



MUMBAI RAIL VIKAS CORPORATION LTD.

MUMBAI, INDIA

SOCIAL IMPACT ASSESSMENT (SIA)

**TRESPASS CONTROL IN MID-SECTION ON
SUBURBAN SYSTEM OF MUMBAI
UNDER MUMBAI URBAN TRASPOT PROJECT – III (MUTP-III)**



**Mumbai Railway Vikas Corporation Ltd.,
2nd floor, Churchgate Station Building,
Church gate, Mumbai – 400 020, India.**



Social Impact Assessment Report - Trespass
Control in Mid-section on Suburban System of
Mumbai at 36 locations
for

PREPARATORY SOCIAL MANAGEMENT ACTIVITIES FOR
MUTP-III PROJECTS

MUMBAI RAILWAY VIKAS CORPORATION LTD.

May 2019

Prepared by **Voyants Solutions Pvt. Ltd.**

**ABBREVIATIONS**

CR	CENTRAL RAILWAY
ENC	ENCROACHER
GOM	GOVERNMENT OF MAHARASHTRA
IBRD	INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
IDA	INTERNATIONAL DEVELOPMENT ASSOCIATION
IR	INDIAN RAILWAY
LTH	LEGAL TITLE HOLDER
MMR	MUMBAI METROPOLITAN REGION
MMRD A	MUMBAI METROPOLITAN REGIONAL DEVELOPMENT AUTHORITY
MRVC	MUMBAI RAILWAY VIKAS CORPORATION LTD
MUTP	MUMBAI URBAN TRANSPORT PROJECT
NAINA	NAVI MUMBAI AIRPORT INFLUENCE NOTIFIED AREA
RKM	ROUTE KILO METER
ROB	RAIL/ROAD OVER BRIDGE
SC	SCHEDULED CASTE
SQTR	SQUATTER
ST	SCHEDULED TRIBE
WHH	WOMAN HEADED HOUSEHOLD
WR	WESTERN RAIL WAY



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1 INTRODUCTION

1.1 The Project

Mumbai, the financial capital of India is expected to witness phenomenal growth in population and employment. The job opportunities offer have served as a major attraction for immigration from hinterland of Maharashtra as well as from all parts of the Country. Mumbai Metropolitan Region (MMR) extending over an area of 4,355 sq.km. MMR is assessed to have population and employment in the year 2031 as 34.0 million and 15.3 million respectively.

Four-fold growth of population since 1951 has been largely accommodated in the suburbs while the highest concentration of jobs has remained in the Island City. The physical characteristics of the City are such that the suburbs have been constrained to spread northwards only, and all transport facilities are concentrated within three narrow corridors. The Mumbai Urban Transport Project -III, will enable faster economic growth of Navi Mumbai Airport Influence Notified Area (NAINA), Boisar and Palghar.

It will provide job opportunities to thousands of citizens who will be able to commute faster, save time to go to workplace. The project also aims to create a rail network which will complement the ongoing Metro lines, and thereby provide end-to-end solution to commuters.

Mumbai Railway Vikas Corporation (MRVC) in Phase-III of MUTP has engaged Voyants Solutions Private Limited through a Letter of Award (LoA) dated 12.12.2016, Letter No. MRVC/RFP/W/MUTP-3/SM/Eval, for the Study of “Preparatory Social Management Activities for MUTP-III Projects”. The contract agreement has been executed vide CA No. MRVC/RFP/W/MUTP-3/SM/2016/101(R) dated 30.12.2016.

The project comprises of Quadrupling (3rd and 4th Lines) of Virar-Dahanu Road section admeasuring 63 Rkm on Western Railway, Double line corridor on Panvel-Karjat section admeasuring 28 Rkm on Central Railway, Elevated Corridor link between Airoli-Kalwa admeasuring 3 Rkm on Central Railway, Trespass Control in Mid-section on suburban system of Mumbai and Procurement of additional rolling stock comprising of 565 EMU cars (47 rakes of 12 car rakes).

Four-fold growth of population since 1951 has been largely accommodated in the suburbs while the highest concentration of jobs has remained in the Island City. The physical characteristics of the City are such that the suburbs have been constrained to spread northwards only, and all transport facilities are concentrated within three narrow corridors

Today’s major challenge is to provide connectivity and promote growth by providing adequate inputs to the infrastructure which would improve the quality of life of the residents.

Mumbai Metropolitan Region Development Authority (MMRDA) has been striving to strengthen the mass transport network and improve the travel quality i.e. Mumbai Urban Transport Project (MUTP) was setup as a continuation of the Bombay Urban Transport Project (BUTP) under which Mumbai Railway Vikas Corporation Ltd. (MRVC) a joint venture of



Ministry of Railways and Govt. of Maharashtra was set up for implementation of rail related projects.

MUTP Phase I projects had been completed in 2011-12. Works under MUTP Phase II are under progress and MUTP Phase III has been sanctioned by Union Cabinet in November 2016. World Bank loan has been availed under MUTP Phase I and Phase II and proposed for Phase III as well. The present consultancy is pertaining to MUTP Phase III Project.

Further to MUTP III, a fast corridor on Harbour Line connecting CST and Panvel and new suburban lines between Virar to Panvel are envisaged. While the new double line corridor proposed between Virar-Panvel would facilitate introduction of suburban services in this potential-growth area, the additional tracks with fast running air conditioned trains in CSTM-Panvel would be an option for the existing and upcoming developments. These services will also facilitate better connectivity to proposed International Navi Mumbai Airport.

Thus, MUTP will ensure better and faster commute for over 7.6 Million suburban commuters in the MMR. MUTP-III aims to improve suburban network in the Mumbai Metropolitan Region (MMR) by completing a bouquet of rail projects within five to six years. The Project is aimed to:

- Integrate suburban rail capacity enhancement plans with urban development plan for Mumbai and propose investments.
- Implement the rail infrastructure projects in Mumbai suburban sections.
- Enhance commuter safety by implementing trespass control measures
- Enhance quality of travel by improved EMU rakes
- Improve connectivity between corridor avoiding interchange by providing Airoli Kalwa rail link

1.2 Background of MUTP-III

Western Railway is running suburban services on the existing busy double line between Virar-Dahanu Road which is a part of main line Mumbai-Ahmedabad-Delhi route. Main line is already over saturated and there is no scope for supplementing suburban services on this line. Construction of additional two lines (3rd and 4th lines) between Virar-Dahanu Road will address the demand of commuters in this region. This will provide extension of suburban services from Churchgate to Dahanu Road. Panvel-Karjat double line suburban corridor will cater to the significant urbanization and population growth in recent years in this area. This will also provide alternate route from Karjat to CSTM via Panvel which will be shorter by 23 Km than the existing route via Kalyan and will reduce travel time between CSTM to Karjat by 25 to 30 minutes by slow trains.

Presently, passengers commuting from Kalyan to Vashi/Panvel or in reverse direction, have to get down at Thane and take Trans Harbour link. This results in congestion at Thane which is already a busy saturated station on Central Railway. Airoli-Kalwa corridor will reduce



congestion at Thane station and will also save time as these passengers can travel bypassing Thane. Procurement of new coaches will enhance the quality of service and reduce congestion. The works proposed under trespass control at 36 locations shall significantly reduce trespass and will provide safer environment for the public. The areas covered by this project are Thane, Palghar, Raigad and Mumbai districts of Maharashtra.

MUTP III is also proposed to be funded by World Bank as was the case for MUTP I and MUTP II.

The MMRDA is the coordinating agency and is responsible for implementation of the resettlement component on behalf of all the implementing agencies.

