



महा मुंबई मेट्रो
Maha Mumbai
Metro

***Due Diligence Report
Prepared by MMMOCL
on Acquisition of Metro
Line-1***



**Maha
Mumbai
Metro**



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Disclaimer

This document has been prepared for the “**Due Diligence Report Prepared by MMMOCL on Acquisition of Metro Line-1**”. This Report and findings are subject to the following limitations, and we have assumed that all data and information provided are correct and that no fact or information that would have had a material bearing on our findings would have been intentionally withheld or otherwise omitted. This Report has been prepared basis on the information made available to us by the representatives of MMOPL as uploaded on Virtual Data Room, which predominantly comprised copies of the various documents and oral information/confirmation as provided up to the date of this Report.

This report is prepared after verification of Operation & Maintenance records pertaining to Station, Traffic, OCC, Marketing & Sales, Safety, Security, Fire, 16 train sets, Signaling, Telecom, AFC, PST, E&M, Track & Civil – SOPs, MWIs, Checklist etc. It also contains reports of Depot Equipment and allied machinery after proper verification of assets and documentation.

Our findings and interpretation are subject to change based on any additional information or documents that are not shared. We have conducted our exercise under the bonafide belief as to the genuineness and authenticity of all the documents made available to us and we have not independently validated the information with any external source. Few items in the report are jointly verified by both MMMOCL and MMOPL staff.

Chapter-1 – Project Overview

1.1. Overview

- a. Versova-Andheri-Ghatkopar Corridor, a Mass Rapid Transit System project was awarded by Mumbai Metropolitan Region Development Authority (MMRDA) through a global competitive bidding process on Public-Private-Partnership (PPP) framework to R-Infra led consortium in 2007.
- b. Mumbai Metro One Private Limited (MMOPL) was incorporated for the implementation of the project. R-Infra was holding 74% of the equity share capital of MMOPL, while MMRDA holds 26%.
- c. Mumbai Metro One has provided much needed east to west connectivity and it facilitates interchange between the Mumbai Suburban Railway and Mumbai Metro at Andheri and Ghatkopar stations.
- d. The **Concessionaire Agreement was signed on 21 January 2008**, and work began on 8 February 2008.
- e. On 1 May 2013, a successful 2 km (1.2 mi) trial run from Versova to Azad Nagar stations was conducted on Line 1.
- f. The first metro service was flagged off on 8 June 2014 at 10:10 am from Versova station.
- g. Interchange - Mumbai Metro Line -3 at Marol Naka, Line 2A & 2B at DN Nagar and Line 7 at WEH.

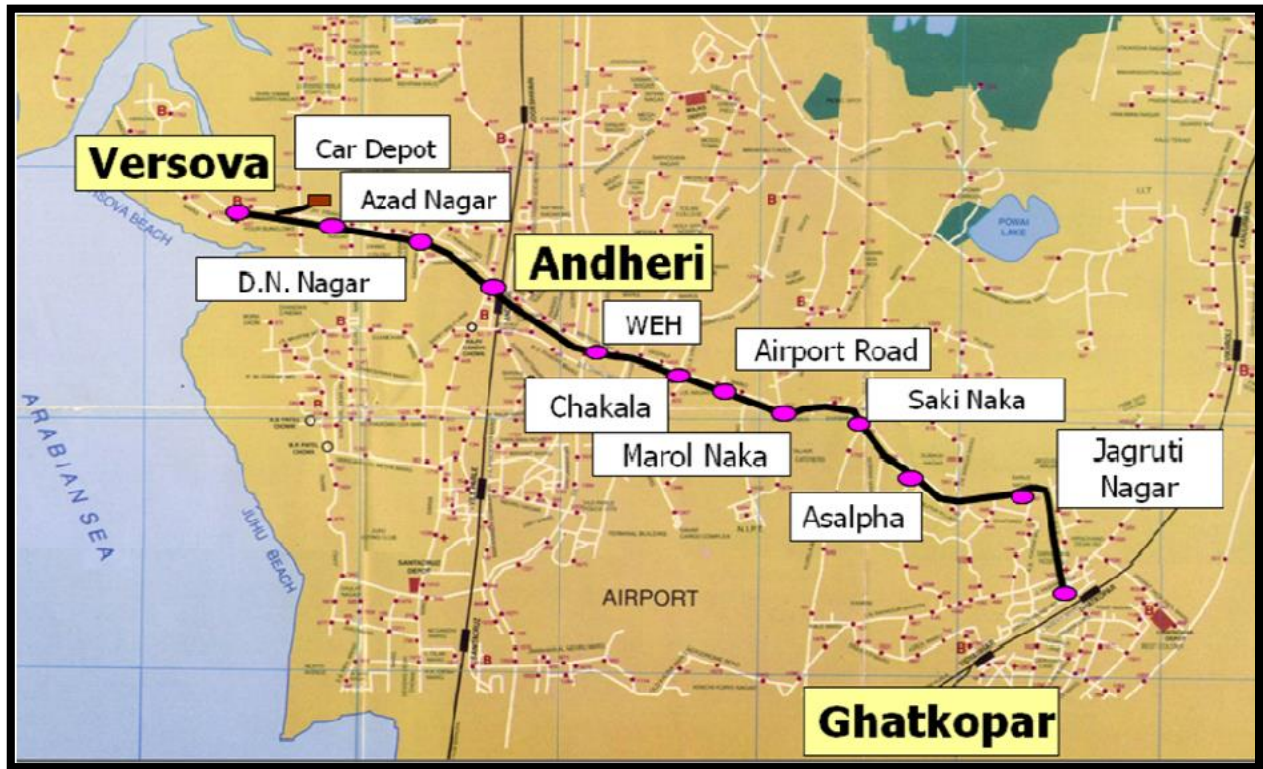
1.2. Details

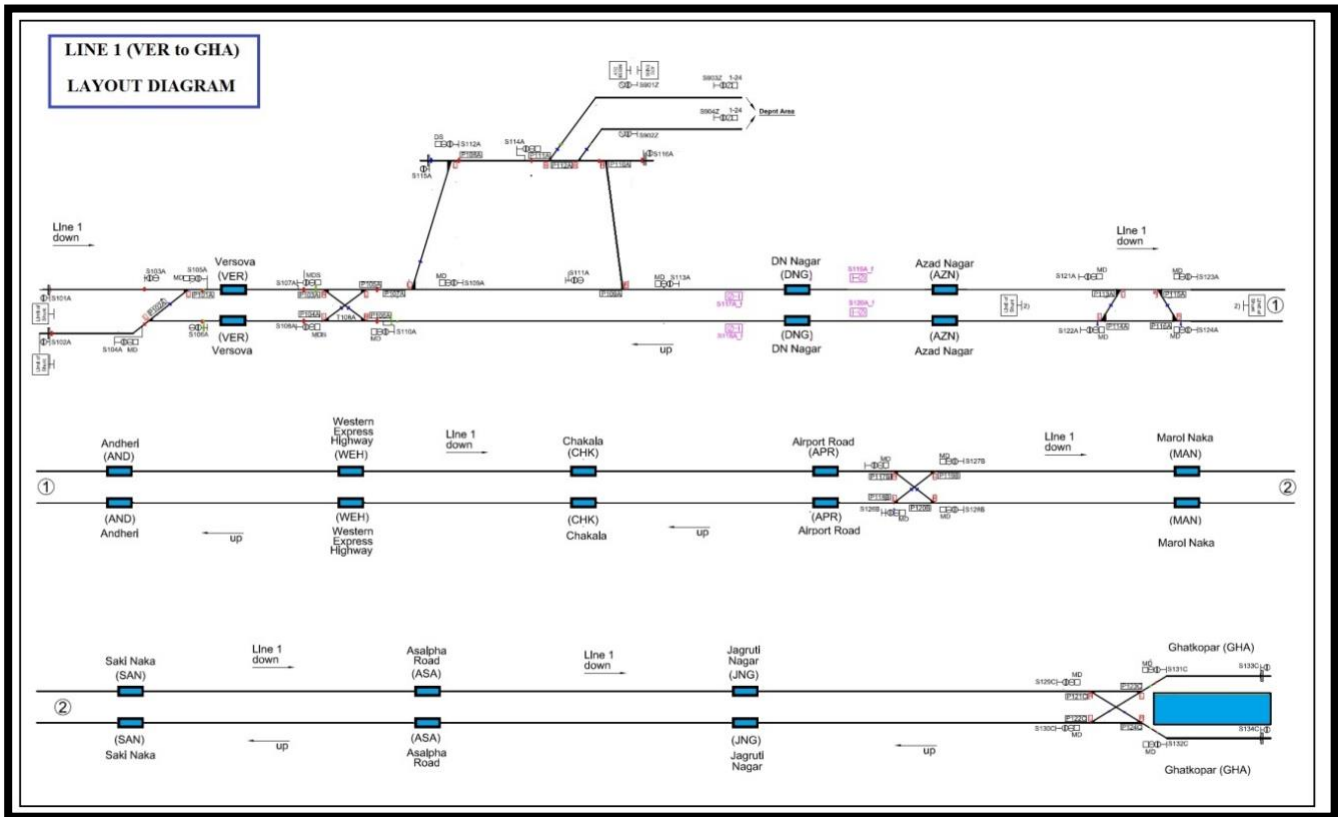
Description	Details
Total Length	11.40 Kms
Number of Operational Stations & Depot	12 Stations with 1 Depot
Start Time of Service	05:30 Hrs. (From Versova & Ghatkopar)
End Time of Service	23:25 Hrs. (From Versova) & 23:50 Hrs. (From Ghatkopar)
Travel Time	21 mins (End to End-One-way)
Headway	Monday to Friday (Peak hour- 220 seconds & Non-Peak Hour- 420 seconds) Saturday (Peak hour- 270 seconds & Non-Peak Hour- 420 seconds) Sunday- 480 seconds
Number of Trains	16 Trains of 04 cars each
Rolling Stock Manufacturer	CRRC Nanjing



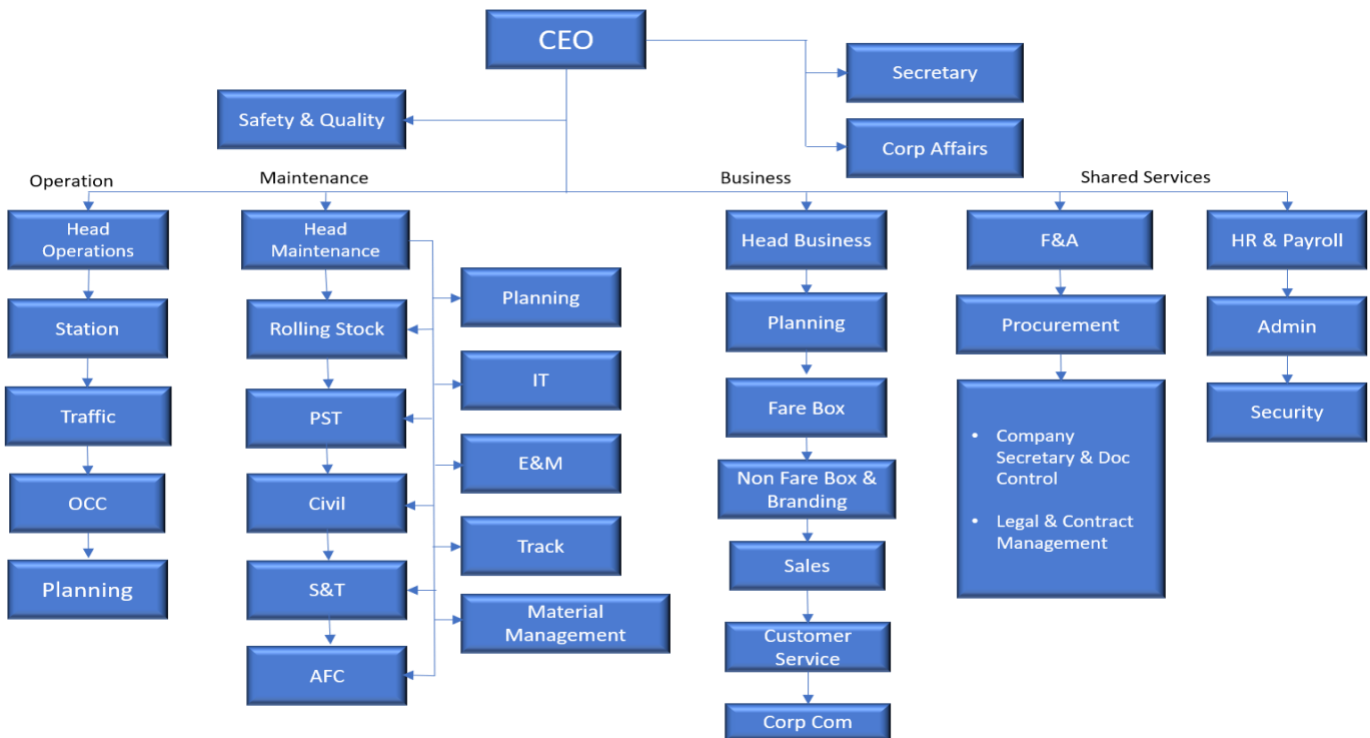
Description	Details
Operating Speed	80 Km/h.
Platform Length	135 Mtr - Built for 06 car train (currently operating 04 car train)
Mainline Crossover	04 (Versova, Azad Nagar, Airport & Ghatkopar)

1.3. Line Diagram





1.4. Organization Overview



Chapter-2 – DDR of Operation Department

2.1. Station Operation

2.1.1. Overview of Station

The stations of the Mumbai Metro Line 1, give the first impression to the customers about the Metro, while entering the system. Thus, not only the station design and layout but also the services provided by Mumbai Metro One, are customer oriented.

The services provided include:

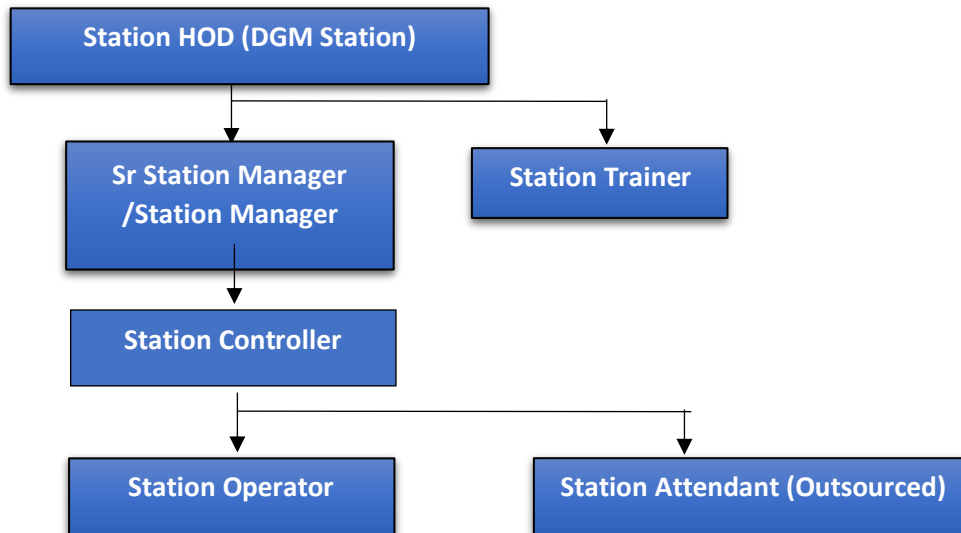
- a. Allowing an easy access to the station, the platform and the train
- b. Welcoming the passengers in safe and comfortable spaces
- c. Giving the right information under all circumstances
- d. Ensuring efficient crowd management in all locations of the stations
- e. Ensuring efficient operation of passenger facilities
- f. Providing medical assistance to the injured/sick passengers during journey in train or in Metro premises

2.1.2. Details of Stations

- a. There are total 12 nos. of stations in Line-1 out of which 3 are interlocking stations.
- b. Stations are manned by Station Controllers, Station Operators, Security, Marketing & Sales and Housekeeping staff depending upon the size and passenger flow of each station.
- c. Station Attendants are deployed at all stations for smooth de-boarding and boarding from trains.
- d. Stations are opened for access to the public at least 10 minutes before the advertised time of departure of the first train and until all the passengers have left the station after the arrival of the last train.
- e. OCC can transfer control to VER SCR during degraded and emergency situations, in case ATS commands could not be executed from OCC/PTR. Station Controller VER shall perform the activities of Traffic Controller till the time OCC instructs to do so.
- f. Station Controller/ Any other higher authority shall work as Rail Site Controller in case of any accident/incident if directed by the OCC.
- g. Ticket sales, Cash, Penalty and Public complaints at stations are handled by Marketing and Sales team.
- h. Overall control of the station during daily activities is with the Station Controller as per the provisions in the GR.
- i. Security of the station lies with Security Agency appointed by MMOPL
- j. House-Keeping of stations are awarded to outsource agency by MMOPL



2.1.3. Station Organization Overview



2.1.4. Manpower Status

SN	Designation	Manpower Count
1	Station HOD (DGM Station)	01
2	Sr. Station Manager/Station Manager	04
3	Station Trainer	01
4	Station Controller	64
5	Station Operator	41
6	Station Attendant (outsourced)	55
7	Housekeeping Staff for Station, Train and Depot(outsourced)	251

2.1.5. List of Items assessed

- List of SOPs – Normal, Degraded & Emergency
- Station Management Plan
- Station Working Order
- Essential Equipment
- List of Forms & Registers



- f. Clamp and padlock at interlocking stations
- g. Various Workstations inside SCR
- h. Outsourced Contract Details for Station Attendant, Housekeeping and Ambulance

2.1.6. Reference of relevant documents and its status

DOCUMENT DETAILS	STATUS
Station Management Plan	Uploaded
Station SOPs – Normal & Degraded	Uploaded
Station Working Order	Uploaded
List of Forms & Registers	Uploaded
Outsourced Contract Details 1. Housekeeping of Station & Depot including Train. 2. Station Attendant. 3. Internal Roof Cleaning. 4. AMC of Q-Manager. 5. Private Ambulance.	Work order & Master License Agreement uploaded.
List of Essential Equipment at Stations	Uploaded

2.1.7. Reference of relevant assets and its Status

Essential equipment – are available at stations and are in working Condition

Clamp and Padlocks- are available at stations and are in working Condition

2.1.8. Status Report

All Documents as per checklist have been provided.

2.1.9. Conclusion summary

Document/Asset verification has been done. Above details indicate the Document/Asset availability in MMOPL. Data as furnished by MMOPL & as received by MMMOCL against each line item is cross checked for availability/non-availability. Non-functional systems are deliberated in Maintenance Division Reports.

2.2. Train Operation

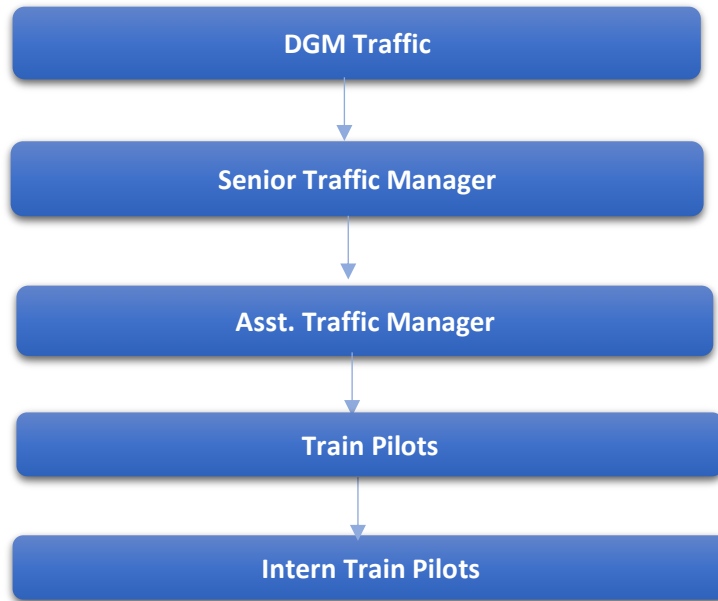
2.2.1. Overview of Train Operation (Traffic)

- a. The Traffic Division is responsible to deliver safe and efficient service according to the timetable.
- b. Transporting passengers while ensuring their safety and comfort all through their train ride is the primary objective of train operation.
- c. The KPIs of Traffic Division are detailed below:
 - i. Availability of competent Train Pilots to meet operational requirements
 - ii. No competency overdue of Train Pilots
 - iii. Documents review as per plan
 - iv. Safety Rule Violation

2.2.2. Details of Traffic Division

- a. Train pilots are in charge of operating trains and transporting passengers between stations.
- b. Train Pilots are deployed in shifts and rostered in as per timetable requirements.
- c. Train Pilots are Trained and supervised by Assistant Traffic managers.
- d. Overall Management of Train Pilots and Coordination with Other Operation Divisions is carried out by Crew Controller situated at Ghatkopar metro station.
- e. Crew Controllers are rostered round the clock and manned at Crew Controller Office situated at Ghatkopar metro station.
- f. Traffic Division's Overall in charge is DGM (Traffic) and to manage Traffic Division and for Training and coordination with other officials Sr. Traffic Manager is deputed in Traffic Division.
- g. Train Pilots perform Breath Analyzer Test during sign ON and sign OFF process at designated locations such as OCC (Depot), Crew Controller Room (Ghatkopar Metro Station) and Station Controller Room (Versova and Ghatkopar Metro Stations)
- h. Traffic Division has 8 nos. of Breath Analyzers which are placed at following location:
 - i. Depot OCC - 1
 - ii. Ghatkopar Crew Control Room- 1
 - iii. Ghatkopar SCR - 1
 - iv. Versova SCR - 1
 - v. DGM Office - 2
 - vi. Traffic Manager Room Ghatkopar Metro Station - 1
 - vii. Depot Simulator -1
- i. For Train Pilot Training, Simulator is provided which is operated by Traffic division during Train Pilot Training period and maintained by RS Division.
- j. Rolling Stock Simulator: This includes all the training facilities provided in the simulator room in general and the cab replica simulator and 4 desktop workstation simulators.

2.2.3. Traffic Division Organization Overview



2.2.4. Manpower Status

SN	Designation	Manpower count
1	DGM Traffic	01
2	Senior Traffic Manager	01
3	Assistant Traffic Manager	05
4	Train Pilots	67
5	Intern Train Pilots	10

2.2.5. List of Items assessed

- a. List of SOPs – Normal, Degraded & Emergency
- b. Traffic Division Manual
- c. Traffic Equipment such as Breath Analyzer and its calibration record
- d. List of Forms & Registers
- e. Traffic Training Modules and PPTs
- f. From Train Pilot, checked following things:
 - i. Train Pilot Diary
 - ii. Training Log Book

- iii. Troubleshooting Manual (Part of TP Diary)
- iv. Footplate Inspection Book
- g. Rolling Stock Simulator Working Status for Train Pilot Training

2.2.6. Reference of relevant documents and its status

DOCUMENT DETAILS	STATUS
All SOPs as per Traffic Division Manual -Section B: Standard Operating Procedures and Forms. (62 SOP's in number)	Uploaded
Traffic Division Manual Section A Management Plan	Uploaded
List of FORMS and REGISTERS	Uploaded
Breath Analyzer Calibration Certificate	Uploaded
Train Pilot Diary and Handbook (with Train Troubleshooting guidelines)	Uploaded
MMOPL Simulator User Manual Version 3.0	Uploaded

2.2.7. Reference of relevant assets and its Status

Breath Analyzer: Available at OCC: Found Ok

Breath Analyzer Calibration Records: Available at Planning Operation Division: Found Ok

Rolling Stock Simulator for Train Pilot Training: Found Ok for Train Pilot Training

2.2.8. Status Report

Relevant Documents for Traffic Division are found uploaded.

2.2.9. Conclusion summary

Document/Asset verification has been done. Above details indicate the Document/Asset availability in MMOPL. Data as furnished by MMOPL & as received by MMMOCL against each line item is cross checked for availability/non-availability. Non-functional systems are deliberated in Maintenance Division Reports.

Following deficiencies are observed in Train Driving Simulator:

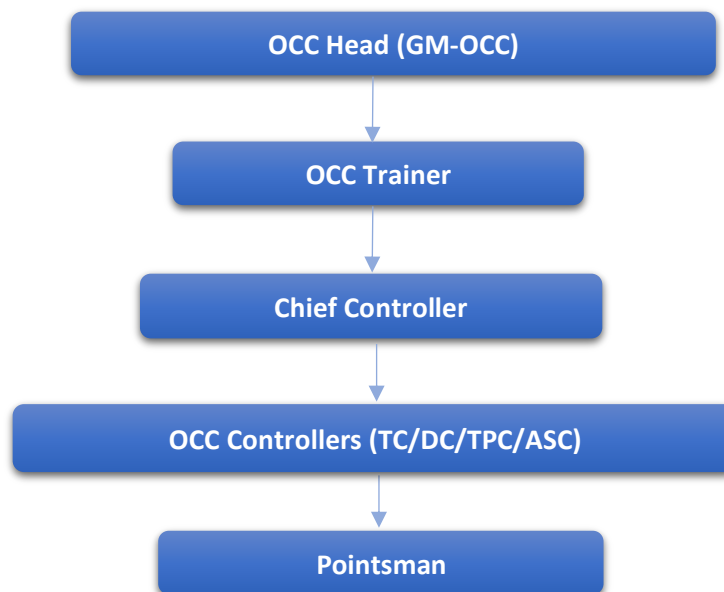
1. Train Radio Not Working
2. Pressure Gauges of MR & BC Not Working

2.3. OCC

2.3.1. Overview of OCC

- a. The OCC is the nerve center of entire metro operations and most important Division. OCC is the focal point for executing the planned train program with punctuality, regularity and operational efficiency. OCC receives real time information and is the center for decision making concerning Mumbai Metro Line-1 VAG Corridor.
- b. It is intended to monitor, supervise, and control numerous Train activities on Mainline, and Depot train operation through Traffic Controller and Depot Controller. Using Siemens software – “VICOS OC 501” for Automatic Train Supervision.
- c. Using a SCADA system, Traction Power Controller monitor, supervise, and control auxiliary and traction power by **Micro SCADA Pro 10.5**.
- d. Auxiliary Station Controller is responsible for the operation and maintenance of a building's technical systems. Auxiliary Controller are responsible for the supervision and control of building technologies including HVAC, lifts, pump systems etc.,
- e. OCC is responsible for taking decisions regarding passenger safety, adherence to timetable and liaison with internal & external agencies. It has the required equipment and the approved procedures to handle normal, degraded and emergency situations.
- f. An Incident Management Room is located besides the OCC with all the relevant communication means to effectively manage the situation during disaster.
- g. OCC have dedicated phones for Disaster & Monsoon Control.
- h. OCC have dedicated Fire Brigade Hot Line.

2.3.2. OCC Organization Overview



2.3.3. Manpower Status

SN	Designation	Manpower count
1	OCC Head (GM-OCC)	01
2	OCC Trainer	01
3	Chief Controller	06
4	OCC Controller (TC/DC/TPC)	18
5	Points man	05

2.3.4. List of Items assessed

- a. List of SOPs – Normal, Degraded & Emergency
- b. OCC Management Plan
- c. ATS Operating Manual
- d. OCC Recovery Plan
- e. Breath Analyzer & Calibration Certificate
- f. Clamp and padlock
- g. List of Reports.
- h. Disaster & Monsoon Control Phone
- i. Fire Brigade Hot Line.

2.3.5. Reference of relevant documents and its status

DOCUMENT DETAILS	STATUS
OCC Management Manual	Uploaded
OCC SOPs – Normal, Degraded & Emergency	Uploaded
ATS Operating Manual	Uploaded
OCC Recovery Plan	Uploaded
List of Form's & Register	Uploaded
List of Reports	Uploaded
Timetable Manual (FALKO)	Uploaded
SCADA Operating Manual	Uploaded
Bahn Sim (TC /DC Training simulator) Manual	Uploaded
BMS Manual	Uploaded



DOCUMENT DETAILS	STATUS
Train Troubleshooting Manual	Uploaded in Traffic Division “Train Pilot Diary and Handbook”
Emergency Contact List	Uploaded

2.3.6. Reference of relevant assets and its Status

Clamp and Padlock- All are in working Condition.

2.3.7. Status Report

All Documents as per checklist have been provided.

2.3.8. Conclusion summary

Document/Asset verification has been done. Above details indicate the Document/Asset availability in MMOPL. Data as furnished by MMOPL & as received by MMMOCL against each line item is cross checked for availability/non-availability. Non-functional systems are deliberated in Maintenance Division Reports.

2.4. Safety & Quality

2.4.1. Overview of Safety & Quality

- The Safety & Quality function is headed by Head – Safety & Quality who is responsible for the Rail Safety of entire network of Line-1 is supported by his Safety & Quality team comprising of DGM/Managers in achieving objectives of Safety & Quality.
- Day to Day tasks include PIC trainings, Safety Trainings, Safety inspections, conducting mock drills, report preparation etc.

2.4.2. Manpower Status

SN	Designation	Manpower count
1	Head Safety & Quality	01
2	DGM Safety & Quality	02
3	Manager Safety & Quality	01
4	AM- Safety & Quality	01
5	Safety & Quality Executive	01

2.4.3. Safety & Quality Organization Overview



2.4.4. List of Items assessed

- CMRS Reports till date
- Compliance reports as per CMRS report
- Applicable Fire NOCs for Stations & Depot
- Safety & Quality Standard Operating Procedures



- e. Safety & Quality Manuals
- f. Safety & Quality Plan level documents
- g. HIRA Register
- h. Schedule of Mock Drills, Audit & Inspections
- i. List of all QHSE equipment along with all Certifications & Calibrations
- j. List of all Incidents from COD
- k. List of all Accidents from COD
- l. All Incident Reports from COD
- m. All Accident Reports from COD
- n. Safety measures adopted in Stations apart from original design
- o. Safety measures adopted in Depot apart from original design
- p. List of Retail spaces at stations
- q. All Certifications, Approvals, Tenders, Contracts of Retail spaces at stations
- r. Details of pending Safety & Quality compliances
- s. Details of ongoing Safety & Quality compliances
- t. Latest Change Management Register
- u. Environmental Clearance Certifications
- v. Document Management System - Manual/Plan
- w. Document Management System Tender/Contract
- x. Submissions to MMRDA till date with respect to Safety & Quality
- y. Submissions to CMRS till date with respect to Safety & Quality
- z. List of all MMOPL statutory obligations related to Safety & Quality
- aa. All Original reports of statutory obligations related to Safety & Quality
- bb. All inspection reports till date related to Safety & Quality
- cc. All audit reports till date related to Safety & Quality
- dd. Breath Analyzer Calibration Status
- ee. Mock Drill Reports

2.4.5. Reference of relevant documents and its status

DOCUMENT DETAILS	STATUS
All CMRS Reports till date	Uploaded
All compliance reports as per CMRS report	Uploaded
All applicable Fire NOCs for Stations & Depot	Uploaded
All Safety & Quality Tenders & Contracts	Not Applicable
All Safety & Quality Standard Operating Procedures	Uploaded
All Safety & Quality Manuals	(OH&S Manual, DMM, Quality Manual uploaded)



DOCUMENT DETAILS	STATUS
All Safety & Quality Plan level documents	OH&S Manual Uploaded
Latest HIRA Register	Uploaded for all division of 17
Schedule of Mock Drills, Audit & Inspections	Uploaded
List of all Safety & Quality equipment along with all Certifications & Calibrations	QHSE Equipment are held by respective divisions.
List of all Incidents from COD	Data provided for duration 01.01.2023 to 31.03.2024.
List of all Accidents from COD	Uploaded
All Incident Reports from COD	Data provided for duration 01.01.2023 to 31.03.2024.
All Accident Reports from COD	Uploaded
Safety measures adopted in Stations apart from original design	SOP for PTW D-GN-SFT-S-009, SOP for crowd management D-OP-STN-S-009 is uploaded.
Safety measures adopted in Depot apart from original design	SOP For issue of PTW in IBL, Workshop (D-MN-RLL-S-026)
All Certifications, Approvals, Tenders, Contracts of Retail spaces at stations	(Not Applicable for Q&S)
Details of pending Safety & Quality compliances	(Nil)
Details of ongoing Safety & Quality compliances	(Nil)
Latest Change Management Register	(MMOPL remarks - Not Applicable)
All Environmental Clearance Certifications	Uploaded
Document Management System - Manual/Plan	Uploaded
Document Management System Tender/Contract	Will be uploaded in IT Folder.
All submissions to MMRDA till date with respect to Safety & Quality	Covered under CMRS & IE Reports uploaded.
All submissions to CMRS till date with respect to Safety & Quality	Uploaded
List of all MMOPL statutory obligations	Statutory obligations for EIG approvals, CMRS sanction & compliances, RDSO approvals uploaded.



DOCUMENT DETAILS	STATUS
All Original reports of statutory obligations	Reports of statutory obligation for EIG approvals, CMRS sanction & compliances, RDSO approvals are uploaded.
All inspection reports till date	Uploaded
All audit reports till date	Uploaded
Mock Drill Reports	Mock Drill reports for the Year 2021-2022, 2022-2023 & 2023-March 2024 uploaded.

2.4.6. Reference of relevant assets and its Status

MMOPL has indicated that Safety & Quality Equipment are held by respective divisions

2.4.7. Status Report

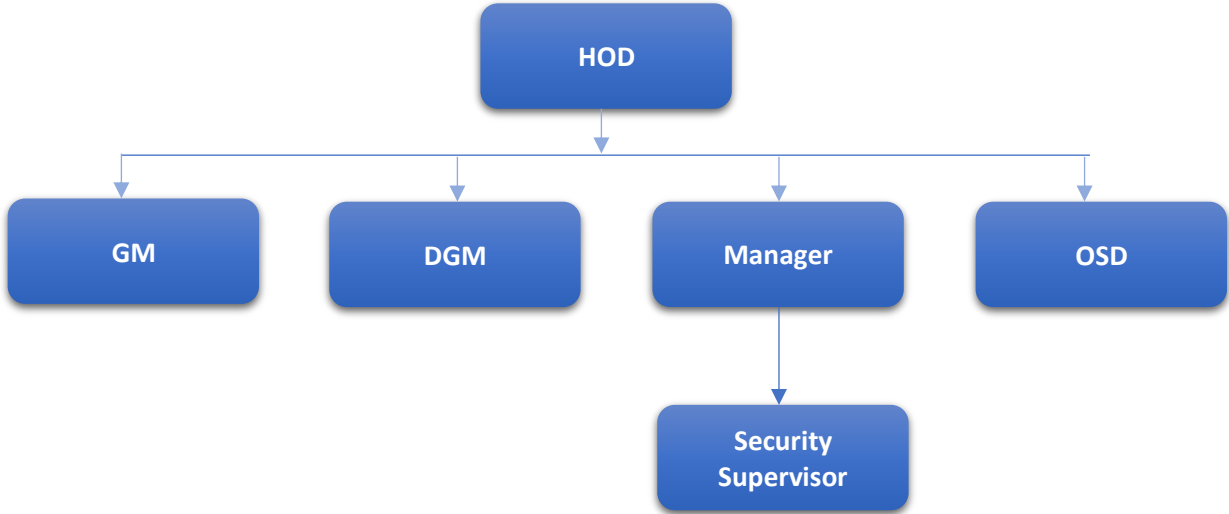
Most of the documents as put up through checklist have been provided & also ISO 9001 Certification (QMS) has been acquired from Line-1.

2.4.8. Conclusion summary

Details as required in Sec.2.4.4 from MMOPL has been acquired.

2.5. Security

2.5.1. Security Organization Overview



2.5.2. Manpower Status

SN	Designation	Manpower count
1	Security HOD	1
2	GM Security	1
3	DGM Security	1
4	Manager Security	1
5	OSD (Retd ACP)	1
6	Security Supervisor	1
7	Security Staff (outsourced) (SISPL)	475
8	Security Staff (outsourced) (CISB)	80
9	Armed Security Guards (CSS Pvt Ltd)	97

Note- Payment for Dog Squad and CISB Security is done by Line 1 (Reliance infra), whereas Other agency Payment i.e SISPL security Staff and CSS Security (Armed Guards) is done by MMRDA

2.5.3. List of Items assessed

- a. List of SOPs – Normal, Degraded & Emergency
- b. Essential Equipment
- c. List of Forms & Registers
- d. Security Equipment available at all Stations
- e. Details of Outsourced security Staff
- f. Audit observations report by Protection and Security Staff and by IB

2.5.4. Reference of relevant documents and its status

DOCUMENT DETAILS	STATUS
Security Management Plan	Uploaded
List of SOPs – Normal, Degraded & Emergency	Uploaded
List of Security Equipment installed at Station	Uploaded
Security Audit observations by IB and State Police	Uploaded
Outsourced Contract Details	Uploaded
Details of Mock drill conducted with report	Uploaded (without report)

2.5.5. Reference of relevant assets and its Status

Security equipment – are available at stations and are in working Condition

2.5.6. Status Report

All documents as put up through checklist have been uploaded.

2.5.7. Conclusion summary

All required documents as per existing contract are uploaded and are also verified physically.



2.6. Fire

2.6.1. Overview

- a. The Fire-Safety trainings, various mock drills etc. covered by Safety division and maintenance of entire fire protection & detection system, automatic fire suppression system etc. **is carried** out under maintenance department.
- b. One Fire consultant is there in Line 1 metro who is responsible **for** execution of all Fire legal compliances, liasoning with Mumbai Fire brigade, commercial etc. **related** to Metro operations.
- c. **The Fire system comprises Fire protection, Detections & auto suppression system i.e. Fire hydrant system, Fire alarm system & FM 200 etc. These all systems are maintained by E&M division.**

2.6.2. Organization Overview



2.6.3. List of Items assessed

- a. Fire NOC with approved plan
- b. Form B submission tracker
- c. Fire Emergency handling SOP
- d. Fire training record to station staff
- e. Fire mock drill tracker
- f. Incident tracker
- g. List of Fire assets on Form B annexures
- h. Cafeteria/Kiosk inspection tracker
- i. As-built drawing Fire protection & detection system under E&M division.
- j. Fire Evacuation plan in station working order under station division.
- k. FA & FF Training record under HR division



2.6.4. Reference of relevant documents and its status

DOCUMENT DETAILS	STATUS
Details of Compliance as per CMRS pertaining to Fire.	Uploaded
Fire protection & detection, Entry-Exit, PA system etc. layouts of Depot & Station. (Approved plans)	Approved plan uploaded
Fire NOC with Compliance Report (OC) of Metro Depot & all stations	Uploaded
Form B tracker, Latest Form B submission details	Uploaded
Fire Emergency handling SOPs.	Uploaded
Fire safety training records to stations staff.	Uploaded under HR division folder
Records of Fire mock drills at station & depot, at least last 3 Financial years.	Uploaded for last 3 financial years
List of Fire Incidents (last 3 financial years).	Uploaded
List of all checklist maintained for inspection of Fire systems	Uploaded under E&M division folder
Fire extinguisher register of Depot & all stations.	Uploaded under E&M division folder also covered in SWO of respective stations
List of Fire assets at Station & Depot.	Uploaded under E&M division folder
Cafeteria/Kiosk inspection tracker at station.	Uploaded
Inspection of Fuel storage area, if any.	As per MMOPL, it is not applicable.
Fire system AMC tracker	Uploaded under E&M division folder
As built drawing of all Stations related to Fire	Uploaded under E&M division folder
Fire evacuation Plan	Covered under SWO of respective stations
Details of Fire Water Tank capacity (Station & Depot)	Uploaded under E&M division folder
Assembly area route for Depot & Stations	<p>i. For stations, the details of the Assembly area route given in the SWO of respective station.</p> <p>ii. For Depot, the details of the Assembly area given in the SOP i.e. Response to Fire in Depot.</p>

2.6.5. Reference of relevant assets and its Status

NIL

2.6.6. Status Report

Most of the documents as put up through checklist have been provided.



2.6.7. Conclusion summary

Document assessment has been done. Above details indicate the document availability in MMOPL. The same has been verified/crosschecked. Non-functional systems are deliberated in Maintenance Division Reports.

2.7. Marketing & Sales (Commercial)

Introduction

The purpose of this document is to elucidate the operational framework of Mumbai Metro One Pvt Ltd. (MMOPL), with a particular focus on its Commercial Division, referred to as the Business function. The document will provide an overview of MMOPL's business strategy, manpower details, organizational structure, risk management approach, as well as Key Performance Indicators (KPIs) and their monitoring and review mechanisms.

2.7.1. Overview of Marketing & Sales (Commercial)

Commercial Division, which is known as the Business function Mumbai Metro One Pvt Ltd. (MMOPL), headed by the Business Head. It handles Fare Box Revenue (Marketing & Sales), Non-Fare Box Division, and Customer Service Division. The Department's mandate includes formulating and implementing fare and non-fare revenue strategies, ensuring optimal customer service delivery, and overseeing operational aspects of revenue management.

- a. Fare Box Division which is known as Marketing & Sales in MMOPL oversees fare box revenue strategy of all 12 Stations. They carefully craft fare strategy, balance revenue optimization with commuter affordability by maintaining right product mix and accessibility, incorporating pricing models in various pass.
- b. Non-Fare Department is dedicated to maximizing revenue streams beyond ticket sales by strategically implementing various initiatives. These initiatives encompass advertising at Station and Trains, Selling Retail space at stations, selling promotional spaces, leveraging telecommunications opportunities, and utilizing optical fiber cable (OFC) resources to their fullest potential.
- c. The Customer Service Division is responsible for managing customer grievances and feedback, social media interactions, call center operations, and lost & found management. Its primary focus is on delivering outstanding customer service by implementing efficient grievance resolution processes, conducting staff training, and integrating technology solutions.

2.7.2. Details of Commercial

2.7.2.1. Fare Box Division (Marketing & Sales)

Fare Box Division (Marketing & Sales) is handling the ticketing revenue operation, Customer grievance management at all 12 stations. Fare box team consist of General Manager, DGM, Sr. Manager, Managers, Asst. Managers, Sr. Shift Supervisor, Shift Supervisor, Sr. Customer Care Officer, Customer Care Officer and Ticket selling Officer. The overall responsibilities of the Fare Revenue division can be summarized as below



- a. Maximization of fare box revenue
- b. Fare Box Revenue Reconciliation
- c. Cash and digital payment Management
- d. Customer grievance management
- e. Enable growth of non-fare revenue
- f. Alliances for revenue growth
- g. Sale & travel data analysis
- h. Implementation of fare strategy
- i. Fare revision initiatives
- j. Ensure Smooth flow of Passenger

A. Current Fare Matrix of VAG Corridor

As per “The Metro Railways (Operation and Maintenance) Act, 2002; Metro Railway Administration may fix the fare without the recommendations of the Fare Fixation Committee on the initial opening of the metro railway. Initial fare fixed by MMOPL under the provisions of Section 33 of the Metro Railways (Operation and Maintenance) Act, 2002 is as under:

Travel Distance	Fare (Rs)
0 to 2 KM	10
2 KM to 5 KM	20
5 KM to 8 KM	30
8 KM & Above	40

B. Fare product mix for Passenger

To ensure increase in usage, earn loyalty and attract new commuters into metro; MMOPL have designed a right mix of fare products so as to attract various types of travelers.



Store Value Pass	<ul style="list-style-type: none"> ▪ Pay as you go; wallet based product ▪ Ideal for regular commuters ▪ It can be recharged online
Trip/Monthly Pass	<ul style="list-style-type: none"> ▪ Unlimited/45 Trips valid for 30 days ▪ Ideal for daily commuters
SJT (Single Journey Token)	<ul style="list-style-type: none"> ▪ Ideal for commuters who do not travel regularly ▪ Fare 10 20 30 40 depending on distance of travel
RJT (Return Journey Token)	<ul style="list-style-type: none"> ▪ Mumbai specific product, ideal for commuters having return requirement ▪ Saves time, reduces load at ticketing counters ▪ Fare 20 40 60 75;

2.7.2.2. Reference of relevant documents and its status

Fare-Box Documents/Assets Available with MMOPL

Sr No.	Documents Details	Status
1	Float Money Amount checked at station found ok as per the sheet uploaded in Data Room- Detail is given in - Annexure-1	Uploaded in Data Room
2	Shift Supervisor Mobile and TSO & CCO Counter Mobile Checked at station and found working- Detail is given in - Annexure-2	Uploaded in Data Room
3	Safety Vault & Keys checked and verified at as per Annexure-3	Uploaded in Data Room
4	Total Count of CSC/TAP TAP card and Defective CSC - checked & found ok as per Annexure-4	Uploaded in Data Room
5	White Board and Soft Board available at Stations verified as per Annexure-5	Uploaded in Data Room
6	Note Counting Machine available at Stations checked and verified as per Annexure-6	Uploaded in Data Room
7	Print Roll Stock available at Stations checked and verified as per Annexure-7	Uploaded in Data Room
8	Commercial SOP (Customer Service, Ticket Sales & Non-Fare Box)	Uploaded in Data Room
9	Commercial Registers & Forms available at Depot & Stations as per Annexure-8	Uploaded in Data Room
10	Lost & Found Article uploaded in Data Room	Uploaded in Data Room



Sr No.	Documents Details	Status
11	Business Rule	Uploaded in Data Room
12	Thermal Print Roll PO Uploaded in data Room Note -As per MMOPL, Contract Document not required for purchase	PO Uploaded in Data Room
13	Smart Card PO Uploaded in data Room Note -As per MMOPL, Contract Document not required for purchase	PO Uploaded in Data Room
14	Ticketing outsources contract detail	Uploaded in Data Room
15	Cash Collection Agency contract	Uploaded in Data Room
16	Paper Tickets details Not Applicable	NA
17	Payment Gateway Contract Agreement (PhonePe, Common Agreement with Mobile Ticketing)	Uploaded in Data Room
18	Mobile Ticketing agreement (PhonePe, Paytm)	Uploaded in Data Room
19	NCCM Contract (Airtel Payment)	Uploaded in Data Room
20	AFC Revenue Report (Last 12 Months)	Uploaded in Data Room
21	Fare Box Revenue Reconciliation Report of last 5 Years	Data Uploaded from April 2019 to Mar 2024 NOTE: April 2020 to Sep 2020 is not applicable as operation was on hold due to Pandemic Period)



Annexure-1

Verification details of Commercial Division Float Money available with MMOPL the same has been verified at all stations and the same has been uploaded in Data Room

Sr No.	Station Name	Float Money Amount Station Wise
1	VERSOVA	90645
2	DN NAGAR	181700
3	AZAD NAGAR	92500
4	ANDHERI	330000
5	WESTERN EXPRESS HIGHWAY	130000
6	CHAKALA JB NAGAR	130000
7	AIRPORT ROAD	80000
8	MAROLNAKA	145100
9	SAKINAKA	250000
10	ASALPHA	65625
11	JAGRUTI NAGAR	39300
12	GHATKOPAR	440000
	Total Amount	1974870



Annexure-2

Verification details of Commercial Division Mobile Phone available with MMOPL on stations the same has been verified at all stations and uploaded in Data Room

Sr No.	Station Name	Station wise Mobile Count (Counter + SSP)
1	VERSOVA	5
2	DN NAGAR	6
3	AZAD NAGAR	5
4	ANDHERI	9
5	WESTERN EXPRESS HIGHWAY	5
6	CHAKALA JB NAGAR	5
7	AIRPORT ROAD	5
8	MAROLNAKA	5
9	SAKINAKA	6
10	ASALPHA	5
11	JAGRUTI NAGAR	3
12	GHATKOPAR	16
	Total	75



Annexure-3

Verification details of Commercial Division Safety Vault available with MMOPL on stations the same has been verified at all stations and uploaded in Data Room

Sr No.	Station Name	Safety Vault Count Station Wise
1	VERSOVA	1
2	DN NAGAR	1
3	AZAD NAGAR	1
4	ANDHERI	1
5	WESTERN EXPRESS HIGHWAY	1
6	CHAKALA JB NAGAR	1
7	AIRPORT ROAD	1
8	MAROLNAKA	1
9	SAKINAKA	1
10	ASALPHA	1
11	JAGRUTI NAGAR	1
12	GHATKOPAR	1
	Total	12

Remarks- All Key sets are available and found OK.



