June 5, 2023

TO: BOARD OF DIRECTORS

THROUGH: STEPHANIE WIGGINS

CHIEF EXECUTIVE OFFICER

FROM: SHARON GOOKIN

DEPUTY CHIEF EXECUTIVE OFFICER

SUBJECT: PERFORMANCE AUDIT OF THE MICRO TRANSIT PILOT PROJECT

Issue
Management Audit Services (MAS) completed a performance audit of the Micro Transit Pilot Project (Pilot Project). The audit objective was to assess Shared Mobility's efforts in managing the Pilot Project. Areas of focus included key performance indicators and activities for managing the contract and corrective action plans, especially those related to Pilot Project operations and data management.

Background
The audit was included in the Fiscal Year 2023 Annual Audit Plan.

Scope
The audit focused on the monitoring activities of the Micro Transit team under Shared Mobility. Testing compliance of the prime contractor with the terms and conditions of the Micro Transit contract was not the focus of this audit. However, any instances of noncompliance noted were described in the report. The time covered by the audit was from Pilot Project inception to December 2022.

Findings
MAS found that internal controls were generally not given the needed attention during the Pilot Project phase. Recent enhancement efforts should have occurred earlier to optimize Pilot Project performance. Key findings included:

- The Micro Transit team did not develop and implement monitoring practices to verify whether maintenance was being performed by the contractor.
- The Micro Transit team did not develop and implement monitoring mechanisms to verify whether the contractor was performing timely vehicle inspections.
- The Micro Transit team did not have documented procedures to oversee the contractor's control over the proper fueling & charging of electric vehicles.
The Micro Transit team operated the project without formal Standard Operating Procedures for maintenance, inspections, or operations in place.

The Micro Transit team did not have oversight of data collected by the contractor, including inventory and safeguarding of data.

The Micro Transit team did not monitor and assess agreed upon Key Performance Indicators to ensure the success of various aspects of the Pilot Project.

The Micro Transit team did not sufficiently oversee the contractor's enhancements and remediations to the project.

**Next Steps**
Ten (10) recommendations were provided as part of this audit. Management concurred and will implement the audit recommendations by May 2024. Corrective actions have already been initiated by management on many of the recommendations.

**Attachment:** Performance audit of the Micro Transit Pilot Project Report No. 22-OPS-P01
Performance Audit of the Micro Transit Pilot Project
Report No. 22-OPS-P01
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Introduction

Background

Micro Transit Origins

Services such as Uber and Lyft have revolutionized the modes that people use for travel, including how people travel for short solo trips. Metro’s NextGen study found that short trips (1-5 miles) were among the most important to retain and grow ridership in Los Angeles County. Short trips are often made by solo customers using private car services, such as Uber and Lyft, or by people driving alone. Uber and Lyft have tapped into this niche sector by taking advantage of the service gaps created by public transportation’s fixed routes\ schedules that often provide limited room for flexibility. Also, the Covid-19 pandemic changed how people travel, as there was a significant decline in ridership for both the public and private sectors. This led to public transportation agencies furthering their efforts to find innovative ways to regain riders, while simultaneously offering affordable rides to customers. One alternative actively being explored now by Metro is Micro Transit transport.

Micro Transit is an alternative transportation method used to connect riders from their first and last-mile rides, making public transit more accessible. Micro Transit features smaller vehicles to transport passengers and leverages real-time technology.

Micro Transit uses real-time dynamic routing that can change immediately, allowing the rider to go anywhere in the service zone on demand. Passengers usually walk a short distance, for example, a block or two, to their virtual bus stop, allowing passengers to board at a standard corner, thereby avoiding unnecessary trips and making the service much more efficient. Further, along with the passenger's route, sophisticated dynamic routing algorithms use real-time, on-the-ground information to add other passengers in the same direction as that of the route vehicle.

Metro Micro Transit Pilot Project Initial Stages

Metro monitored these changes and trends and tasked the Office of Extraordinary Innovation (now the Office of Strategic Innovation) in 2018 to find the best solutions to target customers taking short solo trips. Metro hoped to adopt this new mode of transportation to support the implementation of the NextGen Plan and the aspirational goal of a 10-minute maximum wait time per the agency's strategic plan, Vision 2028.

In 2017 Metro approved the circulation of a Request for Proposal (RFP) to help identify and respond to untapped mobility opportunities with the goal of capturing more than 50% of short trips in Los Angeles County. The RFP was the first of the agency's Pre-Development Agreement Public-Private Partnerships (PDA-P3s), supporting a two-part contract, as follows:
Metro entered a contract with an effective date of May 15, 2018, with three contractors who were collectively tasked with the development and implementation of a new transit service, which was Part A of the above part contract. Part A of the contract was designated as the development phase of the Micro Transit Pilot Project (hereafter referred to simply as “Micro Transit” throughout the remainder of this report) and included planning and design of the service. The three contractors that were selected to collectively execute Part A of the contract were:

- RideCo Inc.
- Via
- Transdev

Each of these Part A contractors had the potential of being awarded a supplemental contract for the implementation phase (Part B) of the new transit service. Of the three original Part A contractors, RideCo Inc., was the prime contractor selected to proceed with Part B of the contract after all three contractors submitted Part B proposals (for the remainder of this report, any reference made to “contractor” shall be a reference to the Micro Transit Pilot project prime contractor, RideCo Inc.)

In 2019, Micro Transit services shifted from the Office of Extraordinary Innovation (now the Office of Strategic Innovation) to Operations for the execution of Part B of the contract. Part B of the contract commenced in December 2020 with a base period of 2 years and an optional third year scheduled to commence in December 2022.

Following October 2021 organizational changes of Metro, oversight of Micro Transit shifted from direct oversight under the Chief Operations Officer to oversight under the newly established Deputy Chief Operations Officer, Shared Mobility.

**Contract Modifications**

The original Part A contract (contract PS46292001) became effective on May 15, 2018, and was modified by eight contract modifications between September 4, 2018, and April 23, 2021.

Metro halted the pilot in the Spring of 2020 due to the Covid-19 pandemic.

Modification No. 5 dated July 30, 2020, amended the existing contract with the contractor with an amended and restated contract, also referred to as a supplemental contract. This supplemental contract was for the execution of Part B of the original Micro Transit contract. Modification No. 7 increased the contract price from $29,160,732.63 to $35,131,602.63 and modification No. 8 revised the excess liability insurance requirement on the Micro Transit Pilot Project Part B contract.
In January 2021, Micro Transit launched revenue service operations.

Logistical Overview

Micro Transit Riders book a ride via the Micro app, online, or by calling 323 Go.Metro with a fare cost of $1 per trip.

The original Micro Transit Launch Schedule per zone was as follows:

January 2021
- Watts/Willowbrook
- LAX/Inglewood

June 2021
- El Monte
- North Hollywood/Burbank
- Compton/Artesia

August 2021
- Altadena/Pasadena/Sierra Madre
- Highland Park/Eagle Rock/Glendale
- Northwest San Fernando Valley

September 2021
- UCLA/Westwood/Century City

GAGAS Compliance Statement

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards and the International Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.
Executive Summary

**Objective**

To assess Shared Mobility’s efforts in managing the Micro Transit Pilot Project.

