OFFICE OF THE INSPECTOR GENERAL
MASSACHUSETTS

MBTA Privatization Review #5

Warehousing and Logistics Contract with Mancon, LLC (2017 – 2026)

September 17, 2026

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September 17, 2026

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Re: Warehousing and Logistics Contract with Mancon, LLC

Dear Interim Secretary Eng and Committee Chairs:

Pursuant to Section 196 of Chapter 46 of the Acts of 2015 (Chapter 46), behind this letter you will find a report entitled *MBTA Privatization Review #5: Warehousing and Logistics Contract with Mancon, LLC (2017 – 2026)*.

This is the Office of the Inspector General's (OIG) fifth such review of an MBTA contract executed during the three-year period from July 1, 2015, to July 1, 2018, when the Legislature exempted the MBTA from provisions of the Taxpayer Protection Act when privatizing services. The Legislature made this exemption in response to a claim that allowing the MBTA greater flexibility would help the MBTA address its budget challenges.

As required by Chapter 46, the OIG reviewed and analyzed (1) the fairness and competitiveness of the procurement process; (2) the quality of the services provided by the contract; (3) the expected and actual cost of the contract; and (4) the costs/benefits. Additionally, consistent with its independent oversight authority, the OIG reviewed issues of concern beyond the four legislative directives and makes findings and recommendations with regard to both categories of review.

Importantly, while the underlying procurement for this service was first procured nearly a decade ago, and thus would be easy to see the OIG's findings as rooted in practices long since improved, some of the concerns carried through the duration of the contract (which had its final option expire in January 2026) or occurred during the OIG investigative period that led up to this report.

Key findings include: the MBTA overstated the potential savings in its presentation to the Fiscal and Management Control Board for approval for the contract; over time the MBTA reduced Mancon's contractual obligations without reducing the contract rates it paid while agreeing to pay more to add new locations for Mancon to manage; by year two of the contract the MBTA had to pay costly consultants to help it restate the contract terms and then add staff to better manage Mancon; and the MBTA failed to extend the inventory accuracy measures used at the central warehouse to its 16 base locations staffed by Mancon.

It is important for the MBTA to carefully review this report's 15 findings and 16 recommendations and consider ways to incorporate the OIG's recommendations for improvements not only in its future procurements, contract administration, and relationships with oversight entities, but in a manner that truly incorporates the changes into the MBTA's future operations. A robust approach to knowledge transfer and business continuity guidance will ensure that improvements last beyond those who are in positions to lead change today.

The recommendations are organized into three sections: (1) General Recommendations for the MBTA, (2) Recommendations for the MBTA's Warehousing and Logistics Operations, and (3) Recommendations for the MBTA's Contract with Unipart Rail. These recommendations are tailored to the MBTA's administration of vendor contracts, its warehouse inventory management, and its current contract with Unipart Rail. Of note, many of the recommendations are broadly applicable to public procurements.

Lastly, while the OIG continues to advocate that the MBTA apply the recommendations of this and previous reports into its future procurements and contracts, the direction of the MBTA procurement office and its procedures has improved in the ten years since this procurement was conducted. The OIG has seen that the MBTA has updated procurement and contract administration procedures, and implemented many of our recommendations from previously issued OIG reports. And the OIG has provided trainings at the MBTA's request on a variety of contract oversight-related topics to strengthen its teams' knowledge of contract administration. I am pleased to point out that the OIG Academy has developed a new contract administration class for the MBTA. I look to this as a significant additional step by the MBTA's leadership to build on the improvements the MBTA has made in its procurements and contract administration through lessons learned. The class will be available to the MBTA this fall.

The OIG team and I are available to answer any questions you may have regarding our report.

Sincerely,

Jeffrey S. Shapiro, Esq., CIG
Inspector General

cc (via email):

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EXECUTIVE SUMMARY

The MBTA's work to maintain its fleet of buses, trolleys, and subway cars is no small task. The MBTA traditionally operated its own warehousing and logistics operations to support that maintenance work, which involved storing and delivering parts, equipment, and other supplies from the MBTA's central warehouses to its garages and car houses ("base locations") throughout the greater Boston area. In 2016, the MBTA started planning to transition its warehousing and logistics operations to an outside company. The MBTA reported to its board at the time that its central warehouse was poorly maintained and inefficient, characterizing it as "completely broken." Privatizing warehousing and logistics operations, it argued, would greatly improve parts delivery time, inventory accuracy, and inventory turnover, and reduce costs.