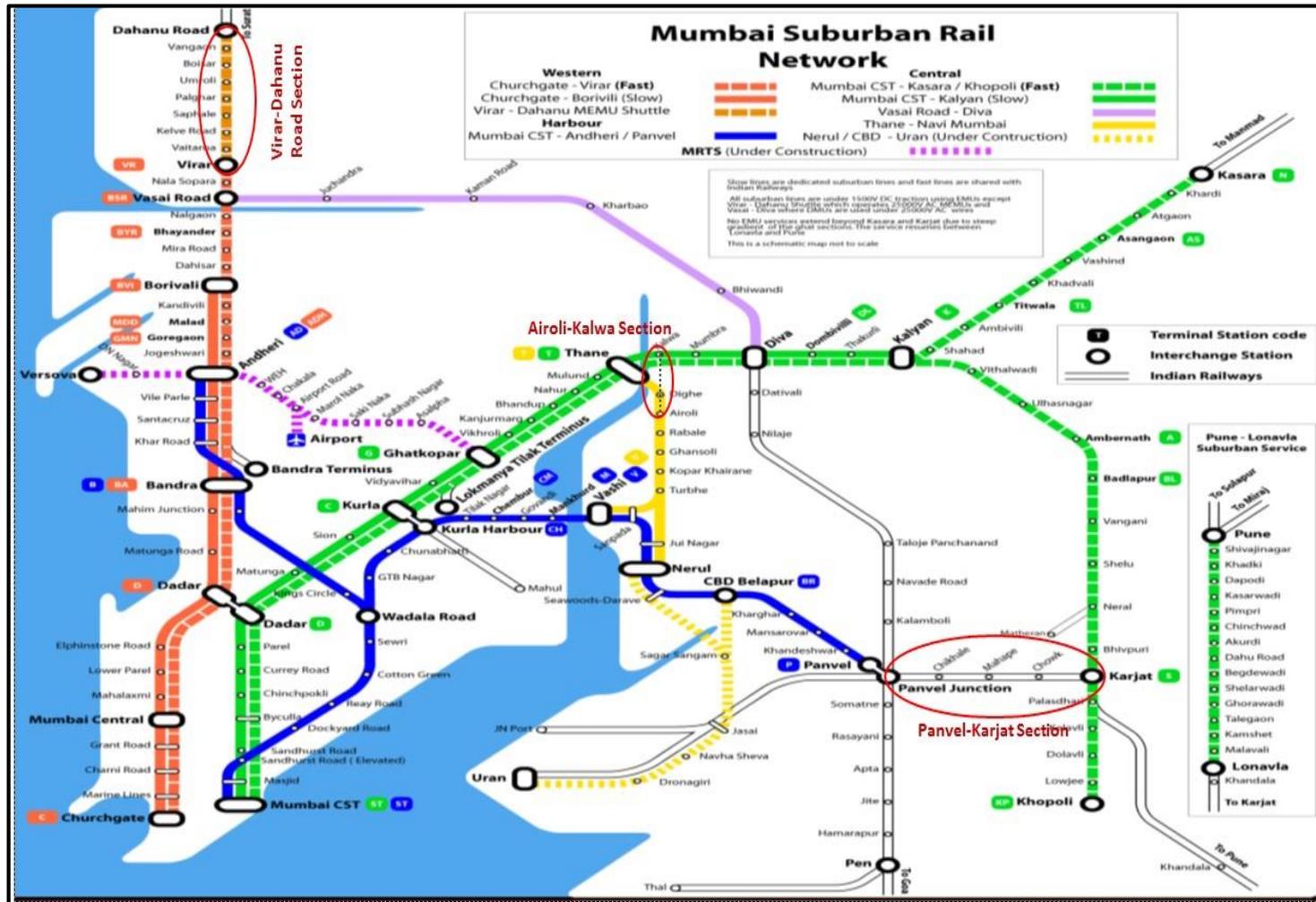


Figure 1:1: Mumbai Rail Network and Proposed Project Section



The Mumbai suburban railway network on Central and Western Railways has 376 route Kms. There are five corridors, two on Western Railway, two on Central Railway and one on Harbour Line of Central Railway. Everyday approximately 7.6 million people travel in suburban section in more than 2900 train services. There is severe overcrowding in the suburban trains specially during peak hours. Due to geographical constraints, spread of the population and location of business areas, the rail network will continue to be the principal mode of mass transport in Mumbai. To meet the demands of the ever growing commuter traffic, new suburban corridor between Panvel-Karjat (28 Rkm), new elevated corridor between Airoli-Kalwa (3 Rkm), quadrupling of Virar-Dahanu Road (63 Rkm), procurement of 565 new coaches and trespass control measures in mid sections have been included in Mumbai Urban Transport Project (MUTP)- Phase III.

1.3 Purpose of the Project

The purpose of MUTP III is to expand suburban rail network up to Dahanu by constructing 3rd and 4th line between Virar-Dahanu (63Rkm), double line between Panvel-Karjat section (28Rkm) and elevated corridor between Airoli-Kalwa (3Rkm) section. The project's development objective is to improve the passenger carrying capacity, operational efficiency, level of comfort and the institutional capacity of entities involved in the suburban rail system of Mumbai Metropolitan area.

Accordingly, its performance will be monitored through the following indicators:

- a) additional capacity in vehicle-km during peak hours,
- b) reduction in trespassing deaths,
- c) reduction in journey times,
- d) operational efficiency: reduction in energy consumption, and
- e) institutional strengthening: carrying out technical assistance studies.

1.4 Basic Objective

Basic objective of the project are:

- To facilitate urban economic growth and improve the quality of life of the citizens of Mumbai by developing an efficient and sustainable urban transport system, including effective institutions, to meet the needs of users in the Mumbai Metropolitan Region (MMR);
- The Mumbai Urban Transport Project – III will enable faster economic growth of Navi Mumbai Airport Influence Notified Area (NAINA), Boisar and Palghar;
- It will provide job opportunities to thousands of citizens who will be able to commute faster, save time to go to workplace. The project also aims to create a rail network which will complement the ongoing Metro lines, and thereby provide end-to-end solution to commuters;
- For Mumbai Kars, the MUTP-III at a cost of INR 11,000 crores has now been sanctioned and the work will be completed by 2022. The project involves Quadrupling



of Virar-Dahanu Road, new suburban corridor from Panvel to Karjat and an elevated suburban corridor from Kalva to Airoli;

- The development of rail network on these three corridors will act as a catalyst for economic development of the area. Mumbai has become commercial and financial capital of the country due to availability of a robust suburban rail network in the city.
- With the implementation of MUTP-III Projects, 300 additional suburban services can be introduced.
- To reduce trespass and provide safer environment for the public

1.5 Overview of Existing Mumbai Suburban Railway

- The Suburban Railway System in Mumbai is the most complex, densely loaded and intensively utilized system in the world.
- It has the highest passenger density in the world – 7.6 million commuters travel every day.
- Two zonal Railways, Western Railway (WR) and Central Railway (CR), operate the Mumbai Suburban Railway System
- It is spread over an expanse of 319 route km.
- The suburban services are run by Electric Multiple Units (EMUs)
- Over 230 EMU rakes of 12-car & 15-car composition are utilized to run more than 2900 train services. Mumbai Suburban Railway consists of exclusive inner suburban railway lines augmented by commuter rail on main lines serving outlying suburbs to serve the Mumbai Metropolitan Region.
- Due to its extensive reach across the Mumbai Metropolitan Region, and its intensive use by the local urban population, the Mumbai Suburban Railway suffers from some of the most severe overcrowding in the world.

For Mumbai-kars, the MUTP-III at a cost of about INR 11,000 crores has been sanctioned and the work will be completed by 2022. The project involves Quadrupling of Virar-Dahanu Road, new suburban corridor from Panvel to Karjat and an elevated suburban corridor from Airoli to Kalva.

With the implementation of MUTP-III Projects, 300 additional suburban services can be introduced. It will also involve construction of 96 km double line suburban corridors and procurement of 47 new EMU rakes.

1.6 Activities

1.6.1 Components of Proposed Project

The project has 5 components as indicated below. AIIB funding is sought for Components a, b and d.

- a) Quadrupling (3rd & 4th lines) of Virar-Dahanu Road section admeasuring 63 RKm on Western Railway.



- b) Double line corridor on Panvel-Karjat section admeasuring 28 RKm on Central Railway.
- c) Elevated corridor link between Airoli-Kalwa admeasuring 3 RKm on Central Railway.
- d) Trespass control in Mid-section on suburban system of Mumbai at 36 locations.
- e) Procurement of additional rolling stocks comprising 565 EMU cars (47 rakes of 12 car rakes).

1.6.2 Project Description

A total of 36 Mid-Section Trespass Control locations have been proposed in the entire suburban sections of Central and Western Railways. The major trespass control measures include provision of FOBs, Escalators and elevators, Pedestrian subways, Pathways, repair/rebuilding of broken Boundary Wall, Link way/sky walks, green patches etc. A list of detailed Mid-Section Trespass Control locations is given in **Table 1.1** and scope of work is given in the **Table 1.2** below.

Table 1.1: Mid-Section Trespass Control locations

Sl.	Location	Proposed Activities
Central Railway		
A	Main Line	
1	Km 16/03: Kurla-Vidyavihar	2 Staircases on either side(East & West side) of mainline tracks to Santacruz – Chembur link ROB
2	Km19/13: Ghatkopar & Vikhroli	Connection between Existing FOB at Kalyan end of Station and BMC FOB (Under rebuilding by Division) at North-end of the Ghatkopar station by 3.66 M wide skyway.
3	Km 24/11: Kanjur Marg Station	3.66 m wide Linkway on the east side of station to connect FOBs at CSTM end and Kalyan End with 1 escalator to south end FOB on PF No. 1A (By Dismantling Stair)
4	Km 28/6: Nahur & Mulund	Extension of 6.00 m wide FOB under construction by Mumbai Division - FOB towards east with escalator at East side entry of Station.
5	Km 29/505B: Nahur-Mulund (Mid-Section)	3.66 m wide through FOB with 2 lifts (one on east side and other on west side), 2 staircases (one on either side i.e. east and west) , 2m wide pathway of approx. 18 m length and barricading.
6	Km30/15: Mulund & Thane	Construction of broken boundary wall only.



