rs56,349,390.00 Rs56,395,956,00 Rs461,697,248,20 Rs71,575,690 Rs378,591,600.00 Rs378,591,600.00	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs450.167,555.600 Rs71,575,695.00 Rs378,591,720.00 Rs120.00	Rs000 Rs000 Rs000 Rs000 Rs000 Rs000 Rs000 Rs000
412 12Aug-20 364 12-Aug-20 133 23-Jan-21 188 03-Mar-21 174 08-Apr-21 502 27-Feb-19 243 10-May-19 120 20-Jan-20 120 29-Sep-20	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 07-Jul-21 18-Feb-21 06-Feb-20 24-Apr-20 09-Jun-20 18-Feb-21	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 28-Sep-22 23-Oct-20 04-Jan-21 06-Sep-21 25-Mar-22	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-22 23-Aug-21 22-Nov-21 27-Jan-22 12-Aug-22		0% 0% 0% 0% 0% 0% 0% 97.5% 100% 100% 100%	0% 0% 0% 0% 0% 0% 0% 0% 0%	Rs3,074,910.90 Rs180,921,987,011 Rs38,328,587,011 Rs39,008,005,000 Rs59,849,329,000 Rs59,849,329,000 Rs481,887,248,20 Rs71,575,696,00 Rs378,591,600,00 Rs17,519,953,20	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Re0.00 Re0.00 Re0.00 Re0.00 Re0.00 Re0.00 Re0.00 Re0.00 Re5.00 Re71,575,696.00 Re378,591,720.00 Re50.00	Rs000
412 12Aug-20 364 12Aug-20 133 28Jan-21 188 05Mar-21 174 08Apr-21 503 27-Feb-19 243 10May-19 120 20Jan-20	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 07-Jul-21 18-Feb-21 06-Feb-20 24-Apr-20 09-Jun-20	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 28-Sep-22 23-Oct-20 04-Jan-21 06-Sep-21 25-Mar-22	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-22 23-Aug-21 22-Nov-21 27-Jan-22 12-Aug-22		0% 0% 0% 0% 0% 0% 0% 97.5% 100% 100%	0% 0% 0% 0% 0% 0% 0% 0% 0%	Rs3,074,910.90 Rs180,921,987,01 Rs38,328,587,01 Rs39,808,056,00 Rs56,349,390.00 Rs56,395,956,00 Rs461,697,248,20 Rs71,575,690 Rs378,591,600.00 Rs378,591,600.00	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs450.167,555.600 Rs71,575,695.00 Rs378,591,720.00 Rs120.00	Rs000 Rs000 Rs000 Rs000 Rs000 Rs000 Rs000 Rs000
412 12Aug-20 364 12Aug-20 133 28-Jan-21 188 03-Mar-21 174 08-Apr-21 529 27-Feb-19 243 10-May-19 120 20-Jan-20 120 29-Sep-20 970 20-Apr-19	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 07-Jul-21 18-Feb-21 06-Feb-20 24-Apr-20 09-Jun-20 18-Feb-21 18-May-21	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 28-Sep-22 23-Oct-20 04-Jan-21 06-Sep-21 25-Mar-22 16-Feb-19 /	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-22 23-Aug-21 22-Nov-21 27-Jan-22 12-Aug-22 03-Feb-23		0% 0% 0% 0% 0% 0% 0% 0% 0% 100% 100% 10	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	Rs3,074,910.90 Rs180,921,987.01 Rs38,328,587.01 Rs39,908,065.00 Rs59,849,390.00 Rs598,595.00 Rs461,687,248.20 Rs71,575,695.00 Rs378,591,600.00 Rs0000 Rs1,519,953.20 Rs1,608,667,399.00	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs71.575.695.00 Rs71.575.695.00 Rs120.00 Rs120.00 Rs120.00 Rs120.00 Rs20.00 Rs20.00 Rs20.00	Rs000
412 12Aug-20 364 12Aug-20 133 28Jan-21 188 03Ma-21 174 08Apr-21 559 27Feb-19 243 10May-19 120 20Jan-20 120 25-5p-20 970 20Apr-19 829 20Apr-19	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 07-Jul-21 18-Feb-21 06-Feb-20 24-Apr-20 09-Jun-20 18-Feb-21 18-May-21 02-Mar-21	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 23-Oct-20 04-Jan-21 06-Sep-21 25-Mar-22 16-Feb-19 / 16-Feb-19 /	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-21 22-Aug-21 22-Aug-21 22-Aug-21 12-Aug-22 12-Aug-22 03-Feb-23 24-Aug-22		0% 0% 0% 0% 0% 0% 0% 0% 97.5% 100% 100% 98.75% 99.34%	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	Rs3,074,910.90 Rs180,927,987,071 Rs38,328,5587,011 Rs39,308,055,000 Rs96,849,390.00 Rs96,849,390.00 Rs97,876,880,000 Rs97,875,685,000 Rs378,591,600.00 Rs978,591,600.00 Rs11,596,895,000 Rs11,596,895,000 Rs11,596,895,000	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs10.07,536.00 Rs71,575,696.00 Rs378,591,720.00 Rs120.00 Rs120.00 Rs1566,328,557.00 Rs1,556,328,557.80	Rs0.00
412 12Aug-20 364 12Aug-20 133 28-Jan-21 188 05Mar-21 174 08-Apr-21 529 27-Feb-19 222 27-Feb-19 223 10-May-19 120 20-Jan-20 120 20-Apr-19 829 20-Apr-19 45 25Mar-21	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 03-Jul-21 18-Feb-21 06-Feb-20 24-Apr-20 09-Jun-20 18-Feb-21 18-May-21 18-May-21	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 23-Oct-20 23-Oct-20 04-Jan-21 06-Sep-21 25-Mar-22 16-Feb-19 / 14-Dec-22	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-22 23-Aug-21 22-Nov-21 27-Jan-22 12-Aug-22 03-Feb-23 24-Aug-22 03-Feb-23		0% 0% 0% 0% 0% 0% 0% 97.5% 100% 100% 98.75% 99.34% 0%	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	Rs3,074,910.90 Rs180,921,987,01 Rs38,328,587,01 Rs39,308,056,00 Rs49,390,00 Rs491,390,00 Rs491,390,00 Rs491,596,600 Rs491,596,600 Rs491,596,600 Rs40,00 Rs10,506,600,600 Rs10,506,600,600,600 Rs1,506,606,138,68 Rs41,971,200,92	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs75,556,695.00 Rs775,575,695.00 Rs378,591,720.00 Rs0.00 Rs0.00 Rs1,556,328,557.80 Rs1,556,328,557.80 Rs0.00	Rs000 Rs564,101,484,30
412 12Aug-20 364 12-Aug-20 133 28-Jan-21 188 05-Mar-21 174 08-Apr-21 509 27-Feb-19 242 27-Feb-19 243 10-May-19 120 20-Jan-20 120 20-Apr-19 802 20-Apr-19 45 25-Mar-21 634 19-Sep-20	23Jul-21 12Apr-21 07Jul-21 23Jul-21 07Jul-21 18Feb-21 06Feb-20 24Apr-20 09Jun-20 18Feb-21 18May-21 02Mar-21 18May-21	31-Aug-22 24-Dec-21 24-Dec-21 15-Nov-22 24-Aug-22 28-Sep-22 23-Oct-20 04-Jan-21 06-Sep-21 25-Mar-22 16-Feb-19 / 14-Dec-22 19-Sep-20	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-22 23-Aug-21 22-Nov-21 27-Jan-22 12-Aug-22 12-Aug-22 03-Feb-23 03-Nov-22		0% 0% 0% 0% 0% 0% 0% 97.5% 100% 100% 98.75% 99.34% 0% 0%	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	Rs3,074,910.90 Rs180,921,987,011 Rs39,328,587,011 Rs39,308,055,000 Rs66,849,359,000 Rs66,849,359,000 Rs461,867,248,20 Rs71,575,695,000 Rs378,591,600,000 Rs11,519,953,20 Rs16,006,667,399,600 Rs15,506,696,739,900 Rs41,577,1250,92 Rs41,977,1250,92	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs450.167.535.00 Rs71,575.696.00 Rs378.591,720.00 Rs10.00 Rs1.556,328,557.80 Rs1,556,328,557.80 Rs1,556,328,557.80 Rs0.00 Rs0.00 Rs1.556,328,557.80 Rs0.00 Rs0.00	Rs000
412 12Aug-20 364 12Aug-20 133 28-Jan-21 188 03-Mar-21 174 08-Arr-21 529 27-Feb-19 243 10-May-19 120 20-Jan-20 120 20-Sep-20 970 20-Apr-19 45 25-Mar-21 634 19-Sep-20 954 23-Apr-18	23Ju-21 12Apr-21 07-Ju-21 23-Ju-21 07-Ju-21 18Feb-21 06-Feb-20 24-Apr-20 09-Jun-20 18-Feb-21 18-May-21 02-Mar-21 18-May-21 06-Mar-21 23-Aug-21	31-Aug-22 24-Deo-21 24-Deo-21 15-Nov-22 24-Aug-22 28-Sep-22 23-Oct-20 04-Jan-21 16-Feb-19 / 16-Feb-19 / 14-Deo-22 19-Sep-20 30-Nov-18 /	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 18-Apr-23 12-Aug-21 22-Nov-21 27-Jan-22 12-Aug-22 03-Feb-23 03-Feb-23 09-Nov-22 25-Mar-23	0%	0% 0% 0% 0% 0% 0% 0% 0% 100% 100% 100%	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	Rs3,074,910.90 Rs180,921,987.01 Rs38,328,587.01 Rs39,308,065.00 Rs59,849,390.00 Rs59,849,390.00 Rs571,575,695.00 Rs71,575,695.00 Rs71,971,072,00 Rs71,971,072,00 Rs771,971,072,00	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs71,575,695.00 Rs71,575,695.00 Rs120.00	Rs000 Rs504,101,484.30 Rs564,101,484.30 Rs564,701,484.30 Rs564,701,484.30 Rs564,701,484.30
412 12Aug-20 364 12Aug-20 133 28-Jan-21 188 05-Mar-21 174 08-Apr-21 559 27-Feb-19 243 10-May-19 120 20-Jan-20 120 29-Sep-20 970 20-Apr-19 45 25-Mar-21 634 19-Sep-20 964 23-Apr-18 33 26-Jul-21	23-Jul-21 12-Apr-21 07-Jul-21 23-Jul-21 07-Jul-21 18-Feb-20 09-Jun-20 18-Feb-21 18-May-21 08-May-21 18-May-21 18-May-21 18-May-21 23-Aug-21 23-Aug-21 20-Sep-21	31-Aug-22 24-Dec-21 15-Nov-22 24-Aug-22 24-Aug-22 28-Sep-22 23-Oct-20 04-Jan-21 06-Sep-21 25-Mar-22 16-Feb-19/ 14-Dec-22 30-Nov-18/ 19-Apr-23	18-Apr-23 21-Feb-23 18-Apr-23 30-Mar-23 18-Apr-23 12-Aug-21 22-Nov-21 22-Nov-21 22-Aug-22 12-Aug-22 12-Aug-22 36-Feb-23 24-Aug-22 03-Feb-23 03-Fob-23 25-Mar-23 25-Mar-23	0%	0% 0% 0% 0% 0% 0% 0% 0% 97.5% 100% 100% 100% 100% 59.34% 0% 98.75% 99.34%	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	Rs3,074,910.90  Rs180,921,987.01  Rs33,28,587.01  Rs39,008,065.00  Rs568,49,390.00  Rs568,49,390.00  Rs578,591,600.00  Rs378,591,600.00  Rs1,576,686,00  Rs1,566,666,138,68  Rs41,971,260.92  Rs50,00  Rs50,00	Rs0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs0.00 Rs71,575,695.00 Rs378,591,720.00 Rs120.00 Rs120.00 Rs120.00 Rs0.00 Rs1,556,328,557.80 Rs0.00 Rs4,556,328,557.80 Rs0.00 Rs402,574,915.90 Rs400.00	Rs0.00
	255 19 Feb 19 663 22 Oct.18 95 22 Feb 19 66 02 Nov.18 248 22 Oct.18 255 27 Mar.19 1234 23 Jul-18 866 08 Dec.18 754 08 Dec.18 257 27 Feb 19 414 20 May.19 302 09 Sep.19 767 27 Feb 19 509 30 Mar.19 455 25 Aug.19 567 27 Feb 19 300 10 May.19 301 03 Aug.20 180 07 Sep.20	255 19-Feb-19 06-Jan-20 683 22-Out-18 10-Feb-20 95 22-Feb-19 04-May-19 66 02-Nov-18 04-Feb-19 256 27-Mar-19 10-Feb-20 1254 22-Out-18 13-Mar-19 255 27-Mar-19 10-Feb-20 1254 20-Jul-18 23-Jul-21 619 20-Jul-18 07-Nov-20 754 08-Dec-18 07-Nov-20 754 08-Dec-18 07-Nov-20 297 27-Feb-19 06-Mar-20 414 20-May-19 07-Nov-20 767 27-Feb-19 12-Apr-21 509 30-Mar-19 10-May-21 509 30-Mar-19 12-Apr-21 309 10-May-19 17-Nov-20 10-Sa-Nay-19 17-Nov-20 10-Sa-Nay-19 17-Nov-20 10-Sa-Nay-19 17-Nov-20 10-Sa-Nay-19 17-Nov-20 10-Sa-Nay-19 17-Nov-20 10-Sa-Nay-19 17-Nov-20 11-Sa-Nay-19 17-Nov-20 11-Sa-Nay-20 12-Apr-21 180 03-Aug-20 12-Apr-21 180 03-Aug-20 17-Mar-21	255 19-Feb-19	255 19-Feb-19	255 19-Feb-19	255 19-Feb-19 06-Jan-20 22-Dec-20 23-Nov-21 100% 683 22-Ost-18 10-Feb-20 25-Feb-19 28-Dec-21 100% 100% 66 02-Nov-18 04-Feb-19 25-Feb-19 04-Nov-20 100% 66 02-Nov-18 04-Feb-19 25-Feb-19 04-Nov-20 100% 100% 100% 100% 100% 100% 100% 10	255 19-Feb-19	255 19-Feb-19	255 19-Feb-19 06-Jan-20 22-Dec-20 23-Nov-21 100% 0% Rs300.005,952.99 Rs0.00 853 22-Oct-18 10-Feb-20 25-Feb-19 28-Dec-21 100% 44-44% Rs0.00 Rs0.00 Rs0.00 66 02-Nov-18 04-Feb-19 25-Feb-19 09-Nov-20 100% 100% Rs0.00 Rs0.00 Rs0.00 Rs0.00 248 22-Oct-18 13-Mari-19 16-Jul-19-A 25-Feb-20 100% 100% 100% Rs0.00	255   19-Feb-19   06-Jan-20   22-Dec-20   23-Nov-21   100%   0%   Re300.055,92.99   Res.00   0.00     683   22-Oct-18   10-Feb-20   25-Feb-19-4   29-Dec-21   100%   44.44%   Res.00   Res.00   Res.00   0.44     952   22-Feb-19   04-May-19   25-Jan-19   10-Dec-19   100%   100%   Res.00   Res.00   Res.00   1.00     66   02-Nov-18   04-Feb-19   25-Feb-19-4   09-Nov-20   100%   100%   Res.00   Res.00   Res.00   1.00     248   22-Oct-18   13-Mar-19   16-Jul-19A   25-Feb-20   100%   100%   Res.00   Res.00   Res.00   Res.00   Res.00   Res.00   Res.00   Res.00   Res.00   1.00     255   27-Mar-19   10-Feb-20   28-Jan-21   28-Sep-18 / 18-Agr-23   85-53%   33.44%   Res.7 (33-465,446.22   Res.2 (70-126,326.74   0.39     619   20-Jul-18   01-Jul-19   26-Sep-18 / 18-Agr-23   85-53%   33.44%   Res.7 (33-465,446.22   Res.2 (70-126,326.74   0.39     754   08-Dec-18   07-Nov-20   30-Sep-18 / 18-Mar-22   87-34%   50-9%   Res.3 (28-66,949.20   Res.1,721,116,823.34   0.38     754   08-Dec-18   07-Nov-20   30-Sep-18 / 18-Mar-22   87-34%   50-9%   Res.3 (28-66,949.20   Res.1,721,116,823.34   0.38     257   27-Feb-19   08-Mar-20   18-Dec-18 / 08-Sep-1   100%   43-62%   Res.1,401,625.36   Res.788,821,806.22   0.44     257   27-Feb-19   08-Mar-20   30-Sep-18 / 18-Mar-22   96.30%   46-64%   Res.74,967,055.32   Res.408,094.298.80   0.48     302   09-Sep-19   07-Nov-20   21-Aug-19 / 15-Feb-22   14-38%   71-7%   Res.44,278,845.68   Res.322,884,279.12   4.99     767   27-Feb-19   12-Apr-21   11-Sep-19 / 11-Jan-22   80.31%   8.99%   Res.1,408,927,165.15   Res.938,7165.25   0.01     445   28-Aug-19   20-Jan-21   15-Sep-19 / 11-Jan-22   80.31%   8.99%   Res.76,069.20   Res.938,7165.25   0.01     456   28-Aug-19   20-Jan-21   11-Sep-19 / 08-Nov-22   76-80.46   0.47%   Res.06,927,165.15   Res.938,7165.25   0.01     597   27-Feb-19   12-Apr-21   11-Sep-19 / 08-Nov-22   68-69%   0.47%   Res.06,927,165.15   Res.938,7165.25   0.01     597   27-Feb-19   12-Apr-21   11-Sep-19 / 08-Nov-22   68-69%   0.47%   Res.06,927,165.15   Res.938,7165.25   0.01	255 19-Feb-19	255   19-Feb-19

Mumbai	Trans Harbour L	ink Project -	Quarterly Pro	ogress Repo	rt No. 13 (Apr-	Jun 2020)
	A 44 I					
	Attachm	ent 9- P	roject P	rogress	Photos	

# Package 1- Site Progress Photos



Photo No. 1: C2P9 S Pier Head Reinforcement Works at Interchange in Progress



Photo No. 2: EP-15 Pier Concreting – Interchange Area in progress



Photo No. 3: AP-44 Pier Final Lift Concreting in progress



Photo No. 4: MP15-16 N Pier Head Erection at Intertidal Section in progress



Photo No. 5: MP29 N Pedestal, Shear Key Concreting in progress

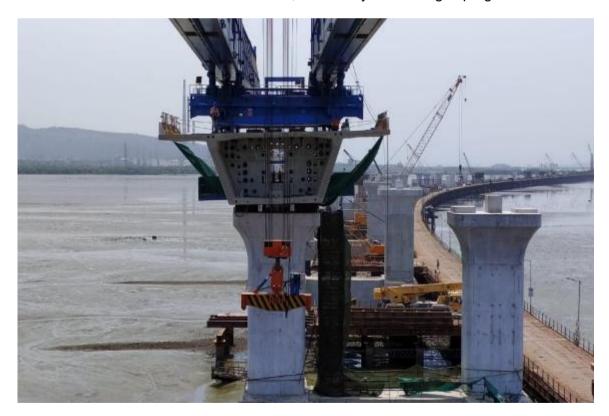


Photo No. 6: MP 15-16 Pier Head Erection Intertidal Section In Progress



Photo No. 7:- MP 44 N1 Pile Concreting - Intertidal Section in progress



Photo No. 8: MP 02 N Pile Cap Concreting in progress



Photo No. 9: MP 44 S1 Pile Concreting – Intertidal in progress



Photo No. 10: MP84 N Pier Works- Marine Section



Photo No. 11: Marine Section- Progress View looking at MP 81-85



Photo No. 12: MP102 Pile Cap Works in progress

# Package 2 - Site Progress Photos



Photo No. 1: Concreting at Open Foundation MP 259 RHS in progress



Photo No. 2: Pier final lift concreting at MP 242 LHS in progress



Photo No. 3: Pier cap formwork at MP238 LHS and RHS in progress



Photo No. 4: Formwork for Pier Head Segment at MP 237 LHS and RHS in progress



Photo No. 5: Excavation at Open Foundation MAA2 in progress



Photo No. 6: Segment concreting at Bay-2 in progress

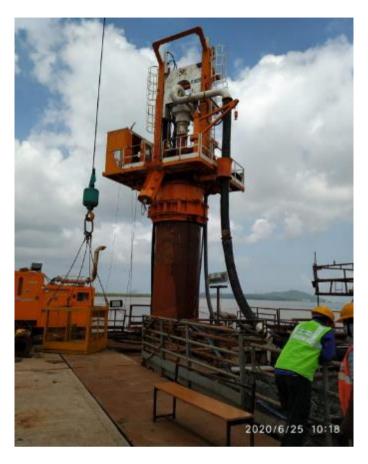


Photo No. 7: Pile drilling at MP 219 RHS in progress



Photo No. 8: Frame erection for Launching Girder in progress



Photo No. 9: Pile concreting at MP 220/02 RHS in progress



Photo No. 10: Open foundation concreting at MP 251 RHS in progress



Photo No. 11: Pier reinforcement tying at MP 233 LHS in progress



Photo No. 12: Segment Mould erection at Bay-3 in progress

# Package 3 - Site Progress Photos



Photo No. 1: PCC for Foundation No. MPP-05 (Chirle) completed



Photo No. 2: Chirle RP 01 LHS foundation reinforcement work is in progress

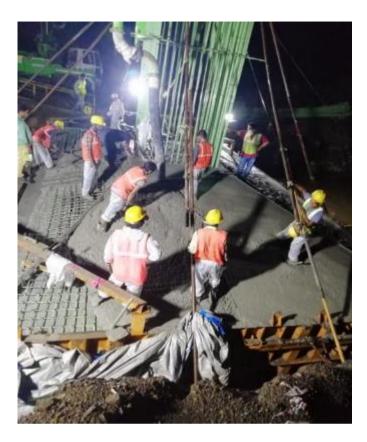


Photo No. 3: Concreting Works at Foundation No. RP 01 LHS in progress



Photo No. 4: Concreting Works at Foundation No. LP 38 at Chirle in progress

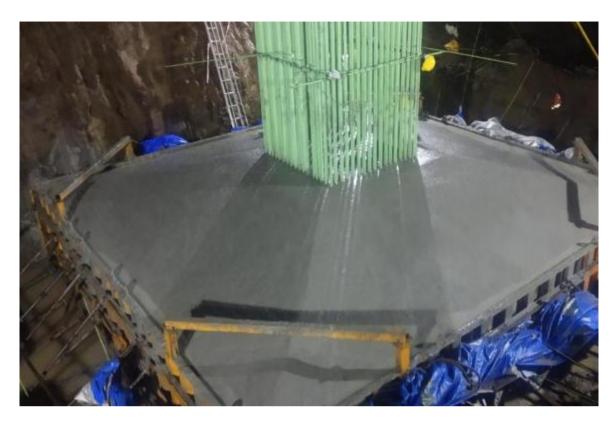


Photo No. 5: Concrete pouring at Foundation No. LP 38, Chirle completed

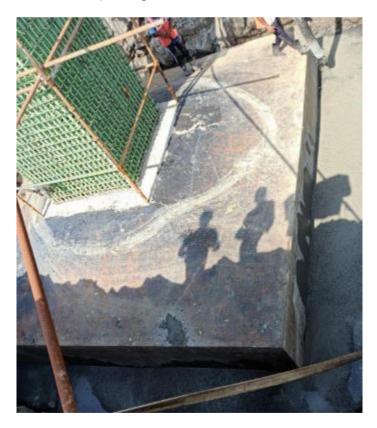


Photo No. 6: Annular filling at Foundation RP-33 LHS (Chirle) in progress



Photo No. 7: Final lift concrete pouring at Pier No. PMP-13 (Chirle) in progress



Photo No. 8: Final lift (8.135M) concrete pouring AT Pier No. LP-31 (Chirle) in progress



Photo No. 9: Reinforcement inspection for Segment N (15) in progress



Photo No. 10: Segment Profile checking in progress

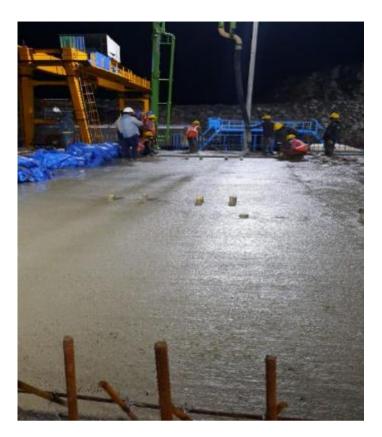


Photo No. 11: Segment concrete pouring at bay 2, precast yard in progress



Photo No. 12: Stacking of HT strand in Jasai Godown











#### General Consultant for Mumbai Trans Harbour Link Project

Ref No: MTHL/GC/MMRDA/LT/QPR-1953/2021

1<sup>st</sup> March 2021

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

Sub: General Consultancy services for Mumbai Trans Harbour Link (MTHL) project -

Submission of Quarterly Progress Report (QPR) No. 14 for July to September 2020

Ref: MTHL/GC/MMRDA/LT/QPR – 1813/ 2021 dated 12<sup>th</sup> January 2021

Dear Sir.

With reference to the above subject, please find enclosed 1 hard copy of the corrected Quarterly Progress Report (QPR) No. 14 for the period of 1<sup>st</sup> July to 30<sup>th</sup> September 2020. In this report, we have incorporated all the corrections after your review of the draft report.

You may forward the same to JICA, India at your earliest convenience.

Thanking you, Yours faithfully,

m man

1 March 2021

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

**Encl:** 1 copy of Quarterly Progress Report No. 14 (July - September 2020)

**CC:** Superintendent Engineer – MMRDA - Mr. Sakhalkar Executive Engineer – MMRDA – Mr. Bhisikar

Executive Engineer – MMRDA – Mr. Vishal Jambhale

Executive Engineer – MMRDA – Mr. Ganesh Deshpande

By Email



Mumbai Metropolitan Region Development Authority

# **Mumbai Trans Harbour Link Project**

**Quarterly Progress Report - No.14** 

(From 1<sup>st</sup> July 2020 to 30<sup>th</sup> September 2020)



Mumbai Trans Harbour Link Project Quarterly Progress Report No. 14 1<sup>st</sup> July 2020 to 30<sup>th</sup> September 2020 Loan Agreement No. ID-P255 (Tranche–I)

# **ORGANIZATION INFORMATION**

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

## **Details of JICA Loan**

	JICA ODA Loan Portion:	238,572 million Japanese YEN (JPY)
Source of Finance	Tranche-I:	144,795 million Japanese YEN (JPY) (Loan Agreement signed on 31 <sup>st</sup> March 2017)
	Tranche-II:	66,909 Million Japanese YEN (JPY) (Loan Agreement signed on 27 <sup>th</sup> March 2020)
Terms and Conditions of JICA ODA Loan (Tranche-1)	Repayment Period:	30 years, including 10 years of grace period.