The MBTA received proposals from five vendors in response to its procurement for warehousing and logistics operations. It ultimately contracted in February 2017 with Mancon, LLC (Mancon), a Virginia-based company specializing in inventory management and warehousing. Mancon's services ended on January 31, 2026, and the MBTA has since contracted with a new vendor to perform the MBTA's warehousing and logistics operations.

The Office of the Inspector General (OIG) has a legislative directive to review several aspects of the Mancon contract: (1) the competitiveness and fairness of the procurement that resulted in the contract; (2) the quality of services provided by the contract; (3) the expected and actual costs of the contract; and (4) whether the costs of the contract exceeded the benefits derived from the contract. This report examines these four areas, as well as other aspects of the privatization that fall within the OIG's oversight responsibilities.

The OIG found that Mancon performed poorly in the first two years of the contract, with the MBTA failing to properly monitor Mancon's performance. The OIG attributes the failure on the part of both parties to a variety of factors, including (1) a poorly written request for proposals; (2) a contract that did not set clear performance expectations; (3) a lack of MBTA management experience in third-party logistics (3PL); (4) the failure of Mancon to deliver on its proposal to partner with a company with rail industry expertise; (5) resistance from MBTA unionized employees to working with Mancon's non-unionized employees; and (6) the overall lack of experience that Mancon employees had with the MBTA's parts and systems.

In 2018, in an attempt to clarify the contract's unclear performance expectations, the MBTA and Mancon agreed to a new contract with restated terms. The OIG found that while the restated contract did clarify some performance expectations, it simultaneously reduced the contract scope by eliminating some of Mancon's responsibilities. In agreeing to these new terms, the MBTA did not seek a corresponding reduction in contract fees. This failure to negotiate the contract cost given the change in scope demonstrated poor fiduciary oversight of public funds.

The OIG also found that the MBTA did not establish adequate inventory management controls for base locations through its contract with Mancon. By not requiring Mancon to staff base locations around the clock – particularly to receive parts delivered from the central warehouse following emergency part requests – and by omitting any performance metric to gauge inventory accuracy at the base locations, the MBTA exposed its inventory to the risks of mismanagement or loss.

With these reduced expectations, Mancon's performance improved under the restated contract. The OIG found that the MBTA's contract with Mancon improved inventory accuracy at the central warehouse and reduced parts delivery times. The OIG attributes these improvements to the MBTA's hiring of management personnel with 3PL experience to oversee operations, greater clarity in the restated performance metrics, and Mancon employees' increased on-the-job experience working with the MBTA.

The OIG was unable to validate that the MBTA's contract with Mancon reduced its warehousing and logistics operational costs, which was a significant purpose of the privatization.

While the overall warehousing and logistics operation has improved since it was privatized, areas for further improvement remain. The OIG makes various recommendations for the MBTA to improve its warehousing and logistics operations, including that it (1) institute controls designed to reduce inventory discrepancies at base location stockrooms; (2) manage contract terms and conditions in real time, including assessing all bonuses and penalties; and (3) conduct periodic unannounced, independent counts of inventory at the central warehouse and base location stockrooms to provide reasonable assurance that vendor-reported counts are accurate.

Consistent with its independent oversight authority, the OIG reviewed issues of concern beyond the four legislative directives and makes recommendations for improvement in the MBTA's broader administration of vendor contracts, including that it (1) ensure that all necessary stakeholders are involved in developing RFPs, so that resulting contracts meet the agency's needs; (2) ensure that employees responsible for reviewing invoices have a demonstrated knowledge of the contract terms and conditions; and (3) renegotiate contract price when there is a reduction in the contract's scope of services.