**Scope**

Areas of focus included:

- Key performance indicators

- Activities for managing the contract and corrective action plans, specifically as related to select portions of the following sections of the contract with the prime contractor:
  - Task 2 - Operations
  - Task 3 - Data Management

The focus of this audit was on the monitoring activities of the Micro Transit team under Shared Mobility. Testing compliance of the contractor with the terms and conditions of the Micro Transit contract was not the focus of this audit. However, instances of lack of compliance that were noted from the work done by MAS have been noted in this report.

**Conclusion**

The Micro Transit Pilot Project’s internal controls were generally not given the needed attention during the Pilot Project life cycle. Both Metro and the contractor have a role in ensuring that there are adequate internal controls undergirding the pilot project, but Metro has the primary responsibility for ensuring this.

While the Micro Transit team under Shared Mobility appears to have made some recent efforts to implement some internal controls into the Micro Transit Pilot Project, these efforts should have occurred earlier in the project lifecycle to help optimize pilot project performance.

The Micro Transit team cited a lack of adequate personnel resources and a lack of contractor compliance with elements of the contract as hindrances to designing and implementing internal controls. Notwithstanding, more could have been done by the Micro Transit team to design and implement internal controls that supported the achievement of pilot project goals.

MAS noted 9 findings and 10 recommendations.
Summary of Results

Favorable Conditions Noted

The Micro Transit team was cooperative with the MAS audit team and was forthcoming about where gaps existed in the existing Micro Transit Pilot Project processes and in responding to MAS inquiries about the Pilot. It appeared to MAS that the Micro Transit team was hardworking and made the delivery of the core transit services to riders the central focus. In addition, the Micro Transit team expressed interest in any feedback that could be provided by MAS on how the internal control processes supporting the Pilot could be improved, including any modifications that should be considered for future procurements that would support Micro Transit.

It should be noted that during the audit, at the request of the Chief Operations Officer, the Micro Transit Pilot Project Manager prepared a Summary of Major Challenges and Corrective Actions under Contract No. PS42692001. This document was dated November 7, 2022, and addressed to the Chief Operations Officer and the Deputy Chief Operations Officer, Shared Mobility. A copy of this memo was provided to MAS by the Micro Transit Project Manager. This document was prepared after MAS had provided the Micro Transit team with a detailed questionnaire inquiring about the internal controls supporting the Micro Transit processes in October 2022, and before the responses to the questionnaire were received by MAS in November 2022.

Areas Requiring Attention

According to the Micro Transit Project Manager, an overriding focus on execution and service delivery at project inception under prior Operations senior leadership contributed to an inadequate control environment where service delivery was prioritized above all else, including building internal controls into the various processes undergirding the Pilot Project. MAS was unable to interview prior Operations senior leadership to gain their perspective about this. However, this audit confirmed that the building in of internal controls into the various processes supporting Micro Transit was not given the attention needed by the Micro Transit team.

The Micro Transit team frequently cited the contractor’s apparent lack of compliance with certain Micro Transit contract conditions as a contributing factor to an inadequate control environment surrounding the Pilot Project. As noted elsewhere in this report, the compliance of the prime contractor with contract terms and conditions was not the focus of this audit. While recognizing that lack of compliance by a contractor in any situation undermines a strong control environment, it is still the primary responsibility of the Metro Micro Transit team to ensure that
adequate internal controls are built into the supporting processes. This is the premise on which the MAS observations included in this audit report are based.

MAS noted the following during the audit:

- The Micro Transit team did not develop and implement monitoring practices to verify whether maintenance was being performed by the contractor.
- The Micro Transit team did not develop and implement monitoring mechanisms to verify whether the contractor was performing vehicle inspections, in a timely manner to ensure that vehicles were in safe working conditions for revenue service and consistent with Metro standards and applicable motor vehicle laws and regulations.
- The Micro Transit team did not have documented procedures to oversee the contractor’s control over the proper fueling & charging of electric vehicles.
- The Micro Transit team did not formally approve the contractor’s Electric Vehicle training materials as required by the contract.
- The Micro Team did not independently perform its own evaluation of the Micro Transit Pilot Project (MTP) Zone Parameters.
- The Micro Transit team operated the project without formal Standard Operating Procedures (SOPs) for maintenance, Inspections, or Operations in place.
- The Micro Transit team did not have oversight of data collected by the contractor, including inventory and safeguarding of data. In addition, customer data collected by the contractor may not have been sufficiently safeguarded.
- The Micro Transit team did not monitor and assess agreed-upon Key Performance Indicators (KPI) to ensure the success of various aspects of the pilot project.
- The Micro Transit team did not sufficiently oversee the contractor’s enhancements and remediations to the project.
Audit Results

General Assessment

In general, MAS found that the Micro Transit team under Shared Mobility did not sufficiently monitor the Micro Transit Pilot project’s internal controls during the entire pilot life cycle. While Metro and the prime contractor are jointly responsible for performing tasks to enable service delivery under the pilot, the Metro Micro Transit team has the primary responsibility for monitoring to ensure that adequate controls are designed and built into the processes undergirding the Micro Transit Pilot and working as they are supposed to be. While Shared Mobility appears to have made efforts since the Summer of 2022 to implement some level of internal controls into the Micro Transit Pilot project, these control mechanisms are relatively new and should have been adopted earlier in the life of the pilot project. Their late adoption likely impacted the performance of the pilot project. The Micro Transit team cited a lack of adequate personnel resources and a lack of contractor compliance with elements of the contract as a hindrance to designing and implementing internal controls. Notwithstanding, more could have been done by the Micro Transit team to design and implement internal controls that supported the achievement of pilot project goals.

The MAS findings for this audit are organized into the following areas:

1) Vehicle Maintenance
2) Vehicle Inspections
3) Vehicle Fuel and Charging
4) Training
5) MTP Zone and Parameter Adjustments
6) SOPs for Maintenance, Inspection, and Operations
7) Data Collection\Monitoring and Safeguarding
8) Service KPIs and Incentive and Deduction Regimes
9) Enhancements\Monitoring and Remediation

MAS relied on the guidance found in the Standards for Internal Control in the Federal Government (“The Green Book”) published by the United States Government Accountability Office as the criteria for this audit. The Green Book includes a complete internal control framework that includes principles and attributes that guide managers in the federal government in the development of internal controls for incorporation into the programs that they manage. Relevant excerpts from the Green Book that were used in evaluating the Micro Transit Pilot Project’s internal controls are included in Appendix C of this audit report.
Effects of an Immature Internal Control Structure and Insufficient Monitoring

Numerous conditions were noted that were a result of the lack of a mature and robust internal control structure undergirding the Micro Transit Pilot Project. These conditions are described in the findings that follow.

Finding 1: Vehicle Maintenance

The Micro Transit team did not design and implement monitoring practices to verify whether maintenance was being performed by the contractor.