# DOCUMENT VERIFICATION AND REVISION RECORD

PROJI	ECT NAME	Mumbai Trans Harbour Link Project				
DOC N	NO.	14	DATE OF	<b>DATE OF ISSUE</b> 06/0		1/2021
DOC	<b>FITLE</b>	Quarterly Progress Report No. 14				
REV No.	DATE OF ISSUE	DESCRIPTION	PREPARED BY	CHECKED	ВҮ	APPROVED BY
R0	05/07/2017	Quarterly Progress Report No. 1 (Apr-Jun 17)	J Senthil	Dr T K Sund	aram	Dr Robin Sham
R0	05/10/2017	Quarterly Progress Report No. 2 (Jul-Sep 17)	J Senthil	Dr T K Sundaram		Dr Robin Sham
R0	05/01/2018	Quarterly Progress Report No. 3 (Oct-Dec 17)	J Senthil	Dr T K Sund	aram	Dr Robin Sham
R0	05/04/2018	Quarterly Progress Report No. 4 (Jan-Mar 18)	J Senthil	Dr T K Sund	aram	Dr Robin Sham
R0	24/07/2018	Quarterly Progress Report No. 5 (Apr-Jun 18)	Prashant B	Dr T K Sund	aram	Dr Robin Sham
R0	10/10/2018	Quarterly Progress Report No. 6 (Jul-Sep 18)	Prashant B	Dr T K Sund	Dr T K Sundaram	
R1	08/02/2019	Quarterly Progress Report No. 7 (Oct-Dec 18)	Prashant B	*	J Senthil/ Dr T K Sundaram	
R0	05/04/2019	Quarterly Progress Report No. 8 (Jan-Mar 19)	Prashant B	J Senthil		V. D. Sharma/ Dr Robin Sham
R0	18/09/2019	Quarterly Progress Report No. 9 (Apr-Jun 19)	Prashant B	Mr. Som Ghosh		Dr Robin Sham
R0	13/11/2019	Quarterly Progress Report No. 10 (Jul-Sep 19)	Prashant B	Mr. Som Gl	nosh	Dr Robin Sham
R0	11/02/2020	Quarterly Progress Report No.11 (Oct-Dec 19)	Prashant B	Mr. Som Gl	nosh	Dr Robin Sham
R0	25/11/2020	Quarterly Progress Report No.12 (Jan-Mar 20)	Prashant B	Mr. Som Gl	nosh	Dr Robin Sham
R0	15/12/2020	Quarterly Progress Report No.13 (Apr-Jun 20)	Prashant B	Mr. Som Gl	nosh	Dr Robin Sham
R0	06/01/2021	Quarterly Progress Report No.14 (Jul-Sept 20)	Prashant B	Mr. Som Gl	nosh	Dr Robin Sham

# **Contents**

1.0 PF	ROJECT DESCRIPTION	5
1.1 1.2 1.3	Project Objective	5
2.0 PF	ROJECT IMPLEMENTATION	9
2.1 2.2	Project ScopeImplementation Schedule	11
2.3	Project Cost	
2.3.1.a 2.3.1.l		
2.4	Organization for Implementation	15
2.4.1	Executing Agency	
2.4.2 2.4.2.	Contractor(s)/ Supplier(s), and Consultant(s) and their Performance:	
2.4.2. 2.4.2.:		
	ıltant's Progress:	
	actor's Progress:	
	ige-1 Physical Progress till 30 <sup>th</sup> September 2020	
	ge-2 Physical Progress till 30 <sup>th</sup> September 2020ge-3 Physical Progress till 30 <sup>th</sup> September 2020	
	ige-3 Physical Progress till 30 <sup>th</sup> September 2020	
	n & Safety and Environment (HSE)	
Packa	ge-1 Safety Report	21
	ge-2 Safety Report	
	ge-3 Safety Report	
3.0 BI	ENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)	24
3.1	Operational and Physical Condition	
3.2	Precautions (Measures To Be Adopted/ Points Which Require Special Attention)	
3.3 3.4	Environmental and Social Impacts	
3.4 3.5	Monitoring Plan for the indicators	
3.6	Achievement of the Project Objective	
4.0	OPERATION AND MAINTENANCE (O&M) (SUSTAINABILITY)	
4.1	O&M and Management	
4.2	O&M Cost and Budget	
5.0 E\	/ALUATION	32
5.1	JICA and Borrower / Executing Agency performance	32
5.2	Overall Evaluation	32
5.3	Lessons Learnt and Recommendations.	
	achment 1- MMRDA & PIU Organization Chart	
	schment 2- Environmental & Social Impacts Attachments	
	achment 4- Project Procurement and Financial Status till 30th September 2020	
	achment 5- S-Curve for Cumulative Planned Vs Actual Amount in JPY Million	
Atta	schment 6- Package-1's Construction Programme Updated as on 25th September 2020	42
	achment 7- Package-2's Construction Programme Updated as on 25th September 2020	
	achment 8- Package-3's Construction Programme Updated as on 25th September 2020	
AIIA	schment 9- Project Progress Photos	45

#### 1.0 PROJECT DESCRIPTION

## 1.1 Project Objective

## **Original:**

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

Actual (P/R, PCR)

There is no change in the Project Objective.

#### 1.2 Necessity of the Project

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

# **Benefits from MTHL Project**

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

#### **Necessity of the Project**

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

- 4. The Government of Maharashtra (GoM), of which Mumbai Metropolitan Region is under jurisdiction, has been facilitating various development plans particularly in Navi Mumbai area, which stands at the opposite site of Mumbai across the Mumbai Bay and still has spacious area for development, such as a new international airport, Special Economic Zone (SEZ) and expansion of Jawaharlal Nehru Port in order to promote the sustainable economic development in Mumbai Metropolitan Region.
- 5. Furthermore, a lack of connectivity in Mumbai has stunted its growth. The GoM has given importance to construct the faster connection with Mumbai to Navi Mumbai International Airport, Jawaharlal Nehru Port, Mumbai-Pune expressway and main hinterland.
- 6. Accordingly, the Mumbai Trans Harbour Link (MTHL) has been identified as the important infrastructure to improve the connectivity between Mumbai and Navi Mumbai and continue economic development in Mumbai Metropolitan Region.
  - The MTHL is proposed to be developed as an expressway link comprising of a dual three-lane main carriageway bridge connecting Sewri in Mumbai to Chirle in Navi Mumbai. When completed, MTHL will reduce the distance between Mumbai and Navi Mumbai and will help save approximately an hour in travel time. Also, development of Navi Mumbai along with the imminent construction of the Navi Mumbai airport will lead to increased traffic between Mumbai and Navi Mumbai. Consequently, the project is envisaged to; improving accessibility between Mumbai and Navi Mumbai, accelerating growth of Navi Mumbai, smooth traffic flow from Navi Mumbai airport to Mumbai, accelerating economic development of Navi Mumbai and surrounding regions, greater economic integration of Mumbai with Navi Mumbai and extended regions of Pune, Goa, Panvel and Alibaug, and decongestion of Mumbai and dispersal of population to Navi Mumbai region and beyond.
- 7. The Comprehensive Transportation Study (CTS) for Mumbai Metropolitan Region which was guided by Mumbai Metropolitan Region Development Authority (MMRDA) and supported by World Bank, was completed in July 2008, which was over 25 years after the issuance of the last comprehensive transport study. The report provided a vision for Mumbai's future transportation as seamless and integrated system, in which commuters can make their journeys safely and conveniently by various modes of transport, particularly by public transport, and recommended the development of Multi Modal Corridor to take care of the varied travel demands of the region for the period up to 2031. The CTS proposed to develop the highway network in the region. The MTHL has been regarded as the priority road for Mumbai, considering its function and importance connecting between Mumbai and Navi Mumbai.
- 8. Necessity of the Project: To promote economic development in Mumbai Metropolitan Region it is essential to improve the connectivity between Mumbai and Navi Mumbai, by constructing MTHL.

Actual (P/R, PCR)

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

# 1.3 Rationale of the Project Design

- Timing, Scale, Technology of the Project:

#### **Demand Analysis**

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

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

**Table 1.3.1 Demand Projections Over the Period** 

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

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

#### **Design Parameters / Overall Design**

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

- different type and with different span, viz., PC box girder with 50 m spans which is typically applied on marine viaduct since, it is economical, easy to construct and maintain.
- 9. On the land portion, the PC box girder having span of generally 30m is used.
- 10. As far as the location in which long span (150-180 m) is required to cross significant obstacles, such as navigation channels, pipelines and creeks, the steel box girder bridge with steel deck is proposed with large block erection method to shorten the construction period.
- 11. The project is coded with three lanes of traffic in each direction. The reference toll is presented in the Table 1.3.2 below for each vehicle class in Year 2022 (based on 2015 monetary value reflecting price escalation).

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

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

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

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

#### **Traffic management System**

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

Actual (P/R, PCR)

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

# 2.0 PROJECT IMPLEMENTATION

# 2.1 Project Scope

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

**Table 2.1.1 Comparison of Original and Actual location** 

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

Table 2.1.2 Comparison of Original and Actual Scope

Items	Original	Actual
Construction	work: 6-lane Marine Bridge Road (21.8 km)	
Package-1 Ch 0+000- 10+380 (10.380 km)	<ul> <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>Road Furniture and roadside 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+187 (7.80 km)	<ul> <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>Road Furniture and roadside facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers)</li> </ul>	(P/R and PCR) Actual: No View Barriers
Package-3 Ch 18+187- 21+800 (3.61 km)	<ul> <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>Cutting Section (6-lane with Slope Protection)</li> <li>Road Furniture and roadside facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers)</li> </ul>	(P/R and PCR) Actual: No Noise Barriers & View Barriers

# Mumbai Trans Harbour Link Project - Quarterly Progress Report No.14 (Jul-Sept 2020)

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

## 2.2 Implementation Schedule

## 2.2.1 The Original Implementation Schedule

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

Items	Original	Status (P/R and PCR) as on 30 <sup>th</sup> September 2020
Completion of Land     Acquisition and Resettlement	March 2019	December 2020
2) Consulting Services		
a) Selection of Consultant	May – December 2016	May – December 2016
b) Consultancy Works	December 2016 – September 2024	December 2016 – September 2024
3) Selection of Contractor		
Package-1, Package-2 & Package-3	(Civil)	
a) Pre-Qualification Process	May – December 2016	May – December 2016
b) Main Bidding	January – December 2017	January – December 2017
c) JICA's Concurrence of Contract	February-2018	February-2018
Package-4 (ITS)		
a) Pre-Qualification Process	January 2019 – May 2019	January 2020 – May 2020
b) Main Bidding	June 2019 – September 2020	June 2020 – May 2021
4) Civil Construction		
Package-1 and Package-2	March 2018 – September 2022	March 2018 – September 2022
Package-3	March 2018 – September 2021	March 2018 – September 2021
Package-4	October 2020 – September 2022	June 2021 – September 2022
5) Defect Liability Period		
Package-1, Package-2 and Package-4	October 2022 – September 2024	October 2022 – September 2024
Package-3	October 2021 – September 2023	October 2021 – September 2023
6) Commencement of Toll Collection	September -2022	September -2022
7) Selection of O&M Organization	October 2020 – September 2021	October 2021 – September 2022

**Attachment 6, 7 & 8:** Package wise construction schedules (progress) updated at the end of 2<sup>nd</sup> quarter (July-September 2020).

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

## (P/R and PCR)

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

# 2.3 Project Cost

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

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

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

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

2. Price Escalation (a) Foreign Currency Portion: 1.83% p.a. (b) Local Currency Portion: 4.13% p.a.

- 3. Physical Contingency: 10%
- 4. Base Year for Cost Estimation: December 2018
- \* Base Cost for Land Acquisition considered in the year 2016 was INR 9,062,669,696. The base cost has been revised to INR 11,293 million considering Price Escalation and 10% Physical Contingency.

# Mumbai Trans Harbour Link Project - Quarterly Progress Report No.14 (Jul-Sept 2020)

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

	Foreign Currency Portion			Local Currency Portion			Total		
Cost Breakdown	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)	Total (Rs. mil)	JICA Portion (Rs. mil)	Others (Rs. mil)	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)
Package-1	6,030	6,030	-	18,573	18,573		34,308	34,308	
Package-2	5,003	5,003	-	12,578	12,578		24,152	24,152	
Package-3	72	72	-	3,494	3,494		4,950	4,950	
Package-4 (ITS)	-		-	-			-		
Package-5 (Geotechnical Investigation)	-			196		196	308		308
Dispute Boards (Package-1, 2, 3 & 4)	-			-			-		-
Price Escalation	-			4	4		6	6	-
Physical Contingency	-			-			-		-
Consulting Services	253	253		362	362		899	899	
Land Acquisition*	-			6,014		6,014	9,442		9,442
Administration Cost	-			2,515		2,515	3,949		3,949
GST	-			4,964		4,964	7,794		7,794
Import Tax	-			-			-		-
Interest during construction	-			-			-		-
Front End Fee	-			-			-		-
Total	11,358	11,358	-	48,701	35,011	13,690	85,808	64,315	21,493

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

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

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

3. Physical Contingency: 10%

4. Base Year for Cost Estimation: December 2018

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

# Mumbai Trans Harbour Link Project - Quarterly Progress Report No.14 (Jul-Sept 2020)

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

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

(All Figures are in JPY mil)

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

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

(All Figures are in JPY mil)

Cost Breakdown	Total		Others (MMRDA			
		Tranche I	Tranche II	Tranche III	Sub Total	Portion)
FY 2017	13,738	9,232	-	-	9,232	4,506
FY 2018	26,813	21,695	-	-	21,695	5,118
FY 2019	40,404	31,008	-	-	31,008	9,396
FY 2020	3,648	1,175	-	-	1,175	2,473
FY 2021						
FY 2022						
FY 2023						
FY 2024						
Total	84,603	63,110	-	-	63,110	21,493

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

- 2. Fiscal Year starting from 1<sup>st</sup> April and ending on 31<sup>st</sup> March.
- **2.3.2** Reason(s) for the wide gap between the original and actual, if there have been any, the remedies you have taken, and their results.

(P/R and PCR)

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

#### 2.4 Organization for Implementation

#### 2.4.1 Executing Agency

#### Original:

#### **Executing Agency**

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

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

#### Organization's Role

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

#### Project Implementation Unit (PIU)

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

#### Procurement

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

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

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

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

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

## 2.4.2.1 Procurement & Consultant

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

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

#### 2.4.2.2 Performance

#### **Consultant's Progress:**

#### July 2020:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
  - i) Package-1: IPC-28 & IPC-29 Detailed Verification and IPC-30 80% Ad-hoc.
  - ii) Package-2: IPC-24 80% Ad-hoc.
  - iii) Package-3: IPC-17 & IPC-18 Detailed Verification and IPC-19 & IPC-20 80% Ad-hoc.
- 2 GC has prepared and submitted a total reimbursement claim of 422.7 Million JPY to MMRDA / JICA in July 2020.

#### **August 2020:**

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
  - i) Package-1: IPC-30 Detailed Verification and IPC-31 R1 80% Ad-hoc.
  - ii) Package-2: IPC-24 Detailed Verification and IPC-25 80% Ad-hoc
  - iii) Package-3: IPC-19 & IPC-20 Detailed Verification and IPC-21 80% Ad-hoc
- 2 GC has prepared and submitted a total reimbursement claim of 315.48 Million JPY to MMRDA / JICA in August 2020.

#### September 2020:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
  - i) Package-1: IPC-30 & IPC-031 Detailed Verification and IPC-32 80% Ad-hoc
  - ii) Package-2: IPC-24A Detailed Verification and IPC-26 80% Ad-hoc.
  - iii) Package-3: Nil. Detailed Verification of IPC-021 and IPC-022 80% Ad-hoc

# **Contractor's Progress:**

# Package-1 Physical Progress till 30<sup>th</sup> September 2020

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks	
1	Temporary Access Bridge						
1.1	Bridge Deck	2953	Rmt	2953	100%		
2	Test Pile						
2.1	Test Piles	5	No.	4	80%		
3	Permanent Bridge Works - La	and/ Inte	rchange	Zone			
3.1	Piles	524	No.	249	48%		
3.2	Pile Caps	158	No.	44	28%		
3.3	Piers	228	No.	81	36%		
3.4	Pier Caps	215	No.	5	2%		
4	Permanent Bridge Works - In	tertidal 2	Zone				
4.1	Piles	316	No.	223	71%		
4.2	Pile Caps	76	No.	48	63%		
4.3	Piers	148	No.	85	57%		
4.4	Pier Caps	148	No.	56	38%		
5	Permanent Bridge Works - M	arine Zo	ne				
5.1	Piles	399	No.	283	71%		
5.2	Pile Caps	79	No.	28	35%		
5.3	Piers	160	No.	10	6%		
5.4	Pier Caps	160	No.	4	3%		
6	Permanent Bridge Works - To	otal					
6.1	Piles	1239	No.	755	61%		
6.2	Pile Caps	313	No.	120	38%		
6.3	Piers	536	No.	176	33%		
6.4	Pier Caps	523	No.	65	12%		
7	Precast Segments						
7.1	Segment Casting	6713	No.	591	8.8%		
7.2	Segment Erection	446	Spans	5	1.1%		

# Package-2 Physical Progress till 30<sup>th</sup> September 2020

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks	
1	Temporary Access Bridge						
1.1	Bridge Deck	2682	Rmt	2682	100%		
2	Test Pile						
2.1	Test Piles	2	No.	2	100%		
3	Permanent Bridge Works -	Land/ Inte	erchange	Zone			
3.1	Open Foundation	113	No.	81	72%		
3.3	Piers	119	No.	32	28%		
3.3	Pier Caps	104	No.	5	4%		
3.4	Portal Beams- Land	6	No.	2	33%		
3.5	Pier Head Segments -Land	42	No.	0	0%		
4	Permanent Bridge Works -	Intertidal	& CRZ Z	one			
4.1	Piles	290	No.	288	99%		
4.2	Pile Caps	72	No.	49	68%	Scope of Works has been revised	
4.3	Piers	72	No.	18	25%	Scope of Works has been revised	
4.4	Pier Caps	18	No.	0	0%		
4.5	Pier Head Segments	54	No.	0	0%	Scope of Works has been revised	
5	Permanent Bridge Works -	Marine Zo	one				
5.1	Piles	514	No.	111	22%		
5.2	Pile Caps	122	No.	0	0%		
5.3	Piers	122	No.	0	0%		
5.4	Pier Caps	48	No.	0	0%		
5.5	Pier Head Segments	74	No.	0	0%		
6	Permanent Bridge Works -	Total					
6.1	Open Foundation	113	No.	81	72%		
6.2	Piles	804	No.	399	50%		
6.3	Pile Caps	194	No.	49	25%	Scope of Works has been revised	
6.4	Piers	313	No.	50	16%	Scope of Works has been revised	
6.5	Pier Caps	170	No.	5	1.6%		
6.6	Portal Beams	6	No.	2	33%		
6.7	Pier Head Segments	170	No.	0	0%	Scope of Works has been revised	
7	Precast Segments						
7.1	Segment Casting	3142	No.	177	5.63%		
7.2	Segment Erection	271	Spans	0	0%		

#### Package-3 Physical Progress till 30th September 2020

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
1	Permanent Bridge Works					
1.1	Open Foundations	195	No.	137	70%	
1.2	Piers	195	No.	92	47%	
1.3	Pier Caps	189	No.	41	22%	
1.4	Segment Casting	750	No.	131	15%	
1.5	Segment Erection	53	Span	0	0%	

#### Package-4 (ITS) Progress till 30th September 2020

Preparation of Bid Documents for the Package-4 – ITS (Intelligent Transport System) Works is in progress. The GC has resolved the queries raised by the bidders. MMRDA has received only one PQ Application from M/S Tata Projects Ltd & EFCON India Pvt Ltd (JV). Accordingly, as recommended by the GC and based on the suggestions received from the prospective bidder, MMRDA requested JICA to allow them to go for direct bidding without PQ Stage process. Concurrence for the same is awaited from JICA.

Please refer Attachment 9 - Site Progress Photos showing the development of the project.

#### **Health & Safety and Environment (HSE)**

The HSE Plans have been submitted by the respective construction agencies for the Packages which are being monitored by the GC on a regular basis.

#### **Package-1 Safety Report**

Sr. No	Description	From July to September 2020	Cumulative
1	Total Man Hours Since Inception	20,11,844	1,71,23,126
2	Number of Man-Hours (Accident Free Man-Hours)	20,11,844	46,13,138
3	Number of Man-Days	2,51,480	21,40,389
4	Number of Reportable Fatal Accidents	0	2
5	Number of Non-Fatal Accidents	0	1
6	Number of Near Miss Incidents	15	70
7	Number of First Aid Cases	10	110
8	Number of Dangerous Occurrences	0	1
9	Number of Reportable Sick Cases	0	0
10	Number of Man-Hours Lost	0	96,448
11	Number of Man-Days Lost	0	12,058
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	0	3
13	Number of Inspections done for Offices & Sites	564	1,161
14	Number of Training/ Induction done for Offices & Sites	85	333
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	5,291	6,204
16	Details of Safety Committee meetings	2	23
17	No. of toolbox talks	4,250	31,968
18	No. of critical excavations.	2	18
19	Pre-employment Medical check-up	3,498	17,639
20	No. of Safety Walk down	8	125
21	No. of Safety Inductions completed	3,498	17,639

# Mumbai Trans Harbour Link Project - Quarterly Progress Report No.14 (Jul-Sept 2020)

# Package-2 Safety Report

Sr. No	Description	From July to September 2020	Cumulative
1	Total Man Hours Since Inception	9,60,729	79,88,803
2	Number of Man-Hours (Accident Free Man-Hours)	9,60,729	15,21,368
3	Number of Man-Days	87,429	7,27,592
4	Number of Reportable Fatal Accidents	0	0
5	Number of Non-Fatal Accidents	0	3
6	Number of Near Miss Incidents	1	34
7	Number of First Aid Cases	8	65
8	Number of Dangerous Occurrences	0	5
9	Number of Reportable Sick Cases	0	1
10	Number of Man-Hours Lost	0	924
11	Number of Man-Days Lost	0	97
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	0	3
13	Number of Inspections done for Offices & Sites	77	696
14	Number of Training/ Induction done for Offices & Sites	38	478
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	3,503	834
16	Details of Safety Committee meetings	3	27
17	No. of toolbox talks	578	3,970
18	No. of critical excavations.	0	0
19	Pre-employment Medical check-up	1,489	7,849
20	No. of Safety Walk down	11	83
21	No. of Safety Inductions completed	1,496	8,066

# Mumbai Trans Harbour Link Project - Quarterly Progress Report No.14 (Jul-Sept 2020)

# Package-3 Safety Report

Sr. No	Description	From July to September 2020	Cumulative
1	Total Man Hours Since Inception	2,66,860	15,77,178
2	Number of Man-Hours (Accident Free Man-Hours)	2,66,860	15,77,178
3	Number of Man-Days	33,357	1,97,147
4	Number of Reportable Fatal Accidents	0	0
5	Number of Non-Fatal Accidents	0	0
6	Number of Near Miss Incidents	0	6
7	Number of First Aid Cases	8	51
8	Number of Dangerous Occurrences	0	0
9	Number of Reportable Sick Cases	0	0
10	Number of Man-Hours Lost	0	0
11	Number of Man-Days Lost	0	0
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	0	0
13	Number of Inspections done for Offices & Sites	34	230
14	Number of Training/ Induction done for Offices & Sites	16	139
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	786	4,810
16	Details of Safety Committee meetings	3	23
17	No. of toolbox talks	501	3,635
18	No. of critical excavations.	0	3
19	Pre-employment Medical check-up	745	3,644
20	No. of Safety Walk down	9	88
21	No. of Safety Inductions completed	745	3,644

#### 3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)

#### 3.1 Operational and Physical Condition

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

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

# 3.2 Precautions (Measures To Be Adopted/ Points Which Require Special Attention)

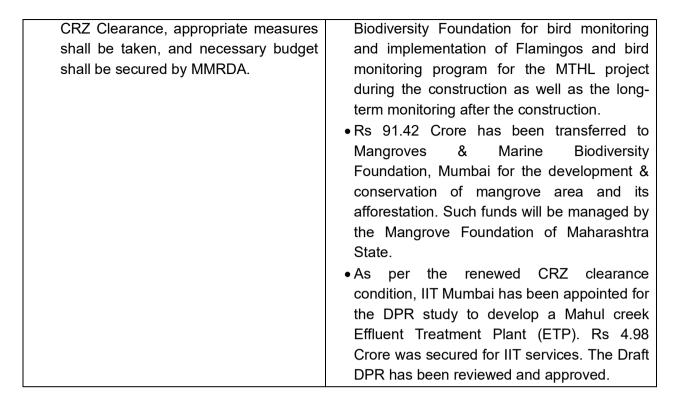
#### Original Issues and Countermeasure(s) **Actual Issues and Countermeasure(s)** 3.2.1 General Issues (P/R and PCR) 1. Toll Arrangement/ Toll Rate Fixed toll rate as per the type of vehicle Appropriate Tolling Policy/ Rates will be finalized will be levied for the road users after the by December 2021. 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. 2. Operation and Maintenance MMRDA proposes to appoint separate agencies for Operation & Maintenance of Single Operation and Maintenance Contractor the bridge and for Toll Management will be appointed by December 2021. System. Both the agencies for O & M and Toll Management System may be open tendering appointed through process. Overall monitoring of the two agencies would be done by MMRDA in house through a separate cell which could be constituted for the purpose. MMRDA has confirmed to allocate adequate budget for engaging the Contractors. 3.2.2 Environmental and Social (P/R and PCR)

# 3.2.2 Environmental and Social Consideration

#### a. CRZ Clearance

- Supplemental EIA has been approved by MMRDA and disclosed on the website of JICA. Supplemental EIA report has been disclosed also on the website of MMRDA.
- ii. Furthermore, renewed CRZ Clearance has been obtained in January 2016.
- iii. In accordance with the conditions for

- MMRDA has disclosed Supplemental EIA & SIA on MMRDA website.
- The renewed CRZ clearance was granted on 25/1/2016 from MoEF&CC and the approval conditions have been imposed on the Contractors as the Employer's requirements.
   MMRDA has actively monitored the compliances of the approval conditions and maintains throughout the construction phase.
- MMRDA appointed Mangroves & Marine



#### b. Required Permits

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

**Table 3.2.2 Present Status of some Important Permits** 

Clearance Required	Approving Authority	Responsible Organization	Obtained by when	Remark /Status
Mangrove Cutting	Hon. Bombay High Court	MMRDA/ Contractor	Approval received from Hon. Bombay High Court on 28 <sup>th</sup> November 2016	Mangrove cutting operation was completed with full compliance and as of now, no further follow up work is required.
Tree Cutting /Transplantati on	Respective Tree Authorities	Contractor for respective Packages	-	Pkg-1: Tree Cutting/ Transplantation permission is awaited from the Tree Authority. Pkg-2: Tree Cutting/ Transplantation permission obtained & completed. Pkg-3: Forest Department has issued a concurrence on 19/05/2019. CIDCO's permission for Tree Cutting/ Transplantation obtained on 25 <sup>th</sup> November 2019.
Consent to Establish	Maharashtra Pollution Control Board	Contractor for respective Packages	Pkg-1-18.07.2018 Pkg-2-16.08.2018 Pkg-3-29.05.2019	

## 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).

leaue/e)	Action or countermoscure(s) taken and
Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
Establishment of Effective	Cell is established by MMRDA
Environmental and Social Cell in	(Annexure III, Organization chart)
PIU	
MMRDA confirmed that Social	
Development Cell (2 Officers), Land	
Cell (3 Officers), and Environmental	
Cell (2 Officers) had been set up.  2. Rehabilitation and Land Acquisition	Sewri: Involuntary resettlement in Sewri section
Issues	has been further validated by Social Development
a. Affected Area and Population	Cell of MMRDA. Out of 297 Project Affected Households (PAHs) have given consents as
Due to the Project, 1282 non-	follows:
titleholders will be involuntary resettled, and 108.09 ha of land will be handed	164 PAHs Kanjurmarg for residential
over by CIDCO.	25 PAHs Kanjurmarg for commercial
	7 PAHs (Satsangi Plot) Kanjurmarg for Commercial
	1 PAHs (commercial to residential) for Bhakti Park
	100 PAHs HDIL Kurla for residential
	Navi Mumbai: CIDCO has been finalizing the land acquisition closely monitored by Land Cell of MMRDA. Except private land and forest, CIDCO has possessed all required land of 108.09 ha. Out of the 108.09 ha, 106.345 ha has been handed over by CIDCO to MMRDA. CIDCO is going to acquire the balance 1.745 Ha with the help of Collector, Raigad.
b. Entitlement Policy	
MMRDA prepared the entitlement matrix for resettlement of non-title holders in Sewri, which meets the Resettlement and Rehabilitation Policy for Mumbai Urban Transportation Project (1997, amended in 2000) and JICA guidelines for Environmental and social considerations (2010)	There have been no changes during the enforcement. As per the <b>Attachment 2-5</b> of JICA MoD, MMRDA has committed to enforce the agreed/ approved policy.