Annexure-4

Verification details of Commercial Division CSC & TAP TAP (Cards & Wrist Band) available with MMOPL on stations as on 15.04.2024 & the same has been verified at all stations and uploaded in Data Room

Sr No.	Station Name	CSC	Defective	TAP TAP Wrist Band
1	VERSOVA	659	13	43
2	DN NAGAR	9474	30	185
3	AZAD NAGAR	584	14	49
4	ANDHERI	1934	111	298
5	WESTERN EXPRESS HIGHWAY	731	33	108
6	CHAKALA JB NAGAR	347	22	99
7	AIRPORT ROAD	588	19	44
8	MAROLNAKA	168	38	91
9	SAKINAKA	418	45	90
10	ASALPHA	354	35	49
11	JAGRUTI NAGAR	382	4	24
12	GHATKOPAR	1699	174	156
	Total	17338	538	1236



Annexure-5

Verification details of Commercial Division white Boards & Soft Boards available as on 15.04.2024 with MMOPL on stations the same has been verified at all stations and uploaded in Data Room

Annexure-6

Verification details of Commercial Division Note Counting Machine available with MMOPL on stations the same has been verified and uploaded in Data Room

Sr No.	Station Name	Note Counting Machine Station Wise
1	VERSOVA	1
2	DN NAGAR	1
3	AZAD NAGAR	1
4	ANDHERI	2
5	WESTERN EXPRESS HIGHWAY	1
6	CHAKALA JB NAGAR	1
7	AIRPORT ROAD	1
8	MAROLNAKA	1
9	SAKINAKA	1
10	ASALPHA	1
11	JAGRUTI NAGAR	1
12	GHATKOPAR	2
	Total	14



Annexure-7

Verification details of Commercial Paper Roll Stock available with MMOPL as on 15.04.2024 on stations the same has been verified at all stations and uploaded in Data Room

Sr No.	Station Name	Paper Roll Stock Station Wise
1	VERSOVA	344
2	DN NAGAR	582
3	AZAD NAGAR	610
4	ANDHERI	1603
5	WESTERN EXPRESS HIGHWAY	801
6	CHAKALA JB NAGAR	1049
7	AIRPORT ROAD	801
8	MAROLNAKA	651
9	SAKINAKA	307
10	ASALPHA	96
11	JAGRUTI NAGAR	288
12	GHATKOPAR	1400
	Total	8532

2.7.2.3. Non-Fare Box Division

Non-Fare Box Revenue Management team involves maximizing revenue from sources other than ticket sales. This includes various avenues such as advertising space, retail partnerships, promotional events, telecommunications infrastructure, and leasing of space for commercial purposes. The aim is to strategically utilize available assets and opportunities to generate additional revenue streams while enhancing the overall commuter experience. Effective management involves identifying lucrative opportunities, negotiating partnerships, optimizing asset utilization, and ensuring compliance with regulatory requirements. The overall responsibilities of the Non-Fare Box Division can be summarized as below:

- a. New Business Development in Leasing, Advertising, Payment Alliances and Film Shootings
- b. Ensuring necessary compliances before and during fit out process.
- c. Revenue Management of Advertising business.
- d. Compliance management of all Retail and Leasing clients, Relationship Management
- e. Outstanding payment collection management
- f. Brand Management, Social media management, vendor/agency management
- g. Communication for commuters, managing in-house events
- h. Ensure execution of all marketing and branding level activities

Performance monitoring and reporting KPI of NFBR team is given below:

- a. Increase Non-Fare Revenue
- b. Manage Payment Collection (Cash Flow)
- c. Manage Advertising Revenue
- d. Credit Control
- e. Enhance Brand visibility and Positioning through various communication channels

Non-Fare-Box Documents/Contract Available with MMOPL

SN	Documents Details	Status
1	Security Deposit of all Retail Contractors (for all 12 stations) – Deposited in Bank - Total Security deposit amount Rs. 6,01,64,267/-) - Please refer NFBR annexure 01 - Retail	Confirmed by MMOPL
2	Total Bank Guarantee of Advertisement Contact of M/s. Times Innovative Media Limited is Rs. 4,75,00,000/- (in 4 different Bank Guarantee with different validity period) - Please refer NFBR annexure 02 – Advertising	Document uploaded in Data Room
3	Performance Security of Advertisement Contact M/s. Times Innovative Media Limited is Rs. 3,25,00,000/- as a bank deposit which is over and above the Bank Guarantee mentioned above in the serial # 2 - Please refer NFBR annexure 02 - Advertising	Confirmed by MMOPL



SN	Documents Details	Status
4	Security Deposit for Telecom Small Cell Pillars M/s. Indus Towers Limited deposited amount in Bank is Rs. 36,54,000/- for 87 pillars (2 contract agreement / amendment) - Please refer NFBR annexure 03 – Telecom	Confirmed by MMOPL
5	Security Deposit for Telecom BTS M/s. Indus Towers Limited deposited amount in Bank is Rs. 1,29,70,000/- across 12 stations - Please refer NFBR annexure 03 - Telecom	Confirmed by MMOPL
6	<p>No Security Deposit has been collected for OFC contractor M/s. Microscan Infocomm Tech Private Limited – Please refer NFBR annexure 03 - Telecom</p> <p>Note:- Security Deposit is not taken as Non-refundable installation fee of Rs. 2,10,00,000/- was charged from contractor in 5 different installments, as per below schedule</p> <p>a. Rs. 5000000/- at the time of signing of agreement b. Rs. 5000000/- at the of site handover c. Rs. 4000000/- at the completion of 1st year from the date of handover d. Rs. 4000000/- at the completion of 2nd year from the date of handover e. Rs. 3000000/- at the completion of 3rd year from the date of handover</p>	Confirmed by MMOPL
7	Security Deposit for Telecom - IBS contractor M/s. Summit Digital Infrastructure Limited / Jio deposited amount in bank is Rs. 6,75,000/- for 09 stations. Please refer NFBR annexure 03 – Telecom	Confirmed by MMOPL
8	Security Deposit for Telecom Small Cell Pillars contractor M/s. Summit Digital Infrastructure Limited / Jio deposited amount in Bank is Rs. 21,84,000/- for 52 pillars. Please refer NFBR annexure 03 – Telecom	Confirmed by MMOPL
9	Security Deposit for Telecom BTS contractor M/s. Summit Digital Infrastructure Limited / Jio deposited amount in Bank is Rs. 32,75,000/- for 10 stations. Please refer NFBR annexure 03 – Telecom	Confirmed by MMOPL
10	No Security Deposit has been collected for Telecom Fibre maintenance contractor M/s. Reliance Jio Infocomm as one time non-refundable fee for installation of Telecom infrastructure of Rs. 7,68,00,000/- has been received. Please refer NFBR annexure 03 – Telecom	Confirmed by MMOPL
11	Security Deposit for Small Cell contractor M/s. Reliance Jio Infocomm - Deposited amount in Bank is Rs. 1,80,000/- . Please refer NFBR annexure 03 - Telecom	Confirmed by MMOPL



SN	Documents Details	Status
12	No Security Deposit has been collected for Wi-Fi contractor M/s. You Broadband India Private Limited. Please refer NFBR annexure 03 – Telecom	Confirmed by MMOPL
13	No Security Deposit has been collected for Fibre contractor M/s. Telesonic Networks Limited as one time non refundable access fee of Rs. 4,05,00,000/- has been received. Please refer NFBR annexure 03 – Telecom	Confirmed by MMOPL
14	No Security deposit has been received for payment alliance from M/s. One97 Communication Limited	Confirmed by MMOPL
15	<p>Documents (Contract agreement / LOA / LOE / LOF etc..) for all Retail contracts across 12 stations is kept in NFBR annexure 01 - Retail</p> <p>Note 01:- Details provided in NFBR annexure 01 - Retail is as per the data provided by representative of MMOPL NFBR team.</p> <p>Note 02:- For license fee, vendor wise Security Deposit, License period, Commencement date, Escalation and Invoicing period, etc... please refer NFBR annexure 01 - Retail.</p> <p>Note 03:- Some of the information mentioned in NFBR annexure 01 - Retail is provided by the MMOPL representative post confirming from their finance team</p>	Documents uploaded in Data Room and Confirmed by MMOPL
17	<p>Contract agreement and amendments for Advertisement contract for M/s. Times Innovative Media Limited across 12 metro stations is kept in NFBR annexure 02 - Advertising</p> <p>Note:- Details provided in NFBR annexure 02 - Advertising is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p>	Documents uploaded in Data Room and Confirmed by MMOPL
18	<p>Contract agreement and amendments for Telecom Small Cell for 87 pillars (2 contract agreement / amendment) for M/s. Indus Towers Limited. Please refer NFBR annexure 03 - Telecom</p> <p>Note:- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p>	Documents uploaded in Data Room and Confirmed by MMOPL
19	<p>Contract agreement / Amendments for Telecom BTS M/s. Indus Towers Limited across 12 Metro stations (10 + 2) is kept in NFBR annexure 03 - Telecom</p> <p>Note:- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p>	Documents uploaded in Data Room and Confirmed by MMOPL



SN	Documents Details	Status
20	<p>Contract agreement / amendments for OFC M/s. Microscan Infocomm Tech Private Limited is kept in NFBR annexure 03 - Telecom</p> <p>Note 01 :- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable).</p> <p>Note 02:- Upfront non refundable installation fee of Rs. 2,10,00,000/- has been charged from contractor in 5 different installments as per original agreement As per below schedule:-</p> <p>a. Rs. 50,00,000/- at the time of signing of agreement b. Rs. 50,00,000/- at the of site handover c. Rs. 40,00,000/- at the completion of 1st year from the date of handover d. Rs. 40,00,000/- at the completion of 2nd year from the date of handover e. Rs. 30,00,000/- at the completion of 3rd year from the date of handover</p> <p>Amendment 01 - Non-refundable additional access fee for 2nd fibre cable, an amount of Rs. 1,50,00,000/- had been received in 3 equal installments</p> <p>Amendment 02 - Change in amendment clause, No commercials involved.</p> <p>Amendment 03 - One time (non refundable) additional access fee of Rs. 10000000 has been received in 3 installments (Rs. 25,00,000/-, Rs. 5000000/- and Rs. 25,00,000/-). Duration of the contract has been extended upto 31-Dec-2042.</p> <p>Maintenance charge of Rs. 55,125/- (Per month) is collected in advance on quarterly basis.</p>	Documents uploaded in Data Room and Confirmed by MMOPL
21	<p>Contract agreement / Amendment for Telecom - IBS M/s. Summit Digital Infrastructure Limited / Jio at 09 Metro stations is kept in NFBR annexure 03 - Telecom</p> <p>Note:- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p>	Documents uploaded in Data Room and Confirmed by MMOPL



SN	Documents Details	Status
22	<p>Contract agreement / Amendments for Telecom Small Cell at 52 Pillars for M/s. Summit Digital Infrastructure Limited / Jio is kept in NFBR annexure 03 - Telecom</p> <p>Note:- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p> <p>Note 02:- Only 30 Pillars allotted to the vendor however the agreement is for 52 pillars.</p>	Documents uploaded in Data Room and Confirmed by MMOPL
23	<p>Contract agreement / Amendment for Telecom BTS for M/s. Summit Digital Infrastructure Limited / Jio) at 10 Metro stations (4 + 3 + 3) is kept in NFBR annexure 03 - Telecom</p> <p>Note:- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p>	Documents uploaded in Data Room and Confirmed by MMOPL
24	<p>Contract agreement / Amendment for Telecom Fibre maintenance for M/s. Reliance Jio Infocomm is kept in NFBR annexure 03 - Telecom</p> <p>Note:- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p>	Documents uploaded in Data Room and Confirmed by MMOPL
25	<p>Contract agreement / Amendment for Small Cell for M/s. Reliance Jio Infocomm is kept in NFBR annexure 03 - Telecom</p> <p>Note 01:- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p> <p>Note 02:- one time non-refundable fee for installation of Telecom infrastructure of Rs. 7,68,00,000/- has been received. Please refer Annexure- 03</p>	Documents uploaded in Data Room and Confirmed by MMOPL
26	<p>Contract agreement / Amendments for Wi-Fi for M/s. You Broadband India Private Limited across 12 Metro stations is kept in NFBR annexure 03 - Telecom</p> <p>Note:- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p>	Documents uploaded in Data Room and Confirmed by MMOPL



SN	Documents Details	Status
27	<p>Contract agreement / amendment for Fibre for M/s. Telesonic Networks Limited is kept in NFBR annexure 03 – Telecom</p> <p>Note:- Details provided in NFBR annexure 03 - Telecom is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable) Note 02:- One time non refundable access fee of Rs. 4,05,00,000/- has been received</p> <p>As per email dated - 20-Dec-22 from Vaishakh Nambiar (from Airtel), requested the billing of Telesonic Networks Limited to be raised in the name of Bharti Airtel Limited.</p> <p>Maintenance charge of Rs. 5,00,000/- (Per Annum) is collected in advance on annual basis.</p>	Documents uploaded in Data Room and Confirmed by MMOPL
28	<p>Contract agreement / amendment for Tap Tap for M/s. Bill Box Purewrist Tech Solutions Private Limited is kept in NFBR annexure 04 - Others</p> <p>Note 01:- Details provided in NFBR annexure 04 - Others is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p> <p>Note 02:- Total amount of Rs. 2,00,00,000/- Shall be payable as per below schedule a. Rs. 20,00,000/- before signing of the agreement (Payment received) b. Rs. 20,00,000/- upon signing of the agreement (Payment received) c. Balance amount of Rs. 1,60,00,000/- needs to be paid in 16 equal Quarterly installments of Rs. 10,00,000/- from start of 2nd year.</p> <p>Revenue share of 10% of sales to be collected on Monthly basis</p>	Documents uploaded in Data Room and Confirmed by MMOPL



SN	Documents Details	Status
29	<p>Contract agreement / amendment for National Common Mobility Card (NCCM) M/s. Airtel Payments Bank is kept in NFBR annexure 04 - Others</p> <p>Note 01:- Details provided in NFBR annexure 04 - Others is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p> <p>Note 02:- Total amount of Rs. 31,50,00,000/- Shall be payable as per below schedule</p> <p>Rs. 6,50,00,000/- on or before 22-Mar-24 (Payment received) Rs. 3,50,00,000/- on or before 29-Mar-24 (Payment received) Rs. 1,50,00,000 on or before 25-Apr-24</p> <p>Balance amount of Rs. 20,00,00,000/- needs to be paid in 4 equal installments on completion of every year [Starting from launch date (Launch date - 15-Mar-2024)]</p>	Documents uploaded in Data Room and Confirmed by MMOPL
30	<p>Contract agreement / amendment for Payment alliance for M/s. Phonepe Private Limited is kept in NFBR annexure 04 - Others</p> <p>Note 01:- Details provided in NFBR annexure 04 - Others is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p> <p>Note 02:- Phonepe will pay royalty fee of Rs. 4,50,00,000/- Shall be payable as per below schedule.</p> <p>MMOPL shall pay 15% of the revenue amount received from Phonepe to technology partner (Atek payments private limited)</p> <p>a. Rs. 50,00,000 /- Within 15 days against the agreement (out of Rs. 30,00,000 has been received as advance). Remaining payment of Rs. 20,00,000/- has been received too. (Payment received) b. Rs. 80,00,000/- within 15 days after launch of both services mentioned in schedule 01 of agreement (Payment received) c. Rs. 50,00,000/- after 6 months from launch date (Payment received) d. Rs. 24,00,000/- after 1 year from launch e. Rs. 74,00,000/- after 2 years from launch f. Rs. 74,00,000/- after 3 years from launch g. Rs. 49,00,000/- each after 4 and 5 years from launch</p>	Documents uploaded in Data Room and Confirmed by MMOPL
31	<p>Contract agreement / amendment for Payment for M/s. Mastercard Asia Pacific PTE Limited is kept in NFBR annexure 04 - Others</p>	Documents uploaded in



SN	Documents Details	Status
	<p>Note 01:- Details provided in NFBR annexure 04 - Others is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p> <p>Note 02:- Currently the agreement is in abeyance, amount Rs. 24,37,00,271/- received from Mastercard is as mentioned below:-</p> <p>Installment 01 Date : 18-Apr-20 Rs. 12,40,85,156.14/-</p> <p>Installment 02 (a) Date : 04-Dec-20 Rs. 5,95,21,625.94/-</p> <p>Installment 02 (b) Date : 28-Jul-21 Amount - Rs. 6,00,93,489/-</p>	Data Room and Confirmed by MMOPL
32	<p>Contract agreement / amendment for M/s. Bill Easy is kept in NFBR annexure 04 - Others</p> <p>Note 01:- Details provided in NFBR annexure 04 - Others is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p> <p>Note 02:- Bill Easy is a Tri-party agreement between MMOPL, Phonepe and Bill Easy. It is on Revenue share model, however no revenue has been shared till date.</p>	Documents uploaded in Data Room and Confirmed by MMOPL
33	<p>Contract agreement / amendment for M/s. One97 Communication Limited is kept in NFBR annexure 04 - Others</p> <p>Note 01:- Details provided in NFBR annexure 04 - Others is as per the detail provided by MMOPL NFBR team (as per the data uploaded in data room). Kindly refer remarks (wherever applicable)</p>	Documents uploaded in Data Room and Confirmed by MMOPL



Remarks for NFBR contracts

- a. For Mastercard Asia Pacific PTE Limited, the contract duration is 07 years and currently it is **abeyance**, total value of USD ~40 lakh (approximate 32 crores). Out of this Rs. 24,37,00,271/- is realized. License Fee Commencement Date - 08-July-2021
- b. For Airtel Payments Bank for NCMC (National Common Mobility Card), the contract duration is 09 years, total value of Rs. 31,50,00,000 out of this Rs. 10,00,00,000/- is realized. License Fee Commencement Date - 15-Mar-2024
- c. For Bill Box Purewrist Tech Solutions Private Limited for Tap Tap, the contract duration is 05 years, total value of Rs. 2,00,00,000 out of this Rs. 40,00,000/- is realized. License Fee Commencement Date – 10-Apr-2024
- d. For Phonepe Private Limited for payment alliance, the contract duration is of 06 years, total value of Rs. 4,50,00,000/- out of this Rs. 1,80,00,000/- is realized. License Fee Commencement date is 16-Aug-2022
- e. For Reliance Jio Info comm for Fibre maintenance, the contract duration is of 20 years, total value of Rs. 7,68,00,000/- is realized as One-time nonrefundable fee for installation of Telecom infrastructure. License Fee Commencement date is 01-Apr-2018
- f. For Telesonic Networks Limited for Fibre maintenance, the contract duration is of 15 years, total value of Rs. 4,05,00,000/- is realized as One-time nonrefundable access fee. Commencement date is 28-Jul-2022
- g. There are few vendors who have surrendered/on-boarding process, their security deposit is received by MMOPL, however which is not captured in the report.
- h. Above details are provided as per the details Uploaded in Data Room and confirmed by MMOPL NFBR Team.
- i. For outstanding NFBR Payments, please refer NFBR Annexure 05
- j. No, litigation/s are pending in any court or authority for any NFBR vendors, the same has been confirmed by MMOPL

Note:

1. **MMMOCL Finance Department may check the calculations for all the issued contracts where lump sum amount has already been taken by MMOPL for entire contract period.**
2. **MMMOCL Finance Division shall work out prorata basis payment statistics to be recovered from MMOPL for such contracts.**

NFBR Annexure 01- Retail

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
1	Airport Road	Fruit n Nut	Fruit n Nut	Permanent	16000	Monthly	5	40	96000	09-02-2024	31-12-2028	-	-	01-Jan-24	31-Dec-28	5	01-01-2024	
2	Airport Road	Jumbo King Foods Private Limited	Jumbo King	Permanent	46288	Quarterly	15% every 3 years	168	241500	07-Apr-17	30-Mar-27	-	-	-	-	10	31-Mar-17	Agreement under process for all the kiosks installed at different stations
3	Airport Road	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	110	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE -

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		Letter Of Extension) For all 24 ATMs, O&M charges will be charged extra over and above the licensee fee - Rs. 5,10,513/- p.a (this charges is applicable for current year - 2024) (Escalation of 5% yoy) As per MMOPL finance records, Security deposit received from Kotak Mahindra Bank is Rs. 24548320/-

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
4	Airport Road	New Metro Sales	New Metro Sales	Temporary	28000	Monthly	0	50	168000	-	-	19-Oct-23	18-Oct-24	0	0	1	19-Oct-23	Kiosk Operational on the basis of LOA, No agreement signed
5	Airport Road	Quality Mobile Accessories	Quality Mobile	Temporary	25000	Half yearly	0	50	0	-	-	15-Sep-23	14-Mar-24	15-Mar-24	14-Sep-24	6 months	15-Mar-24	Agreement has not been signed. Kiosk is running on LOE issued on 15-Mar-2024 LOA letter number - 720, dated 16-02-2024 Security deposit has not been collected as 6 months rental is taken in advance.

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
6	Andheri	Burger king India Limited	Burger king	Permanent	195500	Quarterly	15 (every 3 years)	232	1173000	10-Jul-19	09-Jul-34	-	-	-	-	15	10-Jul-19	Minimum Gurantee (License fee) or 7% Revenue share (Whichever is higher) An amount of Rs. 20000/- is charged extra for provided Storage Space of 140 sq. ft. (Mentioned in LOE). (LOE dates - 01-Apr-2024 to 31-Mar-2025 - not mentioned in agreement)
7	Andheri	M/s. Miracle	Five Star	Permanent	60000	Monthly	5	60	360000	28-Jun-23	06-Jun-28	-	-	-	-	5	07-Jun-23	
8	Andheri	Freshilia	Freshilia Foods	Permanent	70905	Monthly	5	60	425430	01-01-2023	31-12-2027	01-Feb-24	-	-	-	5	01-01-2023	Rent escalation will be effective

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
		Foods LLP																01st Jan every year
9	Andheri	Fruit n Nut	Fruit n Nut	Permanent	27000	Monthly	5	30	162000	09-02-2024	31-12-2028	-	-	01-Jan-24	31-Dec-28	5	01-01-2024	
10	Andheri	JinJam	JinJam	Permanent	40000	Monthly	5	35	240000	22-02-2024	21-02-2027	22-Feb-24	-	-	-	3	22-02-2024	
11	Andheri	Chunila I Nagda LLP	JSR soda	Permanent	51319	Monthly	5	60	255000	08-Oct-17	07-Oct-22	-	-	-	09-May-28			Agreement is expired. New agreement is under process. Details mentioned are as per LOE
12	Andheri (IR end)	Jumbo King Foods Private Limited	Jumbo King	Permanent	86400	Quarterly	5	144	357075	04-Dec-15	21-Jun-25	-	-	-	30-Sep-26		22-Jun-15	New Agreement under process, Kiosk operational on the basis of LOE letter no 649 dated 22 Sept 2023
13	Andheri (Paid Area)	Jumbo King Foods	Jumbo King	Permanent	84500	Quarterly	5	130	310500	-	-	27-Jan-18	-	-	06-Apr-28	10	04-May-18	New Agreement under process, Kiosk operational on

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
		Private Limited																the basis of LOE letter no 648 dated 22 Sept 2023
14	Andheri	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	116	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE - Letter Of Extension)
15	Andheri	Meromix Bookish LLP	Metro books	Permanent	127629	Monthly	5	120	630000	25-Jun-19	30-Apr-24	-	-	-	-	5	01-May-19	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
16	Andheri	Meromix Bookish LLP	Metro books (Temporary)	Temporary	10000	Monthly	Temporary	Temporary	0	-	-	-	-	16-Apr-24	15-May-24	Temporary	LOE	On basis of LOE. No agreement signed
17	Andheri	Meromix Bookish LLP	Metro Foods	Permanent	57750	Monthly	5	60	330000	-	-	10-Apr-23	09-Apr-28	-	-	5	10-Apr-23	Agreement is in process. Kiosk is running on LOA letter number - 538, dated 23-Dec-2022
18	Andheri	Delicia foods	Monginis Cake Shop	Permanent	42000	Monthly	5	56	312000	09-Aug-22	08-Aug-27	-	-	-	-	5	09-08-2022	(Rent revision from 01-04-2024)
19	Andheri	Samattv Origins Private Limited	Namaste Chai	Permanent	60000	Quarterly	6	144	360000	16-Oct-23	15-Oct-28	-	-	-	-	5	16-Oct-23	
20	Andheri	Rajhans Nutriments Private Limited	Schmitzen	Permanent	127200	Monthly	6	117	600000	16-Sep-22	26-Oct-27	-	-	-	-	5	25-Oct-22	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
21	Andheri	Rameshwar Excellency	South tiffin House	Permanent	50000	Quarterly	6	50	300000	22-Feb-24	28-Feb-29	-	-	-	-	5	01-Mar-24	
22	Andheri	Tibbs foods Private Limited	Tibbs Frankie	Permanent	64000	Monthly	As per remarks	80	384000	15-Sep-21	30-Sep-24	-	-	-	-	3	01-Oct-21	Rental for 2nd year was Rs. 56000/- and 3rd year (Current year) is 64,000/-
23	Andheri	Vendiman Private Limited	Vendiman (2 Nos)	Permanent	38036	Monthly	5	32	171429	11-May-23	03-Mar-26	-	-	-	-	3	04-Mar-23	Surrender request has been sent by the vendor which is under negotiation. Storage cupboard charges is charged over and above license fees which is Rs. 6946/- Security Deposit - Rs.

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		6,90,000/- (as per agreement, but actual amount received is Rs. 6,00,000/-)
24	Andheri	Shri Warana Sahakari Dudh Utpadak Prakriya Sangh Limited	Warana	Permanent	55000	Monthly	5	50	330000	29-Jan-24	28-Aug-26	-	-	-	-	2yrs 7mths	29-Jan-24	
25	Andheri	RBML Solutions India Limited	Wild Bean Cafe (RBML)	Permanent	140400	Monthly	5	162	842400	12-Jun-23	30-Jun-30	-	-	-	-	7	01-Jul-23	
26	Andheri	Metro Toys	Metro Toys	Permanent	105000	Monthly	5	91	600000	-	-	03-Oct-22	02-Oct-25	-	-	3	03-Oct-22	Agreement is in process. Kiosk is running on LOA letter number - 464,

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		Dated 20-Jul-2022
27	Andheri	Yangsto Four labs Private Limited	Happy Topia	Temporary	11500	Half yearly	0	4	0	-	-	15-Dec-23	14-Jun-24	-	-	6 months	15-Dec-23	Agreement has not been signed. Kiosk is running on LOA letter number - 675, dated 07-Dec-2023 Security deposit has not been collected as 6 months rental is taken in advance.
28	Andheri	X5 Retail	X5	Temporary	320000	Monthly	0	Upto 16 stall	450000	-	-	01-Apr-24	03-May-24	-	-	1 month	01-Apr-24	Agreement has not been signed. Kiosk is running on LOA letter number - 746, dated 04-Apr-2024 Temporary flea market Size of stall should not

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		<p>exceed 6'X6' (Feet) Security deposit needs to be checked</p> <p>As per finance team of MMOPI, Total Security deposit of Rs. 900000/- which is equally divided amongst 2 station for calculation purpose</p>

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
29	Andheri	SBI cards and Payments Services Limited / Quess Corp	SBI Card(2 Nos)	Promotional	100000	Quarterly	0	72	0	-	-	-	-	01-Feb-24	30-Apr-24	3 months	01-Feb-24	<p>Promotional Kiosk Agreement is not signed LOE is in the name of SBI cards and Payments Services Limited. However, the billing is done in the name of Quess Corp</p> <p>Kiosk is running on LOA letter number - 709, dated - 06-Feb-2024</p> <p>Security deposit is not applicable as the rent is collected in advance</p>

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
30	Asalapha	Fruit n Nut	Fruit n Nut	Permanent	12000	Monthly	5	40	72000	09-02-2024	31-12-2028	-	-	01-Jan-24	31-Dec-28	5	01-01-2024	
31	Asalapha	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	100	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE - Letter Of Extension)
32	Azad Nagar	Fruit n Nut	Fruit n Nut	Permanent	20000	Monthly	5	40	120000	09-02-2024	31-12-2028	-	-	01-Jan-24	31-Dec-28	5	01-01-2024	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
33	Azad Nagar	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	100	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE - Letter Of Extension)
34	Azad Nagar	Yangsto Four labs Private Limited	Happy Topia	Temporary	11500	Half yearly	0	4	0	-	-	15-Dec-23	14-Jun-24	-	-	6 months	15-Dec-23	Agreement has not been signed. Kiosk is running on LOA letter number - 675, dated 07-Dec-2023 Security deposit has not been

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		collected as 6 months rental is taken in advance.
35	Chakala JB Nagar	Amal Café Coffee	Aunty Burger (Amal Coffee)	Permanent	40000	Monthly	5	196	240000	28-Jun-23	30-Jun-26	-	-	-	-	3	01-Jul-23	
36	Chakala JB Nagar	Naturalism	Chaat wiche	Permanent	30000	Monthly	0	60	180000	-	-	07-Jun-23	06-Jun-24	-	-	1	07-Jun-23	Letter of Award (LOA) - 579, Dated - 27-Mar-2023 Letter of Fitout (LOF) - 602, Dated - 08-May-2023
37	Chakala JB Nagar	Fruit n Nut	Fruit n Nut	Permanent	20000	Monthly	5	25	120000	09-02-2024	31-12-2028	-	-	01-Jan-24	31-Dec-28	5	01-01-2024	
38	Chakala JB Nagar	Industrial Bank Limited	Industrial Bank (Under Times Media Ltd)	Permanent	96469	Quarterly	5	100	0	-	-	-	-	26-Dec-23	25-Dec-25	2	26-Dec-23	It is on basis on LOE (Letter Of Extension). Agreement not signed.

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
39	Chakala JB Nagar	Chunila Nagda LLP	JSR Soda	Permanent	24500	Monthly	5	70	140000	15-Dec-16	14-Dec-21	-	-	-	09-May-28		Agreement is expired. New agreement is under process. Details mentioned are as per LOE	
40	Chakala JB Nagar	Jumbo King Foods Private Limited	Jumbo King	Permanent	59513	Quarterly	15% every 3 years	182	310500	07-Apr-17	31-May-26	-	-	-	-	10	01-Jun-16	Agreement under process
41	Chakala JB Nagar	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	100	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		basis of LOE - Letter Of Extension)
42	Chakala JB Nagar	Rajhans Nutrimeats Private Limited	Schmitzen	Permanent	95400	Monthly	6	150	450000	16-Sep-22	26-Oct-27	-	-	-	-	5	25-Oct-22	
43	Chakala JB Nagar	Satyarchi catering and management services	TBHC	Permanent	20000	Monthly	0	64	120000	-	-	01-Nov-23	31-Oct-24	-	-	1	01-Nov-23	Agreement is not signed Kiosk is running on LOA letter number - 654, dated - 05-Oct-2023. Rent applicable 1-6 (months) - Rs. 20,000/- 7-12 (Months) - Rs. 20,000/-

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
44	Chakala JB Nagar	Vendiman Private Limited	Vendiman	Permanent	19018	Monthly	5	16	85714	11-May-23	03-Mar-26	-	-	-	-	3	04-Mar-23	Surrender request has been sent by the vendor which is under negotiation.
45	Chakala JB Nagar	Yangsto Four labs Private Limited	Happy Topia	Temporary	11500	Half yearly	0	4	0	-	-	15-Dec-23	14-Jun-24	-	-	6 months	15-Dec-23	Agreement has not been signed. Kiosk is running on LOA letter number - 675, dated 07-Dec-2023 Security deposit has not been collected as 6 months rental is taken in advance.

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
46	Chakala JB Nagar	SBI cards and Payments Services Limited / Qness Corp	SBI Card	Promotional	50000	Quarterly	0	36	0	-	-	-	-	01-Feb-24	30-Apr-24	3 months	01-Feb-24	<p>Promotional Kiosk Agreement is not signed LOE is in the name of SBI cards and Payments Services Limited. However, the billing is done in the name of Qness Corp</p> <p>Kiosk is running on LOA letter number - 709, dated - 06-Feb-2024</p> <p>Security deposit is not applicable as the rent is collected in advance</p>

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
47	DN Nagar	Naturalism	Chaatwiche	Permanent	40000	Monthly	0	54	240000	-	-	07-Jun-23	06-Jun-24	-	-	1	07-Jun-23	Letter of Award (LOA) - 579, Dated - 27-Mar-2023 Letter of Fitout (LOF) - 602, Dated - 08-May-2023
48	DN Nagar	Freshilia Foods LLP	Freshilia Foods	Permanent	23800	Monthly	5	34	142800	16-03-2024	15-03-2029	16-Mar-24	-	-	-	5	16-03-2024	Agreement under process
49	DN Nagar	Fruit n Nut	Fruit n Nut	Permanent	24000	Monthly	5	40	144000	09-02-2024	31-12-2028	-	-	01-Jan-24	31-Dec-28	5	01-01-2024	
50	DN Nagar	Industrial Bank Limited	Industrial Bank	Permanent	112360	Half yearly	6	120	714610	21-Mar-23	30-Jun-27	-	-	-	-	5	01-Jul-22	
51	DN Nagar	Chunila Nagda LLP	JSR soda	Permanent	51319	Monthly	5	60	255000	08-Oct-17	07-Oct-22	-	-	-	09-May-28			Agreement is expired. New agreement is under process. Details mentioned are as per LOE

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
52	DN Nagar	Jumbo King Foods Private Limited	Jumbo King	Permanent	92950	Quarterly	5	169	310500	07-Apr-17	20-Jun-26	-	-	-	-	10	21-Jun-16	Agreement under process
53	DN Nagar	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	100	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE - Letter Of Extension)
54	DN Nagar	Meromix Bookish LLP	Metro books	Permanent	65550	Monthly	15% every 3 years	120	342000	12-May-20	19-Jul-24	-	-	-	-	5	20-Jul-19	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
55	DN Nagar	Metro sales	Metro sales	Permanent	38000	Monthly	10	50	228000	23-Feb-24	09-Feb-29	-	-	-	-	5	10-Feb-24	An additional amount of Rs. 2600/- is paid per month for display of standee over and above license fee
56	DN Nagar	Delicia foods	Monginis Cake Shop	Permanent	31500	Monthly	5	56	180000	09-Aug-22	08-Aug-27	-	-	-	-	5	09-08-2022	
57	DN Nagar	Rajhans Nutrimeints Private Limited	Schmiten	Permanent	82680	Monthly	6	120	390000	16-Sep-22	26-Oct-27	-	-	-	-	5	25-Oct-22	
58	DN Nagar	Satyaru chi catering and management services	TBHC	Permanent	30000	Monthly	0	54	210000	-	-	01-Nov-23	31-Oct-24	-	-	1	01-Nov-23	Agreement is not signed Kiosk is running on LOA letter number - 654, dated - 05-Oct-2023 Rent applicable

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		1-6 (months) - Rs. 30,000/- 7-12 (Months) - Rs. 35,000/-
59	DN Nagar	Tibbs foods Private Limited	Tibbs Frankie	Permanent	75000	Monthly	10	80	450000	12-Oct-23	06-Oct-26	-	-	-	-	3	07-Oct-23	
60	DN Nagar	Vendiman Private Limited	Vendiman	Permanent	19018	Monthly	5	16	85714	11-May-23	03-Mar-26	-	-	-	-	3	04-Mar-23	Surrender request has been sent by the vendor which is under negotiation.
61	DN Nagar	Shri Warana Sahakari Dudh Utpadak Prakriya	Warana	Permanent	32000	Monthly	5	40	192000	29-Aug-23	28-Aug-26	-	-	-	-	3	29-Aug-23	



Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
		Sangh Limited																
62	DN Nagar	Yangsto Four labs Private Limited	Happy Topia	Temporary	11500	Half yearly	0	4	0	-	-	15-Dec-23	14-Jun-24	-	-	6 months	15-Dec-23	Agreement has not been signed. Kiosk is running on LOA letter number - 675, dated 07-Dec-2023 Security deposit has not been collected as 6 months rental is taken in advance.
63	DN Nagar	Radhika Creation	Radhika Creation	Permanent	25000	Monthly	5	50	150000	-	-	01-Apr-24	31-Mar-29	-	-	5	01-Apr-24	Agreement is in process. Kiosk is running on LOA letter number - 750, Dated 08-Apr-2024 Rs. 3000/- has



Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		been charged per month for portable stand
64	DN Nagar	SBI cards and Payments Services Limited / Quess Corp	SBI Card	Promotional	50000	Quarterly	0	36	0	-	-	-	-	01-Feb-24	30-Apr-24	3 months	01-Feb-24	<p>Promotional Kiosk Agreement is not signed LOE is in the name of SBI cards and Payments Services Limited. However, the billing is done in the name of Quess Corp</p> <p>Kiosk is running on LOA letter number - 709, dated - 06-Feb-2024</p> <p>Security deposit</p>

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		is not applicable as the rent is collected in advance
65	Ghatkopar	Burger Brothers Private Limited	Burger Brothers	Permanent	100000	Monthly	5	90	540000	10-Feb-24	11-Jan-27	-	-	-	-	3	12-Jan-24	
66	Ghatkopar	Naturalism	Chaatwiche	Permanent	40000	Monthly	0	49	240000	-	-	07-Jun-23	06-Jun-24	-	-	1	07-Jun-23	Letter of Award (LOA) - 579, Dated - 27-Mar-2023 Letter of Fitout (LOF) - 602, Dated - 08-May-2023

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
67	Ghatkopar	Freshilia Foods LLP	Freshilia Foods	Permanent	60775	Monthly	5	50	364650	01-01-2023	31-12-2027	01-Jan-24	-	-	-	5	01-01-2023	Agreement under process
68	Ghatkopar	Fruit n Nut	Fruit n Nut	Permanent	37000	Monthly	5	36	222000	09-02-2024	31-12-2028	-	-	01-Jan-24	31-Dec-28	5	01-01-2024	
69	Ghatkopar	Chunil Nagda LLP	JSR soda	Permanent	60000	Monthly	5	60	300000	10-May-18	09-May-28	-	-	-	09-May-28			Details mentioned are as per LOE
70	Ghatkopar 3B (Unpaid Area)	Jumbo King Foods Private Limited	Jumbo King	Permanent	100000	Quarterly	5	126	600000	04-Dec-15	-	-	-	-	30-Sep-26		22-Jun-15	New Agreement under process, Kiosk operational on the basis of LOE letter no 649 dated 22 Sept 2023
71	Ghatkopar (Paid Area)	Jumbo King Foods Private Limited	Jumbo King	Permanent	78000	Quarterly	5	120	310500	-	-	20-Sep-21	-	-	30-Jun-28	10	31-Oct-21	New Agreement under process, Kiosk operational / rent revision on the basis of LOE letter no 648 dated 22 Sept 2023

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
72	Ghatkopar 3A	Jumbo King Foods Private Limited	Jumbo King	Permanent	100000	Quarterly	15% Every 3 years	140	600000	-	-	27-Jan-18	-	-	30-Oct-31	10	01-Jul-18	New Agreement under process, Kiosk operational on the basis of LOE letter no 638 dated 16 Feb 2021, and letter no 302 dated 31 Aug 2021
73	Ghatkopar	Kotak Mahindra Bank	Kotak (ATM)	Permanent	507727	Quarterly	5	115	3068541	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 3 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE -

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		Letter Of Extension)
74	Ghatkopar	Meromix Bookish LLP	Metro books	Permanent	68250	Monthly	5	70	390000	13-Mar-23	14-Feb-26	-	-	-	-	3	15-Feb-23	
75	Ghatkopar	Delicia foods	Monginis Cake Shop	Permanent	55650	Monthly	5	50	318000	09-Aug-22	08-Aug-27	-	-	-	-	5	09-08-2022	
76	Ghatkopar	Rajhans Nutriments Private Limited	Schmitzen	Permanent	159000	Monthly	6	185	750000	16-Sep-22	26-Oct-27	-	-	-	-	5	25-Oct-22	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
77	Ghatkopar	Satyarchi catering and management services	TBHC	Permanent	45000	Monthly	0	49	282000	-	-	01-Nov-23	31-Oct-24	-	-	1	01-Nov-23	Agreement is not signed Kiosk is running on LOA letter number - 654, dated - 05-Oct-2023 Rent applicable 1-6 (months) - Rs. 45,000/- 7-12 (Months) - Rs. 47,000/-
78	Ghatkopar	Tibbs foods Private Limited	Tibbs Frankie	Permanent	119790	Monthly	10	90	540000	21-Feb-23	26-Jan-26	-	-	-	-	3	27-Jan-23	
79	Ghatkopar	Vendiman Private Limited	Vendiman	Permanent	19018	Monthly	5	16	85714	11-May-23	03-Mar-26	-	-	-	-	3	04-Mar-23	Surrender request has been sent by the vendor which is under negotiation.
80	Ghatkopar	Shri Warana Sahakari Dudh	Warana	Permanent	60000	Monthly	5	60	360000	29-Aug-23	28-Aug-26	-	-	-	-	3	29-Aug-23	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
		Utpada k Prakriya Sangh Limited																
81	Ghatkopar	Yangsto Four labs Private Limited	Happy Topia	Temporary	11500	Half yearly	0	4	0	-	-	15-Dec-23	14-Jun-24	-	-	6 months	15-Dec-23	Agreement has not been signed. Kiosk is running on LOA letter number - 675, dated 07-Dec-2023 Security deposit has not been collected as 6 months rental is taken in advance.
82	Ghatkopar	X5 Retail	X5	Temporary	530000	Monthly	0	Upto 30 stall	450000	-	-	01-Apr-24	03-May-24	-	-	1 month	01-Apr-24	Agreement has not been signed. Kiosk is running on LOA letter number - 746, dated 04-Apr-2024 Temporary flea



Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		market Size of stall should not exceed 6'X6' (Feet) Security deposit needs to be checked
83	Ghatkopar	SBI cards and Payments Services Limited / Quess Corp	SBI Card	Promotional	50000	Quarterly	0	36	0	-	-	-	-	01-Feb-24	30-Apr-24	3 months	01-Feb-24	<p>Promotional Kiosk Agreement is not signed LOE is in the name of SBI cards and Payments Services Limited. However, the billing is done in the name of Quess Corp</p> <p>Kiosk is running on LOA letter number - 709, dated - 06-Feb-2024</p>

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		Security deposit is not applicable as the rent is collected in advance
84	Ghatkopar	Loom and Weaver Retail Private Limited	Woloo	Facility	0	0	0	1000	750000	-	-	-	-	-	-	-	-	Under CSR MoU wtf 01-Apr-2023
85	Jagruti Nagar	Kotak Mahindra Bank	Kotak (ATM)	Permanent	169242	Quarterly	5	50	1022847	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 1 Unit Agreement End date is considered 5 years from Licensee Fee

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE - Letter Of Extension)
86	Marol Naka	Fruit n Nut	Fruit n Nut	Permanent	35000	Monthly	5	50	210000	09-02-2024	31-12-2028	-	-	01-Jan-24	31-Dec-28	5	01-01-2024	
87	Marol Naka	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	100	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		basis of LOE - Letter Of Extension)
88	Marol Naka	Delicia foods	Monginis Cake Shop	Permanent	30450	Monthly	5	40	174000	09-Aug-22	08-Aug-27	-	-	-	-	5	09-08-2022	
89	Marol Naka	Rajhans Nutriments Private Limited	Schmitzen	Permanent	84800	Monthly	6	200	400000	16-Sep-22	26-Oct-27	-	-	-	-	5	25-Oct-22	
90	Marol Naka	Rameshwar Excellency	South tiffin House	Permanent	30000	Quarterly	6	50	180000	14-Sep-23	15-Jul-28	-	-	-	-	5	16-Jul-23	
91	Marol Naka	Shri Warana Sahakari Dudh Utpada	Warana	Permanent	33600	Monthly	5	48	201600	29-Aug-23	28-Aug-26	-	-	-	-	3	29-Aug-23	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
		k Prakriya Sangh Limited																
92	Marol Naka	Infinite Mobile Accessories	Infinite Mobile Accessories	Temporary	34650	Monthly	0	38	189000	-	-	-	-	01-Jan-24	31-Dec-24	1	01-Jan-24	Agreement has not been signed. Kiosk is running on LOE letter number - 693, dated 04-Jan-2024
93	Marol Naka	Mokkoeats	Mokkoeats	Temporary	35000	Monthly	0	40	0	-	-	01-Dec-23	31-May-24	-	-	6 months	01-Dec-23	Agreement has not been signed. Kiosk is running on LOA letter number - 660, Dated 30-Oct-2023 Security deposit has not been collected as 6 months rental is taken in advance.