The Micro Transit team did not have formal procedures to confirm that the contractor was performing maintenance on the Micro Transit vehicles, including verifying that the maintenance was being done in line with applicable laws and regulations and all recommendations by the Original Equipment Manufacturer.

Some examples of Ford’s monthly OEM recommendations include servicing engine oil levels, checking the function of all interior and exterior lights, checking the conditions of tires, the windshield, etc.

The Micro Transit Contract states the following for Task 2A - Vehicle Procurement and Maintenance: Contractor shall secure new vehicles to be leased, maintained, and serviced by the Contractor’s team for the Micro Transit Pilot (MTP) service in accordance with the procedures developed as described in items F and G below.

F. Procedures for Procurement and Acceptance of Vehicles: Metro will have final approval rights regarding terms and conditions, with final approval to be provided following the award of Part B by the Board. Contractor shall provide all such agreements, including terms and conditions for vehicle acquisition, servicing (maintenance, cleaning, fueling/electrifying), reporting location(s)/vehicle storage site(s), for review as requested by Metro within and following the pilot period.

G. Standard Operating Procedures (SOP) for Maintenance, Inspection, and MTP Operations, see Finding #6.

According to the Micro Transit team, monitoring practices to oversee the contractor were not in place to verify that maintenance, including the OEM maintenance/inspections on the Micro Transit vehicles, was being performed by the contractor.

The Micro Transit team stated that this was due to staffing shortages, the constant opening of new zones and not having access to the Fleetio Application used by the contractor, which featured upcoming vehicle maintenance reminders. However, the Micro Transit team does in fact have access to the maintenance reports in the application. In addition, not having formal
SOPs that defined the maintenance intervals for the Micro Transit vehicles prevented the Micro Transit team from knowing the type of maintenance provided to the vehicles by the contractor, for example, normal, medium, or heavy usage. These SOPs were documentation the contractor had been required to provide to Metro pursuant to the contract. The contract did not appear to state a due date for submission of the SOPs to Metro (the lack of complete, approved SOPs received from the contractor is discussed in more detail in finding #6). In addition, the Micro Transit team represented to MAS that the contractor did not have a dedicated fleet manager for the maintenance functions as indicated by Schedule B-2 Part B Pricing Schedule – Labor, of the contract.

MAS recognizes that these conditions affected the ability of the Micro Transit team to monitor, but more could still have been done to ensure that maintenance was being performed on the Micro Transit vehicles, including developing its own maintenance oversight policies and procedures.

The lack of a formalized monitoring process by the Micro Transit team to ensure that maintenance was being performed on the vehicles reduced the assurance that the vehicles being used in the provision of services were operating at optimal conditions, which could result in safety and reputational risks to the agency. This lack of sufficient monitoring also resulted in the Micro Transit team not knowing how many vehicles were out of service at any given time and on any given day due to maintenance issues and whether it impacted revenue service.

Corrective Actions Initiated During the Audit

- The Micro Transit team will be setting up Administrator access rights to the existing Fleetio account which is currently being administered by the contractor. However, no target date was provided to MAS.
- In October 2022, Metro Non-Revenue Department initiated an evaluation of Micro Transit vehicles at the direction of the Chief Operations Officer.
- Micro Transit team engaged Vendor Contract Management due to the contractor’s failure to make accessible inspection and maintenance records.
- Issue Statement of Work for year three of the Micro Transit Pilot Project to include two Project Coordinators responsible for Task 2

Recommendations: See the recommendation section of this report:

- Fleetio: 1 and 1(a)
- Procedures: 2(a)
- Metro Maintenance Operations: 3(a)
Finding 2: Vehicle Inspections

The Micro Transit team did not design and implement monitoring mechanisms to verify whether the contractor was performing vehicle inspections, in a timely manner to ensure that vehicles were in safe working conditions for revenue service and consistent with Metro standards and applicable motor vehicle laws and regulations.

The Micro Transit Contract states the following for Task 2B – Vehicle Inspections: “Contractor shall be responsible for the timely inspection of vehicles to ensure that vehicles are in a safe working condition consistent with Metro standards in accordance with the procedures developed as described below. Contractor shall ensure that all vehicles comply with (or are exempt from) applicable motor vehicle laws and regulation, including California emission requirements and Federal Motor Vehicle Safety Standards.”

This condition occurred because as of November 2022, the contractor had only recently submitted SOPs which were still in draft form. This made monitoring more challenging (the lack of complete, approved SOPs received from the contractor is discussed in more detail in finding #6 of this report). As a result, vehicle readiness for service deployment may have been impaired and vehicle safety potentially compromised.

Recommendations: See the recommendation section of this report:
- Fleetio: 1(a)
- Draft SOPs: 4(a), 4(b), 4(c)

Finding 3: Vehicle Fuel and Charging

The Micro Transit team did not have documented procedures to oversee the contractor’s control over the proper fueling & charging of electric vehicles.

The Micro Transit project team relied on its own ad-hoc procedures to determine whether vehicles were available for morning rollout, including determining the fuel level and charging of the vehicles. If there was a need for a charge of a vehicle, a member of the Micro Transit team emails the Micro Transit leadership team and the contractor to communicate the issue found. While this is an acceptable supplemental mechanism, formalized monitoring procedures to ensure that vehicles in the Micro Transit Fleet are being properly fueled or charged prior to morning deployments were lacking. For example, The Micro Transit team process should consist of reviewing a list of vehicles with reasons for not rolling out due specifically to electrification or low fuel level.
The Micro Transit contract states under Task 2C - Vehicle Storage & Fuel/Charging the following: “Contractor shall be responsible for the storage, fueling and/or charging of all leased vehicles, in accordance with the Standard Operating Procedures.”

The Micro Transit team stated that the condition occurred because a staff member had not been assigned to monitor and enforce contract provisions related to vehicle fueling and charging. In addition, finalized SOPs from the contractor related to vehicle fueling and charging of vehicles have not yet been approved by Metro, hindering, though not preventing, increased monitoring efforts by the Micro Transit team (the lack of complete, approved SOPs received from the contractor is discussed in more detail in finding #6).

As a result, vehicles may be low on fuel or charge and unable to be placed into revenue service or may be pulled out of active revenue service. From inquiry of Micro Transit staff, MAS confirmed that this had happened at times. MAS was unable to quantify the situation because the Micro Transit team does not track vehicles placed out of service as a result of low fuel or charging issues.

Corrective Actions Initiated During the Audit

The Micro Transit team intends to implement the following planned corrective actions:

- Establish the “6/24” Service Interruption Procedure to be performed by the Micro Transit team.
- Issue liquidated damages or deductions in year three and secure agreement with Sheet Metal Air Rail Transportation - Transportation Divisions (SMART-TD) for new work for Micro Operators to directly fuel and electrify fleet.

Recommendations: See the recommendation section of this report:

- Procedures: 2(b), 2(c), 2(d)

Finding 4: Training

The Micro Transit team did not formally approve the contractor’s Electric Vehicle training materials.