With the issuance of this report, the OIG has completed five reviews of services the MBTA privatized under Section 196 of Chapter 46 of the Acts of 2015, the "privatization waiver" (see page 11). These legislatively mandated reviews have offered valuable insight and recommendations that have helped spur improvements at the MBTA. However, the Legislature charged the OIG with reviewing the MBTA's privatized procurements only after the final dollars are spent, meaning that the OIG reports on procurements made many years ago – in the case of the Mancon procurement, over a decade ago. These late-stage reviews limit the impact of the OIG's findings and recommendations. Additionally, the OIG's work may be hampered by the fact that key MBTA personnel who worked on securing these procurements and hiring the vendors often no longer work at the MBTA at the time of the OIG's review. And, while the records retention law requires that key documentation be maintained beyond a contract's life, in many instances such materials are difficult to recover. Moving forward, the OIG emphasizes the importance of focusing its oversight on ongoing and recent procurements related to public transportation and transit services in the Commonwealth.

The Taxpayer Protection Act and Privatization Waiver

In 1993, the Massachusetts Legislature passed the *Act Providing for the Delivery of State Services in a Fiscally Responsible Manner*, or the **Taxpayer Protection Act (TPA)**, which established a process that state agencies and applicable authorities must follow before hiring a private company to perform services valued at $500,000 or more.

In July 2015, as part of the Fiscal Year 2016 budget, then-Governor Charlie Baker signed the **MBTA privatization waiver** into law, which exempted the MBTA from the provisions of the TPA for three years, from July 1, 2015, to July 1, 2018. The privatization waiver also required the Office of the Inspector General (OIG) to review all contracts which the MBTA executed pursuant to this exemption, and to issue a report within 90 days of the completion of each contract.

Seven Services Outsourced under the Privatization Waiver and the Office of the Inspector General's Respective Reviews

Absence Management Contract with Workpartners
Report issued on October 17, 2022

Police Dispatch Services Contract with IXP Corporation
Reports issued on December 23, 2022, and December 27, 2023

In-Station Customer Service Contract with Block by Block
Report issued on July 26, 2023

Customer Service Call Center Contracts with Global Contact Services and Exela
Report issued on November 31, 2024

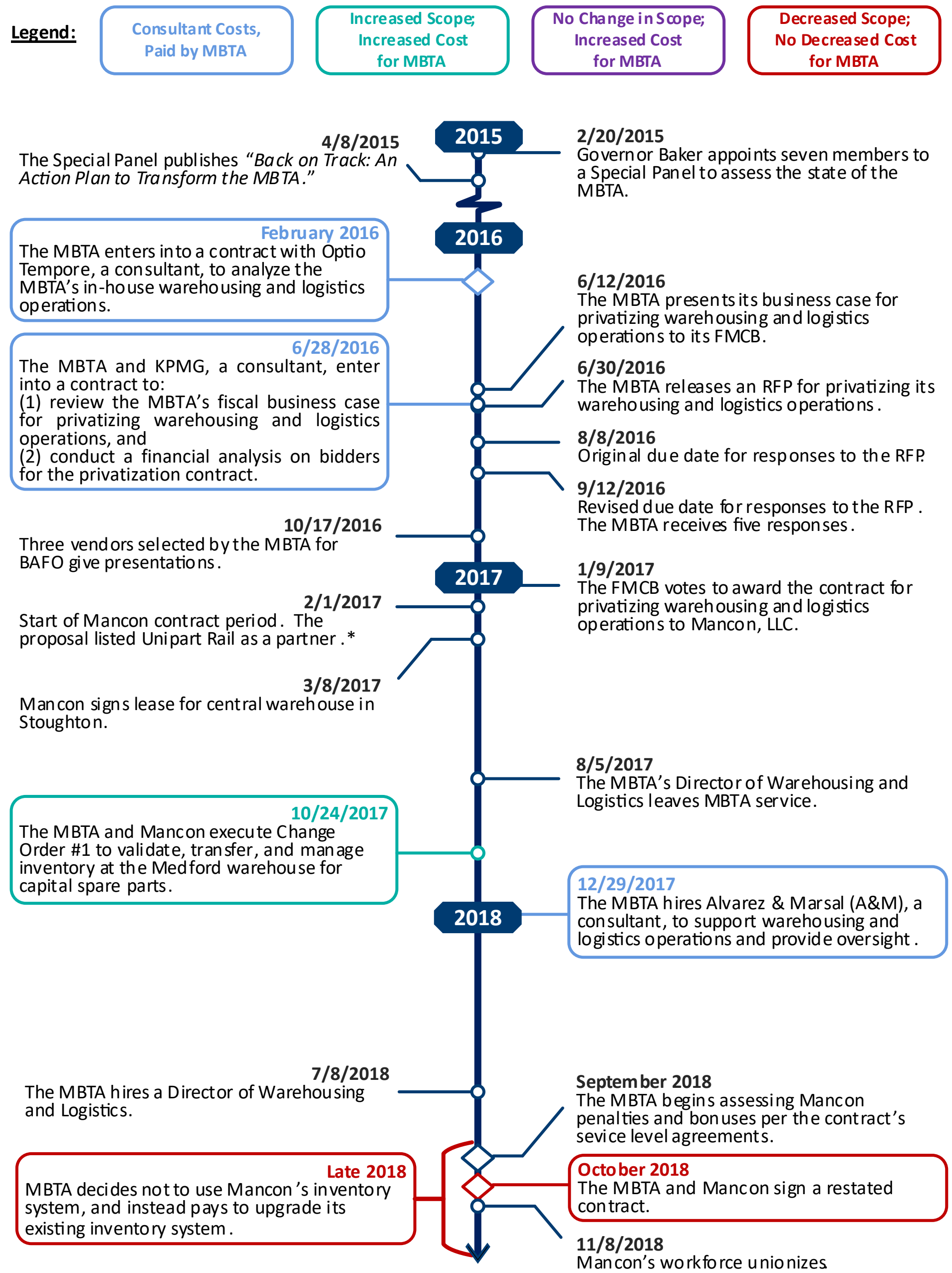
Warehousing and Logistics Contract with Mancon, LLC
Current report