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
94	Marol Naka	Yangsto Four labs Private Limited	Happy Topia	Temporary	11500	Half yearly	0	4	0	-	-	15-Dec-23	14-Jun-24	-	-	6 months	15-Dec-23	Agreement has not been signed. Kiosk is running on LOA letter number - 675, dated 07-Dec-2023 Security deposit has not been collected as 6 months rental is taken in advance.
95	Marol Naka	SBI cards and Payments Services Limited / Quess Corp	SBI Card	Promotional	50000	Quarterly	0	36	0	-	-	-	-	01-Feb-24	30-Apr-24	3 months	01-Feb-24	Promotional Kiosk Agreement is not signed LOE is in the name of SBI cards and Payments Services Limited. However, the billing is done in the name of Quess Corp

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		Kiosk is running on LOA letter number - 709, dated - 06-Feb-2024 Security deposit is not applicable as the rent is collected in advance
96	Saki Naka	Naturalism	Chaatwiche	Permanent	25000	Monthly	0	64	150000	-	-	07-Jun-23	06-Jun-24	-	-	1	07-Jun-23	Letter of Award (LOA) - 579, Dated - 27-Mar-2023 Letter of Fitout (LOF) - 602, Dated - 08-May-2023

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
97	Saki Naka	M/s. Khulke Binge	Five Star	Permanent	25000	Monthly	As per remarks	64	150000	13-Jun-23	06-Jun-28	-	-	-	-	5	07-Jun-23	Rental Year 01 - Rs. 25,000/- Year 02 - Rs. 30,000/- Year 03 - Rs. 35,000/- Year 04 - Rs. 40,000/- Year 05 - Rs. 45,000/-
98	Saki Naka	Fruit n Nut	Fruit n Nut	Permanent	35700	Monthly	5	30	214200	09-02-2024	31-12-2028	-	-	01-Jan-24	31-Dec-28	5	01-01-2024	
99	Saki Naka	IndusInd Bank Limited	IndusInd Bank	Permanent	112360	Half yearly	6	120	714610	21-Mar-23	30-Jun-27	-	-	-	-	5	01-Jul-22	
100	Saki Naka	Chunila I Nagda LLP	JSR soda	Permanent	24500	Monthly	5	70	140000	15-Dec-16	14-Dec-21	-	-	-	09-May-28			Agreement is expired. New agreement is under process. Details mentioned are as per LOE

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
101	Saki Naka (Versova End)	Jumbo King Foods Private Limited	Jumbo King	Permanent	88500	Quarterly	5	177	357075	04-Dec-15	-	-	-	-	30-Sep-26		22-Jun-15	New Agreement under process, Kiosk operational on the basis of LOE letter no 649 dated 22 Sept 2023 Initial agreement period was from 22-Jun-2015 till 21-Jun-2020
102	Saki Naka (Ghatkopar End)	Jumbo King Foods Private Limited	Jumbo King	Permanent	46288	Quarterly	15% Every 3 years	187	241500	-	-	03-Jul-17	-	-	20-Oct-27	10	21-Oct-17	New Agreement under process, Kiosk operational on the basis of LOA letter no 169 dated 3rd July 2017

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
103	Saki Naka	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	100	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE - Letter Of Extension)
104	Saki Naka	Madras Kappi House LLP	Madras Kappi House	Permanent	30000	Monthly	0	49	180000	-	-	25-Oct-23	24-Oct-24	-	-	1	18-Oct-23	Agreement has not been signed. Kiosk is running on LOA letter number - 645, dated 15-Sep-2023

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
105	Saki Naka	Delicia foods	Monginis Cake Shop	Permanent	31500	Monthly	5	35	180000	09-Aug-22	08-Aug-27	-	-	-	-	5	09-08-2022	
106	Saki Naka	Satyaru chi catering and management services	TBHC	Permanent	25000	Monthly	0	64	180000	-	-	01-Nov-23	31-Oct-24	-	-	1	01-Nov-23	Agreement is not signed Kiosk is running on LOA letter number - 654, dated - 05-Oct-2023 Rent applicable 1-6 (months) - Rs. 25,000/- 7-12 (Months) - Rs. 30,000/-
107	Saki Naka	Vendiman Private Limited	Vendiman	Permanent	19018	Monthly	5	16	85714	11-May-23	03-Mar-26	-	-	-	-	3	04-Mar-23	Surrender request has been sent by the vendor which is under negotiation.
108	Saki Naka	Shri Warana Sahakari Dudh	Warana	Permanent	35000	Monthly	5	30	210000	29-Aug-23	28-Aug-26	-	-	-	-	3	29-Aug-23	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
		Utpada k Prakriya Sangh Limited																
109	Saki Naka	Infinite Mobile Accessories	Infinite Mobile Accessories	Temporary	23100	Monthly	0	20	120000	-	-	-	-	01-Jan-24	31-Dec-24	1	01-Jan-24	Agreement has not been signed. Kiosk is running on LOE letter number - 693, dated 04-Jan-2024
110	Saki Naka	SBI cards and Payments Services Limited / Quess Corp	SBI Card	Promotional	50000	Quarterly	0	36	0	-	-	-	-	01-Feb-24	30-Apr-24	3 months	01-Feb-24	Promotional Kiosk Agreement is not signed LOE is in the name of SBI cards and Payments Services Limited. However, the billing is done in the name of Quess Corp

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		Kiosk is running on LOA letter number - 709, dated - 06-Feb-2024 Security deposit is not applicable as the rent is collected in advance
111	Versova	BEST Auto Electric Company	Applesingh	Permanent	30000	Monthly	0	98	180000	-	-	01-Nov-23	31-Oct-24	-	-	1	01-Nov-23	LOA letter number 658, Dated - 18-Oct-23
112	Versova	Naturalism	Chaawich	Permanent	20000	Monthly	0	50	120000	-	-	07-Jun-23	06-Jun-24	-	-	1	07-Jun-23	Letter of Award (LOA) - 579, Dated - 27-Mar-2023 Letter of Fitout (LOF) - 602, Dated - 08-May-2023

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
113	Versova	Jumbo King Foods Private Limited	Jumbo King	Permanent	59513	Quarterly	15% every 3 years	160	310500	07-Apr-17	01-Mar-27	-	-	-	-	10	02-Mar-17	Agreement under process
114	Versova	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	100	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE - Letter Of Extension)
115	Versova	Rajhans Nutriments	Schmitzen	Permanent	54060	Monthly	6	200	255000	16-Sep-22	26-Oct-27	-	-	-	-	5	25-Oct-22	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
		Private Limited																
116	Versova	Rameshwar Excellency	South tiffin House	Permanent	20000	Quarterly	6	49	120000	14-Sep-23	15-Jul-28	-	-	-	-	5	16-Jul-23	
117	Versova	Yangsto Four labs Private Limited	Happy Topia	Temporary	11500	Half yearly	0	4	0	-	-	15-Dec-23	14-Jun-24	-	-	6 months	15-Dec-23	Agreement has not been signed. Kiosk is running on LOA letter number - 675, dated 07-Dec-2023 Security deposit has not been collected as 6 months rental is taken in advance.
118	Western Express Highway	Burger King India Limited	Burger King	Permanent	195500	Quarterly	15 (every 3 years)	232	1173000	10-Jul-19	09-Jul-34	-	-	-	-	15	10-Jul-19	Minimum Guarantee (License fee) or 7% Revenue share (Whichever is higher)

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
119	Western Express Highway (VER end)	Jumbo King Foods Private Limited	Jumbo King	Permanent	59513	Quarterly	15% every 3 years	136	270000	07-Apr-17	30-Nov-26	-	-	-	-	10	01-Dec-16	Agreement under process
120	Western Express Highway (GHA end)	Jumbo King Foods Private Limited	Jumbo King	Permanent	52900	Quarterly	5	160	240000	07-Apr-17	05-Apr-27	-	-	-	-	10	06-Apr-17	Agreement under process. It was part of the initial agreement which was later surrendered by the previous franchiser and re-started by new franchisee on 01-Nov-2023 (basis on letter number 664, dated 09-Nov-2023). Additional Rs. 10,000/- to be charged

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		monthly from 01-Aug-2023 for additional storage space provided of 70 Sq. ft.
121	Western Express Highway	Sapphire foods India Limited	KFC	Permanent	375000	Monthly	15 (every 3 years)	As per remarks	2250000	13-Sep-23	13-Dec-28	-	-	-	-	5	13-Dec-23	Utility area charges is Rs. 10000/month (Escalating to 15% every 3 years) Area bifurcation Outlet area - 1525 Sq. Ft. (inclusive of commuter area - 630 Sq. Ft.) Utility area - 500 Sq. Ft.

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		Agreement end - Extendable upto further 15 years as per option agreement
122	Western Express Highway	Kotak Mahindra Bank	Kotak (ATM)	Permanent	338485	Quarterly	5	100	2045693	08-Jan-21	30-Sep-24	-	-	-	-	5	01-Oct-19	It is a registered agreement. 2 Units Agreement End date is considered 5 years from Licensee Fee commencement date. License fee period - 01-Oct-2019 till 07-Jan-2021 (contract was valid on the basis of LOE -

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		Letter Of Extension)
123	Western Express Highway	Hardcastle restaurant Private Limited	Mc Donald's	Permanent	7% revenue sharing (on net sales)	Monthly	7% revenue sharing (on net sales)	2381	3750000	06-Oct-23	30-Jul-43	-	-	-	-	20	25-Dec-23	License Fee Commencement will be from COD (which is 25-Dec-2023) No license fee. Only Revenue sharing basis (7% of net sales) Utility area charges is Rs. 25000/month (Escalating to 15% every 3 years) Area bifurcation

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
																		Outlet area - 2381 Sq. Ft. (inclusive of commuter area - 1328 Sq. Ft.) Utility area - 86 Sq. Ft. Utility area [HVAC (ODU)] - 120 Sq. Ft. Jan 24 - Rs. 186850/- (7% value of the sales) Feb 24 - Rs. 188246/- (7% value of the sales)
124	Western Express Highway	Delicia foods	Monginis Cake Shop	Permanent	31500	Monthly	5	56	180000	09-Aug-22	08-Aug-27	-	-	-	-	5	09-08-2022	

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
125	Western Express Highway	The Waffle Hub	The Waffle Hub	Permanent	55000	Monthly	10	49	330000	14-Mar-24	14-Feb-27	-	-	-	-	3	15-Feb-24	
126	Western Express Highway	Vendiman Private Limited	Vendiman	Permanent	19018	Monthly	5	16	85714	11-May-23	03-Mar-26	-	-	-	-	3	04-Mar-23	Surrender request has been sent by the vendor which is under negotiation.
127	Western Express Highway	Shri Warana Sahakari Dudh Utpadak Prakriya Sangh Limited	Warana	Permanent	Surrendered	Monthly	5	Surrendered	0	29-Aug-23	28-Aug-26	-	-	-	-	3	Surrendered	Surrendered on 29-03-2024
128	Western Express	Meromix Bookish LLP	Metro books	Permanent	30000	Monthly	Temporary	Temporary	0	-	-	-	-	07-Apr-24	06-May-24	Temporary	LOE	On basis of LOE. No agreement signed

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
	Highway																	
129	Western Express Highway	Yangsto Four labs Private Limited	Happy Topia	Temporary	11500	Half yearly	0	4	0	-	-	15-Dec-23	14-Jun-24	-	-	6 months	15-Dec-23	Agreement has not been signed. Kiosk is running on LOA letter number - 675, dated 07-Dec-2023 Security deposit has not been collected as 6 months rental is taken in advance.

Sr. No.	Station Name	Licensee	Brand Name	Type of Kiosk (Permanent / Temporary / Promotional)	License Fee (Amount Rs) Per month	License Fee Invoice Generation Cycle (Monthly / Quarterly / Yearly)	License Fee Escalation %	Area (In Sqft)	Performance Security inform of bank deposit (available with MMOPL)	Contract agreement		Letter Of Award		Letter Of Extension		Tenure (Yrs)	License Fee Commencement Date	Remarks
										Signing Date	End Date	Start Date	End Date	Start Date	End Date			
130	Western Express Highway	SBI cards and Payments Services Limited / Quess Corp	SBI Card	Promotional	50000	Quarterly	0	36	0	-	-	-	-	01-Feb-24	30-Apr-24	3 months	01-Feb-24	<p>Promotional Kiosk Agreement is not signed LOE is in the name of SBI cards and Payments Services Limited. However, the billing is done in the name of Quess Corp</p> <p>Kiosk is running on LOA letter number - 709, dated - 06-Feb-2024</p> <p>Security deposit is not applicable as the rent is collected in advance</p>

NFBR Annexure 02- Advertising

Sr. No.	Vendor Name	License Fee (Monthly)	License Fee Invoice Generation Cycle	License Fee Escalation % (YoY)	Performance Security in form of Bank Guarantee	Performance Security in form of Security Deposit (Deposited in Bank)	Agreement		Tenure (in Years)	License Fee Commencement Date	Remarks
							Start Date	End Date			
1	Times Innovative Media Limited	13333333	1. For MG - Monthly 2. For Revenue share - Quarterly	As per annexure B	Rs. 47500000 (4 Nos BG)	32500000	30-Mar-16	07-Jun-29	15	08-Jun-14	Bank Guarantee Amount Rs. 4.75Cr Revenue share or Minimum Guarantee (Whichever is higher) For Revenue share - please refer Annexure B (for current year it is 58%)

NFBR Annexure 03- Telecom

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
	Indus Towers Limited - Small Cell									
1	58 Pillars	6443220	Yearly - in advance	15% every 3 years	2436000	26-Dec-17	25-Dec-27	10	13-Dec-17	This is part of 1 single agreement (29 pillars) As per invoicing records, License fee commencement date may be considered as mentioned (License Fee Commencement Date)
2	25 pillars	2777100			1050000	04-Jan-19	03-Jan-29	10	01-Apr-18	
3	2 pillars	217340			84000	04-Jan-19	03-Jan-29	10	09-Sep-18	
4	1 pillar	108670			42000	04-Jan-19	03-Jan-29	10	11-Sep-18	
5	1 pillar	108670			42000	04-Jan-19	03-Jan-29	10	18-Sep-18	
	Indus Towers Limited - BTS									
1	10 Station Tower	20349000	Yearly - in advance	0	12970000	19-Aug-15	31-Mar-25	10	22-Aug-15	As per letter number - 275, dated - 02-Apr-2021 - License Fee was revised and escalation was waived for the remaining period of the current contract and end of tenure was

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
2	2 Station Tower	4069800				19-Aug-15	31-Mar-25	10	01-May-15	concluded as on 31-Mar-25 Performance Security of Rs. 12970000 was paid for 12 station towers (10 towers + 2 towers) at once License Fee Commencement Date is considered from 01-Apr-15 (as per invoicing records of MMOPL)
	Microscan Infocomm Tech Private Limited - OFC									Agreement & 3 Amendments are uploaded

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
	Agreement	55125	Quarterly in advance	5	0	03-Feb-20	31-Dec-42	22 yrs 10 months	03-Feb-20	<p>Upfront non refundable installation fee of Rs. 21000000/- will be charged from contractor in 5 different installments as per original agreement (as per below schedule)</p> <p>a. Rs. 5000000/- at the time of signing of agreement b. Rs. 5000000/- at the of site handover c. Rs. 4000000/- at the completion of 1st year from the date of handover d. Rs. 4000000/- at the completion of 2nd year from the date of handover e. Rs. 3000000/- at the completion of 3rd year from the date of handover</p> <p>Amendment 01 - Non-refundable additional access fee for 2nd fibre cable, an amount of Rs. 15000000 had been received in 3 equal installments</p> <p>Amendment 02 - Change in ammendment clause, No commercials involved.</p> <p>Amendment 03 - One time (non refundable) additional access fee of Rs. 10000000 has been received in 3 installments (Rs. 2500000/-, Rs. 5000000/- and Rs. 2500000/-). Duration of the contacrt has been extended upto 31-Dec-2042.</p>

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
										Maintenance charge of Rs. 55125/- (Per month) is collected in advance on quarterly basis.
	Jio / Summit Digitel Infrastructure Limited									
1	IBS 9 Stations	1620000	Yearly - in advance	20% every 3 year	675000	17-Oct-19	14-Jun-24	5	15-Jun-19	

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
2	52 Pillars	3024000		20% every 3 year	2184000	22-Oct-19	15-Jun-29	10	16-Jun-19	Only 30 Pillars allotted to the vendor however the agreement is for 52 pillars
3	BTS 4 Stations VER , AND, JNG, GHA	3120000		20% every 3 year	1300000	03-Jan-23	31-Oct-27	5	01-Nov-22	
4	BTS 3 Stations (WEH, APR & SAN)	2400000		20% every 3 year	1000000	01-Nov-17	31-Oct-27	5	01-Nov-22	
5	BTS 3 Stations (DNG, ASA & AZN)	2460000		20% after 1st year and thereafter after every 3 year	975000	24-Mar-21	17-Feb-26	5	18-Feb-21	Rent revision as per letter number 521, dated 10-11-2022
	Reliance Jio Info com									
1	Fibre maintenance	1675120	Yearly - in advance	5% every year	0	23-Aug-19	31-Mar-38	20	01-Apr-18	One time non refundable fee for installation of Telecom infrastructure of Rs. 76800000/- received
2	Small Cell	180000		20% every year	180000			9	10-Feb-21	It is valid on basis of LOA, letter number - 228, dated 05-Feb-21
	You Broadband India Private Limited									

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
1	Wi-Fi	225000	Quarterly in advance	0	0	26-Dec-14	03-Jul-24	10	04-Jul-14	As per renewal of agreement letter number - 298, dated 12-Aug-2021, Escalation and revenue share has been suspended.
	Telesonic Networks Limited									
1	Fibre	500000	Yearly - in advance	0	0	07-Dec-21	27-Jul-37	15	28-Jul-22	<p>As per letter number 423, dated 08-04-2022, Commencement date shall be considered from 28-Jul-2022</p> <p>One time non refundable access fee of Rs. 40500000/- has been received</p> <p>As per email dated - 20-Dec-22 from Vaishakh Nambiar (from Airtel), requestd the billing of Telesonic Networks Limited to be raised in the name of Bharti Airtel Limited.</p> <p>Maintenance charge of Rs. 500000/- (Per Annum) is collected in advance on annual basis.</p>

NFBR Annexure 04- Others

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
	Tap Tap									
1	Bill Box purewrist tech solutions Private Limited	As per remark	Quarterly (from 2nd year)	0	0	08-Mar-24	09-Apr-29	5	10-Apr-24	Total amount of Rs. 20000000/- Shall be payable as per below schedule
		As per remark	Monthly	0	0	08-Mar-24	09-Apr-29	5	10-Apr-24	2000000 before signing of the agreement (Payment received) 2000000 upon signing of the agreement (Payment received) Balance amount of Rs. 16000000/- needs to be paid in 16 equal Quarterly installments of

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
										Rs. 1000000/- from start of 2nd year. Revenue share of 10% of sales to be collected on Monthly basis
	NCMC									
1	Airtel Payments Bank	0	0	0	0	14-Mar-24	14-Mar-33	9	15-Mar-24	Total amount of Rs. 315000000/- Shall be payable as per below schedule 65000000 on or before 22-Mar-24 35000000 on or before 29-Mar-24 15000000 on or before 25-Apr-24 Balance amount of Rs.



Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalatio n % (YoY)	Performanc e Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencemen t Date	Remarks
						Signing Date	End Date			
										200000000/- needs to be paid in 4 equal installments on completion of every year [Starting from launch date (Launch date - 15-Mar-2024)]
	Payment Alliance									

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
1	Phonepe Private Limited	0	0	0	0	16-Aug-22		6		<p>Phonepe will pay royalty fee of Rs. 45000000/- Shall be payable as per below schedule.</p> <p>MMOPL shall pay 15% of the revenue amount received from Phonepe to technology partner (Atek payments private limited)</p> <p>a. Rs. 5000000 /- Within 15 days against the agreement (out of Rs. 3000000 has been received as advance). Remaining payment of Rs. 2000000/- has been received</p>

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalatio n % (YoY)	Performanc e Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencemen t Date	Remarks
						Signing Date	End Date			
										too. (Payment received) b. Rs. 8000000/- within 15 days after launch of both services mentioned in schedule 01 of agreement (Payment received) c. Rs. 5000000/- after 6 months from launch date (Payment received) d. Rs. 2400000/- after 1 year from launch e. Rs. 7400000/- after 2 years from launch f. Rs. 7400000/- after 3 years from launch g. Rs. 4900000/-



Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalatio n % (YoY)	Performanc e Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencemen t Date	Remarks
						Signing Date	End Date			
										each after 4 and 5 years from launch

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
2	Mastercard Asia Pacific PTE Limited					19-Feb-20	Abeyance	7	08-Jul-21	<p>Currently the agreement is in abeyance, amount Rs. 243700271/- received from mastercard is as mentioned below:-</p> <p>Installment 01 Date : 18-Apr-20 Rs. 124085156.14/-</p> <p>Installment 02 (a) Date : 04-Dec-20 Rs. 59521625.94/-</p> <p>Installment 02 (b) Date : 28-Jul-21 Amount - Rs. 60093489/-</p>

Sr No	Vendor Name	License Fee - Yearly (Amount Rs)	License Fee - Invoicing cycle	License Fee Escalation % (YoY)	Performance Security transferred (In Rs)	Agreement		Tenure(Yrs)	License Fee Commencement Date	Remarks
						Signing Date	End Date			
3	Bill Easy									
									24-Nov-22	<p>Bill Easy is a Tri-party agreement between MMOPL -> Phonepe -> Bill Easy</p> <p>It is on Revenue share model, however no revenue has been shared till date</p>
4	One97 Communication Limited	1900000	Yearly in Advance	0	0	08-May-23	15-Nov-25	3	16-Nov-22	

NFBR Annexure 05 - Outstanding as on 31.03.2024

Sl.No	Clients	Outstanding Amount Recoverable (in Rs.) as on 31-03-2024
2 (i)	Retail	
	HARDCASTLE RESTAURANTS PVT LTD	14,04,042.03
	Chunnilal Nagda LLP	11,21,440.22
	NATURALISM FOOD LABS	10,05,681.61
	TIBBS FOODS PVT LTD	8,92,870.94
	Jumboking Foods Pvt. Ltd.	8,72,311.99
	Blue Kettle Ventures Pvt Ltd	7,66,800.00
	FRUIT N NUT ENTERPRISES	7,57,385.62
	BURGER KING INDIA LIMITED	6,62,047.77
	Kotak Mahindra Bank Limited	5,26,104.37
	Vendiman Private Limited	5,13,830.95
	SAPPHIRE FOODS INDIA LIMITED	4,61,611.03
	MIRACLE	3,08,373.39
	AARAN VENTURES	2,03,317.54
	SATHYARUCHI CATERING AND MANAGEMEN	1,97,129.33
	SHRI WARANA SHAKARI DUDHUTPADAK PR	1,82,175.19
	KHULKE BINGE	1,79,162.40
	AMAL CAFE COFFEE	1,59,639.26
	Metro Toys	1,57,461.86
	The Waffle Hub	1,53,554.73
	BURGER BROTHERS PVT LTD	1,36,615.97
	RBML Solutions India	81,869.23
	RAFAT SALAM FODKAR	71,329.53
	MADRASI KAAPi HOUSE LLP	61,196.81
	Delicia Foods	52,889.11
	RAJHANS NUTRIMENTS PRIVATE LIMITED	51,536.50

	BEST AUTO ELECTRIC	42,757.32
	RAMESHWAR EXCELLENCY	40,952.65
	FRESHILLA FOODS LLP	29,495.72
	SAMATTV ORIGINS PRIVATE LIMITED	23,723.90
	STELLARCRAFT GOURMET PVT LTD	21,741.50
	HASIL FOODS	13,801.57
	Meromix Bookish LLP	10,252.36
	MokkoEatS	6,705.36
	JINJAM	3,566.56
	NEW METRO SALES	1,514.83
	Metro Sales	1,389.46
	JABSONS FOODS PRIVAT	957.29
	Quality Mobile Accessories	396.77
2 (ii)	Advertising	
	TIMES INNOVATIVE MEDIA LTD	2,58,675.64
2 (iii)	Telecom	
	Indus Towers Limited (Bharti Infratel)	89,26,811.95
	Reliance Jio Infocomm Limited	22,00,420.65
	SUMMIT DIGITEL INFRASTRUCTURE LTD	10,06,822.00
	YOU BROADBAND INDIA LIMITED	2,65,500.00
Sl.No	Clients	Outstanding Amount Recoverable (in Rs.) as on 31-03-2024
	SUMMIT DIGITEL INFRASTRUCTURE PVT LTD	29,695.60
	INDUS TOWERS LTD	1,06,124.00
2 (iv)	OFC	0.00
2 (v)	Others	
	AIRTEL PAYMENTS BANK LIMITED	4,14,50,000.00
	PhonePe Private Limited	28,32,000.00

	LOOM&WEAVER RETAIL P	92,921.16
	SBI CARDS AND PAYMENT SERVICES LTD	-300.00
	Grand Total	6,83,46,303.68

Note: - All Invoices are raised upto the period March 2024

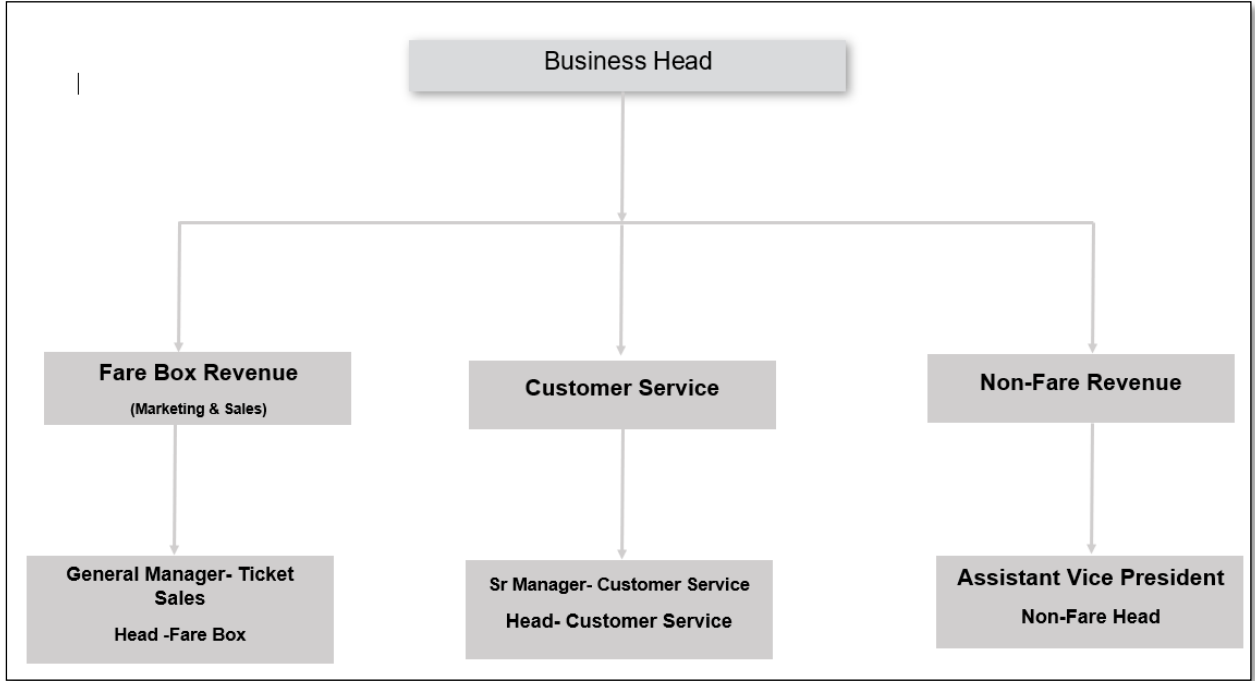
2.7.2.4. Customer Service Division

Customer Service team is headed by Customer Service head (Sr Manager), having Manager, Asst Manager, Sr Executive, Customer Service Officer, Call Centre Associate. The objective of the MMOPL customer service team is to ensure that all employees prioritize the needs of customers, resulting in a positive image and perception of services and staff among existing and potential customers of Mumbai Metro One. Service quality extends beyond operational aspects such as punctuality, reliability, cleanliness, and provision of information. It also encompasses the comfort and satisfaction of passengers throughout their journey. CS team is also look after the Call center operation, Lost& Found management and Social Media tracking. The key function of the Customer Service Division will be to;

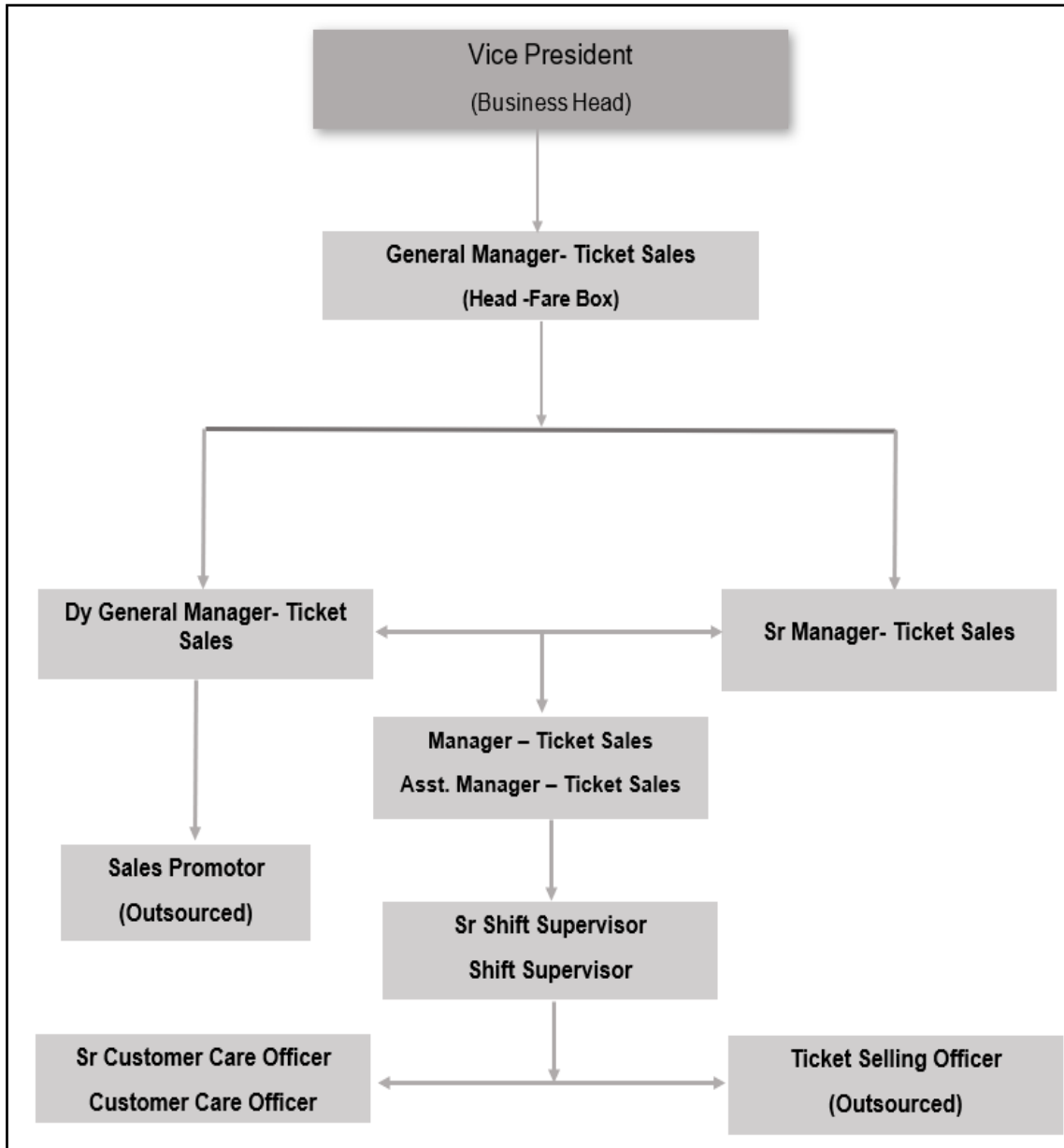
- a. Provide and ensure a high level of customer service and satisfaction
- b. Co-ordination of the customer care training program for staff interacting with passengers, considering that the staff will interface with and assist customers, this will require for customer service staff
- c. The development of key recruitment criteria and standards for staff
- d. A comprehensive initial and ongoing in-house training program
- e. Ensuring that the Call Centre is run in an effective and efficient manner.
- f. Ensuring Lost & Found Centre is run in an effective and efficient manner.
- g. Ensuring that all Complaints are resolved within the prescribed TAT.
- h. Customer Complaints are monitored and handled through in-house CRM system.
- i. Monitoring and driving passenger satisfaction through CSAT Score and Key Performance Indicators (KPI).

2.7.3. Commercial Organization Overview

1. Overall Organization Structure

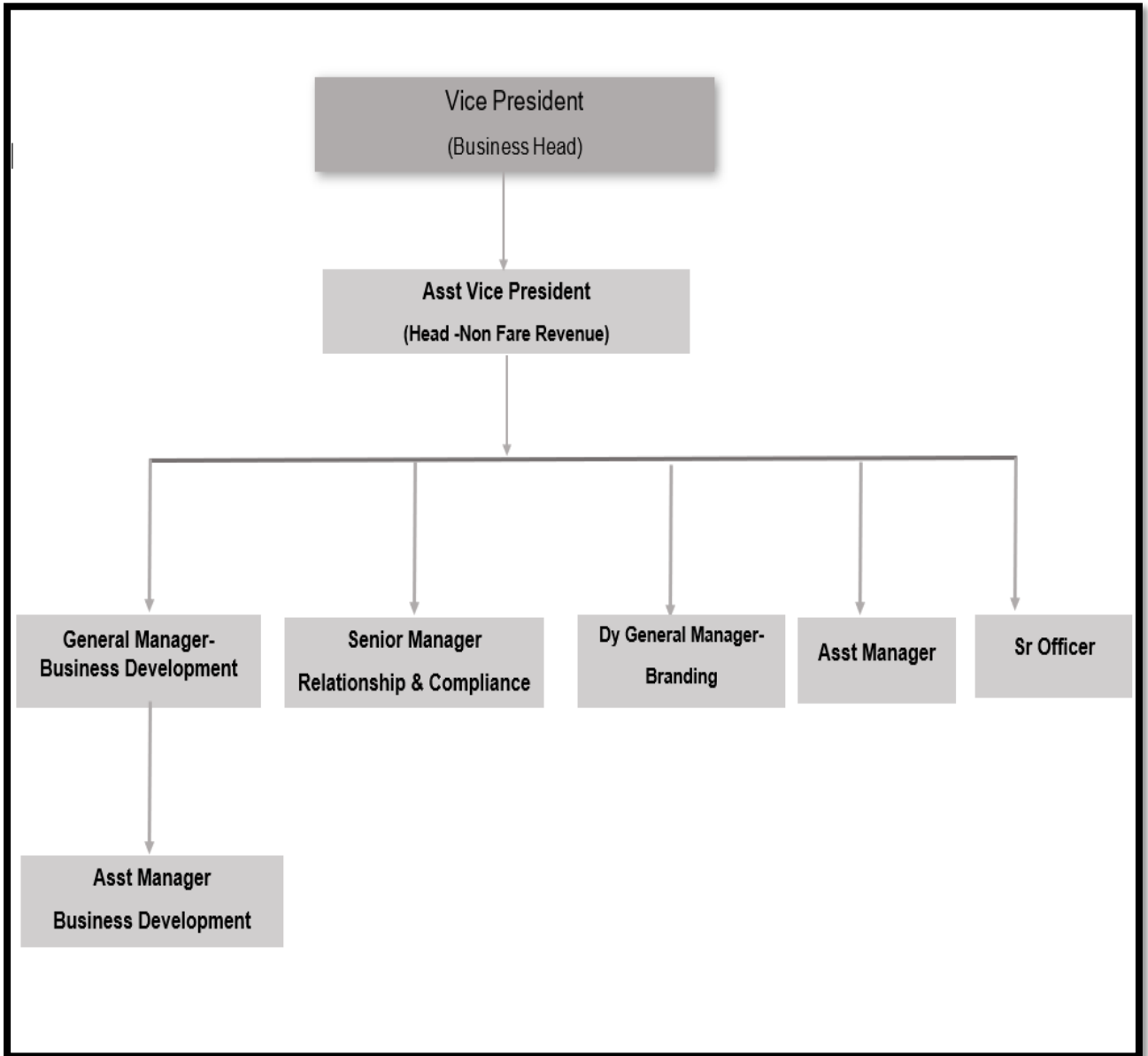


2. Fare Box Revenue Organization Structure



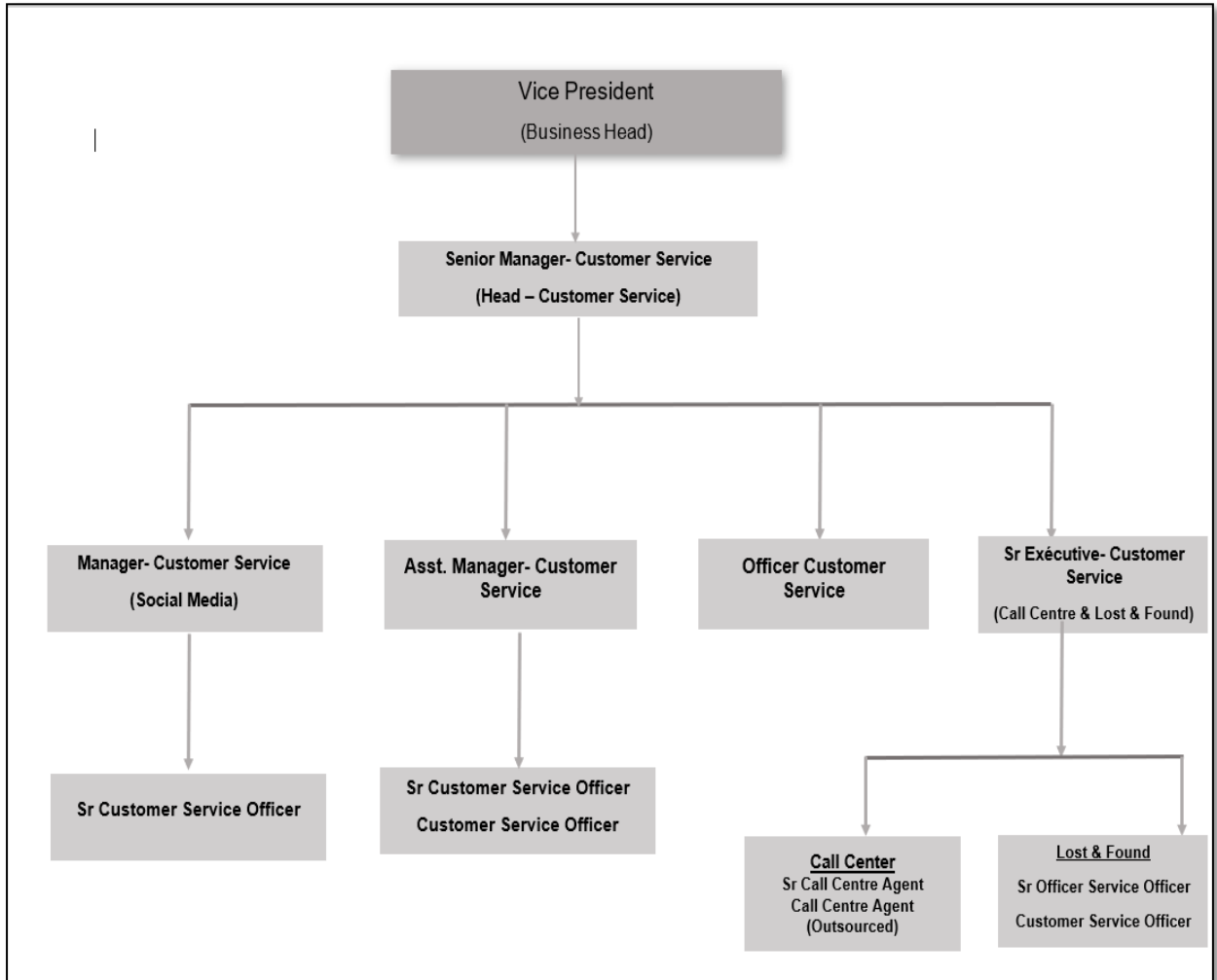


3. Non-Fare Revenue Organization Structure





4. Customer Service Organization Structure



2.7.4. Commercial Manpower Status

Sr No	Division	Designation	Manpower count
1		Vice President- Business Head	1
2	Fare Box Revenue	General Manager- Ticket Sales	1
3		Dy General Manager- Ticket Sales	1
4		Sr Manager Ticket Sales	1
5		Manager -Ticket Sales	3
6		Asst Manager -Ticket Sales	4
7		Sr. Shift Supervisor	26
8		Shift Supervisor	21
9		Sr Customer Care Officer	30
10		Customer Care Officer	84
11		Ticket Selling Officer	213
12		Asst Manager Planning	1
13		Business Analyst	1
14		Officer Planning	1
15		Non -Fare Revenue	Asst Vice President (Head NFR)
16	General Manager-Business Development		1
17	DGM Branding		1
18	Sr. Manager-Business		1
19	Sr Manager - Relationship & Compliance Management		1
20	Asst Manager- Business Development		1
21	Ass Manager - Signage		1
22	Sr Officer		1
23	Customer Service	Sr Manager Customer Service (Head Customer Service)	1
24		Manager -Customer Service (ORM)	1
25		Sr Officer Customer Service	2
26		Asst Manager -Customer Service	1
27		Sr Customer Service Officer	2
28		Customer Service Officer	1
29		Sr Executive Customer Service- (Lost & Found and Call Canter)	1
30		Sr Officer Customer Service- L&F	1

Sr No	Division	Designation	Manpower count
31		Sr Customer Service Officer- L&F	2
32		Customer Service Officer-L&F	1
33		Sr Call Centre Agent	3
34		Call Centre Agent	3
Total			415

2.7.5. List of Items assessed

- a. Management Plan Fare Box
- b. Management Plan Non-Fare
- c. Management Plan Ticket Sales
- d. Management Plan Customer Service
- e. Standard Operating Procedure
- f. Revenue Report
- g. Retail Contract
- h. Advertisement Contract
- i. OFC Contract
- j. Telecom Contract
- k. Mobile Ticketing Contract
- l. Payment Alliance Contract

2.7.6. Reference of relevant assets and its Status

Please refer annexure from 01 to 05

2.7.7. Status Report

All Data uploaded in Data Room

2.7.8. Conclusion summary

All Data uploaded in Data Room

Chapter-3 – DDR of Maintenance Department

3.1 Signaling, Telecom and AFC Systems

3.1.1 Signaling Overview

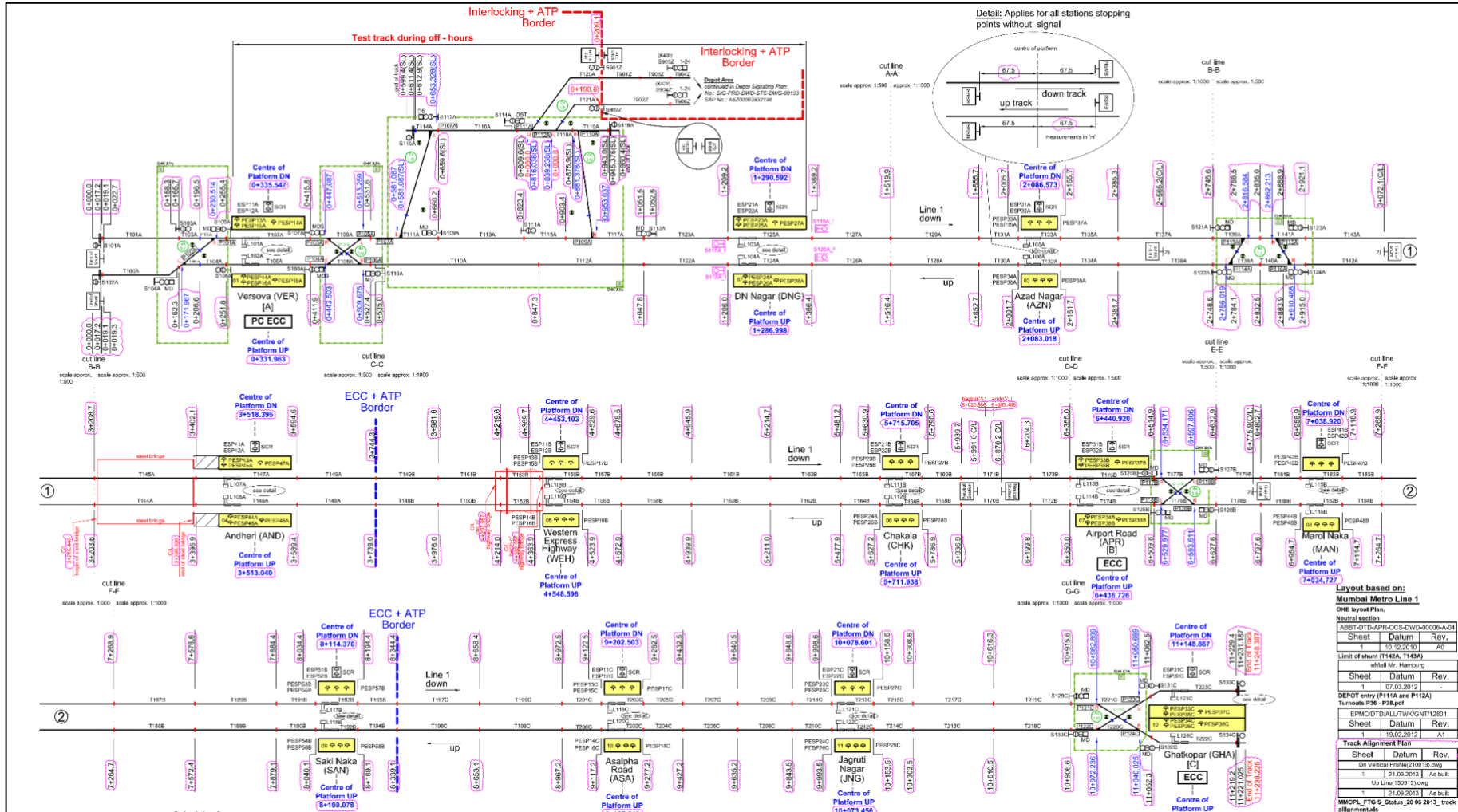
The Signaling system installed in Mumbai Metro Line 1 is of *Siemens LZB-700M* fixed block 'Distance-to-go' Continuous Automatic Train Control (CATC) design using coded remote fed Audio Frequency Track Circuits (FTGS) which is working on Grade of Automation (GoA) level 2. The supply for Signaling systems in Depot, Interlocking and Sub interlocking station is through dedicated Uninterrupted Power Supply (UPS) supplied by *Emerson*. There are 2 main Interlockings in the project, one in DN Nagar Depot and other at Versova (VER) station. Two sub interlockings at Airport Road (APR) & Ghatkopar (GHA) are governed by VER interlocking. Docking of Train is at the platform end with respect to the Direction of Travel. ATO is designed and operational for both direction of Travel throughout the mainline. In Depot, manual mode of operation (Restricted Manual) is allowed as DC Track circuits are used for train detection.

Telecommunication systems encompass a variety of sub-systems designed to facilitate the transmission of voice, data, and multimedia signals. These systems include BTN IP, SDH, Radio, CCTV, Telephone, TDS, VTS, FRS and PAS/PIDS. The different sub-systems of Telecommunication system are integrated and controlled centrally by Thales application, as Thales was the main contractor for Installation, Testing & commissioning. Almost all the telecommunication systems installed at Mumbai metro line 1 are either obsolete or on the verge of obsolescence. CCTV cameras are currently being upgraded to high-definition IP-based cameras, with a recording capacity of up to 30 days. The Video Transmission System (VTS) that is designed to give real-time view inside the running train is now obsolete and not operational. The Telephone system offers high-quality voice transmission, with a reliable M3 Cabinet. The Time Distribution System relies on GPS technology to provide accurate date and time information. The Public Address/Passenger Information Display System (PA/PIDS) operates automatically and seamlessly interfaces with Signaling system, providing automated announcements over the speakers and PIDS messages regarding trains at stations.

The Complete AFC System (Software and Hardware) initially has been installed and commissioned by Indra. The number of gates installed per station depends on the footfall and stations are equipped accordingly. The AFC system was initially designed for Closed loop operation principle and Token as media in 2014. Later Mobile QR Code was implemented by Ridlr in Nov 2017 followed by paper QR tickets in Jan 2020. For the NCMC implementation the Open loop system was implemented by ATEK in 2022. Hardware like new AG Validator including QR scanner and Fieg Reader etc that supports both Close Loop Cards & NCMC were installed. As on date both Closed Loop and Open loop system are functional simultaneously depending upon the usage. The major interface of AFC is with E&M and Telecommunication systems.