The Micro Transit contract states under Task 2D – Training: “Contractor shall provide initial and ongoing training materials, modules, and workshops for Metro employees who will be operating vehicles and related training personnel. Contractor shall work with Metro to determine training schedule and related materials, utilizing industry standards and best practices. Training shall include operating the vehicle, vehicle hardware, vehicle software, pick-up and drop-off of customers, safety considerations for on-demand operations, and the use of...
the software application. County properties, Metro facilities, and/or Reporting Location(s)/Vehicle Storage Site(s) may be used for training Metro operators, personnel.”

Additional criteria relevant to this area is found in the Micro Transit Contract within Task 1I - Training Materials: “Contractor shall produce all mock-ups of training materials for review and revision by Metro. Metro must provide approval to produce final content such as training modules, materials for the agency. Contractor shall submit to Metro all final materials by September 1, 2020.”

MAS found that the Micro Transit team had not formally approved the Electric Vehicle (EV) training provided by the contractor. Although the contractor has published a quick guide, it has not been approved by Metro.

This condition occurred because the Micro Transit team did not find the draft EV training materials provided by the contractor to be complete and had not set a timetable for when to finalize approval of the materials.

As a result, operators of the Micro Transit fleet vehicles may have been operating the vehicles without adhering to Metro’s Safety Standards thereby potentially jeopardizing operators’ and customers’ safety.

Corrective Actions Taken During the Audit - In Progress
Micro Transit Team represented to MAS that they intend to implement:

- In November 2022, the Micro Transit team developed the Metro Micro Operator Training Plan, this is a five-week training plan for newly hired Micro Transit operators.

Recommendations: See the recommendation section of this report:

- Procedures: 2(g)
- Metro OCI: 5
Finding 5: MTP Zone and Parameter Adjustments

The Micro Transit team did not perform its own evaluation of the Micro Transit Pilot Project (MTP) Zone Parameters.

The Micro Transit contract states under Task 2E – MTP Zone and Parameter Adjustments: Contractor shall advise Metro on adjustments to increase utilization, which include adjusting the MTP Zones and parameters (but not performance metrics). Contractor shall be responsible for producing all additional communications materials required as a result of adjustments to the MTP Zone design. Adjustments may include implementation of a new MTP Zone to replace an existing MTP Zone...”

The contractor provided MTP Zone parameter adjustment recommendations to the Micro Transit project team in May 2022. However, the Micro Transit team has not yet performed its own evaluation of the Micro Transit Zone Parameters since they have limited access to the underlying data.

As a result, adjustments that could have potentially increased utilization of the Micro Transit service were not considered or adopted in a timely manner.

Recommendations: See the recommendation section of this report:

- Independent Evaluation by Micro Transit Team: 8

Finding 6: Standard Operating Procedures for Maintenance, Inspections and Operations

The Micro Transit team operated the project without formal SOPs for maintenance, Inspections, or Operations in place.

The Micro Transit contract states under Task 2G – Standard Operating Procedures for Maintenance, Inspection, and MTP Operations: “Contractor shall refine standard operating procedures of service including facilities, storage and maintenance of vehicles building upon the Part A deliverable and obtain Metro’s written approval of said procedures. As identified and communicated by Metro, Contractor shall comply with applicable standard operating procedures for Metro. Applicable Metro SOPs will be provided to the contractor no later than September 2020. Contractor shall be responsible for maintaining vehicles in-line with applicable laws and regulations and all recommendations by the Original Equipment Manufacturer. Contractor shall provide Metro access to all documentation regarding the maintenance and inspections performed on the MTP leased fleet. Metro shall retain the ability to inspect all vehicles used for the service at any time during the pilot period for Part B. Contractor shall host
Metro for pre-launch walk-throughs of all Reporting Location(s)/Vehicle Storage Site(s) for servicing vehicles prior to the operator training for each deployment. SOPs must incorporate and address incident reporting concerning physical safety and security as well as public health conditions.”

As of December 2022, the Micro Transit team and the contractor have yet to reach a formal agreement regarding SOPs for Maintenance, Inspections, and Operations for Micro Transit. It appears that for a good portion of the revenue service operations period of the Micro Transit Pilot Project, the pilot operated without the support of formally approved SOPs describing the contractor’s procedures for their activities. The contractor submitted a draft of SOP procedures in November 2022; however, final approval is still pending from the Micro Transit team.

The Micro Transit team represented to MAS that it was short-staffed and immersed in servicing new and existing zones, causing monitoring and enforcement activities to have secondary importance.

As a result, pilot activities may not have been executed efficiently and effectively.

Corrective Actions Taken During the Audit - In Progress

The Micro Transit team represented to MAS that they intend to implement the following to improve the contractor’s performance:

- Issue Statement of Work (SOW) for year Three with Project Manager Standards and SOPs as Exhibits
Recommendations: See the recommendation section of this report:

- Draft SOPs: 4 (c), 4(d)
- Contract Option and Modification: 7

Finding 7: Data Collection \ Monitoring and Safeguarding

The Micro Transit team did not properly oversee the data collected by the contractor, including inventory and safeguarding of data. In addition, no supporting documentation was provided to MAS that customer data collected by the contractor was sufficiently safeguarded.

The Micro Transit contract states under Task 3A - Data Collection: “Contractor shall be responsible for tracking and monitoring data such as origin, destination, time of day, route, age, gender, race/ethnicity, and the income level/household size in the data portal established in Part A. All project data related to testing and Revenue Service Operations (RSO) to be stored in data portal as outlined in Part B Proposals.”

The Micro Transit contract states under Task 3B - Data Monitoring and Security: “Contractor shall work with Metro to ensure that data collected is anonymized and properly stored so that it is secure and accessible only to authorized Project staff. Metro will set and execute all arrangements for sharing project data with publicly funded agencies, departments, and governmental bodies. Metro will retain administrator level access throughout the pilot and for three years after the completion of RSO.”

Additional relevant contract provisions also include the following:

**SP-21-C Storage Transmission, and destruction of Metro Data:** All Metro Data shall be rendered unusable, unreadable, or indecipherable to unauthorized individuals. Without limiting the generality of the foregoing, Contractor shall encrypt (i.e., National Institute of Standards and Technology (NIST) Special Publication (SP) 800-111, Guide to Storage Encryption Technologies for End User Devices) all Metro Data (stored and during transmission).

**Micro Transit Contract Task 1F - Software/Technology Training:** Contractor shall provide training for Metro employees and consultants as needed on software/technology platform and all hardware internal or externally retrofitted to the leased vehicles (e.g., cameras).

MAS noted that the contractor did not collect demographic information of Micro Transit riders, which includes customers’ age, gender, race/ethnicity, income level, and household size as required by the contract. It is important to note that in the September 2022 Metro Board meeting, some Board Members indicated that demographic information of Micro Transit was critical to support their decision-making concerning the future of the Micro Transit Pilot Project.
In addition, the contractor collects Metro rider data in the delivery of the Micro Transit service. The contractor established NIST-800-513, an information security framework for the safeguarding of data. However, up until the time of this audit, the Micro Transit team was not verifying if the contractor was following its own policies as it relates to the safeguarding of Metro rider data being collected.