Sl.	Location	Proposed Activities
7	Km 35/7: Thane –Diva Main Line	3.66m Wide FOB with 2 Lifts on either end of FOB
8	Km 35/41: Thana-Airoli (Mid-Section)	2m height and 3m wide pedestrian subway of 23.5 m length and 3 m wide pathway up to approach road.
9	Km 40/4: Mumbra & Diva Junction	Construction of 200 m long boundary wall & Pathway.
10	Km42/6 to 43/11: Diva Junction & Dativali	Extension of 6.00 m wide FOB under construction by division towards east from PF. No. 8 to outside railway boundary with 1.40 KM long pathway parallel to Railway track up to Dativali level crossing.
11	Km.43/10: Koper Station	6.00 m wide FOB at south end of Station with one Escalator on east side , Elevated Booking Office, Toilet block (East Side) and boundary wall for 100 m length on either side of station
12	Km 56/2: Shahad Station	3.66 m wide FOB at north end of Shahad Station with one escalator (on east) connecting East to West and platforms.
13	Km 59/2: Shahad-Ambiwali (Mid-Section)	3.66 m wide FOB with 2 Lifts (one on south end west side and other on north end east side) and 2 staircases (one on north end west side and other on east side)
14	Km 64/22: Titwala Station	6m FOB at Kasara end of Station with 4 staircases (2 on either side i.e. east and west, 2 on Platforms), 2 escalators (on either side i.e. east and west) and compound wall.
15	Km 55/10: Vitthalwadi Station	Extension of the existing 6.00 m wide FOB on Dn line side, One Escalator on Island PF and construction of Boundary wall.
16	Km. 59/35: Ambernath Station	<ul style="list-style-type: none">• One Home platform with cover on Dn line• One 6.00 m wide FOB at Centre of Station,• Extension of Mumbai end 6.00 m wide FOB towards new Home PF• 4 Escalators (3 to New FOB on All 3 PFs & one to east of existing south end FOB)• Rebuilding of Station building on east side with G+2 Structure• Rebuilding of Booking office on West side• One Toilet block and



Sl.	Location	Proposed Activities
		<ul style="list-style-type: none">• COP on balance portion of PF no. 1/2.
17	Km 67/3: Badlapur Station	<ul style="list-style-type: none">• One Home platform with cover on Dn line (East side)• One 6.00 m wide FOB at Karjat end of Station• One 6.00 m wide FOB at Centre of Station by dismantling exiting 2.4m wide FOB,• Extension of 6.00 m wide East side skywalk up to Proposed new FOB at Karjat end of station• Elevated booking office• 3.66 m wide Link way/skywalk between middle FOB and Kalyan End FOB on west side• 2 Escalators (1 on east side road to existing skywalk & second to Rebuild new FOB at Centre)• 2 Lifts 2 Proposed FOB at Karjat end FOB, one each on either end of FOB• One elevated booking office with 3 windows• One toilet block for public.
18	Km 78/14: Vangani Station	6m wide FOB at Karjat end of Station
19	Km 85/33:Near P/F NO.1- Neral Station	6m wide FOB with 3 staircases (2 on either side i.e. east and west and one on existing platform) and 1 escalator on west side Kalyan end
B	Harbour Line	
20	Km. 6/17: Sewri Railway Station	6m wide FOB from east to west covering BPT tracks & Harbour line tracks with 2 lifts on either end of FOB and one stair to PF No. 2
21	Km. 10/22-23: Wadala Rd- King Circle (Mid Section)	3.66m wide FOB covering DN BA HBR, DN CLA HBR & UP CLA HBR with 90 m long Pathway and fencing for 100m on either side of tracks . This will connect slums in yard to Road on west side.
22	Km9/7 & 10/7: Wadala & GTBN	Construction of boundary wall only.
23	Km. 12/19-18: GTBN – Chunnabhatti (Mid-Section)	3.66m wide FOB connecting east to west with 2 lifts on either end of FOB



Sl.	Location	Proposed Activities
24	Km. 20/14: Govandi - Mankhurd	3.66 m wide FOB with 2 lifts (on either side i.e. east and west), RCC boundary wall with six fit height on both sides and 2.5 m wide pathway on east and west side.
25	Km 21/5: Mankhurd Station	<ul style="list-style-type: none"> • 6.00 m wide F.O.B. south end (Kurla end) of Platform No. 1 Mankhurd station. • 3.66 m wide Link way/sky walk between Proposed FOB & existing south end FOB • 1 LIFT ON WEST OF Proposed FOB • 1 Escalator on east side of Proposed FOB
26	Km22/20: Mankhurd & Vashi (Mid-Section)	2.00 m x 2.40 m height pedestrian subway
27	Km 29/3: Vashi & Sanpada (Mid-Section)	3.66 m wide east-west FOB at around 20m from the existing ROB with Lifts or if feasible, pedestrian subway instead of FOB.
28	Km 35/5: Nerul Seawood (Mid-Section)	3.66 m wide FOB with 2 Lifts (on either side i.e. east and west on north end)
29	Km 37/14: Seawood & Belapur (Mid-Section)	3.66 m wide FOB with 2 Lifts (one on east and other on west side) & Fencing for 100m on either end
30	Km 46/6: Khandeshwar & Panvel (Mid-Section)	3.66 m wide FOB with 2 Lifts (One each on either end of FOB) and 100 m long fencing on either side of tracks
	<u>Boundary Wall</u>	41025 m long boundary wall at various Locations advised by Sr. DEN (Co)/ CSTM vide letter No. BB.W.4079.Boundary Wall. DB dated 03.04.2017
	<u>Additional Escalators</u>	At following additional Station locations :- <ul style="list-style-type: none"> • Tilak Nagar Station, 4 Escalators (2 each for Dn & UP) to existing FOB. • Diva Station, 4 Escalators to FOB near level crossing gate, 2 each on east side & West side.
<u>Western Railway</u>		
31.	<u>Km 7/3: Mahalaxmi & Lower Parel</u>	3.66m wide FOB connecting East to West with 2 staircases and one escalator. A pathway 2.5m wide barricaded on both sides connecting FOB to PF No.1.
32.	<u>Km 12/10: Mahim & Matunga</u>	3.66 m wide FOB connecting to existing South end rail FOB and BMC FOB. 2 lifts on East &



Sl.	Location	Proposed Activities
		West side of BMC FOB with 2 pathway on East side.
33.	<u>Km 15/9</u> : Bandra & Khar	10.3m Vehicular-cum-Pedestrian Subway from S.V. Road to BDTS Station crossing W. Rly Main Line and BDTS Platforms, Deck with access from BDTS (West), Booking Office, Waiting Hall, FOB extension, lift and 2 escalators.
34.	<u>Km 20/15</u> : Vile Parle & Andheri	3.66m wide FOB with 2 staircases at Km 20/15 & 21/3. A pathway 2.5m width from FOB towards temple in East.
35.	<u>Km 26/7</u> : Jogeshwari & Goregaon	3.66m wide Skywalk connectivity East South Road to South end FOB of GMN Station connecting 6m wide FOB wide 4 staircase to all platforms, 3 escalators.
36.	<u>Km 55/3</u> : Vasai Road & Nalasopara	6m wide FOB with three staircases across PF No.1 to 4. Pathway connecting FOB to PF No.1 and other to the road.
	<u>Boundary Wall</u>	17200m long boundary wall at various Locations advised by DRM/BCT vide letter No. W225/2/655 dated 12.07.2017.
	<u>Escalators - Additional</u>	<ul style="list-style-type: none"> • Mahim Station, 2 Escalators on North FOB on East and West. • Borivali Station, 2 Escalators for deck on West side. • Vasai Road Station, 2 escalators at extreme North FOB on East and West.

Table 1.2: Scope of Work

Sl.	Description	Total	Locations
1.	New FOB	20 Nos.	<ul style="list-style-type: none"> • KM 29/505B Nahur-Mulund • 35/7 Thane –Diva Main Line • Km.43/10 Koper Station • Ambernath Station Km. 59/35 • 67/3 Badlapur Station – 2 Nos. • Vangani Station Km 78/14 • KM 85/33 –Near P/F NO.1- Neral Station • 56/2 Shahad Station • Km 59/2 Shahad-Ambiwali • Titwala Station • Sewri Railway Station (Km. 6/17)



Sl.	Description	Total	Locations
			<ul style="list-style-type: none">• Wadala Rd- King Circle at Km. 10/22-23• GTBN – Chunnabhatti at Km. 12/19-18• Km. 20/14 Govandi – Mankhurd• 21/5 Mankhurd Station• 29/3 Vashi & Sanpada• Km. 35/5 Nerul Seawood• Km 37/14 Seawood & Belapur• Km. 46/6 Khandeshwar & Panvel
2.	Subways	2 Nos.	<ul style="list-style-type: none">• KM 35/41 Thana-Airoli• 22/20 Mankhurd & Vashi
3.	Link way	4 Nos.	<ul style="list-style-type: none">• 19/13 Ghatkopar• Km 24/11 Kanjur Marg Station• 67/3 Badlapur Station• 21/5 Mankhurd Station
4.	Extension of FOB	5 Nos.	<ul style="list-style-type: none">• 28/6 Nahur & Mulund• 42/6 Diva Junction• 55/10 Vitthalwadi Station• Ambernath Station Km. 59/35• 67/3 Badlapur Station (Skywalk Extension)
5.	Boundary Wall	41025 M	<ul style="list-style-type: none">• At Various Locations as per Division's proposal
6.	Pathway	1890 M	<ul style="list-style-type: none">• 40/4 Mumbra & Diva Junction• 42/6 to 43/11 Diva Junction & Dativali• Wadala Rd- King Circle at Km. 10/22-23• 21/5 Mankhurd Station• 22/20 Mankhurd & Vashi
7.	Booking Office	5 Nos.	<ul style="list-style-type: none">• Km.43/10 Koper Station• 55/10 Vitthalwadi Station• Km. 59/35 Ambernath Station– 2 offices• 67/3 Badlapur Station
8.	Toilet	3 Nos.	<ul style="list-style-type: none">• Km.43/10 Koper Station• Km. 59/35 Ambernath Station• 67/3 Badlapur Station
9.	Platform	2 Nos.	<ul style="list-style-type: none">• Km. 59/35 Ambernath Station• 67/3 Badlapur Station
10.	Station Building	1No.	<ul style="list-style-type: none">• Km. 59/35 Ambernath Station
11.	Quarters	16 Nos.	<ul style="list-style-type: none">• Km. 59/35 Ambernath Station