Signaling Line Overview of Mumbai Metro Line-1



Layout based on:
Mumbai Metro Line 1

DNE layout Plan:
Neutral section

Sheet	Datum	Rev.
ABBT-DT-APR-CCS-DWD-0000-A-04	AD	
1	13.02.2013	AD
Limit of sheet (T142A, T143A)		
Sheet	Datum	Rev.
1	07.03.2012	AT
DEPT entry (P11A and P12A) Turnouts P36 - P38.pdf		
Sheet	Datum	Rev.
12	13.02.2013	AT
Track Alignment Plan		
Sheet	Datum	Rev.
1	21.09.2013	As built
1	21.09.2013	As built
MNOPL_FTC_5_Statu_20_06_2013_track alignment.pdf		

3.1.2 Technical Diligence Data for Signaling System

3.1.2.1 Technical due diligence data

- a. Contract Documents, and its deliverables are available with signaling team and has been uploaded on the Virtual Data Room and has been verified.
- b. Documents such as Room layouts, As-built drawings, Cable layout plans, Interface & ICDs, Bonding, Final Design documents and Earthing plans that **have been uploaded on the virtual data room and are verified**. However, complete Installation check of Ghatkopar points is not made available.
- c. Partial Taking Over Certificate (PTOC) issued by MMOPL to M/s Siemens has been shared at virtual data room. However, as per the information shared by MMOPL, Full Taking Over Certificate (FTOC) has not been issued.
- d. Necessary permits and approvals such as Independent Safety Assessor Assessment Certificate, CMRS approvals & recommendations, Safety case and Approved Schedule of Dimension (SOD) is made available on virtual data room and has been verified.
- e. The Hazard Identification and Risk Assessment (HIRA) register has been prepared and made available on virtual data room and has been verified.

3.1.2.2 Operation & Maintenance due diligence data

- a. Workorder for AMC of ATS Servers and UPS & SCVS sub-systems has been uploaded on Data Virtual Room and has been verified.
- b. Approved V/s Actual expenditure of Budget have been shared on Virtual Data Room and has been verified. However, the file is cumulative of entire O&M department.
- c. Hardware License are already installed in their respective Workstations. Operation System keys are not available with the Signaling Team. To resolve various ongoing issues in the system since ROD, new Software version for ATS, ATO, ATP systems and Hardware upgradation of FEP Servers has been proposed by Siemens **which is uploaded on the Virtual Data Room and has been verified**. However, plan for the same has not been shared by OEM to MMOPL.
- d. Warrantee details of Newly installed Battery Banks at stations have been shared on virtual data room. However, the warrantee certificate of New UPS is already expired and Maintenance of RPS is now done by PST team of MMOPL. Also, warrantee of Special tools has already been expired.
- e. Preventive and Corrective Maintenance SOPs with its related Maintenance Record Forms have been verified and shared on Virtual Data Room. As per MMOPL, the Maintenance periodicity have been altered by MMOPL based on experience and site condition.
- f. Fault sheet (Excel) has been uploaded on Virtual Data Room. It is seen in the fault sheet that, fault/failure classification as critical, non-critical, service affecting or train withdrawals etc. is not maintained.



- g. Inspection report for inspections conducted by Independent Engineer on line 1 for past three years are made available on Virtual Data Room. These reports have been reviewed and no major observations/recommendations are seen in the reports.
- h. RAMS report of March 2024 has been shared on Virtual Data Room. Availability of System is present in the sheet from 2014 till date. However, fault details of previous months considered for RAMS are not available.
- i. Staff Position as on date:

SN	Post	Staff
1	Vice President	01
2	General Manager	01
3	Manager	01
4	Assistant Manager	01
5	Engineer	06
6	Technician	06
7	Intern	05

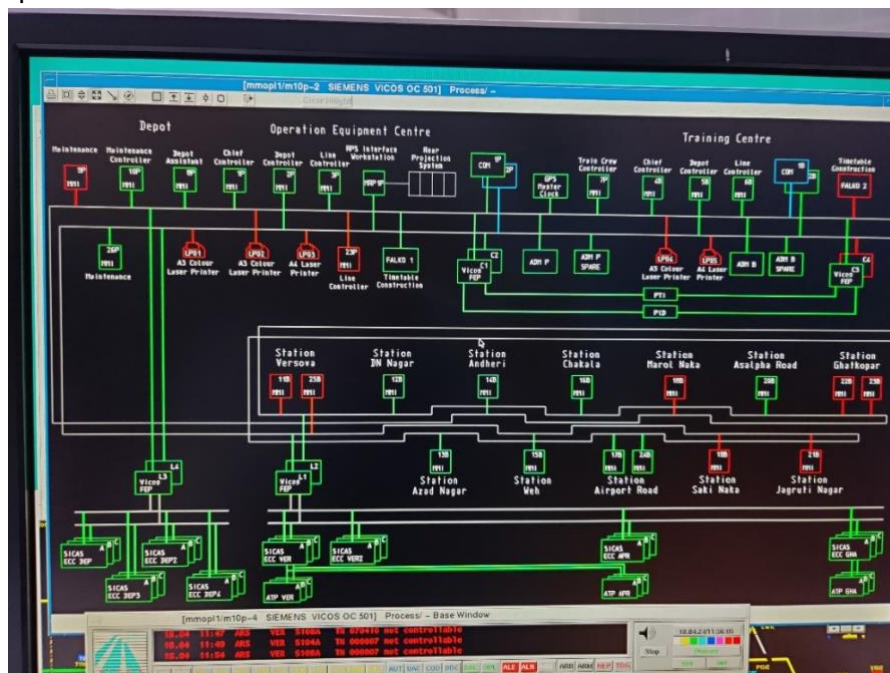
3.1.2.3 Asset Details

- a. An Excel Sheet of Asset register (At present) has been uploaded on Virtual Data Room. However, details such as Serial numbers of few assets are missing and not available in the sheet. Attached as Sig. Annexure-1a.
- b. Present available spares have jointly been verified by MMMOCL and MMOPL staff. LED units of few signals housing are missing. Attached as Sig. Annexure-1b.
- c. Details regarding the present special tools with their calibration certificates available has been uploaded on Virtual data room **and has been verified**. Attached as Sig. Annexure-1c.
- d. As per contract Technical Specification, section, Chapter 16, clause 16.2.3, 20% cable spares had to be provided by OEM. Accordingly, unused Cable Drums were provided to MMOPL by siemens. As per MMOPL, **30 cable drums** most of the cable drums have been sold as scrap. The invoice details have been shared but cannot be verified as it is cumulative of MMOPL other items too. Attached as Sig. Annexure-1d.
- e. The SUN Ultra 45 workstations/ servers are obsolete. Spares of the same are not available in market and therefore it is getting difficult to maintain these workstations.
- f. ATS Training Simulator “Ban-Sim” is not functional due to hardware/ Software issue. There is no further plan of action for reviving the same. Therefore, the system is dead and not functional.



Ban Sim Workstation (ATS Simulator)

- g. Below mentioned ATS Workstations are not functional at Stations/OCC:
 - i. Backup OCC, FALCO (Time Table compiler) is not functional due to software issue.
 - ii. ATS Maintenance Workstation room next to OCC (S&T Room).
 - iii. ATS Maintenance Workstation APR SER. Same is under investigation/ repair.
 - iv. ATS Maintenance Workstation GHA SER. Same is under investigation/ repair.
 - v. ATS Workstation of Depot CER is not functional. Same is under investigation/ repair.



System Overview of Signaling Equipment



- h. Almost all Batteries of DC Track circuits of Depot are not functional/bypassed (No system impact as it is for back up supply). As these batteries are needed at the time of power failure, there is no significant impact to the system.
- i. List of Sub systems that have been upgraded.
 - i. One additional refurbished UPS installed each at VER, APR, GHA & DEP.



One Additional UPS installation

- ii. Batteries of UPS have been replaced with new at VER, APR, GHA & DEP.



Newly installed Batteries

- iii. Rear Projection System cubicles have been replaced in OCC theatre. The scope of maintenance of these RPS has been allotted to PST team.



Newly installed RPS system

- j. Hardware replacement sheet has been uploaded on the virtual data room; however, data cannot be properly verified as it is not in orderly manner.
- k. A Copy of offer by Siemens for a list of spares (10 items, 28 quantity) has been uploaded. Procurement is under process. Attached as Sig. Annexure-1e.

3.1.2.4 Deficiency and Scope of Improvement

- a. ATS SUN servers are obsolete and its hardware is not available. Due to this few MMIs are not operational. If new hardware is opted as replacement, integration of the same from OEM shall be needed.
- b. As per clause 4.44, Contractual Spares of the contract document *“Notwithstanding anything contained in the Contract, the Contractor shall ensure the availability of the Contract Spares for the design life (thirty-five (35) years) of the Works. If at any point of time the Contractor intends to discontinue the manufacture of any of the Contract Spares or comes to know that any of the Subcontractors intend to discontinue the manufacture of any of the Contract Spares or comes to know that any of the Contract Spares are likely to become obsolete or for any reason not available in the market, the Contractor shall immediately give notice to the Employer. The Employer shall be given the opportunity of ordering such quantities of the Contract Spares or replacement thereof as the Employer shall reasonably require in relation to the anticipated life of the Signaling and Train Control System. To give effect to the above intent of the Parties, the Contractor shall submit to the Employer to his reasonable satisfaction, a Contract Spares management program.*
In order to ensure that the Contract Spares are supplied by the Contractor to the Employer at reasonable prices, the Parties shall negotiate and agree or prices for Contract Spares each time the Employer will buy Contract Spares from the Contractor.



However, under no circumstance such price shall be higher than the prices determined in accordance with the formula to be mutually agreed between the Parties within six (6) months from the date of the execution of the Contract”.

- c. Cases of OEM giving notice to Employer about Contract Spares likely to become obsolete or for any reason not available in the market is not seen based on the documents submitted on the virtual data room.
- d. Control Transfer from OCC to VER SCR is not possible as VER SCR ATS Workstation is not functional. As per SOP for fire in OCC, transfer control from OCC to VER SCR is to be done and the operations has to be managed from VER stations. However, since VER SCR workstation is not functional, SOP has to be amended accordingly.
- e. Most of the Subsystem’s cards are not repairable in India and has to be replaced. These cards are being purchased from Germany and are difficult to procure and take time to be delivered in Mumbai. Need to raise PO timely for availability on site.
- f. Contractual Operational headway is not achievable due to changes done in the line alignment at few locations.

3.1.2.5 Important Issues

- a. As per OEM recommendation, the point machine shall be overhauled after the service life of 10 years. However, it is learned that, overhaul of point machines has not been done and may impact the equipment. Total 24 Point Machines have been installed on Mainline and 32 in Depot. The approximate cost involved for the overhauling of point machines is ₹ 4 crores.
- b. The Signaling system installed and in use is quite old which works on fixed block distance to go principle. Few items are obsolete and there is need for upgradation.
- c. More than 30 cable drums are not available as compared to contractual spares list handover note. These cables were German made, copper cable. As per MMOPL, these cables have been sold as scrap for approximately 80 Lakhs.
- d. Quantity of Contractual, DLP and BOQ spares could not be verified as the list submitted is not as per the OEM handover note.
- e. Synchronization loop and ATS Switch box with its equipment have been shifted from SER to TER at all Non-Interlocking stations. As per OEM, these SER now is used as a storage room.

3.1.2.6 Conclusion

For improving the headway and to meet increasing ridership, it is necessary that Faults/ Failures that are still not addressed by OEM and are still pending, contributing to failures in operational system are addressed.

3.1.3 Technical Diligence Data for Telecommunication System

3.1.3.1 Technical due diligence data

- a. Contract Documents, and its deliverables are available with Telecomm team and has been uploaded on the Virtual Data Room. Payments made against these deliverables' documents are uploaded on Virtual Data Room.
- b. Documents such as Room layouts, As-built drawings, Cable layout plans, Interface documents, ICDs, Block wiring diagrams and Final Design documents are available with Telecomm team and uploaded on Virtual Data Room **and has been verified**. However, UPS & PIDS, SAT documents, Telephone block wiring diagram, Workshop Layout are not made available.
- c. Neither Partial Taking Over Certificate (PTOC), nor Full Taking Over Certificate (FTOC) are made available on virtual data room **and has been verified**.
- d. SACFA certificate for VTS & Tetra system & CMRTS license for Tetra with payment receipts uploaded on Virtual data room **and has been verified**.
- e. The Hazard Identification and Risk Assessment (HIRA) register has been prepared, **uploaded on virtual data room and has been verified**.

3.1.3.2 Operation & Maintenance due diligence data

- a. Copies of Ongoing Manpower and Maintenance Contract of EPBAX, CCTC, NVR has been uploaded on Virtual Data Room **and has been verified**.
- b. A firm from Mumbai is repairing two-way communication, digital Telephones, CCTV Cameras, Analogue Telephone, and PHP Lift SOS and the payment of the same is made as per case-to-case basis. Available documents (Work Order) are uploaded on the Virtual data room **and has been verified**.
- c. Statement of Approved V/s Actual expenditure of budget is made available by the Telecomm team on virtual data room, **however same cannot be verified as it is a cumulative sheet of entire Maintenance division**.
- d. License of Software are installed in the system itself and does not have any backup copy. The license of Operating Systems is uploaded in the Virtual Data Room.
- e. There is no plan for upgradation of Software/ Hardware of any of the Telecomm system.
- f. Defect Liability Period (DLP) and warrantee of all Telecomm subsystem is expired.
- g. The Preventive Maintenance performed by Telecomm team is in line with the OEM recommendation as discussed with MMOPL. SOPs and Checklist have been uploaded on the Virtual Data Room and found in order.
- h. Few Preventive Maintenance procedures and periodicity have been modified based on obsolescence and past experience with lessons learnt on-site. The document has been uploaded on the Virtual data room. Record forms have been jointly verified of past six months satisfactorily.
- i. The corrective maintenance sheet from October – 2020 till date, extracted from SAP has been uploaded on the Virtual data room.



- j. Spares in the MMOPL Telecom store were jointly verified by MMMOCL & MMOPL and the Tel. Annexure 2a has been uploaded on the virtual data room. Spare details regarding recoument from OEM is not available.
- k. RAMS report for June 2016 to March 2024 has been uploaded on Virtual data room.
- l. Inspection report for inspections conducted by Independent Engineer on line 1 for past three years are made available on Virtual Data Room. These reports have been reviewed and no major observations/recommendations are seen in the reports.
- m. Staff Position as on date:

SN	Post	Staff
1	Vice President (Common for S&T)	01
2	Senior Manager	01
3	Manager	01
4	Engineer	05
5	Technician	05
6	Intern	02

3.1.3.3 Asset Details

- a. An Excel Sheet of Asset register (At present) has been uploaded on Virtual Data Room. However, details such as Serial numbers of few assets are missing and not available in the sheet. Other details such as make, model, type, versions are missing from the list. Attached as Tel. Annexure 2b.
- b. Details of Spares such as Contractual, DLP items are not available with MMOPL. Present available spares have jointly been verified by MMMOCL and MMOPL staff
- c. Details regarding the present special tools with their calibration certificates available has been uploaded on Virtual data room. List of Special tools & equipment provided by Telecom OEM not available with MMOPL Telecom.
- d. List of Obsolete items has been uploaded on Data Room. Attached as Tel. Annexure-2c
- e. MMMOCL Comment: Telecom assets were verified through inspection during the site visits. Telecom Asset register for present availability has been uploaded on virtual data room and has been verified.
- f. A PDF sheet of Hardware replaced has been uploaded. However, the details are about the CCTV system only.
- g. Spares ordered is as under
 - i. Copy of PO no – NBO/MR1/23097018 has been uploaded for purchasing of 4000 Mts of RG59 Cable.



ii. Copy of PO no – NBO/MR1/23097107 has been uploaded for purchasing of 7 nos of Bosch Encoder module.

h. Hand portable TETRA: Approximately 260 nos. hand portable TETRA radios sets were handed over by OEM. The distribution list for the same has not been made available by MMOPL on virtual data room. However, details of TETRA available in spares have been jointly verified and included in asset register.

3.1.3.4 Deficiency and Scope of Improvement

a. VTS (Video Transmission System) VTS for live video coverage in trains is not operational due to non-operational way-side mesh nodes and FMC servers. Spares are not available & OEM Support is not available as the VTS system is not manufactured anymore. Need to upgrade the system.



VTS-FMC 200 & Wireless Mesh Node is not functioning

b. The radio system which plays a vital role in wireless communication is facing issues such as inadequate coverage due to outdated software at the server end & BTS hardware, indicating the system requires an upgrade. CAD system is not fully functioning – PA, PEA from OCC not functioning. Radio repeaters at some stations are not functioning, like Versova & Azad Nagar.

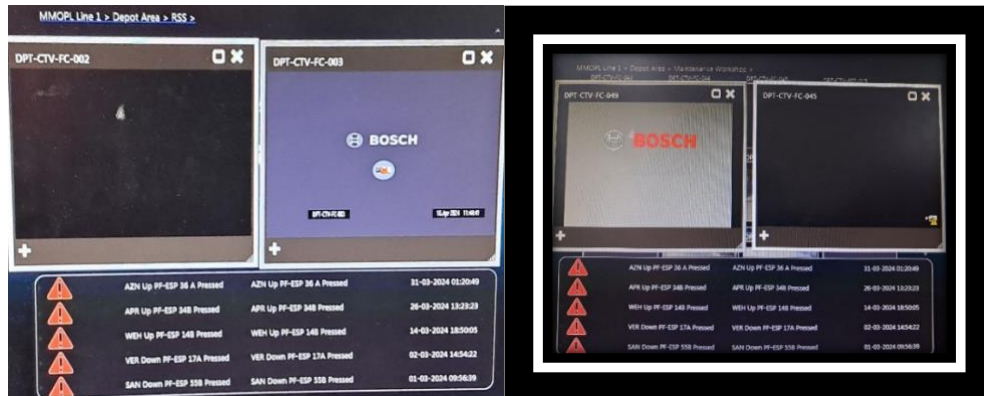


Radio CAD system is not functioning



Radio repeaters at Azad Nagar & Versova is not functioning

- c. The CCTV system including encoders has been obsolete, to overcome the shortage of spares, CCTV cameras from the PTR building have been upgraded to IP cameras and the old cameras are used as spares wherever possible. Some cameras at RSS & Workshops are not functioning.



CCTV Cameras at RSS & Workshops building not functioning

- d. Public Address System (PAS) Router, The PAS router is analogue-based, and Original Equipment Manufacturer (OEM) support is unavailable.
- e. The Displays of PIDS installed at platforms and concourse level have been retrofitted/replaced with LED TVs. Embedded computers for PIDS are not available in the market. As a part of power-saving measures PIDS 1 & PIDS 8 of platforms are kept non-operational. Platforms were initially built to accommodate 6-coach trains, currently only 4 coach trains are in operation.



PIDS panel no -1 & 8 kept non-functioning

- f. The switch, servers, workstations of BTN IP/SDH and other sub-systems are obsolete and running on Windows XP. All the interfaces and software are designed for Windows XP making it impossible to find replacement/alternate spares. SDH NMS server in OCC CER is not functioning.



SDH NMS is not functioning

3.1.3.5 Important Issues

- a. Aging Telecommunication systems, especially those over 10 years old, face the challenge of obsolescence. Without proper support from OEM, it becomes increasingly difficult to address maintenance issues, procure spare parts and receive necessary updates to keep the systems operational.
- b. Telecommunication systems rely heavily on software for their functionality and security. Regular updates and upgrades are essential to address vulnerabilities, improve performance, and introduce new features. Without timely updates, systems may become susceptible to cyberattacks, compatibility issues, and performance



degradation. Implementing a structured update and upgrade process is crucial for ensuring the smooth operation of telecommunication networks.

- c. Establishing a proper repair laboratory setup with relevant tools is indispensable for conducting in-house repairs of telecommunication equipment. This setup enables technicians to diagnose and rectify issues promptly, reducing downtime and ensuring continuity of service, particularly during emergencies.

3.1.3.6 Conclusion

Subsystems such as VTS is installed but not operational and need upgradation. A redundant MSO server is available. However, being a critical item, it is not recommended to have such an arrangement done. Regular Software upgradation is essential for the proper functioning of the installed equipment.

3.1.4 Technical Diligence Data for Automatic Fare Collection System

3.1.4.1 Technical due diligence data

- a. Contract Documents and its deliverables are not available with AFC team and as per discussion, the document is available with MMOPL Procurement team.
- b. Documents such as FAT, OST, SIT, Room Layouts, As Built Drawings, Design documents, Cable Laying Plan, ICDs, AFC Logic Diagrams, Mainline & Depot Overview, Earthing & Bonding Plan have been uploaded on Virtual Data Room **and has been verified**.
- c. Partial Taking Over Certificate (PTOC) and Full Taking Over Certificate (FTOC) is available and uploaded on Virtual Data Room **and has been verified**.
- d. PCIDSS and L-3 certificates has been verified and uploaded on Virtual data Room **and has been verified**.
- e. Bank Audit reports and Bank security audit compliance report is not available with MMOPL AFC Team.
- f. The Hazard Identification and Risk Assessment (HIRA) register has been prepared and available.

3.1.4.2 Operation & Maintenance due diligence data

- a. AMC of Servers and ILL certificate is available and uploaded on Virtual Data Room **and has been verified**.
- b. Faulty cards of AFC sub systems are being repaired in house in DN Nagar depot. There is no contract given for any repair of spares.
- c. The approved V/s Actual budget is not available with the AFC team. As per discussion the same is available with Finance team.
- d. AFC Software is customized so software license is not required. OS Licenses of AFC system is integrated with Motherboard hence Licenses Not Applicable.
- e. Newly installed AG, SCS and Open Loop server are under DLP and all spares and special tools are out of warrantee. Spare list attached as AFC. Annexure 3a.



New and Old AFC gates

- f. Upcoming software implementation;
 - i. As RBI has banned Paytm Payment Bank Ltd. (PPBL) so MMOPL has tied up with Airtel Payment Bank Ltd. (APBL).
 - ii. Currently Acquiring has been continued with APBL using PPBL as middleware for 3 to 6 months.
 - iii. MMOPL AFC system need to be integrated with APBL Issuance & Acquirer.
- g. Preventive and Corrective Maintenance SOPs with its related MRFs shared on Virtual Data Room **and has been verified**. Maintenance periodicity have been altered based on experience and site condition.
- h. RAMS reports of last three years have been uploaded on Virtual Data Room.
- i. Staff Position as on date;

SN	Post	Staff
1	Asst. Vice President	01
2	Senior Manager	02
3	Manager	01
4	Asst. Manager	01
4	Executive Planner	01
5	Sr Officer Planning	01
6	Senior Engineer	04
7	Engineer	10
8	Intern	02



3.1.4.3 Asset Details

- a. Asset register (At present) has been uploaded on Virtual Data Room and has been verified. Details such as equipment ID, make, model is available in the sheet. Attached as AFC. Annexure-3b.
- b. Contract to upgrade AFC gates together with its Software and other items has been awarded by MMOPL to Gannebo-ATEK JV. The scope includes upgradation of AFC gates with its software at all stations of Line 1. So far, AFC gates at 4 stations have been upgraded. MMOPL has confirmed that, AFC gates of all the stations shall be upgraded in due course.
- c. List of Standard tools, with calibration certificate and present consumable list is uploaded on the Virtual Data Room and has been verified.
- d. TOM/ EFO, TIM, RVCT, SC, TVM and Tokens are Obsolete and are not operational now. These Equipment are now retrofitted by Ridlr Equipment and operational except TVMs, TIM and RVCT.
- e. Hardware replacement sheet has been checked and uploaded on Virtual Data room.

3.1.4.4 Deficiency and Scope of Improvement

- a. The initial contractor for AFC was INDRA which was closed loop system. Ridlr has installed QR code system for ticketing. However, support services have now been withdrawn by the vendor. Need to have a single OEM for smooth operation of NCMC system.
- b. Station Level TVMs and RVCT are not operational due to obsolesce of Hardware and no OEM support for rectification.

3.1.4.5 Important Issues

- a. Initial AFC system installed by M/s Indra has been obsolete. The software, readers, validators have been retrofitted by new system provided by ATEK. At present, two different systems are operation in same system such as open loop & closed loop. Therefore, inventory management is a herculean task.
- b. The commuters have to also maintain two different ticketing devices/app/cards in case of commuting in different metro lines.
- c. Availability of Spares for old AFC gates and other peripheral hardware is challenging.

3.1.4.6 Conclusion

AFC system was installed by INDRA which was a closed loop system. Ridlr equipment facilitated mobile and paper QR ticketing system. MMOPL shall be upgrading all the AFC gates across all stations of line 1 in phased manner. For seamless implementation of NCMC system, it is essential to upgrade the existing system with single system integrator.

3.1.5 List of Nonfunctional systems and its expected expenditure – S&T (Signaling, Telecom & AFC)

SN	Non-Functional Sub-system/Equipment of Line 1	Cause of Non-Functionality	Approximate Cost
Signaling System			
1	Overhauling of Depot & Mainline Point Machines	As per OEM recommendation	₹4,00,00,000
2	ATS Training Simulator “Ban-Sim” is not functional due to hardware and software issue.	Hardware Obsolete, Software support required from OEM	₹ 5,00,000
3	Following ATS Workstations are not functional at Stations/OCC; Backup OCC, FALKO (Time Table compiler), OCC (S&T Room), APR SER, GHA SER, Depot CER	Hardware Obsolete, Software support required from OEM	₹ 25,00,000
4	30% Batteries of DC Track circuits of Depot are not functional/ bypassed (No system impact as it is for back up supply).	No Spare available in stores	₹ 3,00,000
5	Software support for above Workstation	OEM Support required	₹ 20,00,000
6	If the hardware is replaced/upgraded with new model, software & hardware integration from OEM shall be required.		₹ 1,50,00,000
7	Cost of the cable drums that have been scrapped		₹ 15,00,00,00
Sub-Total			₹ 21,03,00,000
Telecom System			
7	Following VTS (Video Transmission System) sub-system is not functional.	Sub-system obsolete, Spares not available in market.	
	a. Mesh Node-1, not working in OCC CER.		₹ 4,00,000
	b. Mesh Node-2, not working in OCC CER.		₹ 4,00,000
	c. FMC not working in OCC CER.		₹ 4,00,000
	d. VTS NMS not working in OCC CER.		₹ 5,00,000
	e. VTS wayside system at mainline not working.		₹ 15,00,000
8	Following Radio sub-systems not Functional.	Sub-system obsolete, Spares not available in market.	
	a. CAD system is not fully functioning – PA, PEA from OCC not functioning.		₹ 4,00,000
	b. Radio repeaters not working at Azad Nagar & Versova.		₹ 80,000
	c. MSO systems functioning with minor alarms.		₹ 8,00,00,000
9	Following items of CCTV systems are not functional	Sub-system obsolete, Spares	



	a. CCTV platform monitor at Airport Road, Asalpha, Azad Nagar, Chakala, DN Nagar.	not available in market.	₹ 7,00,000
	b. CCTV cameras not working at Chakala, DN Nagar, RSS & workshop area.		₹ 13,00,000
10	PIDS of platform no -1, at Chakala not Functional.	Spare not available.	₹ 5,00,000
11	Conversion of PIDS display from Plasma to LED.	For balance PIDS	1,50,00,000
12	If the hardware is replaced/upgraded with new model, software & hardware integration from OEM shall be required.		₹ 2,50,00,000
Sub-Total			₹12,61,80,000
AFC System			
12	Ticket Issuing Machine not functional at all stations.	Item Obsolete – No longer used in Line 1	₹ 3,70,00,000
13	Remaining Value Checking Terminal not functional at all stations.	Item Obsolete – No longer used in Line 1	₹ 20,00,000
14	Token not functional at all stations.	Item Obsolete – No longer used in Line 1	Phased out
			₹3,90,00,000

3.1.6 Telecom System Summary

The telecom system currently in place at MMOPL Line -1, exhibits significant reliance on outdated and obsolete technologies, notably within the SDH, CCTV, Radio, PIDS, PAS, TDS, VTS, Telephone, FRS, and UPS. This dependency poses substantial operational risks, including system failures and security vulnerabilities, primarily due to the lack of support and availability of replacement parts from original equipment manufacturers (OEMs). The below table gives an outline of the Obsolete Telecom system.

System	Status	Spares available	OEM Support	Obsolete
VTS				
Mesh Node 1	Not working	No	No	Yes
Mesh Node 2	Not working	No	No	Yes
FMC	Not working	No	No	Yes
NMS	Not working	No	No	Yes
RADIO				
MSO	Functional with minor Alarm	Yes	No	Yes
CAD	Functions like PEA, and PA from OCC are not fully functional	Yes	No	Yes
MTS 4	Working	Yes	Yes	No
On Board	Working	No	No	Yes
CCTV				
Cameras	Working	Yes	No	Yes
Encoders	Approx. 3 Not working due to fault	Yes	No	Yes
Decoder	Approx 4 Nos not working due to fault	No	No	Yes
NVR	Working	Yes	No	Yes
Workstation	Working	Yes	No	Yes
PA/PIS				
PIDS	Working	Yes	No	Yes
PAS	Working	Yes	No	Yes
Server	Working	Yes	No	Yes
Workstation	Working	Yes	No	Yes
BTN-IP				
Switches	Working	Yes	No	Yes
BTN-SDH				
ADM nodes	Working	No	No	Yes
Telephone				
Omnipcx	Working	Yes	No	Yes
Digital Phone	Working	No	No	Yes
FRS				



Server	Working	Yes	No	Yes
Workstation	Working	Yes	No	Yes
UPS				
Shifted Load on E&M UPS, Telecom UPS Decommissioned				
TDS				
Master Clock	Working	Yes	No	Yes
Backup	Working	Yes	No	Yes
Digital Clock	Working	Yes	No	Yes

3.1.7 List of Non-Available Documents S&T (Signaling, Telecom & AFC)

SN	Document Name	Present Status	Document Authority
Signaling System			
1	Installation check sheets of Mainline Points (except for GHA points)	Incomplete	MMOPL
2	Approved budget v/s actual expenditure statement for last 3 years.	File shared is not opening. As per MMOPL team the sheet comprises of complete organization.	MMOPL
3	Root Cause Analysis report for last 3 years	Incomplete and does not contain the RCA data	MMOPL
4	Updated Asset Register	Incomplete. Details such as Serial no. of several items are missing.	MMOPL
5	Hardware replacement Data	Not segregated properly for traceability	MMOPL
6	Full Taking Over Certificate (FTOC)	Not Available	MMOPL
7	Plan for installation of new Software version to mitigate ongoing issues.	Not Available	MMOPL
Telecommunication System			
1	Block wiring diagram of Telephone system	Not Provided	MMOPL
2	Mainline & Depot overview drawing	Not Provided	MMOPL
3	Partial completion/ full completion certificates.	Not Available	MMOPL
4	Approved budget v/s actual expenditure statement for last 3 years.	File shared is not opening. As per MMOPL team the sheet comprises of complete organization.	MMOPL
5	List of Telecom DLP spares provided by Telecom OEM v/s present availability.	Not Available	MMOPL



6	List of Special tools & equipment provided by Telecom OEM v/s present availability.	Not Provided	MMOPL
7	SAT documents of UPS and PIDS	Not Provided	MMOPL
8	Equipment room layouts of the Workshop	Not Provided	MMOPL
9	Spares consumption Report	Not Provided	MMOPL
10	Hardware replacement Data	Incomplete	MMOPL
11	Root Cause Analysis report for last 3 years	Incomplete and does not contain the RCA data	MMOPL
12	Updated Asset Register	Incomplete. Details such as Serial no., make, model of several items are missing.	MMOPL
13	Payments against contractual deliverable and its original invoices	Not Provided	MMOPL

AFC System

SN	Document Name	Present Status	Document Authority
1	Bank audit reports not available	To be provided by MMOPL Finance Team	MMOPL
2	Bank security audit compliance	To be provided by MMOPL Finance Team	MMOPL
3	AFC Contract document	To be provided by MMOPL Procurement Team	MMOPL
4	Payments against contractual deliverable and its original invoices	Not Provided	MMOPL
5	Approved budget v/s actual expenditure statement for last 3 years.	File shared is not opening. As per MMOPL team the sheet comprises of complete organization.	MMOPL
6	Spares consumption Report	Not Provided	MMOPL
7	Hardware replacement Data	Incomplete	MMOPL



8	List of Contractual spares provided by OEM v/s present availability.	Not Provided	MMOPL
9	List of DLP spares provided by OEM v/s present availability.	Not Provided	MMOPL
10	Contract document for procurement of Printer Roll, Smart Card	Not Provided	MMOPL

3.2 Power Supply & Traction

3.2.1 PST Overview

Traction Power Supply for the Line-1 corridor (Versova (Ch. 102.00) to Ghatkopar (Ch. 11345.00)) is 25kV Overhead Catenary system.

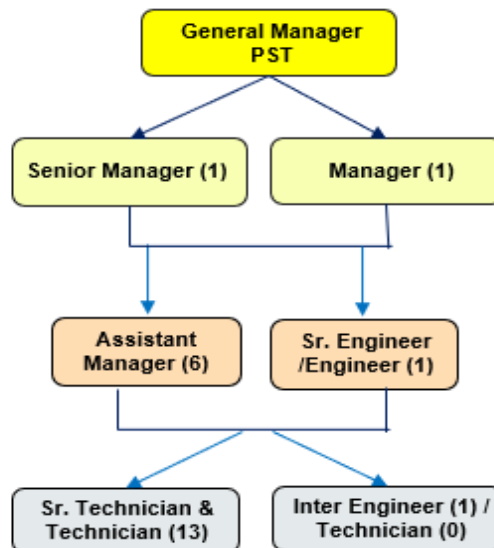
33 KV Incoming Power Supply from TATA Power Versova Substation and Airport Road Substation is feeding to D N Nagar RSS and Marol Naka RSS respectively through underground cables.

At RSS, 33 KV supply is stepped down to 25 KV supply for Traction via Traction Transformer (20 MVA, 33/27.5 KV) and fed to OHE via 25 KV GIS Panel. There are 2 feeding Posts for Main Line OHE Supply. One is between Versova & DN Nagar stations and the other is between Airport Road & Marol Naka Station. There are 3 SSP, 1 SP & 5 SS in Main Line for Sectioning Purpose.

Similarly, 33 KV supply is stepped down to 11 KV Auxiliary Supply via Auxiliary Main Transformer (20 MVA, 33/11 KV) and fed for Auxiliary Supply at Depot and Stations via 11 KV AIS. There are 12 Auxiliary Substations at 12 Metro Stations and 3 Auxiliary Substations at Depot.

At OCC, major Power Supply and traction components includes SCADA server & Workstations, Large Video Display Screen, UPS & Battery Bank for monitoring and controlling Equipment installed in 2 RSS, 15 ASS, Mainline & Depot OHE.

3.2.2 PST Organizational Chart



3.2.3 Manpower Status

Sl. No.	Post	Staff
1	General Manager	01
2	Sr. Manager	01
3	Manager	01
4	Assistant Manager	06
5	Engineer	01
6	Technician	13
7	Intern (Engineer)	01

Note: 9 Skilled Man Power for OHE Maintenance has been Outsourced.

3.2.4 Due Diligence Data for PST (OHE, RSS, ASS & SCADA)

3.2.4.1 Technical due diligence data

1. OHE

- Contract Documents/Agreement of VER-AND-GHA corridor for Traction Electrification, Power Supply, Power Distribution and SCADA System between MMOPL & M/s. ABB Dt. 19th September-2008 is available in virtual data room.
- Testing and Commissioning Reports jointly signed by M/s ABB and M/s MMOPL are available **in Hard Copies** (SAT and SED) but these are not certified by Independent Engineer. Major OHE equipment along with the availability of GA/GTP/FAT/OEM Manuals is tabulated below:

Sl. No.	Description of Item	Availability of Documents			
		GA	GTP	FAT	OEM Manual
1	OHE Mast	✓	NA	✗	NA
2	Cantilever	✓	✓	✓	✗
3	ST/BT/9T/PI Insulators	✗	✗	✓	✗
4	OHE Conductors (Contact Wire, Catenary Wire, OPC/BEC)	NA	✓	✓	NA
5	Return Conductor	NA	✓	✗	NA



6	Droppers	NA	X	X	NA
7	Jumpers	NA	✓	X	NA
8	Gas/5 Pulley ATD	✓	✓	✓	✓
9	Section Insulator (Mainline & Depot)	X	X	✓	✓
10	Interrupter	✓	✓	✓	✓
11	25 KV PT	X	X	✓	✓
12	Isolators (Manual/Motorized)	✓	✓	X	X
13	Catenary/Contact/Feeder/LSW Ending Cone	X	X	X	NA
14	Booster Transformers	X	X	✓	NA
15	25 KV/3.3 KV Cable	X	X	✓	NA
Note: FAT of 3.3 KV Cable details not available					

c. Design & Drawing Documents related to OHE is tabulated below (Inspection report of the same is attached as PST. Annex-1):

Sl. No.	Description	Remarks
1	LOP of OHE	Signed Hard Copy of Mainline and Depot Available with MMOPL & verified
2	Sectioning Diagram	Signed Hard Copy of Mainline and Depot Available with MMOPL & verified
3	GAD of Switching Stations	Signed Hard Copy Available with MMOPL & verified
4	Earthing and Bonding Plan	Signed Hard Copy of Mainline and Depot Available with MMOPL & verified
5	Foundation (CSD)	Signed Hard Copy Available (Applicable only for Depot) with MMOPL & verified

d. Partial Taking Over Certificate (PTOC) is not available. However Full Taking Over Certificate (FTOC) is available & uploaded in virtual data room between MMOPL and ABB Dtd 01.08.2017.

e. Necessary following approvals are uploaded in virtual data room:

i. EIG sanction letters for OHE of Mainline from Versova to Ghatkopar and D N Nagar Depot.

ii. CMRS Sanction letter No. 42-5/3/195 Dtd 02.05.2014.

iii. RDSO Approval Letter No. 2005/Proj. /Mumbai/15/1 Vol.II Dtd 05.06.2014.

f. The Hazard Identification and Risk Assessment (HIRA) register has been prepared and available with Safety Department.

2. RSS

a. Contract Documents/Agreement of VER-AND-GHA corridor for Traction Electrification, Power Supply, Power Distribution and SCADA System between MMOPL & M/s. ABB dtd. 19th September-2008 is available in virtual data room.



- b. Testing and Commissioning Reports jointly signed by M/s ABB and M/s MMOPL are available (SAT) for Marol Naka RSS & DNN RSS **in Hard Copy** but these are not certified by Independent Engineer. Major RSS equipment along with the availability of GA/GTP/FAT/SAT is tabulated below:

Sl. No.	Description	GA	GTP	FAT	SAT
1	33KV GIS	✓	✓	✓	✓
2	25KV GIS	✓	✓	✓	✓
3	11KV AIS	✓	✓	✓	✓
4	33/27.5KV Traction Transformer	NA	NA	✓	✓
5	33/11KV Auxiliary Main Transformer	NA	NA	✓	✓
6	Fire Protection	✗	✗	NA	✗
7	33/25/11 KV Cables	✓	✓	✓	✓
8	Battery Charger	✓	✓	✓	✗
9	Battery Bank	✓	✓	✓	✗
10	Earth Pit & Buried Rail	NA	NA	NA	✓
11	ACDB & DCDB	✗	✗	✓	NA

- c. Design & Drawing Documents related to Marol Naka & DNN RSS is tabulated below (Inspection report of the same is attached as PST. Annex-2):

Sl. No.	Description	Remarks	
		Marol Naka	DNN RSS
1	Design Details	Overall Protection SLD uploaded in virtual data room.	Overall Protection SLD uploaded in virtual data room.
2	FAT	uploaded in virtual data room.	uploaded in virtual data room.
3	All As Built Drawings (Civil & electrical, E&M)	uploaded in virtual data room.	uploaded in virtual data room.
4	OEM Manuals	O&M Manuals uploaded in virtual data room for 25 KV GIS, 33 KV GIS, AMT, Battery Charger, Micom Relay, REF 542, REF 610, RMU, 11 KV AIS, 33 KV VCB, NGR, 33KV Termination (Indoor), 11KV Straight Through Joint, On Load Tap Changer, Fire Protection System for Power Transformers. O&M Manual of Traction Transformer not available.	
5	Interlocking Scheme	Relay Coordination Scheme uploaded in virtual data room / Soft Interlock logic incorporated in SCADA and Hard interlock logic provided in as built drawing available with MMOPL in Hard Copy.	
6	Cable Schedule	Cable Schedule of only Marol Naka Available in virtual data room.	Cable Schedule of DN Nagar RSS Available in virtual data room.



7	Layout Details	uploaded in virtual data room	uploaded in virtual data room
8	Relay setting & co-ordination study and Relay existing setting files	Latest Relay Coordination report with Relay Settings uploaded in virtual data room.	
9	Earthing Details & Drawings	available with MMOPL in Hard Copy	available with MMOPL in Hard Copy
10	Cable & Trench Route Diagram	available with MMOPL in Hard Copy	available with MMOPL in Hard Copy

- d. Partial Taking Over Certificate (PTOC) is not available. However Full Taking Over Certificate (FTOC) is uploaded in virtual data room between MMOPL and ABB Dtd 01.08.2017.
- e. Necessary following approvals are uploaded in virtual data room:
- EIG sanction letters for DN Nagar and Marol Naka RSS.
 - CMRS Sanction letter No. 42-5/3/195 Dtd 02.05.2014.
 - RDSO Approval Letter No. 2005/Proj. /Mumbai/15/1 Vol.II Dtd 05.06.2014.
- f. Connection Notice between MMOPL and TATA Power has been uploaded in Virtual Data Room. However, Contract Agreement between TATA Power and MMOPL for 33 KV Supply is not available. Electricity Bill for the Year 2023-24 has been uploaded in Virtual Data Room.
- g. The Hazard Identification and Risk Assessment (HIRA) register has been prepared and available with Safety Department.

3. ASS

- a. Contract Documents/Agreement of VER-AND-GHA corridor for Traction Electrification, Power Supply, Power Distribution and SCADA System between MMOPL & M/s. ABB dtd. 19th September-2008 is available in virtual data room.
- b. Testing and Commissioning Reports jointly signed by M/s ABB and M/s MMOPL are available (SAT) for all 15 ASS (12 Station ASS + 3 Depot ASS) in hard copy but these are not certified by Independent Engineer. Major ASS equipment along with the availability of GA/GTP/FAT/SAT is tabulated below:

Sl. No.	Description	GA	GTP	FAT	SAT
1	11KV RMU	✓	✓	✓	✓
2	11KV/415V Dry Type Transformer	NA	NA	✓	✓
3	11 KV Cables & Bus Duct	✓	✓	✓	✓
4	Battery Charger	✓	✓	✓	✗
5	Battery Bank	✓	✓	✓	✗
6	ACDB & DCDB	✗	✗	✓	NA



c. Design & Drawing Documents related to 15 ASS (12 Station ASS + 3 Depot ASS) is tabulated below (Inspection report of the same is attached as PST. Annex-3):

Sl. No.	Description	Remarks
1	Design Details	Signed Hard Copy Available with MMOPL & verified
2	FAT	Signed Hard Copy Available with MMOPL & verified
3	All as Built Drawings (Civil & electrical, E&M)	Equipment Layout of ASS uploaded in virtual data room
4	OEM Manuals & OEM Contact Details	O&M Manuals uploaded in virtual data room for 11 KV HT, Battery Charger, Dry Type Transformer, Ashida Relays, WTI Scanner. OEM Manuals of ACDB, DCDB & Battery Bank not provided.
5	Interlocking Scheme	Relay Coordination Scheme uploaded in virtual data room
6	Cable Schedule	Control & Power Cable Schedule uploaded in virtual data room
7	Layout Details	Signed Hard Copy Available with MMOPL & verified
8	Relay setting & co-ordination study and Relay existing setting files	Latest Relay Coordination report with Relay Settings uploaded in virtual data room
9	Earthing Details & Drawings	Signed Hard Copy Available with MMOPL & verified
10	Cable & Trench Route Diagram	Signed Hard Copy Available with MMOPL & verified

d. Partial Taking Over Certificate (PTOC) is not available. However Full Taking Over Certificate (FTOC) is uploaded in virtual data room between MMOPL and ABB Dt 01.08.2017.

e. Necessary following approvals are uploaded in virtual data room:

- i. EIG sanction letters for all the 15 ASS.
 - ii. CMRS Sanction letter No. 42-5/3/195 Dtd 02.05.2014.
 - iii. RDSO Approval Letter No. 2005/Proj. /Mumbai/15/1 Vol.II Dtd 05.06.2014.
- f. The Hazard Identification and Risk Assessment (HIRA) register has been prepared and available with Safety Department.

4. SCADA

- a. Contract Documents/Agreement of VER-AND-GHA corridor for Traction Electrification, Power Supply, Power Distribution and SCADA System between MMOPL & M/s. ABB dtd. 19th September-2008 is available in virtual data room.
- b. Design & Drawing Documents related to SCADA is tabulated below (Inspection report of the same is attached as PST. Annex-4):



Sl. No.	Description	Remarks
1	Design Details	SCADA Architecture uploaded in virtual data room
2	All As Built Drawings of RTU/BCPU & Networking Panel	uploaded in virtual data room
3	OEM Manuals & OEM Contact Details	SCADA Manual, UPS and RTU Manuals uploaded in virtual data room
4	RTU/Server/Gateways FAT/GA/GTP	uploaded in virtual data room
5	Interlocking soft Scheme	uploaded in virtual data room
6	Signal testing report	uploaded in virtual data room
7	I/O Address list	uploaded in virtual data room
8	All ASS RTU, Local RSS & OCC RSS database files.	Available in SCADA PC & External Hard Disc and verified
9	Future Expansion & modification plan	Plan for upgradation of RTU Cards. Marol Naka RSS RTU upgradation completed.

- c. Partial Taking Over Certificate (PTOC) is not available. However Full Taking Over Certificate (FTOC) is **uploaded in virtual data room** between MMOPL and ABB Dtd 01.08.2017.