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
("Guidelines") (Attachment 2-5).	
c. Compensation to Project affected Fishermen	Updated Attachments 2-8 and 2-10 are enclosed
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.	in the report.
d. Implementation Schedule  The Implementation schedule for land acquisition, resettlement and rehabilitation is attached as per Attachment 2-10.	Updated <b>Attachment 2-10</b> is enclosed in the report.
e. Grievance Redressal Mechanism  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.	Sewri: FLGRC (Field Level Grievance Redressal Committee) and SLGRC (Senior Level Grievance Redressal Committee) were set as per the RAP and in operation.  Compensation Committee has been constituted to address the issues of Compensation to Lease Holders at Sewri.  Fishermen: GRC for resolving grievances of the fisherfolk was set up as per the compensation policy and is in operation.
f. Internal Monitoring  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.	Internal Monitoring updates are mentioned in Attachment 2-8.

	Issue(s)	Action or countermeasure(s) taken and
	.5545(5)	remaining problem(s)
g.	Qualitative Independent Evaluation	31 ( )
	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.	Updated <b>Attachment 2-10</b> is enclosed in the report.
h.	RAP Implementation Budget	
	The amount of estimated resettlement and compensation budget is Rs.906.26 Cr MMRDA informed to the JICA Mission that RAP implementation cost would be borne by MMRDA and ensured sufficient and timely allocation of funds for smooth implementation.	As updated in MOD dated 03/09/2019 for MTHL-II, the base cost Budget towards RAP Implementation is updated as Rs 1129.3 Cr.
i.	Environmental Management Plan	
	("EMP")  The mitigation measures against air pollution, waste, noise, and water pollution etc. shall be taken during construction and operation phase. Mitigation measures such as installation of noise barrier, appropriate waste management, etc. have been prepared by MMRDA. The mitigation measures are listed in the EMP matrix. (Attachment 2-1). During the detailed design stage, MMRDA, with assistance of the Consultant, will update the EMP, as necessary.	EMP will be updated, if required, in due course of construction activities/progress.
j.	Environmental Monitoring Plan	
	("EMoP")  MMRDA takes overall responsibility for implementation of EMoP. During construction, environmental monitoring will be carried out by contractors under supervision by Construction Supervision consultant. The result shall be reported to the JICA India Office on a quarterly basis	Environmental Monitoring Plan with the package wise budgeted cost is reported in <b>Attachment 2-3</b> .  Environmental Monitoring Results during the construction phase are reported in <b>Attachment 2-4</b> .

Issue(s)	Action or countermeasure(s) taken and
	remaining problem(s)
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.	
k. Long Term Bird Monitoring  MMRDA committed to conduct the long-term monitoring of birds and its habitat in Sewri mud-flats with the assistance of hired bird expert. During the long-term monitoring, MMRDA will share information and receive advices from external experts including the one from NGOs and civil society.	<ul> <li>MMRDA has entrusted the work of bird monitoring and implementation of Flamingos and birds related mitigation measures &amp; bird monitoring program to Mangrove and Marine Biodiversity Foundation.</li> <li>Rs. 31.92 Crore deposited to Mangrove foundation, Mumbai 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 (Year 2015)	Target (Year 2024) 2 Years After Commercial Operation
Average Annual Daily Traffic (PCU/ day)	-	47,400
Daily Average Travel Time (min) * 1	61 min	15.8 min
Number of Users (Persons/ year) * 2	-	46,077,504
Cargo Volume (tons/ year) * 3	-	13,511,759

<sup>\*1</sup> Section on Sewri - Chirle

<sup>\*2</sup> Assumptions: average passengers of car and taxi (2.6 persons), bus (37.2 persons) based on JICA study. Number of passengers of LCV, HCV and MAV is assumed as 1 person each.

<sup>\*3</sup> Assumptions: the maximum capacity of respective vehicle (LCV: 1 ton, HCV and MAV: 15 tons) is used for estimation.

	Original:	Actual: (PCR)
EIRR	15.4% Cost: Project cost (excluding Price Escalation, Tax and Duties and Administration cost) O&M cost, Land Acquisition Benefit: Travel Time cost and Vehicle Operation cost Project Life: 32 Years	Cost: Benefit: Project Life: Attachment(s): Supporting data for computing EIRR
FIRR	Original: 1.5% Cost: Project Cost, O&M cost, Land Acquisition cost Benefit: Toll Revenue Project Life: 32 Years	Actual: (PCR)

#### 3.5 Monitoring Plan for the indicators

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

Original: (P/M and PCR)

**Monitoring Organization** 

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

Submission of QPR and PCR

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

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

Actual: (P/R and PCR)

#### **Monitoring Organization**

PIU for MTHL has been established for monitoring the Project.

#### Submission of QPR and PCR

This QPR No. 14 is submitted for the period of 1<sup>st</sup> July to 30<sup>th</sup> September 2020.

#### 3.6 Achievement of the Project Objective

(PCR)

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

#### 4.1 O&M and Management

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

Original: (P/M)

Operation & Maintenance, Toll Management and ITS

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

Actual: (PCR)

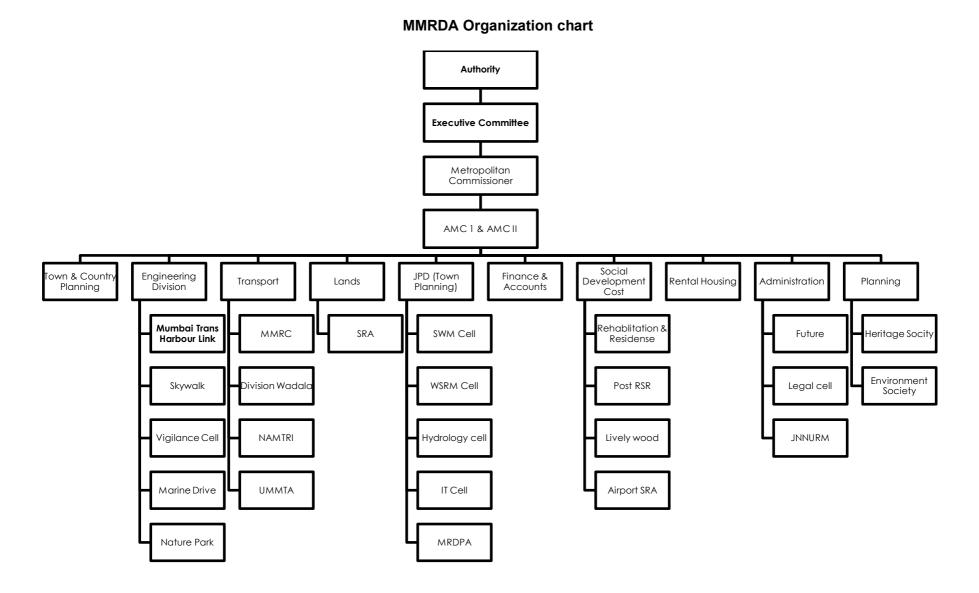
#### 4.2 O&M Cost and Budget

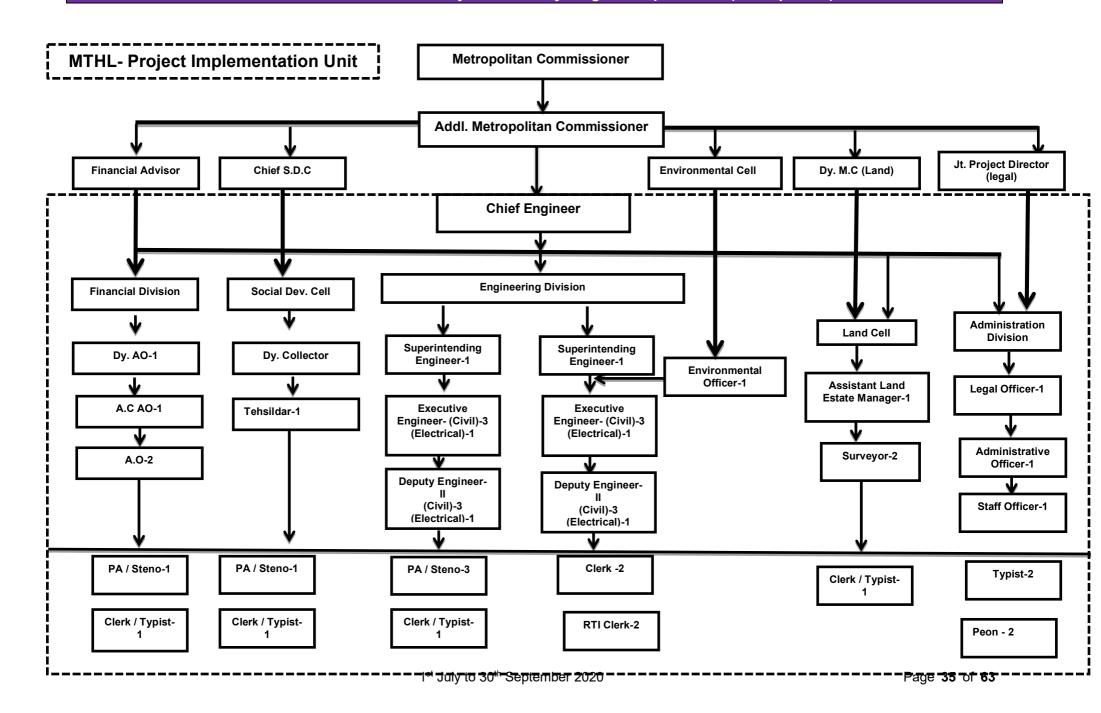
- The actual annual O&M cost for the duration of the project, as well as the annual O&M budget.

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

5.0 E	EVALUATION	
5.1	JICA and Borrower / Executing Agency performance	
JICA:	:	
(PCR)	?)	
Borro	ower/ Executing Agency:	
(PCR)	")	
5.2	Overall Evaluation	
Pleas	se describe your evaluation on the overall outcome of the project.	
(PCR)	יי	
5.3	Lessons Learnt and Recommendations	
the fu which	se raise any lessons learned from the project experience, which might be valuable fouture JICA assistance or similar type of projects, as well as any recommendations in might be beneficial for better realization of the project effect, impact and assurance stainability.	5,
(PCR	₹)	

	Halls	пагроиг	Lilik Project	<ul> <li>Quarterly Progres</li> </ul>	s Report No.14 (Jul-Sept 2	U2U)
<b>.</b>						
Att	achi	ment 1	1- MMRI	DA & PIU Or	ganization Char	t





# Attachment 2- Environmental & Social Impacts Attachments

Attachment 2-3 - Environmental Monitoring Plan
Attachment 2-4 - Environmental Monitoring Result Reporting Form
Attachment 2-6 - MTHL Land Acquisition Status
Attachment 2-8 - RAP Internal Monitoring Form
Attachment 2-10 - Schedule of the RAP Implementation

#### **Environmental Monitoring Plan with Packagewise Estimated Cost**

Category	No.	Impacted Item on JICA Guidelines	Parameter	Method	Location	Frequency a year	Cost (INR)	Cost Pkg.1 (INR)	Cost Pkg.2 (INR)	Cost Pkg.3 (INR)	Total Cost (INR)	Standard Central Pollution Control Board (CPCB) – Ministry of Environment & Forest (MoEF)	Remarks
<u>"</u>	1	Air pollution	SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub> , PM <sub>2.5</sub> , O <sub>3</sub> , CO, (6 Items)	National Ambient Air Quality Standards, 2009	Sewri & Sewri bay area for package I	Fortnightly at all locations except 2 locations each near Batching plants	1,800,000	15,000,000	1,800,000	742,500	17,542,500	National Ambient Air Quality Standards (NAAQS) by Central Pollution Control Board (CPCB)	P1 contractor team is conducting Ambient air quality monitoring with reference to National Standards and clause 1.2 of Employer's requirement.
					2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year						(Standard for 24hrs: Industrial and Residential/ Ecological Sensitive area)	P 2 contractor Monitoring plan has been designed as per EIA of 2015
						Fortnightly only for 3 months (jan-2019 to Mar-2019). Then quarterly monitoring as per MOEF and CPCB norms						- SO <sub>2</sub> : 80 / 80μg/m <sup>3</sup>	P3 contractor team is conducting Ambient air quality monitoring with reference to National Standards and clause 1.2 of Employer's requirement.
												· NO <sub>2</sub> : 80 / 80μg/m <sup>3</sup>	P 1 received Consents CTE & CTO from MPCB and they are following MPCB frequency in addition to frequency set by Environment Expert from GC. The NAAQ standards are showing High rate as that is the usual procedure. The frequency of monitoring is set by us which varies for different parameters as either Statutory requirements or as required by us to ensure we have sufficient data in hands if there are additional claims for Compensation in C5 category. Summary: Although the contract conditions for all packages were same at the time of biding. Later modifications suggested by GC were not accepted by P 2. P1 and P3 accepted the modifications and hence the difference. Second point is P 1 carrying out monitoring as per the obatiend CTE and CTO. Both other packages have applied for CTE but haven't obtained it yet. So we expect the monitoring frequecy would change after obtaining CTE.
												<ul> <li>PM<sub>10</sub>: 100 / 100µg/m<sup>3</sup></li> <li>PM<sub>2.5</sub>: 60 / 60µg/m<sup>3</sup></li> <li>O<sub>3</sub>: 180 / 180µg/m<sup>3</sup></li> </ul>	
	2	Water pollution	pH, BOD, DO, Turbidity and O&G	IS / AWWA	Sewri & Sewri bay area     for package I	Quarterly	810,000	2,400,000	810,000	0	3,210,000	CO: 0.4 / 0.4mg/m³  Marine water quality Standards – Class SW-IV Harbour Waters (MPCB)	Water Pollution not applicable for Pkg. 3
			Turbuity and Oxo		2. Nhava temporary bridge & casting yard in Gavhan for package II							• pH: 6.5-9	applicable for FRg. 3
u					3. Gavhan & Chirle for package III	Not applicable						<ul> <li>D0: 3 mg/l</li> <li>Turbidity: 30 NTU</li> <li>B0D: 5 mg/l</li> <li>0 &amp; G: 10 mg/l</li> </ul>	
Pollution	3	Waste	Volume of waste soil, cutting tree and domestic garbage	Volumetric	1. Sewri & Sewri bay area for package I	Daily	500,000	299,200,000	500,000	600,000	300,300,000		The cost of waste disposal for P1 includes C&D waste, Pile muck etc. from all areas like, interchange, intertidal and marine. The disposal location is at MCGM approved location Bhayandarpada, Thane.

Category	No.	Impacted Item on JICA Guidelines	Parameter	Method	Location	Frequency a year	Cost (INR)	Cost Pkg.1 (INR)	Cost Pkg.2 (INR)	Cost Pkg.3 (INR)	Total Cost (INR)	Standard Central Pollution Control Board (CPCB) - Ministry of Environment & Forest (MoEF)	Remarks
					2. Nhava temporary bridge & casting yard in Gavhan for package II							Municipal Soild Waste Management Rules, 2013 Generated waste shall be reused or disposed at designated site. Sites have been identified and the location for Pkg. 1 is at Bhayandar Pada in Thane. For Pkg. 2 & 3 is in Navi Mumbai at Pushpak Node nera	P2 contractor has considered only Domestic garbage with respect to CIDCO. Other wastes are not considered.
					3. Gavhan & Chirle for package III	Once site clearing work/execution part of work start.						"Teen Taki Junction" along the Amar Marg.	
	4 and 8	Soil Contamination/ sedimentation	Heavy Metals & Oil & Grease	IS / Methods Manual Soil Testing in India by	1. Sewri & Sewri bay area for package I	1. Muck: 1 Time / Year 2. Sediments: 4 Times / Year	150,000	1,500,000	150,000	100,000	1,750,000	Soil Pollution Standard in India (MOEF)	
			(5-10 items shall be selected from Soil pollution standards)	Department of Agriculture and Cooperation, January 2011	Nhava temporary bridge & casting yard in Gavhan for package II							· Cd: 0.01mg/l	
					3. Gavhan & Chirle for package III	*If any spillage/ leakage take place						· Lead: 0.01mg/l	
						from chemical, fuel storage area.						Chromium (VI): 0.05mg/l      Arsenic: 0.01mg/l	-
						*One time grab sample to be collected during						· T-Mercury: 0.0005mg/l	]
						Bridge Construction *Pre & Post Monsoon						Copper: 125mg/kg  (some items shall be selected from totally 25 standards)	-
	5	Noise and	Ambient and road	IS Standard	1. Sewri & Sewri bay area	at Storage area only Fortnightly	150,000	54,000	150,000	369,000	573,000	items) -Construction Noise; 85dB(A)	
	3		side noise (dB(A)L <sub>Aeq</sub> )	13 Standard	for package I		130,000	34,000	130,000	309,000	373,000		
					2. Nhava temporary bridge & casting yard in Gavhan for package II							-Ambient Noise Standards in India (dB (A) <sub>Leq</sub> )	
					3. Gavhan & Chirle for package III	Fortnightly						1.Industrial Area	-
					package III							Day Time: 75 (6-22hr)	]
												Night Time: 70 (22-6hr)	]
												2.Commercial Area: Day Time: 65 (6-22hr)	-
												Night Time: 55 (22-6hr)	1
												3.Residential Area:	]
												Day Time: 55 (6-22hr)	
												Night Time: 45 (22-6hr)  4.Silence Zone	
												Day Time: 50 (6-22hr)	
												Night Time: 40 (22-6hr)	
			Vibration (dB L10 or mm/sec)		1 Location Gavan area for package III	Half yearly	75,000	0	75,000	400,000	475,000	- Construction vibration 75dB	Not applicable for Pkg. 1
												-Vibration Standards roadside	-
												1. Commercial /Industrial Area	
												Day Time: 70 (7-20hr)	_
												Night Time: 65 (20-7hr)  2. Residential Area:	
												Day Time: 65 (7-20hr)	
												Night Time: 60 (20-7hr)	<u> </u>
	9 and 10	Protected Area /Ecosystem	1.Monitoring of mudflat conditions including fauna-flora	Ocular inspection and quantitative survey	Along MTHL alignment and mangrove replant area for Package I	Quarterly during the construction Period	6,500,000	7,200,000	6,500,000	0	13,700,000		Not applicable for Pkg. 3
			2. Monitoring of Cutting Tree and replantation/		Along MTHL alignment and mangrove replant area for package II	4 Times / Year						Significant impacts are not caused by the project	
			transplanting area	1-1. Fauna-Flora	Not applicable for Package III								]
			3.Monitoring of Mangrove Plantation area appointed by MoEF	Line-Point census and record number and appeared species								Note)	
		I		<u> </u>			]		I	1 1			J

Category	No.	Impacted Item on JICA Guidelines	Parameter	Method	Location	Frequency a year	Cost (INR)	Cost Pkg.1 (INR)	Cost Pkg.2 (INR)	Cost Pkg.3 (INR)	Total Cost (INR)	Standard Central Pollution Control Board (CPCB) – Ministry of Environment & Forest (MoEF)	Remarks
Natural environment			4. Monitoring of sedimentation soil and ecological parameter (18items on Supplemental EIA Table 6.1.15 for soil and 7 items such as 1)Netprimary productivitye, 2)Chlorophyll-a, 3)Phosphate, 4)Nitrate, 5)Nitrite, 6)Particulate Organic Carbon, 7) SiO <sub>2</sub> )	1-2: Mangrove density and community survey								Detailed monitoring plan will be setup during basic design stage	
				1-3: Benthos Survey 2-1: Cutting trees confirmation 3-1: Mangrove survey in the replanted area								Standard for Soil; Supplemental EIA Table 6.1.15  Standard for Ecological Parameter:  Netprimary Productivity <1,500 mgC/m3/day at surface Chlorophyll-a <4mg/m3 Phosphate: 0.1-90µg/l Nitrate: 1.0-500µg/l	
												<ul> <li>Nitrite: &lt;125μg/l</li> <li>Particulate Organic Carbon: 10-100mg/m³</li> <li>SiO2: 10-5,000μg/l</li> </ul>	
	11	Hydrology	Flooding situation	Flood level measurement during high precipitation periods	Not applicable for Package I		350,000	0	350,000	0	350,000	Project activities and structures does not cause flooding and impacts on tidal conditions	Not applicable for Pkg. 1 & 3
					2 Locations (CRZ at Sewri and Shivaji Nagar) for Package II	4 Times / Year							
					Not applicable for Package								
	12	Topography and Geology	Conditions in embankment area	Stability of	Not applicable for Package I Interchange in Shivaji Nagar for Package II	4 Times / Year	115,000	0	115,000	0	115,000	Embankment shall be stabilized without any landslide and cracks	Not applicable for Pkg. 1 & 3
	13	Local acanamii			Not applicable for Package		As per Actuals						
		Local economy such as employment and livelihood			Affected area		•						
ıment	14	Local conflict of interests	Construction worker's township	Confirmation of workers list from	2 Locations (camp site in Sewri and Shivaji Nagar) for	2 Times / Year	125,000	0	125,000	0	125,000	Employment opportunity shall be provided fairly	
Social environme	15	Infectious diseases such as	Number of infected patient	contractor Confirmation of health check list	Package II 2 Locations	4 times / year x 4.5 years	525,000	0	525,000	0	525,000	Infection disease rate shall not be caused by the project	
cial e	16	HIV/AIDS Labour	Construction	from contractor Confirmation of	2 Location (camp site in	2 times / year	500,000	0	500,000	0	500,000	"Building And Other Construction Workers (Regulation	
So		Environment	worker's condition	safety devices and conditions via interviews	Sewri and Shivaji Nagar) for Package II		·					of Emloyment and Conditions of Service) Act,1996", "The building and other construction worker's welfare cess Act, 1996" and international standards such as "IFC Performance Standard 2 Labor and Working Conditions"	
Other	17	Accidents	Number of accidents		Package II	4 Times / Year	400,000	0	400,000	0	400,000	Any accidents are not caused by construction	
				Total	<u> </u> 	l	8140500	325,354,000	12,000,000	2,211,500	339,565,500		

#### The Project for Construction of Mumbai Trans Harbour Link Reporting Form of Environmental Monitoring during Construction Attachment 2-4

Monitoring Period - July to September 2020

Attachment 2-4

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all perameters in EMOP are covered.

1. Environmental Monitoring during Construction for 4.5 years

								Monitoring Res	ult	T	Remark
	No.	Item	Parameter	Location	Frequency a year	Item and Stanadard	Location 1- Pkg 1	Location 2	Location 3- Pkg 3	Location 4	- reasons why the data is exceeding standard - counter measures when the data is exceeding
				1. Sewri & Sewri bay area for package I	Quarterly monitoring ia conducted at all locations.	National Ambient Air Quality Standards (NAAQS)	Sewri	Shivaji Nagar	Chirle		
	1	Air pollution	SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	(Standard for 24hrs: Industrial and Residential)	Sewri	Sinvaji Nagar	Сшпе		
				3. Gavhan & Chirle for package III	From march -2019 onwards monitoring is conducted quarterly as	1. SO <sub>2</sub> : 80μg/m <sup>3</sup>	BDL	BDL	20		
					per MOEF and CPCB	2. NO <sub>2</sub> : 80μg/m <sup>3</sup>	23	28	34		
					norms	3. PM <sub>10</sub> : 100μg/m <sup>3</sup>	58	86	96		
						4. PM <sub>2.5:</sub> : 60μg/m <sup>3</sup>	24	34	56		
-						5.CO:02mg/m3	1.1	1.3	0.45		
-						6.VOCs	1.11	1.8	3.05		
				Sewri & Sewri bay area for package I	Quarterly	Marine water quality Standards – Class SW-IV Harbour Waters (MPCB)	Zone I	Zone II	Zone III		
	2	Water pollution	pH, BOD, DO, Turbidity	2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	1. pH : 6.5-9	7.4	7.9	Not applicable		Due to COVID 19 Lockdown, water monitorin could not be conducted for this quarter. (Packa
			and O&G	3. Gavhan & Chirle for	Not applicable	2. DO: 3 mg/l	5.7	5.9	Not applicable		
				package III							_
						3. Turbidity: 30 NTU 4. BOD: 5 mg/l	23	22 BDL	Not applicable Not applicable		
						5. O & G: 10 mg/l	BDL (DL=2)	- BDL	Not applicable		+
						6.COD	18	12	Not applicable		
				1. Sewri & Sewri bay area for package I	Daily	Municipal Soild Waste Management Rules, 2013	Sewri Camp Site	Shivaji Nagar Camp Site	Chirle Camp Site		
				2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	Generated waste soil (t) total	2322.1 m3	App. 14000 CuM Collected in jumbo bags and Disposed off in EBB Location and Casting Yard	NA		The site work was restricted due to COVID 19 Lockdown in this period (Package-I)
	3	Waste	Volume of waste soil, cutting tree and domestic garbage	3. Gavhan & Chirle for package III	Once site clearing work/execution part of work start.	Generated cutting treel (ha) total	Tree cutting proposal has been submitted and approval from MCGM is awaited.  Tree Cutting so far NIL	-	306 Trees are cut		
						Generated domestic waste (t/month) total	2.53 T for the quarter	3.5 T/quarter. It is disposed	0.990 m3 for quarter		
						` ´	2.35 1 for the quarter	through CIDCO daily.	0.770 IIIS TOT quarter		
F				1. Sewri & Sewri bay	1. Muck: 1 Time / Year	Confirmation of adequate disposal (visualt survey)		Muck Testing Done on september	•		
				area for package I		Soil Pollution Standard in India (MOEF)	Muck Soil at Mudflat(MP53)	2020 and Reports submitted to GC	Not applicable		Frequency is Once in a year.If any minor or incident has not occure at storage area. (Pack
				2. Nhava temporary bridge & casting yard in		1. Cadmium: 0.01mg/l	0.03	BDL			
				<ol><li>Gavhan &amp; Chirle for</li></ol>	*If any spillage/ leakage	2. total cyanide : not detected		BDL			
				package III	take place from chemical,	3. organic phosphorus: not detected					
					fuel storage area. *One time grab sample to be collected during Bridge Construction *Pre & Post Monsoon at	4. lead: 0.01mg/l	0.23	0.12	Not applicable for package-3		Hazardous Storeage is situated in low laying. Gavan area. Due to this reason complete gro is covered by boulders to avoid further water in rainy season. Therefore soil sample is impu- taken out from in and around the Oil & chem
					Storage area only	5. chromium (VI): 0.05mg/l	<0.05	BDL	•		and around the Off & Cheffin
						6. arsenic: 0.01mg/l or 15mg/kg (agri-land soil)	<0.01	BDL			
						7. total mercury: 0.005mg/l	<0.01	BDL			
						8. alkyl mercury: not detected					ntation, some items shall be selected from
- 1	4	Soil Contamination/sedim	Heavy Metals & Oil &			9. PCBs: not detected		BDL			d Design. Only the selected items shall be re
	4	Contamination/sedim entation	Grease			10. copper: 125mg/kg (only paddy field soil )	4.86	36.3	JICA, and th	he rest of items shall be del	eted from this form.
			1			11. dichloromethane: 0.02mg/l	<1	BDL			
						12. carbon tetrachloride: 0.002mg/l	<1	BDL			
						12. carbon tetrachloride: 0.002mg/l 13. 1,2-dichloroethane: 0.004mg/l 14. 1,1-dichloroethylene: 0.02mg/l	<1	BDL BDL BDL			

#### The Project for Construction of Mumbai Trans Harbour Link Reporting Form of Environmental Monitoring during Construction Attachment 2-4 1. Environmental Monitoring during Construction for 4.5 years

Monitoring Period - July to September 2020

Attachment 2-4

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all perameters in EMOP are covered.