Sl.	Description	Total	Locations
12.	Escalators	26 Nos.	<ul style="list-style-type: none"> • Km 24/11 Kanjur Marg Station • 28/6 Nahur & Mulund • Km.43/10 Koper Station • 55/10 Vitthalwadi Station • Km. 59/35 Ambernath Station– 4 Nos. • 67/3 Badlapur Station – 4 Nos. • KM 85/33 –Near P/F NO.1- Neral Station • 56/2 Shahad Station • Titwala Station • Km. 20/14 Govandi – Mankhurd • 21/5 Mankhurd Station • 29/3 Vashi & Sanpada – 2 Nos. • Tilak Nagar – 4 Nos. • Diva – 4 Nos.
13.	Lifts	22 Nos.	<ul style="list-style-type: none"> • KM 29/505B Nahur-Mulund – 2 Nos. • 35/7 Thane –Diva Main Line – 2 Nos • KM 85/33 –Near P/F NO.1- Neral Station – 2 Nos. • Km 59/2 Shahad-Ambiwali – 2 Nos. • Sewri Railway Station (Km. 6/17) – 2 Nos. • GTBN – Chunnabhatti at Km. 12/19-18 – 2 Nos. • Km. 20/14 Govandi – Mankhurd – 2 Nos. • 21/5 Mankhurd Station – 2 Nos. • Km. 35/5 Nerul Seawood – 2 Nos. • Km 37/14 Seawood & Belapur – 2 Nos. • Km. 46/6 Khandeshwar & Panvel – 2 Nos.
14.	Staircase	2 Nos.	<ul style="list-style-type: none"> • KM 16/03 Kurla-Vidyavihar (Santacruz – Chembur Link Road)
WESTERN RAILWAY			
Sr. No.	Description	Total	Locations
1.	New FOB	5 Nos.	Km 26/7: Between Jogeshwari – Goregaon Km 15/9: Between Bandra – Khar Km 55/3: Between Vasai Road-Nalasopara Km 20/15: Between Vile Parle – Andheri



Sl.	Description	Total	Locations
			Km 12/10: Between Mahim – Matunga Km 7/3: Between Mahalaxmi – Lower Parel
2.	Subways	1 Nos.	Km 15/9: Main Lines between Bandra – Khar
3.	Link way	2 Nos.	Km 26/7: Between Jogeshwari – Goregaon Km 12/10: Between Mahim – Matunga
4.	Extension of FOB	3 Nos.	Km 26/7: Between Jogeshwari – Goregaon Km 15/9: Between Bandra – Khar
5.	Boundary Wall/ Fencing	500m	Km 26/7: Between Jogeshwari – Goregaon Km 15/9: Between Bandra – Khar Km 55/3: Between Vasai Road – Nalasopara Km 20/15: Between Vile Parle – Andheri Km 12/10: Between Mahim – Matunga Km 7/3: Between Mahalaxmi – Lower Parel
		17,200m	Boundary Wall proposed by W. Rly.
6.	Pathway	420 M	Km 26/7: Between Jogeshwari – Goregaon Km 55/3: Between Vasai Road – Nalasopara Km 20/15: Between Vile Parle – Andheri Km 12/10: Between Mahim – Matunga Km 7/3: Between Mahalaxmi – Lower Parel
7.	Booking Office	1 Nos.	Km 15/9: At BDTS
8.	Waiting Hall	1 Nos.	Km 15/9: At BDTS
9.	Escalators	10 Nos.	Km 26/7: Between Jogeshwari – Goregaon Km 15/9: Between Bandra – Khar Additional escalators (6 nos.) at Mahim, Borivali, Vasai Road Station (2 each).
10.	Lifts	6 Nos.	Km 15/9: Between Bandra – Khar Km 12/10: Between Mahim – Matunga
11.	Staircase	21 Nos.	Km 26/7: Between Jogeshwari – Goregaon Km 15/9: Between Bandra – Khar Km 55/3: Between Vasai Road – Nalasopara Km 20/15: Between Vile Parle – Andheri Km 12/10: Between Mahim – Matunga



Sl.	Description	Total	Locations
			Km 7/3: Between Mahalaxmi – Lower Parel



2 STUDY APPROACH AND METHODOLOGY

2.1 Background

The objective of Social Impact Assessment (SIA) is to prepare a complete inventory of structures, affected families and persons, to identify social impacts, and to prepare Resettlement Action Plan (RAP). In order to capture data for the present exercise, both primary as well as secondary sources were systematically tapped. As a part of SIA, census socio-economic survey to be conducted in the Corridor of Impact (CoI) zone to identify the affected structures, families/persons and list out the adverse impacts of the project.

2.2 Need of SIA

Social impacts are the impacts of developmental interventions on human environment. The impacts of development interventions take different forms. While significant benefits flow in from different development actions, there is also a need to identify and evaluate the negative externalities associated with them. Such impacts not only need to be identified and measured but also need to be managed in such a way that the positive externalities are maximized and the negative externalities are minimized. A balanced development planning takes into account the environmental and social impacts of economic development. Environmental Impact Assessment (EIA), Social Impact Assessment (SIA) are the methods that aid in the planning and decision making process. These impact assessments help in identifying the likely positive and negative impacts of proposed policy actions, likely trade-offs and synergies, and thus facilitate informed decision-making. Moreover, the need for impact assessment stems from the fact that:

- Impact assessments enhance positive and sustainable outcomes associated with project implementation,
- They support the integration of social and environmental aspects associated with the numerous subprojects into the decision making process.
- They enhance positive social and environmental outcomes;
- They minimize social and environmental impacts as a result of either individual subprojects or their cumulative effects;
- They protect human health and minimize impacts on cultural property.

2.3 SIA and R&R Activities

Following activities are to be performed by the R&R Team for above mentioned components:

- Conduct census and socio-Economic survey (may be 100%, however format and percentage to be finalized by World Bank team which have been appended along with this report);
- Preparation of S.I.A. and,
- Preparation of RAP.



2.4 Minimizing Resettlement

Attempts have been made during the detailed design of the project preparation to minimize the land acquisition, resettlement and adverse impacts on people in the project area through suitable engineering design. Steps have already been made to confine the project area in the government land and in available Right of Way (ROW) where feasible. This has been done with proper consultation with the local people and affected communities. Their suggestions have been incorporated in the design whenever technically feasible. For the proposed work the following specific measures are taken to minimize resettlement in this project.

- Selection of the project sites and its various components in the government land; and
- Proper engineering design to avoid and minimize displacement and hence resettlement.
- Prefer open land instead of habitation and building structures.

2.5 Objective of Resettlement Action Plan

The Social Impact Assessment (SIA) study includes Resettlement Action Plan (RAP) which is based on the principle that the population affected by the proposed project will be assisted to improve their living standards. The RAP need to be based on the general findings of the census socio-economic survey, field visits, and meetings with various project affected persons in the project area. The primary objective of the RAP is to identify impacts and to plan measures to mitigate various losses of the Project while the specific objectives are as follows:

- To prepare an action plan for the project affected people for improving or at least retaining the living standards in the post resettlement period;
- To outline the entitlements for the affected persons for payment of compensation and
- assistance for establishing the livelihoods;
- To develop communication mechanism to establish harmonious relationship between MRVC and Project Affected Persons (PAPs);
- To ensure adequate mechanism for expeditious implementation of R&R.

2.6 SIA and RAP Preparation Process

Social impact assessment and resettlement action plan is required when the project results in either physical or economic displacement of the people. Resettlement plan must ensure that the livelihoods of people affected by the project are restored to levels prevailing before inception of the project. While preparing an effective SIA and RAP, the consultant followed some essential components and steps which are (i) identification of socio-economic impacts of the project;(ii) public/community consultation;(iii) legal framework for land acquisition and compensation;(iv) entitlement policy and matrix;(v) organizational responsibilities;(vi) relocation and



resettlement;(vii) income restoration; and (viii) implementation schedule;(ix) detail R&R budget; and (x) monitoring, evaluation and reporting.

The approach to be adopted to conduct social impact assessment and to prepare RAP is described below and is structured on the scope of work as mentioned in the Term of Reference (TOR). The SIA which includes RAP to be prepared with special reference to the guidelines of World Bank and RTFCTLARR Act 2013.

Table 2.1 presents approach and methodology of SIA study in the form of table and various steps involved in the study have been described in detail in the following paragraphs.