3.2.4.2 Operation & Maintenance due diligence data

1. OHE

- Copies of Ongoing Contract of Annual Maintenance of OHE and Supply of Fitters of has been uploaded on Virtual Data Room.
- All the Equipment have been commissioned in the year 2013-14 and commercial operation commenced on June-2014, therefore all the equipment warranty has been expired as on date.
- Physical Condition and Operational performance of all OHE Equipment has been verified from Versova (Ch. 102.00) to Ghatkopar (Ch. 11345.00) jointly with MMOPL and found satisfactory.
- Preventive and Corrective Maintenance SOPs with its related MRFs (Maintenance Records & Forms) shared on Virtual Data Room. Maintenance periodicity of OHE Equipment is in line with ACTM and OEM Manuals.
- Fault/Failure sheet (Excel), Latest D&D List and Equipment Replacement Details have been uploaded on Virtual Data Room.
- All the OHE Equipment's previous maintenance checksheet, reports & SOP has been verified. Data is available in hard copy **with MMOPL** for last 2 Years.
- RAMS report for the Year 2023 & 24 has been shared on Virtual Data Room.
- Approved V/s Actual expenditure of Budget have been shared on Virtual Data Room. (This sheet is combined for OHE, RSS, ASS & SCADA)

2. RSS

- a. Copies of Existing Contracts of Relay Testing, Transformer Testing & GIS Testing is uploaded on Virtual Data Room.
- b. Physical Condition and Operational performance of all RSS Equipment has been verified and found satisfactory.
- c. All the Equipment have been commissioned in the year 2013-14 and commercial operation commenced on June-2014, therefore all the equipment warranty has been expired as on date.
- d. Preventive and Corrective Maintenance SOPs with its related MRFs (Maintenance Records & Forms) shared on Virtual Data Room and verified. Maintenance periodicity of RSS Equipment is in line with ACTM and OEM Manuals.
- e. Fault/Failure sheet (Excel), Latest D&D List and Equipment Replacement Details have been uploaded on Virtual Data Room.
- f. All the RSS Equipment's previous maintenance check sheet & SOP has been verified. Data is available **in hard copy** for last 2 Years **with MMOPL**.
- g. RAMS report for the Year 2023 & 24 has been shared on Virtual Data Room.
- h. Details of Energy Consumption of MMOPL for two RSS is given below:**

Details of Energy Consumption of MMOPL at DN Nagar RSS & Marol Naka RSS							
Sr. No.	Months/ Year	Sanction Demand	Billed Max. Demand	Consumption (KVAh)	Consumption (KWh)	Billed Amount (INR)	Amount after Prompt Payment Discount
1	Apr-23	8000	7296	2508960	2277600	2,82,02,517	2,79,73,938
2	May-23	8000	7450	2710560	2486880	3,02,83,202	3,00,37,878
3	Jun-23	8000	7699	2745360	2515200	3,07,42,069	3,04,93,020
4	Jul-23	8000	7200	2781840	2492160	2,38,17,141	2,36,25,734
5	Aug-23	8000	7238	2708160	2466000	2,33,02,211	2,31,15,016
6	Sep-23	8000	7315	2614800	2383920	2,26,46,792	2,24,64,826
7	Oct-23	8000	7680	2749920	2513280	2,38,13,953	2,36,22,633
8	Nov-23	8000	7296	2639760	2364000	2,28,09,084	2,26,25,714
9	Dec-23	8000	7123	2650080	2370480	2,28,06,629	2,26,23,298
10	Jan-24	8000	7315	2577840	2271360	2,28,62,530	2,26,56,970
11	Feb-24	8000	7181	2414400	2153760	1,69,61,979	1,67,68,215
12	Mar-24	8000	7296	2593200	2304000	1,80,61,812	1,78,55,262
Total				31694880	28598640	28,63,09,919	28,38,62,504



3. ASS

- a. Copies of Existing Contracts of Relay Testing, Contact Resistance Testing and Battery Charger is uploaded on Virtual Data Room.
- b. Physical Condition and Operational performance of all ASS Equipment has been verified and found satisfactory.
- c. All the Equipment have been commissioned in the year 2013-14 and commercial operation commenced on June-2014, therefore all the equipment warranty has been expired as on date.
- d. Preventive and Corrective Maintenance SOPs with its related MRFs (Maintenance Records & Forms) shared on Virtual Data Room and verified. Maintenance periodicity of ASS Equipment is in line with ACTM and OEM Manuals.
- e. Fault/Failure sheet (Excel), Latest D&D List and Equipment Replacement Details have been uploaded on Virtual Data Room.
- f. All the ASS Equipment's previous maintenance check sheet & SOP has been verified. Data is available in hard copy for last 2 Years with MMOPL.
- g. RAMS report for the Year 2023 & 24 has been shared on Virtual Data Room.

4. SCADA

- a. No Ongoing Contracts in SCADA System is being executed at present.
- b. Physical Condition and Operational performance of all SCADA Equipment has been verified and found satisfactory.
- c. All the Equipment have been commissioned in the year 2013-14 and commercial operation commenced on June-2014, therefore all the equipment warranty has been expired as on date. However, SCADA system ABB Make (Server, Substation and Software), Marol Naka RSS RTU (ABB Make) & LVDS (Delta Make) has been upgraded on 09.10.2023. 26.02.2024. & 26.12.2023 respectively and these Newly upgraded items are under warranty for 2 Years from the day of commissioning.
- d. Preventive and Corrective Maintenance SOPs with its related MRFs (Maintenance Records & Forms) shared on Virtual Data Room and verified. Maintenance periodicity of SCADA Equipment have been based on the ACTM and OEM Manuals.
- e. Fault sheet (Excel) has been uploaded on Virtual Data Room.
- f. All the SCADA Equipment's previous maintenance check sheet & SOP has been verified. Data is available in hard copy for last 2 Years with MMOPL.
- g. RAMS report for the Year 2023 & 24 has been shared on Virtual Data Room.

3.2.4.3 Asset Details

1. OHE

- a. Asset register for all the OHE Equipment at present with details such as make, model, type, Location has been uploaded on Virtual Data Room.
- b. All commissioned asset has been physically verified at field by MMMOCL and MMOPL staff. (Attached as PST. Annexure-5 & 6)



- c. Present available Spares such as Contractual & purchased items have jointly been verified by MMMOCL and MMOPL staff. (Attached as PST. Annexure-8)
- d. Details regarding the present tools & testing kits with their calibration certificates available in hard copy with MMOPL. List has been uploaded on Virtual data room.
- e. List of Sub systems that have been upgraded.
- f. 5 nos. old ABB Make Interrupter has been replaced by New Alind Make Interrupters in Main Line & Depot (Old Interrupters are kept in store for scrapping) in the Sep 2023. Order placed for new 10 nos. of Interrupters and will be replaced in due course by MMOPL.
- g. Equipment/Hardware replacement detail sheet has been uploaded on virtual data room.

2. RSS

- a. Asset register (At present) with details such as make, model, type, Location has been uploaded on Virtual Data Room.
- b. All commissioned asset has been physically verified at field by MMMOCL and MMOPL staff. (Attached as PST. Annexure-7).
- c. Present available Spares such as Contractual & purchased items have jointly been verified by MMMOCL and MMOPL staff. (Attached as PST. Annexure-8)
- d. Details regarding the present tools & testing kits with their calibration certificates available in hard copy with MMOPL. List has been uploaded on Virtual data room.
- e. List of Sub systems that have been upgraded.
 - i. Old Exide Make Batteries of UPS & Battery Charger have been replaced at DN Nagar & Marol Naka RSS with New Amaron Make Batteries of UPS and Amaraja Make Batteries of Battery Charger.
 - ii. ABB Make Old REF 542+ Relay has been replaced with ABB Make REF630 & RET630 Relays for 33 KV Panels of Both RSS. At present 1 relay has been replaced out of 10. MMOPL is agreed to replace balance 9 relays before handover.
 - iii. Old Micom P438 Relays and Micom P132 Relays (Incomer) has been replaced with Micom P438 and Micom P5F30 Relays (Incomer) for 25 KV Panels at both the RSS. At present 4 Relays have been replaced out of 10. MMOPL is agreed to replace balance 6 relays before handover.
 - iv. Tri Parulex Make NIFPS Fire Protection System at Marol Naka RSS and Phoenix Engineers Make HVWS (High Velocity Water Spray) at DNN RSS for Power Transformers installed in 2023.
- f. Equipment/Hardware replacement detail sheet has been uploaded on virtual data room.

3. ASS

- a. Asset register (At present) with details such as make, model, type, Location has been uploaded on Virtual Data Room.
- b. All commissioned asset has been physically verified at field by MMMOCL and MMOPL staff. (Attached as PST. Annexure-7).
- c. Present available Spares such as Contractual & purchased items have jointly been verified by MMMOCL and MMOPL staff. (Attached as PST. Annexure-8)



- d. Details regarding the present tools & testing kits with their calibration certificates available in hard copy with MMOPL. List has been uploaded on Virtual data room.
- e. List of Sub systems that have been upgraded.
 - i. Old Exide Make Batteries of Battery Charger have been replaced with New Amar raja Make Batteries in all 15 ASS on account of completion of codal life.
- f. Equipment/Hardware replacement detail sheet has been uploaded on virtual data room.

4. SCADA

- a. An Excel Sheet of Asset register (At present) with details such as make, model, type, Location has been uploaded on Virtual Data Room.
- b. All commissioned asset has been physically verified at field by MMMOCL and MMOPL staff. (Attached as PST. Annexure-11).
- c. Present available Spares such as Contractual & purchased items have jointly been verified by MMMOCL and MMOPL staff. (Attached as PST. Annexure-12)
- d. Details regarding the present tools & testing kits with their calibration certificates available in hard copy with MMOPL. List has been uploaded on Virtual data room.
- e. List of Sub systems that have been upgraded. (Date to be mentioned)
 - i. SCADA Servers, Workstations, Software of OCC, PTR (Playback and Training Room (BCC)), RSS upgraded on 09.10.2023.
 - ii. Old Exide Make Batteries of UPS have been replaced with New Amaron Make Batteries at OCC & PTR on account of completion of codal life.
 - iii. RPS (Rear Projection System (LVDS)) cubicles have been replaced in OCC theatre on 26.12.2023. (LED Type Delta Make replaced with Laser Type Delta Make)
- f. Equipment/Hardware replacement detail sheet has been uploaded on virtual data room.

3.2.5 Deficiency and Scope of Improvement

1. OHE

1.1 Provision of Double Bracket in place of existing one Bracket arrangement and BFB Steady arm in place of Tubular Steady Arm in Heavy Curvature Locations

During inspection it is observed that there is heavy curvature in some sections (i.e. Between Ghatkopar- Jagruti Nagar and Azad Nagar - Andheri Sections) and at these locations OHE is hold with single bracket assembly having Tubular Steady Arm. From past experiences, it is understood that there might be chances of failures due to single cantilever assembly having tubular steady arm arrangement in curvature locations. Therefore, from the reliability point of view, it is suggested that at heavy curvature locations Double Cantilever Bracket arrangement should be provided in place of single Cantilever Bracket Arrangement along with BFB Steady arm. At present MMOPL has replaced all 50 locations with BFB steady arm and provided Double Bracket Arrangement at 3 Locations only. Approx. cost of providing double bracket along with provision of multiple channel & SPS in balance 47 locations will be Rs. 15 lakhs.



1.2 Provision of Insulation Paint/Insulation sheet at Less Clearance of OHE in ROB under Bridge (Andheri Steel Bridge)

Large number of OHE Tripping's due to Bird Faults in Andheri Steel Bridge Section is being reported on regular Basis. Main cause for the Tripping is less clearance between Catenary wire and bottom of the Steel Bridge. At present insulation sleeves have been provided over catenary wire but this is not as reliable arrangement. Hence, it is suggested to provide good quality insulation sheet/Insulation paint on the metallic structure in bottom of ROB to avoid tripping occurred on account of Bird faults. Approx. cost of providing insulation paint in steel bridge will be Rs. 40 lakhs.

2. RSS

2.1 Power Factor Improvement System

At present Power Factor at both the RSS is maintained at 0.89 to 0.91. Dynamic Power Compensation System was proposed for installation at both the RSS which will improve the power factor near Unity (Above 0.98). This will result in saving of Rs. 5-6 Lakhs in monthly Electricity Bill (Yearly Saving of Rs.60 to Rs.70 Lakhs). Due to Budget Constraint, proposal was put on hold, Approx. cost is Rs. 3 Cr. Same should be implemented in future considering the financial implications.

2.2 11 KV AIS replacement with 11 KV GIS at Both RSS

At Present there are Areva Make (Rack in-Out Trolley Type VCB) 8 AIS Panels in DN Nagar RSS and 4 AIS Panels in Marol Naka RSS for 11 KV Distribution System for Station ASS and Depot ASS. There are regular faults in these AIS Panels and VCBs which impacts the Auxiliary Supply system in Metro Stations. It was proposed by MMOPL to replace the same with ABB Make 11 KV GIS Panels at both the RSS which will enhance the reliability of Auxiliary Supply. As per the quotation received, cost of executing the said work is amounting to Rs. 2.5 Cr (Approx.). Due to Budget Constraint, proposal was put on hold. Same should be implemented in future considering the reliability.

3. ASS

Nil

4. SCADA

Nil

3.2.6 Important Issues

3.2.6.1 33 KV and 25 KV Relay Replacement (Display Issue and Old Version)

- a. 33 KV Relays: ABB Make Old REF 542+ Relay replacement work with ABB Make REF630 & RET630 Relays for 33 KV Panels of Both RSS is in progress. At present 1 relay has been replaced out of 10. **MMOPL is agreed to replace balance 9 relays before handover.**
- b. 25 KV Relays: Old Micom P438 Relays and Micom P132 Relays (Incomer) replacement work with Micom P438 and Micom P5F30 Relays (Incomer) for 25 KV Panels at both the RSS is in progress. At present 4 Relays have been replaced out of 10. **MMOPL is agreed to replace balance 6 relays before handover.**

3.2.6.2 25 KV Interrupter Replacement in Mainline and Depot (Operational Issues)

5 nos. old ABB Make Interrupter out of 15 has been replaced by New Alind Make Interrupters in Main Line & Depot (Old Interrupters are kept in store for scrapping) in the Sep 2023. Order placed for new 10 nos. of Interrupters and will be replaced in due course by MMOPL **as agreed.**

3.2.7 List of Non-functional Assets & Plan for Rectification

Sr. No.	Non-functional Assets	Location	Qty.	Target Date	Costing	Remarks
1	630 KVA, 11/0.415 KV Dry Type Auxiliary Transformer	Store	1	Before Handover	30 Lakhs	This spare item has been used in ASS Where one DTT (630 KVA) was faulty. Faulty DTT is kept in Store.

3.2.8 Critical Issues

3.2.8.1 Non-Availability of Important Spares

Sr. No.	Spare Description	Qty.	Unit	Costing (Approx.)	Remarks
1	2500 KVA, 11/0.415 KV Dry Type Auxiliary Transformer	2	Nos.	50 Lakhs	There was provision of 4 nos. of 2500 KVA DTT at ASS-3 (DNN Depot) as per Design. However, only 2 nos. of 2500 KVA DTT are provided in ASS-3. 2 Nos. of 2500 KVA DTT are not available with MMOPL.
2	11 KV, 240 sqmm/1 C Power Cable	1000	Meters	12 Lakhs	Same verified by comparing the quantities available in



3	415 V 240 sqmm/1 C AI Power Cable from DTT to LT Panel	500	Meters	3 Lakhs	Contract Agreement with that available in Stores.
4	25 KV CT, PT & LA (Indoor)	1	Nos. Each	35 Lakhs (Separate Costing Can't be given as these are built in GIS)	
5	25 KV CB	1	No.		
6	33 KV CB	1	No.	40 Lakhs (Separate Costing Can't be given as these are built in GIS)	
7	33KV CT & PT	1	No. each		
8	11 KV End Termination Kit (Indoor)	5	Nos.	2.5 Lakhs	
9	11 KV CT & PT(Indoor)	1	Nos. Each	1 Lakh	

3.2.9 Annexures

Annexure – Documents Verification Report (PST. Annex 1 to 4)
Annexure- OHE Depot Equipment Survey Report (PST. Annex 5)
Annexure- OHE Mainline Equipment Survey Report (PST. Annex 6)
Annexure- PSI Equipment (ASS+ RSS) Survey Report (PST. Annex 7)
Annexure- PST Inventory, Purchase and T&P Survey Report (PST. Annex 8)

3.3 Rolling Stock and Depot M&P

3.3.1 Rolling Stock and M&P Overview

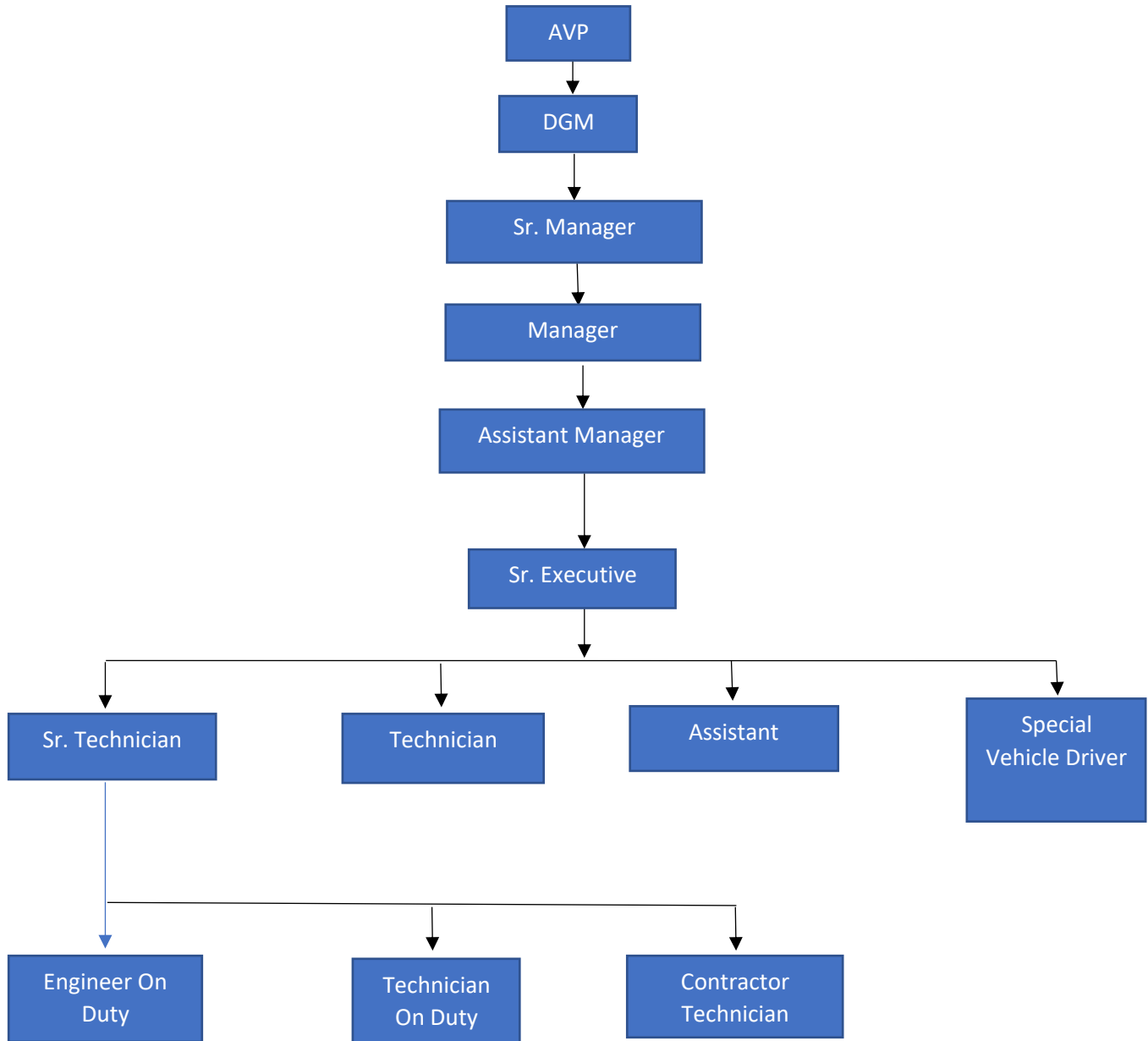
The Rolling Stock for the Mumbai MRTS line-1 is from China CSR, Nanjing. The trainsets are 4 coach rakes extendable up to 6 coaches in future depending on the traffic demand. The 4-coach rake is about 90m in length. Total 16 trainsets are available presently at DNG Depot. As per the operational plan, 13 trainsets are kept in operation, 1 trainset is reserved for operation and 2 trainsets for maintenance activity.

S.N.	Description	Details
1	Total number of Trainset	16 Trainsets of 4 car configuration
2	Total Trainsets in Revenue Service during peak hours	14 Trainsets
3	Trainsets under Preventive Maintenance based on kms	1 Trainset (A, B1, B2, B4 & B8)
4	Trainsets under Overhauling & Floor refurbishment based on kms	1 Trainset

There are two separate stabling facilities within the depot. One with 9 tracks (4 coach train length tracks and shed) and second with 6 tracks (6 coach train length and shed). 3 no's Track available for inspection of underframe and Roof and 2 Tracks available at workshop bay line for Heavy maintenance. 29 nos. of Major and Minor equipment are available in M&P section. Wheel re-profiling machine is used for profiling of wheel without disturbing any item or assembly on bogie / vehicle. The exterior cleaning of trains is carried out by Automatic Wash Plant while return journey of train to depot from revenue service. Mobile lifting jack and Rail car lifting system is used for Holding / Lowering the Cars in lifted position during Power / Equipment failures. Bogie Turn Tables are used for transfer of bogies from one track to another track of workshop and are grounded in a concrete pit. Electrically operated Overhead Traveling crane are used for lifting heavy equipment's. Rail Road Mover and Loco tractor used for shunting of trains at Workshop and Pit wheel lathe. Air compressor installed at workshop is used to provide compressed air for general purpose maintenance. Bogie and Spring test bench used for testing of Bogie and Helical

primary spring of trainsets. Rail cum Road vehicle is used during rescue operation in case of derailment.

3.3.2 Rolling Stock Organization Chart





3.3.3 Manpower Details & Deployment

3.3.3.1 Total Manpower of Rolling Stock and M&P

S.N.	Designation	On MMOPL Payroll Manpower		Outsourced Manpower	Total
		Rolling Stock	M &P	Contract	
1	Additional Vice President	1		10	1
2	Assistant Vice President	1			1
3	DGM	2			2
4	Sr. Manager	0	1		1
5	Manager	4	0		4
6	Asst Manager	7	2		9
7	Sr. Executive	5	1		6
8	Sr. Technician/Tech	38	9		47
9	Assistant	1	0		1
10	Special Vehicle Driver	0	3		3
11	Engineer on Duty	1	0		1
12	Technician on Duty	1	0		1
Grand Total		77		10	87

3.3.3.2 Section wise Manpower Deployment Summary

Sr. No	Section	Engineer	Technician	Driver	Helper	Total
1	PCCM	0	5	0	0	5
2	Mill Wright	4	9	2	0	15
3	Bogie Overhaul	4	8	0	8	20
4	HVAC Repairing	1	5	0	3	9
5	PM/CM	8	14	2	2	26
6	Mainline	0	3	0	0	3
7	Electronic Lab	1	1	0	0	2
8	Pneumatic lab	1	1	0	0	2
9	Document Controller	0	1	0	0	1
Total		19	47	4	13	83

Note: AVP and DGM are not considered in above summary.

3.3.4 List of Documents

3.3.4.1 Technical due diligence report (Item 1 to 5)

Sr. No.	Description
i	CMRS Approval & Compliances Copy
	MMMOCL Comment: Following Documents are uploaded on virtual data room same has been verified: a) CMRS approval for opening of VAG Corrioder_02.05.2014. b) CMRS sanction for raising speed from 50 to 80 kmph. c) Railway Board approval_05.06.2014. d) RDSO speed cetification_16.01.2014.
ii	CMRS Certificate for RS & line opening, Commencement Certificate and Safety Certificate for all Rolling Stock
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: a) CMRS Observation during his visit on 07 & 09.10.2019. b) Compliance to CMRS _ visit on 07 & 09.10.2019. c) Compliance to CMRS – Observations during visit on 01.06.2019. d) Inspection of Metro Line -1 (VAG) on 01.07.22_220713_161804. e) MMOPL-IN-2018-02036-Inspection Report– CMRS on 01.06.2018.
iii	As built drawing of all equipment's of RS/Depot Equipment
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: a) ATCC, Bogie, Brake System, Cab (Electrical Mechanical), Car body, CEC, Control, Coupler, Door, Equipment on Cab Rear Partition, Installation of VAC, Interior, LVB, PIS Equipment's, Rolling Stock, Roof, Saloon Wiring, SEC, Traction, UF Electric, VAC, Wiring routing etc.
iv	RS Contract Agreement Copy (ERTS & ERGS)
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: a) General Specification_ ERGS. b) RS Contract Agreement. c) Technical Specification_ ERTS.
v	List of all AMC provided and its contract copy.
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: a) Final PO of HBL power systems. b) Final WO Sterling Wilson AMC for fire extinguisher. (List of AMC – M/s HBL for maintenance of battery & M/s Sterling Wilson for maintenance of Fire Extinguisher).
vi	Housekeeping Tender and Contract copy



	MMMOCL Comment: Documents are uploaded on Virtual Data Room and same has been verified.
vii	Maintenance plan
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: a) Year wise preventive maintenance summary uploaded from 2014 to 2023. b) FY 2024-2025 Maintenance Plan
viii	DLP Plan and its Audit details
	MMMOCL Comment: As per MMOPL, it is not applicable as DLP period is over.
ix	Internal & External Audit Certification Report
	MMMOCL Comment: Documents are uploaded on Virtual Data Room and same has been verified.
x	Design Document of RS, PFDR and FDR
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: Design documents of WFL specification, Gearbox & Coupling specification, Train door control specification, Main Transformer specification, SIV specification, Auxiliary power supply for SIV/ Battery Charger, Lighting System, VDU Specification, EVR specification, Train Wiper, Bogie Specification, Technical specification of TM, Specification PWM Generator, SVAC Control specification, Ground Sensors for auto passing Neutral Section, Specification for Coupler/ TCMS/ Windshield & Front End/ AC arrester/AC Reactor/Air Brake System/Auxiliary Power Supply Distribution/Battery/Car body/Driver Desk/Earth Return brush/ Gangway, Lighting System, Master Controller, Neutral Section Controller, Pantograph, Passenger Saloon Doors, Potential Transformer, Saloon to Cab Doors, Train Braking Control, Train Driving Control System, Train Lighting System, Vacuum Circuit Breaker & Earthing Switch, Cab VAC and Saloon VAC.
xi	History Book of all trains
	MMMOCL Comment: Document is uploaded on Virtual Data Room and same has been verified.
xii	Original contract agreement of Metro train / Coaches supplies and Original Invoices
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: ▪ RS Contract Agreement.
xiii	Risk assessment and risk mitigation analysis
	MMMOCL Comment: Documents are uploaded on Virtual Data Room and same has been verified.

3.3.4.2 Operation and Maintenance due diligence report (Item 1 to 9)

Sr. No.	Description
i	Original warranty / guarantee certificates of all machineries including Metro locomotive and coaches etc.
	MMMOCL Comment: Document is not uploaded on virtual Data room as it is not applicable because warranty is over as per MMOPL.
ii	Original Inspection Reports and Maintenance Reports
	MMMOCL Comment: Document not uploaded on Virtual Data room but following Hard Copy are verified: a) All maintenance record hard copies of trainset 01 to 16 and 29 nos. of Depot M&P equipment are verified by MMOCL representatives.
iii	List of staff appointed with designation and salary in support with bank statements.
	MMMOCL Comment: Hard copy is submitted and same has been verified.
iv	Assess the physical condition and the operation performance of metro rail system
	MMMOCL Comment: Inspection report of RS and M&P is attached in RS. ANNEXURE II & III.
v	Review and evaluate the current maintenance & asset management practices and establish if it is in line with the prescribed requirement
	MMMOCL Comment: Inspection Report of RS and M&P is attached in RS. ANNEXURE II & III.
vi	All record of service check and fleet check done since revenue
	MMMOCL Comment: Document not uploaded on Virtual Data Room but following Hard Copies are verified: a) TS#01 to TS#16 Daily Check Sheet, Preventive Maintenance Check Sheet (A check to B8 Check). b) Preventive maintenance check sheet of all 29 M&P equipment's. c) Bogie Overhaul check sheet of 10 trainsets.
vii	HECP & SECP performed since revenue
	MMMOCL Comment: List of 48 no's HECP are uploaded on Virtual Data Room and same has been verified.
viii	Defects and deficiencies in Manuals
	MMMOCL Comment: Submitted letter to RDSO for approval of Manuals after removal of defect/ deficiencies is uploaded on Virtual Data Room.
ix	Operation Manuals
	MMMOCL Comment: Operation Manuals are uploaded on Virtual Data Room and same has been verified.
x	Maintenance Manuals
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: a) RS Manual of Overview, VAC, Electrical & Control Equipment, PIS, Gangway, Interior, Carbody, Coupler, Bogie, Brakes, Door, High Voltage & Propulsion, Auxiliary, TCMS



	b) MW Manual of Automatic Wash Plant, Battery Shunter, Bogie Test Bench, Bogie Turn Table, Calipari, CMV, Compressor System, Diesel Shunting Locomotive, EOT Cranes, Fork Lift, Mobile lifting Jack, Mobile Scissor Lift Table, Pallet Truck, Pit Wheel lathe, Rail Car lifting System, Rail Road Motor, Re-Railing Equipment's, Road Rail Vehicle, Spring Test Machine, Stacker, Water Spray Jet & WPR.
xi	OEM Manual
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: OEM Manual of Auxiliary System, Battery, Bogie, Brake System, Dampers, Door System, Driver Seat, Event Recorder, Gangway, HVS/PRO/Aux System, Propulsion System, Sand Blasting Unit, Software's, TCMS, Ventilation & Air Conditioning System, Wheel Flange Lubrication System, Wheel Impact load Detection (WILD), Wheel Profile Measurement & Wiper.
xii	All train trials and testing reports
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: Routine test reports of Air Conditioning System, ATC Circuit Control, Auxiliary Power Supply System, Cab Driving, Compressor, Critical Value of Pressure Controller, Door Control System, Dynamic routine test for traction, Event Recorder, FAS, Lighting System, Pantograph, Pneumatically Applied Brake System, Protective Bonding, Traction System, VCB Control, VDU & WFL.
xiii	Train Handover check sheet and Snags list
	MMMOCL Comment: Final Taking Over Certificate of Rolling Stock issued to CRRC is uploaded on Virtual Data Room and same has been verified.
xiv	Training and Competency Manual
	MMMOCL Comment: Uploaded on Virtual Data Room and same has been verified.
xv	Proposed Budget FY2024-2025 to be submitted
	MMMOCL Comment: Uploaded on Virtual Data Room and same has been verified.
xvi	All approved maintenance check sheet
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: a) RS Check Sheet – Daily Health Check, A Check, B1 Check, B2 Check, B4 Check, B8 Check, C1A Check and C1B Check. b) M&P Check Sheet for Anemometer, Automatic Wash Plant, Bogie Test Bench, Bogie Turn Table, Catenary Maintenance Vehicle, Diesel Shunting Locomotive, EOT Cranes, Fork Lift, Loco Tractor, Mobile lifting jack, Mobile Scissor Table, Pit Wheel Lathe, Rail Car Lifting System, Rail Road Motor, Re-Railing Equipment's, Road Rail Vehicle, Spring Test Machine, Stacker & Workshop Compressor.
xvii	All approved Maintenance Sop's and integrated Sop's
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: a) RS SOPs – SOP for conducting current collection test, application of floor protecting solution, copying software data in hard disk, downloading CCTV Video footage, downloading data from CI & fault analysis, downloading EVR Data and fault analysis, downloading TCMS data and fault analysis, editing and uploading manual & automatic



	announcement, using door diagnosis software, hand over and takeover of trains with OCC, Heavy Cleaning Work, issuance of fitness certificate of rolling stock, issue of PTW, Light Cleaning Work, operation of run curve simulation software, pest control work, removal of floor protection solution, roof access IBL, sand blasting machine, shunting of trains in uncontrolled area, SIV Data downloading, uploading the software and downloading the RFID tag, uploading EDCU software, uploading media file, VAC software application, VCB stroke length measurement and wheel profiling measurement. b) M&P SOPs – SOP for handling axle block cases on mainline/depot, handling derailment cases on mainline/depot, operating battery shunter, operation of Anemometer, operation of Automatic Wash Plant, operation of Bogie test bench, operation of bogie turn table, operation of CMV, operation of DSL, operation of Double girder EOT Crane – 10T, operation of fork lift, operation of mobile lifting jacks, operation of mobile scissor table, operation of Rail Car lifting system, operation of Re-railing Equipment's, operation of Road rail motor, operation of road rail vehicle, operation of single girder EOT Crane – 3.2 T, operation of Spring test machine, operation of stacker, operation of UFWL, operation of under slung EOT Crane 1.6T & operation of workshop compressor.
xviii	Calibration Certificate of all tools & equipment's since revenue and latest calibration certificate
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: Excel sheet uploaded which consist of 16 items calibration details. Calibration validity is expired for 2 items i.e. USFD & Electro Magnetic Yoke. However, Calibration certificate of each equipment's is not uploaded on Virtual Data Room.
xix	RAMS & KPI Report, Weekly Report and Daily RS reports
	MMMOCL Comment: RS Performance Reports from April 2023 – March 2024 are uploaded on Virtual Data Room and same has been verified.
xx	All Software tools certification report which is used for data analysis and for other activity
	MMMOCL Comment: As per MMOPL it is not applicable.
xxi	Procurement details since revenue
	MMMOCL Comment: Last three years PO and vendor list with costs are uploaded on Virtual Data Room.
xxii	All trains latest inspection report with defect & deficiency
	MMMOCL Comment: Inspection report of MMOCL is attached in RS. ANNEXURE II
xxiii	Competency Certificate and details
	MMMOCL Comment: Uploaded on Virtual Data Room and same has been verified.
xxiv	Train cleaning check sheet and schedule details
	MMMOCL Comment: Softcopy of LCW, HCW & Floor Coating report from 2021 to 2024 has been verified & Hardcopy from 2014 to 2020 has been verified.
xxv	Troubleshooting Manual & Failure Investigation Report of all trains
	MMMOCL Comment: Soft copy of Failure Investigation Report (FIR) from 2014 to 2024 has been verified

3.3.4.3 Asset Register (Item 1 to 3)

Sr. No	Description
I	The consultant shall update the asset register across all categories. The revised asset register shall be comprehensive and shall cover all elements of the Metro rail system.
	MMMOCL Comment: As per MMOPL RS, it is not applicable.
li	The Asset register will also include list of Spare parts and consumables available at each Stock yard against the requirement for the maintenance of the metro rail system
	MMMOCL Comment: Following Documents are uploaded on Virtual Data Room and same has been verified: a) Rolling Stock Purchase Stock 2023-2024. b) RS and M&P Contractual Inventory List 2023-2024. c) NTP Inventory List 2023_2024. Inspection report of MMOCL is attached in RS. ANNEXURE I.
lii	Status of each asset shall be verified through inspection during the site visits and stakeholder discussions
	MMMOCL Comment: Attached in MMOCL report, RS. ANNEXURE I.
Iv	All register maintained by PCCM
	MMMOCL Comment: Following documents are verified: a) Job card register. b) Key register. c) Power Block Authorization register. d) Train Authorization Device (TAD) remote register. e) PPIO handover takeover register. f) Train logbook out register. g) Torch issue register.
V	All other records maintained by RS Dept.
	MMMOCL Comment: Following documents are verified: a) Underframe inspection check sheet of Supervisor. b) Mainline inspection check sheet of Supervisor. c) Yearly summary of Preventive Maintenance.
Vi	List of assets (IT and Furniture, Telecom etc.)
	MMMOCL Comment: Not Applicable.
Vii	SAP/Maximo/AMS record and details
	MMMOCL Comment SAP is used only for job card entry & closure.

3.3.5 Preventive and Overhaul Maintenance Schedule Record of RS and M&P

3.3.5.1 Frequency of Preventive Maintenance

S.N.	Service Check Schedule	Interval
1	A Service Check	5000 km
2	B1 Service Check	15000 km
3	B2 Service Check	30000 km
4	B4 Service Check	60000 km
5	B8 Service Check	120000 km

3.3.5.2 Year- Wise Preventive Maintenance

Activity/Financial Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Till March 2024
Planned Maintenance (No. of Service Check)	221	283	279	284	291	281	96	146	240	288	81
Actual Maintenance (No. of Service Check)	221	283	279	284	291	281	96	146	240	288	81

3.3.5.3 Frequency of Overhauling Schedule

S.N.	Overhauling Schedule	Interval
1	C1 A Service Check	500000 km
2	C1 B Service Check	600000 km
3	C2 A Service Check	1000000 km
4	C2 B Service Check	1200000 km
5	C3 A Service Check	1500000 km
6	C3 B Service Check	1800000 km
7	C4 A Service Check	2000000 km
8	C4 B Service Check	2400000 km

3.3.5.4 Year- Wise Overhauling Maintenance

Activity/Financial Year	2019	2020	2021	2022	2023	Till March 2024
Planned Maintenance (Condition base overhaul Check)	15	0	13	3	2	0
Actual Maintenance (Condition base overhaul Check)	15	0	13	3	2	0

3.3.6 Rolling Stock Overhauling Details:

- a. Minor Overhaul (C1A) at 5 lakh kms is completed in all 16 trainsets.
- b. Intermediate Overhaul (C1B) at 6 lakh kms is completed in all 16 trainsets.
- c. Condition based overhauling activities are ongoing as follows:
 - i. Magnetic Particle Testing of Bogie frame.
 - ii. Traction Rod Rubber Bush Replacement, Lateral/Vertical Damper Rubber Bush Replacement.
 - iii. Flexible Coupling Refurbishment, Journal Bearing Refurbishment.
 - iv. Main Transformer Blower Bearing Replacement.
 - v. Gear Case Overhauling
 - vi. Floor Refurbishment.

3.3.7 System Performance Record (RAMS)

Sr. No.	Year	Number of Withdrawal Cases
1	2018	31
2	2019	37
3	2020	7
4	2021	13
5	2022	23
6	2023	24
7	Till March 2024	7
Total		142

Note: Withdrawal cases are not provided from Year 2014 to 2017

3.3.8 Spare, Consumable, Tools and Measuring Instruments Record

Inspection Report of Spares & Consumables is attached in RS. **Annexure I** and measuring instrument calibration summary is attached below.

Equipment Calibration Summary						
Sr. No	Equipment Name	Serial No.	OEM	Calibration Date	Next Due Date	MMMOCL Comments
1	12.7mm Square Drive, Capacity 40 to 200 N/m	SR 202112012470069	BRITool	24-01-2024	23-01-2025	Verified
2	19.05mm Square Drive, Capacity 200 to 810 N/m	NO21932	BRITool	02-02-2024	02-01-2025	Verified
3	Square Drive Torque Wrench -05 to 25 N/m	Sr.202102010730221	STANLEY	24-01-2024	23-01-2025	Verified
4	1/2" DR. Dual Way Torque Wrench Capacity of 20-100 N/m	SR .202112014520183	STANLEY	24-01-2024	23-01-2025	Verified
5	1/2"DR. Dual Way Torque Wrench Capacity 60-340 N/m	Sr.202102010650221	STANLEY	24-01-2024	23-01-2025	Verified
6	Fluke 15B Digital Multimeter 0 to 1000V	58492706WS	FLUKE15B	02-02-2024	02-01-2025	Verified
7	Digital Vernier Caliper Range 200mm	422185442	MITUTOYO	01-03-2025	02-03-2024	Verified
8	Fluke 302 Digital Multimeter AC Clamp Meter 400 A 600 V	NA	FLUKE302+	02-02-2024	02-01-2025	Verified
9	Fluke 15 Digital Multimeter 0 to 1000V	58086228WS	FLUKE15+B	02-02-2024	02-01-2025	Verified

10	Digital Vernier Caliper Range 300mm	NA	MITUTOYO	02-02-2024	02-01-2025	Verified
11	Digital Tachometer Fluke 931	NA	FLUKE931	02-02-2024	02-01-2025	Verified
12	Micrometer 0-25 mm Range	103-101-10	MITUTOYO	24-01-2024	23-01-2025	Verified
13	Micrometer 50-75 mm Range	293-232-30	MITUTOYO	24-01-2024	23-01-2025	Verified
14	Bore Gauge 50-150 mm Range	22847316	MITUTOYO	24-01-2024	23-01-2025	Verified
15	Ultrasonic Flaw Detector	DRC197EP	DIGISCAN DS-322	04-05-2023	04-04-2024	Verified but validity expired
16	Electro Magnetic Yoke (EF-2Y)	MNH21C06	EECI	04-05-2023	04-04-2024	Verified but validity expired

3.3.9 Details of AMC Record

S.N.	Description of AMC	Name of Firm
1	AMC for Maintenance of Battery	M/s HBL
2	AMC for Maintenance of Fire Extinguishers	M/s Sterling and Wilson Pvt. Ltd.

3.3.10 Snag List of Trains

Inspection of 15 trainsets is performed by MMMOCL representative. Its observation with relevant photographs is attached in RS. **Annexure II**. Inspection of TS#15 is pending as this train is under overhauling till 17th April 2024. Inspection of TS#15 will be done after completion of overhauling and observation report will be shared accordingly.

3.3.11 Snag List of M&P equipment's

Inspection of 29 nos. of M&P major and minor equipment is performed by MMMOCL representative. Its observation with relevant photographs is attached in RS. Annexure III. Out of these 29 nos., two equipment namely (Under Slung 1.6 Ton EOT Crane 1 & Crane 2 and Wheel Profile Recorder (WPR)), are not functional due to unavailability of spares.

3.3.12 Deficiency and Scope of Improvement

- a. 4 Car to 6 Car Configuration proposal is under discussion with CRRC for all 16 Train sets and it may be proposed for crowd management.
- b. Procurement of two new trainsets is under discussion with CRRC considering major overhaul activity and additional trainsets may be proposed to maintain availability and downtime in case of major failures and major periodic overhaul activities.
- c. Requirement of Wheel press machine so that wheelset replacement can be done in-house.
- d. Setup of Electronics lab considering failures of control cards of various systems and to enable in-house repair of cards.
- e. Proposal of CAMC of Pit wheel lathe considering frequent failures related to software to reduce the downtime.
- f. Presently roof platform is available for single car unit, so extension of roof platform at workshop line 3 may be proposed up to 4/6 car length for Preventive/corrective maintenance of HVAC, roof equipment maintenance activities etc.
- g. Implementation of Anti-dragging features in saloon door as per MoHUA committee recommendation.
- h. Contract Services may be hired for Traction motor overhauling considering the unavailability of test bench, jigs, fixtures, special tools etc.

3.3.13 Important Issues

- a. 30 nos. of additional manpower are required considering Major overhaul activities such as Floor refurbishment, HVAC overhauling, Wheel set replacement, Damper Overhaul etc.
- b. Delivery period is more than 2 years for propulsion system spares. Also, the design cost is high considering obsolescence of M/s Mitsubishi spares.
- c. Delivery period is more than 2 years for PA PIS system spares due to obsolete M/s KAT (PIS OEM) spares.
- d. Non-availability of HVAC Control cards due to obsolete M/s Halite (HVAC OEM) spares.
- e. Delivery period is more than 1 year for Brake, Door system spares.
- f. Quotation, Delivery period of CRRC is long and no proactive support is received from CRRC.
- g. Wheel profile recorder for wheel parameter measurement is not functional due to unavailability of encoder card.
- h. Underslung 1.6 T EOT crane is non-functional due to unavailability of control card.

3.3.14 List of Documents

All documents are uploaded to virtual data room.

3.3.15 List of Non-functional Assets & Plan for Rectification

Sr. No.	Non-functional Assets	Location	Qty.	Estimated Cost	Issue	Remarks
1	Under Slung 1.6 Ton EOT Crane 1 & Crane 2	IBL	2	4 Lacs	Not Functional due to unavailability of spare control card	Current Maintenance Requirement
2	Wheel Profile Recorder Machine (WPR)	NA (Portable machine)	1	18 Lacs	WPR is not functional due to faulty encoder. Old WPR encoder is obsolete so need to procure new machine	Current Maintenance Requirement
Total Estimated Cost				22 Lacs		

3.3.16 Item to be covered as per Concession Agreement

No such item found in Concession Agreement

3.3.17 Estimated immediate expenditure required for upgradation of Rolling Stock & Depot Equipment's

Sr. No.	Description	Estimated Unit Cost (Lacs)	Total Qty	Estimated Cost (Lacs)	Remarks
1	Procurement of two new trainsets of 6 car configuration considering major overhaul activity	1 car cost = 1432 Lacs	2 trainset x 6 Cars = 12 Cars	17184	Future upgradation plan
2	4 Car to 6 Car Configuration for all 16 Train sets may be proposed for crowd management.	1 car cost = 1432 Lacs	16 trainset x 2 Cars = 32 Cars	45824	Future upgradation plan
3	Requirement of Wheel press machine so that wheelset replacement can be done in-house. (Current Wheel dia. is 800mm and the condemn limit is 780mm)	1 Wheel press machine cost = Rs.35998709.15 in 2012	1 Wheel press machine	839	Current Maintenance Requirement
4	Setup of Electronics lab considering failures of control cards of various sub-systems and to enable in-house repair facility of cards.	1 Electronic lab = 10 Lacs	1 Electronic lab	10	Current Maintenance Requirement

5	Extension of roof platform at workshop line 3 may be proposed up to 4/6 car length for Preventive/corrective maintenance of HVAC, roof equipment maintenance	4 Car length (Approx. 84 metres) = 50 Lacs	4 Car length (Approx. 84 metres)	50	Current Maintenance Requirement
6	Anti-dragging features may be implemented in saloon door for passenger's safety	1 saloon door = 6 Lacs	Total Saloon Doors in 16 trains = 512 Nos.	3072	MoUHA Recommendation
7	Proposal of CAMC of Pit wheel lathe considering frequent failures related to software issues to reduce downtime.	1-year CAMC = 12 Lacs	1-year CAMC	12	Current Maintenance Requirement
8	Contract services for Traction motor overhauling to be hired considering the unavailability of test bench, jigs, fixtures, special tools etc.	1-year Contract Services = (1 Traction Motor = 1 Lac)	Total Traction Motor in 16 trains = 128 Nos.	128	Current Maintenance Requirement
9	Calibration of Ultrasonic Flaw Detector	1 USFD calibration cost = Rs. 7000	1 USFD machine	0.07	Current Maintenance Requirement
10	Calibration of Electro Magnetic Yoke (EF-2Y)	1 EMY calibration = Rs. 5000	1 EMY machine	0.05	Current Maintenance Requirement
Total Estimated Cost				67119.12	

3.3.18 Conclusion

Inspection of 15 trains is completed out of 16 trains. Inspection of TS#15 is pending due to ongoing overhauling and inspection will be carried after overhauling is finished. The observations are prepared and snag list of Trains and M&P equipment are attached as Annexures II & III respectively. Two equipment are currently not operable namely Under Slung 1.6 Ton EOT Crane 1 & Crane 2 due to unavailability of Spare control card; and Wheel Profile Recorder Machine (WPR) due to faulty encoder. USFD and Electromagnetic yoke (EF-2Y) require calibration as it is expired.

3.3.19 Annexures

RS. Annexure I - Spares & Consumables verified list
RS. Annexure II – Snag List of Trains (TS#01 to TS#14, & TS#16)
RS. Annexure III – Snag List of M&P Equipment's
Train Inspection Check Sheet (TS#01 to TS#14, & TS#16)

3.4 Civil Infrastructure

3.4.1 Civil Overview

3.4.1.1 Alignment And Formation

A viaduct is a long-elevated roadway/railway consisting of a series of short spans supported on piers. The superstructure is the part of the structure above ground level that receives the loads, transfers to the substructure safely through bearings and serves the purpose of the structure's intended use. Viaduct type can be U-girders, Segmental Box girders, cast-in-situ slab over I-Girders etc. A pier is a large dimensional column which supports the superstructure and transfers large super-imposed loads to the foundation. The substructure supports the superstructure and transmits the loads to the foundation via piers.

The cost of the viaduct includes superstructure, substructure, pier, pier cap and foundation etc. Standard Gauge (1435mm) is the most commonly used gauge for metro railways the world over and in India as well, except few lines of Delhi Metro, due to its many advantages. The same has been proposed and adopted in this Mumbai Metro Line-1 project. Mumbai Metro Line-1 (VAG) corridor is standard gauge and elevated on twin U girders, supported on pier caps, piers and foundations (pile foundation with pile cap).

3.4.1.2 Station Buildings

The station is the main activity centre of the metro system which holds the major share in total project cost. Electrical and mechanical items, lift and escalator, auxiliary substation, DG set, Automatic Fare Collection System (AFC), Telecommunication system etc. are installed at stations. The size of the platform (length x width) also varies from metro to metro. Station layout, simple Entry/Exit and station interior and interstation distance become extremely important from a cost point of view.

The inter-station distances in Indian metro systems typically vary from 1 km to about 1.45 km. Station structure is generally of two levels viz. concourse level and platform level. Road/ground level is also there, but not considered as part of the system works. In the Mumbai Metro Line-1 (VAG) project, all stations are elevated, and most of the stations have a concourse at first level and platform level above it. At some stations having the advantage of more height of viaduct from ground level, additional concourse levels have been created.