Cash Collection and Processing Contract with Brink's, Inc.
Report to be issued

Automated Fare Collection Contract with Cubic Transportation Systems, Inc.
Report to be issued

MBTA leadership has recently suggested to the OIG that the MBTA's contract for automated fare collection was not a privatization of services. For many years the MBTA included this procurement among the privatization contracts it entered subject to the waiver. The OIG under its independent authority will include the MBTA's contract with Cubic Transportation Systems, Inc., in its privatization review series.

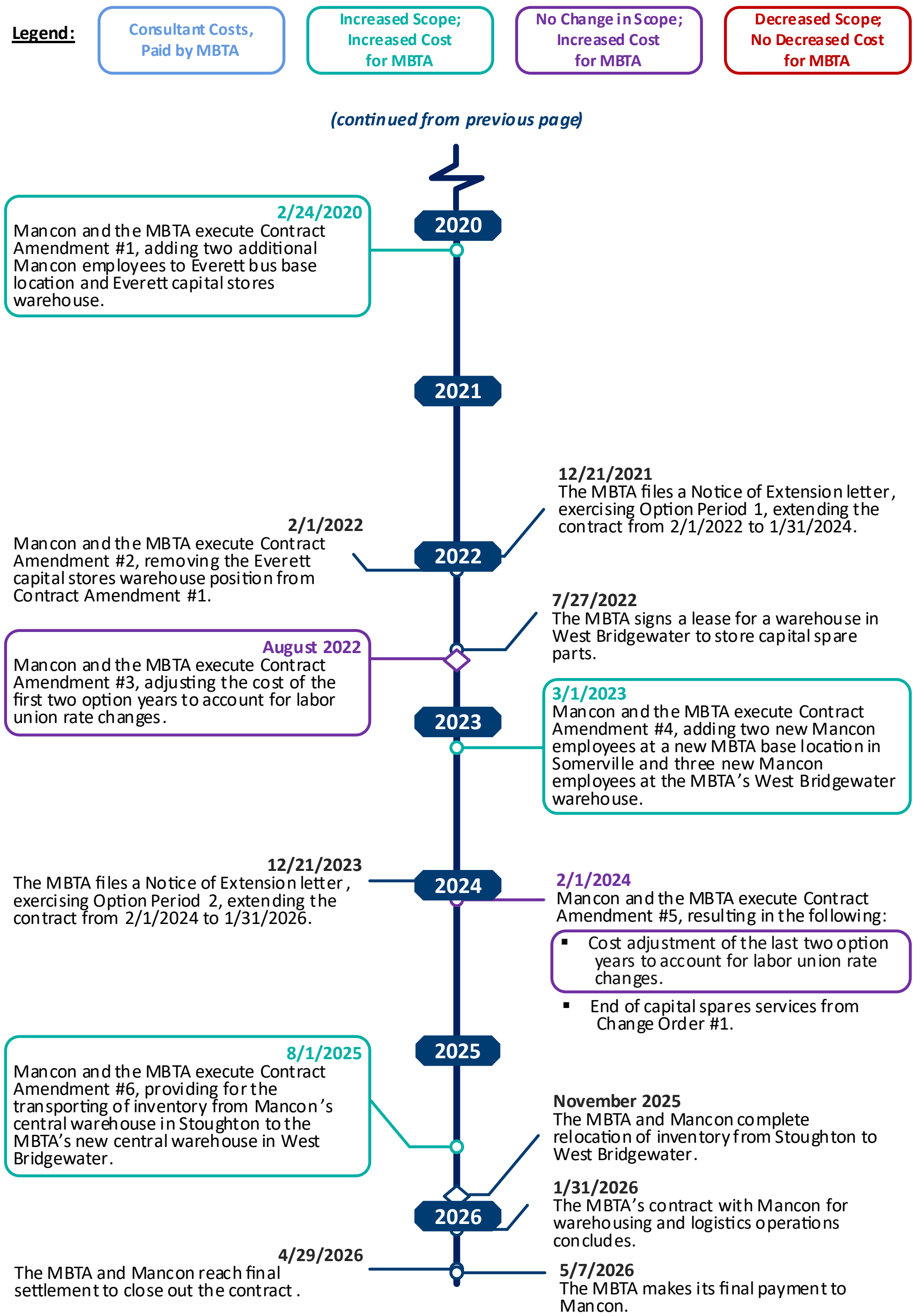
Timeline of Events Concerning the MBTA's Warehouse and Logistics Contract with Mancon, LLC



(continued on next page)

Note: Lines connected to open circles reflect dates while the lines connected to diamonds denote a month-long period.
Fiscal and Management Control Board (FMCB), Request for proposals = RFP, Best and Final Offers = BAFO

The partnership between Mancon and Unipart never materialized, and there is no record the MBTA asked why or sought to penalize Mancon for this notable change.



Note: Lines connected to open circles reflect dates while the lines connected to diamonds denote a month-long period.
Fiscal and Management Control Board (FMCB), Request for proposals = RFP, Best and Final Offers = BAFO

THE OIG'S PRELIMINARY REPORT ON THE MBTA'S CONTRACT WITH MANCON AND ACTIONS TAKEN BY THE MBTA