- Study of relevant documents, reports and project alignment drawing.
- Site visits and information dissemination about the project
- Enumeration of structures
- Analysis of socio-economic survey data
- Consultations and meetings with PAFs,
- Community/Public Consultations

Table 2.1: Approach and Methodology for SIA

PRE SURVEY ACTIVITIES			
Phase - I	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; vertical-align: top;"> Literature Review & Preliminary Consultations <ul style="list-style-type: none"> • Detail Project Report(DPR) • Project Alignment Drawing • Social Impact Assessment Report/Chapter • National & State Policy on Land Acquisition, Rehabilitation & Resettlement • World Bank OP 4.12 guideline • Land Acquisition Plan, if any • Other available documents • Discussion with MRVC officials </td> <td style="width: 50%; text-align: center; vertical-align: top;"> Preliminary Survey & Launching of Field Work <ul style="list-style-type: none"> • Ground truthing survey of project area • Preparation & testing survey instruments • Draft Inception Report • Finalization of Inception Report • Identification and recruitment of agencies/firms for data collection </td> </tr> </table>	Literature Review & Preliminary Consultations <ul style="list-style-type: none"> • Detail Project Report(DPR) • Project Alignment Drawing • Social Impact Assessment Report/Chapter • National & State Policy on Land Acquisition, Rehabilitation & Resettlement • World Bank OP 4.12 guideline • Land Acquisition Plan, if any • Other available documents • Discussion with MRVC officials 	Preliminary Survey & Launching of Field Work <ul style="list-style-type: none"> • Ground truthing survey of project area • Preparation & testing survey instruments • Draft Inception Report • Finalization of Inception Report • Identification and recruitment of agencies/firms for data collection
Literature Review & Preliminary Consultations <ul style="list-style-type: none"> • Detail Project Report(DPR) • Project Alignment Drawing • Social Impact Assessment Report/Chapter • National & State Policy on Land Acquisition, Rehabilitation & Resettlement • World Bank OP 4.12 guideline • Land Acquisition Plan, if any • Other available documents • Discussion with MRVC officials 	Preliminary Survey & Launching of Field Work <ul style="list-style-type: none"> • Ground truthing survey of project area • Preparation & testing survey instruments • Draft Inception Report • Finalization of Inception Report • Identification and recruitment of agencies/firms for data collection 		
SURVEY OF PAFs/PAPs & IMPLEMENTATION SYSTEM			
Phase - II	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; vertical-align: top;"> Project Affected Families/Persons/Communities <ul style="list-style-type: none"> • Training the Field Staff </td> <td style="width: 50%; text-align: center; vertical-align: top;"> Implementation Arrangements <ul style="list-style-type: none"> • Analysis of legal policy and </td> </tr> </table>	Project Affected Families/Persons/Communities <ul style="list-style-type: none"> • Training the Field Staff 	Implementation Arrangements <ul style="list-style-type: none"> • Analysis of legal policy and
Project Affected Families/Persons/Communities <ul style="list-style-type: none"> • Training the Field Staff 	Implementation Arrangements <ul style="list-style-type: none"> • Analysis of legal policy and 		



	<ul style="list-style-type: none"> • Inventory survey of affected properties & families • 100% Census survey among the affected families/persons • One to one household interviews • Public consultation • FGDs with PAFs, Vulnerable group • Discussion with officials of concerned department 	<p>regulation</p> <ul style="list-style-type: none"> • Discussion with MEGA officials on implementation of RAP • Content analysis • Field work arrangement, data collection, analysis & draft SIA/RAP report
<p>Phase - III</p>	<p>POST SURVEY ACTIVITIES, ANALYSIS, REPORT</p>	
	<p>Data Analysis and SIA Report</p> <ul style="list-style-type: none"> • Data tabulation and analysis plan • Data coding, cleaning and entry • Finalisation of SIA report structure • Analysis of survey results • Prepare and submission of draft SIA report 	<p>Consultation on SIA Report</p> <ul style="list-style-type: none"> • Assist authority in conducting public hearings • Consultation on SIA findings with affected people, civil societies, NGOs, etc. • Presentation of draft SIA report to MRVC • Review & comments from MRVC & World Bank • Incorporation of comments and submission of the final SIA report

2.7 Desk Research

The consultant reviewed the relevant documents, reports and project alignment drawing. The consultant also carefully reviewed the earlier EIA and SIA study conducted by MRVC as part of DPR and found out the gaps which need to be addressed as per the requirement of World Bank.

2.8 Reconnaissance

Teams comprising of social scientists, engineers and environmental planners of VSPL undertook reconnaissance of proposed corridors of MUTP III project. The purpose of the reconnaissance was to have an overview of the likely extent of impact on people because of the impending development of the metro rail.



2.9 Data from Secondary Sources

Secondary sources information was collected from a number of quarters such as from Census data, Statistical hand book, concerned departments, and a host of other literature. Thus, the secondary sources information complemented the primary data elicited through field survey from the affected people and other stakeholders. Understanding was created about the physical, social, economic, and cultural set-up of the project area before undertaking detailed field investigations.

2.10 Site Visits and Information Dissemination

The field visits and studies were conducted during the period of last six months. VSPL team visited the sites along with MRVC officials to verify the alignment drawings on the ground and to identify the affected areas. After identifying the affected areas VSPL, MRVC and Eco Foot officials consulted with different stakeholders at the project area and organized meetings with them to generate awareness about the project. Information about the project and the survey procedure was shared with the community. They were also informed about the kinds of documents they would need to locate and keep ready for the survey.

2.11 Census Survey of Structure

Before the actual household socio-economic survey, all the structures that are located near the proposed project locations were verified as per design requirement and found that these structure are not being impacted due to proposed project at present and there will not be any adverse impact on the adjacent structures during the construction period also as per the consideration of proposed design requirements and its alignment drawing prepared by the MRVC. Hence there is no need to conduct detailed census and socioeconomic survey of these structures as structures are not being affected directly due to the project. Only basic information of the structures and household have been collected as the part of SIA study for the project.

2.12 Community and Public Consultation

Preliminary public consultations and focus group discussions were conducted by VSPL study team with the help of Eco Foot officials through community meetings with PAPs as well as general public at particularly proposed locations. The objective of conducting public consultation was to obtain the views and suggestions of the potentially affected persons to minimize adverse social impacts. The consultation process involved various sections of affected persons such as traders, women, squatters, kiosks and other inhabitants. Special care was taken during the study to hold discussions with women group to elicit the adverse effects they are anticipating due to the project and their suggestions in this regard for mitigating the foreseeable adverse effects. The methods which were adopted for conducting public consultation were (i) Walk-through informal group consultation at station locations, (ii)Public meetings, (iii)Focus Group Discussions (FGD) with different groups of affected people including residential



groups, traders, and slum dwellers (squatters), (iv) In-depth individual interviews, (v) Discussions and interviews with key informants, (vi) Sharing the opinion and preferences of the PAPs.



3 PROJECT IMPACTS

3.1 Background

Mumbai's suburban railway system is the most efficient, dependable, economical and the fastest mode of transportation available in Mumbai. It is like a lifeline for the city of Mumbai without which the city would grind to a halt.

As per Mumbai Rail Vikas Corporation, approximately 7.40 million people use local trains to commute daily. Every year thousands of people lose their life / are injured due to trespassing on the three main railway corridors. The number of accidental deaths & injuries are increasing day by day as the number of passengers is increasing.

3.1.1 *The main reasons for trespassing-*

- Width of the platforms is insufficient to cater to the overcrowding on the platform. Numbers of Foot over bridges (FOB) are insufficient to cater to the peak hour needs of passenger traffic leading to lot of overcrowding on the FOB.
- The heights of the FOBs are very high and hence not user friendly.
- There are limited facilities (escalators, elevators, ramps) available for physically handicapped people & senior citizens.
- Small ramp at both the ends of the platform also encourages trespassing.
- Last minute announcement of change of platform during arrival / departure of the train.
- Human settlement along the track also leads to regular trespassing by the inhabitants.
- Inadequate height of fencing between tracks encourages people to jump from platform on to the track & climb the fencing to reach the other platform, thus leading to serious trespassing. There are vendors selling vegetables & other household products along the railway tracks in the vicinity of the platform at either end, this leads to trespassing
- Minimum connectivity between east and west near level crossing e.g., Flyovers, skywalks, etc. The time taken to cross from east to west and vice-versa using flyover is very long due to heavy traffic. This leads or forces commutes to use level-crossing.
- Exceptional circumstances like medical emergency, person with heavy luggage, etc. also lead to trespassing.
- Garbage sorters are regular trespassers.



- People travelling without proper ticket trespass in order to avoid being penalized
- People are accustomed to trespassing and it has become a default behavioral tendency
- No proper access provided for human settlements/encroachment occurring within railway premises. Due to this, residents have no choice but to use railway track causing serious trespassing.

3.2 Overall Project Impacts

The field visits and social impact assessment studies were conducted for the identification of adverse impacts on local community due to the proposed project activities. VSPL team visited the sites along with MRVC officials to verify the alignment drawings on the ground and to identify the affected areas. After identifying the affected areas VSPL and MRVC officials consulted with different stakeholders at the project area and organized meetings with them to generate awareness about the project. Information about the project and the survey procedure was shared with the community. They were also informed about the kinds of documents they would need to locate and keep ready for the survey. The major findings and magnitude of impacts are discussed in the following sections.