3.4.2 Technical Due Diligence Of CIVIL STRUCTURES

1. Pier- A total of 600 piers and 2000 numbers of piles in the foundation have been constructed. The piles are of diameter 1200 mm and 1500 mm have been constructed.

3500 Nos. Bearing Elastomeric bearings have been used for mainline viaducts.

POT bearings of different capacity have been used for the Cantilever bridge (Free POT bearings 1450MT-2 Nos., 305MT-4 Nos., Pin POT bearings 1450MT-2 Nos., Longitudinal POT bearings 1450MT-2 Nos., 305MT-4 Nos., Transverse POT bearings



1450MT-2 Nos. and the Cable-stayed bridge (Free POT bearings 800MT-1 no. 170MT-2 Nos., 130MT-2 Nos., Pin POT bearings 800MT-1 no. Longitudinal POT bearings 800MT-1 Nos. 170MT-2 Nos., 130MT-2 Nos. Transverse POT bearings 800MT-1 Nos.).

MMMOCL inspected the below documents about Construction, Testing and commissioning and reports duly approved by an independent engineer, design & drawings, land survey reports verifying property boundaries, geotechnical & site investigation, right of way etc. from the provided information by MMOPL representative provided remarks accordingly.

The Design Basis Report (DBR) of MMOPL approved under Document No. 2011/Proj/BB/30/5/SoD has mentioned under Clause 3.0 Viaducts Structural Design as 'The viaduct structure shall be designed for the service life as stipulated in clause 16.1.3 of IRS- CBC:1997'. The IRS-CBC:1997 under clause 16.1.3 states that the design life is considered 100 years for the bridges in the rest of India.

Sr. No.	Key focus area	MMMOCL Observation	Remarks -if any
1.	CMRS Approval & Compliances Copy	The CMRS approval and compliance record and action are maintained by the Safety Department of MMOCL.	Provided to the safety department of MMOCL
2.	Design Basis Reports of Metro Corridor	DBR is checked in hardcopy and found in order.	The copy is available in the data room under Document No. 2011/Proj/BB/30/5/SoD dated 03/01/2014
3.	GFC & As-Built Drawings of Viaduct, Stations, Entry-Exit Structure, Depot Structures	GFC drawing and as built uploaded on data room, Consolidated list of drawing is not provided by MMOPL.	
4.	GAD of Metro line 1, Depot Plan and viaduct Elevation.	MMOPL provided GAD for review. The Depot plan is provided separately, in the data room.	Drawing No. DPT/LO/1/2 & 2/2
5.	Geotechnical & Site Investigation reports of Metro Corridor and Depot.	The geotechnical report of Mainline & Depot is available with MMOPL in the data room.	Ref. Document No. 1680/RIL/dbm/drg/2046 dated 10/08/2007 submitted to MMOPL by DBM Geotechnics & Construction Pvt. Ltd.
6.	Details of Right of Way of Metro Corridor	MMOPL provided the land handing over document letter of MMRDA under	Ref. Letter No. (i) Impl/VAG/MRTS/MMOPL/LAND/09/1536 (ii)



		the details of the Right of way in hard copy kept in the data room.	T/MRTS/RP/IMPLN/VAG/09/1676 (iii) T/MRTS/RP/IMPLN/VAG/09/6 (iv)LC/VAG/CarDepot/939/2008
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2. Partial completion / full completion certificates.

Sr. No.	Key focus area	MMMOCL Observation	Remarks if any
1.	Completion Certificates Project Contracts of Civil Division (Viaduct, Stations and Depot)	A summary of contract details is provided and details verified from the physical copy found in order	
2.	Partial completion /Full Completion Certificates Maintenance Contracts of Civil Division (Viaduct, Stations and Depot)	A summary of contract details is provided and details verified from the physical copy found in order	
3	Partial completion /Full Completion Certificates Capital work Contracts of Civil Division (Viaduct, Stations and Depot)	A summary of contract details is provided and details verified from the physical copy found in order	

3. Necessary permits, approvals, No Objection Certificates from relevant Authorities Water connection, Municipal Corporation etc.

Sr. No.	Key focus areas	MMMOCL Observation	Remarks if any
1.	Gazette Notification for Executing the Metro Line-1 under SPV.	Check and find in order (available in a data centre)	GR Resolution No. MRD-3306/1662/CR32/A-06/UDD-7 dated 14/06/2006
2.	Occupancy Certifications issued by MCGM for Stations and Depot.		Not Available with MMOPL
3.	Property Tax Assessment Details of Stations and Depot.		Not available with MMOPL



4.	Signed agreement copies of MMRDA and WR for construction and Maintenance of the Andheri steel bridge Crossing over the Indian Railway. (WR)	Check and find in order (Available in a data centre)	Ref. Letter No. T/MRTS/DT/46/2011/1293 dated 22/03/2011.
5.	MCGM Approval, Permissions related to Sewage Connections to SWD for Stations and Depot.	Check and find in order (available in a data centre)	

4. Original contract agreement of Metro train / Coaches Supply and Original Invoices

---Not Applicable---

3.4.3 Operation and Maintenance Due Diligence

1. Existing original contracts and commercial arrangement for the operation and maintenance of the metro rail system:-

A list of maintenance contracts of the civil division is given below; **The maintenance contracts of the civil division are checked and verified in hard copy and list of which is given below;**



List of Contracts for Maintenance works		
S.No	Contractor Name	Remarks
1	Skylift	Hiring of manlifter
2	Mageba Bridge Products PVT LTD.	Cable stay bridge monitoring
3	Inox Enterprises	Civil works
4	Indian Institute of Technology Bombay	Consultancy for Viaduct
5	Vikas India Consulting Private Ltd	Consultancy for Civil structure
6	PAR Speciality Polymers PVT Ltd	Waterproofing work
7	Sai Construction	Civil works
8	Al a glazers	Civil works
9	Sowil Ltd	Consultancy for Civil structure
10	Superior Weldmesh PVT LTD	Fencing work
11	VSL India Pvt Ltd	Cable stay bridge maintenance work
12	Lifegear Safetech PVT Ltd	Lifeline fixing for station
13	Unique Interiors Designer	Civil works
14	GEOSP Consultant	Viaduct grouting work
15	Saini Construction	Civil works
16	Handyman Door Solution	Fire door fittings
17	Aadya Enterprises	Fencing work
18	Shree ganesh Enterprises	Civil works
19	GEM Engserv Pvt Ltd	Consultancy for Civil structure
20	EMA Rubber Industries	Water barrier Fixing
21	Austrix Solutions	Civil works
22	A.N.Fabricators	Civil & Structural works
23	Aambaji Tech Enterprises	Glass film fixing
24	S.M.Enterprises	Bird Net Fixing
25	Abhijit Ghosh	Andheri bridge consultancy work
List of Contracts for Capital works		
S.No	Contractor Name	Remarks
1	Sanfield India LTD	Replacement of Exopansion joints
2	Techsharp Hydraulics Solutions	Bearing replacemet work

- Original intellectual property rights and patents related to the metro system including License of hardware and software for ticketing/signalling etc.

---Not Applicable---

- Original warranty/guarantee certificates of all machinery including Metro locomotive and coaches etc.

---Not Applicable---

- Original Inspection reports and maintenance reports

The summary of the inspection and Maintenance record and checklist available in hard copy is attached below the table;

- The approved frequency of Inspection is given below;



Inspection Schedule VAG Corridor

Component	Structure	Inspection type	Frequency	Third Party	Last Inspection	Due Date
Viaduct	Concrete structure	Regular	Quarterly	NA	Mar-23	Jun-24
		Routine	Yearly	NA	Jun-23	Jun-24
		Detailed	Every Three years	NA	Aug-23	Aug-26
	Elastomeric bearing	Routine	Yearly	NA	Dec-23	Dec-24
		Detailed	Every Three years	NA	Dec-23	Dec-26
		Regular	Quarterly	NA	Mar-23	Jun-24
Station	Concrete structure	Routine	Biyearly	NA	Jul-22	Jul-24
		Detailed	Every ten years	NA	NA	Jun-24
		Regular	Half yearly	NA	Dec-23	Jun-24
	Steel Structure	Routine	Yearly	NA	Jun-23	Jun-24
		Detailed	Every five years	YES	Sep-21	Sep-26
		Regular	Quarterly	NA	Mar-23	Jun-24
Depot	Concrete structure	Routine	Biyearly	NA	Aug-22	Aug-24
		Detailed	Every ten years	NA	NA	Jun-24
		Regular	Half yearly	NA	Dec-23	Jun-24
	Steel Structure	Routine	Yearly	NA	Jun-23	Jun-24
		Detailed	Every five years	YES		Oct-24
		Regular	Quarterly	NA	Mar-23	Jun-24
WEH cable stayed bridge	Elastomeric and POT-PTF bearing	Routine	Every 1-2 years, every year	NA	Jun-23	Jun-24
		Detailed	Every 5-6 years	to be process		
	Concrete structure	Routine	Yearly	NA	Jun-23	Jun-24
		Detailed	Quarterly	NA	Aug-23	Aug-26
	Stay Cables	Routine	Yearly	NA	May-23	May-24
		Detailed	Every five years	Yes	Nov-22	Nov-27
Andheri Steel Bridge	POT-PTF bearing	Routine	First five year-Yearly-After two year	NA	May-23	May-24
		Detailed	Yearly	NA	Jun-23	Jun-24
	Concrete structure	Detailed	Every Three years	NA	Aug-23	Aug-26
		Routine	Yearly	NA	May-23	May-24
	Steel Structure	Detailed	Every five years	Yes	Apr-21	Apr-26
		Regular	Quarterly	NA	Mar-23	Jun-24

b) Below is a summary of executed inspections as per manuals and periodicity given in the Inspection schedule VAG Corridor;

Sr. No.	Description	Nos. of Planned Inspection	Nos of Inspection Completed	Remark
Station:				
A) Concrete	1. Regular 2. Routine 3. Detailed	39 04 Due on Jun 2024	39 04 Nil	
B) Steel	1. Regular 2. Routine 3. Detailed	19 09 01	19 09 01	
Viaduct:				
A) Concrete	1.Regular 2.Routine 3.Detailed	38 09 03	38 09 03	
B) Elastomeric Bearing	1.Routine 2.Detailed	09 02	09 02	
D. N. Nagar Depot:				
A) Concrete	1.Regular 2.Routine 3.Detailed	39 04 Due on Jun 2024	39 04 0	



B) Steel	1.Regular 2.Routine 3.Detailed	19 09 In planning	19 09 00	
Special Bridges (WEH Cable-Stayed Bridge):				
A) Elastomeric & POT-PTFE Bearing.	1.Routine 2. Detailed	09 In planning	09 00	
B) Concrete	1.Routine 2. Detailed	09 03	09 03	
C) Stay cable	1.Routine 2. Detailed	09 01	09 01	
Special Bridges (Andheri Steel Bridge):				
A) Elastomeric & POT-PTFE Bearing.	1.Routine	09	09	
B) Concrete	1.Routine 2. Detailed	09 03	09 03	
C)Steel Structure	1.Routine 2. Detailed	09 01	09 01	

Sr. No.	Key focus areas	MMMOCL Observation	Remarks if any
1.	Approved Maintenance Manuals of Station and Viaduct.	The manual is signed by the HOD and an independent engineer from MMRDA. (Available in data room)	Not found as per the notification of the MUD dated 27th Dec 2012
2.	Approved Copy of Standard Operating Procedures (SOPs) related to Maintenance Activities of Civil Division.	SOP provided in the data centre is checked (available at the data centre) A total of 7 Nos. of SOP are available out of which 4 are Preventive SOP's and 3 are Corrective SOP's.	
3.	Inspection/Maintenance Reports As per the Approved Maintenance Manuals of the Station/Depot and Viaduct.	Inspection and Maintenance record and checklist available in hard copy with MMOPL	



4.	Independent Engineer's Reports	Independent Engineers reports are available in the Data Centre and in Hard Copy with MMOPL.	
5	Inspection and Maintenance record of special spans (Cable-stayed bridge and Western railway bridge)	MMOPL showed Inspection and Maintenance records of special spans (Cable-stayed bridge and Western railway bridge) in hard copy and verified by MMOCL	

5. List of staff appointed with designation and salary in support of bank statements.

A listing of Staff with designation and salary is available with the Finance Department of MMOCL.

6. Escrow account details and statements

---Not Applicable---

7. Assess the physical condition and the operation performance of the metro rail system.

The physical condition of Civil division assets was checked by visual inspection and the report and as Annexure. The physical condition of Civil division assets was checked by the MMOCL Civil Division through visual inspection and the report is added in Clause 3.4.11 of this report.

The construction of the viaduct section including pile foundations, pile caps, piers, pier caps, RCC walls, bearing pedestals, bearings, super structures etc was done by Simplex Infrastructure.

As per the construction agreement between MMOPL and Simplex Infra, the Work order was issued on 30 Jan 2008 and was scheduled to complete the construction in 22 months i.e. 22 December 2010. The Defect Liability Period (DLP) was 12 months from the date of handing over. It can be inferred that the DLP of the structures mentioned above is completed and is not valid as of date.

From the provided inspection and maintenance record by MMOPL, it is understood that necessary action taken and issues have been closed. However, this indicates the requirements for regular general practice, basic day-to-day inspection and maintenance of structures including but not limited to the cleaning of drainage pipes, cleaning of shrubs, inspection for cracks, surface drainage maintenance etc.

3.4.4 Asset Register

Asset list of Civil division is checked from the available at the data centre and found in order, major assets of the depot are listed below:



S.No	Category	Description	Quantity (Books)	Remarks
1.00	Civil Structure	Approach Structure	1.00	NA
2.00	Building	Admin	1.00	NA
3.00	Building	Auxiliary Rail Vehicle	1.00	NA
4.00	Building	Auxiliary Sub Station 2 (ASS2)	1.00	NA
5.00	Building	Cooling Tower	1.00	NA
6.00	Building	Heavy Cleaning Track	1.00	NA
7.00	Building	Mogra Pump House	1.00	NA
8.00	Building	OCC	1.00	NA
9.00	Building	PTR	1.00	NA
10.00	Building	Pump Room	1.00	NA
11.00	Building	Receiving Traction Substation (RSS) & ASS 1	1.00	NA
12.00	Building	Stores	1.00	NA
13.00	Structure	Emergency Staircase	1.00	NA
14.00	Civil Structure	External Work	1.00	Non Verifiable
15.00	Plant	Automatic Train Wash	1.00	NA
16.00	Plant	Effluent & Sludge Treatment	1.00	NA
17.00	Plant	Inspection & Maintenance (I & M)	1.00	NA
18.00	Plant	Stabling Yard 1 & 2	1.00	NA
19.00	Plant	Under Floor Wheel and Blow Down	1.00	NA
20.00	Plant	Water Treatment	1.00	NA
21.00	Civil Structure	Rail Car Delivery Track	1.00	NA
22.00	Civil Structure	Underground Utilities, Ductbanks etc.	1.00	Non Verifiable
23.00	Utilities	Water Tank - RSS	3.00	NA
24.00	Utilities	Water Tank - I & M	3.00	NA
25.00	Utilities	Water Tank - OCC	4.00	NA

Spares: For Civil Structures like Piers, the requirement of spares is not envisaged.

The list of tools is of the Civil division is checked from the available information at the data centre and found in order, summary attached below;

Civil Asset List			
Sr. No.	Equipment	Unit	Quantity
1	Work shop pillar drill machine	Nos	1
2	Workshop tools grinding machine	Nos	1
3	Workshop bench vice machine	Nos	1
4	Binoculars	Nos	2
5	Hilti Breaker machine	Nos	1
6	Battery operated drill machine	Nos	1
7	Vernier Calliper	Nos	1
8	Distometer	Nos	1
9	Durometer	Nos	1
10	Welding machine potable	Nos	1

3.4.5 Legal Due Diligence

1. Title deeds / Concession Agreement Original Copy / Extension and Amendments / Bank Guarantees etc.



- a. Land detail of DN Nager Depot is available at the data centre:
Land Handing over of D N Nagar Depot is available to vide Letter No. LC/VAG/CarDepot/939/2008 dated 28/11/2008.
 - b. Govt. of Maharashtra Notification for sanction of Implementation of MRTS system along VAG corridor through PPP Model is available to vide GR No. MRD-3306/1662/CR 32 A/06/UDD-7 dated 14/06/2006
 - c. Concession agreement copy-
Concession Agreement (Article 1 to Article 41) is has been shared **in the data room by MMOPL and verified.**
 - d. No active Bank Guarantee is available for executed work as well as ongoing maintenance work.
 - e. No active Extensions and Amendments issued for executed work as well as ongoing maintenance work.
2. Original contract agreements with 3rd party suppliers i.e. subcontractors, consultants, architects, vendors, advertising agencies, security agencies etc.

Work orders of the following categories are uploaded at the data centre checked and found in order; the consultants list is attached below;

Sr. No.	Consultant Name	Work Order No.	Work Order Period
1	GEM ENGSERV PRIVATE LIMITED	SERO/MRS/23576314	29/07/2021 to 31/10/2021
2	VIKAS INDIA CONSULTING PVT LTD	SERO/MRS/23577964	08/02/2024 to 31/03/2024
3	INDIAN INSTITUTE OF TECHNOLOGY BOMBAY	SERO/MRS/23576601	01/01/2022 to 31/12/2022

3.4.6 Statutory Compliance Due Diligence

1. Environmental Clearance
---Not Applicable---
2. Insurance policies for locomotives/coaches/fire insurance/contractors all risk “CAR” insurance policy etc.
---Not Applicable---
3. Municipal Corporation certificates/No Objection Certificates Received, If any.
Occupation Certificate and Property Tax Assessment details are not available with MMOPL.



3.4.7 Change of Scope / Claims Due Diligence Report

1. Change of scope applied, approved, and pending details.

---Not Applicable---

2. Any other claims/arbitration/court cases submitted received or pending. –

As per the formal communication with the MMOPL, No Claims/Arbitration/Court Cases are active in the Civil Division.

3.4.8 Safety and Security Assessment Due Diligence Report

1. Safety audits risk assessments and accident/incident reports.

---Not Applicable---

2. Security plans and measures for passenger safety and asset protection

- a. Real-time Monitoring System installed at WEH Cable Stayed Bridge by independent consultant M/s MAGEBA.
- b. Height Gauges provided at Road Level for the Protection of Civil Structural Members of the Stations.

3.4.9 Deficiency and Scope of improvement and Important issues

The work of the Metro Line-1 project was completed and opened for public use on 8th June 2014. The Occupancy Certification & Property Tax Assessment details issued by MCGM for Stations and Depot are not verified by the MMMOCL. A joint discussion with MMRDA on this topic is required to be held.

Following are the improvements/immediate expenditure items observed by Civil Division based study of Inspection Reports and Independent Engineer's Report;

- a. Application of Anti-Carbonation Coating on Exposed Concrete Surface of Viaduct (11.40 KM) & 12 Stations of Line 1 (VAG Corridor)
- b. Overhauling of the Plumbing and Sanitary Fittings at the 12 Stations of Line 1 (VAG Corridor)
- c. Installation of High SS-304 Grade Hand railings as per design//Anti-Corrosive Painting on MS Structure 11 (Roofs, Railings, Cable Trays, Signage Boards Connections, Entry/Exit Structures etc.) at the 12 Stations of Line 1 (VAG Corridor)
- d. Replacement/Repairs of Fire Rated/Non-Fire Rated Doors at the Stations and Depot
- e. Installation & Fixing of Safety Stud Fasteners Over Vertical Granite Cladding

In future, apart from the day-to-day Maintenance above overhauling of the civil system needs to be done after a certain period. Therefore, expenditure on this needs to be taken into consideration.

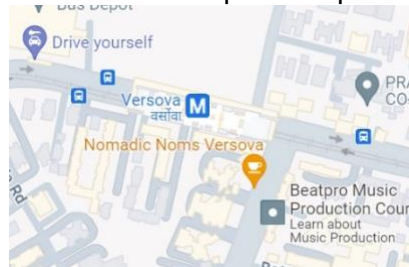
3.4.10 Cost Involved in Major Repairs/Renovations of Line-1 Civil Assets

Sr No	Description	References	Approximate Cost (₹) (In Lacs)
1	Reinstallation, Replacement and Repairing of Elastomeric Bearing and Pedestal of Line 1 (VAG Corridor) of Mumbai Metro Project.	MMOPL Inspection Reports	264.00
2	Application of Anti-Carbonation Coating on Exposed Concrete Surface of Viaduct (11.40 KM) & 12 Stations of Line 1 (VAG Corridor) of Mumbai Metro Project.	(i) Independent Engineer Reports (ii) MMOPL Civil Maintenance Manual	2361.46
3	Overhauling of the Plumbing and Sanitary Fittings at the 12 Stations of Line 1 (VAG Corridor) of Mumbai Metro Project.	(i) Independent Engineer Reports (ii) MMOPL Civil Maintenance Manual	28.47
4	Installation of High SS-304 Grade Handailings as per design /Anti-Corrosive Painting on MS Structure 11 (Roofs, Railings, Cable Trays, Signage Boards Connections, Entry/Exit Structures etc.) at the 12 Stations of Line 1 (VAG Corridor) of Mumbai Metro Project.	(i) Independent Engineer Reports (ii) MMOPL Civil Maintenance Manual	1577.49
5	Replacement/Repairs of Fire Rated/Non-Fire Rated Doors at the Stations and Depot of Line 1 (VAG Corridor) of Mumbai Metro Project.	(i) Independent Engineer Reports (ii) MMOPL Civil Maintenance Manual	45.63
		Sub-Total	4277.05

3.4.11 Assessment of Physical condition of Stations

1. Versova Metro Station

Assessment of the physical condition and the operation performance of the Metro rail system



The Revenue Operation of Mumbai Metro Line 1 was commenced on 08th June 2014 with 12 Metro station from Versova- Ghatkopar out of which Versova Metro station is the 1st Metro station, the physical condition and operation performance of Metro Rail system is as follows:



Anti-carbonation painting is pending in Road level.



Corridor painting done by in-house team during CMRS but internal room paint need to be done.



Cracks in the internal room wall had been observed which is need to be rectified.







Major Expansion Crack at Audit Room / Revenue room between wall and Viaduct.

2. D.N Nagar Metro Station

Assessment of the physical condition and the operation performance of the Metro rail system



D.N Nagar Metro Station is the 2nd Metro station, the physical condition and operation performance of the Metro Rail system is as follows:

	
<p>Anti-carbonation painting is pending on Road level</p>	<p>Corridor painting done by in-house team during CMRS but internal room paint needs to be done.</p>
	
<p>Extension of Platform no 2 for connection to RSS Building in Line 2A</p>	<p>Lifeline access is good for use, in DN line and UP line roof structure also lifeline installed in UP line side of the roof structure.</p>

3. Azad Nagar Metro Station

Assessment of the physical condition and the operation performance of Metro rail system



Azad Nagar Metro station is the 3rd Metro station, the physical condition and operation performance of Metro Rail system is as follows:

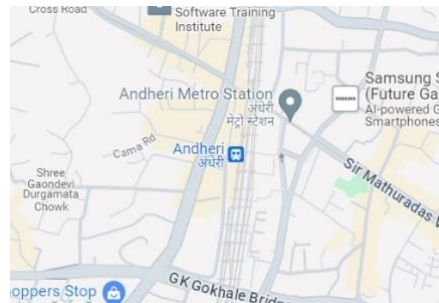
	
<p>Anti-carbonation painting is pending in the Road level</p>	<p>Staircase Reinforcement Exposed which needs to be rectified</p>
	
<p>Cracks in the internal room wall had been observed which is need to be rectified</p>	<p>The Lunchroom Dampness patch observed needs to be rectified</p>



Corridor painting was done by the in-house team during CMRS but internal room paint needs to be done.

4. Andheri Metro Station

Assessment of the physical condition and the operation performance of the Metro rail system






LIC Andheri station is the 4th Metro station, the physical condition and operation performance of Metro Rail system is as follows:



Corridor painting was done by the in-house team during CMRS but internal room paint needs to be done.

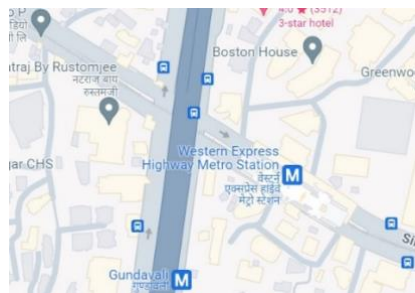


Cracks in the internal room wall have been observed which need to be rectified.

	
<p>Lifeline access is good for use, in the DN line and UP line roof structure also lifeline installed in the UP line side of the roof structure.</p>	<p>Platform drainage pipe joint corrosion and leakage</p>
	
<p>Extended platform arrangement for passenger's comfort at platform level on side the side UP & DN line.</p>	

5. Western Express Highway Metro Station

Assessment of the physical condition and the operation performance of the Metro rail system



Western Express Highway Metro station is the 5th Metro station, the physical condition and operation performance of Metro Rail system is as follows:



Anti-carbonation painting is pending on Road level



HYSD Steel Exposed near the staircase



New Flooring provided to the Concourse Level after the CMRS Inspection



Injection Grouting patch observed near PD level slab






A New Opening was provided for the connection of FOB constructed by MMRDA which connects the Gundavali Metro Station

6. JB Nagar Chakala Metro Station

Assessment of the physical condition and the operation performance of the Metro rail system



JB Nagar Chakala Metro station is the 6th Metro station, the physical condition and operation performance of Metro Rail system is as follows:

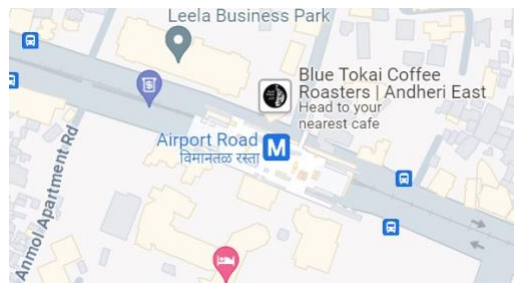
	
<p>New painting of Staircase near Road level had been done by MMRDA</p>	<p>New Painting for ceiling at Concourse level after CMRS Inspection.</p>
	
<p>New flooring of Concourse level after CMRS Inspection.</p>	<p>Block Work Damaged need to be rectified</p>



New Fencing had been provided at the Concourse level after the CMRS Inspection.

7. Airport Road Metro Station

Assessment of the physical condition and the operation performance of the Metro rail system






Airport Road Metro station is the 7th Metro station, the physical condition and operation performance of Metro Rail system is as follows:



New painting at Road level had been done by MMRDA



New Painting for the ceiling at Concourse level after CMRS Inspection.

	
<p>New flooring of Concourse level after CMRS Inspection.</p>	<p>Corridor painting done by in-house team during CMRS but internal room paint need to be done.</p>
	
<p>New Fencing was provided at the Concourse level after the CMRS Inspection.</p>	

8. Marol Naka Metro Station

Assessment of the physical condition and the operation performance of the Metro rail system



Marol Naka station is the 8th Metro station, the physical condition and operation performance of Metro Rail system is as follows:



Corridor painting done by in-house team during CMRS but internal room paint need to be done



Major Gap Observed near Viaduct n bottom wall near passage observed



Concourse Level Passage finishing work not proper even construction joints are exposed.



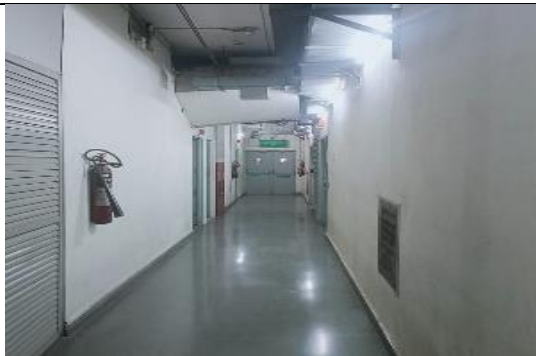

SCR room crack rectification work before CMRS inspection

9. Sakinaka Metro Station

Assessment of the physical condition and the operation performance of the Metro rail system



Sakinaka Metro station is the 9th Metro station, the physical condition and operation performance of Metro Rail system is as follows:

	
<p>Seepage is observed at the Road Level, also painting is done in CMRS Inspection by MMRDA</p>	<p>Corridor painting was done by the in-house team during CMRS but internal room paint needs to be done</p>
	
<p>Structural Cracks in the Concourse Level slab had been observed which need to be rectified</p>	<p>Cut out of Fire, Water, and Vent pipe not provided properly.</p>
	



An additional Escalator had been provided to overcome the passenger movement after CMRS Inspection.

10. Asalpa Metro Station

Assessment of the physical condition and the operation performance of Metro rail system



Asalpa Metro station is the 10th Metro station, the physical condition and operation performance of Metro Rail system is as follows:

	
<p>Anti-carbonation painting is pending on the Road level</p>	<p>Corridor painting was done by the in-house team during CMRS but internal room paint needs to be done</p>



Major Cracks were observed in the SCR room which had been rectified.



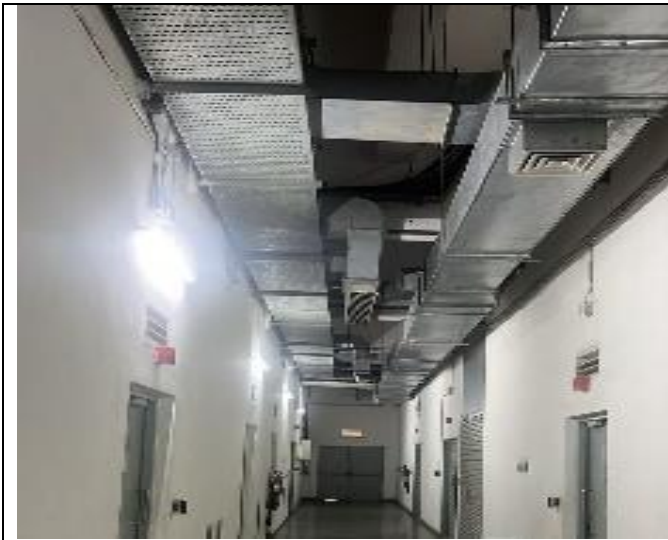
Emergency Stair provides for passenger evacuation during any incident.

11. Jagruti Nagar Metro Station

Assessment of the physical condition and the operation performance of the Metro rail system



Jagruti Nagar station is the 11th Metro station, the physical condition and operation performance of Metro Rail system is as follows:



Corridor painting was done by the in-house team during CMRS but internal room paint needs to be done



Cracks in the internal room wall had been observed which need to be rectified



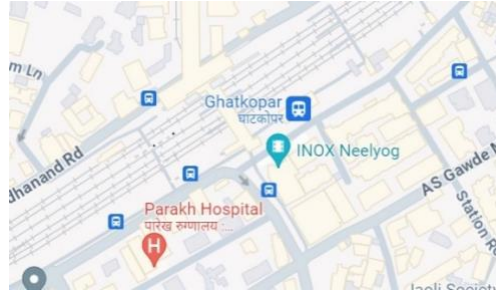
PEB Corrosion found at the platform level needed to be rectified.




Unfinished work found at the concourse level needs to be rectified.

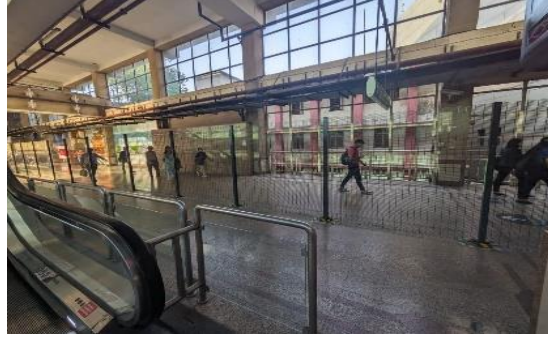
12. Ghatkopar Metro Station

Assessment of the physical condition and the operation performance of Metro rail system



Ghatkopar Metro station is the 12th Metro station, the physical condition and operation performance of Metro Rail system is as follows:

	
<p>Anti-carbonation painting is pending on Road level</p>	<p>Corridor painting was done by the in-house team during CMRS but internal room paint needs to be done</p>
	
<p>Cracks in the internal room wall had been observed which need to be rectified</p>	<p>Additional Handicapped Toilet had been provide after CMRS inspection.</p>



Fencing had been provided for safe passenger movement and not to be overcrowded at platform level.



U-girder deck slab undulation leveling and slope correction work.





Inter connection of rain water diversion from one U- girder to adjacent U -Girder.





Alternate arrangement of rain water diversion through an external drainage system.



3.5 Track

3.5.1 Overview of Track

The Track system installed in main lines are fully elevated in section while, the main line is connected to ramp through a transfer deck before entering into at grade depot. The depot is at grade with following Track details: -

- a. There are total 15nos. Stabling lines and all of them are ballasted.
- b. There are 3nos. Inspection lines with elevated RCC column and track fittings of Vossloh-336 fastening make.
- c. Depot also have 3nos. Workshop lines, the track is embedded with grout materials (Conbextra GP-2).
- d. There is Wash Track with RCC plinth on ramp with Vossloh-336 fastenings.
- e. Furthermore, there are Blow down plant track, Auxiliary line track, Rake unloading track, Track at road level crossing.

3.5.2 Details of Track Asset/ Systems

The General parameters as well as Track Structure is as summarized: -

- a. Gauge – 1435mm
- b. Maximum Operating Speed – 80kmph.
- c. Maximum Axle Load – 70 Ton
- d. Max. Gradient running track – 3.5%
- e. Max. Gradient depot connecting track – 3.5%
- f. Min. Vertical curve radius – 1500m
- g. Min. Horizontal curve radius – 107.52m (Main line) 90m (Depot Track).
- h. Annual GMT of the section – 40GMT.

1. Track Structure: -

- a. Rail – Main line UIC 60, Grade 880 on straight track and curves having radius >400m and Grade 1080HH on curves with radius ≤400m.
- b. Standard Rail length – 18m (Ballasted & Ballastless Track).

2. Sleeper spacing –

- a. Straight track: 650mm±25mm (Ballasted) 625±5mm (Ballastless).
- b. Curve track: 600mm±25mm (Ballasted) 625±5mm (Ballastless).
- c. Min. Ballast cushion depth – 200mm (Depot).

3. Max. Cant – 125mm (Ballastless line).

4. Max. Cant Deficiency

- a. Plain line - 85mm (Ballasted & Ballastless).
- b. Turnouts – 85mm (Ballasted & Ballastless).

5. Cant Gradient:

- a. Maximum 1 in 400 (Ballasted & Ballastless).
- b. Desirable 1 in 720 (Ballasted & Ballastless).

6. Turnouts:

- a. Main line: 1 in 9, 1 in 7 and 1 in 9 Scissors Crossover.
- b. Depot: 1 in 5, 1 in 6 and 1 in 6 Scissor crossover.

7. Check Rail on sharp curve –

- a. Provided at both Mainline & Depot of UIC 33 Grade 880, (Check rails on mainline curves with $R < 190\text{m}$ which carry passenger traffic and depot entry/exit tracks.)

8. Buffer Stop & wheel stops -

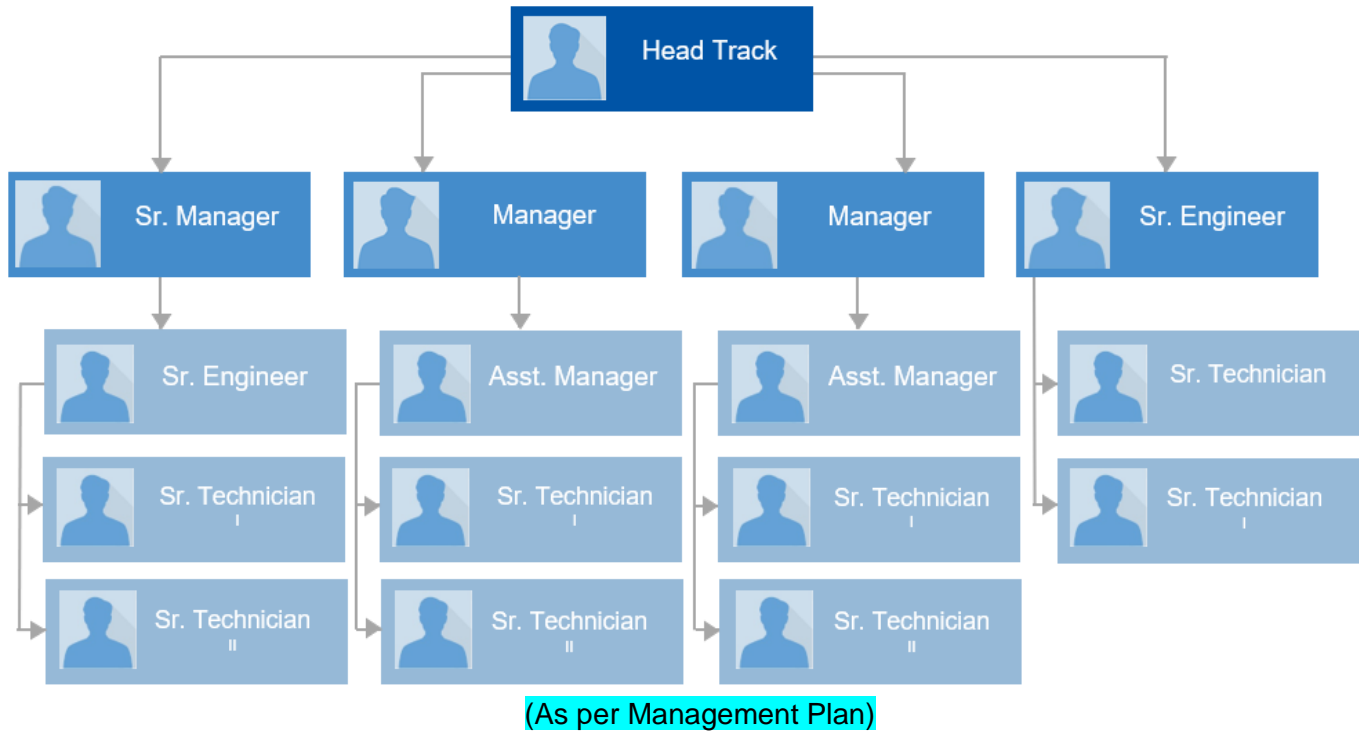
- a. Friction type sliding buffer stops are provided at every track end both on main line and depot line, except workshop line 1, 2 & 3, auxiliary track 1, 2, Heavy Cleaning Track, coach unloading line, WS & LS lines where wheel stops are provided. The main line friction type buffer stops are designed with 408 tons of train mass, designed impact speed of 25 kmph, with total occupancy length of 17m. The depot friction type buffer stops are designed with 252 tons of train mass, designed speed of 5 kmph, and total occupancy length of 4.5 m.
- b. The friction type sliding buffer stop are of Oleo make in depot while Rawie make in Main line.

9. Track structure description –

- a. The track is provided with 60 Kg rails at a gauge of 1435 mm. The track gauge is measured at 14mm below the rail top.
- b. The mainlines of UP and DN lines consist of approximately 23 km of ballast-less track laid on RCC concrete plinth with Type 336 fastening system.
- c. The rails are continuously welded throughout and the flash butt welding has been extensively used for welding the rails to have minimum number of AT welds.
- d. The rails are set at an inclination of 1:20 throughout the VAG corridor including Turnouts.
- e. The rails on Ballastless track are secured by using approved fastening system from Vossloh-336.
- f. The ballast-less track on viaduct is provided with derailment containment at rail level by the use of reinforced concrete derailment guard.
- g. The Entire corridor have the Vossloh-336 fastening system.



3.5.3 Track Organization Overview



3.5.4 Manpower Status

Sr. No.	Designation	As per Management plan	Current Status
1	General Manager – (Head Track)	01	1
2	Senior Manager	01	1
3	Manager	02	1
4	Assistant Manager	02	2
5	Senior Engineer	02	-
6	Engineer	-	1
7	Intern Engineer	-	-
8	Senior Technician	08	5
9	Technician	-	-
Total		16	12

3.5.5 List of Items assessed

List of tools & Equipment checked

Sr. No.	Description
1	Off Track Tamping machine
2	Core Cutter
3	Bolt tightening machine
4	Rail cutting machine
5	Rail Drilling machine

Sr. No.	Description
7	Generator-II
8	Bolt tightening machine
9	Rail Dolly
10	Dip lorry
11	Gauge cum cross level

The above-mentioned tools & equipment were physically verified in depot's store, kept Tr. *Annexure – 1*

3.5.6 Reference of relevant documents and its status

MMOPL has uploaded available papers to the virtual data room "Ethos Data Portal," although the majority of the detailed designed drawings, inspection records, registrations, and legislative documents are not available in soft format. As a result, the vast majority of documents were validated in hard copy. Similarly, some common documents with interfaces to other divisions are not presented to the MMMOCL track team, and such documents will be given by the relevant interface department, such as Safety & Quality, Security, Purchases & Store, HR, and Finance, among others. For the list of documents and their status, refer Tr. Annexure – 2(a & b): Checklist of Track Department for Due diligence for Acquisition of Track Assets/ system

3.5.7 Reference of relevant assets and its status

The Track assets/system have been physically inspected on-site; for details, please refer Tr. Annexure-3: Verification Reports. Similarly, store assets, including spares and consumables, were physically inspected and counted in the P-Way store room. For further information, refer Tr. Annexure - 4: Asset Verification Reports.

3.5.8 Status Report

Available documents of MMOPL Track Division are found uploaded on virtual data room. Most of the documents such as Design Reports, FAT reports are available with MMOPL. The Track assets/system have been physically inspected on-site at both depot and Mainline some of the common defects are as shown in the image:



A. Depot Ramp:-



Plinth Beam in broken condition.



Plinth Beam in broken condition.

B. Main line: -



Repaired Derailment Guard



Repaired Baseplates Pedestal



Repaired Baseplates Pedestal



Repaired baseplates Pedestal



Weld protected with joggled fish plate



Rusted fitting

3.5.9 Technical Diligence Data for Track Asset/ System

Technical due diligence data

- a. Contract Document such as Track work Contract for VAG Corridor are available and have been verified. Major Contractual deliverables such as Turnouts, Scissor crossover and buffer stop are available with Purchase Order in Virtual Data Room. However, the Purchase order lacks clarity as Manufacturer/Make is not mentioned.
- b. Documents such as Depot and Mainline layouts, As-built drawings, layout plans are available on Virtual Data Room and have been verified.
- c. Partial Taking Over Certificate (PTOC) is not available. Also, Full Taking Over Certificate (FTOC) has not yet been awarded.
- d. Necessary approvals such as Independent Safety Assessor Assessment Certificate is not available. RDSO correspondence and Approved Schedule of Dimension (SOD) are available with MMOPL track team and have been verified. Initial CMRS approval available with compliances dated 23.07.2014 but further CMRS reports recommendations and approvals are not available till date.
- e. Increase the speed from 50kmph to 80kmph VAG corridor dt 09.07.2015 by CMRS and Approval of track structure for VAG corridor of MMOPL dt 03.06.2014 by CRS available and verified.
- f. Approval for use of Fastening System Vossloh 336 available on Virtual Data Room and have been verified.
- g. Design Basis Report (DBR) for Viaduct available on Virtual Data Room have been verified.
- h. Final Geo-technical investigation reports available for VAG Corridor on Virtual Data Room and have been verified.
- i. Third party lab test reports for major track assets such as Rails, sleepers, FB weld, Ballast, tension clamp are available on Virtual Data Room and have been verified.

- j. The Hazard Identification and Risk Assessment (HIRA) register has not been available with MMOPL track.

3.5.10 Operation & Maintenance due diligence data

- a. Copies of Ongoing Manpower and Maintenance Contract of track has been uploaded on Virtual Data Room and verified.
- b. Workorder of following Original contract copies for ongoing Maintenance has been uploaded on virtual data room are as under.
- c. AMC for Supply of Man Power for Track Work (S.K. Associates)
- d. AMC of AT weld (The India Thermit Corporation Ltd.)
- e. AMC of USFD testing of rails and Welds (Sciencetech Services)
- f. AMC for Supply of Man Power for Track Work (S.K. Associates)
- g. AMC for SKF Engineering and Lubrication Machine (Lincoln Helios India Ltd.)
- h. However, AMC for Reconditioning of tongue Rail and CMS is in process, but original contract copies for repair of track structure/track asset repair work were not presented.
- i. Approved budget v/s actual expenditure statement for current financial year and last three financial years of Budget have not been shared on Virtual Data Room. According to MMOPL track, this will be submitted by MMOPL finance. However, the excel sheet for next Six Year (FY 2024-30) Plan & expenditure for upgradation of Track Systems/ Asset of MMOPL Line - 1 is available on Virtual Data Room **(Refer Tr. Annexure 7)**.
- j. SOPs for preventive and corrective maintenance, along with an inspection checklist, were shared and verified in the Virtual Data Room. Maintenance schedules have been adjusted depending on experience and site conditions. However, OEM guidelines for maintenance intervals are also accessible in the MMOPL track manual.
- k. Fault sheet (Excel) has not been submitted to Virtual Data Room. There is no documentation supplied that reflects track repair or preventive maintenance.
- l. IE's inspection reports for last 3 years have been shared on Virtual Data Room. **(Refer Tr. Annexure 6)**. According to IE, the track parameters are within permissible limits and the condition of track is satisfactory. However, rail and its fastenings were found rusted in several reports. As per IE reports dt. 10/11/2023, Rail was painted with anti-corrosive paint but according to MMMOCL on-site inspection rusting was found in several locations.
- m. RAMS reports are not available with the MMOPL track.

3.5.11 Track Asset Details

- a. An Excel spreadsheet of the asset register is currently available but has not been published to the Virtual Data Room. However, some details, such as serial numbers for a few items, are missing and not recorded in the document. Other information, such as the make, model, type, and version of some assets, is absent from the list. Also, the number of spares and consumables varies across most assets.



- b. Details of Spares such as Contractual, DLP, BOQ items are not available with MMOPL track. Present available spares have jointly been verified by MMMOCL and MMOPL staff. **(Attached as Tr. Annexure-4)**
- c. Details regarding the present special tools with their calibration certificates available has been uploaded on Virtual data room. List of Special tools & equipment provided by OEM is not available with MMOPL **(Attached as Tr. Annexure-5)**.
- d. There is no list of obsolete subsystems and the equipment that supports them on MMOPL track, and no track system or subsystem upgrades have been made till date.
- e. No Track Assets/ Hardware replacement sheet has been uploaded on Virtual data room.

3.5.12 Legal due diligence report

- a. Track Concession Agreement Original Copy and Amendments are shared on Virtual Data Room and have been verified.

According to Schedule 9 of Track Contract Agreement, the Latent Defect liability period for:

- i. All track materials and installations, concrete slabs & plinths and buffer stop is 15 years but Considering from the Commercial Operation date 08/06/2014, 5 years of period is still available.
- ii. Rail joints such as Turnout joints, AT and FW welds and Rail Expansion joint is 5 years i.e., already expired in the year 2019.
- b. Title deeds / Extension / Bank Guarantees, Original contract agreements with 3rd party suppliers i.e., subcontractors, consultants, architects, vendors, advertising agencies, security agencies etc. are not available according to MMOPL track such documents will be submitted by Commercial and Finance Department.
- c. ISO certifications obtained with details are not available according to MMOPL track, this will be submitted by Safety and Quality Department.