mental M	<u>lonitoring dur</u> ing	Construction for 4.5	years							
	., .				16. 1,1,1-trichloroethane: 1mg/l		BDL			
					17. 1,1,2-trichloroethane: 0.006 mg/l		BDL			
					18. trichloroethylene: 0.03mg/l		BDL			
					19. tetrachloroethylene: 0.01mg/l	1	BDL			
					20. 1,3-dichloropropene: 0.002mg/l	1	BDL			<del> </del>
					21. thiuram: 0.006mg/l	1	BDL			+
					22. simazine: 0.003mg/l		BDL			
					23. thiobencarb: 0.02mg/l		BDL			
								T		
					24. benzene: 0.01mg/l	<1	1.4			
			1.0		25. selenium: 0.01mg/l	<0.01	BDL	T		
			Sewri & Sewri bay     area for package I	Fortnightly	Construction area Standard 85 dB(A) daytime (Japan standard)	Sewri (ST 200-500)	Sea Section (ST5000-5500)	Shivaji Nagar		
					Not constuction area : Ambient Noise Standard in India (dB(A) Laeq)	(Industrial area)	Migratory Bird Area(no standard on sea section)	(Commercial area)		
			2. Nhava temporary	2 Times / Year						
			bridge & casting yard in Gavhan for package II	2 Times / Tear	Day time : 6-22 hr (continious) dB(A)		70.1	66.8	68.8	Due to monsoon season, ambient noise mon could not be conducted for this quarter (Paci
			3. Gavhan & Chirle for	Fortnightly	Night time: 22-6 hr (continious) dB(A)		60.7	65.3	64.9	
			package III		(only sea section)				7.02	
		Ambient and road side			Day time: 6-22 hr (10 min during 9-17 hrs)	1				<u> </u>
		noise (dB(A)LAeq )			Night time: 22-6 hr (10 min 22-24 hr)	1				+
				1	rvight time. 22-0 iii (10 milli 22-24 fif)		+			
					Note (standard valvas in Not contaction on N					<del> </del>
					Note (standard values in Not construction area)					+
					1.Industrial Area	1		1	1	<u> </u>
					Day Time: 75 (6-22hr)				1	<u> </u>
				1	Night Time: 70 (22-6hr)					
					2.Commercial Area:					
5	Noise and vibration				Day Time: 65 (6-22hr)					
					Night Time: 55 (22-6hr)					
			1 Location Gavan area for package III	Half yearly	Construction area Standard 75 dB daytime (Japan standard) Not constuction area : Vibration Standard (Japan	Sewri (ST 200-500) (Industrial area)	Shivaji Nagar (Commercial area)	Chirle		
					Standard along the road)	(				
	, ,	Vibration			Day time : 6-22 hr (continious)		Not Applicable	Not applicable		There is no reference standard in India for V monitoring in marine area. GC has confirme vibration monitoring is not required for the p (Package-I)
		(dB)			Night time: 22-6 hr (continious)			1		
		shall be converted from								Due to covid -19 lockdown, since March
		mm/s to dB			Note (standard values in Not construction area)					vibration monitoring was not conducted
										Package-3 Site. GC sent a letter to the Pa
					1. Commercial /Industrial Area					Contractor (& a copy to MMRDA) but th denied to carry out the works. (Please Re No.0001810 Dated 14.07.2020)
					Day Time: 70 (7-20hr)			67.4		
					Night Time: 65 (20-7hr)			64.8		
			and mangrove replant	Quarterly during the construction Period	Standard is not existing, but quantity and quality should not be worsen	Sewri side (ST500-5500)	Sea Section (ST5500-16000)	Shivaji Nagar side (app. ST16000-19000)	Mangorove Replantation area appointed by State Government	
			Along MTHL alignment and mangrove replant	4 Times / West	1-1. Fauna-Flora (number of species and quantity			N/A	N/A	
			area for package II		(1) Number of species of bird			term monitoring plan will b	be extablished during baselin	and ecosystem, detailed long- e survay of birds. This tentative d long-term monitoring plan.
		1.Monitoring of mudflat			(2) Number of species of fish					
		conditions including fauna-	1		(3) Estimated number of Flamingo					1
		flora 2. Monitoring of Cutting						1		
		Tree and replantation/transplation			1-2: Mangrove density and community survey					

#### The Project for Construction of Mumbai Trans Harbour Link Reporting Form of Environmental Monitoring during Construction Attachment 2-4

Monitoring Period - July to September 2020

Attachment 2-4

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all perameters in EMOP are covered.

	nt 2-4					Wontornig	Period - July to September 2020				
Enviro	nmental N	Vionitoring during	Construction for 4.5	years	1		1	1	<u> </u>	T	
			3.Monitoring of Mangrove			(1) Number of species of mangorve					
			Plantation area appointed								-
		Protected Area	by MoEF			(2) Density of mangrove (xx trees/10m x 10m)					
	6		Monitoring of sedimentation soil and			1-3: Benthos Survey					
			ecological parameter (25 items on EIA main text Table 6.1.15 for soil and 7			(1) Number of species and quantity by species	470 Species and 298 No/m2				Due to COVID 19 Lockdown, marine biology sampling and monitoring could not be conducted this quarter (Package-I)
ıral Environment			items such as 1)Net primary productivity, 2)Chlorophyll-a,			2-1: Cutting tree confirmation	Tree cutting proposal has been submitted and approval from MCGM is awaited. Tree Cutting NIL				
En			3)Phosphate, 4)Nitrate,			(1) Number of cutting tree and species					
ıral			5)Nitrite, 6)Particulate			3-1: Mangrove survey in the replant area			Nil		
Natı			Organic Carbon, 7) SiO2)			(1) Number of species of mangorve					
						(2) Density of mangrove (xx trees/10m x 10m)					
						4. Ecologial Parameter					
						(1) Net primary Productivity : <1,500 mgC/m3/day at					Due to COVID 19 Lockdown, marine biology
						surface	733				sampling and monitoring could not be conduct
											this quarter (Package-I)
						(2) Chlorophyll-a: <4mg/m3	4.4				
						(3) Phosphate: 0.1-90μg/l	385				
						(4) Nitrate: 1.0-500μg/l	684				
						(5) Nitrite: <125μg/l					
						(6) Particulate Organic Carbon: 10-100mg/m <sup>3</sup>					
		Ecosystem				(7) SiO2: 10-5,000μg/l	5716				
				Not applicable for		Criteria for evaluation		<u> </u>			
				Package I		Project activities and structures does not cause flooding and impacts on tidal conditions	Sewri	Shivaji Nagar			
	7	Hydrology	Flooding situation	2 Locations (CRZ at	4 Times / Year	Hooding and impacts on tidal conditions					1
-				Sewri and Shivaji Nagar) for Package II	)	Monitoring of flooding situation	No Flooding	No flooding	No Flooding		
				Not applicable for Package III							
				T delage III		Criteria for evaluation					
	8	Topography and	Conditions in embankment	2 Locations (1. Embankment of Inter Change in Shivaji Nagar	4 times / year x 4.5 years	Embankment shall be stabilized without any landslide and cracks	Shivaji Nagar	Chilre	Chirle		-
	o	Geology	area	and 2 Cutting area at toll gate in Chirle)	+ tilles / year x 4.5 years	Monitoring of embankment	done				
	9	Local conflict of interests	Construction worker's township	2 Locations (major camp site in Sewri and Shivaji	4 times / year x 4.5 years	Criteria for evaluation Employment opportunity shall be provided fairly	Sewri Camp Site	Shivaji Nagar Camp Site	Chirle		
		micresis	township	Nagar)		Number of hired workers by community	400 in July2020, 385 in August 2020 and 324 in September in 2020	125-150			
						Criteria for evaluation Infection disease rate shall not be caused by the project	Sewri Camp Site	Shivaji Nagar Camp Site			
	10	Infectious diseases such as HIV/AIDS	Number of infected patient	2 Locations (major camp site in Sewri and Shivaji Nagar)	4 times / year x 4.5 years		During this quarter 39, COVID 19 positive cases reported who have been treated and discharged.	Health Checks carried out but HIV/AIDS parameter is not there.	Health Checkups conducted by site doctor. HIV AIDS awareness programme has conducted in 2019 by NGO.		
						Criteria for evaluation "Building And Other Construction Workers (Regulation of Employment and Conditions of Service) Act,1996", "The building and other construction worker's welfare cess Act, 1996" and international standards such as "IFC Performance Standard 2 Labor and Working Conditions"	Sewri Camp Site	Shivaji Nagar Camp Site	Gavan Camp site		
	11	Labour Environment	Construction worker's cond	2 Locations (major camp d site in Sewri and Shivaji Nagar)	2 times / year x 4.5 years	Site Visual Inspection	All provisions as per BOCW have been provided.  *1150 nos. for Food (lunch & Dinner) provided to workmen from BOCW, Face mask provided to workmen,  * Calcium & Vitamins tablets provided to workmen to boost up the immunity of workmen,  * Sanitizers & Liquids soaps also provides to different location for workmen.  *Daily temperature Check of workmen at site and colony is conducted. Daily sanitisation at work site, of working equipment and the buses used for communiting is conducted.	Conforming with BOCW Act 1996	Conforming with BOCW Act 1996		

The Project for Construction of Mumbai Trans Harbour Link Reporting Form of Environmental Monitoring during Construction Attachment 2-4 1. Environmental Monitoring during Construction for 4.5 years

Monitoring Period - July to September 2020	

Attachment 2-4

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all perameters in EMOP are covered.

1. Enviro	imentai N	nonitoring during	Construction for 4.5	years						
ther	12	Accident	Number of accidents	2 Locations (major camp site in Sewri and Shivaji	1	Criteria for evaluation Any accidents are not caused by construction	Sewri Camp Site	Shivaji Nagar Camp Site	Other area	
0				Nagar)		Number of recorded accident	NII.	NII.	Nil	

#### MTHL Land Acquisition Status (Attachment 2-6):

Total land required on Navi Mumbai side- 108.09 ha Land in possession in MMRDA – 106.5 ha Balance land acquisition- 1.59 ha

Note: The acquisition of 1.59 ha is in progress by CIDCO. The balance acquisition would be likely completed by the end of December 2020.

Land Required in ha		Land Acquired in ha		Balance Land to be acquired in ha	Anticipated date for Land Acquisition	Payment status (Payment made to Land Owners by CIDCO)	Remarks
Govt.	Private	Govt.	Private	Private*			
98.75	9.34	98.75	7.595	1.745	31-12-2020		The payment status to the land owners are awaited from CIDCO. The same would be communicated to JICA on receipt of the same.
Total 108.09		98.75	7.595	1.745			

#### \*Portions of Private Land

Sr. No.	Name of Village	Area (Hectare)	Acquired	Non-acquired
1	Gavhan	0.15	0.15	0.00
2	Jasai	8.72	7.306	1.414
3	Chirle	0.47	0.139	0.331
	Total Area	9.34	7.595	1.745

#### **Attachment 2-8**

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

#### 1. General Information

a. RAP Implementation Monitoring Results:

b. Date of Preparing This form

c. Person Preparing This form

Position: Engineer and Team Leader

Department/Organizations: General Consultants

#### 2. Scale of Impact

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

Total Project Affected Households (PAHs)	297 Hhs	Titleholders: 0 Hhs
		Non-titleholders: 297 Hhs
Total PAPs	1,282 persons*	Titleholders: 0 persons
		Non-titleholders: 1,282 persons*
PAHs who need relocation (as residents)	231 Hhs	Titleholders: 0 persons
		Non-titleholders:231 (1,088 persons) *
PAPs who do not need relocation (as residents)	0 persons	Titleholders: 0 persons
		Non-titleholders: 0 persons
Commercial PAPs who need relocation	66	Titleholders: 0 persons
	(194 persons) *	Non-titleholders:66 (194 persons) *
Commercial PAPs who do not need relocation	0 persons	Titleholders: 0 persons
		Non-titleholders: 0 persons

<sup>\* -</sup> Figures for number of persons do not include no. of family members of few additional PAPs.

#### 2.2 Structures

Structures	Residential: 231				
	Commercial: 65				
	Residential + Commercial: 1 (counted in Commercial)				
	Community: 9 (Religious Properties 6, Public Toilets 3)				
	Government: 16 (MbPT Structures 9, Occupants of Leased Plots 6 & Police Chowky1)				
	Total: 322				

#### 2.3 Fishery

Categories of Fisher-folks	Identifi	ed Number	Total	Remarks
	Mumbai side	Navi Mumbai side		
C1: Fishing stakes and nets in	178	52	230	Funds for 230 nos C1
RoW (250 m.)				category fishermen are
				transferred to
				Commissioner of
				Fisheries on 17.03.2020
				for payment to the
				beneficiaries.

# QPR No. 14 (July to September 2020) Attachment 2-8

			1	1
C2: Fishing Stakes and Nets	429	566	995	1. Funds for 496 nos C2
within 500 m. of RoW (Southern				category fishermen are
side)				transferred to
				Commissioner of
				Fisheries in the
				2017-18.
				2. The list of balance
				499 Nos. of C2 category
				fishermen are submitted
				to ACF Raigad, ACF
				Thane and ACF
				Mumbai suburban for
				their verifications.
C3: Hand Pickers	1453	3690	5143	Funds for 4206 nos of
CS. Haila Hekers	1133	3070	31.3	C3 category fishermen
				are already transferred
				to Commissioner of
				Fisheries and balance
				937 Nos. of C3 category
				fishermen are in process
				of transfer to
				Commissioner of
				Fisheries.
	337'11 1 1 1	XX711.1 1 1		
C4: Commercial and Artisanal	Will be observed	Will be observed		Nil
Fisher-folks	during	during construction		
(Loss of Time and Increased	construction	period		
Operating Costs)	period			
C5: Fisher-folks with Loss due to	Will be observed	Will be observed		Nil
Turbidity	during	during construction		
	construction	period		
	period			
C6: Fisher-folks with Damages	Will be observed	Will be observed		Nil
due to Accidents	during	during construction		
	construction	period		
	period			

# 2.4 Land Acquisition / Transfer

Location	Land Required in Ha.		Land Acquired in Ha.		Balance Land to be acquired in Ha	Remarks
	Govt.	Private	Govt.	Private		
Sewri	10.089	0	10.089	0	0	
Navi Mumbai	98.75	9.34	98.75	7.595	1.745	
Total	118.	179	108.839	7.595	1.745	

### QPR No. 14 (July to September 2020) Attachment 2-8

## 3. Monitoring Results

#### 3.1 Sewri Section

Activity	Indicator	Total Target	Progress till Last Quarter	Progress during reporting Quarter	Cumulative Progress till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, If Any
Resettlement	No. of Residential PAHs provided with Allotment Letters of Alternate Tenements	231	141	0	141	62%	
	No. of Residential PAHs given possession of Alternate Tenements	231	139	0	139	60%	
	No. of Commercial/R+C PAPs provided with Allotment Letters of Alternate Shops/Tenements	66	21	0	21	30%	
	No. of Commercial R+C PAPs given possession of Alternate Shops/Tenements	66	20	0	20	26%	
	No. of Occupants of MbPT Leased Plots provided Compensation	6	5	0	5	84%	
	No. of Religious properties Relocated / Removed	6	1	0	1	17%	Jivdani Mandir allotment letter given
	No. of Other Community properties Relocated / Removed	4	0	0	0	0%	
	No. of Structures in possession of MbPT Dismantled / Cleared	9	0	0	0	0%	
	No. of PAHs/PAPs provided Shifting Charges / Arrangement	297	0	0	0	0%	
Rehabilitation	No. of PAHs / PAPs identified for Livelihood Support in Post Resettlement Assessment						
	No. of PAHs / PAPs provided Livelihood Support under Program-I (to be identified)						
	No. of PAHs / PAPs provided Livelihood Support under Program-II (to be identified)						
	No. of PAHs / PAPs provided Livelihood Support under Program-III (to be identified)						
	No. of new enterprises started						

# QPR No. 14 (July to September 2020) Attachment 2-8

Activity	Indicator	Total Target	Progress till Last Quarter	Progress during reporting Quarter	Cumulative Progress till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, If Any
Grievance Redress	No. of Grievances Received by FLGRC	4					
Rediess	No. of Grievances Disposed by FLGRC	1					
	No. of Grievances Received by SLGRC						
	No. of Grievances Disposed by SLGRC	0					
Post Resettlement	No. of CHSs Registration helped						
Assistance	No. of CHSs provided Tenements for Social Amenities						
	No. of CHSs' Maintenance Fund Invested						
	No. of CHSs' Office Bearers provided training						

SUN	SUMMARY OF FISHER FOLKS OF MTHL PROJECT (Influence Zone of 23 villages) Up to 30-09-2020						
		Total number		approv	ed eligib	le family units	
Sr. No.	Village Name	of forms Received	<b>C1</b>	C2	C3	Total	
1	Bamandongri	273	1	0	25	26	
2	Belapur	110	0	5	14	19	
3	Belpada	1185	0	7	473	480	
4	Diwale	455	10	237	12	259	
5	Ganeshpuri	276	0	33	32	65	
6	Gavhan	2162	0	14	1304	1318	
7	Jasai	926	0	0	18	18	
8	Jawale	51	0	1	0	1	
9	Kombadbhuja	413	1	24	126	151	
10	Kopar	994	2	5	230	237	
11	Mahul	1198	129	170	599	898	
12	Moha	475	22	35	134	191	
13	Mora	471	0	83	213	296	
14	Morave	539	14	17	79	110	
15	Nhava	1646	0	32	304	336	
16	Sarsole	266	0	30	83	113	
17	Sewri	305	0	1	70	71	
18	Shelghar	241	0	0	15	15	
19	Shivajinagar	202	1	4	61	66	
20	Trombay	1253	49	258	784	1091	
21	Ulwa	218	1	4	12	17	
22	Uran & Hanuman Koliwada	683	0	33	554	587	
23	Vahal	411	0	2	1	3	
	Total	14753	230	995	5143	6368	
	Total applications Duplicate/Repeated Net Applications		14753 1643 13110				
	Approved application		6368				

Grievance Redressal Committee (GRC) for Fisher-folk Compensation

No. of Cases referred to GRC	No	. of Cases	No. of Cases Rejected	No. of Cases under Consideration
	Allowed	<b>Compensation Paid</b>		
Nil	Nil	Nil	Nil	Nil

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

#### A. Implementation Schedule for Fisher-folks Compensation: -

Sr. No.	Task Designation	Approving authority	Start Date	Completion Date
1	Approval of fisher-folks' compensation	Fisher-folks Compensation	08-10-2015	23-12-2015
	Policy	Committee (FCC)		
2	Approval by MMRDA	MMRDA	10-12-2015	23-12-2015
3	Submission to JICA	MMRDA		04-01-2016
4	Detailed list of PAP and compensation plan	Detailed list of Fisher-folk PAP	23-12-2015	Up to 30.09.2020
		upto list 1 (1165 Nos) & 2 (1399		Total up to date applications scrutinized = 13110 Nos.
		Nos) are finalized by the		2. Eligible = 6368 nos
		Fisheries Department.		3. Rejected = 6742 nos
		2. From 2018, FEVC committee		
		is the approval authority of PAF		
		and approved C1- 230 Nos;		
		C2-440 Nos and C3- 2580 Nos		
		are approved.		
5	Validation of compensation plan	Fisher-folks Compensation	23-12-2015	Approval to the Fisher-folk PAP list obtained from Fisheries
		Committee (FCC)		Department for Fisherfolk from Sewri, Mahul & Trombay
				(Mumbai side) – 12th September 2017 and 20th November
				2018 for C-2 & C3 Category only.

Sr. No.	Task Designation	Approving authority	Start Date	Completion Date
			23-12-2015	<ol> <li>Approval to the Fisher-folk PAP list obtained from Fisheries         Department for Fisherfolk of Navi Mumbai of C2 &amp; C3 on         25th April 2018.     </li> <li>Validation of compensation is in progress and would be         completed in phases.     </li> </ol>
6	Approval of compensation plan	FCC	23-11-2015	28-12-2017
7	Approval by MMRDA	MMRDA	23-11-2015	09-03-2021

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

Land Required in Ha.		Land Acquired in Ha.		Balance Land to be acquired in Ha	Anticipated date for Land Acquisition	Payment status (Payment made to Landowners by CIDCO)	Remarks
Govt.	Private	Govt.	Private	Private			
98.75	9.34	98.75	7.595	1.745	31-12-2020		1. CIDCO is the land acquisition authority for land acquisition for Navi Mumbai 2. MMRDA has paid an amount of INR 59.16 Cr to CIDCO as per their demand. 3. The payment status to the landowners is awaited from CIDCO. The same would be communicated to JICA on receipt of the same.
Total	108.09	106.345		1.745			

# Implementation Schedule for SIA (Sewri Section)

Task	Task Designation	Start Date	Completion /
No.	rask Designation	Start Date	Forecast Date
1	Preparation of Final SIA		
1.1	MMRDA Approval	October 2015	January 2016
1.2	JICA Approval	November 2015	January 2016
1.3	Posting of project Information on MMRDA		
1.4	Translation and disclosure of entitlement policy in local language to all PAP's	December 2015	January 2016
2	LARP Implementation		
2.1	Grievance redress mechanism established	August 2016	August 2016
2.2	Staff deployment SIA implementation	June 2016	Dec. 2020
2.3	Staff Deployment Public Relation	June 2016	June 2016
2.4	Hiring of Independent Evaluation Agency	November 2018	November 2020
2.5	Preparation and issue of allotment letters to PAPs	June 2018	Dec. 2020*
2.6	Notice of PAPs for shifting (Sewri Section)	December 2018	Dec. 2020
2.7	Allotment of dwelling units to PAP's	September 2016	Dec. 2020
2.8	Shifting of PAPs to resettlement Colony	December 2018	Dec. 2020
2.9	Transfer of compensation / allowance/ assistance to PAPs	December 2018	Dec. 2020
2.10	Creation of Community Revolving fund (within 3 months post handing over)	April 2019	Feb. 2021
2.11	Assessment of economic rehabilitation needs by individual household (within 6 months after handing over	September 2019	June 2021
2.12	Registration of Co-operative housing societies, transfer of maintenance funds. (6 months period)	December 2019	June 2021
2.13	Signing of Civil Contract		January 2018
2.14	Notice of Civil works to proceed		March 2018
3	Monitoring & Evaluation		
3.1	Internal Monitoring- Monthly/ Quarterly	June 2016	January 2020
3.2	Independent Evaluation Mid-term and End term evaluation		
	Mid Term	May 2019	June 2020
	End Term	November 2019	March 2021

<sup>\*</sup>Subject to open the lockdown upto September 2020 and get the Occupation certificate of Kurla Bhandari R&R site from SRA department upto Jan. 2021.

Mumbai Trans Harbour Link Proje	ect - Quarterly P	rogress Report No	o.14 (Jul-Sept 2020)
Attachment 2	IIC A !- C-		C1-1
Attachment 3-	JICA'S CO	ncurrence	Status

# **Status of JICA'S Concurrence**

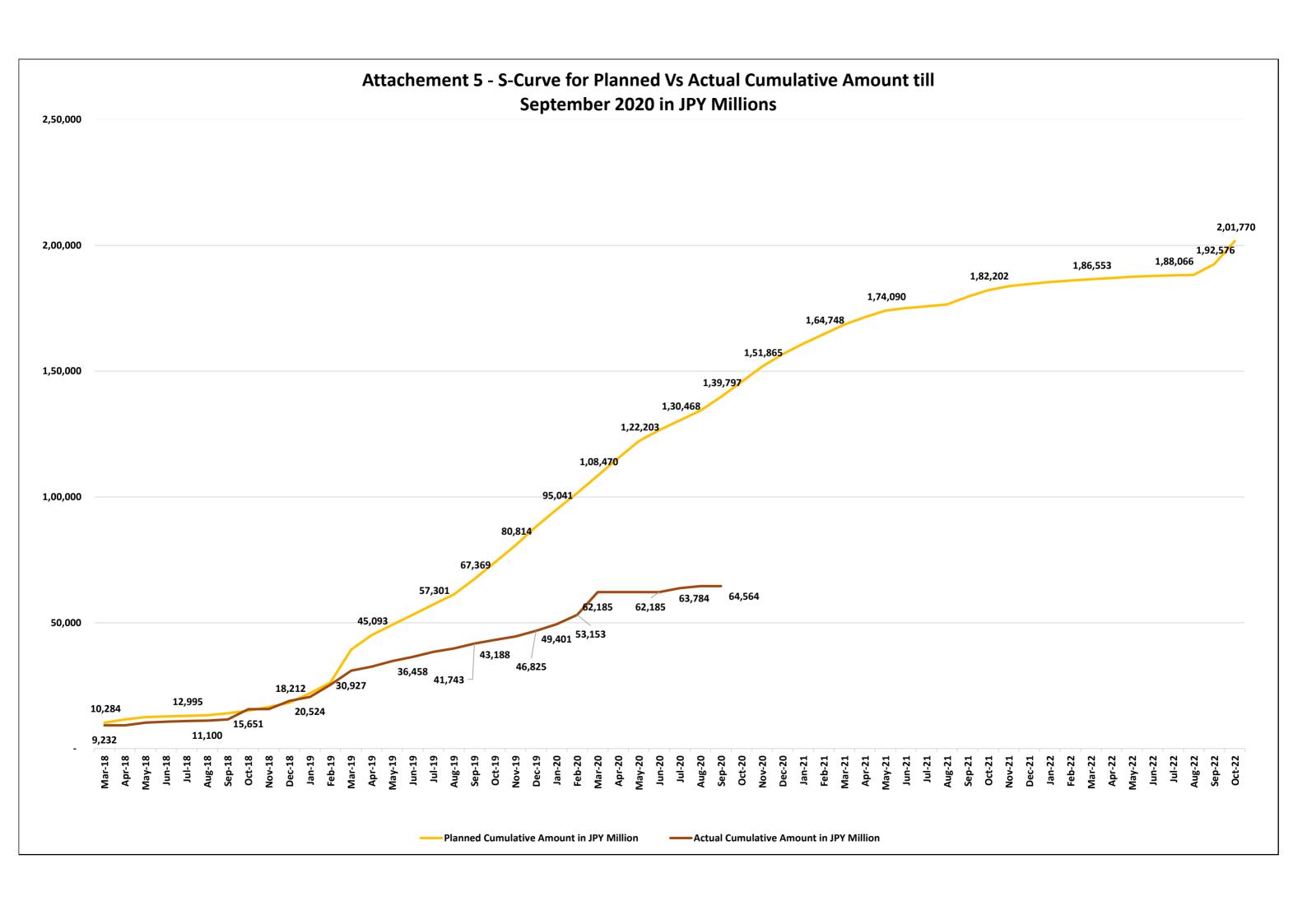
			Bid C	ost			JICA's Cond	currence on		
SI No		Procurement procedure	Local Currency (Cr Rs.)	Total (Cr Rs)	PQ Documents	PQ Evaluation	Bid Documents	Technical Evaluation	Financial Evaluation	Contract
1.	Package-1 (CH 0+000 km to CH10+380 km)	ICB with PQ (2P)	7637.30	7637.30	JICA's Concurrence - 9th May 2016	JICA's Concurrence - 22 <sup>nd</sup> Dec 2016	JICA's Concurrence - 4 <sup>th</sup> Jan 2017	JICA's Concurrence - 12 <sup>th</sup> Sep 2017	JICA's Concurrence - 12 <sup>th</sup> Oct 2017	JICA's Concurrence – 15 <sup>th</sup> Feb 2018
2.	Package-2 (CH 10+380 km to CH18+187 km)	ICB with PQ (2P)	5612.61	5612.61	JICA's Concurrence - 9 <sup>th</sup> May 2016	JICA's Concurrence - 22 <sup>nd</sup> Dec 2016	JICA's Concurrence - 4 <sup>th</sup> Jan 2017	JICA's Concurrence - 12 <sup>th</sup> Sep 2017	JICA's Concurrence - 12 <sup>th</sup> Oct 2017	JICA's Concurrence – 15 <sup>th</sup> Feb 2018
3.	Package-3 (CH18+187 to CH21+800)	ICB with PQ (2P)	1013.79	1013.79	JICA's Concurrence - 9 <sup>th</sup> May 2016	JICA's Concurrence - 4 <sup>th</sup> Jan 2017	JICA's Concurrence - 4 <sup>th</sup> Jan 2017	JICA's Concurrence - 15 <sup>th</sup> Sep 2017	JICA's Concurrence - 12 <sup>th</sup> Oct 2017	JICA's Concurrence – 15 <sup>th</sup> Feb 2018
4.	Package-4 Intelligent Transport System	ICB with PQ (2P)	181.49	181.49	JICA's Concurrence - 23 <sup>rd</sup> August 2019	-	-	-	-	-