3.3 Land Requirement

As per the current scope of work, the project design and layout would not require any private land acquisition, as all proposed activities will be carried out on existing land under the ownership of Indian Railways. There is no social impact due to acquisition of land.

3.4 Social Impacts on Existing Hutments and Encroachment

Some of the sites, particularly Mahim, Wadala and Goregaon have some hutments and encroachment issues. These are residents of low-income housing as well as densely populated slum settlements, shop owners, vendors etc. Most of them are residing within railway premises and/ or share common boundary wall with Railways. It appears that there is no major issue such as resettlement/ relocation etc. as the facilities are not planned on the settlement area.

However, the population may get affected during the construction phase. The primary concerns are likely impacts of elevated noise levels, deterioration of ambient air qualities etc. However, MRVC in consultation with contractor shall ensure the safety measures to minimize the social impacts due to project activities.

The population will be protected from accidents and safety risks during construction Phase by:

- Risk identification and evaluation of possible risks



- Communication regarding technical aspects of construction activity and alley fears about accidents (through handouts, pictorial display and signage in local language)
- Barricade the construction area
- Bring community representatives to construction site and explain health and safety aspects and mitigation measures employed
- Training of contractor staff

3.5 Project Social Footprint

Construction phase would require sharing of access roads as well as using adjacent land for storage of material or temporary hutments for project labour and may temporarily affect commuter movement. However, Construction Work Plan should be prepared to minimize the impacts.

3.6 Impact on Access & Alternate Routes Provided

It is advisable that necessary arrangements to be made to provide paved access road to all the site locations during the construction phase. While several locations have access through an existing public work department road, the construction phase is likely to affect the access of other stakeholders in the vicinity, particularly local residents or even inhabitants of shanties and slums. These impacts may be in terms of:

- Blockage of access due to the width of the existing access route and the vehicular and human traffic on the same; and
- Loss of access in certain areas for the community to common property resources like rickshaw stand, bus depot, skywalks, market, pond, roads etc.

The traffic management plan should be followed during construction work to ensure that the impacts are minimum. It will be ensured that commuter's direct access to the Railway stations will not be affected.

A summary of all proposed project locations under Central Railway and status of social impacts and Involuntary Resettlement are presented in the **Table 3.1 & 3.2** below.

Table 3.1: Mid-Section Trespass Control locations, scope of work and the Status of Social Impacts and Involuntary Resettlement

Sr. No.	Location	Proposed Activities	Status of Social Impact and Involuntary Resettlement
<u>Central Railway</u>			
A	<u>Main Line</u>		



Sr. No.	Location	Proposed Activities	Status of Social Impact and Involuntary Resettlement
1	Km 16/03: Kurla-Vidyavihar	2 Staircases on either side(East & West side) of mainline tracks to Santacruz – Chembur link ROB	No Adverse Impact
2	Km19/13: Ghatkopar & Vikhroli	Connection between Existing FOB at Kalyan end of Station and BMC FOB (Under rebuilding by Division) at North-end of the Ghatkopar station by 3.66 M wide skyway.	No Adverse Impact
3	Km 24/11: Kanjur Marg Station	3.66 m wide Linkway on the east side of station to connect FOBs at CSTM end and Kalyan End with 1 escalator to south end FOB on PF No. 1A (By Dismantling Stair)	No Adverse Impact
4	Km 28/6: Nahur & Mulund	Extension of 6.00 m wide FOB under construction by Mumbai Division - FOB towards east with escalator at East side entry of Station.	No Adverse Impact
5	Km 29/505B: Nahur-Mulund (Mid-Section)	3.66 m wide through FOB with 2 lifts (one on east side and other on west side), 2 staircases (one on either side i.e. east and west) , 2m wide pathway of approx. 18 m length and barricading.	No Adverse Impact
6	Km30/15: Mulund & Thane	Construction of broken boundary wall only.	No Adverse Impact
7	Km 35/7: Thane –Diva Main Line	3.66m Wide FOB with 2 Lifts on either end of FOB	No Adverse Impact
8	Km 35/41: Thana-Airoli (Mid-Section)	2m height and 3m wide pedestrian subway of 23.5 m length and 3 m wide pathway up to approach road.	No Adverse Impact



Sr. No.	Location	Proposed Activities	Status of Social Impact and Involuntary Resettlement
9	Km 40/4: Mumbra & Diva Junction	Construction of 200 m long boundary wall & Pathway.	No Adverse Impact
10	Km42/6 to 43/11: Diva Junction & Dativali	Extension of 6.00 m wide FOB under construction by division towards east from PF. No. 8 to outside railway boundary with 1.40 KM long pathway parallel to Railway track up to Dativali level crossing.	No Adverse Impact
11	Km.43/10: Koper Station	6.00 m wide FOB at south end of Station with one Escalator on east side , Elevated Booking Office, Toilet block (East Side) and boundary wall for 100 m length on either side of station	No Adverse Impact
12	Km 56/2: Shahad Station	3.66 m wide FOB at north end of Shahad Station with one escalator (on east) connecting East to West and platforms.	No Adverse Impact
13	Km 59/2: Shahad-Ambiwali (Mid-Section)	3.66 m wide FOB with 2 Lifts (one on south end west side and other on north end east side) and 2 staircases (one on north end west side and other on east side)	No Adverse Impact
14	Km 64/22: Titwala Station	6m FOB at Kasara end of Station with 4 staircases (2 on either side i.e. east and west, 2 on Platforms), 2 escalators (on either side i.e. east and west) and compound wall.	No Adverse Impact
15	Km 55/10: Vitthalwadi Station	Extension of the existing 6.00 m wide FOB on Dn line side, One Escalator on Island PF and construction of Boundary wall.	No Adverse Impact



Sr. No.	Location	Proposed Activities	Status of Social Impact and Involuntary Resettlement
16	Km. 59/35: Ambernath Station	<ul style="list-style-type: none">• One Home platform with cover on Dn line• One 6.00 m wide FOB at Centre of Station,• Extension of Mumbai end 6.00 m wide FOB towards new Home PF• 4 Escalators (3 to New FOB on All 3 PFs & one to east of existing south end FOB)• Rebuilding of Station building on east side with G+2 Structure• Rebuilding of Booking office on West side• One Toilet block and• COP on balance portion of PF no. 1/2.•	No Adverse Impact
17	Km 67/3: Badlapur Station	<ul style="list-style-type: none">• One Home platform with cover on Dn line (East side)• One 6.00 m wide FOB at Karjat end of Station• One 6.00 m wide FOB at Centre of Station by dismantling exiting 2.4m wide FOB,• Extension of 6.00 m wide East side skywalk up to Proposed new FOB at Karjat end of station• Elevated booking office• 3.66 m wide Link way/skywalk between middle FOB and Kalyan End FOB on west side• 2 Escalators (1 on east side road to existing skywalk & second to	No Adverse Impact



Sr. No.	Location	Proposed Activities	Status of Social Impact and Involuntary Resettlement
		Rebuild new FOB at Centre) <ul style="list-style-type: none"> • 2 Lifts 2 Proposed FOB at Karjat end FOB, one each on either end of FOB • One elevated booking office with 3 windows • One toilet block for public. • 	
18	Km 78/14: Vangani Station	6m wide FOB at Karjat end of Station	No Adverse Impact
19	Km 85/33:Near P/F NO.1- Neral Station	6m wide FOB with 3 staircases (2 on either side i.e. east and west and one on existing platform) and 1 escalator on west side Kalyan end	No Adverse Impact
B	Harbour Line		
20	Km. 6/17: Sewri Railway Station	6m wide FOB from east to west covering BPT tracks & Harbour line tracks with 2 lifts on either end of FOB and one stair to PF No. 2	No Adverse Impact
21	Km. 10/22-23: Wadala Rd- King Circle (Mid Section)	3.66m wide FOB covering DN BA HBR, DN CLA HBR & UP CLA HBR with 90 m long Pathway and fencing for 100m on either side of tracks. This will connect slums in yard to Road on west side.	No Adverse Impact
22	Km9/7 & 10/7: Wadala & GTBN	Construction of boundary wall only.	No Adverse Impact
23	Km. 12/19-18: GTBN – Chunnabhatti (Mid-Section)	3.66m wide FOB connecting east to west with 2 lifts on either end of FOB	No Adverse Impact



Sr. No.	Location	Proposed Activities	Status of Social Impact and Involuntary Resettlement
24	Km. 20/14: Govandi – Mankhurd	3.66 m wide FOB with 2 lifts (on either side i.e. east and west), RCC boundary wall with six ft height on both sides and 2.5 m wide pathway on east and west side.	No Adverse Impact
25	Km 21/5: Mankhurd Station	<ul style="list-style-type: none">• 6.00 m wide F.O.B. south end (Kurla end) of PF No. 1 Mankhurd station.• 3.66 m wide Link way/sky walk between Proposed FOB & existing south end FOB• 1 LIFT ON WEST OF Proposed FOB• 1 Escalator on east side of Proposed FOB	No Adverse Impact
26	Km22/20: Mankhurd & Vashi (Mid-Section)	2.00 m x 2.40 m height pedestrian subway	No Adverse Impact
27	Km 29/3: Vashi & Sanpada (Mid-Section)	3.66 m wide east-west FOB at around 20m from the existing ROB with Lifts or if feasible, pedestrian subway instead of FOB.	No Adverse Impact
28	Km 35/5: Nerul Seawood (Mid-Section)	3.66 m wide FOB with 2 Lifts (on either side i.e. east and west on north end)	No Adverse Impact
29	Km 37/14: Seawood (Darave) & Belapur (Mid Section)	3.66 m wide FOB with 2 Lifts (one on east and other on west side) & Fencing for 100m on either end	No Adverse Impact
30	Km 46/6: Khandeshwar & Panvel (Mid-Section)	3.66 m wide FOB with 2 Lifts (One each on either end of FOB) and 100 m long fencing on either side of tracks	No Adverse Impact
	<u>Boundary Wall</u>	41025m long boundary wall at various Locations advised by Sr.	No Adverse Impact