The above condition occurred because the Micro Transit team did not closely oversee the data being collected by the contractor, have an inventory of such data, or know to what extent such data was being safeguarded. Additionally, there was no confirmation that the contractor was adhering to NIST-800-513.

As a result, information critical for decision-making by Metro Management and the Board was not readily available, and other pilot project data may not have been collected and safeguarded as required by the Micro Transit contract.

**Recommendations:** See the recommendation section of this report:

- Procedures: 2(e)
- Other recommendation: 10

**Finding 8: Service KPIs and Incentive and Deduction Regimes**

The Micro Transit team did not monitor and assess agreed-upon KPIs to ensure the success of various aspects of the pilot project.

The Micro Transit contract states under Task 3C - Service KPIs and Performance Measurement Plan: “Throughout Part B, the Contractor will monitor and assess agreed upon KPIs to ensure the success of various aspects of the pilot project, such as ridership, safety, time, and customer experience/satisfaction. This performance measurement plan will initially involve implementation of the deductions regime set forth in Exhibit B, Schedule B-9. During the first year of the RSO Period, Contractor will work with Metro to develop a revised deduction regime addressing KPIs relevant to the RSO Period and an incentive regime with incentives capped at $350,000 (with an amount not to exceed $100,000 allocated to the second year of RSO and an amount not to exceed $250,000 allocated to the third year of RSO) to ensure the success of the operators, routes, and software. Metro will prioritize the KPIs. The regime should build upon worksheets within Part A and the Part B proposals as applicable. The revised MTP incentive/Deduction Regime, if approved by Metro, will become effective starting on the later to occur of the first day of RSO year 2 or the date that all MTP Zones included in the Supplemental Contract have been deployed.”
When incentive regimes are properly structured, they can motivate the contractor to perform at a higher level. Under an incentive structure, the contractor can earn more by exceeding performance thresholds or reducing risks.

The Micro Transit team did not monitor the contractor for service KPIs or implement revised incentive and deduction regimes based on revised KPIs. The Micro Transit team did not come to an agreement with the contractor about the revised KPIs that would be the basis for the revised incentive and deduction regimes. The Micro Transit team indicated that the contractor’s proposed KPIs were too low for consideration.

As a result, an opportunity was missed for an arrangement where the contractor could be rewarded or penalized based on its operational performance.

The Service Performance Analysis team and the Micro Transit team developed KPIs for the Micro Transit Pilot Project which were approved by Metro’s Chief Operations Officer on October 25, 2022.

**Recommendation:** See the recommendation section of this report:

- Independent Evaluation by Metro Micro Transit Team: 9

**Finding 9: Enhancements \Monitoring and Remediation**

Potential enhancements to the pilot project did not appear to be provided to the Micro Transit team in a timely and consistent manner by the contractor over the pilot project lifecycle, and the Micro Transit team was unable to oversee the contractor’s data analytics related to service delays, route issues, and customer satisfaction for remediation purposes.

The Micro Transit contract states under Task 3D - Enhancements: “Throughout the pilot, the contractor will utilize the data-supported analyses to determine when service enhancements exist, and how to best implement service improvements. Contractor will be responsible for communicating these enhancements on a weekly basis to Metro’s Micro Transit Operations. The enhancements will need to be communicated in writing and accepted in writing by the designated Metro employee.”

The Micro Transit contract states under Task 3E - Monitoring and Remediation: “Contractor will monitor any service delays, route issues, or customer dissatisfactions and implement a plan to remediate any related issues or challenges. Contractor’s plan will be approved by Metro to ensure consistency with other Metro Operations and programs. Metro anticipates safety incidents to be dealt with promptly and swiftly, and some incidents such as accidents, assaults, and criminal activity will require immediate action in-line with Metro’s existing Operations.”
The contractor had not recommended any enhancements prior to April 2022. In May 2022, the contractor did provide the Micro Transit team with some enhancement recommendations, but these were limited to suggested zone parameter adjustments. These were reviewed by Metro and implemented during the months of July and August of 2022. There was not any evidence that other recommended service enhancements had been provided by the contractor.

Also, the Micro Transit team did not oversee the contractor’s practices to remediate any service delays, route issues, or customer dissatisfaction, nor did the contractor implement a plan to remediate the challenges.

The above conditions were due to the contractor incorrectly believing that the ride feedback rating average provided sufficient feedback about Micro Transit performance. Also, the contractor did not analyze customer complaints submitted to the Micro Transit Application. Further, the contractor did not provide the Micro Transit team with data analytics related to service delays, route issues, and customer satisfaction, which in turn was due to the Micro Transit team not having a formal procedure to oversee whether the contractor was properly performing the tasks required by the contract.

As a result, opportunities to optimize the operating effectiveness of the project through contractor-identified enhancements and remediation efforts may have been missed by the Agency.

Recommendations: See the recommendation section of this report:

- Procedures: 2(f)
- Contract Option and Modification: 6
Recommendations

The Chief Operations Officer should direct the Micro Transit project team to implement the following recommendations:

Fleetio

1. Follow through on obtaining Administrator access rights to the existing Fleetio account and make use of the features that can further assist the Micro Transit team to enhance the monitoring of the maintenance condition of its vehicle fleet.
   a) Integrate into Fleetio or another database a complete record of all maintenance work performed on Micro Transit vehicles, as well as a record of vehicles’ out-of-service and a description of OEM recommendations/preventative maintenance, including past due maintenance.

Management Response: The Micro Transit management agrees with the recommendations.

Operations stated that the Metro Micro management team members have access to the Fleetio application and can see the vehicle maintenance records down to the inspection forms and receipts for the service performed. Metro will implement a Mean Miles Between Mechanical Failures (MMBMF) measure for every 10,000 miles.

Anticipated Completion Date: May 2023

Procedures

2. Develop written procedures and implement the following:
   a) monitoring follow-up procedures for maintenance activities.
   b) track vehicles placed out of service as a result of low fuel or charging issues.
   c) formal monitoring procedures for the contractor’s vehicle, fuel/charging practices.
   d) finalize implementation of the following: (i) Establish “6/24” Service Interruption Procedure, and (ii) Issue Liquidated Damages or Deductions in Year three and secure agreement with SMART-TD for new work for Micro Operators to directly fuel and electrify fleet.
   e) periodic checks of the data that is being collected of the contractor, as required by the contract.
   f) a process to ensure that the contractor is identifying and addressing service delays, route issues, and customer satisfaction timely and providing evidence of this to the Micro Transit team.
   g) formalize and approve the training provided by the contractor for Electric Vehicles.

Management Response: The Micro Transit management partially agrees with the recommendations.
Operations agreed with the recommended actions except for those described in recommendation 2d(ii) above. Operations stated that given the constricted timeline for Year 3, the pilot nature of the program, and the need to work with SMART on modifying their CBA, the contractor will remain responsible for fueling and charging vehicles. If the program becomes permanent, steps will be taken to work with SMART for fueling/charging.

Operations also stated that regarding liquidated damages, the contract identifies the application of liquidated damages so written procedures are superfluous and/or in conflict with the Contract.