Mumbai Tra	ins Harbour Link P	roject - Quarte	rly Progress Re	port No.14 (Jul-	Sept 2020)
Attac	hment 4- Pr	raiget Pro	curamant	and Fina	ncial
Allaci		_			liciai
	Status	till 30 <sup>th</sup> Se	eptember	2020	

## PROJECT PROCUREMENT AND FINANCIAL STATUS TILL 30th SEPTEMBER 2020

Туре	Contract	Awarded or Estimated Value (in Rs. Crore)	Current Status	Contractors	Project Commencement Date	Stipulated Project Completion Date	% of Overall Project completion (Design/ Procurement/ Construction) till 25 <sup>th</sup> September 2020	% of Overall Financial Progress (Including Mobilization Advance) till 30 <sup>th</sup> September 2020
	Package-1 (CH 0+000 km to CH 10+380 km)	7637.30	Awarded	L&T-IHI Consortium	March 2018	Sep 2022	28.96%	37.13%
CIVIL	Package-2 (CH 10+380 km to CH18+187 km)	5612.61	Awarded	DAEWOO- TPL JV	March 2018	Sep 2022	23.96%	37.23%
	Package-3 (CH18+187 to CH21+800)	1013.79	Awarded	L&T	March 2018	Sep 2021	40.05%	49.64%
ITS	Package-4 Intelligent Transport System (ITS)	181.49 (Estimated)	Design Stage		June 2021 (Estimated)	Sep 2022	NA	NA

lumbai	Trans Ha	ırbour Link	Project	<ul><li>Quarterly</li></ul>	<b>Progress</b>	Report No.14	4 (Jul-Sept 2020)
<b>Atta</b>	ichme	nt 5- S	-Cur	e for C	Cumul	ative Pla	nned Vs
		Actua	ai Am	ount in	JPY	Willion	



Mumbai Trans Harbour Link Project - Quarterly Progress Report No.14 (Jul-Sept 2020)
numbal Trans Transour Emik Project - Quarterly Progress Report No. 14 (Jul-Sept 2020)
Attachment 6- Package-1's Construction Programme
Updated as on 25 <sup>th</sup> September 2020



# MUMBAI TRANS HARBOUR LINK PACKAGE 1, **UPDATED BASELINE PROGRAMME FOR SEPTEMBER 2020**





AECOM PADECO dar al-handasah NTERNATIONAL

General Consultant for Mumbai Trans Harbour Link Project

				,				MMR										
	Activity Name	BL1 Start	BL1 Finish	BL1 Duration	Original Start Duration	Finish	Schedule % Complete	Performance % Varianc Complete	e - BL1 Start Date	Variance - BL1 Trinish Date			2019	2020   F   A   J J A	202		2022	2023
R30 MTHL P1 - S	Sep'20 Month Progress	23-Mar-18	22-Sep-22	1062	1509 23-Mar-18 A	05-Mar-24	57.77%	28.96%	0	-447	-448 V							
	Trans Harbour Link - Package 1	23-Mar-18	22-Sep-22	1062	1509 23-Mar-18 A	05-Mar-24	57.77%	28.96%	0	-447	-448							
10000	Commencement Date	23-Mar-18		0	0 23-Mar-18 A		100%	100%	0	0	•							
30.1.1 Key Mile		19-Sep-18	22-Sep-22	1464	1809 15-Feb-19 A	05-Mar-24	0%	0%	-148	-530	-531	· · · · · · · · · · · · · · · · · · ·						
30.1.2 Contract		09-Oct-18	05-Mar-22	1243	1243 09-Oct-18 A	05-Mar-22	0%	0%	0	0	200					<del> </del>		
R30.1.3 Access t		23-Mar-18	03-Sep-18	165	165 23-Mar-18 A	26-Sep-20	0%	0%	0	-754	-376							
30.1.4 Docume 30.1.5 Survey	ent Submittals	23-Mar-18 23-Mar-18	18-Sep-18 03-Jun-18	180 73	180 23-Mar-18 A 73 23-Mar-18 A	09-Dec-19 A 03-Jun-18 A	0%	0% 0%	0	-446 0	¥		<b>*</b>					
	nnical Investigation	23-Mar-18	03-5dr-18	165	165 23-Mar-18 A	23-Jul-19 A	0%	0%	0	-322	Y Y							
MPR30.1.6.1 Phas		23-Mar-18		60		21-May-18 A	0%	0%	0	0	V V							
MPR30.1.6.2 Phas		22-May-18		25	25 22-May-18 A		0%	0%	0	0	₩.	} - <del> </del>			1-	-		1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
MPR30.1.6.3 Phas	se 3	16-Jun-18	04-Aug-18	50	50 16-Jun-18 A	30-Dec-18 A	0%	0%	0	-147	<b>→</b>	<del></del>						
MPR30.1.6.4 Phas	se 4	21-Jul-18	03-Sep-18	45	45 05-Oct-18 A	23-Jul-19 A	0%	0%	-76	-322		<b>V</b>	<del>-                                    </del>					
PR30.1.7 Infrastur		23-Mar-18		188	376 23-Mar-18 A	28-Sep-20	0%	0%	0	-347	<b>526</b> ₹ 1 1 1							
	ect Site Office Construction (Contractor + Employer + GC)	04-Apr-18	27-Nov-18	120		25-Nov-18 A	0%	0%	0	2	Y	<del></del> ▼::::::						
MPR30.1.7.2 Cast	<del></del>	20-Apr-18	05-Feb-19	164	<u> </u>	28-Sep-20	0%	0%	0	-347	-238							
MPR30.1.7.3 Fabr	1000	23-Mar-18	30-Nov-18	133			0%	0%	0	-122	1111			,				
MPR30.1.7.4 Reba		23-Mar-18		133			0%	0%	0	-265	<u> </u>	<del></del>						
R30.1.8 Procure	ching Plant Installation - CP30 & CP60	20-Apr-18	05-Feb-19 07-Sep-22	164		08-Dec-18 A 27-Feb-24	0%	0%	-47	-538	F24	<b>Y</b>						
	nt & Machinery Deployment Plan	04-Apr-18 04-Apr-18	07-Sep-22	1618		27-Feb-24 27-Feb-24	0%	0% 0%	0	-538	-524						4-4-4-4-4	4-1-14-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
	Material Procurement Plan	01-Sep-18	13-Jul-22	1412	<u> </u>		0%	0%	0	-533	-534	· <del>• • • • • • • • • • • • • • • • • • •</del>						
	& Engineering (Civil)	23-Mar-18		302	638 23-Mar-18 A		0%	0%	0	-332	-261				<del></del>			
<del>_</del>	al Design (General & Preliminary Design, DBR)	23-Mar-18		79	79 23-Mar-18 A	29-Nov-18 A	0%	0%	0	-172	V							
	alization of Alignment	23-Mar-18	18-Jun-18	88	88 23-Mar-18 A	10-Sep-18 A	0%	0%	0	-83	V	<del></del>						
MPR30.1.9.3 Deta	niled Design and Construction Design	01-May-18	21-Sep-19	269	638 01-May-18 A	27-Jan-21	0%	0%	0	-332	-261				<del></del>			
MPR30.1.9.3.1	GIR	22-May-18	01-Oct-18	133	193 22-May-18 A	09-Dec-19 A	0%	0%	0	-433	<b>→</b>							
MPR30.1.9.3.2	Test Pile	01-May-18	15-Dec-18	113	544 01-May-18 A	23-Oct-20	0%	0%	0	-410	-304				<b>7</b>			
	Design Phase -1 (Accelerated Design of Initial Items)	19-Jun-18	02-Nov-18	137	137 27-Jun-18 A	25-Sep-20	0%	0%	-8	-693	-603							
	Design Phase -2 (Accelerated Design of Initial Items)	04-Jul-18	13-Dec-18	163		25-Sep-20	0%	0%	-22	-651	-478				<u> </u>			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Design Phase -3		25-Jan-19	221		26-Oct-20	0%	0%	-67	-640	-550	· <u> </u>			Y : : : : : : : : : : : : : : : : : : :			
	Design Phase -4	07-Jul-18	11-Feb-19	220		15-Oct-20	0%	0%	-90	-612	-535							
	Design Phase -5	07-Jul-18 26-Auq-18	05-Mar-19 03-Apr-19	242		19-Oct-20 27-Oct-20	0%	0%	-165	-593	-379							
	Design Phase -6 Design Phase -7	26-Aug-18 26-Aug-18	24-May-19	272		01-Nov-20	0%	0%	-120 -138	-572 -526	-560 -328				<del>`</del>			
	Design Phase -8	02-Oct-18	<del></del>	355		27-Jan-21	0%	0%	-129	-526 -493	-407	· · · · · · · · · · · · · · · · · · ·						
	, Engineering & Material Procurement (OSD)	23-Mar-18	<del></del>	697			0%	0%	0	-498	-178 VIIII				<del></del>			
MPR30.1.10.1 Init		23-Mar-18		53			0%	0%	0	-198	V	<del></del>						
MPR30.1.10.3 Aer	rodynamic Analysis	23-Mar-18	14-Aug-18	145	145 23-Mar-18 A	30-Jul-19 A	0%	0%	0	-349	V		<del>-                                    </del>					
MPR30.1.10.4 Tec	chnical Design	15-May-18	21-Mar-19	311	813 15-May-18 A	22-Jul-20 A	0%	0%	0	-488								
MPR30.1.10.4.1		15-May-18		150		09-Sep-19 A	0%	0%	0	-332	<u> </u>		7					
MPR30.1.10.4.2		26-Jun-18	06-Dec-18	164		30-Jan-20 A	0%	0%	0	-419	<b>T</b>			7				
MPR30.1.10.4.3		14-Aug-18	24-Jan-19	164			0%	0%	-82	-544								
MPR30.1.10.4.4		09-Oct-18	21-Mar-19	164		20-Jan-20 A	0%	0%	-120	-304	007		· · · · · · · · · · · · · · · · · · ·					
MPR30.1.10.5 Col	nstruction Design	12-Oct-18	20-Sep-19	344		30-Jan-21	0%	0%	-113	-498	-387							
MPR30.1.10.5.1			30-Apr-19 25-Jul-19	201		14-May-20 A 02-Dec-20	0%	0%	-113	-379 -496	220			: : : <b>'</b> : ! : !				
MPR30.1.10.5.2		25-Jan-19		183	<del></del>	30-Jan-21	0%	0% 0%	-298 -437	- <del>49</del> 6 -554	-320 -//18				<del>-                                    </del>			
MPR30.1.10.5.4		22-Mar-19		183	<del></del>	21-Oct-20	0%	0%	-193	-396	-309		<b>₩</b>		<b>,</b>			
	terial Procurement (1st Lot)	02-Mar-19		353			0%	0%	-13	-498	-178	· · · · · · · · · · · · · · · · · · ·			<del>                                      </del>			
MPR30.1.10.6.1		02-Mar-19		210			0%	0%	-13	-41								
MPR30.1.10.6.2	OS02NS/SS	27-May-19	22-Dec-19	210	227 11-Nov-19 A	17-Mar-20 A	0%	0%	-168	-85			· · · · · · · · · · · · · · · · · · ·	<del></del>				
MPR30.1.10.6.3	OS03NS/SS	28-May-19	23-Dec-19	210	226 19-Jun-20 A	29-Jun-21	0%	0%	-388	-554	-418			· · · · · · · · · · · · · · · · · · ·	<del>                                      </del>			
MPR30.1.10.6.4		23-Jul-19	17-Feb-20	210	175 28-Oct-19 A	25-Feb-20 A	0%	0%	-97	-7			<b>V</b>	7				
	utting and Transplantation		02-Nov-18	225		04-Jan-21	0%	0%	0	-794	-640				<del>                                     </del>	:		
PR30.1.12 Utility D		19-Jun-18	14-Jan-19	210	1043 01-Oct-18 A	28-Jan-21	0%	0%	-104	-745	-433	<b>Y</b>			<u> </u>			
R30.1.13 Constru		11-Jun-18	22-Jun-22	919		22-Dec-23	54.53%	23.69%	121	-460	-385				: : : : : : : : : : : : : : : : : : : :			
	wri Interchange Section		28-Feb-22	779			54.39% 57.4%	14.02% 13.55%	-121 162	-461	-289							
_	Sewri Interchnage - Work Front - 1  1.1.1 Sewri Interchange - Work Front - 1 - Piling	03-Nov-18		779 490	1225 18-May-19 A 819 18-May-19 A				-163 -163	-407 -290	-130					: : : : : <del>: : : :</del> :		
	1.1.1 Sewri interchange - work Front - 1 - Piling  3.1.1.1.1 Piling - Land Viaduct	03-NOV-18 13-Apr-19	16-Dec-20 16-Sep-19	490 54	298 25-Jun-19 A	01-Mar-22 09-Feb-21	100%	43.73% 90%	- 163 -53	-290	-139							
	3.1.1.1.2 Piling - Ramp A	03-Nov-18	17-Oct-20	442	738 18-May-19 A		94.85%	41.65%	-53 -163	-34 <i>1</i> -290	-169		<b>V</b>					
	3.1.1.1.3 Piling - Ramp E	20-Oct-20	01-Dec-20	36	36 03-Jan-22	15-Feb-22	0%	0%	-290	-290	-169							
	3.1.1.1.4 Piling - Ramp F	02-Dec-20	15-Dec-20	12		01-Mar-22	0%	0%	-290	-290	-139					₩.		
	1.1.2 Sewri Interchange - Work Front - 1 -Pile Cap	19-Nov-18	24-Mar-21	560		13-Jul-22	78.33%	24.53%	-175	-321	-181		<b>V</b>				<del>       </del>	
	3.1.1.2.1 Pile Cap - Land Viaduct	25-Apr-19	15-Oct-19		130 06-Sep-19 A	04-Mar-21	100%	88.89%	-43	-342					<u> </u>			4-4-5-4-4-5-5-6-4-5



# MUMBAI TRANS HARBOUR LINK PACKAGE 1, **UPDATED BASELINE PROGRAMME FOR SEPTEMBER 2020**





AECOM PADECO dar al-handasah unternational INTERNATIONAL

General Consultant for Mumbai Trans Harbour Link Project

Activity ID	Activity Name	BL1 Start	BL1 Finish	BL1 Duration	Original Start Duration	Finish	Schedule % Complete	Performance % Variar Complete	nce - BL1 Start Date	Variance - BL1 Finish Date		2018         2019         2020         2021         2022         2023         20           A JJAS   J A JJAS   JF A JJA   J A JJAS   J J A JJAS   J J A JJAS   J J A JJA   J J A JJAS   J J A JJA   J J A JJAS   J J A JJAS   J J A JJA   J J A JJAS   J J A
	MPR30.1.13.1.1.2.2 Pile Cap - Ramp A	19-Nov-18		504	821 21-Jun-19 A	24-May-22	83.33%	16.13%	-175	-334	-265	
	MPR30.1.13.1.1.2.3 Pile Cap - Ramp E MPR30.1.13.1.1.2.4 Pile Cap - Ramp F	07-Jan-21 01-Mar-21	27-Feb-21 24-Mar-21	44 20	74 26-Jan-20 A 20 20-Jun-22	21-Jun-22 13-Jul-22	0%	16.67% 0%	211 -321	-322 -321	-162 -232	
	MPR30.1.13.1.1.3 Sewri Interchange - Work Front - 1 - Pier	12-Dec-18	20-May-21	588	547 30-Jul-19 A	26-Aug-22	51.94%	18.07%	-155	-310	-153	
	MPR30.1.13.1.1.3.1 Pier - Land Viaduct	29-May-19		52	97 21-Oct-19 A	26-Mar-21	100%	78.33%	-43	-349	-292	
	MPR30.1.13.1.1.3.2 Pier - Ramp A MPR30.1.13.1.1.3.3 Pier - Ramp E	12-Dec-18 27-Jan-21	09-Feb-21 20-May-21	504 96	487 30-Jul-19 A 146 31-Jul-19 A	16-Jun-22 26-Aug-22	74.03% 0%	9.76% 27.27%	-155 337	-334 -310	-285 -206	
	MPR30.1.13.1.1.3.4 Pier - Ramp F	23-Dec-20	01-Apr-21	83	63 09-May-22	20-Aug-22 21-Jul-22	0%	0%	-341	-310	-123	
	MPR30.1.13.1.1.4 Sewri Interchange - Work Front - 1 - Pier Cap	05-Jan-19	11-Jun-21	587	484 24-Dec-20	27-Oct-22	49.54%	0%	-445	-342	-30	<b>√</b>
	MPR30.1.13.1.1.4.1 Pier Cap - Land Viaduct	16-Sep-19	14-Nov-19	49	52 05-Apr-21	05-Jun-21	100%	0%	-394	-397	-340	
	MPR30.1.13.1.1.4.2 Pier Cap - Ramp A MPR30.1.13.1.1.4.3 Pier Cap - Ramp E	05-Jan-19 13-Feb-21	26-Feb-21 11-Jun-21	499 100	391 24-Dec-20 100 29-Jun-22	07-Jul-22 27-Oct-22	69.89%	0% 0%	-445 -342	-337 -342	-288 -30	
	MPR30.1.13.1.1.4.4 Pier Cap - Ramp F	31-Dec-20	13-Apr-21	86	66 17-May-22	02-Aug-22	0%	0%	-341	-321	-107	
	MPR30.1.13.1.1.5 Sewri Interchange - Embankment Works - Ramp F	14-Apr-21	01-Nov-21	90	90 02-Aug-22	19-Nov-22	0%	0%	-321	-321	-172	
	MPR30.1.13.1.1.6 Sewri Interchange - Work Front - 1 - Super Structure Erection  MPR30.1.13.1.1.6.1 Erection - Land Viaduct	04-May-19 19-Nov-19		628	594 17-Apr-21 96 04-Jun-21	28-Jun-23 29-Dec-21	43.75%	0% 0%	-441 -393	-407 -393	-365 -379	
	MPR30.1.13.1.1.6.2 Erection - Ramp A	04-May-19		486	405 17-Apr-21	15-Oct-22	61.86%	0%	-492	-373 -411	-371	N
	MPR30.1.13.1.1.6.3 Erection - Ramp E	10-Apr-21	02-Dec-21	146	146 15-Oct-22	04-Apr-23	0%	0%	-411	-411	-371	<u>∀</u> y
	MPR30.1.13.1.1.6.4 Erection - Ramp F	28-Dec-21	28-Feb-22	52	52 28-Apr-23	28-Jun-23	0%	0%	-411	-411	-369	
	MPR30.1.13.1.2 Sewri Interchange - Work Front - 2  MPR30.1.13.1.2.1 Sewri Interchange - Work Front - 2 - Piling	03-Nov-18 03-Nov-18		765 553	1279 29-Mar-19 A 894 29-Mar-19 A	30-Aug-23 30-May-22	56.99%	18.25% 39.63%	-121 -121	-475 -302	-403 -256	
	MPR30.1.13.1.2.1.1 Piling - Ramp C2	03-Nov-18		325	586 29-Mar-19 A	14-Jun-21	100%	95.92%	-121	-315	-256	
	MPR30.1.13.1.2.1.2 Piling - Ramp C1	03-Apr-19	18-Dec-19	140	242 12-Nov-19 A	05-Jun-21	100%	8.57%	-108	-369	-256	
	MPR30.1.13.1.2.1.3 Piling - Ramp B  MPR30.1.13.1.2.2 Sewri Interchange - Work Front - 2 - Pile Cap	21-Nov-20 19-Nov-18	01-Mar-21 29-Apr-21	84 591	192 22-Nov-19 A 939 05-May-19 A	30-May-22 22-Jul-22	62.39%	8.32% 23.44%	-140	-302 -298	-256 -236	
	MPR30.1.13.1.2.2 SewiTinterchange - Work Front - 2 - File Cap  MPR30.1.13.1.2.2.1 Pile Cap - Ramp C2	19-Nov-18		361	739 05-May-19 A		100%	81.77%	-140	-329	-230	
	MPR30.1.13.1.2.2.2 Pile Cap - Ramp C1	12-Apr-19	04-Feb-20	172	269 14-Dec-19 A	21-Oct-21	100%	6.67%	-128	-365	-263	
	MPR30.1.13.1.2.2.3 Pile Cap - Ramp B	25-Nov-20	29-Apr-21	131	242 16-Jan-20 A	22-Jul-22	0%	7.14%	184	-298	-236	
	MPR30.1.13.1.2.3 Sewri Interchange - Work Front - 2 - Pier  MPR30.1.13.1.2.3.1 Pier - Ramp C2	12-Dec-18 12-Dec-18	21-May-21 09-May-20	589 353	587 04-Sep-19 A 384 04-Sep-19 A	09-Aug-22 11-Dec-21	66.89%	38.74% 82.04%	-155 -155	-295 -329	-112 -241	
	MPR30.1.13.1.2.3.2 Pier - Ramp C1	01-Apr-19	18-Feb-20	194	313 10-Sep-19 A	04-Nov-21	100%	25.51%	-64	-365	-263	
	MPR30.1.13.1.2.3.3 Pier - Ramp B	25-Apr-20	21-May-21	248	305 08-Oct-19 A	09-Aug-22	24.81%	34.09%	168	-295	-112	
	MPR30.1.13.1.2.4 Sewri Interchange - Work Front - 2 - Pier Cap	26-Dec-18	28-May-21	583	531 02-Dec-19 A	07-Sep-22	61.42%	3.62%	-206	-314	-130	
	MPR30.1.13.1.2.4.1 Pier Cap - Ramp C2  MPR30.1.13.1.2.4.2 Pier Cap - Ramp C1	26-Dec-18 18-Apr-19	27-May-20 12-Mar-20	356 198	331 02-Dec-19 A 173 07-Aug-20 A	13-Jan-22 08-Dec-21	100% 100%	3.91% 4.99%	-206 -277	-341 -375	-253 -277	
	MPR30.1.13.1.2.4.3 Pier Cap - Ramp B	19-May-20		235	206 07-Jan-20 A	07-Sep-22	11.67%	2.27%	112	-314	-130	
	MPR30.1.13.1.2.5 Sewri Interchange - Embankment Works - Ramp C2	23-May-19		60	60 16-Mar-21	26-May-21	0%	0%	-398	-398	158	
	MPR30.1.13.1.2.6 Sewri Interchange - Work Front - 2 - Super Structure erection  MPR30.1.13.1.2.6.1 Erection - Ramp C2	18-Mar-19 18-Mar-19	11-Feb-22 02-Nov-20	654 343	719 29-Jun-20 A 387 29-Jun-20 A	30-Aug-23 29-Jul-22	44.46% 73.95%	0%	-304 -304	-475 -454	-403 -382	
	MPR30.1.13.1.2.6.2 Erection - Ramp C1	08-Oct-19	26-May-20	194	194 04-Sep-21	25-Apr-22	100%	0%	-480	-480	-408	
	MPR30.1.13.1.2.6.3 Erection - Ramp B	28-Nov-20		316	316 25-Aug-22	30-Aug-23	0%	0%	-480	-480	-408	
	MPR30.1.13.1.3 Sewri Interchange - Work Front - 3 (Cast in situ Spans)  MPR30.1.13.1.3.1 Sewri Interchange - Work Front - 3 - Piling	28-Feb-20	01-Feb-22 20-Nov-20	431	468 16-May-20 A	11-Feb-23	33.42%	0.72%	-65	-315 -309	-219	
	MPR30.1.13.1.3.1 Piling - Ramp B	28-Feb-20 28-Feb-20	02-May-20	144 54	175 16-May-20 A 54 14-Jun-21	28-Feb-22 19-Nov-21	67.36%	4.17% 0%	-65 -315	-309	-256 -256	
	MPR30.1.13.1.3.1.2 Piling - Ramp E		07-Oct-20	54	139 16-May-20 A	15-Jan-22	79.63%	11.11%	-11	-309	-256	
	MPR30.1.13.1.3 Piling - Ramp C1	08-Oct-20	20-Nov-20	36	36 15-Jan-22	28-Feb-22	0%	0%	-309	-309	-256	
	MPR30.1.13.1.3.2 Sewri Interchange - Work Front - 3 - Pile Cap  MPR30.1.13.1.3.2.1 Pile Cap - Ramp B	07-Mar-20 07-Mar-20		159 81	153 21-Sep-20 A 81 23-Sep-21	25-Mar-22 28-Dec-21	54.63%	0.08%	-87 -315	-309 -315	-98 -146	
	MPR30.1.13.1.3.2.2 Pile Cap - Ramp E	11-May-20		81	81 21-Sep-20 A	24-Feb-22	45.68%	0.22%	-33	-309	-74	
	MPR30.1.13.1.3.2.3 Pile Cap - Ramp C1	23-Oct-20	15-Dec-20	45	45 31-Jan-22	25-Mar-22	0%	0%	-309	-309	-109	
	MPR30.1.13.1.3.3 Sewri Interchange - Work Front - 3 - Pier  MPR30.1.13.1.3.3.1 Pier - Ramp B	18-Mar-20		216 135	210 04-Oct-21	10-Jun-22 15-Mar-22	30.56% 60.74%	0%	-315	-309 -315	-149 -194	
	MPR30.1.13.1.3.3.2 Pier - Ramp E	18-Mar-20 21-May-20		135	135 04-Oct-21 135 30-Nov-21	10-May-22	20.74%	0% 0%	-315 -309	-315	-194	
	MPR30.1.13.1.3.3.3 Pier - Ramp C1	18-Nov-20		90	90 24-Feb-22	10-Jun-22	0%	0%	-309	-309	-160	<del>, , ,</del>
	MPR30.1.13.1.3.4 Sewri Interchange - Work Front - 3 - Pier Cap	24-Apr-20	19-Mar-21	196	190 11-Nov-21	24-Jun-22	21.53%	0%	-315	-309	-149	
	MPR30.1.13.1.3.4.1 Pier Cap - Ramp B MPR30.1.13.1.3.4.2 Pier Cap - Ramp E	24-Apr-20 08-Jun-20	11-Dec-20 15-Feb-21	115 132	115 11-Nov-21 132 17-Dec-21	29-Mar-22 24-May-22	46.3% 11.11%	0% 0%	-315 -309	-315 -309	-194 -122	
	MPR30.1.13.1.3.4.3 Pier Cap - Ramp C1	17-Dec-20	19-Mar-21	77	77 26-Mar-22	24-Jun-22	0%	0%	-309	-309	-160	
	MPR30.1.13.1.3.5 Sewri Interchange - Work Front - 3 - Super Structure	23-May-20		360	360 09-Dec-21	11-Feb-23	5.8%	0%	-315	-315	-219	
	MPR30.1.13.1.3.5.1 Super Structure - Ramp B MPR30.1.13.1.3.5.2 Super Structure - Ramp E		30-Jan-21	132	132 09-Dec-21	16-May-22	16.67%	0%	-315 -315	-315	-205 -205	
	MPR30.1.13.1.3.5.2 Super Structure - Ramp C1	16-Jan-21 09-Jun-21	24-Sep-21 01-Feb-22	132 120	132 02-May-22 120 22-Sep-22	06-Oct-22 11-Feb-23	0%	0% 0%	-315 -315	-315 -315	-205 -219	
	MPR30.1.13.2 Intertidal Section	11-Jun-18	23-Oct-21	715	1246 11-Jun-18 A	28-Apr-23	67.64%	61.88%	0	-464	-437	
	MPR30.1.13.2.1 Intertidal - Temporary Access Bridge Work	11-Jun-18	26-Sep-20	467	559 11-Jun-18 A	27-Oct-20	0%	0%	0	-25	139	<u> </u>
	MPR30.1.13.2.1.1 Access Bridge  MPR30.1.13.2.1.2 Fingers	11-Jun-18 13-Oct-18	12-Jun-20 26-Sep-20	457 441	528 11-Jun-18 A 559 26-Sep-18 A	27-May-20 A 27-Oct-20	0%	0% 0%	16	-25	130	
	MPR30.1.13.2.2 Intertidal - Main Bridge Work		23-Oct-21	638			67.64%	61.88%	26	-464	-437	
	Actual Level of Effort Remaining Work ♦ Milestone  Actual Work Critical Remaining Work ▼ summary			Pag	e 2 of 4			at this Monthly Rolli the EOT-03 propos				e actual progress and will not match with impacted schedule sion of time.
_	<u> </u>											



Actual Level of Effort Remaining Work ♦ Milestone

Critical Remaining Work summary

Actual Work

## MUMBAI TRANS HARBOUR LINK PACKAGE 1, **UPDATED BASELINE PROGRAMME FOR SEPTEMBER 2020**





Please note that this Monthly Rolling Plan has been updated based on the actual progress and will not match with impacted schedule submitted with the EOT-03 proposal for the contractor's eligibility for extension of time.