In 2018 and 2019, following numerous complaints regarding Mancon's performance as the MBTA's warehousing and logistics operations vendor, the OIG conducted a preliminary review of Mancon's operations and the MBTA's oversight of these operations. The ISAU's 2019 Annual Report, issued on May 5, 2020, documents the OIG's findings from this review, along with numerous recommendations the OIG made for the MBTA to improve its ability to successfully administer the contract and to achieve the expected cost savings.

The OIG's preliminary review focused on the MBTA's contract and terms with the third-party vendor, Mancon's compliance with the representations set forth in its proposal, the MBTA's oversight of warehousing and logistics operations, and the actual costs the MBTA incurred to privatize these operations.

On April 26, 2019, and May 15, 2019, the OIG briefed the MBTA's then-Chief of Staff, as well as procurement, vendor management, and warehousing operations staff, on the issues the OIG identified and its recommendations for improving Mancon's and the MBTA's performance for the remaining duration of the contract.

The MBTA took action to address some of the OIG's 2019 recommendations, which included the following:[1]

1. The OIG recommended that the MBTA ensure that Mancon's material planners conduct cycle counts of MBTA inventory at the central warehouse and base locations, something which the MBTA had previously failed to properly do. Mancon's performance of cycle counts improved following this recommendation.

2. The OIG recommended that the MBTA hold Mancon accountable for not meeting the contract's inventory accuracy metric and impose penalties for noncompliance. The MBTA did assess bonuses and penalties following this recommendation, although not always accurately and not during the contract's final two months (as detailed later in this report).