**MAS Comments:** It should be noted that the MAS recommendation related to SMART operators fueling/charging vehicles was based on a November 2022 communication prepared by the Micro Transit team and addressed to the Chief Operations Officer that described various corrective actions and improvements that the Micro Transit team would pursue. However, MAS considers the alternate actions as described in the response to be adequate.

Concerning liquidated damages, the MAS recommendation was intended to encourage the Micro Transit team to follow through on actions that the team itself had described that it would be taking in the November 2022 communication to the Chief Operations Officer. However, MAS defers to the Micro Transit team when and if to apply liquidated damages as permitted by the Micro Transit contract. As noted in the Operations response to recommendation 8 of this audit report, the Micro Transit team intends to apply liquidated damages as appropriate during the six-month pilot extension period of April 2023 – September 2023.

**Anticipated Completion Date:** All but SMART operator fueling/charging to be done by May 2023. For recommendation 2(d) (ii) relating SMART operator fueling/charging, action on this is contingent on the program transitioning to permanent status, so this area will be revisited in December 2023.

**Metro Maintenance Operations**

3. Seek Metro Maintenance Operations expertise to assist the Micro Transit team:
   a) to assess the condition of Micro Transit vehicles by performing periodic inspections.
   b) with the review and approval of the draft SOPs for vehicle inspection.

**Management Response:** The Micro Transit management partially agrees with the recommendations.

Metro Maintenance Operations experts have completed an inspection and review of the Contractor’s maintenance procedures. The recommendations have been submitted under a revised SOP for the option year and contractor has implemented the recommendations to increase the frequency of vehicle inspection and maintenance from the recommended OEM
normal standard to severe operating conditions. The new MMBMF measure and tracking service cancellation due to vehicles out of service will be sufficient factors to indicate the readiness conditions of the vehicle for service. The final SOPs for vehicles inspection will be approved at the April 2023 6-month contract extension agreement.

**MAS Comments:** MAS considers the action taken and proposed by Operations in response to this recommendation to be adequate to satisfy the intent of this recommendation.

**Anticipated Completion Date:** May 2023 and ongoing through May 2024.

**Draft SOPs**

4. For the draft SOPs:
   a) establish a timeframe to finalize the approval of the draft SOPs for vehicle inspections, and
   b) clarify roles and responsibilities of the contractor regarding timely vehicle inspections.
   c) establish a definitive timeline for finalizing the review and approval of the SOPs for inspections, maintenance, and Operations.
   d) seek guidance and input from other Metro departments, such as Bus Operations, regarding the adequacy of the draft SOPs submitted by the contractor.

**Management Response:** The Micro Transit management partially agrees with the recommendations.

The draft SOP was approved by both Metro and the Contractor in February 2023, including clarification of roles and responsibilities. The Metro Operations department has been engaged in providing direction since summer 2022. The Micro Transit team and contractor will finalize and approve the SOP for the April 2023 6-month extension, upon Board approval.

**Anticipated Completion Date:** April 2023

**Metro OCI**

5. Obtain assistance from Metro OCI on the Metro Micro Operator Training Plan for the newly hired Micro Transit operators, for final approval from OCI and Micro Transit.

**Management Response:** The Micro Transit management agrees with the recommendation.

Metro’s OCI department had been involved in overall training from the outset. Their role became limited at the request of Micro’s project manager. However, as of January 2023, OCI is leading the training effort and providing input on all facets of Micro training.
MAS Comments: MAS accepts the response from Operations subject to follow-up of this area as part of the open audit recommendation follow-up process.

Anticipated Completion Date: January 2023 per Operations; June 2023 per MAS

Contract Option and Modification
6. Develop a plan to work with V\CM to enforce the contract for year three and subsequent of the pilot program, as it relates to data-supported analyses to determine when service gaps exist and how to best remediate these gaps timely.

Management Response: The Micro Transit management agrees with the recommendations.

Metro has been working with the contractor to determine service gaps and mitigation measures to address the gaps in an agile fashion. The Micro team will develop a timeline to address all service gaps upon occurrence with V/CM in a timely fashion and provide all supporting documentation for contractual enforceability.

Anticipated Completion Date: May 2023

7. Finalize implementation of the following planned action: Issuance of the year Three SOW with Project Manager Standards and SOPs as exhibits.

Management Response: The Micro Transit management agrees with the recommendation.

SOW and SOP are part of the April 2023 6-month Contract Modification. The SOW and SOPs have been issued to Contractor and undergoing final revisions and negotiations to incorporate into Contract Modification No. 10 as Exhibits.

Anticipated Completion Date: April 2023

Independent Evaluation by Metro Transit Project Team
8. Prepare an evaluation of the MTP zone parameters to see if these should be adjusted to increase utilization.

Management Response: The Micro Transit management agrees with the recommendations.

Operations leadership and staff have worked closely with the Contractor to better understand how the software works since the Pilot began. Zone optimizations to Contractor’s software began in July 2022 and focused in 1) On-Board Time, 2) Time Snapping, 3) Frequency Variation, 4) Booking Limitations, and 5) Stop modification, currently on-going to improve customer safety, reliability and increase productivity.
Anticipated Completion Date: Ongoing

9. Assess and implement the incentives and deduction regimes.

Management Response: The Micro Transit management partially agrees with the recommendations. The incentive regime will not be enforced in the April 2023 6-month extension as performance targets were not agreed to or discussed during Year 1 or Year 2. This is partly due to limitations of operating under the COVID-19 pandemic in Year 1. As a result, there wasn’t sufficient or accurate data to establish true performance targets to enforce the incentive regime. For the deductive regime, the Deductive Regime Incident Schedule is mostly related to incidents applicable to Pre-Revenue Service Operations. However, the other remaining incident deductions (8) are applicable to the April 2023 6-month extension and able to be enforced during the extension. Liquidated Damages will also be assessed during the extension for performance failures that will impact Micro’s RSO operations and delivery service.

MAS Comments: Operations’ planned actions as described above satisfy the intent of the MAS recommendation.

Anticipated Completion Date: Ongoing

Other recommendation
10. Request that the Information Technology unit review the contractor’s security policy for appropriateness, and test for adherence to such policy, including inspecting training records, as required.

Management Response: The Micro Transit management agrees with the recommendations. The Metro Micro team will request IT to perform a security policy review for the current protocol again. Note that the IT Security team was involved and in discussions with contractor during initial implementation of the Contract.

Anticipated Completion Date: August 2023

Lauren Choi
DEO, Administration (Interim)
Management Audit Services
June 2023
Audit Team: Shanakay Brandford
    Lizzette Espinoza
    Laura Gomez
    Alfred Rodas
Appendices
Methodology

MAS performed the following to determine whether Micro Transit Team had proper procedures to oversee and monitor the contractor’s performance in accordance with the contract:

Micro Transit Pilot Project for select sections of Task 2- Operations:

1. Interviewed key personnel of the Micro Transit Team.
2. Analyzed Task 2 selected deliverables for the Micro Transit Contract -Part B.
3. Inquired about and requested Policies and Procedures related to Task 2 deliverables.
4. Conducted walkthroughs with Micro Transit Team over their oversight responsibilities for Task 2 (a-g) deliverables.
5. Analyzed internal controls and recommended to address control weaknesses.