AECOM PADECO dar al-handasah NTERNATIONAL

General Consultant for Mumbai Trans Harbour Link Project

	<u>.</u>						l						
tivity ID	Activity Name	BL1 Start	BL1 Finish	BL1	Original Start	Finish	Schedule %	Performance % Va		Variance - BL1 To			2022 2023 2024
				Duration	Duration		Complete	Complete	Date	Finish Date	[A [J	JAS JAJAS JFA JJA JAS J	
	MPR30.1.13.2.2.1 Intertidal - Main Bridge Work - I		16-Mar-21	531	686 14-Nov-18 A	19-Jun-21	78.95%	91.53%	26	-76	-42		
	MPR30.1.13.2.2.2 Intertidal - Main Bridge Work - I	-	06-Apr-21	536	913 17-Jan-19 A	14-Jun-22	74.09%	82.46%	-15	-285	-256		
	MPR30.1.13.2.2.3 Intertidal - Main Bridge Work - I		25-May-21	562	941 29-Mar-19 A	16-Jul-22	71.33%	74.47%	-59	-272	-245		
	MPR30.1.13.2.2.4 Intertidal - Main Bridge Work - I	Pier Cap 30-Jan-19	05-Jun-21	562	691 10-Aug-19 A	28-Jul-22	69.56%	49.56%	-115	-272	-245		<del>****</del> ********************************
	MPR30.1.13.2.2.5 Intertidal - Main Bridge Work - S	Super Structure Erection 18-Apr-19	23-Oct-21	534	783 29-Nov-19 A	28-Apr-23	43.98%	4.65%	-110	-464	-437		
	MPR30.1.13.2.3 Intertidal - Finger Removal & Reuse	<b>e</b> 07-Mar-19	29-Dec-20	400	371 20-Jun-19 A	28-May-21	0%	0%	-85	-125	-40		
<u> </u>	MPR30.1.13.3 Marine Section	18-Sep-18	17-Jun-22	911	1406 14-Dec-18 A	22-Dec-23	60.17%	24.78%	-73	-464	-443	: : : : : <del>V</del>	<del></del>
	MPR30.1.13.3.1 Temporary Access Bridge Work -2	(MP70 to MP51- 21 Spans) 18-Sep-18	17-Jun-22	911	1045 14-Nov-19 A	22-Dec-23	0%	0%	-274	-464	-443	· · · · · · · · · · · · · · · · · · ·	
	MPR30.1.13.3.2 Marine - Main Bridge		23-Feb-22	775	1309 14-Dec-18 A	29-Aug-23	60.17%	24.78%	-34	-464	-443	· · · · · · · · · · · · · · · · · · ·	<del></del>
	MPR30.1.13.3.2.1 Marine - Piling	03-Nov-18	15-Mar-21	564	962 14-Dec-18 A	03-Jun-22	74.37%	60.62%	-34	-296	-178	· · · · · · · · · · · · · · · · · · ·	<del></del>
	MPR30.1.13.3.2.1.1 Piling - Stretch - 1 - OSD-1 I		22-Jan-20	104	80 21-Jul-20 A	28-Dec-21	100%	23.08%	-225	-434	-298	· · · · · · · · · · · · · · · · · · ·	
	MPR30.1.13.3.2.1.2 Piling - Stretch - 2 - Marine		13-Oct-20	344	340 16-Aug-20 A	03-Jun-22	93.33%	5%	-321	-422	-234		
	MPR30.1.13.3.2.1.3 Piling - Stretch - 3 - OSD-28	· · ·	26-Feb-21							-275	-197		
	The second secon			521	370 25-Sep-20 A	25-Apr-22	65.77%	0%	-392		-19/		
	MPR30.1.13.3.2.1.4 Piling - Stretch - 4 - Marine		21-Apr-20	370	489 14-Dec-18 A	22-Feb-20 A	100%	100%	-34	50	100		
	MPR30.1.13.3.2.1.5 Piling - Stretch - 5 - OSD-4 I	` '	16-Jan-21	147	112 04-Feb-20 A	19-Dec-20	35.37%	72.62%	66	24	132		
	MPR30.1.13.3.2.1.6 Piling - Stretch - 6 - Marine		15-Mar-21	395	148 06-Dec-19 A	10-Feb-21	25.83%	93.75%	-85	28	146		
	MPR30.1.13.3.2.3 Marine - Pile Cap	23-Nov-18	12-Apr-21	572	1023 14-Jan-19 A	22-Oct-22	63.48%	26.53%	-43	-390	-274		
	MPR30.1.13.3.2.3.1 Pile Cap - Stretch - 1 - OSD-		23-Mar-20	75	75 29-Dec-21	29-Mar-22	100%	0%	-458	-458	-348	· · · · · · · · · · · · · · · · · · ·	
	MPR30.1.13.3.2.3.2 Pile Cap - Stretch - 2 - Marii	<b>ne - MP54 to MP68 (856m)</b> 28-Mar-19	20-Jan-21	400	400 01-Apr-21	22-Oct-22	60.53%	0%	-458	-458	-337		
	MPR30.1.13.3.2.3.3 Pile Cap - Stretch - 3 - OSD-	<b>-2&amp;3 MP69 to MP80 (1.5 Km)</b> 28-Jan-19	27-Mar-21	505	354 23-Dec-20	23-May-22	62.15%	0%	-426	-275	-197		<del>7</del>
	MPR30.1.13.3.2.3.4 Pile Cap - Stretch - 4 - Marii	ne MP81 to MP123 (2.6 Km) 23-Nov-18	10-Nov-20	444	637 14-Jan-19 A	17-Apr-21	89.62%	60.45%	-43	-133	-81		
	MPR30.1.13.3.2.3.5 Pile Cap - Stretch - 5 - OSD	<b>-4 MP124 to MP128 (600m)</b> 11-Nov-20	08-Apr-21	125	125 06-Apr-21	04-Dec-21	0%	0%	-123	-123	-58		
	MPR30.1.13.3.2.3.6 Pile Cap - Stretch - 6 - Marii	· · ·	12-Apr-21	407	218 05-Nov-20	27-Oct-21	20.67%	0%	-275	-86	30		
	MPR30.1.13.3.2.4 Marine - Pier	22-Dec-18	02-Jun-21	590	791 12-Sep-19 A	26-Dec-22	57.55%	5.09%	-146	-401	-315	· · · · · · · · · · · · · · · · · · ·	<del></del>
	MPR30.1.13.3.2.4.1 Pier - Stretch - 1 - OSD-1 M		21-Apr-20	75	75 29-Jan-22	27-Apr-22	100%	0%	-458	-458	-338	· · · · · · · · · · · · · · · · · · ·	<b>→</b> ::::::::::::::::::::::::::::::::::::
	MPR30.1.13.3.2.4.2 Pier - Stretch - 2 - Marine - I	` '	26-Mar-21	429	429 30-Apr-21	26-Dec-22	53.89%	0%	-458	-458	-341	<b>√</b>	<del></del> ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
	MPR30.1.13.3.2.4.3 Pier - Stretch - 3 - OSD-2&3		24-Apr-21	504	354 21-Jan-21	20-Jun-22	57.64%	0%	-425	-275	-197		
	MPR30.1.13.3.2.4.4 Pier - Stretch - 4 - Marine M		-								144		
	The second secon	` ,	12-Jan-21	472	519 12-Sep-19 A	05-Feb-22	81.85%	11.54%	-146	-247	-140	<u> </u>	<u></u>
	MPR30.1.13.3.2.4.5 Pier - Stretch - 5 - OSD-4 M		02-Jun-21	118	146 28-Jan-22	19-Jul-22	0%	0%	-240	-267	-230	<u> </u>	<del></del>
	MPR30.1.13.3.2.4.6 Pier - Stretch - 6 - Marine M	· ·	28-Apr-21	419	258 24-Nov-20	16-Dec-21	15.63%	0%	-288	-127	0		<u>                                      </u>
	MPR30.1.13.3.2.2 Marine - Pier Cap	21-Jan-19	14-Jun-21	576	727 26-Dec-19 A	06-Jan-23	54.78%	2.02%	-206	-401	-277		
	MPR30.1.13.3.2.2.1 Pier Cap - Stretch - 1 - OSD	· · ·	16-May-20	87	87 09-Feb-22	21-May-22	100%	0%	-458	-458	-238	· · · · · · · · · · · · · · · · · · ·	
	MPR30.1.13.3.2.2.2 Pier Cap - Stretch - 2 - Mari	ine - MP54 to MP68 (856m) 27-May-19	07-Apr-21	414	414 31-May-21	06-Jan-23	48.67%	0%	-458	-458	-341	· · · · · · · · · · · · · · · · · · ·	<del></del>
	MPR30.1.13.3.2.2.3 Pier Cap - Stretch - 3 - OSD	<b>28-Mar-19 28-Mar-19</b>	17-May-21	497	348 19-Feb-21	11-Jul-22	50%	0%	-424	-275	-197		<del></del>
	MPR30.1.13.3.2.2.4 Pier Cap - Stretch - 4 - Mari	ine MP81 to MP123 (2.6 Km) 21-Jan-19	23-Jan-21	458	454 26-Dec-19 A	17-Feb-22	78.13%	4.64%	-206	-247	-146		
	MPR30.1.13.3.2.2.5 Pier Cap - Stretch - 5 - OSD	<b>0(4) MP124 to MP128 (600m)</b> 12-Feb-21	14-Jun-21	103	131 26-Feb-22	30-Jul-22	0%	0%	-240	-267	-230	:	<del></del>
	MPR30.1.13.3.2.2.6 Pier Cap - Stretch - 6 - Mari	ine MP129 to MP148 (1.2 Km) 12-Oct-19	11-May-21	403	243 09-Dec-20	28-Dec-21	20.82%	0%	-275	-115	38	· · · · · · · · · · · · · · · · · · ·	
	MPR30.1.13.3.2.5 Marine - Super Structure Erect	tion 19-Apr-19	23-Feb-22	636	775 23-Jun-20 A	29-Aug-23	39.73%	0%	-276	-464	-443	V	
	MPR30.1.13.3.2.5.1 Erection - Main Concrete V	/iaduct 19-Apr-19	23-Feb-22	636	775 23-Jun-20 A	29-Aug-23	39.1%	0%	-276	-464	-443		<del></del>
	MPR30.1.13.3.2.5.2 Rescue Span (MP98 to MP	<b>P99)</b> 07-Mar-20	29-Oct-20	120	120 13-Oct-21	07-Mar-22	75.83%	0%	-332	-332	-11	: : : : : : : : : : : : : : : : : : :	
•	MPR30.1.13.4 Precast Segments	06-Feb-19	21-Aug-21	778	1021 07-Aug-19 A	17-Apr-23	62.21%	9%	-154	-505	-175	· · · · · · · · · · · · · · · · · · ·	<del></del>
	MPR30.1.13.4.1 Precast Segement - Sewri Interchai		24-May-21	701	817 20-Feb-20 A	11-Jan-23	74.45%	3.28%	-317	-501	-94	<b>V</b>	<del></del>
	MPR30.1.13.4.2 Precast Segement - Intertidal	28-Feb-19	14-Aug-21	753	744 18-Oct-19 A	30-Nov-22	68.66%	22.54%	-194	-394	331		<u> </u>
	MPR30.1.13.4.3 Precast Segement - Marine	28-Feb-19	21-Aug-21	759	1021 07-Aug-19 A	17-Apr-23	53.22%	1.83%	-135	-505	175		
	MPR30.1.13.5 Orthotropic Steel Deck (OSD) - Fabrica		15-Mar-22	608	809 23-Sep-19 A	29-May-23	7.75%	3.36%	-155	-370	210		<u> </u>
	MPR30.1.13.5.0 Office opic Steel Deck (OSD) - Pablica		_			12-Oct-22			-7		207		<u> </u>
	<u> </u>	28-Sep-19	12-Oct-21	746	925 23-Sep-19 A		0%	0%	5	-365	-307		<u>:::::::::::::::::::::::::::::::::::::</u>
	MPR30.1.13.5.1.1 Fabrication - Factory A	28-Sep-19	16-Sep-21	720	925 23-Sep-19 A	12-Oct-22	0%	0%	5	-391	-368	· · · · · · · · · · · · · · · · · · ·	
	MPR30.1.13.5.1.1.1 OSD 01 - RHS Fabrication -		22-Aug-20	330	363 23-Sep-19 A	29-Mar-21	0%	0%	5	-219	-68		<u></u>
	MPR30.1.13.5.1.1.2 OSD 03 - RHS Fabrication -	· · ·	19-Apr-21	450	450 29-Jun-21	22-Sep-22	0%	0%	-521	-521	-416		<u> </u>
	MPR30.1.13.5.1.1.3 OSD 04 - RHS Fabrication -	- MP124 to MP128 (560m) 22-Sep-20	16-Sep-21	360	307 25-Mar-20 A	12-Oct-22	0%	0%	181	-391	-368		
	MPR30.1.13.5.1.2 Fabrication - Factory B	28-Sep-19	16-Sep-21	720	678 23-Sep-19 A	07-Feb-22	0%	0%	5	-144	-80	· · · · · · · · · · · · · · · · · · ·	
	MPR30.1.13.5.1.2.1 OSD 01 - LHS Fabrication -	- MP50 to MP53 (320m) 28-Sep-19	22-Aug-20	330	379 23-Sep-19 A	28-Aug-20 A	0%	0%	5	-5		: : : : : : : : : : : : : : : : : : :	
	MPR30.1.13.5.1.2.2 OSD 02 - RHS Fabrication -	- MP69 to MP75 (683m) 26-Jan-20	19-Apr-21	450	432 07-Sep-20 A	07-Feb-22	0%	0%	-225	-294	-213		
	MPR30.1.13.5.1.2.3 OSD 04 - LHS Fabrication -	- MP124 to MP128 (560m) 22-Sep-20	16-Sep-21	360	214 24-Jan-20 A	31-Jan-22	0%	0%	242	-137	-73	::::::::::::::::::::::::::::::::::::::	
	MPR30.1.13.5.1.3 Fabrication - Factory C	23-Dec-19	12-Oct-21	660	558 27-Jan-20 A	26-Apr-22	0%	0%	-35	-196	-138	· · · · · · · · · · · · · · · · · · ·	♥::::::::::::::::::::::::::::::::::::
	MPR30.1.13.5.1.3.1 OSD 02 - LHS Fabrication -	- MP69 to MP75 (683m) 23-Dec-19	14-Feb-21	420	318 27-Jan-20 A	29-Aug-21	0%	0%	-35	-196	-61	· · · · · · · · · · · · · · · · · · ·	
	MPR30.1.13.5.1.3.2 OSD 03 - LHS Fabrication -	- <b>MP75 to MP81 (770m)</b> 19-Aug-20	12-Oct-21	420	420 03-Mar-21	26-Apr-22	0%	0%	-196	-196	-138		<b>♥</b>
	MPR30.1.13.5.2 OSD - Shipping	24-Jun-20	11-Dec-21	536	772 09-Jul-20 A	11-Dec-22	11.27%	4.8%	-15	-365	-188		
	MPR30.1.13.5.2.1 Shipping - Factory A	24-Jun-20	15-Nov-21	510	663 16-Feb-21	11-Dec-22	15.3%	0%	-238	-391	-188		<del>++++++</del>
	MPR30.1.13.5.2.1.1 OSD 01 - RHS Shipping - M		21-Oct-20	120	102 16-Feb-21	28-May-21	78.91%	0%	-238	-219	-68		
	MPR30.1.13.5.2.1.2 OSD 03 - RHS Shipping - M	The state of the s	18-Jun-21	240	240 26-Mar-22	21-Nov-22	0%	0%	-521	-521	-360		<del></del>
	MPR30.1.13.5.2.1.3 OSD 04 - RHS Shipping - M		15-Nov-21	180	110 23-Aug-22	11-Dec-22	0%	0%	-461	-391	-188		· · · · · · · · · · · · · · · · · · ·
	MPR30.1.13.5.2.2 Shipping - Factory B	24-Jun-20	15-Nov-21	510	525 09-Jul-20 A	08-Apr-22	16.15%	14.33%	-15	-144	-80		
	MPR30.1.13.5.2.2.1 OSD 01 - LHS Shipping - M		21-Oct-20		77 09-Jul-20 A	17-Dec-20	78.91%		-15	-144	276		
				120				70%					,; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
	MPR30.1.13.5.2.2.2 OSD 02 - RHS Shipping - M		18-Jul-21	240	221 31-Aug-21	08-Apr-22	0%	0%	-283	-264	-213	<u></u>	,
	MPR30.1.13.5.2.2.3 OSD 04 - LHS Shipping - M			180	214 31-Aug-21	01-Apr-22	0%	0%	-103	-137	-/3		
	MPR30.1.13.5.2.3 Shipping - Factory C	18-Sep-20	11-Dec-21	450	442 10-Apr-21	25-Jun-22	1.45%	0%	-205	-196	-114		
	Actual Level of Effort Remaining Work • •				ne 3 of 4							I progress and will not match with impacted schedule	© Oracle Corporation

Page 3 of 4



## MUMBAI TRANS HARBOUR LINK PACKAGE 1, **UPDATED BASELINE PROGRAMME FOR SEPTEMBER 2020**





AECOM PADECO dar al-handasah NTERNATIONAL

General Consultant for Mumbai Trans Harbour Link Project

Activity ID	Activity Name	BL1 Start	BL1 Finish	BL1	3 1 1 1 1 1 1	Finish	Schedule %		/ariance - BL1 Start	Variance - BL1 Total	Float 201	8	2019	2020	2021	2022	2023 2024
				Duration	Duration		Complete	Complete	Date	Finish Date	AJ	JAS J	A JJAS .	JF A JJA	J A JJAS	J J J AS	J A JJA   JF
	MPR30.1.13.5.2.3.1 OSD 02 - LHS Shipping - MP69 to MP75 (683m)	18-Sep-20	15-Apr-21	210	202 10-Apr-21	28-Oct-21	3.07%	0%	-205	-196	-32				<b>V</b>		
	MPR30.1.13.5.2.3.2 OSD 03 - LHS Shipping - MP75 to MP81 (770m)	16-May-21	11-Dec-21	210	210 28-Nov-21	25-Jun-22	0%	0%	-196	-196	-114					<b>*</b>	
	MPR30.1.13.5.3 OSD - Custom Clearance and Inland Transport (Last Module)	07-Sep-20	01-Jan-22	482	793   13-Aug-20 A	01-Jan-23	4.37%	3.7%	25	-365	-188						7
	MPR30.1.13.5.3.1 OSD 1 - MP50 to MP53 (320m)	07-Sep-20	20-Nov-20	75	240 13-Aug-20 A	27-Jun-21	31.87%	26.95%	25	-219	99				<del></del>		
	MPR30.1.13.5.3.2 OSD 2 - MP69 to MP75 (683m)	17-Nov-20	17-Aug-21	274	334 09-Jun-21	08-May-22	0%	0%	-205	-264	194				· · · · · · · · · · · · · · · · · · ·	<del></del>	
	MPR30.1.13.5.3.3 OSD 3 - MP75 to MP81 (770m)	21-Dec-20	01-Jan-22	377	329 27-Jan-22	21-Dec-22	0%	0%	-402	-354	-272						`
	MPR30.1.13.5.3.4 OSD 4 - MP124 to MP128 (560m)	19-Jul-21	06-Dec-21	141	121 22 231 21	01-Jan-23	0%	0%	-103	-391	-188				: ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;		7::::::::::::::::::::::::::::::::::::::
	<u> </u>	07-Oct-20	16-Feb-22	337		28-Feb-23	0%	0%	-20	-317	<u>-156</u>						
	MPR30.1.13.5.4.1 OSD 1 - MP50 to MP53 (320m)	07-Oct-20	11-Jan-21	80	202 0. 00. 20	06-Nov-21	0%	0%	-20	-172	15				Y : : : : : : : : : : : : : : : : : : :	/:::::::::::::::::::::::::::::::::::::	
	MPR30.1.13.5.4.2 OSD 2 - MP69 to MP75 (683m)	17-Dec-20	13-Oct-21	252		06-Jun-22	0%	0%	-172	-198	-128				· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	<u></u>
	MPR30.1.13.5.4.3 OSD 3 - MP75 to MP81 (770m)	20-Jan-21	16-Feb-22	329		11-Feb-23	0%	0%	-337	-303	-255					<u> </u>	<u> </u>
	MPR30.1.13.5.4.4 OSD 4 - MP124 to MP128 (560m)	18-Aug-21	04-Feb-22	142		28-Feb-23	0%	0%	-85	-327	-156						
	<u> </u>	11-Jun-19	15-Mar-22	608		29-May-23	0%	0%	-444	-370	-210						
	MPR30.1.13.5.5.1 OSD 1 - MP50 to MP53 (320m)	21-May-20	26-Feb-21	157		15-Sep-22	0%	0%	-458	-396	-227						
	MPR30.1.13.5.5.2 OSD 2 - MP69 to MP75 (683m)	11-Jun-19	24-Dec-21	542		19-Aug-22	0%	0%	-444	-200	-150				· · · · · · · · · · · · · · · · · · ·		<u></u>
	MPR30.1.13.5.5.3 OSD 3 - MP75 to MP81 (770m)	07-Jan-21	10-Mar-22	279	319 07-Mar-22	20-Mar-23	0%	0%	-275	-315	-267						
	MPR30.1.13.5.5.4 OSD 4 - MP124 to MP128 (560m)	05-May-21	15-Mar-22	185	,	29-May-23	0%	0%	-240	-370	-210					· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
N	PR30.1.13.6 Post Erection Segmental Stitch Concrete (incl. Bearing Installation and Prest	24-Apr-19	10-Mar-22	644		07-Sep-23	0%	0%	-159	-460	<mark>-296</mark>			• : : : : : :			
	MPR30.1.13.6.1 Stitch Concrete - Sewri Interchange	24-Apr-19	10-Mar-22	644	575 E5 Mai E1	07-Sep-23	0%	0%	-429	-460	-296						
		29-Nov-19	22-Dec-21	475	704 01-Feb-20 A	03-Jun-23	0%	0%	-54	-443	-437						
		21-Oct-19	26-Feb-22	563	695 23-Feb-21	01-Sep-23	0%	0%	-332	-464	-291						
N	PR30.1.13.7 Crash Barrier Works	05-Oct-19	11-Mar-22	585	779 01-Dec-20	18-Sep-23	0%	0%	-274	-468	-305				:		
	<del>_</del>	05-Oct-19	11-Mar-22	585		18-Sep-23	0%	0%	-429	-468	-305				<u>: : : : : : :</u>		· · · · · · · · · · · · · · · · · · ·
	MPR30.1.13.7.2 Crash Barrier - Intertidal	17-Dec-19	04-Jan-22	470	077 07 200 20	15-Jun-23	0%	0%	-214	-443	-257				: <b>V</b>		· · · · · · · · · · · · · · · · · · ·
		26-Nov-19	09-Mar-22	541		11-Sep-23	0%	0%	-332	-464	-303						
	<u> </u>	23-Dec-20	10-Mar-22	291	286 11-Jun-22	19-May-23	0%	0%	-371	-366	-207				<u> </u>		· · · · · · · · · · · · · · · · · · ·
N	PR30.1.13.8 Bridge Deck (Superstructure) Water Proofing	15-Oct-19	16-Mar-22	581	774 12-Dec-20	23-Sep-23	0%	0%	-276	-469	310				· · · · · · · · · · · · · · · · · · ·		
	<u> </u>	15-Oct-19	14-Mar-22	579		23-Sep-23	0%	0%	-429	-471	-310				<u> </u>		
	MPR30.1.13.8.2 Water Proofing - Intertidal	28-Dec-19	10-Jan-22	465	07.1 12 200 20	21-Jun-23	0%	0%	-214	-443	-230						<u> </u>
	MPR30.1.13.8.3 Water Proofing - Marine	18-Dec-19	14-Mar-22	526	658 22-Apr-21	15-Sep-23	0%	0%	-332	-464	-303						<u> </u>
		11-Jan-21	16-Mar-22	281		25-May-23	0%	0%	-362		-207						
N	PR30.1.13.9 Stone Mastic Asphalt Pavement	23-Dec-21	22-Mar-22	74	366 20-Jul-22	29-Sep-23	0%	0%	-177	-469	371						
		+	21-Mar-22	70		29-Sep-23	0%	0%	-393	-470	371						<u> </u>
		23-Dec-21	22-Mar-22	74	360 20-Jul-22	22-Sep-23	0%	0%	-177	-463	-423						
	PR30.1.13.10 Bridge Anclilaries and Misc. Works	31-Jan-20	22-Jun-22	575		06-Dec-23	0%	0%	-214	-446	-371						
		31-Jan-20	22-Jun-22	575		06-Dec-23	0%	0%	-214		-371				<u> </u>		
	MPR30.1.13.10.1.1 Noise Barrier, View Barrier and Safety Fence		26-May-22	552		23-Nov-23	0%	0%	-214		-360				· · · · · · · · · · · · · · · · · · ·		
	MPR30.1.13.10.1.2 Traffic Signages and Marking			84	94 16-Aug-23	06-Dec-23	0%	0%	-436	-446	-371						V
	R30.1.15 Handing Over	31-Mar-22	<u> </u>	148		05-Mar-24	0%	0%	-436	-447	448						
MP	R30.1.14 Invoice Schedule (Shows the Invoice items which are not covered in the above C	23-Mar-18	22-Sep-22	1062	1509 23-Mar-18 A	05-Mar-24	60.1%	32.74%	0	-447	448 V : : : :						

Manufaci Tarana Haribaran Linda Darisa da Oranda da Darana a Dana ad Na 44 ( lad Orand 2000)
Mumbai Trans Harbour Link Project - Quarterly Progress Report No.14 (Jul-Sept 2020)
Attachment 7 Deckers No Construction Dressrooms
Attachment 7- Package-2's Construction Programme
Undeted as an 25th Contambar 2020
Updated as on 25 <sup>th</sup> September 2020