3.5.13 Statutory Compliance due diligence report

- a. Design Basis Report (DBR) of Viaduct; Central Government sanction for track structure and fastening components; and necessary RDSO permits and approvals available on Virtual Data Room
- b. The Safety and Quality Department will submit the environmental clearance certificate, fire insurance, insurance policies for locomotives as well as coaches, contractors' all-risk "CAR" insurance policy, and also Municipal Corporation certificates or no objection certificates received, if any are not available in accordance with MMOPL track.

3.5.14 Change of Scope / claims due diligence report.

Not Applicable

3.5.15 Safety and Security Assessment due diligence report

Not Applicable

3.5.16 Deficiency and Scope of Improvement

- a. There are fissures/crack in the plinth and derailment guards across the entire corridor and depot ramp; these are filled in at several places with GP-2 grout. Since the system as a whole is over 10 years old, it will be necessary to hire an specialized agency to handle these kinds of problems in the future. The approximate estimated cost for plinth/derailment guard crack repair and grouting is Rs. 6 lakh for future enhancements.
- b. Turnout crossings are the most significant component of the track system and the bone that directs rolling stock, therefore they must be maintained with greater care due to the nose and CMS's constant wear and tear over time. As the AMC for T/O nose and CMS has already expired, it is critical to act quickly to avoid any unanticipated implications in the future. The above-mentioned work would lead to increase in cost of regular maintenance activities of tracks

3.5.17 Important issues

- a. Check rails installed in curves portion are modified on site than the original OEM ones these alteration/cutting was done as per the site condition demand. The alteration approval documents need to be showcased to MMMOCL.
- b. Majority of areas has been jointly physically checked, at almost all location rusting of fittings issues has been noted and same has been mentioned in IE reports.

3.5.18 Conclusion Summary

It has been determined through a joint inspection of the MMOPL Track Structure/Asset/ System/ Sub-System is operational and well-maintained. Despite this, the plinth and derailment guards still require modest maintenance. Furthermore, as indicated in the IE's report, corrosion in rail fastening is causing problems and should be taken into consideration for maintenance in the future. Taking into account that the whole corridor structure, including the Track Structure/Asset/ System/ Sub-System, is older than a decade ago. Maintenance is therefore required more frequently. As a result, it requires careful consideration in light of the ever-rising expense of maintenance.

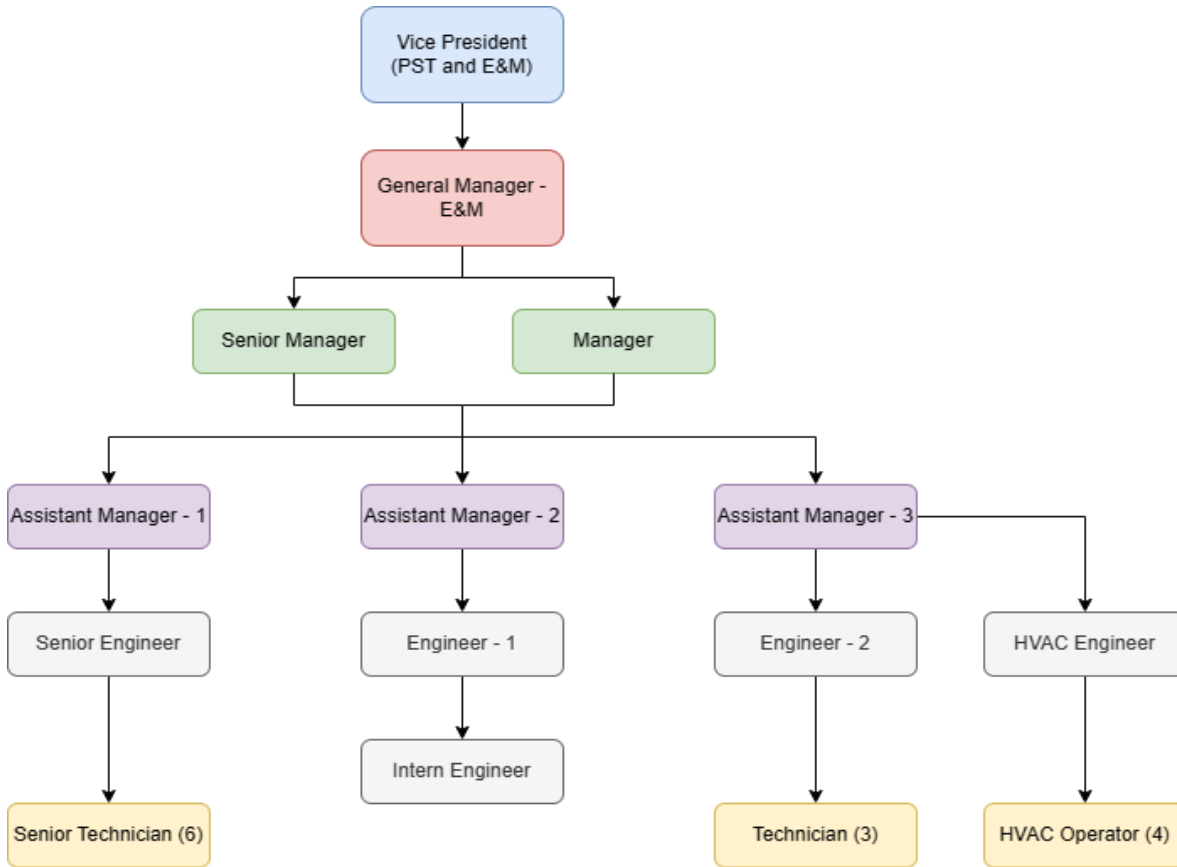
Most of the drawings and RDSO approval documents were available on Virtual Data Room. Also list of available and non-available documents is attached in Tr. Annexure 2(b). However, Track Assets drawings, Initial Original Handover documents were found to be missing. Whenever significant Corrective Maintenance work, modification, or upgrade is undertaken, reference benchmark documents or records will be required; otherwise, MMMOCL will require OEM's assistance, as stated.

3.6 Electrical & Mechanical

3.6.1 E&M Overview

- a. The LT Electrical system provided for the Mumbai Metro Line 1 comprises of Power supply, 415V / 230V for Electrical Equipment, Lighting and Small power distribution for Stations, Depot buildings and associated Ancillary buildings.
- b. Receiving Sub-Station (RSS) are located at DN Nagar Depot and Marol.
- c. The incoming supply of 3 phase 415V is received in the Main LT Panel. This power supply is further distributed from Main LT Panel to all distribution panels including Normal Panel, Essential Power Panel (DG Set), Very Essential Power Panel (UPS), Fire Pump Panel, Pump Panel, Retail & Advt. Panel (PAP), Lighting Distribution Boards, etc.
- d. Major power loads in the systems are for Lifts, Escalators, Lights, Fans, Fire and Domestic pumps, Fire Alarm & Detection System, S&T UPS, HVAC, Access Control System & AFC System etc.
- e. E&M system comprises following sub-systems –
 1. Lift
 2. Escalators
 3. DG Set
 4. LT Panels
 5. UPS
 6. Lighting System
 7. Earthing System
 8. Lightening Arrestor System
 9. Fire Alarm System (including FFAST system)
 10. Fire Protection System (FM 200, Fire Extinguishers, CO2 Flooding for LT Panels)
 11. Fire Hydrant System
 12. HVAC & MVAC System
 13. Rain Water Harvesting Pump System
 14. Water Treatment Plant (WTP)
 15. Effluent Treatment Plant (ETP)
 16. Waste Water Treatment Plant (WWTP)
 17. Access Control System
 18. Solar System
 19. Flood Water Lifting Pumps at Depot (of 132 kW & 315 kW capacity)

3.6.2 E&M Organization Chart



3.6.3 Manpower Status

Sr. No.	Designation	Manpower Count
1	General Manager – E&M	1
2	Senior Manager	1
3	Manager	1
4	Assistant Manager	3
5	Senior Engineer	1
6	Engineer	2
7	Intern Engineer	1
8	Senior Technician	6
9	Technician	3
10	HVAC & MVAC Engineer	1
11	HVAC & MVAC Operator	4
	Total Staff	24

3.6.4 List of Documents

3.6.4.1 Technical Due Diligence Report (Item 1 to 5)

Sr. No.	Description
1	<p>Construction, Testing and commissioning reports duly approved by independent engineer, design & drawings, land survey reports verifying property boundaries, geotechnical & site investigation, right of way etc.</p> <ul style="list-style-type: none"> - Detailed Design Report of E&M, Lift and Escalator - GAD, Shop Drawing, GFC Drawing and As-built drawings of E&M Assets. - Detailed Specifications of E&M, Lift & Escalator Assets - FAT reports of LT Panels & DB's, Cables and Wires, HVAC System, Light Fixtures, UPS & batteries, DG Set, Fire & Sprinkler Pumps, Total Flooding System, BMS etc - Method Statement of Installation, Testing & Commissioning of E&M, Lift and Escalator - O&M Manuals of E&M, Lift and Escalators - OEM Manuals of E&M, Lift and Escalators - Cable Schedule - Relay Settings - List of Items and Make - RAMS Plan - SOP's – PM, CM and Integrated SOP's - Checklists - Details of System modifications/altercations done, if any - Interface Documents of E&M with other Systems - SLD's - Fire Alarm Integration Matrix - Heat Load Calculation - Training Plan of E&M Division - LT Side Interlocking Scheme - Present Defects & Deficiency List
	<p>MMMOCL Comment: Available Documents are uploaded on virtual data room and have been verified. However, project phase documents such as Detailed Design Report, GFC Drawings, FAT Reports, some Method Statements for ITC, Heat Load Calculations are not available with MMOPL. Detailed report is attached as E&M ANNEXURE – A.</p>
2	<p>Partial completion / full completion certificates</p> <ul style="list-style-type: none"> - Work completion of Contractors of E&M System.
	<p>MMMOCL Comment: Documents uploaded on virtual data room and have been verified.</p>



3	Necessary permits, approvals, No Objection Certificates from relevant Authorities like fire department, Elevator operations license, Electricity Board etc. <ul style="list-style-type: none">- Fire NOC from Mumbai Fire Brigade- Form B submitted to Mumbai Fire Brigade since ROD
	MMMOCL Comment: Documents uploaded on virtual data room and have been verified.
4	Original contract agreement of Metro train / Coaches supply and Original Invoices <ul style="list-style-type: none">- Contract Agreement of E&M, Lift & Escalators and Original Invoices
	MMMOCL Comment: Documents uploaded on virtual data room have been verified.
5	Risk assessment and risk mitigation analysis <ul style="list-style-type: none">- Hazard Log of E&M- Risk Mitigation Analysis
	MMMOCL Comment: Documents uploaded on virtual data room and have been verified.

3.6.4.2 Operation and Maintenance due diligence report (Item 1 to 9)

Sr. No.	Description
1	Existing original contracts and commercial arrangement for the operation and maintenance of metro rail system <ul style="list-style-type: none">- Subcontract details (their contract period, SOW etc.)- Budget Allocation with breakup- Tie-up details with local agencies for Diesel Refilling, Domestic Water Testing, FE Refilling etc.- New Equipment/System installation and purchases details
	MMMOCL Comment: Documents uploaded on virtual data room and have been verified. Diesel procurement for all divisions, is being done by Store division.
2	Original intellectual property rights and patents related to metro system including License of hardware's and software's for ticketing / signaling etc. <ul style="list-style-type: none">- License of Hardware's and Software's for E&M, BMS, Lift and Escalators- Transfer of Technology – Licenses, Software etc.
	MMMOCL Comment: Document uploaded on virtual data room and have been verified.
3	Original warranty / guarantee certificates of all machineries of E&M.
	MMMOCL Comment: Documents uploaded on virtual data room for HVAC, UPS batteries etc. and have been verified
4	Original Inspection reports and maintenance reports of E&M System <ul style="list-style-type: none">- System Fault History- Incident Reports related to E&M equipments



	<ul style="list-style-type: none">- Diesel Consumption Report- Water Tank Cleaning Records- Earthing & LA measurements- Monsoon Preparedness action plan including Mogra Nallah pump- Fire Pumps, Domestic Pumps and their motors overhauling status- Absolute Management: Equipment's/Spares etc. about to end designed life or no longer available in market and further plan of replacement- System/equipment modifications in existing systems/equipments- ETP, STP, WTP plants maintenance records- RCA of different failure- Special arrangements/instructions- Calibration Certificates
	MMMOCL Comment: Documents uploaded on virtual data room and have been verified. Incidents reports are available in Safety Division's share drive. As per MMOPL, pumps overhauling is not due as on date. There are no special arrangements/instructions applicable for E&M division.
5	List of staff appointed with designation and salary in support with bank statements. <ul style="list-style-type: none">- Manpower Details - Approved strength vs Actual Available (designation wise)- Organisation Chart of E&M Division- Manpower Deployment of E&M Division- Roster of E&M
	MMMOCL Comment: Documents uploaded on virtual data room for Manpower Deployment and Roster. Manpower Details is available at Sr. No. 2.1 and Organization Chart is available at Sr. No. 2.
6	Assessment of the physical condition and the operation and Maintenance performance of metro rail system <ul style="list-style-type: none">- Assessment of E&M, Lift and Escalators- Current D&D List & Target Date- Equipment Condition details & Codal Life- Equipment Replacement Details- Performance of Equipment
	MMMOCL Comment: Documents uploaded on virtual data room for Current D&D, Equipment condition, replacement details and performance. Physical assessment checklists are attached as E&M ANNEXURE – B.
7	Review and evaluation of the current maintenance & asset management practices and establish if it is in line with the prescribed requirement. <ul style="list-style-type: none">- Review and Evaluation of E&M, Lift and Escalators
	MMMOCL Comment: Documents uploaded on virtual data room and have been verified.
8	Risk assessment and risk mitigation analysis <ul style="list-style-type: none">- Hazard Log



	- Risk Mitigation Analysis
	MMMOCL Comment: Documents uploaded on virtual data room and have been verified.

3.6.4.3 Asset Register (Item 1 to 3)

Sr. No	Description
1	The consultant shall update the asset register across all categories. The revised asset register shall be comprehensive and shall cover all elements of the Metro rail system. - Updated Asset Register of E&M, Lift and Escalators
	MMMOCL Comment: Documents uploaded on virtual data room. As per MMOPL, the Asset list is under revision/being updated.
2	The Asset register will also include list of Spare parts and consumables available at each Stock yard against the requirement for the maintenance of the Metro Rail system - Tools, Consumables and Spares availability - List of frequently Used Spares
	MMMOCL Comment: Documents uploaded on virtual data room.
3	Status of each asset shall be verified through inspection during the site visits and stakeholder discussions.
	MMMOCL Comment: Attached in MMOCL report, E&M ANNEXURE – B.

3.6.4.4 Legal Due Diligence Report (Item 1 to 2)

Sr. No	Description
1	Title deeds / Concession Agreement Original Copy / Extension and Amendments / Bank Guarantees etc.
	MMMOCL Comment: Not Applicable
2	Original contract agreements with 3 rd party suppliers i.e. subcontractors, consultants, architects, vendors, advertising agencies, security agencies etc.
	MMMOCL Comment: Documents uploaded on virtual data room and have been verified.

3.6.4.5 Statutory Compliance Due Diligence Report if applicable (Item 1 to 3)

Sr. No	Description
1	Environmental clearance certificate - DG Stack emission report - Domestic and Fire Water Testing Reports
	MMMOCL Comment: Documents uploaded on virtual data room and have been verified
2	Insurance policies for locomotives / coaches / fire insurance / contractors all risk "CAR" insurance policy etc. - Insurance of E&M Assets if any
	MMMOCL Comment: Not applicable.
3	Municipal Corporation certificates / no objection certificates received. If any. - Related to E&M, Lift and Escalators if any
	MMMOCL Comment: Not applicable.

3.6.4.6 Change of Scope / Claims Due Diligence Report (Item 1 to 2)

Sr. No.	Description
1	Change of scope applied, approved, and pending details. - Related to E&M, Lift and Escalators if any.
	MMMOCL Comment: Not applicable.
2	Any other claims / arbitration / court cases submitted or received or pending - Related to E&M, Lift and escalators.
	MMMOCL Comment: Not applicable.

3.6.4.7 Safety and Security Assessment Due Diligence Report (Item 1 to 2)

Sr. No.	Description
1	Safety audits risk assessments and accident / incident reports
	MMMOCL Comment: Not applicable.
2	Security plans and measures for passenger safety and asset protection
	MMMOCL Comment: Not applicable.

3.6.5 Deficiency and Scope of improvement

There are some observations w.r.t. individual systems; which are listed below.

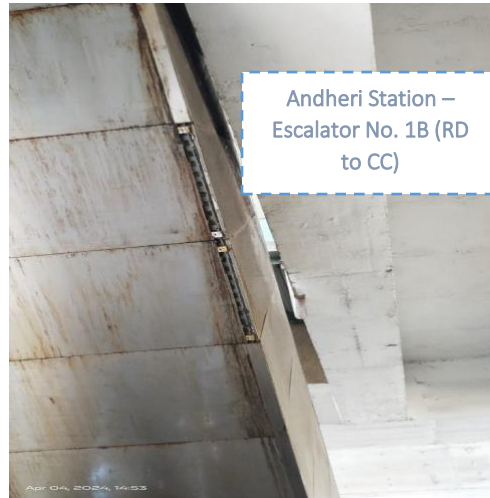
1. Lift

At Jagruti Nagar, 1 no. lift (Lift L1A) is kept out of operational services, and being used for Training of operation staff. Also, there's a water leakage issue at this lift; which caused damage to some of its parts. **As per MMOPL, prior to handover they will put this lift in service.**



2. Escalators

At some places, the escalator's stainless-steel cladding supporting angles were missing and oil stains, rusting observed on the bottom side cladding. **As per MMOPL, before handover they will replace the missing items.**



3. DG Set

No major observations.

4. LT Panels

At many locations, panel's MCCB's are removed and used for other locations. ATS panel's display found blur and some panel's are rusted and littered by birds (mostly at Depot – Pump House and Mogra Nallah Pump Room). **As per MMOPL, before handover they will replace the missing items and replace the faulty items**



5. UPS

There were numerous operational issues observed in regards with the UPS at Depot and Stations.

In Depot, following UPS are kept OFF (intended to be scrapped)

- a. OCC – ASS 3 = 2 x 20 kVA
- b. OCC – 1st Floor = 400 kVA
- c. PTR – Gr. Floor = 150 kVA

However, the load of the above UPS is catered by other functional UPS with no issues.



Also, at stations; Harmonic filter showing errors with their display not working. **As per MMOPL, before handover they will repair the faulty items.**



6. Lighting System

No major observations.

7. Earthing System

No major observations.

8. Lightening Arrestor System

No major observations.

9. Fire Alarm System

Fire Alarm Panels displays are getting blur due to aging. At Depot 2 nos. and at Asalfa station 1 no. FACP repeater displays are blurred. **As per MMOPL, before handover they will repair the faulty items.**



10. Fire Hydrant System

The Fire Pump Control Panels at Depot, are under modification for the pump control. At present, 1 no. panel has been modified on trial basis at Pump House – 1. The reason stated by MMOPL, is that, due to unavailability of spares in market as well as with OEM and no service support from OEM for the existing controller.



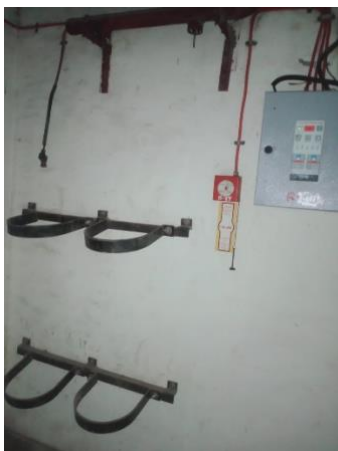
The complete Depot is now charged/pressurized by C-01 pump set of Pump House – 1. All other pump set controllers found in OFF condition. **As per MMOPL, before handover they will replace/repair the faulty items.**



11. Fire Protection System (FM 200, Fire Extinguishers, CO₂ Flooding for LT Panels)

- The FM 200 system at stations, for R15 & R17 (except for VER, APR & GHA) stations; has been kept in OFF condition, as these rooms equipments are no longer in service or moved to other rooms. Also, some of the FM 200 cylinders has been used wherever gas released at other stations.
- At Jagruti Nagar station, R17 FM 200 panel's PCB is faulty, hence kept OFF.
- Most of the Fire Extinguisher's color is faded.
- CO₂ Flooding system's Standby Cylinders and their weighing scales are being used as spares to attend faults.

As per MMOPL, before handover they will replace/repair the faulty items.



12. HVAC & MVAC System

The HVAC Outdoor unit's condenser coils are observed in poor condition and may need replacement in near future.

New additional HVAC units are installed at stations and Marol RSS, as existing units cooling is inefficient due to aging.



As per MMOPL, before handover they will replace/repair the faulty items. They have initiated for installation of new air-conditioners, wherever issues are found.



The ventilation ducting at WWTP, PH 1 found in rusted condition.



13. Rain Water Harvesting Pump System

This system couldn't be verified due to non-availability of water in pits. No major observation.

14. Water Treatment Plant (WTP)

No major observation.

15. Effluent Treatment Plant (ETP)

No major observation.

16. Waste Water Treatment Plant (WWTP)

No major observation.



17. Building Management System (BMS)

The Depot BMS is non-operational; due to faulty spare parts and no further support by the OEM.

The station BMS is working, but having frequent communication failures due to aging communication devices and old cables. **As per MMOPL, before handover they will resolve the communication issues.**

18. Access Control System (ACS)

At stations, the ACS for Cleaners Room and BMS Room are kept OFF and its spares are used to attend other rooms faults.

As per MMOPL, before handover they will replace the missing items

19. Solar System

No major observation.

20. Flood Water Lifting Pumps at Depot (of 132 kW & 315 kW capacity)

This system couldn't be verified due to non-availability of water in pits. No major observation.

3.6.6 Important Issues

- a. There's no AMC provision for Depot DG Set (Vibropower).
- b. Most of the HVAC outdoor unit's condenser coils are in bad state, due to aging and needs replacement. It's already causing cooling issues. (Also highlighted in IE reports)
- c. Depot Chiller is aging and its efficiency has been reduced as per recent inspection by an external agency. They have recommended to replace Primary Centrifugal type Chiller (450 TR) with a new Rotary Screw type Chiller (300 TR), considering the actual heat load.
- d. At Depot, Fire Pump Control Panel's controllers are no more supported by OEM and not available in market for replacement. MMOPL has done modification for 1 pump set control panel. This modification needs to be done on priority for all remaining control panels.
- e. Depot BMS in non-functional, as it's spare parts and software are no longer supported by OEM.
- f. Fire Alarm Control panel's displays are getting blur due to aging. A plan needs to be prepared for replacement of these displays and for future possible failures of displays.
- g. CO2 Flooding System for LT Panels – Standby units with their cylinders are non-functional.
- h. CO2 Flooding System for LT Panels – Cylinder valve assembly is leaking due to aging and facing difficulty in getting the new assembly from open market (old system spares not easily available).
- i. Cable trays cleaning needs to be done. (IE report)



3.6.7 List of Documents – Not available with MMOPL

Sr. No.	Documents	Status of Availability	Remarks	Authority
A)	Technical due diligence report			
1	Construction, Testing and commissioning reports duly approved by independent engineer, design & drawings, land survey reports verifying property boundaries, geotechnical & site investigation, right of way etc.			
a)	Detailed Design Report			
i)	E&M	Not Available		MMOPL
ii)	Lift	Not Available		MMOPL
iii)	Escalator	Not Available		MMOPL
b)	Drawings of E&M Assets			
i)	GAD	Partially Available	Available for 8 stations only. 4 stations & Depot not available.	MMOPL
ii)	Shop Drawing	Partially Available		MMOPL
iii)	GFC Drawing	Not Available		MMOPL
d)	FAT reports			
i)	LT Panels & DB's	Partially Available	Available in Hard copy (in System manuals)	MMOPL
ii)	Cables and Wires	Not Available		MMOPL
iii)	HVAC System	Partially Available	Available for Depot	MMOPL
iv)	Light Fixtures	Not Available		MMOPL
v)	UPS & batteries	Not Available		MMOPL
vi)	DG Set	Partially Available	Available for Depot	MMOPL
vii)	Fire & Sprinkler Pumps	Partially Available	Available for Depot	MMOPL
viii)	Total Flooding System	Not Available		MMOPL
e)	Method Statement of Installation, Testing & Commissioning			
i)	E&M	Partially Available	Available for Cable tray, LT Cable, Power Conduit &	MMOPL



Sr. No.	Documents	Status of Availability	Remarks	Authority
			Wiring, Earthing & Rain Water Harvesting	
ii)	Lift	Partially Available	Available for Station Lifts	MMOPL
iii)	Escalator	Not Available		MMOPL
f)	O&M Manuals			
i)	E&M	Partially Available	Not Available for Station FM 200 system	MMOPL
g)	OEM Manuals of E&M, Lift and Escalators			
i)	E&M	Partially Available	Not Available for Station FM 200 system	MMOPL
m)	Checklists			
i)	Details of System modifications/altercations done, if any	Not Applicable		MMOPL
ii)	Heat Load Calculation	Partially Available	Only Chiller Heat Load Calculation Available.	MMOPL
B)	Operation and Maintenance due diligence report – E&M			
4	Original Inspection reports and maintenance reports of E&M System			
i)	Fire Pumps, Domestic Pumps and their motors overhauling status	Not Due	As per MMOPL, pump overhauling is not due	MMOPL
ii)	Absolute Management: Equipment's/Spares etc. about to end designed life or no longer available in market and further plan of replacement	Available	Plan not shared on Ethos Data portal, as its under approval stage.	MMOPL
iii)	Special arrangements/instructions	Not Applicable		MMOPL
7	Assessment of the physical condition and the operation and Maintenance performance of metro rail system			
i)	Equipment Condition details & Codal Life	Available	Plan not shared on Ethos Data portal, as its under approval stage.	MMOPL



3.6.8 List of Non-functional Assets & Plan for Rectification

Sr. No.	Non-functional Assets	Location	Qty.	Target Date	Costing (in Lakhs)	Remarks
1	FM 200 System - Cylinders Refilling for R15 & R17	Stations	10	Before Handover	50.00	
2	FM 200 System - Control panel is faulty of Jagruti Nagar Station.	Stations	1	Before Handover		
3	Access Control System of Cleaner's Room and BMS Room	Depot & Stations	16	Not Provided	5.00	
4	Building Management System	Depot	1	Not Provided	146.00	As per Quotation from M/s AD AUTOMATOS
5	CO ₂ Flooding System cylinders	Depot & Stations	9	Not Provided	10.00	
6	Water Tanks – Electronic Water Level Sensors are not functioning	Depot	All	Not Provided	5.00	
Sub-Total					216.00	

3.6.9 List of Equipments or System Proposed for Replacement or Upgradation

Sr. No.	Assets	Location	Costing (in Lakhs)	Target Date
1	Upgradation of Access Control System and Server.	Depot & Stations	12.00	
2	Chiller Plant – Chiller 1	Depot	150.00	
3	Domestic Pump System VFD	Depot & Stations	10.00	
4	Station and Depot Critical room Precision AC upgradation	Depot & Stations	600.00	



5	DG HMI Controller replacement	Depot & Stations	7.00
6	CO ₂ Flooding System Controller to be replaced with Upgraded controller. Also, manual release valves to be replace.	Depot & Stations	50.00
7	Depot Air Handling Units up gradation and major overhauling	Depot	200.00
8	Depot Fresh air and Extraction and Pressurization fan and Ducting Overhauling	Depot	60.00
9	Reconditioning of Underground Hydrant pipe line	Depot	20.00
10	Reconditioning of rain harvesting plant / WWTP / WTP	Depot	10.00
11	Up gradation of Depot fire pump control panel	Depot	55.00
		Sub-total	1174.00

3.6.10 Recommendations for Improvement by MMMOCL

- a. Depot DG Set CAMC to be given to OEM for proper upkeep of the DG Set. As on date, OEM is being called on call basis. No contract provision between MMOPL & Vibropower.
- b. Depot Fire Pump Controllers to be immediately modified. The existing controllers are obsolete and no longer serviceable/repairable.
- c. Depot BMS, shall be integrate with all Water Tank Level sensors. Moreover, based on the water level in tanks; the water transfer pumps shall operate in Auto mode.
- d. Depot BMS shall be provided with HVAC and LT Panels controlling feature.
- e. Access Control System shall be limited to following rooms:
 - i. Station Control Room
 - ii. Ticket Office – 01
 - iii. Ticket Office – 02
 - iv. Signaling Equipment Room
 - v. Telecom Equipment Room
 - vi. Signaling & Telecon UPS Room
 - vii. E&M UPS Room
 - viii. LT Panel Room
 - ix. Transformer Room
 - x. Technical Room Corridor Access Door – 1
 - xi. Technical Room Corridor Access Door – 2
- f. Access Control System for following rooms not required:



- i. Male Changing Room
- ii. Female Changing Room
- iii. BMS Room
- iv. Cleaners Room

3.6.11 Annexures

E&M Annexure – A: Documents Verified List
E&M Annexure – B: Assets Physical Verification Checklists

Chapter-4 – DDR of Human Resources Department

4.1 Human Resources (HR)

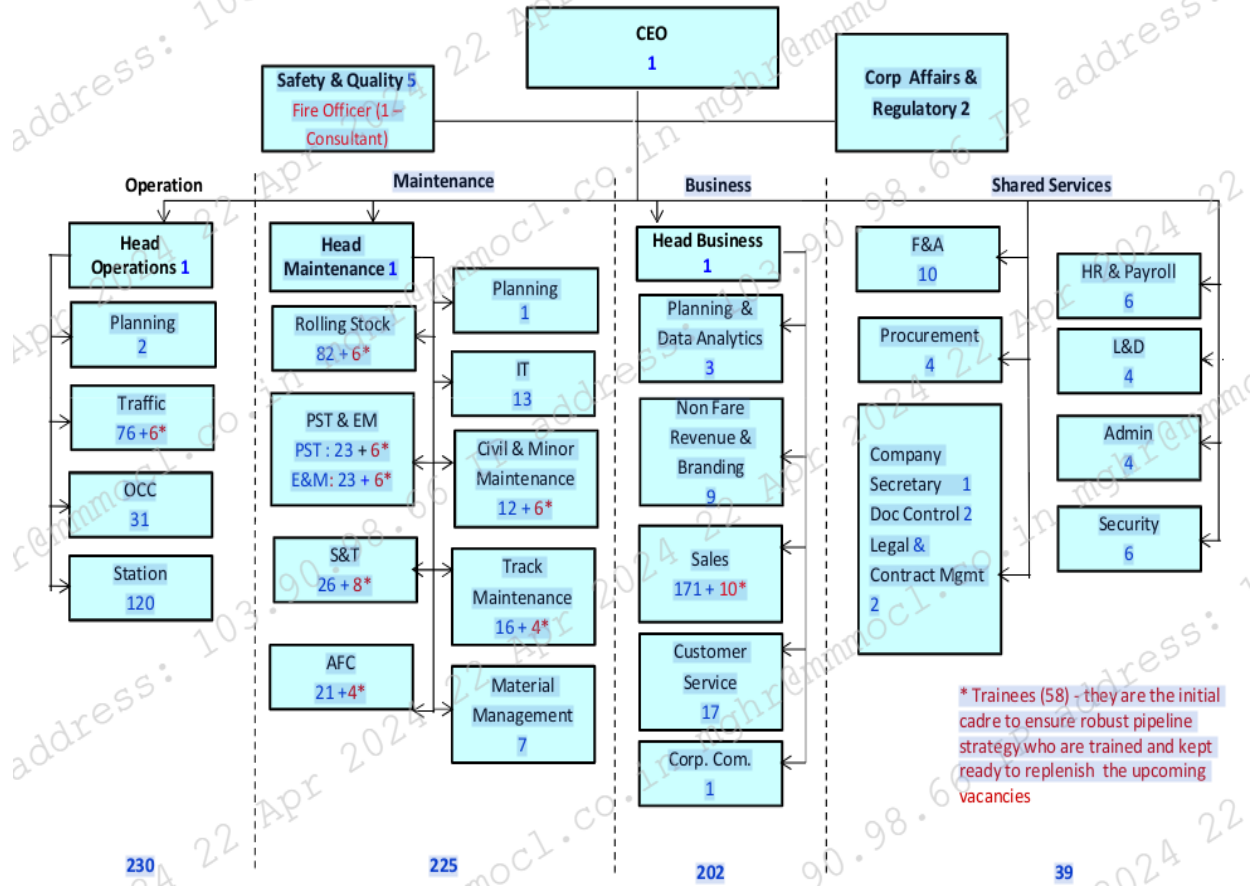
4.1.1 Overview of HR

- a. MMOPL HR department is under the shared services and has sub departments-Human Resources, Learning and Development and Administration underneath.
- b. As MMOPL (client) has taken over in 2019 from Veolia-RATP dev Trans Dev (Vendor for O&M) after 5 years contract i.e. when 5 years of Veolia-RATP contract concluded.
- c. MMOPL has taken over the all the employees of Veolia-RATP on “As is” basis and continued. The salary structure of employees from Veolia-RATP and the employees of MMOPL (Reliance) are different and not shared with MMMOCL.
- d. Salary components paid to employees monthly /annually/or any other mode is not disclosed as yet. The Performance pay and bonus percentages or amounts payouts not communicated by MMOPL.
- e. Payroll of these two entities are done at different locations Reliance employees from R-Infra and Veolia-RATP from D N Nagar Depot.
- f. MMOPL also follow Indian Railway Medical standards (IRMM) and has adopted same medical categories for each post as Railways.
- g. MMOPL is using HRMIS-SAP for Employee Data maintenance.
- h. MMOPL is ISO certified.

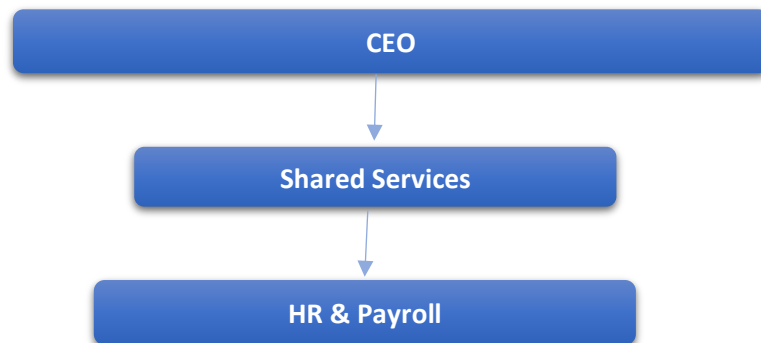


4.1.2 Organization Overview

4.1.2.1 MMOPL Organization Chart



4.1.2.2 HR Department Hierarchy Chart



4.1.3 Manpower Status

4.1.3.1 Manpower Status of HR Department

Sr No	Designation	Manpower count
1	General Manager	02
2	Senior Manager	01
3	Manager	01
4	Assistant Manager	01
5	Senior Executive	01
	Total	06

4.1.3.2 Manpower Status of MMOPL

	Department	CTC	Headcount
Operation	Operations Total	115005660	224
	Ops General	5880864	3
	OCC	27607336	28
	Station	48805124	105
	Traffic	32712336	88
Maintenance	Maintenance Total	224065254.8	224
	Maintenance General	6023928	2
	Rolling Stock	63199169.64	78
	S&T	30081513.12	31
	PST & EM	45478788	50
	AFC	19356569.28	20
	Civil	21485567.16	12
	Tracks	15691500	12
	IT	17265691.92	13
Material Management	5482527.72	6	
Business	Business Total	115160131.6	195
	Business General	9759469.32	2
	Non Fare Revenue	15882290.04	8
	Customer Service	8381072.28	13
	Sales	79211072	169
	Planning & Data Analytics	1926228	3
Shared Services	Shared Services Total	107638680	48
	A&F	21566117.88	10
	CPG	11573311.92	4
	HR	9839442	6
	L&D/MOULD	7621569	4
	ADMIN	5115127.68	4
	SECURITY	14910819.64	6
	COMP SECRETARY	6620460.72	4
	LEGAL	5275908.48	2
	Safety and Quality	10976618.28	5
	CEO Cell	14139304.8	3
TOTAL	561869726.4	691	

Image added as provided hardcopy only. (Conversion to Excel is changing the figures.)



4.1.3.3 Manpower status of Off Rolls employees of MMOPL- Total- 851

Off rolls employees of MMOPL	Total No. of Emp	Average CTC p.a.
TSO/ Call centre	230	2.09
Track Maint.	33	1.91
Security/Housekeeping/station operation	484	1.89
OHE Maint	10	2.52
RS/civil/stores	23	1.71
E&M	35	2.08

This data is arrived from the CTC data given by MMOPL, which does not clarify the salary components of CTC

4.1.4 List of Items assessed

- HTC manual
- Manpower list – on-rolls (division not mentioned)
- Manpower list – off-rolls
- On-rolls list with CTC p.a. (breakup of CTC not provided)
- Off-rolls list with CTC p.a. (breakup of CTC not provided)

4.1.5 Reference of relevant documents and its status

DOCUMENT DETAILS	STATUS
HTC manual	Uploaded
Manpower list – on-rolls (sub-division not mentioned)	Uploaded
Manpower list – off-rolls	Uploaded
Manpower list- on-rolls with CTC p.a. (no breakup provided)	Hardcopy provided
Manpower list- off-rolls with CTC p.a. (no breakup provided)	Hardcopy provided

4.1.6 List of Documents and information required from MMOPL

Sr. No.	Particulars	Remarks
1	Employee database with basic details of on rolls and off rolls employees	name, DOB, DOJ, grade, title, no, of years of experience, qualification (SSC to latest)
2	Employee wise salary break up of on roll and off roll employees	entire salary breakup paid thru salary and also paid outside payroll basic components, all allowances, exgratia, house rent, company car, company housing, etc
3	Notice period for each grade and posts	Number of months
4	Salary hikes Thru PMS, with approvals	Percentage of Performance based payouts or amounts decided and approvals
5	Salary hikes other than PMS, if proposed with approvals	
6	Employment history of all employee	datewise - salary rise , designation changes, promotions, dept changes, any other changes affecting the employment
7	Job description	* Detailed JD with all the responsibilities handling and required for the job profile, * any addition job handling other than the desired post, mention even that * Table for major and other jobs to be made separately
8	Grade equivalent to the post list	for e.g. -A1 is equivalent to which post and how many posts are considered for grade A1
9	Salary bands for each grade and posts	Minimum and maximum salary for the given post /grade
10	Major contribution to Job and Company if any	
11	Major awards received for contribution to work and post	
12	Training attended list with cost and duration and location	inhouse/outside/aboard- feedback of effectiveness of training
13	Job specific training list with cost and duration and location	inhouse/outside/aboard- feedback of effectiveness of training
14	Competencies awarded list	name, competency awarded , duration, awarded by committee names (please mention if mutiple competencies awarded)



Sr. No.	Particulars	Remarks
15	Refresher Competency	name, competency awarded , duration, awarded by committee names (please mention if mutiple competencies awarded)
16	PMS data with approvals of allotment	employee wise and all the approvals from budgeting to bellcurve and final financial implications against budget
17	Employee Exit list of all employee	name, dept, reasons for leaving, attrition rate
18	exit interview of all separated employees	exit interview copy to be shared along with analysis major reasons for separation
19	Major reasons for separation and HR action on the same	Hardcopy od all documents
20	POSH committee documents	complains if any, action taken, committee names and annual returns
21	Court cases list	pending/on goinig/closed all documents in hardcopy
22	All insurances copies- GPA/GMC/Gratuity etc	All copies in hardcopy and in original with due dates
23	All contract copies	All contractors data with names and number of employees and the permit to work
24	All contract employees	salary sheets and compliance reports all in hard copy , payment on time
25	Any disciplinary action taken/in process/closed	all in hardcopy along with the committee appointed names and their titles
26	Statutory compliances	like PF. Gratuity/ESIC compliance reports
27	Any health related issues raised by employees and action taken	
28	Recruitment internal test papers and modal papers	
29	RDSO data of all employees	
30	Psychometric test conducting Vendor or Agencies name	
31	Off roll employees PMS data and approvals	
32	All allowance given to both off roll and on roll employees	night shift, trip allowances, retention bonus
33	HR Policy copy	
34	Medical Categories of all employees and hospitals	List of all employees medical category and also the list of empanelled hospitals for pre-employment and periodic medical checks

Sr. No.	Particulars	Remarks
35	ISO audits/Internal Audits	All records, certifications and process documents

4.1.7 Conclusion summary

Following are the areas noted by HR, which needs to be fulfilled by MMOPL.

- a. Manpower sanction numbers proposal and approvals. If any sanction is done separately then approvals of the same.
- b. The amount of PF, Gratuity if MMOPL has "Trust" or otherwise, then it needs to be clarified by MMOPL, and to be transferred to MMRDA/MMMOCL being liability towards employees
- c. All the insurance copies with due date of payments and Corporate balance is maintained with the insurance company, the same need to be transferred to MMRDA/MMMOPL. All claims and settlements done till date needs to be shared.
- d. Salary bill annual (Cost to the Company) for MMOPL is 56.18 Cr, ~~which is high~~ each designation wise and salary breakup wise analysis shall be done to get the actual pay-outs. Outstanding liability towards employees needs to be clarified.
- e. Each role in MMOPL needs to be analysed in terms of manpower distribution by MMOPL and requirement by MMOCL.
- f. Salary bill annual (Cost to the Company) for MMOPL is 15.97 Cr, which includes PF/ESIC/PT/Service tax of the service provider mentioned in the Agreement copy. All compliance reports.
- g. Resignation list and full and final settlement copies. The notice period and the full and final settlement which are due now and any other arises in future after the takeover shall be borne by MMOPL.
- h. Amount equivalent to leave salary of all employees shall be monetised and remitted to MMRDA/MMMOCL before handover.
- i. All employees who are currently on training, the expenses shall be borne by MMOPL.
- j. For hiring TO/SC/OCC, psychometric test is conducted, all the bills pertaining to all hiring shall be borne by MMOPL.
- k. SAP HRMIS data of all employees to be provided in soft form.
- l. Maternity/S&E/Apprenticeship/POSH/PF/ESCI/Gratuity/MLWF/Contractlabour/prosecutions/court cases/notices/compliance reports- all the cases pending and if arises in



future shall be dealt by MMOPL and indemnity bond in this respect in favour of MMRA/MMMOCL.

- m. All Contract copies, and detailed Data of any notices/court cases/compliance report of all statutory compliance done by MMOPL.
- n. All medical reports and findings and approvals. Also the list of hospitals empanelled for medical examinations. All pending bills and future medical tests.
- o. All performance appraisal and findings and approvals shall be handover to MMMOCL
- p. Any monetary schemes running all copies and approval and payments till date shall be handed over to MMMOCL
- q. Trainees in each department approvals, payments and approvals information in this regard shall be handed over to MMMOCL.

Chapter-5 –DDR of Training (Learning & Development) Division

5.1 Training Division (HR)

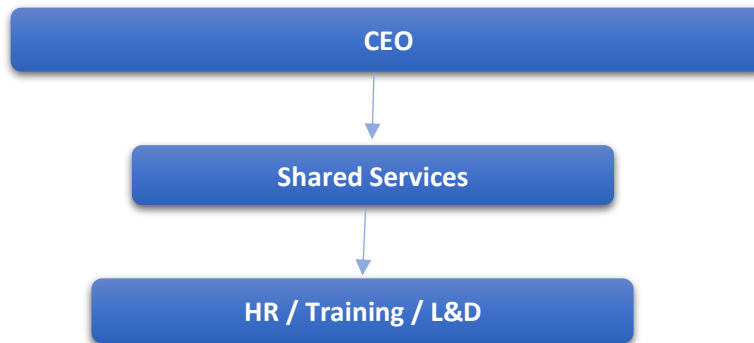
5.1.1 Overview of Training / Learning & Development division

The Training Division is a crucial component of the metro, responsible for the professional development and skill enhancement of its workforce.

The primary role of the Training Division is to design, develop, and implement training programs that cater to the diverse needs of the metro's employees. Their objectives include:

- Enhancing the skills and knowledge of employees to improve their job performance.
- Fostering a culture of continuous learning and professional development.
- Adapting to the evolving needs of the metro organization and the industry.
- Aligning training programs with the metro's vision, mission, and strategic goals
- The process to ensure that training needs and competencies are identified, implemented to the right employees, assessed, followed up and maintained throughout the term.

5.1.2 Training Organization Overview



5.1.3 Manpower Status

Sr No	Designation	Manpower count
1	Deputy General Manager	01
2	Senior Manager	02
3	Senior Executive	01
	Total	04

5.1.4 List of Items assessed

- a. Training and Competency plan
- b. Competency tracker
- c. Induction FA FF tracker
- d. CRC details
- e. Last 3 year's (FY 2021-22 onwards) resignation details along with date of joining.

5.1.5 Reference of relevant documents and its status

DOCUMENT DETAILS	STATUS
Last 3 year's (FY 2021-22 onwards) expenses, separately for training of on-role and outsourced employees.	Uploaded
Last 3 year's (FY 2021-22 onwards) resignation details along with date of joining.	Uploaded
Outsourced staff details	Uploaded
Training and Competency plan	Uploaded
Competency tracker	Uploaded
Induction FA FF tracker	Uploaded
CRC details	Uploaded

5.1.6 Status Report

Sr. No.	DOCUMENT DETAILS	REMARKS
1	Details of pending bills to be paid to external trainers.	MMOPL needs to provide details of pending bills It needs to be clarified by MMOPL to MMRDA/MMMOCL. This liability shall be borne by MMOPL. All employees who will undergo training in coming days, the expenses shall be borne by MMOPL.
2	Details of advance received from individual/ organisations in regards of training scheduled in coming months.	MMOPL has not shared details of Contract/ MOU signed with any other metro rail institutions to impart training to as on 15th APR 2024 and advances received in this regard.
3	Last 3 year's (FY 2021-22 onwards) revenue generated by training division by imparting training to other metro rail institutions.	Details are awaited from MMOPL.
4	Training Calendar for FY 2024-25	The expenses shall be borne by MMOPL. Training calendar for FY 2024-25 is awaited from MMOPL.



5	Last 3 year's (FY 2021-22 onwards) expenses, separately for training of on-role and outsourced employees.	Incomplete data is uploaded by MMOPL on Ethos data portal. For First aid training of 691 on role staff, expenses of training of 483 staff is provided since last 3 years. First aid training is not imparted to Off role staff at MMOPL. No details are uploaded by MMOPL in regards to training of Off role staff. All employees who will undergo training in coming days, the expenses shall be borne by MMOPL. need to provide complete data.
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5.1.7 Conclusion summary

Above details as mentioned in point no 5.1.6 are not provided / shared by MMOPL till now

Financial implication: -

1. Revenue details earned by training are not marked clearly.
2. Any agreement or advance received by MMOPL for upcoming trainings for external companies need to be provided.
3. Any balance due in regard to training.

Chapter-6 – DDR of IT Division

6.1 Introduction

The purpose of this document is to support, deal decision making, negotiating, and eventually, post-announcement planning and execution off Mumbai Metro One Pvt Ltd. (MMOPL), with a particular focus on its IT Division, referred to as the Shared Services Function. The document will provide an overview of MMOPL's IT Division existing scope of work.