The contractor’s deliverables over **vehicles maintenance, and services:**

1. Verified whether the Micro Transit Team had proper procedures in place to confirm that the contractor is performing maintenance activities as preventive.
2. Verified whether the Micro Transit Team has access to the preventive maintenance reminders via Fleetio.
3. Inquired if the Micro Transit Team was aware of whether preventive maintenance was being performed by the contractor on standard or heavy usage intervals.
4. Inquired about and requested reports that track vehicles that are out of service and performed analyses such as the number of days a vehicle is out of service, corrective actions taken by the contractor and/or Micro Transit Team, cause for vehicles being out of service, and any impact to revenue service.

The contractor’s **timely inspection of vehicles,** and whether **vehicles were being kept in a safe working condition** consistent with Metro standards:

1. Inquired and requested the Micro Transit Team procedures to monitor work performed by the prime contractor, onsite (Micro Transit location) versus a third party, offsite.
2. Performed walkthroughs of the Micro Transit Team’s practices to monitor the contractor’s timely inspections.

The **storage, fueling, and charging of vehicles per SOPs:**

1. Inquired about and requested the Micro Transit Team’s procedures to monitor the contractor over the storage, fueling, and charging of vehicles. The Micro Transit Team verbally described and also detailed in written responses to MAS inquiries their practice on how they monitor the fueling and electrification of the vehicles.
2. Verified whether there were SOPs developed by the contractor that were approved by the Micro Transit Team.
3. Inquired about and requested a report listing vehicles out of service due to fueling and electrification and assessed any impact on revenue service.

The contractor's initial and ongoing training materials, modules, and workshops for new operators:

1. Inquired about and requested from the Micro Transit Team their procedures to monitor the contractor’s initial operators’ training, including training materials, modules, etc.
2. Inquired about and requested from the Micro Transit Team approval of the contractor’s training materials, module, etc.
3. Inquired whether the OCI department has a role in the training of newly hired operators.
4. Inquired whether a refresher training program is in place for the operators.

To determine whether the contractor’s SOPs were maintained current, the MAS team:

1. Verified whether there were approved SOPs for maintenance, services, operations, and fueling/electrification.
2. Inquired about and requested from the Micro Transit Team’s process to monitor the contractor’s refinement of SOPs.
3. Inquired of Micro Transit Team the current practice, in the absence of contractor or Micro Transit Team SOPs.
4. Inquired of the Micro Transit Team about the current practice specific to facilities, storage, and maintenance of vehicles.
5. Inquired whether the Micro Transit Team had developed its own SOPs for project oversight of the pilot project.

To assess to what extent Shared Mobility measured progress and ensured the continued success of the Micro Transit project, the MAS team:

1. Reviewed the contract for KPIs stipulations.
2. Inquired for revisions to the KPIs and methodology used.

To determine if the Micro Transit team had oversight of data collection, the MAS team:

1. Reviewed the contract for data collection stipulations.
2. Inquired with the Micro Transit Team on the population and type of customer data being collected by the contractor.
3. Obtained an understanding of the Micro Transit Team’s monitoring practices over the contractor’s procedures to ensure that data collected is properly safeguarded and to adhere to any regulatory requirements.

To determine whether the contractor 1) submitted any service enhancements and improvements, and 2) monitored any service delays, route issues, or customer dissatisfactions:

1. Reviewed the contract for data-supported analysis requirements.
2. Reviewed the latest recommendations proposed by the contractor and verified Micro Transit Team’s acceptance.
3. Inquired whether the Micro Transit Team had performed analyses and proposed any enhancements to the pilot project.
4. Inquired whether the Micro Transit Team oversees customers’ complaints including the contractor’s activities over customers’ complaints, resolutions, response time, etc.
Management Response

Interoffice Memo

Date: February 9, 2023

To: Lauren Choi, DEO, Administration (Interim)
    Management Audit Services

From: Conan Cheung, Chief Operations Officer

Subject: Management Response for the Performance Audit of the Micro Transit Pilot Project Report No. 22-OPS-P01

Recommendation #1: Follow through on obtaining Administrator access rights to the existing Fleetio account and make use of the features that can further assist the Micro Transit team to enhance the monitoring of the maintenance condition of its vehicle fleet.
   A. Integrate in Fleetio or another database a complete record of all maintenance work performed on Micro Transit vehicles, as well as a record of vehicles’ out of service and a description of OEM recommendations/preventative maintenance, including past due maintenance.

Management Response: Agree

Metro Micro management teams have access to Fleetio application that we can see the vehicle maintenance records down to the inspection forms and receipts for the service performed. Metro will implement Mean Miles Between Mechanical Failures (MMBMF) measure for every 10,000 miles.

Anticipated Completion Date: May 2023

Recommendation #2: Develop (written procedures) and implement the following:
   A. monitoring follow-up procedures for maintenance activities.
   B. track vehicles placed out of service as a result of low fuel or charging issues.
   C. formal monitoring procedures for the contractor’s vehicle, fuel/charging practices.
   D. finalize implementation of the following: (i) Establish “6/24” Service Interruption Procedure, and (ii) Issue Liquidated Damages or Deductions in Year three and secure agreement with SMART-TD for new work for Micro Operators to directly fuel and electrify fleet.
   E. periodic checks the data that is being collected of the contractor, as required by the contract.
   F. a process to ensure that the contractor is identifying and addressing service delays, route issues, and customer satisfaction timely and providing evidence of this to the Micro Transit team.
   G. formalize and approve the training provided by the contractor for Electric Vehicles.

Management Response: Partially Agree

Agree with most points except:

D(ii). Given the constricted timeline for Year 3, the pilot nature of the program and the need to work with SMART on modifying their CBA, contractor will remain responsible for fueling and charging vehicles. If the program becomes permanent, steps will be taken to work with SMART for
fueling/charging. Regarding liquidated damages, the contract identifies the application of liquidated damages so written procedures are superfluous and/or in conflict with the Contract. Please reference the Contract for this information.

**Anticipated Completion Date:** Agreed upon items to be done by May 2023.

**Recommendation #3:** Seek Metro Maintenance Operations expertise to assist the Micro Transit team:
A. to assess the condition of Micro Transit vehicles by performing periodic inspections.
R. with the review and approval of the draft SOPs for vehicles inspection.

**Management Response:** Partially Agree

Metro Maintenance Operations experts have completed an inspection and review of the Contractor’s maintenance procedures. The recommendations have been submitted under a revised SOP for the option year and contractor has implemented the recommendations to increase the frequency of vehicle inspection and maintenance from the recommended OEM normal standard to severe operating conditions. The new MMBMF measure and tracking service cancellation due to vehicles out of service will be sufficient factors to indicate the readiness conditions of the vehicle for service. The final SOPs for vehicles inspection will be approved at the April 2023 6-month contract extension agreement.