### ANNEXURE-5 CONSTRUCTION UPDATED PROGRAMME (PACKAGE-2)

T TOUVIL	ity ID Activity Name	Original BL ProjectStart  Duration	BLProjectFinis	sh Actual Start	Actual Finish	Schedule % Performanc Complete % Complete	e   2018   2019   2020   2021   2022 e   DJF   4   JJAS   N JF   4   JJAS     JF   4   JJAS   DJF   4   JJAS   N JJ   4   J   2 3456789111111111111122222222222233333333333344444444
1 /	MTHL-PKG2-DETAILED WORK PROGRAMME_25092020_APPROVED_MPR.3	3097.17 17-Nov-17	21-Sep-24	17-Nov-17		53.6% 23.969	
2	PROJECT PRE-COMMENCEMENT ACTIVITY	126.00 17-Nov-17	22-Mar-18	17-Nov-17	16-Mar-18	0% 09	6 THE PROPERTY OF THE PROPERTY
3	PRE-COMMENCEMENT ACTIVITY	55.00 15-Dec-17	07-Feb-18	15-Dec-17	20-Mar-18	0% 0%	6 ▼──▼ 20-Mar-18A, PRE-ÇOMMENÇEMENT/ACTIVITY:
4	JV FORMATION AND REGISTRATION	55.00 15-Dec-17	07-Feb-18	15-Dec-17	20-Mar-18	0% 0%	6 NEGISTRATION 201-Mar-18A, JV FORMATIONAND REGISTRATION
5	PROJECT EVENT MILESTONE	2421.50 23-Mar-18	21-Mar-23	23-Mar-18		0% 09	6
6	PROJECT KEY MILESTONE	2241.50 23-Mar-18	22-Sep-22	23-Mar-18		0%	
	INTERFACE MILESTONE_ERG19	2393.50 19-Apr-18	21-Mar-23	03-Apr-18		0% 09	<mark></mark>
	PHYSICAL PROGRESS AND INTERFACE DATE_ADD2-ATTACHMENT 25	1983.50 18-Sep-18	22-Jun-22	31-Aug-18		0% 09	
_	CONSTRUCTION KEY MILESTONES	972.34 03-Sep-18	06-Jul-21	25-Oct-18	22 4 10	0% 09	22-Aug-19A, MANAGEMENT
_	MANAGEMENT	613.00 20-Jan-18	18-Aug-18	12-Jan-18	22-Aug-19		0 6♥ 07-Mar-18A, SITE ORGANISATION
	SITE ORGANISATION	35.00 20-Jan-18 613.00 20-Jan-18	23-Feb-18 27-May-18	07-Mar-18 20-Jan-18	07-Mar-18 22-Aug-19	0% 0%	6 : → V/-IVIBIT-10A, STE CINGATINDA TIDIN 6 : ▼ 22-Aug-19A, DEVELOPMENT OF MANAGEMENT SYSTEM
3	DEVELOPMENT OF MANAGEMENT SYSTEM  COUMMUNICATION/DOCUMENT CONTROL SYSTEM	315.38 20-Jan-18	10-May-18	20-Jan-18	24-Oct-18	0% 09	elbertinie Gelicitinie Gelicitinium (Adolus Gelicitinis Adolus Gelicitica
4	QUALITY ASSURANCE AND MANAGEMENT SYSTEM	254.00 23-Mar-18	10-May-18	23-Mar-18	24-Oct-18	0% 0%	Oblant 1808 attitution at 1805 in the Control of th
5	HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEM	551.00 23-Mar-18	10-May-18	23-Mar-18	22-Aug-19	0% 0%	6 Value of the Continue of the
3	INTERFACE MANAGEMENT SYSTEM	49.00 23-Mar-18	10-May-18	23-Mar-18	24-Oct-18	0% 09	6
7	RISK MANAGEMENT PLAN	66.00 23-Mar-18 63.00 23-Mar-18	27-May-18 24-May-18	23-Mar-18 23-Mar-18	24-Oct-18 21-Sep-18	0% 0%	
	DEVELOPMENT OF WORK PROGRAMME  CONTRACTOR'S WORK PROGRAMME	63.00 23-War-18	24-Way-16 24-May-18	23-War-18	21-Sep-18	0% 09	21-Sep-18A, CONTRACTOR'S WORK PROGRAMME
	OTHER CONTRACTUAL SUBMITTALS	28.00 24-Mar-18	20-Apr-18	24-Mar-18	23-Apr-18	0% 0%	6 : : 🖢 23-Apr-18'A,OTHER CONTRACTUAL SUBMITTALS : : : : : : : : : : : : : : : : : : :
_	PERMIT & APPROVAL	389.00 20-Jan-18	18-Aug-18	12-Jan-18	03-Aug-19	0% 09	6 PPROVAL
2	SURVEYING & GEOTECHNICAL INVESTIGATION	35.00 20-Jan-18	23-Feb-18	12-Jan-18	09-Feb-18	0% 09	6 Taz 09-Feb-18.A, SURVEYING & GEOTECHNICAL INVESTIGATION
	CUTTING OF MANGROVES	70.00 20-Jan-18	30-Mar-18	25-Jan-18	23-Apr-18	0% 09	23-Apr-18A, CUTTING OF MANGROVES
	SETTING UP BATCHING PLANT	313.00 06-Apr-18	18-Aug-18	06-Apr-18	28-Nov-18	0% 09	6 YELL 28-Nov-18A, SETTING UP BATCHING PLANT 7 01-Odt-18A, PCYARD'& OAMP
-11-	PC YARD & CAMP  CONNECTION FOR ELECTRICITY & WATER	28.00 04-May-18 63.00 18-May-18	01-Jun-18 20-Jul-18	21-Mar-18 06-Apr-18	01-Oct-18 03-Aug-19	0% 0%	
-111-	CUTTING OF TREES	35.00 23-Mar-18	26-Apr-18	10-May-18	02-Aug-18	0% 0%	02-Aug+18A, CUTTING OF TREES
	IMPORT PERMITS/LICENCES FOR EQUIPMENTS & GOODS	70.00 23-Mar-18	31-May-18	15-May-18	31-May-18	0% 09	31-May+18A, MPORT PERMITS/LICENCES FOR EQUIPMENTS & GOODS
	NOC FOR PLANT & FACLITIES TO BE USED AT SITE	51.00 23-Mar-18	31-May-18	16-Aug-18	28-Nov-18	0% 09	28-Nov-18A, NOCFOR PLANT & FACILITIES TO BE USED AT SITE
-	TEMPORARY ACCESS ROAD FOR MAIN BRIDGE & INTERCHANGE	58.00 23-Mar-18 1139.00 20-Jan-18	19-May-18 04-Sep-19	23-Mar-18 01-Jan-18	28-Jul-18	0% 09 100% 1009	28-Jul-18A, TEMPORARYAÇCESS ROAD FOR MAIN BRIDGE & INTERCHANGE  23-Dec-20, DESIGN
	DESIGN						
	EARLY STAGE DESIGN WORK / INFORMATION COLLECTION  INDEPENDENT DESIGN CHECKER APPROVAL	678.38 20-Jan-18 35.00 20-Jan-18	17-Jul-18 23-Feb-18	01-Jan-18 20-Jan-18	12-Nov-19 13-Apr-18	100% 100%	<u> </u>
-11-	TOPOGRAPHIC SURVEY	35.00 20-Jan-16 116.33 20-Jan-18	16-May-18	01-Jan-18	20-Apr-18	0% 0%	20-Apr-18A, TOPOGRAPHICSURVEY
	BATHYMETRIC SURVEY	75.00 20-Jan-18	04-Apr-18	25-Jan-18	20-Mar-18	0% 0%	20-Mat-18A,BATHYMETRIC SURVEY
	ADDITIONAL TIME FOR ONGC & BPCL PHYSCIAL VERIFICATION	309.00		21-Mar-18	05-Aug-19	0% 0%	6 VIII TIME FOR ONGC & BPCL PHYSCIAL VERI
-11-	GEOTECHNICAL INVESTIGATION	548.08 20-Jan-18	17-Jul-18	12-Jan-18	25-Jun-19	100% 100%	
_	ADDITIONAL WORKS FOR DESIGN INITIATION OF STEEL MODULE 1 TEMPORARY WORK	63.00 1037.17 22-Jan-18	01-Nov-18	26-Jun-19 20-Jan-18	12-Nov-19 20-Aug-20	0% 09 100% 1009	Light of the state
_	PROJECT OFFICE LAYOUT	241.13 04-May-18	02-Jun-18		17-Jul-18	0% 09	17-Jul-18A, PROJECT OFFICE LAYOUT
-111-	CASTING YARD LAYOUT	72.33 22-Jan-18	04-Apr-18	20-Jan-18	09-Oct-18	0% 0%	09-Oct-18A, ÇASTING YARD LAYOUT
	TEMPORARY BRIDGE	94.33 26-Feb-18	31-May-18	24-Feb-18	30-Aug-18	100% 1009	6 Value 18A, TEMPORARY BRIDGE
	CASTING YARD STRUCTURE	199.38 10-May-18	10-Aug-18	20-Mar-18	20-Nov-18	0% 09	6
_	STEEL BRIDGE FABRICATION YARD CONCRETE MIX DESIGN	365.17   20-Jul-18 274.38   23-Mar-18	01-Nov-18 31-Aug-18	11-Nov-19 12-May-18	20-Aug-20 15-Nov-18	0% 0%	
	JFE DESIGN PROGRAMME	274.38 23-Wai-18 1037.67 01-May-18	04-Sep-19	09-Apr-18	10-1404-10	100% 100%	<mark>-  </mark>  -  -  -  -  -  -  -  -  -  -  -  -  -
_	PROCUREMENT, MANUFACTURING AND LOGISTICS	1305.38 20-Jan-18	23-Aug-20	22-Dec-17		100% 100%	
	SURVEY & INVESTIGATION	72.33 20-Jan-18	02-Apr-18	22-Dec-17	04-Apr-18	0% 09	6 V——▼:04-Apr-18A, SURVEY,&INVESTIGATION
3	TOPOGRAPHIC SURVEY AGENT	21.00 20-Jan-18	02-Apr-18	01-Jan-18	22-Jan-18	0% 0%	▼ 22-Jan-18A,TOPOGRAPHIC SURVÉYAGENT
-11-	BATHYMETRIC SURVEY / UTILITY SURVEY AGENT	21.00 20-Jan-18	09-Feb-18	01-Jan-18	23-Jan-18	0% 0%	23-Jan-18/A,BATHYMETRICSURVEY/UTILITYSURVEYAGENT
	GEOTECHNICAL INVESTIGATION AGENCY	48.00 22-Jan-18	02-Apr-18	22-Dec-17	04-Apr-18	0% 09	6 VELLY 104-Apr-18A, GEOTECHNICAL INVESTIGATION AGENCY
	TEMPORARYWORK	964.33 20-Jan-18	20-Oct-18	20-Jan-18	11-May-20	0% 09	6 11-May 20 A, TEMPORARY WORK
_	MAIN WORK_SUBCONTRACT WORK	903.25 23-Mar-18	20-Jul-19	23-Mar-18		0% 09	°         <del>                             </del>
	EQUIPMENTS	1067.00 23-Mar-18	12-Sep-19	23-Mar-18		100% 100%	6 : · · · · ▼ · · · · · · · · · · · · · ·
-11-	BATCHING PLANT  RCD MACHINE	437.00 23-Mar-18 514.00 23-Mar-18	31-Jul-18 11-Nov-18	23-Mar-18 23-Mar-18	23-Mar-19 24-Aug-19	0% 0%	6 <b>1 2 2 3 Mai-19</b> A;BATCHING PLANT 6 <b>1 2 3 3 Mai-19</b> A;BATCHING PLANT 6 <b>1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 </b>
-11-	GANTRY CRANE	514.00 23-War-18 1067.00 23-War-18	08-Feb-19	23-Mar-18	24-Aug-19	100% 100%	
	SEGMENT LAUNCHER	770.41 24-Jul-18	12-Sep-19	24-Jul-18	09-Mar-20	0% 09	6 21-Feb-21; GANTRY CRANE 09-Mar-20A, SEGMENT LAUNCHER
							Dota Desiries Chester Assessed
	Project Baseline Bar Critical Remaining Work Summary	EMPLOYER:				<b>CONTRACTOR:</b>	Date Revision Checked Approved
	Actual Work ♦ Milestone	MUMBAI METROPOLITAN REG	ION DEVELO	PMENT AUTH	HORITY	DAEWOO - TPL	TV 25-Sep-20 R0
	• • • • • • • • • • • • • • • • • • • •	(MMRDA)			1	DALWOO-IIL	JV

# 4	Activity ID Activity Name	Original BL Project Start Duration	BL Project Fini	ish Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	
59	PRECAST MOULD AND SYSTEM FORM	714.91 07-Aug-18	24-Mar-19	04-Sep-18	25-Sep-20	100%	100%	25-Sep-20A, PRECAST MOULDAND SYST
60	PRECAST MOULD_CASTING BED	332.00 20-Aug-18	24-Mar-19	03-Jun-19	25-Sep-20	100%		25-Sep-20 A, PRECAST MOULD_CASTING 31-Aug-20 A, SYSTEM FORM
61 62	SYSTEMFORM MATERIAL SUPPLIERS	446.91 07-Aug-18 1028.38 02-Jun-18	04-Mar-19 15-Oct-19	04-Sep-18 20-Apr-18	31-Aug-20	0%		3 Aug-20A, 3131 EMPCAN
63	MATERIAL PROCUREMENT	0.00	10 000 10	08-Aug-18		0%		25-Sep-20, MATERIAL PROCUREMENT
64	TEMPORARY BRIDGE	0.00		08-Aug-18	15-Feb-20	0%	0%	15-Feb-20 A TEMPORARY BRIDGE
65	PERMANENT WORKS	0.00	00.4	25-Mar-19		0%		25-Sep-20, PERMANENT WORKS:  ▼ 08-Feb-21, PROCUREMENT OF S
66 67	PROCUREMENT OF STEEL GIRDER  STEEL PLATE FOR (RHS.STEEL MOUDLE-2 MP177 - MP182)	673.00 07-May-19 513.00 04-Jun-19	23-Aug-20 13-Jul-20	01-Aug-19 08-Aug-19	02-Jul-20	0%		02-Jul-20'A, STEEL PLATE FOR (RHS.STEEL MC
68	STEEL PLATE FOR (LHS.STEEL MOUDLE-2_MP177 - MP182)	438.00 07-May-19	16-Apr-20	01-Aug-19	12-May-20	0%		12-May-20 A, STEEL PLATE FOR (LHS STEEL MOU
69	STEEL PLATE FOR (RHS.STEEL MOUDLE-3_MP183 - MP186)	315.00 01-Jul-19	10-May-20	01-Nov-19	17-Aug-20	0%	0%	17;Aug-20A, STEEL PLATE FOR (RHS STEEL
70	STEEL PLATE FOR (LHS.STEEL MOUDLE-3_MP183 - MP186)	315.00 04-Jun-19	14-Apr-20	01-Oct-19		0%		7 (01-Oct-20), STEEL PLATE FOR (LHS.STEE
71 72	STEEL PLATE FOR (RHS.STEEL MOUDLE-1_MP176 - MP171)  STEEL PLATE FOR (LHS.STEEL MOUDLE-1_MP176 - MP171)	286.00 30-Jul-19 327.00 02-Jul-19	23-Aug-20 26-Jul-20	01-Apr-20 29-Mar-20		0%		04-Jan-21, STEEL PLATE FOR (LHS
73	IMPACT OF COVID-19	50.67	Zo dai Zo	22-Mar-20	25-May-20	0%		, 25-May-20A; MPACTOF COVID-19
74	CONSTRUCTION	2153.21 02-Apr-18	21-Jun-22	02-Apr-18		51.83%	21.49%	
75	TEMPORARYWORK	2123.21 02-Apr-18	21-Jun-22	02-Apr-18		97.95%	97.88%	
76	PREPARATION WORK	368.33 02-Apr-18	16-Jan-19	02-Apr-18	25-Jul-19	0%		25-Jul-19A, PREPARATION WORK
77	ESTABLISHMENT OF EMPOLYER & CONTRACTOR OFFICE	194.04 20-Jun-18	27-Nov-18	27-Jun-18	18-Jan-19	100%	100%	18-Jan-19A, ESTABLISHMENT OF EMPOLYER & CONTRACTOR OFFICE
78 79	ESTABLISHMENT OF LABOUR CAMP  ESTABLISHMENT OF CONCRETE CASTING YARD	463.92 20-Jun-18 1054.00 04-May-18	05-Apr-19 25-Apr-19	03-Jul-18 14-Jun-18	04-Apr-19	0% 100%	0% 99.84%	04-Apr-19A, ESTABLISHMENT OF LABOUR CAMP.
80	ESTABLISHMENT OF CONCRETE CASTING YARD  ESTABLISHMENT OF STEEL SPAN ASSEMBLY YARD	1054.00 04-way-18 454.17 02-Nov-18	25-Apr-19 06-Mar-20	01-Nov-19		0%		24-May-21, ESTABLISHME
81	TEMPORARY BRIDGE	2070.88 20-May-18	21-Jun-22	27-Jul-18		96.49%	96.49%	
82	PERMANENT WORK	1886.21 03-Sep-18	24-May-22	08-Dec-18		45.8%	11.5%	
83	PRE-FABRICATION AND ASSEMBLY	1090.29 18-Apr-19	19-Feb-22	16-Oct-19		29.36%	7.94%	
84 85	CONCRETE PRE-FABRICATIONAT THE CASTING YARD  STEEL SPAN FABRICATIONAT THE SUPPLIER'S WORK SHOP INCLUDING LOGISTIC	633.38 18-Apr-19 981.38 02-Jun-19	15-Sep-21 24-Jan-22	06-Nov-19 16-Oct-19	+	59.7% 24.06%	5.57% 8.78%	
86	STEEL GIRDERASSEMBLY AT THE CONTRACTOR'S ASSEMBLY YARD	522.63 05-Sep-20	17-Feb-22			2.22%	0%	
87	STEEL SPAN LOADING AND TRANSPORTING TO THE ERECTION AREA	433.00 30-Sep-20	19-Feb-22			0%	0%	
88 89	MAIN BRIDGE MAIN BRIDGE FOUNDATION	1886.21 03-Sep-18 1281.21 03-Sep-18	24-May-22 23-Mar-21	08-Dec-18 08-Dec-18	+	55.35% 74.27%	15.64% 43.57%	
90	MAIN BRIDGE PICE FOUNDATION	1178.14 03-Sep-18	23-Mai-21 23-Jan-21	08-Dec-18		90.15%	59.06%	<b>y</b> 17-Mar
91	PILE LOAD TEST	259.25 03-Sep-18	19-Nov-18	08-Dec-18	11-Nov-19	100%	100%	
92	MAIN BRIDGE PILE FOUNDATION_LAND 17+414~18+187 FROM MP250 TO MP266	322.99 30-Nov-18	15-May-19	17-Jan-19	11-Jun-20	100%	100%	11-Julni 20 A, MAIN BRIDGE PILE FOUNDATION, LV
93 94	MAIN BRIDGE PILE FOUNDATION_CRZ 15+890~17+414 FROM MP226 TO MP250  MAIN BRIDGE PILE FOUNDATION_INTERTIDAL 14+800~15+890 FROM MP206 TO MP225	268.00 20-Dec-18 417.08 27-Feb-19	27-Nov-19 06-Jun-20	12-Jun-19 15-Oct-19	21-Feb-20 26-Aug-20	100% 100%	100% 100%	26-Aug-20 A, MAIN BRIDGE PILE:FOUNDATIO
95	MAIN BRIDGE PILE FOUNDATION_MARINE 13+610~14+800 FROM MP187 TO MP205	532.06 12-Dec-19	28-Nov-20	01-Oct-19	20 / lug 20	81.67%	29.36%	17-Mar
96	MAIN BRIDGE PILE FOUNDATION_MARINE (STEEL) 11+880~13+610 FROM MP171 TO MP186	518.24 27-Nov-19	23-Jan-21	17-Mar-20		61.47%	14.78%	28-Oct-21 MAIN
97 98	MAIN BRIDGE PILE FOUNDATION_MARINE 10+380~11+880 FROM MP146 TO MP170  MAIN BRIDGE PILE CAP INSTALLATION	585.13 24-Nov-18 1014.13 22-Dec-18	28-Dec-19 23-Mar-21	19-Feb-19 01-May-19		100% 57.68%	24.82% 27.41%	,
99	MAIN BRIDGE PILE CAP BOTTOM SLAB INSTALLATION	980.13 22-Dec-18	17-Feb-21	19-Aug-19		0%	0%	
100	MAIN BRIDGE PILE CAP INSTALLATION	998.13 27-Dec-18	23-Mar-21	01-May-19		57.68%	27.41%	s
101	MAIN BRIDGE PILE CAP_LAND 17+414~18+188 FROM MP251 TO MP266	376.96 27-Dec-18	13-Jun-19	01-May-19	27-Jun-20	100%	100%	27-Jun-20A, MAIN BRIDGE PILE CAP_LAND 17+
102 103	MAIN BRIDGE PILE CAP_CRZ 15+890~17+414 FROM MP226 TO MP250  MAIN BRIDGE PILE CAP_INTERTIDAL 14+800~15+890 FROM MP206 TO MP225	328.33 04-Mar-19 199.00 18-Apr-19	08-Jan-20 05-Sep-20	28-Aug-19 29-Jan-20	19-Sep-20	100% 100%	100% 40.38%	19-06-12-1, WAIN BRIDGE PILE
104	MAIN BRIDGE PILE CAP_MARINE 13+610~14+800 FROM MP187 TO MP205	394.00 01-Feb-20	06-Jan-21	13-Jan-20		62.09%	4.76%	
105	MAIN BRIDGE PILE CAP_MARINE (STEEL) 11+880~13+610 FROM MP171 TO MP186	368.34 20-Jan-20	23-Mar-21			7.2%		04-Ar
106	MAIN BRIDGE PILE CAP_MARINE 10+380~11+880 FROM MP146 TO MP170	263.00 03-Jan-19	17-Feb-20	04 Nove 40		100%	0% 8.44%	27-Qd:21;MAIN
107 108	MAIN BRIDGE SUB-STRUCTURE  MAIN BRIDGE PIER INSTALLATION	1043.21 09-Jan-19 1016.29 09-Jan-19	24-Sep-21 28-Jul-21	04-Nov-19 04-Nov-19		80.48% 81.14%	13.88%	· · · · · · · · · · · · · · · · · · ·
109	MAIN BRIDGE PIER_LAND 17+414~18+188 FROM MB251 TO MB266	375.04 09-Jan-19	08-Nov-19	06-Nov-19		100%	10.68%	14;Nov-20;MAIN BRIDGE PIER;LAND 1
110	MAIN BRIDGE PIER_CRZ 15+890~17+414 FROM MB226 TO MB250	367.33 26-Mar-19	06-Feb-20	04-Nov-19		100%	61.83%	02-Aρr-21, MAIN BRIDGE PIER
111 112	MAIN BRDIGE PIER_INTERTIDAL 14+800~15+890 FROM MB206 TO MB225  MAIN BRIDGE PIER_MARINE 13+610~14+800 FROM MB187 TO MB205	451.98 11-May-19 217.00 19-Mar-20	16-Oct-20 18-Feb-21	10-Feb-20		95.7% 52.48%	4.55% 0%	,
113	MAIN BRIDGE PIER_MARINE (STEEL) 11+880~13+610 FROM MB171 TO MB186	409.34 17-Feb-20	28-Jul-21			21.13%		
114	MAIN BRIDGE PIER_MARINE 10+380~11+880 FROM MB146 TO MB170	269.00 07-Feb-19	13-Mar-20			100%	0%	, <b>Vallinining</b> 25-Nov-21, MA
115	MAIN BRIDGE PIER CAP INSTALLATION	774.13 08-Feb-19	27-Aug-21	25-Feb-20		78.21%	2.08%	
116 117	MAIN BRIDGE PIER CAP_LAND 17+414~18+188 FROM MB251 TO MB266  MAIN BRDIGE PIER CAP_CRZ 15+890~17+414 FROM MB226 TO MB250	52.31 08-Feb-19 244.25 19-Apr-19	23-Nov-19 25-Feb-20	25-Feb-20		100% 100%	0% 11.11%	
118	MAIN BRIDGE PIER CAP_INTERTIDAL 14+800~15+890 FROM MB206 TO MB225	446.98 06-Jun-19	05-Nov-20	20100-20		89.53%	0%	
119	MAIN BRIDGE PIER CAP_MARINE 13+610~14+800 FROM MB187 TO MB205	203.00 23-Apr-20	10-Mar-21			43.22%	0%	·
120	MAIN BRIDGE PIER CAP_MARINE (STEEL) 11+880~13+610 FROM MB171 TO MB186	378.34 30-Apr-20	27-Aug-21			18.72%	0%	
	Project Baseline Bar Critical Remaining Work Summary	EMPLOYER:				CONTRACT	OR:	Date Revision Checked Approved
	Actual Work ♦ Milestone	MUMBAI METROPOLITAN REGIO	ON DEVELO	PMENT AUTH	HORITY	DAEWOO	O - TPL J	JV 25-Sep-20 R0
	Remaining Work % Complete	(MMRDA)						

3 of 3

Mumbai Trans Harbour Link Project - Quarterly Progress Report No.14 (Jul-Sept 2020)	
Attachment 9 Deckers 2's Construction Dressessmen	
Attachment 8- Package-3's Construction Programme	À
Updated as on 25 <sup>th</sup> September 2020	