Sr. No.	Location	Proposed Activities	Status of Social Impact and Involuntary Resettlement
		DEN(Co)/ CSTM vide letter No. BB.W.4079.Boundary Wall. DB dated 03.04.2017	
	<u>Escalators – Additional</u>	At following additional Station locations: - a) <u>Tilak Nagar Station</u> 4 Escalators (2 each for Dn & UP) to existing FOB. b) <u>Diva Station</u> 4 Escalators to FOB near level crossing gate, 2 each on east side & West side.	No Adverse Impact

A summary of all proposed project locations under Western Railway and status of social impacts and Involuntary Resettlement are presented in the **table 3.2** below.

Table 3.2: Mid-Section Trespass Control locations, scope of work and the Status of Social Impacts and Involuntary Resettlement

Sr. No.	Location	Proposed Activities	Status of Social Impact and Involuntary Resettlement
<u>Western Railway</u>			
1.	<u>Km 7/3</u> : Mahalaxmi & Lower Parel	3.66m wide FOB connecting East to West with 2 staircases and one escalator. A pathway 2.5m wide barricaded on both sides connecting FOB to PF No.1.	No Adverse Impact
2.	<u>Km 12/10</u> : Mahim & Matunga	3.66 m wide FOB connecting to existing South end rail FOB and BMC FOB. 2 lifts on East & West side of BMC FOB with 2 pathways on East side.	No Adverse Impact
3.	<u>Km 15/9</u> : Bandra & Khar	10.3 m Vehicular-cum-Pedestrian Subway from S.V. Road to BDTS Station crossing W. Rly Main Line and BDTS Platforms, Deck with access from BDTS	No Adverse Impact



Sr. No.	Location	Proposed Activities	Status of Social Impact and Involuntary Resettlement
		(West), Booking Office, Waiting Hall, FOB extension, lift and 2 escalators.	
4.	<u>Km 20/15</u> : Vile Parle & Andheri	3.66m wide FOB with 2 staircases at Km 20/15 & 21/3. A pathway 2.5m width from FOB towards temple in East.	No Adverse Impact
5.	<u>Km 26/7</u> : Jogeshwari & Goregaon	3.66m wide Skywalk connectivity East South Road to South end FOB of GMN Station connecting 6m wide FOB wide 4 staircases to all platforms, 3 escalators.	No Adverse Impact
6.	<u>Km 55/3</u> : Vasai Road & Nalasopara	6m wide FOB with three staircases across PF No.1 to 4. Pathway connecting FOB to PF No.1 and other to the road.	No Adverse Impact
	<u>Boundary Wall</u>	17200m long boundary wall at various Locations advised by DRM/BCT vide letter No. W225/2/655 dated 12.07.2017.	No Adverse Impact
	<u>Escalators - Additional</u>	At following additional Station locations :-	No Adverse Impact
		<p>a) <u>Mahim Station</u> 2 Escalators on North FOB on East and West.</p> <p>b) <u>Borivali Station</u> 2 Escalators for deck on West side.</p> <p>c) <u>Vasai Road Station</u> 2 escalators at extreme North FOB on East and West.</p>	No Adverse Impact

3.7 Conclusion

As per the site observations for social impact assessment activities, it has been investigated that there is no adverse impact or involuntary resettlement to the local community or any adjacent structure due to the proposed project. During the social impact assessment study all the structures which are located near the proposed project locations were verified as per design requirement and found that those structure are not being impacted due to proposed project activities. There will not be any adverse impact on the adjacent structures during the construction period as per the consideration of proposed design requirements and its alignment drawing prepared by the MRVC.



It has been also observed that there are few structures situated near proposed project locations near at Wadala, Mahim, and Goregaon stations, and there is no direct impact on these structures as per the proposed design requirements. As per discussions with design team and MRVC officials that the necessary safety measures will be taken during the construction period to avoid any negative impact on those structures. Hence there is no need to conduct detailed census and socioeconomic survey of these structures as those are not being affected directly due to the project. Only basic information of the structures and households have been collected as part of SIA study for the project.

As per site investigation and observations It has been analysed that there is no adverse impact to the structures situated near the project locations and local communities due to the proposed project activities. In case there will be any changes made in the design or proposed project locations by MRVC for further improvements then reassessment of the project would be required by VSPL and findings will be incorporated in the report.



4 PUBLIC INFORMATION AND CONSULTATIONS

4.1 Background

Public consultation is a continuous process throughout the project period-project preparation, implementation, monitoring and evaluation stages. The sustainability of any infrastructure development project depends on the participatory planning in which public consultation plays major role. To ensure peoples 'participation in the planning phase of this project and to treat public consultation and participation as a continuous two-way process, numerous events were arranged at various stages of project preparation i.e., Detailed Project Report(DPR). Aiming at promotion of public understanding and fruitful solutions of developmental problems such as local needs and problem and prospects of resettlement, various stakeholders i.e., displaced persons, government officials, local community leaders, people and elected representatives of the people are consulted through community meetings, focus group discussions, individual interviews and formal consultations. The project will therefore ensure that the displaced population and other stakeholders are informed, consulted, and allowed to participate actively in the development process. This will be done throughout the project, both during preparation, implementation, and monitoring and evaluation of project results and impacts.

Keeping in mind the significance of consultation and participation of the people likely to be affected or displaced due to the proposed project, public consultation has been taken up as an integral part of social assessment process. Consultation was used as a tool to inform and educate stakeholders about the proposed action both before and after the development decisions were made. It assisted in identification of the problems associated with the project as well as the needs of the population likely to be affected. This participatory process helped in reducing the public resistance to change and enabled the participation of the local people in the decision making process. Initial public consultation has been carried out in the project areas with the objectives of minimizing probable adverse impacts of the project and to achieve speedy implementation of the project through generating awareness among the community about the benefits of the project.

4.2 Consultation and Participation

Consultation with PAPs is the starting point to address involuntary resettlement issues concerning land acquisition and resettlement. People affected by resettlement may be apprehensive that they will lose their livelihoods and communities. Participation in planning and managing resettlement helps to reduce their fears and gives PAP's an opportunity to participate in key decisions that affect their lives. The initial step for consultation and participation is to identify the primary and secondary stakeholders and sharing information about the proposed rail project with the local and affected people.

Public information and consultation was carried out during the project preparation stage in the form of public meeting, Focus Group Discussion (FGD), in-depth interviews and individual consultations. The consultation process ensured that the likely project affected persons (PAPs), local community and other stakeholders were informed in advance to participate and consult actively. This serves to reduce the insecurity among local community and likely PAPs opposition for the project because of transparency in the consultation process. The purpose of consultations was to inform people about the project, their issues, concerns and preferences, and allow them to make meaningful choices. Consultations will also be carried out during the implementation, monitoring and evaluation stage. Concerns, views and suggestions expressed by the participants during these consultations have been presented in the following sections.

4.3 Objectives of the Consultation

The main objective of the consultation process is to inform the PAPs about the anticipated benefits, negative impacts and mitigation measures of the project. The objectives of public consultation as part of this proposed Ahmedabad metro rail project are:

- Disseminate information to the people about the project in terms of its activities and scope of work; and understand the views and perceptions of the people affected and local communities with reference to land acquisition or loss of property and its due compensation.
- Understand views of affected people on land acquisition and resettlement options and generate idea regarding the expected demand of the affected people;
- Identify contentious local issues which might jeopardize the implementation of the project;
- Identify and assess major economic and social information and characteristics of the project area to enable effective social and resettlement planning and its implementation.
- Resolve issues related to impacts on community property and their relocation.
- Establish transparent procedures for carrying out proposed works;
- Create accountability and sense of local ownership during project implementation;
- Establish an understanding for identification of overall developmental goals and benefits of the project.

4.4 Tools for Consultation

During preparation of SIA preliminary public consultations and discussions were conducted by VSPL study team through community meetings with PAPs as well as general public and group discussions at particularly Project Affected Areas (PAAs).

The following methods were adopted for conducting public consultation:



- Walk-through informal group consultation at project affected areas.
- Public meetings
- Focus Group Discussions (FGD) with different groups of affected people including residential groups, traders, and slum dwellers (squatters).
- In-depth individual interviews
- Discussions and interviews with key informants
- Sharing the opinion and preferences of the PAPs

4.5 Consultation at Project Affected Areas

Public consultation and focus group discussions meetings were conducted at proposed locations. The details of consultation in project affected areas are given in **Table 4.1**. The signature of the participants is given in **Annexure-4.1**.