**Anticipated Completion Date:** May 2023 and ongoing through May 2024.

**Recommendation #4:** For the draft SOPs:
A. establish a timeframe to finalize the approval of the draft SOPs for vehicle inspections, and
R. clarify roles and responsibilities of the contractor regarding timely vehicle inspections.
C. establish a definitive timeline for finalizing the review and approval of the SOPs for inspections, maintenance, and Operations.
D. seek guidance and input from other Metro departments, such as Bus Operations, regarding the adequacy of the draft SOPs submitted by the contractor.

**Management Response:** Partially Agree

The draft SOP was approved by both Metro and the Contractor in February 2023, including clarification of roles and responsibilities. Metro Operations department has been engaged in providing direction since summer 2022. Micro Transit team and contractor will finalize and approve the SOP for the April 2023 6-month extension, upon Board approval.

**Anticipated Completion Date:** April 2023

**Recommendation #5:** Obtain assistance from Metro OCI on the Metro Micro Operator Training Plan for the newly hired Micro Transit operators, for final approval from OCI and Micro Transit

**Management Response:** Agree

Metro’s OCI department had been involved in overall training from the outset. Their role became limited at the request of Micro’s project manager. However, as of January 2023, OCI is leading the training effort and providing input on all facets of Micro training.

**Anticipated Completion Date:** January 2023
Recommendation #6: Develop a plan to work with V/CM to enforce the contract for year three and subsequent of the pilot program, as it relates to data-supported analyses to determine when service gaps exist and how to best remediate these gaps timely.

Management Response: Agree

Metro has been working with contractor to determine service gaps and mitigation measures to address the gaps in an agile fashion. The Micro team will develop a timeline to address all service gaps upon occurrence with V/CM in a timely fashion and provide all supporting documentation for contractual enforceability.

Anticipated Completion Date: May 2023

Recommendation #7: Finalize implementation of the following planned action: Issuance of the year three SOW with Project Manager Standards and SOPs as exhibits.

Management Response: Agree

SOW and SOP are part of the April 2023 6-month Contract Modification. The SOW and SOPs have been issued to Contractor and undergoing final revisions and negotiations to incorporate into Contract Modification No. 10 as Exhibits.

Anticipated Completion Date: April 2023

Recommendation #8: Prepare an evaluation of the MTP zone parameters to see if these should be adjusted to increase utilization.

Management Response: Agree

Ops leadership and staff has worked closely with the Contractor to better understand how the software works since the Pilot began. Zone optimizations to Contractor’s software began in July 2022 and focused in the following areas:

1) On-Board Time
2) Time Snapping
3) Frequency Variation
4) Booking Limitations
5) Stop modification
   o Currently on-going to improve customer safety, reliability and increase productivity

Anticipated Completion Date: Ongoing

Recommendation #9: Assess and implement the incentives and deduction regimes.

Management Response: Partially Agree

The incentive regime will not be enforced in the April 2023 6-month extension as performance targets were not agreed to or discussed during Year 1 or Year 2. This is partly due to limitations of operating under the COVID-19 pandemic in Year 1. As a result, there wasn’t sufficient or accurate data to establish true performance targets to enforce the incentive regime. For the deductive regime, the Deductive Regime Incident Schedule is mostly related to incidents applicable to Pre-Revenue Service
Operations. However, the other remaining incident deductions (8) are applicable to the April 2023 6-month extension and able to be enforced during the extension. Liquidated Damages will also be assessed during the extension for performance failures that will impact Micro’s RSO operations and delivery service.

**Anticipated Completion Date:** Ongoing

**Recommendation #10:** Request that the Information Technology unit review the contractor’s security policy for appropriateness, and test for adherence to such policy, including inspecting training, records, as required.

**Management Response:** Agree

Metro Micro team will request IT to perform a security policy review for the current protocol again. Note that the IT Security team was involved and in discussions with contractor during initial implementation of the Contract.

**Anticipated Completion Date:** August 2023

**cc:** Shahrzad Amiri  
Diane Corral-Lopez  
Dan Nguyen
Criteria

MAS relied on the guidance found in the Standards for Internal Control in the Federal Government ("The Green Book") published by the United States Government Accountability Office as the criteria for this audit. The following are the relevant excerpts from the Green Book:

Control Activities

Control activities are the actions management establishes through policies and procedures to achieve objectives and respond to risks in the internal control system, which includes the entity’s information system.

Principles that support the achievement of the above included the following:

- Management should design control activities to achieve objectives and respond to risks.
- Management should design the entity’s information system and related control activities to achieve objectives and respond to risks.
- Management should implement control activities through policies.

The Green Book further states that Control activities “are the policies, procedures, techniques, and mechanisms that enforce management’s directives to achieve the entity’s objectives and address related risks. As part of the control environment component, management defines responsibilities, assigns them to key roles, and delegates authority to achieve the entity’s objectives.”

There are many different types of control activities but examples of these are listed below:

- Top-level reviews of actual performance
- Reviews by management at the functional or activity level
- Management of human capital
- Controls over information processing
- Physical control over vulnerable assets
- Establishment and review of performance measures and indicators
- Segregation of duties
- Proper execution of transactions
- Accurate and timely recording of transactions
- Access restrictions to and accountability for resources and records
- Appropriate documentation of transactions and internal control
Information and Communication

The Green Book states the following about the importance of quality information, meaning relevant and reliable information, in the achievement of objectives:

Management designs a process that uses the entity’s objectives and related risks to identify the information requirements needed to achieve the objectives and address the risks... management changes information requirements as needed... Management obtains relevant data from reliable internal and external sources in a timely manner based on the identified information requirements. Relevant data have a logical connection with, or bearing upon, the identified information requirements... Sources of data can be operational, financial, or compliance related. Management obtains data on a timely basis so that it can be used for effective monitoring. [In addition] Management communicates quality information down and across reporting lines to enable personnel to perform key roles in achieving objectives, addressing risks, and supporting the internal control system. In these communications, management assigns internal control responsibilities for key roles.

Management receives quality information about the entity’s operational processes that flows up the reporting lines from personnel to help management achieve the entity’s objectives. The oversight body receives quality information that flows up the reporting lines from management and personnel. Information relating to internal control communicated to the oversight body includes significant matters about adherence to, changes in, or issues arising from the internal control system. This upward communication is necessary for the effective oversight of internal control.

Monitoring

Management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.

Management performs ongoing monitoring of the design and operating effectiveness of the internal control system as part of the normal course of operations. Ongoing monitoring includes regular management and supervisory activities, comparisons, reconciliations, and other routine actions. Ongoing monitoring may include automated tools, which can increase objectivity and efficiency by electronically compiling evaluations of controls and transactions.

Management uses separate evaluations to monitor the design and operating effectiveness of the internal control system at a specific time or of a specific function or process. The scope and frequency of separate evaluations depend primarily on the assessment of risks, effectiveness of ongoing monitoring, and rate of change within the entity and its environment. Separate evaluations may take the form of self-assessments, which include cross-operating unit or cross-functional evaluations.
The Green Book standards are clear that internal control is critical for the achievement of objectives. Control mechanisms must be well designed, implemented, and operate effectively. Control mechanisms must also make use of relevant and reliable information, and there should be ongoing monitoring to ensure that controls are working as intended.