	odate as on 25th Sep'20	TDI 4 Ot :	lni 4 E. · ·	DI 4100 -	Timin'	A - 11 - 14 - 07	Caba I I A/I		edule Layout	A-4-1-1-1-0-1		040 (	D:		30-Sep-20 18
D	Activity Name	BL1 Start	BL1 Finish	BL1 Start Duration	Finish	Activity % Complete	Schedule % Complete	Performance % Complete	Budgeted Total Cost	Actual Total Cost	Schedule Performance Index	Cost Performance Index	Planned Valu Co		Det O O O O O O O O O O O O O O O O O O O
ITHL Pkg 3 Co	nstruction Schedule Sep'2	23-Mar-18	21-Sep-21	969 23-Mar-18 A	11-Jul-23		91.79%	40.05%	Rs10,135,349,233	Rs2,855,346,745	0.44	1.46	Rs9,580,368,70	5 Rs4,180,047,2	
	f Mumbai Trans Harbour Li	23-Mar-18	21-Sep-21	969 23-Mar-18 A	11-Jul-23		91.79%	40.05%	Rs10,135,349,233	Rs2,855,346,745	0.44	1.46	Rs9,580,368,70	5 Rs4,180,047,2	29
t	Commencement Date (CD)			0 23-Mar-18 A		100%	0%	100%	Rs0	Rs0	0.00	0.00	Rs	:0 R	80
Physical Milesto	nes	18-Sep-18	21-Sep-21	1099 30-Oct-20	11-Jul-23		0%	0%	Rs0	Rs0	0.00	0.00	Rs	0 R	eso V
■ KD1002	KD 2 [NOC for technical design c	17-Dec-18	17-Dec-18	0 29-Dec-20	29-Dec-20	0%	100%	0%	Rs0	Rs0	0.00	0.00	Rs	0 R	ls0   KD 2 [NOC for technical design doc & drawing for foundatio
KD1003	KD 3 [NOC for Good for construc	15-Jun-19	15-Jun-19	0 04-Feb-21	04-Feb-21	0%	100%	0%	Rs0	Rs0	0.00	0.00	Rs	0 R	80 1 KD 3 [NOC for Good for construction drawing for foundat
KD1004	KD 4 [Substantial completion of	21-Mar-20	21-Mar-20	0 03-Nov-21	03-Nov-21	0%	100%	0%	Rs0	Rs0	0.00	0.00	Rs	0 R	80 1 KD 4 [Substantial completion of fou
KD1005	KD 5 [Substantial completion of	19-Sep-20	19-Sep-20	0 18-Dec-21	18-Dec-21	0%	100%	0%	Rs0	Rs0	0.00	0.00	Rs	0 R	ts0 I KD 5 [Substantial completion of
KD1006	KD 6 [Substantial completion sur	20-Mar-21	20-Mar-21	0 24-Dec-22	24-Dec-22	0%	0%	0%	Rs0	Rs0	0.00	0.00	Rs	0 R	ks0
KD1007	KD 7 [Substantial completion of	24-Jul-21	24-Jul-21	0 03-Jun-23	03-Jun-23	0%	0%	0%	Rs0	Rs0	0.00	0.00	Rs		80
■ KD1008	KD 8 [Final completion & handing		21-Sep-21	0 11-Jul-23	11-Jul-23	0%	0%	0%	Rs0	Rs0	0.00	0.00			850
■ KD1001	KD1 [Construction programme, c		18-Sep-18	0 30-Oct-20	30-Oct-20	0%	100%	0%	Rs0	Rs0	0.00	0.00			80 (KD1 [Construction programme, completion of Soil Investigation
Financial Milesto		18-Sep-18	21-Sep-21	1099 23-Mar-18 A	11-Jul-23	4000/	0%	0%	Rs0	Rs0	0.00	0.00			80
■ FM1010	Completion of the works amount		22-Mar-19	0 23-Mar-18 A	31-Jan-20 A 22-Mar-20 A	100% 100%	100% 100%	100% 100%	Rs0	Rs0 Rs0	0.00	0.00			ts0 by works amounting to 25% of the Accepted Contract Amount ts0 of the works amounting to 40% of the Accepted Contract Amount
FM1020	Completion of the works amounti  Completion of the works amounti		23-Sep-19 21-Mar-20	0 23-Mar-18 A		100%	100%	100%	Rs0 Rs0	Rs0	0.00	0.00			
FM1030				0 23-Mar-18 A	31-May-20 A	100%	100%	100%		Rs0					tion of the works amounting to 50% of the Accepted Contract Amount
FM1000 FM1040	Completion of the works amounti  Completion of the works amounti		18-Sep-18 21-Mar-21	0 23-Mar-18 A 0 21-Mar-21	31-Jul-19 A 08-Oct-21	0%	0%	0%	Rs0 Rs0	Rs0	0.00	0.00	Rs Rs		ts0 Inting to 7% of the Accepted Contract Amount  S0 Completion of the works amounting to
FM1060	Final Completion and Handing ov		21-Wai-21 21-Sep-21	0 08-May-22	11-Jul-23	0%	0%	0%	Rs0	Rs0	0.00	0.00			Completion of the works amounting to
■ FM1050	Substantial completion of all Wo	21-Sep-21 24-Jul-21	21-Sep-21 24-Jul-21	0 09-Oct-21	24-Mar-22	0%	0%	0%	Rs0	Rs0	0.00	0.00			ls0 Substantial completion o
Interface Mileston		17-Dec-18	06-Mar-21	810 25-Sep-20	24-Ivial-22 24-Dec-22	078	0%	0%	Rs0	Rs0	0.00	0.00	Rs		
Document Subm		23-Mar-18	06-May-18	45 06-Apr-18 A	30-Sep-19 A		100%	100%	Rs74.992.895	Rs74,992,895	1.00	1.00			<mark>~~</mark>
_	gation / Land Handover	19-Apr-18	18-Sep-18	152 23-Mar-18 A	25-Sep-20		0%	0%	Rs0	Rs0	0.00	0.00	,,	,,-	ts0 25-Sep-20, Employer's Obligation / Land Handover
ROW 75 Ha [CI	<u> </u>	19-Apr-18	18-Sep-18	152 23-War-18 A	25-Sep-20		0%	0%	Rs0	Rs0	0.00	0.00			SO 25-Sep-20, ROW 75 Ha [CD +180 days]
	.16 Ha [CD+120 days]	20-Jul-18	20-Jul-18	0 20-Dec-18 A	21-Dec-18 A		0%	0%	Rs0	Rs0	0.00	0.00			\$0 ays]
	(Sch 01- General Item)	20-Aug-18	16-Sep-21		06-Apr-22		92.44%	88.16%	Rs142,351,965	Rs125,502,765	0.95			9 Rs125,502,7	
	f Employer office	20-Aug-18	11-Dec-18	90 30-May-19 A	31-Oct-19 A		100%	100%	Rs112,791,965	Rs112,791,965	1.00	1.00	Rs112,791,96	5 Rs112,791,9	65 pn of Employer office
Facility		12-Dec-18	16-Sep-21	1010 25-Jan-19 A	06-Apr-22		63.57%	43%	Rs29,560,000	Rs12,710,800	0.68	1.00	Rs18,791,74	4 Rs12,710,8	30 √ 06-Apt-22, Facility
Survey & Geoted	chnical Investigation Works	19-Apr-18	22-Oct-18	130 19-Apr-18 A	30-Oct-20		100%	95.75%	Rs242,300,773	Rs181,725,579	0.96	1.28	Rs242,300,94	5 Rs232,003,1	62 7 30-Oct-20, Survey & Geotechnical Investigation Works
Topographical	<del></del>	19-Apr-18	22-Oct-18	130 19-Apr-18 A	25-Sep-20		100%	99.85%	Rs0	Rs0	1.00	0.00			09 25-Sep-20, Topographical Survey
	nvestigation work	17-May-18	17-Sep-18	78 10-Sep-18 A			100%	95.75%	Rs242,300,773	Rs181,725,579	0.96		Rs242,300,83		
Design Works		07-May-18	14-Jun-19	313 25-Apr-18 A			100%	84.18%	Rs159,122,500	Rs133,070,219	0.84			0 Rs133,946,3	
Design Basis F Preliminary De	<u> </u>	07-May-18 02-Jul-18	30-Jun-18 25-Aug-18	48 25-Apr-18 A 23 26-Jul-18 A	08-Dec-18 A 25-Sep-20		100% 100%	100% 80%	Rs0 Rs286,875	Rs0 Rs286,875	1.00 0.80	0.00			
	nterpretative Report Submission & GC		08-Oct-18	28 07-Dec-18 A	03-Nov-20		100%	91%	Rs0	Rs0	0.80	0.00			<u> </u>
Plan & Profile	<del></del>	06-Jun-18	14-Aug-18	41 23-Feb-19 A	29-Sep-20		100%	80%	Rs0	Rs0	0.80	0.00			
Superstructure	Design	16-Aug-18	26-Feb-19	155 20-Aug-18 A	10-Mar-21		100%	73.17%	Rs85,075,000	Rs61,541,313	0.73	1.01	Rs85,075,14	4 Rs62,253,2	13 10-Mair-21, Superstructure Design
Foundation & P	Pier	05-Oct-18	14-Jun-19	211 06-Nov-18 A	04-Dec-20		100%	98.27%	Rs28,434,375	Rs27,721,406	0.98	1.01			87 7 04-Dec-20, Foundation & Pier
Abutment & Fo	undation	15-Oct-18	16-Jan-19	78 31-Dec-18 A	13-Aug-20 A		100%	100%	Rs0	Rs0	1.00	0.00			81 3-Aug-20 A; Abutment & Foundation
Pier Cap		24-Oct-18	10-May-19	166 11-Jan-19 A			100%	98.7%	Rs0	Rs16,200,000	0.99	0.00			<u></u>
Bearings & Dra Pavement Desi		17-Nov-18 01-Jul-18	03-Apr-19 27-Aug-18	115 21-Jan-19 A 24 15-Oct-18 A			100%	100%	Rs18,005,625 Rs27,320,625	Rs16,200,000 Rs27,320,625	0.90 1.00		Rs18,005,62	5 Rs16,200,0	00
Procurement Wo		12-Sep-18	08-Jun-21	788 15-Feb-19 A			94.32%	48.67%	Rs1,387,160,466	Rs67,750,370	0.52			5 Rs820,182,9	44
For Main Bridg		12-Sep-18	08-Jun-21	788 15-Feb-19 A			89.1%	11.59%	Rs877,933,218	Rs50,891,469	0.13			1 Rs101,783,1	
For Road Work		04-Apr-19	13-Jan-21	497 01-Mar-19 A			77.86%	29.07%	Rs0	Rs0	0.37	0.00	Rs32	7 Rs1	
Imported Procu	urement	22-Jan-19	10-Aug-19	170 04-Dec-19 A			100%	89%	Rs509,227,248	Rs16,858,901	0.89			8 Rs718,399,6	85
	brication & Manufracturing Works	27-Sep-18	10-Feb-20	394 21-Feb-19 A			100%	0%	Rs390,605,953	Rs0	0.00		Rs390,606,72		
Permanent Wo		27-Sep-18	06-Jan-20	364 21-Feb-19 A			100%	0%	Rs390,605,953	Rs0			Rs390,606,18		
Permanent Wo		22-Oct-18	10-Feb-20	374 25-Feb-19 A			100%	44.44%	Rs0	Rs0					
Construction Wo		20-Jul-18 20-Jul-18	23-Jul-21 01-Jul-19	844 26-Sep-18 A 271 26-Sep-18 A			93.28%	39.25% 49.56%	Rs7,060,913,657	Rs2,252,304,916 Rs0	0.42	0.00		1 Rs2,772,665,8	
	on Activity  (Open Foundation, Pier, Pier Cap)	20-Jul-18 08-Dec-18	07-Jul-19 07-Nov-20	539 30-Sep-18 A	<del></del>		98.56%	49.56% 55.75%		Rs1,891,417,708	0.50			5 Rs2 8 Rs1,891,417,7	
Super Structure		27-Feb-19	12-Apr-21	601 11-Sep-19 A			86.92%	6.12%	Rs1,408,927,165	Rs71,264,634	0.07			2 Rs86,205,5	
	pansion Joints	03-Aug-20	12-Apr-21	201 06-Aug-22			9.8%	0%	Rs10,454,697	Rs0			Rs1,024,97		<u> </u>
	ries & Miscellaneous Item	12-Aug-20	23-Jul-21	274 25-Dec-21	02-Jun-23		6.85%	0%	Rs180,921,987	Rs0	0.00		Rs12,398,79		80
RE Wall		27-Feb-19	18-Feb-21	557 30-Nov-20	08-Oct-22		97.5%	0%	Rs461,687,248	Rs0			Rs450,167,53		<mark>s0</mark> ; <b>√</b> ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; , ; ; , √ ; 08-Qct-2
Road Work		20-Apr-19	18-May-21	587 16-Feb-19 A			96.75%	49.42%	Rs1,608,667,400	Rs289,622,574	0.51			5 Rs795,042,3	
Completion of In		19-Sep-20	06-Mar-21	141 25-Sep-20	24-Dec-22		0%	0%	Rs0	Rs0	0.00	0.00			so v 24
Provisional Sum		23-Apr-18	23-Aug-21	924 30-Nov-18 A	26-May-23		59.4%	3.05%	Rs677,901,024	Rs20,000,000	0.05	1.04			
Testing & Comm	issioning Works	26-Jul-21	20-Sep-21	32 03-Jun-23	10-Jul-23		0%	0%	Rs0	Rs0	0.00	0.00	Rs	U R	<mark>ls0  </mark>

Mumbai Tr	ans Harbour Link Project	- Quarterly Progress	Report No.14 (Jul-Sept 2020)
	Attachment 9- P	Proiect Progr	ress Photos
		<b>,</b>	



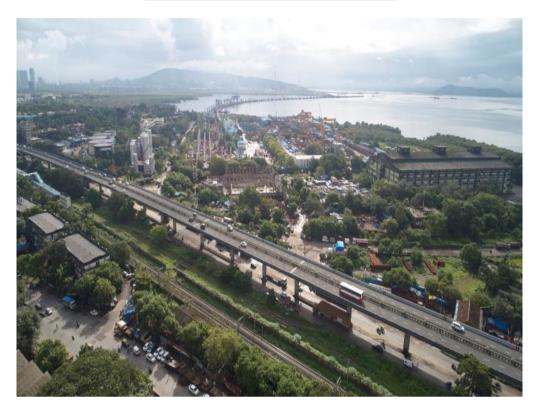


Photo No. 1: High altitude view of MTHL - Package-1



Photo No. 2: LG-2 Erection - Intertidal Section in progress



Photo No. 3: MP 43 Pile Cap Bottom Reinforcement Inspections - Intertidal in progress



Photo No. 4: AP 39 Pile Cap Concreting in progress

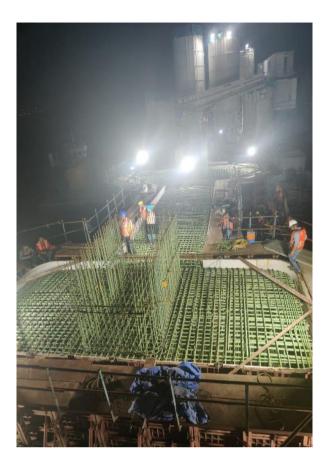


Photo No. 5: MP 108 Pile Cap pre-pour inspection in progress



Photo No. 6: Trial Assembly of OSD Girder Bridge P1-OS04-NG (Lot6) / Seg. 28~32 in Vietnam in progress



Photo No. 7: Transportation of OSD Girder Bridge P1-OS01-NG Package to Port for Shipment-3 in progress

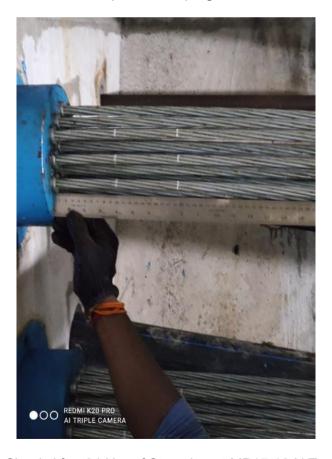


Photo No. 8: Slip Check After 24 Hrs of Stressing at MP17-18 N Tendons in progress

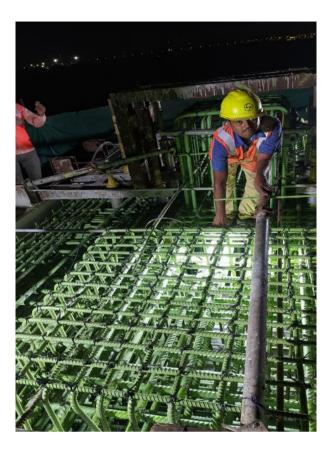


Photo No. 9: MP 19 N Pier Cap Pre-Pour checking in progress

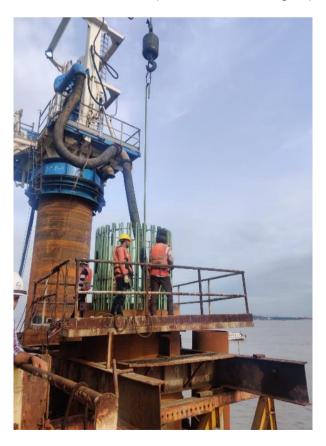


Photo No. 10: MP 126 N2 Top Cage Welding - Marine Area in progress

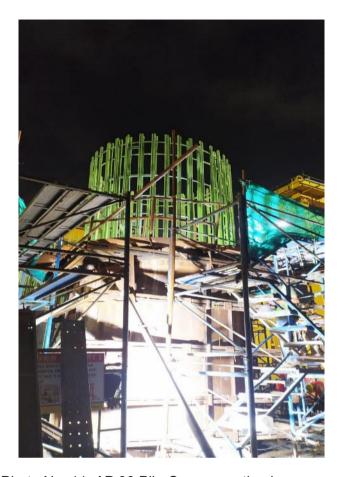


Photo No. 11: AP 39 Pile Cap concreting in progress



Photo No. 12: MP-19 N Pier Head Segment Erection - Intertidal Section in progress



Package 2 - Site Progress Photos

Photo No. 1: Pile drilling at MP 202 LHS in progress



Photo No. 2: Pile Cap Reinforcement Works at MP 216 RHS in progress



Photo No. 3: Pile concreting at MP 181 LHS in progress



Photo No. 4: Pier Cap bottom formwork preparatory works at MP 241 LHS and RHS in progress



Photo No. 5: Segment Reinforcement Cage Works at Bay-1 in progress



Photo No. 6: Pier Formwork fixing at MP 265 LHS in progress



Photo No. 7: Pier Cap concreting at MP 243 LHS in progress

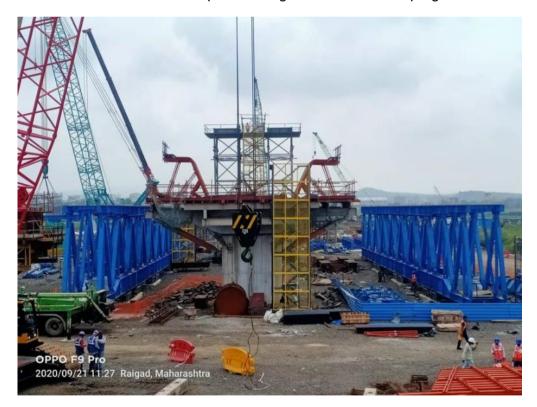


Photo No. 8: LG assembling works in progress



Photo No. 9: Pier final lift concreting at MP 206 RHS in progress



Photo No. 10: Pile Cap curing Works at MP 212 LHS and RHS in progress



Photo No. 11: Pile Cap concreting at MP 212 RHS in progress

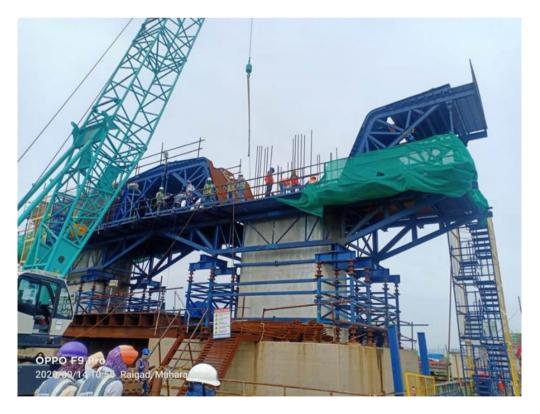


Photo No. 12: Pier Head Segment Reinforcement Works in progress at MP 237 LHS in progress





Photo No. 1: Foundation RP-38 (Chirle) concrete pouring completed



Photo No. 2: JMP-10 (Chirle) Pier reinforcement inspection completed



Photo No. 3: MPP12 Pier concrete pouring in progress



Photo No. 4: LP-06 (Jasai) Pier Cap Pre-pour inspection completed



Photo No. 5: LP06 Pier cap concrete pouring in progress



Photo No. 6: JMP02 (Jasai) Pier Cap concreting in progress



Photo No. 7: Pier Cap PMP-08 (Chirle) Pre-pour inspection completed



Photo No. 8: RMP 281 Pier Cap concrete pouring in progress



Photo No. 9: A View taken from RMP 281 Pier



Photo No. 10: RP 03 Portal Pier Cap reinforcement in progress



Photo No. 11: LMP A2 Abutment Foundation concrete pouring in progress



Photo No. 12: Staging Arrangement for Cast in-situ voided slab of span MJP-7 to 8 (Chirle) in progress



## Mangrove and Marine Biodiversity Conservation Foundation of Maharashtra

(An Autonomous Body under Revenue & Forests Department, Government of Maharashtra) 302, 3<sup>rd</sup> Floor, Wakefield House, Above Britannia & Co. Restaurant, Ballard Estate, Fort, Mumbai – 400 001.

Phone: 022 - 22694984 / 22694985, email id: ad.finance.mfn@gmail.com / mangrovefn@gmail.com

MFN/2020-21/262

Date: 04-12-2020

To.

**Executive Engineer** 

Mumbai Metropolitan Region Development Authority

Bandra Kurla Complex, Bandra (E)

Mumbai - 400051

Subject: Regarding Expenditure status on implementation of Mangrove & Marine Biodiversity Conservation Plan, Nature Interpretation Centre and Corpus Funds referred in MTHL Project

#### Reference:

- 1. Letter from this office Letter no. MFN/Finance/105/2020-21 dated 11-09-2020
- 2. Letter from your office Letter no. ED/MTHL/CCF Mangroves/Master Conservation Plan/Status/20/PIU-MTHL dated 07-09-2020

With reference to the above subject and referred letters, the information on expenditure status on implementation of Master Plan by Mangrove Foundation for the FY 2017-18, FY 2018-19 and FY 2019-20 is as follows. The detailed Expenditure Report has been enclosed in Annexure – I.

		MMRDA	Expenditure (in Rs. Lakhs)					
	Particulars	Funds Budget	FY 2017-18	FY 2018-19	FY 2019-20	Total		
1	Mangrove Protection Framework	2,296	0.06	43.13	300.35	343.55		
2	High Resolution Mapping of Mangrove Forests Of MMR	200	-		•	-		
3	Mangrove Conservation/Removal of Stressors	300	-	~	-	-		

(Ex	Total Expenditure cluding Corpus Funds)	6,131	11.92	53.48	300.35	365.75
	Total	8,631	2,511.92	53.48	300.35	2,865.75
11	Corpus fund to Mangrove Foundation  As per the mandate of the Mangrove Foundation, this Corpus Fund cannot be expended and has been kept in Fixed Deposit. The interest generated on it is utilized for implementation of the objectives of the Mangrove Foundation	2,500	2,500.00	-		2,500.00
10	Mangrove and Marine Ecosystem Interpretation Centre	1,000	¥	-		
9	Mangrove Sanctuary	460	11.86	10.35	<b>₹₩</b>	22.21
8	Generation of Knowledge Base	100	-	-	н	-
7	Policy Interventions	-	-	#	त् <b>ज</b> र	-
6	Mangrove Research and Training Centre	1,675	-	90	.5	Ę
5	Creeklet Drainage Assessment	100	×	1		/ 🛍
4	Community Driven Sustainable Management of Mangrove Forests	<b>3</b>		,		Æ

Your office is requested to record these facts and advice this office for further action, if any.



Virendra Tiwari Executive Director Mangrove Foundation

## **Enclosures:**

- 1. Utilization Certificates
- 2. Annexure I Expenditure Report till FY 2019-20

		e Usu	Component / Sub- component	Particulars	MMRDA Funds Budget	FY 2017-18	Expenditure (i FY 2018-19	FY 2019-20	Total
1	1A	1	Component	Mangrove Protection Framework					
1	1A	1A	Sub-component	Protective Wall Construction At Areas Which Are Likely To Get Encroached	1,225		43.13	257.49	300.62
1	1B	1B	Sub- component	Board Walks/ Promenads/ Joggers Path In Selected Critical Areas	500	3	25		
1	10	1C	Sub- component	Mangrove Stations	260	0.06	-	32.41	32.48
1	1D	1D	Sub- component	Mangrove Watch Towers	185			10.45	10.45
1	1E	1E	Sub- component	Centralised Wireless Station and Sub-stations and Protection Gear For- Field Staff This setup can be integrated with in Mangrove Stations. No infrastructure charges have been calculated here	126	Ķ	1	- 4	
1	1F	1F	Sub- component	Mangrove Legal Cell			*	а	
1	1G	16	Sub- component	Mangrove Intelligence And Protection Network			=	-	- 4
				Sub Total	2,296	0.06	43.13	300,35	343,55
T .				High Resolution Mapping Of Mangrove Forests Of MMR					
2	2A	2	Component		200				
2	2A	2A	Sub- component	Analysis Of High Resolution Maps Of Mangrove Forests Of MMR	200				
	100	108		Sub Total	200		Lower Park		
3	ЗА	3	Component	Mangrove Conservation/Removal Of Stressors					
3	за	зА	Sub-component	Developing Mangrove Park	100	ă	÷	<b>(4)</b>	
3	38	3B	Sub- component	Protection Elevation Appropriate IUCN Category Or Other Protection Status	<b>9</b> 7	•	5	88	
3	3C	3C	Sub- component	Mangrove Nurserles	a)		ž	(60	
3	3D	3D	Sub- component	Removal Of Non- Mangrove Flora	200	92	*	6	
3	3E	3E	Sub- component	Removal Of Garbage from Mangrove Forests Collaboration to be Established with BMC	248	* <b>*</b>			. 2
3	3F	3F	Sub- component	Mangrove Plantation INR 2.5 Lacks Per Hectare For 5 Years	-34				
				Sub Total	300				
4	4	4	Component	Community Driven Sustainable Management Of Mangrove Forests				17. EL 3	
4	4A	4A	Sub- component		(2)		**************************************		*
4	4B	4B	Sub-component	Education For Sustainable Develonment In Schools Collaboration to be		Tim's	2		
4	40	4C	Sub- component	Electronic Media Campaign and Public Private Community Partnership(PPCP) Collaborations with Print Media, Electronic Media	(45)		R	35	
				and Digital Networks Sub Total					
0.0						Mary in the VI			100
5	5A	5	Component	Creeklet Drainage Assessment					
5	5A	5A	Sub-component	Drainage Model Generation This management Intervention will be done in Selected Areas and Later on will be Up-scaled by the Mangrove Cell	100				
100				Sub Total	100				

Executive Director

Mangrove and Marine Biodiversity

Conservation Foundation of Maharashtra

						, I	Expenditure (ir	Rs. Lakhs)	
			Component / Sub- component	Particulars	MMRDA Funds Budget	FY 2017-18	FY 2018-19	FY 2019-20	Total
Ų.	6A	6	Component	Mangrove Research And Training Centre					115
5	6A	6A.	Sub- component	Hardware	1,000		•:	**	
5	6B	6B	Sub- component	Software	675	-	*	34	
A.				Sub Total	1,675				
7	7A	7	Component	Policy Interventions					
7	7A	7A	Sub-component	Environment Rehabilitation Tax Restricted to Areas where Infrastructure has been Built or is Supposed to be Built		- I	* 1	-	+
7	7B	7B	Sub- component	Mangrove and Coastal Zone Crime Control Bureau			*		1 2
W.				Sub Total	•				
									*:
9	8A	8	Component	Generation Of Knowledge Base					WELL IN
8	8A 8A Sub- component to be Established with Mangrove Foundation		Permanent Plots For Long Term Ecosystem Monitoring Collaboration to be Established with Mangrove Foundation				<b>a</b> 5= <sup>H</sup>		
3	88	88	Study Of The Pressures On Mangrove Ecosystem In MMR Collaboration  Sub-component to be Established with Mangrove Foundation		100		3	¥.	
8	8C	8C	Sub- component	Mangrove Field Guide Collaboration to be Established with Mangrove Foundation				2:	
8	8D	BD	Sub- component	Assessment Of Ecosystem Services Provided By Mangrove Collaboration to be Established with Mangrove Foundation		9.1	:		
				Sub Total	100				eagle.
000		1		P					4
)	9	9	Component	Mangrove Sanctuary	460	11.86	10.35		22.2
a W				Sub Total	460	11.86	10.35		22,2
10	10	10	Component	Mangrove And Marine Ecosystem Interpretation Centre	1,000		100		
				Sub Total	1,000		*		
			,						
10	10	10	Component	Corpus fund to Mangrove Foundation As per the mandate of the Mangrove Foundation, this Corpus Fund cannot be expended and has been kept in Fixed Deposit. The interest generated on it is utilized for implementation of the objectives of the Mangrove Foundation	2,500	2,500.00			2,500.0
							live and a second		
	103			Grand Total	8,631	2,511.92	53.48	300.35	2,865.7

Executive Director

Mangrove and Marine Biodiversity

Conservation Foundation of Maharashtra

### ANNEXURE XVI

# FORM GFR 19-A [See Government of India's Decision (1) under Rule 150]

## **Utilization Certificate**

## Mangrove and Marine Biodiversity Conservation Foundation of Maharashtra

Sr. No	Letter No. & Date	Amount	Particulars
1	Executive Director Mangrove and Marine Biodiversity Conservation Foundation of Maharashtra Letter No. MFN/2020-21/ dated	2500 Lakhs	Certified that Rs. 2500 Lakhs received towards Corpus Fund of the Mangrove Foundation from Mumbai Metropolitan Region Development Authority as referred in MTHL Project is utilized and being treated as Corpus Funds of the Mangrove Foundation from FY 2017-18.
	Total	2500 Lakhs	Expenditure / Funds transferred are Rs. 2500 Lakhs and balance is Rs. 0.

Certified that I have satisfied myself that the conditions on which the grants-in aid was sanctioned have been duly fulfilled/are being fulfilled and that I have exercised the due deligent checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Mumbal

**Executive Director** 

Mangrove and Marine Biodiversity
Conservation Foundation of Maharashtra
& Additional Principal Chief Conservator of Forest
Mangrove Cell, Mumbai

#### ANNEXURE XVI

#### FORM GFR 19-A

[See Government of India's Decision (1) under Rule 150]

## **Utilization Certificate**

## Mangrove and Marine Biodiversity Conservation Foundation of Maharashtra

Sr. No	Letter No. & Date	Amount	Particulars
1	Executive Director, Mangrove and Marine Biodiversity Conservation Foundation of Maharashtra Letter No. MFN/2020-21/ dated	6131.00 Lakhs	Certified that out of Rs. 6131.00 Lakhs (Non-Corpus Funds) received from Mumbai Metropolitan Region Development Authority as referred in MTHL Project Rs. 365.75 Lakhs has been expended and till FY 2019-20 and balance is Rs. 5765.25 Lakhs
	Total	6131.00 Lakhs	Expenditure / Funds transferred are 365.75 Lakhs and balance is Rs. 5765.25 Lakhs

Certified that I have satisfied myself that the conditions on which the grants-in aid was sanctioned have been duly fulfilled/are being fulfilled and that I have exercised the due deligent checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Executive Director

Monoon

Mangrove and Marine Biodiversity
Conservation Foundation of Maharashtra
& Additional Principal Chief Conservator of Forest
Mangrove Cell, Mumbai