Table 4.1: Details of Focus Group Discussion and Public Consultation at Proposed Locations

Sl. No.	Place/Location	Issues Raised
1.	Savitribai Nagar, Kurla West	Safety measures to be taken during the construction, alternate access road to be provided. Special care for Community health and safety. Avoid using and affecting local resources like water for construction and electricity Provide portable sanitation facility.
2.	Mahatma Gandhi Nagar, Vadala	Adequate provisions for dust and noise pollution during construction period, In case land acquisition - Land against land to be given, resettlement within 2 km area.
3.	Maharashtra Nagar, Mankhurd	Plan and construct diversion routes, which would create minimum impact on local accessibility and traffic. All access roads should be fully restored after use.
4.	Mahim Station	Avoid using and affecting local resources like water for construction and electricity Provide portable sanitation facility.
5.	Goregaon Station	Increased Road traffic due to ongoing construction work Commuters movement during construction, Rail traffic & power and operation blocks.
6.	Dhukhata Khambha, Khandeshwar	Safety of workers, encroachers, population near stations and commuters during construction phase. In case land acquisition - Land against land to be given, resettlement within 2 km area, School, Medical facilities, Employment, Bus



Sl. No.	Place/Location	Issues Raised
		stand, common plot/playground to be provided,
7.	Diva Station	Special care for Community health and safety. Avoid using and affecting local resources like water for construction and electricity Provide portable sanitation facility.
8.	Nerul Station	Compensation against loss of livelihood, Displacement cost, house, common plot, water & electricity, shops, school, playground, compensation, bus stand nearby area.

4.6 Information Disclosure and Consultation

During social survey, meetings and focus group discussions were conducted to get wider public input from the primary and secondary stakeholders. The local communities, particularly the small business enterprises, took tremendous interests in the meetings. This consultative approach led to identification of a range of issues related to designing of underground stations at populated areas, approach road improvements before construction, reducing disruption of livelihoods and improved design for amenities/services for the traveling public. Most importantly, the communities strongly felt a sense of participation in the decision-making process.

Disclosure of the SIA report will be informed to the public through announcements on the local daily newspapers in English and Marathi through stakeholder consultations. During project implementation, Social Management Unit (SMU) of MRVC shall provide information related to entitlement policy and various options to the PAPs and community through its Public Information Centre (PIC). SMU will prepare an information brochure in local language, i.e., Marathi and Hindi, explaining the, the entitlements and the implementation schedule.

4.7 Grievance Redress Mechanism

- Grievance Redress Mechanism (GRM) is an arrangement for receiving, evaluating and facilitating the resolution of affected people's concerns, complaints, and grievances about the borrower/client's social and environmental performance on a project.
- The GRCs will have representatives from the community, local NGOs and the implementing agency. The Complaints received by the GRCs will be handled according to the existing procedures, which are in tandem with the Bank's requirements.
- The Project-affected People's Mechanism (PPM) has been established by the AIIB to provide an opportunity for an independent and impartial review of submissions from



Project-affected people who believe they have been or are likely to be adversely affected by AIIB's failure to implement its ESF in situations when their concerns cannot be addressed satisfactorily through Project-level GRM or AIIB Management's processes. It has been advised that a multi-tier GRM will be constituted for the Project in line with the prescriptions of the PPM Policy of the Bank, building on the existing complaint mechanisms.

- d) MRVC will develop a Grievances Redress Cell to receive and respond to the concerns, complaints, and grievances received from the stakeholders. The phone numbers and communication addresses for grievances will be displayed at various locations near construction site. The grievances will be received by following ways:
- Letter to Grievances Redress Cell or by email.
 - Telephonic grievances on the phone number linked to Grievances Redress Cell. The grievances received telephonically will be noted in the telephonic grievances register.
 - Grievances communicated to the field staff of MRVC/PMC/Contractor will have to be in writing and recorded by the field staff in a register, which will be given to the Grievances Redressal Cell.
- e) The grievances related to environment shall include but not limited to:
- Noise pollution due to vehicular traffic, machinery etc.
 - Air pollution due to construction activities
 - Contamination of waterbodies due to disposal of any type of waste such as solid waste from labour camps, construction and demolition waste, oil spills etc.
 - Use of productive land for material transportation or storage or labour camps without necessary permissions from concerned authority
 - Issues related to compensation for land acquired
 - Damage to any cultural or physical resources outside the project area
 - Misbehaviors of labour with the local community
 - Improper construction site management, improper storage or disposal of waste / debris material, inadequate safety practices, damage to cultural or public properties and issues between the labour force and the local community.
- f) Grievances related to land acquisition, compensation and resettlement will include issues such as computation of compensation, land measurement, eligibility, non-inclusion in the list of PAPs, valuation of structures, trees etc.
- g) There will be Grievance Redress Committee to hear and redress the grievances, if any, of the project affected families and PAPs at local level as well as in the Head Quarter level in Mumbai. The Grievance Redress Mechanism will be at two levels. Tier 1 will



consist of the Contactors and PMC. Tier 2 will be officers of MRVC. The working mechanism of Tier 1 and Tier 2 shall be as follows:

Tier 1: This will be the first level of grievance redress at field level and will consist of the Project affected persons representatives, Contactors and PMC. The Contractor at the field level to the extent possible will address the problem and try and resolve the complaint. The PMC will ensure the successful redress of the complaint and report to the Grievance Redress Cell. PMC will also monitor the implemented action in the field. The time taken at the field level to address grievances will be 14 days.

The field level PMC and Contractors will consider any grievance of PAFs, give its decision in writing within a stipulated time of 2 week, and keep record of such decisions. If the aggrieved party is not satisfied with the decision, appeal could be made to Grievance Redress Committee at Head Quarter level.

Tier 2: This will include officers from MRVC. The members will include CPMs and Deputy CPMs, Social Expert (1 staff), and environment expert (1 staff). The Grievance Redress Committee (GRC) at Head Quarter level (HQGRC) shall be chaired by the respective CPM and FA & CAO officials from MRVC and nominated officer from MMRDA shall be the members of the committee. The time taken to redress grievances will be 2 week at this level. The GRC at Head Quarter level is presented in **Table 4.2**.

Table 4.2: Headquarter level Grievance Redress Committee

Sl.	Officials	GRC Designation
I	CPM, MRVC	Chairman
II	FA & CAO, MRVC	Member
III	Deputy CPMs	Member
IV	Nominated Officer from MMRDA	Member
V	Environment Experts (1)	Member
VI	Social Expert (1)	Member

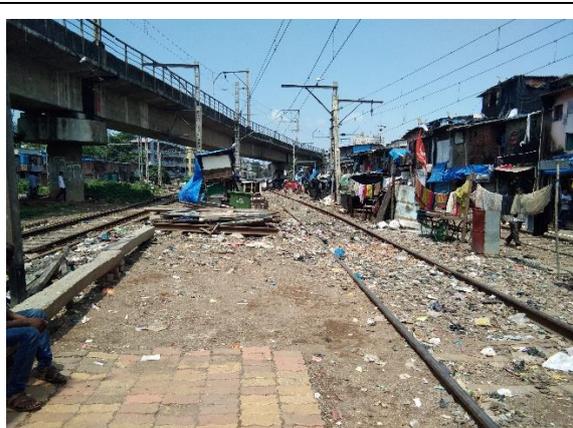
- h) Grievance Redress Committee at the HQ will comprise of separate line of redress for Land Acquisition matters and Resettlement matters. For land acquisition the aggrieved person will first approach the concerned SDO, followed by the Deputy CPM and finally the CPM. Alternately, the concerned SDO can also route the unresolved grievances through the Collector and then the concerned Additional Divisional Commissioner.



- i) For resettlement related matters, for non-title holders, the affected person will first approach the concerned Project Implementation Unit of MMRDA, then the Chief, Social Development Cell of MMRDA
- j) PRO will be a nodal person who will transmit the letter/telephonic grievances register to the respective departments e.g. Social, Environment, Civil, Mechanical, Electrical etc. within MRVC. Based on the response received from the technical team, PRO will respond back to the respective stakeholders via letter/email/telephonic communication regarding the complaints. PRO will also pass on the response of concerns, complaints, and grievances to the contactor and PMC for implementation of the actions suggested by MRVC on the grievances.
- k) The PRO shall disseminate the roles and responsibilities of its members and encourage the public to approach it in case they have any concern related to project implementation.
- l) The complainant may take recourse to the Court of law, if dissatisfied with the verdict of the GRM. PAFs are expected to approach the court of law after exhausting the remedy of GRC mechanism. However, establishment of grievance redress mechanism does not bar any one from approaching the court of law.

Table 4.3: Photographs of Public Consultation

	
<p>Public Consultation at Wadala</p>	<p>Public Consultation at Diva</p>
	
<p>Public Consultation at Mahim</p>	<p>Public Consultation at Khandeshawer</p>
	
<p>Public Consultation at Nerul</p>	<p>Public Consultation at Mankhurd</p>



Submitted by:



VOYANTS SOLUTIONS PVT. LTD.

403, 4th Floor, Park Centra

Sector - 30, NH - 8,

Gurugram - 122 001, India

Tel: +91-124-4598200 (30Lines)

Fax: +91-124- 4019051,

E-mail: info@voyants.in