6.2 Abbreviations:

Term	Definition
MMMOCL	Maha Mumbai Metro Operation Corporation Limited
MMOPL	Mumbai Metro One Pvt Ltd
IT	Information Technology
IT Assets	All kinds of IT Network devices (<i>Servers, firewall, switches etc.</i>), all kinds of IT standalone assets (<i>Desktop, laptop, printers etc.</i>), materials, consumables, all types of licenses, 3 rd party services, IT projects (Inhouse or Vendor driven), documents (<i>policies, procedure, SOP, audit reports etc.</i>),
SOP	Standard operating procedure
WO	Work order
O&M	Operation and Maintenance

6.3 Document received from MMOPL

MMOPL has shared the 36 PDFs documents via <https://dataroom.ethosdata.com/dataroom> FTP folder.

6.3.1 IT Network & Servers

- a. MMOPL is currently having two separate networks, one for IT and another for O&M (Signalling, Civil, PST, E&M etc.).
- b. IT Network is protected by Sophos Firewall, SOPHOS XG230.
- c. Active directory domain server is available in MMOPL for Internet connected computers.
- d. MMOPL has provided only the firewall rule names in data.
- e. Official website of MMOPL <https://www.reliancemumbaimetro.com> is maintained by Reliance Corporate Group Navi Mumbai.
- f. Internet connection for MMOPL is from three different vendors: JIO: 50 Mbps, Hathway: 10 Mbps and RCOM: 5 Mbps
- g. MMOPL is having separate fiber for internet connectivity between Depot and Station.

6.3.2 IT Assets

- a. As per document 'D-MN-INT-M-001' Section A management plan, O&M **IT Assets** and their network are not in scope of IT dept.

SR.NO	QTY	NUMBER	Period
1	Adobe Acrobat Pro	9	Expiry date is not provided by MMOPL
2	M365-Premium	2	Expiry date is not provided by MMOPL

3	M365-Standard	11	Expiry date is not provided by MMOPL
4	M365-Basic	79	Expiry date is not provided by MMOPL
5	M365-E3-backup	4	Expiry date is not provided by MMOPL
6	Autocad-2019	1	27-11-2021 to 26-11-2024

b. Spare parts & consumables.

Sr.No	Name	Qty
1	Keyboard	15
2	Mouse	11
3	HDD	4
4	Adapter	3

6.3.3 IT Application

- MMOPL is using Lotus note email service.
- SAP is implemented in MMOPL with MM, FI and SD module. The application is managed by R-Infra Corporate IT team.
- Document management system is implemented in Microsoft O365.
- IT Incident management is handled through email, walk-in or phone; No application implemented in MMOPL for IT incident management.
- Most of the application like email, SAP, etc. are handled by Reliance Corporate IT group company.

6.3.4 IT Procurement

Sr. No.	Work Order Number	Work Order Issue Date	Vendor	Details	Contract From	Contract To
1	SERO/MRS/23576458	06-10-2021	BHARTI AIRTEL LIMITED	AIRTEL MPLS VPN 50Mbps, AIRTEL MPLS VPN SERVICES, MPLS VPN 50 MBPS INSTALLATION	01-10-2021	30-09-2022
2	SERI/MRS/23576911	15-06-2022	L A TECHNOLOGIES PVT LTD	SOPHOS END POINT CENTRAL, CENTRAL EXTENDED SUPPORT OF SOPHOS, ONE TIME INSTALLATION	20-06-2022	19-06-2025
3	SERI/MRS/23577674	12-09-2023	LAUREN INFORMAT ION TECHNOL	HCL LOTUS ENTERPRISE CLIENT ACCES LICENSE	01-11-2023	31-10-2024



Sr. No.	Work Order Number	Work Order Issue Date	Vendor	Details	Contract From	Contract To
			OGIES PVT LTD			
4	SERI/MRS/2 3576570	14-12-2021	MICROGE NESIS CADSOFT PVT LTD	PRCUREMENT OF AUTOCAD LICENSE	27-11-2021	26-11-2024
5	SERI/MRS/2 3577858	12-12-2023	MICROGE NESIS CADSOFT PVT LTD	PRCUREMENT OF ACROBAT WRITER LICENSE	15-01-2024	14-01-2025
6	SERI/MRS/2 3576709	28-03-2022	MICROSCA N INFOCOM MTECH PVT LTD	MICROSCAN ILL, ILL INSTALLATION CHARGES	10-04-2022	09-04-2023
7	SERI/MRS/2 3577065	09-09-2022	MICROSCA N INFOCOM MTECH PVT LTD	MICROSCAN MPLS SERVICES VPN 50Mbps	09-09-2022	08-09-2023
8	SERI/MRS/2 3578010	13-03-2024	ONE NETWORK CONSULTI NG PVT LTD	CLOUD STORAGE - ACRONIS DATACENTER, MICROSOFT 365 BUSINESS BASIC LICENSE, MICROSOFT 365 BUSINESS PREMIUM LICENSE, MICROSOFT 365 BUSINESS STANDARD LICENSE	14-03-2024	13-03-2025
9	SERI/MRS/2 3578012	12-03-2024	ONE NETWORK CONSULTI NG PVT LTD	SOPHOS XG 230 FULLGUARD PLUS LICENSE, 24x7 SUPPORT	15-03-2024	14-03-2025
10	SERI/MRS/2 3577401	21-04-2023	QUALISPA CE WEB SERVICES PRIVATE LIM	RENEWAL OF CLOUD SERVER FOR LEGASIS SYST	15-03-2023	14-03-2024
11	SERI/MRS/2 3577707	04-10-2023	QUALISPA CE WEB SERVICES PRIVATE LIM	RENEWAL OF WEB HOSTING AND MGMT, PRODUCTION SERVER WINDOWS C5.XLARGE, STAGING SERVER	01-10-2023	30-09-2024

Sr. No.	Work Order Number	Work Order Issue Date	Vendor	Details	Contract From	Contract To
				WINDOWS T3 SMALL, DR SOFTWARE		
12	SERI/MRS/2 3574753	11-11- 2019	RELIANCE JIO INFOCOM M LIMITED	UPGRADE INTERNET LEASED LINE	01-12- 2019	30-11- 2020

6.3.5 IT Documentations

- a. List of SOPs shared by MMOPL:

Document No	Date	SOP Name	Description
D-MN-INT-S-001	04-04-2022	SOP FOR IT HELPDESK SUPPORT CALLS	Management of IT Helpdesk to provide IT Support to users of MMOPL
D-MN-INT-S-002	04-04-2022	SOP FOR IT CUSTOM APPLICATION USAGE	Management of IT custom software application usage developed by MMOPL IT Dept.
D-MN-INT-S-003	04-04-2022	SOP FOR LICENSED SOFTWARE	Management of licensed software
D-MN-INT-S-004	04-04-2022	SOP FOR MIS MGMT	Management of MIS Reports
D-MN-INT-S-005	04-04-2022	SOP FOR IT NETWORK MANAGEMENT	Management of IT Network
D-MN-INT-S-006	04-04-2022	SOP FOR TMC CALLS`	Management of TMC calls for IT Support
D-MN-INT-S-007	04-04-2022	SOP FOR IT PROCESS FOR ONBOARDING AND SEPERATION	Management of IT processes for onboarding and separation of employees
D-MN-INT-S-008	04-04-2022	SOP FOR IT ASSET PROCUREMENT	Management of IT Asset Procurement
D-MN-INT-S-009	04-04-2022	SOP FOR IT OFFICE AUTOMATION	Management of IT Office Automation

Document No	Date	SOP Name	Description
D-MN-INT-S-010	04-04-2022	SOP FOR LOTUS NOTES EMAIL SYSTEM	Management of IT Lotus Notes Email Software - installation and trouble shooting
D-MN-INT-S-011	04-04-2022	SOP FOR METRO DOCS SYSTEM	Management of IT Metro Docs DMS system
D-MN-INT-S-012	09-10-2023	SOP FOR IT NETWORK PREVENTIVE MAINTENANCE OF DEPOT	To provide clear and detailed guideline for IT Network Equipment Preventive Maintenance of Depot
D-MN-INT-S-013	09-10-2023	SOP FOR IT NETWORK PREVENTIVE MAINTENANCE OF STATIONS	To provide clear and detailed guideline for IT Network Equipment Preventive Maintenance of Station

b. List of Checklists:

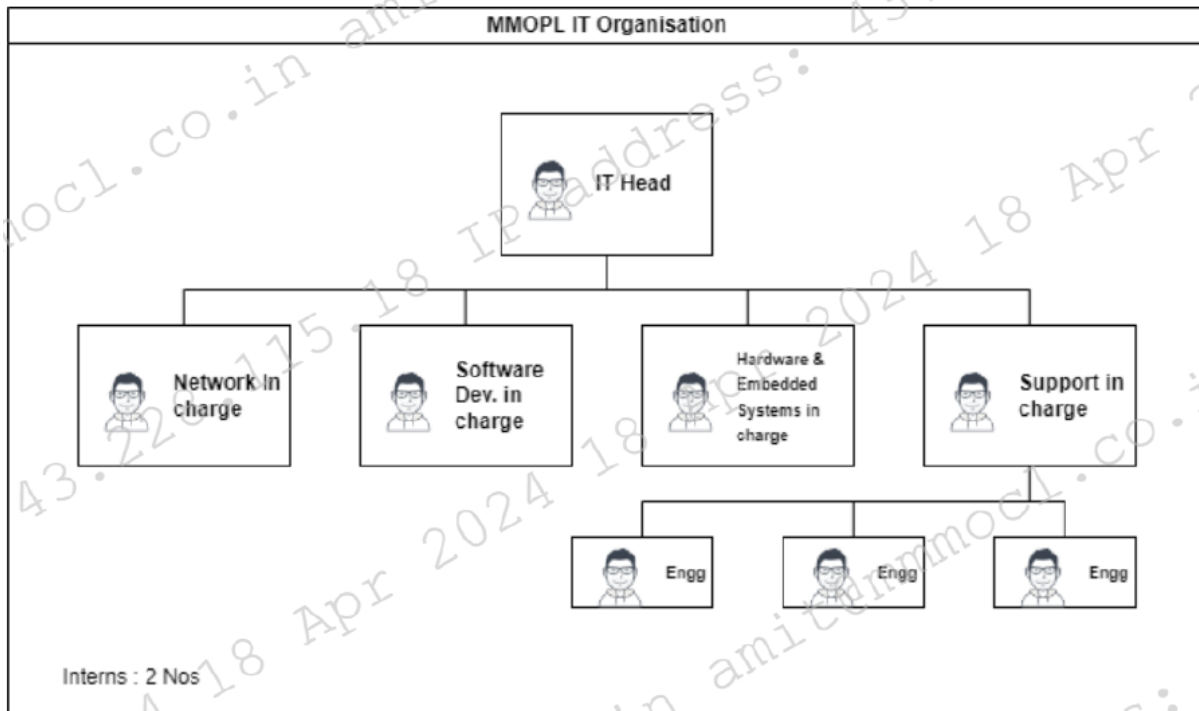
Sr. No	Record Name	Record Number	Type of Record	Record Indexing
1	IT Job Card	D-MN-INT-F-001	Hard Copy	Date wise - Descending Order
2	IT Depot Checklist	D-MN-INT-F-002	Hard Copy	Date wise - Descending Order
3	IT Station Checklist	D-MN-INT-F-003	Hard Copy	Date wise - Descending Order

Each of above document is having Retention Period as 2 Years, Disposal Mechanism as 'Shredding' , Disposal Authority as Head-IT and hard Copies are getting stored in IT Store Room

- MMOPL has shared the format of "IT JOB CARD" used for IT Incidents, IT repairs, problem reported by user, resolution applied and user feedback.
- MMOPL has shared the format of "IT DEPOT CHECKLIST" to track/monitor the daily status of IT Assets mentioned in Check list which contains inspection happens in MMOPL on racks, LAN cables etc.
- MMOPL has prepared "STATION IT CHECKLIST" where network assets like switch, LAN points etc. This report also consists general checklist and application checklist which contains report on OS, antivirus and various applications like Lotus Notes emails and CRM.
- HIRA codes with details are provided by MMOPL.
- Most of the contracts(Work Order) are not having updated dates as invoicing is taking place with mutual understanding between Vendor/OEM and MMOPL.



f. IT dept. organization structure of MMOPL is as follows:



c. MMOPL IT dept. KPIs are as follows:

IT Dept KPI	Depot	Station
1 Network uptime Includes LAN and Wireless	99%	99%
2 Application Uptime PTW, MNS, CRM, OPTRA, Metro Doc, OCC Alert	99%	99%
3 IT Helpdesk Call resolution time Application related: SAP, Lotus Notes If dependency on Corporate IT Hardware related: Part replacement case Spare available To be procured Operating System Issue Web Conferencing/Projector Setup	30 mins	1 hour 30 min
	1 day	1 day
	1 hour	2 hours
	1 week	1 week
	3 hours	4 hours
	20 min	

6.3.6 IT Security

- a. MMOPL using Sophos antivirus for end point protection.
- b. Cyber security audit Annexures for year 22-23,2021 is submitted by MMOPL.

6.4 Additional Data required from MMOPL:

(Referencing to data shared on FTP till 18-Apr-2024)

6.4.1 IT Network & Servers

MMOPL shall provide the understanding of which policy is created for which purpose and technical configuration of policy needs to be understand from MMOPL side.

6.4.2 IT Assets

Entire IT Asset list with requested information is missing in current data.

6.4.3 IT Application

IT Application list shared by MMOPL under document 'D-MN-INT-M-001' Section A management plan, is not containing purpose, use, implementation agency and other details.

6.4.4 IT Procurement

Current ILL or Internet connection contract is missing is provided data as the WO provided by ILL has already expired.

6.4.5 IT Documentations

6.4.6 IT Security

IT Security policies implemented in MMOPL are not shared by MMOPL.

6.5 Next action plan

- MMMOCL will share the list of pending points to MMOPL.
- MMMOCL will plan to have few meetings with MMOPL to discuss and close the existing open queries.
- MMMOCL will do the physical IT Asset verification to understand the current physical and logical condition of IT Asset.

6.6 Estimated Immediate expenditure:

- As most of applications are supported by Reliance Group IT, MMOCL has to raise new Work order for new Vendor to support or implement of IT Assets.
- With reference to existing Work orders received from MMOPL, most of work orders are getting expired by Dec-2024.

Sr. No.	Topic	Approx. Estimation in Lakhs INR	Current Contract	Current contract expiry date
1	Internet connectivity – primary	15		
2	Internet connectivity - Secondary	15		
3	SAP	688	Contract with Reliance Group IT	
4	AMS	1,488	Not implemented	
5	Email - Approx. 400 users	45	LAUREN INFORMATION TECHNOLOGIES PVT LTD	Oct-2024
6	DMS	30		



7	Crew Management Software	101		
8	Antivirus	60		
9	AutoCAD licenses, Acrobat writer & other user licenses	10		
10	Firewall	6		
11	Cloud Hosting	360	QUALISPACE WEB SERVICES PRIVATE LIMITED	Sept-2024
12	IT Servers and Infrastructure	160		
13	IT Assets (Hardware & Software)	60		
14	Website development & Management	90		
15	Microsoft 365 licenses	10	ONE NETWORK CONSULTING PVT LTD	

Chapter-7 – DDR of Finance Department

7.1 Finance

7.1.1 Introduction

The purpose of Financial due diligence is conducted to support deal decision making, negotiating, and eventually, post-announcement planning and execution off Mumbai Metro One Pvt Ltd. (MMOPL), with a particular focus on its Finance Division, referred to as the Shared Services Function. The document will provide an overview of MMOPL's Quality of earnings, identify unusual or non-recurring adjustments, Significant operating and financial trends, Bridging operating periods as well as Key Performance Indicators (KPIs) and their monitoring and review mechanisms.

7.1.2 Overview of Finance

Finance Division, which is known as the Shared Services function of Mumbai Metro One Pvt Ltd. (MMOPL), headed by the "CFO". It handles Finance & Accounts, Budget, Taxation, Banking, Reconciliation, Auditing, Statutory and Regulatory compliances and day to day accounting matters. Details of sub-division of Finance department is given below: -

- a. Finance & Accounts Division - is responsible for maintain day to day accounting entries in Books of Accounts, month end processing and quarterly and annual closure of Books of Accounts.
- b. Budget and Taxation Department is responsible for making Annual Financial Budget of the company and controlling the expenditure, Payment of Statutory and other government taxes Income Tax, GST, Professional Tax, Corporate Tax, Municipal Taxes etc. within the prescribed timeline and filling of Returns on monthly, quarterly and Annual Returns required to be filled as per the Government Statutory and regulatory compliances.
- c. Accounts & Audit Division is responsible for quarterly and annual closure of Books of Accounts and preparation of Financial statements as per Ind AS. Submission of Financial statement to Auditors. On completion of Audit submission to Board of Directors for Approval.
- d. Document and Banking division is responsible for all maintaining and reconciliation of banking related transactions in Escrow and Current Accounts. Fare and Non-Fare Box collection data from commercial section monthly reconciliation of Bank Accounts, coordination with Bank for any unreconciled debit or credit items.

7.1.3 Details of Escrow Account

Account No. 50633030000022
IFSC Code: CNRB0015550
Bank: CANARA BANK
Branch: Cuffe Parade Mumbai

7.1.4 Fare and Non-Fare Box Collection Summary.

(A) Fare Box & Non-Fare revenue collection data as per the statement provided for the F.Y. 2022-23.

Month	Op Balance	Amount Credited	Amount Debited	Net Balance
Apr-22	10374722	222197464	222762073	9810113
May-22	9810113	198860991	195211515	13459588
Jun-22	13459588	203792567	213675158	3576997
Jul-22	3576997	229541669	228744064	4374602
Aug-22	4374602	222978130	213874113	13478619
Sep-22	13478619	250653845	234836371	29296093
Oct-22	29296093	236678764	237098758	28876100
Nov-22	288760100	263901422	268054345	24723176
Dec-22	24723176	263457321	226459555	61720943
Jan-23	61720943	314763580	317706488	58778035
Feb-23	58778035	264515967	239405802	83888199
Mar-23	83888199	382949178	199687831	267149546
Total		3054290898		

(B) Fare Box & Non-Fare revenue collection data as per the statement provided for the F.Y. 2023-24.

Month	Op Balance	Amount Credited	Amount Debited	Net Balance
Apr-23	267149546	291979418	142957583	416171380
May-23	416171380	304958382	150914189	570215573
Jun-23	570215573	272011100	295932368	546294305
Jul-23	546294305	303902546	170966252	679230600
Aug-23	679230600	315690359	339348834	655572124
Sep-23	655572124	287520194	546022853	397069466
Oct-23	397069466	317699028	521074125	193694369
Nov-23	193694369	290188446	449971419	33911396
Dec-23	33911396	283098173	279949249	37060320

Jan-24	37060320	316356606	222045402	131371523
Feb-24	131371523	314868296	351433194	94806625
Mar-24	94806625	395299135	478210343	11895416
Total		3693571683		

7.1.5 Finance Manpower Status

Sr No	Division	Designation	Manpower count
1		Senior Vice President	01
2	Finance	General Manager	01
3		Sr Manager	01
4		Sr Manager	01
5		Manager	01
6		Senior Executive	01
7		Senior Assistant	03
8		Assistant	01
Total			10

7.1.6 List of Items assessed

- a. Details of Escrow Account
- b. Bank Statement F.Y 2022-23
- c. Bank Statement F.Y 2023-24 up to Feb 2024
- d. Bank Reconciliation F.Y 2022-23
- e. Bank Reconciliation F.Y 2023-24 up to Feb 2024
- f. Any claim (disputed) in the bank
- g. Common Rupee Loan Agreement
- h. ECB Loan Agreement
- i. Intangible Asset (Annexure as per Financial Statement)
- j. Housekeeping Service Contract
- k. Security Manpower Work Order
- l. Vehicle Hiring Work Order
- m. BG Housekeeping
- n. BG Security
- o. BG Station Attendant
- p. List of all pending payments claims from 3rd Party Contractors



- q. List of all Legal Cases pending with Court
- r. List of all Arbitration cases pending
- s. History of all settled legal cases / arbitration cases
- t. Certified True Extract from the MOM of the Audit Committee of Board of Directors of MMOPL held on 01.11.2021
- u. Certified True Extract from the MOM of the Audit Committee of Board of Directors of MMOPL held on 11.05.2022
- v. Certified True Extract from the MOM of the Audit Committee of Board of Directors of MMOPL held on 23.05.2023
- w. Agreement copies related to Escrow Account.
- x. Bank Statements in Excel format for F.Y 2022-23 & 2023-24.
- y. March 2024 bank statement and bank reconciliation.
- z. Status of all Loans pending – Liability pending if any.
- aa. Audited Financial Statement for last three financial years.
- bb. Unaudited Financial Statement for F.Y 2023-24.
- cc. Details of all bank accounts along with its reconciliation other than Escrow account.
- dd. Details of all Refundable Deposits pending as on date.
- ee. Details of all Deposit lying with Government departments/Third parties.
- ff. Details of Retention Money for all the vendors.
- gg. Budget Estimate for 2023-24 and 2024-25.
- hh. Status of all Statutory Compliances for F.Y 2023-24.
- ii. Details regarding any Notice Received in regarding Statutory Compliances which is pending to be dealt with.

7.1.7 Data yet to be received from MMOPL

- a. Supporting documents for checking of Bank Reconciliation not provided.
- b. Detailed Asset (Tangible & Intangible) register not provided.

7.1.8 Documents required to be verified physically and jointly to be signed.

- a. Details of all BG's and its physical verification is required.
- b. Details of all BG's submitted in the form of DD/direct payment in bank account.

7.1.9 Points to be agreed both by MMOPL & MMMOCL

- a. It is to be noted that future liability from all the pending claims/ arbitrations which are yet to be decided by Court will be borne by MMOPL as and when the verdict for the case is decided.
- b. It is to be noted that future liability from all the pending claims/ arbitrations from Statutory Compliances which are yet to be decided by the government authorities will be borne by MMOPL as and when the verdict for the case is decided.



महा मुंबई मेट्रो
Maha Mumbai
Metro



7.1.10 List of all Pending payments Claims from 3rd party or contractor.

MMOPL				
Sr. No	Case No./ Parties/ Forum	Subject/ Brief Facts	Stage Present status Hearing Dates	Financial Impact - Claim / Counter Claim / Award Amounts (in cr.)
1	Case No.: NA Parties: Vardhaman Precision Profiles and Tubes v. MMOPL Forum: Arbitral Tribunal Sole Arbitrator- J. J P Deodhar	Vardhaman has filed a claim against MMOPL for alleged breaches of the Contract with respect to fabrication, supply and erection of roof structure at Jagruti Nagar and Ghatkopar Station. Mr. Birendra Saraf was appointed as Arbitrator in dispute between the Parties by an order dated 13.08.2014 in C.P. 531 of 2013. Both sides filed their respective pleading but Ltd Arbitrator resigned by a letter dated 06.08.2016. On an application by Vardhaman to the Bombay High Court, Justice J P Deodhar was appointed as a sole Arbitrator.	Stage: Cross examination of Claimant's witness was concluded. Status: MMOPL has filed its evidence by 10th June 2022 Last Date of Hearing: 10.01.2024 Next date of Hearing: Yet to be fixed	Claim Amount by Vardhaman: Rs. 5.8 Cr Counter Claim by MMOPL: Rs. 1.34 Cr



		<p>On 10.01.2024, a hearing was scheduled wherein Ld. Sole Arbitrator directed Vardhaman to file an appropriate application u/s. 29A of Arbitration Act seeking for an extension of mandate of the Arbitral Tribunal within four weeks. After the mandate is extended, next date of the arbitral proceedings shall be fixed.</p>		
2	<p>Case No.: Comm. Arb Petition (L) No. 34225 of 2023</p> <p>Parties: Hindustan Construction Company vs MMOPL</p> <p>Forum: Bombay High Court, Mumbai</p>	<p>This Petition is filed by HCC before Hon'ble Bombay High Court seeking interim reliefs for release of 2 Performance Bank Guarantees worth Rs. 19.5 Cr. retained by MMOPL, in view of apprehension that MMOPL may invoke the said BG's.</p>	<p>1.On heated 8th January, 2024, Counsel for MMOPL submitted that both parties have claims and counterclaims and the matter can be settled without prejudice to rights and contentions of parties. After hearing both parties, the matter was adjourned to explore amicable settlement.</p> <p>2.Was scheduled for hearing on 29.01.2024 however was not listed.</p> <p>3. Meanwhile the dispute was settled vide settlement Agreement dated 28th March, 2024.</p>	NA



7.1.11 List of all Legal Case pending with Court.

Sr No	Case No. & Parties	Subject / Brief Facts	Status/Date of Hearing	Amount Involved
1	Case No.: CP (IB)/933/2023	Sec 7	Status: 1. Matter was listed on 11th October, 2023 before Bench-3 of NCLT, Mumbai.	Rs. 416 crores
	Parties:	Petition is filed by SBI against MMOPL for a sum of Rs. 416 Cr.	2. MMOPL and MMRDA have filed Interlocutory Applications ("IA") to defer the hearing in this matter, basis of MMRDA's acquisition of MMOPL.	
	SBI vs MMOPL		3. During last hearing on 27th March, 2024 Counsel for MMOPL and MMRDA apprised the Tribunal about Maharashtra Govt. passing a resolution to approve acquisition of MMOPL by MMRDA and subsequently, OTS has also been in-principally approved by Banks.	
	Forum: NCLT-3, Mumbai		4. The Tribunal then suggested that, we may dispose the current Petition. On this, Counsel for Bank prayed that 2 weeks' time to consider further steps.	
	Corum: Lakshmi Gurang and Charanjeet Singh		5. Next hearing on 15th April, 2024 for further steps.	
	Last Listed: 27.03,2024			
		Next Hearing Date: 15.04.2024		
2	Case No.: CP (IB)/1043/2023	Sec 7	Status: 1. Matter was listed for first time before Bench-3 on 07th November. 2023.	Rs. 133.37 crores
	IDBI vs MMOPL	Petition is filed by IDBI against MMOPL for a sum of Rs. 133.37 crore	2. During last hearing on 27th March, 2024 Counsel for MMOPL and MMRDA apprised the Tribunal about Maharashtra Govt. passing a resolution to approve acquisition of MMOPL by MMRDA and subsequently, OTS has also been in-principally approved by Banks. 3. The Tribunal then suggested that, we may dispose the current Petition. On this, Counsel for	



			Bank prayed that 2 weeks' time to consider further steps.	
	Forum: NCLT-3, Mumbai		4. Next hearing on 15th April, 2024 for further steps.	
	Corum: Lakshmi Gurang and Charanjeet Singh		Last Listed: 27.03,2024	
			Next Hearing Date: 15.04.2024	
	Case No.: NA	Sec 7	Status: not yet listed	
3	Indian Bank vs MMOPL	S.7 Petition is filed by Indian Bank against MMOPL for a sum of Rs. 875 Cr.	Last Listed: NA	Rs. 874.70 crores
	Forum: NCLT-3, Mumbai		Next Hearing Date: NA	
	Corum: not yet listed			
4	Case No.: Original	Canara Bank, on behalf of lending bank's consortium, have filed Recovery Proceedings against MMOPL before DRT-III, Delhi for recovery of loans advanced to MMOPL, along with interest, to the tune of Rs. 1568 Cores.	1. DRT has passed interim orders against MMOPL, barring MMOPL to transfer any of its assets, properties etc. without prior permission of DRT.	Rs.1568 Cores.
	Application No. 693 of 2022		2. MMOPL has filed a detailed Written Statement on 16th December 2022.	
	(TA No. 48 of 2022)		3. Bank has filed its rejoinder	
	Canara Bank Vs MMOPL,		4. On last hearing dated 22nd March, 2024 counsel for MMOPL submitted that MMOPL has filed its evidence and also apprised the Tribunal on in-principal approval of OTS.	
	BoM, SBI, IIFC, IDBI		5. Subsequently posted to 1st May, 2024 for Banks' evidence.	
	Securities Trustee Services			
	Forum: DRT-III, Delhi			
5	Case No.: WP. No. 863 of 2015	Petitioners being commuters of Mumbai Metro Line-1 filed this petition for themselves and		NA
	Parties:			



	Sanjay Nirupam & Ors. Vs the Fare Fixation Committee and 6 others including Mumbai Metro One Pvt. Ltd. as Respondent No. 4	on behalf of vast community of	1. Lastly listed for hearing in November 2019. Directions to list along with WP No. 1509 of 2019.	
		1.The Report of Fare Fixation Committee dated 8th July, 2015		
		2. The Notification dated 16th Oct 2009 whereby the Metro	2. No CMIS date yet	
		Railways (Construction of Works Act) 1978 and Delhi Metro		
	Railways (operation and Maintenance) Act 2002 as amended by the Amendment Act 2009 was made applicable to Mumbai Metro Line-1.			
Forum: Bombay High Court, Mumbai	3. the Notification dated 29th May 2014 as ultra vires of the Trumways Act, Government Resolutions and Articles of Association			
6	Case No.: PIL No. 39 of 2016	Petitioner filed this petition in public interest challenging the Notification dated 16th Oct 2009	1. Lastly listed for hearing in November 2019. Directions to list along with WP No. 1509 of 2019.	NA
	Parties:			
	Public Concern for		2. No CMIS date yet	



	Governance Trust (PCGT). Vs Union of India & 4 Others including Mumbai Metro One Pvt. Ltd. As Respondent No. 5 Forum: Bombay High Court, Mumbai	whereby the Metro Railways (Construction of Works Act) 1978 and Delhi Metro Railways (operation and Maintenance) Act 2002 as amended by the Amendment Act 2009 was made applicable to Mumbai Metro Line 1		
7	Case No.: WP No. 1509 of 2019 MMOPL Vs FFC, UDI, State of MH, MMRDA Parties: MMOPL Vs FFC, UOI. State of MH, MMRDA Forum: Bombay High Court, Mumbai	MMOPL has challenged with fare recommendations by FFC Report dt.11/03/2019	1. Status quo order was passed on 20th June, 2019 in favor of MMOPL, allowing MMOPL to continue with prevailing fares 2. Lastly listed on 24/01/2020.	NA
8	Case No.: Comm. Arb Petition (L) No. 24820 of 2021 (Paycraft) Parties: Paycraft vs MMOPL Forum: Bombay High Court, Mumbai	Application filed by Paycraft, U/s 9 of Arbitration Act, challenging the notice of termination issued by MMOPL, pertaining to Tri-Partite Agreement and Ticketing Agreement entered into by MMOPL, Paycraft and Axis Bank.	1. Matters were argued and ad-interim relief by Paycraft and Axis Bank was rejected vide order dt. 28.10.2021. 2. In abeyance. No CMIS date yet	Rs. 18.27 Cr.
9	Case No.: Comm. Arb	Application filed by Axis Bank, U/s 9 of Arbitration	1. Matters were argued and ad-interim relief by Paycraft and Axis Bank was rejected vide order dt. 28.10.2021.	Rs. 18.27 Cr.



	<p>Petition (L) No. 24843 of 2021 (Axis Bank)</p> <p>Parties: Axis Bank vs MMOPL</p> <p>Forum: Bombay High Court, Mumbai</p>	<p>Act, challenging the notice of termination issued by MMOPL, pertaining to Tri-Partite Agreement and Ticketing Agreement entered into by MMOPL, Paycraft and Axis Bank.</p>	<p>2. In abeyance. No CMIS date yet</p>	
10	<p>Case No.: WP No. 2288 of 2022 MMOPL Vs MCGM, Urban Development Dept</p> <p>(State of Maharashtra) and</p> <p>Ors</p> <p>Parties: MMOPL Vs FFC, UOI, State of MH, MMRDA</p> <p>Forum: Bombay High Court, Mumbai</p>	<p>MCGM issued warrants for attachment of the properties at stations & Dept of MMOPL for default in payment of Property tax. MMOPL approached Hon'ble Bombay HC to quash those warrants on various grounds</p>	<p>1. Upon hearing on 29th March, 2022, Hon'ble HC granted ad-interim relief by directing MCGM to not to take any coercive action and gave direction for filing of affidavits.</p> <p>2. 1. During hearing on 7th March, 2024, matter was admitted and Hon'ble HC and directed the parties to file replies /rejoinders by 22nd April, 2024.</p> <p>3. Hearing on 25th April, 2024.</p>	NA
11	<p>Case No.: Comm. Arb</p> <p>Petition (L) No. 34225 of 2023</p> <p>Parties: Hindustan Construction Company vs MMOPL</p>	<p>This Petition is filed by HCC before Hon'ble Bombay High Court seeking interim reliefs for release of 2 Performance Bank Guarantees worth Rs. 19.5 Cr. retained by MMOPL, in view of apprehension that MMOPL may</p>	<p>1. On hearing dated 8th January, 2024, Counsel for MMOPL submitted that both parties have claims and counterclaims and the matter can be settled without prejudice to rights and contentions of parties. After hearing both parties, the matter was adjourned to explore amicable settlement.</p> <p>2. Was scheduled for hearing on 29.01.2024 however was not listed.</p>	NA

	Forum: Bombay High Court, Mumbai	invoke the said BG's.		
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7.1.12 List of all arbitration cases pending.

Sr. No.	Case No./ Parties Forum	Subject/ Brief Facts	Stage Present Status/ Hearing Dates	Financial Impact - Claim / Counter Claim / Award Amounts (in crores)
	Case No.: NA	Vardhaman has filed a claim against MMOPL for alleged breaches of the Contract with respect to fabrication, supply and erection of roof structure at Jagruti Nagar and Ghatkopar Station.	Stage: Cross examination of Claimant's witness was concluded.	Claim Amount by Vardhaman: Rs. 5.8 Cr
	Parties: Vardhaman Precision Profiles and Tubes v. MMOPL	Mr. Birendra Saraf was appointed as Arbitrator in dispute between the Parties by an order dated 13.08.2014 in C.P. 531 of 2013. Both side filed their respective pleading but Ld	Status: MMOPL has filed it's evidence by 10th June 2022	Counter Claim by MMOPL: Rs. 1.34 Cr



		Arbitrator resigned by a letter		
	Forum: Arbitral Tribunal	On 10.01.2024, a hearing was scheduled wherein Ld. Sole Arbitrator directed Vardhaman to file an appropriate application u/s. 29A of Arbitration Act seeking for an extension of mandate of the Arbitral Tribunal within four weeks.	Last Date of Hearing: 10.01.2024	
	Sole Arbitrator- J. J P Deodhar		Next date of Hearing:	
		After the mandate is extended, next date of the arbitral proceedings shall be fixed.	Yet to be fixed.	

7.1.13 List of Retention Money of Venders as on March 31, 2024.

Vendor Cd	Name	Retention Amount (Rs.)
2546159	AL A GLAZERS	1,84,803
2544961	ANI TECHNOLOGIES PRIVATE LIMITED	12,90,506
2529221	APEX AIM PRIVATE LIMITED	58,86,127
2554618	ATEK PAYMENTS PRIVATE LIMITED	45,20,297
2523087	CISB SERVICES PRIVATE LIMITED	32,02,220
2555411	D J ENGINEERING WORKS	32,202
2535081	FORCE ONE DOG SECURITY	3,90,478
2556723	GUNNEBO INDIA PVT LTD	5,84,100
2551775	HBL POWER SYSTEMS LIMITED	5,05,129
2517294	HBL POWER SYSTEMS LIMITED	65,048
2519884	HINDUSTAN CONSTRUCTION	10,08,65,080
2542258	HONEYWELL AUTOMATION INDIA LIMITED	9,44,603
2551742	INOX ENTERPRISES	2,45,820
2531323	KHUSHI ENTERPRISES	8,323
252533Z	KONKAN ELECTRIC CORPN. (N.M.)	5,23,665
2556091	MARDI STRUCTURAL SOLUTION	81,028
2551381	BJARDI STRUCTURAL SOLUTIONS PVT LTD	5,03,082
2550960	MAURER - SANFIELD INDIA LTD	9,70,743
2537854	MEENA PAINTING WORKS	2,48,112
2552555	MTC INDIA RUBBER METAL COMPONENTS	11,94,078
2551526	PAR SPECIALTY POLYMERS FVT LTD	63,797
2557088	QUINTA SYSTEMS PRIVATE LIMITED	1,99,125
2552683	RAJ PAINTS & CONTRACTS	2,36,189
2555767	RAMP DISPLAY SOLUTIONS PRIVATE	5,36,900
2530197	RANDS TAD INDIA PRIVATE LIMITED	63,330
2556431	S K ASSOCIATES	3,06,669
2552762	SAI CONSTRUCTION	8,97,125
194948	SAINI CONSTRUCTION	52,350
2531243	Sandeep Infotech	10,65,295
2535554	SANFIELD INDIA LIMITED	57,333

Vendor Cd	Name	Retention Amount (Rs.)
2556596	SHASHIDHARA ENGINEERING WORKS	4,64,096
2556125	SHREE GANESH ENTERPRISES	3,73,949
2550741	SHUBHANGI CONSTRUCTION	14,20,212
2512335	SIEMENS LIMITED	1,20,17,869
2512337	Siemens Mobility GmbH	5,49,69,735
2545114	SMARTCONTROL	1,46,987
2552826	SPATIUM	67,929
2550594	STAR COOL SERVICES	2,46,395
2554402	STARSPRAYPAINTING WORKS	5,506
2550867	STONE ENTERPRISES	1,86,280
2550660	TANVI ENGINEERING CORPORATION	13,89,445
2556479	TIMEWATCH INFOCOM PRIVATE LIMITED	59,885
25S5822	UNIQUE INTERIOR DISIGNER AND CIVIL	1,33,297
2537664	VIJAYKUMAR V PATIL	57,596
2549982	YOGSHRI TECH CONSULTING PRIVATE	3,00,635
Total		19,75,63,979

7.1.14 Details of all Refundable Deposits as on 31-March-2024.

Sr. No.	Customer Name	Amount (Rs.)
1	Chunnilal Nagda LLP	10,90,000
2	Indus Tower Ltd	1,66,24,000
3	IndusInd Bank Limited	14,29,220
4	Jumbo king	44,59,650
5	Kotak Mahindra Bank	2,45,48,320
6	Reliance Jio Infocomm Ltd-Summit	63,14,000
7	Satra Buildron Pvt Ltd	2,00,000
8	The Mobile Wallet Private Limited	5,00,000
9	Times Innovative Media Ltd.	3,25,00,000
10	X5 Retail	9,00,000
11	Burger King India Pvt. Ltd.	23,46,000
12	Vendiman	6,00,000
13	CSC E-GOVERNANCE SERVICES I LTD	1,68,540



14	Delicia Foods	13,44,000
15	Infinite Mobile Accessories	3,09,000
16	Kazari Collections	7,50,000
17	Meromix Bookish LLP	22,92,000
18	RPGS MARKETING	4,80,000
19	Tibbs Foods Pvt Ltd	13,74,000
20	RAJHANS PVT LTD	28,45,000
21	Burger Brothers Pvt Ltd	5,40,000
22	FRESHILLA FOODS LLP	9,32,880
23	KHULKE BINGE	1,50,000
24	MIRACLE	3,60,000
25	NATURALISM FOOD LABS PVT LTD	9,30,000
26	SAPPHIRE FOODS INDIA LIMITED	22,50,000
27	RBML Solutions India LTD	8,42,400
28	RAMESHWAR EXCELLENCY	6,00,000
29	AMAL CAFE COFFEE	2,40,000
30	SHRI WARANA SHAKARI DUDHUTPADA	11,98,800
31	MADRASI KAAPI HOUSE LLP	1,80,000
32	SAMATTV ORIGINS PRIVATE LIMITE	3,60,000
33	HARDCASTLE RESTAURANTS PVT LTD	37,50,000
34	SATHYARUCHI CATERING AND MANAGE	7,92,000
35	BEST AUTO ELECTRIC. CO	1,80,000
36	AARAN VENTURES	4,80,000
37	NEW METRO SALES	1,68,000
38	SHRI WARANA SHAKARI DUDHUTPADAK	3,30,000
39	FRUIT N NUT ENTERPRISES	13,60,200
40	METRO SALES	2,28,000
41	APOLLO PHARMACIES LIMITED	10,80,000
42	The Waffle Hub	3,30,000
43	JINJAM	2,40,000
44	TATA STARBUCKS PRIVATE LIMITED	2,71,150
45	Security Deposit Received from Commuters	6,30,22,808
Total		18,18,89,968

7.1.15 Rupee Term Loan & ECB Outstanding as on 31/03/2024. (Rs. In Cr)

Bank Name	O/s Principal Loan	Overdue Interest	Total O/s
Canara BANK	502.53	356.5	859.02
INDIAN BANK	383.57	274.34	657.92
BANK OF MAHARASHTRA	155.15	125.83	280.98
STATE BANK OF INDIA	159.27	108.5	267.78
IDBI Bank Limited	77.23	55.2	132.43
Total RTL	1,278	920	2,198
ECB			
IIFC, UK (USD Mn)	56.26	49.66	105.91
ECB (Rs. Cr)	469	487	956
Total (RTL + ECB)	1,747	1,408	3,155

USD/INR @ 83.405

Subject to Audit by Statutory ,

7.1.16 Details of Security Deposit Lying with Govt. Authorities and third Party.

Name of the Party	Deposit Amount (Rs.)	Remark
MUNICIPAL CORPN. OF GREATER MUMBAI	43,50,500	Water Connection at Metro locations
Adani Electricity	12,940	Electricity Deposit
RELIANCE JIO	3,250	Deposit paid for Internet connection
MUNICIPAL CORPN. OF GREATER MUMBAI	7,41,734	Deposit for Sewerage Line & PIER
Income Tax Appeal	2,11,960	Income Tax Appeal AY 2014-15
ONE 97 COMMUNICATIONS LTD	90,000	Security Deposit - One 97 Communication
PRABHAVATI AMBULANCE	50,000	For Ambulance services at Metro locations
Total	54,60,384	

7.1.17 Details of Statutory Compliances as on 31 March 2024.

Particulars	Amount (Rs.)	Remarks
Provident Fund -Employees	41,68,965	Paid on 12-04-2024
Employee Professional Tax	1,37,350	Paid on 12-04-2024
Employees ESIC Liability	1,57,722	Paid on 12-04-2024
Employee Superannuation Liability	39,083	Pertains to March-2024 and will pay on or before due date
NPS Liability -Employees	2,28,428	Pertains to March-2024 and will pay on or before due date
GST Liability-Forward Charge	1,82,18,439	Pertains to March-2024 and will pay on or before due date
GST Liability-Reverse Charge	3,56,772	Pertains to March-2024 and will pay on or before due date
TDS Liability	2,73,03,460	Rs. 2.60 Cr paid on 12-Apr-2024
Labour Welfare Fund Payable – Contractor	17,389	Pertains to March-2024 and will pay on or before due date
Total	5,06,27,608	

7.1.18 Details regarding any Notice Received in regarding Statutory Compliances

Income Tax.

Sr. No.	A.Y.	Appeal No.	Name of the Company	Issues Involved
1	2018-19	304935121250321	Mumbai Metro One Pvt. Ltd.	Disallowance of Interest on delayed payment of taxes, Interest u/s. 244A, Interest u/s. 234D
2	2014-15	341616341150421	Mumbai Metro One Pvt. Ltd.	Assessee in default - failure to deduct TDS

GST.

Sr. No.	FY	Type	Name of the Company	Status
1	2020-21	Audit- ADT-01	Mumbai Metro One Pvt. Ltd.	Preliminary Submission done as on 22/02/2024

7.1.19 Details of BG Report as on Dated - 31.03.2024.

BG Type	Actual BG No.	BG Amount (Rs.)	Vendor Name	Expiry Date
Performance BG	0047NDDG0003321	11,50,952	ANI TECHNOLOGIES PRIVATE LIMITED	12-04-2024
Performance BG	088GT02223390002	5,63,400	ATEK PAYMENTS PRIVATE LIMITED	04-12-2024
Performance BG	078GM01182780001	32,02,220	CIS BUREAUS FACILITY SERVICES	30-06-2024
Performance BG	078BG01223470001	5,00,000	CIS BUREAUS FACILITY SERVICES	30-06-2024
Performance BG	078BG01230060001	78,47,499	CIS BUREAUS FACILITY SERVICES	31-05-2024
Performance BG	078BG01231720004	8,50,000	CIS BUREAUS FACILITY SERVICES	30-06-2024
Performance BG	240GT02220280012	4,07,500	Evergreen Engineering Co Pvt Ltd	24-07-2024
Performance BG	0008NDLG00068923	1,21,997	HBL POWER SYSTEMS LIMITED	30-04-2024
Performance BG	1303923BG0000950	5,95,354	HBL POWER SYSTEMS LIMITED	31-08-2025
Performance BG	797BGG2300498	9,99,995	Hitachi Energy India Ltd	30-05-2026
Advance BG	0005NDLG00182824	40,02,556	Honeywell Automation India Ltd	31-05-2024
Performance BG	1028NDLG00008923	1,15,612	ISOKLIN FINE CHEM	27-10-2027
Performance BG	1028NDLG00000524	6,90,312	ISOKLIN FINE CHEM	02-04-2028
Performance BG	7/75/14	7,82,793	LAI YEW SENG INDIA PVT. LTD.	31-05-2024
Performance BG	440100003005	5,33,090	MAURER - SANFIELD INDIA LTD	24-01-2025
Advance BG	5521612015 (79280)	11,22,741	OTIS ELEVATOR COMPANY (INDIA)	30-06-2024
Performance BG	1197IBG132025	7,26,229	PHOENIX ENGINEERS	25-07-2025
Performance BG	IGT2301367	29,93,312	Randstad India Pvt Ltd	30-09-2024
Performance BG	23840BG000001	4,09,000	S.K. Associates	30-06-2024
Performance BG	796BGG1603122	20,17,937	SCHINDLER INDIA PVT.LTD.	07-06-2024
Performance BG	0505022BG0001122	8,87,360	SESHAASAI BUSINESS FORMS PVT LTD	04-12-2025

Performance BG	139401000206 70.00	8,74,380	SESHAASAI BUSINESS FORMS PVT LTD	28-02-2026
Performance BG	139401000206 69.00	8,74,380	SESHAASAI BUSINESS FORMS PVT LTD	31-08-2026
Performance BG	784BGG08017 20	5,22,946	SIEMENS AG TRANSPORATION SYSTEM	30-06-2024
Performance BG	0544NDDG00 276524	1,69,920	SNA Infotech Pvt Ltd	20-03-2025
Performance BG	0544NDDG00 295824	1,27,440	SNA Infotech Pvt Ltd	12-04-2025
Performance BG	37030ILG0047 23	1,60,760	Tri - Parulex Fire Protection Systems	16-10-2025
		3,32,49,685		
Interest Free Security Deposit	0172OBG1801 3321	1,25,00,000	Times Innovative Media Ltd	28.06.2026
Interest Free Security Deposit	0172OBG1600 8521	1,00,00,000	Times Innovative Media Ltd	28.06.2026
Interest Free Security Deposit	0172OBG1700 9191	50,00,000	Times Innovative Media Ltd	21.06.2026
Interest Free Security Deposit	0181IGP23101 8369	2,00,00,000	Times Innovative Media Ltd	28.07.2027
Performance BG	240GT022313 60013	5,00,000	Billeasy E Solutions Pvt Ltd	01.05.2024
		4,80,00,000		
		8,12,49,685		

7.1.20 Conclusion summary

The above DDR report is prepared based on documents provided by MMOPL. Many documents required physical verification, like bank guarantees, bank agreements, etc., and some documents are still not provided, such as detailed assets (tangible and intangible), which will be provided after due updating and reconciliation by the consultant.