3. The OIG recommended the MBTA ensure that Mancon create a secure area in the central warehouse to store valuable items and sensitive customer materials. This was a contract requirement, but Mancon had previously failed to create such an area. Following this recommendation, Mancon installed video cameras around the central warehouse in Stoughton to enhance the facility's security.

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[1] The MBTA also had made changes that were consistent with the OIG's recommendations with the assistance of an external consultant, Alvarez & Marsal. The MBTA engaged Alvarez & Marsal in December 2017 to help improve warehousing and logistics operations as well as the MBTA's contract management.

4. The OIG recommended that the MBTA require Mancon to develop an onboarding process and conduct regular training to prepare employees for all aspects of their responsibilities, and create metrics for evaluating Mancon employees' knowledge and skill. Following this recommendation, Mancon instituted a six-month probationary period for new staff and provided training. However, the MBTA did not create additional metrics to evaluate Mancon employees' skills and knowledge.

5. The OIG recommended that the MBTA improve its communication between management and staff at the base locations, specifically related to contract terms, the scope of the contract, and the responsibilities of Mancon's material planners. Following this recommendation, the MBTA took steps to diminish the friction between MBTA base location staff and Mancon material planners, partly by clarifying the scope and performance metrics in the restated contract.

The MBTA failed to address other recommendations that the OIG made in its preliminary report, including:

1. The OIG recommended that the MBTA pursue monetary recoveries for Mancon's failure to perform a complete inventory of bus and rail parts before moving the parts to the central warehouse. This was a key requirement of the contract. Following this recommendation, the MBTA did not take legal action or any other steps to adjust payments or contract rates for Mancon's failure to complete this inventory in the manner required.

2. The OIG recommended that the MBTA determine whether it could amend the contract to include an inventory accuracy metric for the base locations. Following this recommendation, the MBTA did not include an inventory accuracy metric for the base locations.

3. The OIG recommended that the MBTA develop an automated method for recording and tracking delivery times for parts, and that it consider reverting to the 10-hour normal delivery window to avoid delays in getting buses and trains back into service. Following this recommendation, the MBTA did not develop an automated method to record and track parts delivery times, nor did it consider reverting to the 10-hour delivery window for normal parts delivery. The OIG also recommended that the MBTA implement a system to monitor deliveries of incorrect bus and rail parts, which the MBTA did not do.

4. The OIG recommended that the MBTA consider adjusting contract rates after the expectation that Mancon provide an inventory system was removed. Following this recommendation, the MBTA did not adjust contract rates.

The OIG continues to recommend that the MBTA take action on the OIG's 2019 recommendations. The current report, including its findings and recommendations, is not intended to supersede any findings or recommendations in its earlier report. The MBTA should accordingly review the recommendations in both reports as it moves forward with its warehousing and logistics operations contract with its new vendor.

BACKGROUND

I. The Office of the Inspector General

The Office of the Inspector General for the Commonwealth of Massachusetts (OIG) is an independent state agency charged with preventing and detecting fraud, waste, and abuse of public funds and assets. The OIG investigates allegations of fraud, waste, and abuse at all levels of government and reviews programs and practices in state agencies and municipalities to identify systemic vulnerabilities and opportunities for improvement. The OIG strives to enhance or restore public confidence in government, ensure accountability, and promote the best interests of the people of the Commonwealth in the use of public funds and property.

The Legislature established the OIG in 1980 as the first state-level inspector general's office in the country.[2] Today, the OIG has a budget of over $10 million and a staff of about 100 employees. The OIG has oversight of more than $190 billion in spending and the work of over 400,000 individuals across state, municipal, and local public entities throughout the Commonwealth, plus suppliers, vendors, contractors, and nonprofits that receive public funds.

The OIG's Internal Special Audit Unit (ISAU), created by the Legislature in 2009, monitors the quality, efficiency, and integrity of the Massachusetts Department of Transportation's (MassDOT) and the Massachusetts Bay Transportation Authority's (MBTA or Authority) operating and capital programs. The ISAU investigates claims of waste or misuse of transportation funds and works to identify potential cost savings. The Inspector General is statutorily required to appoint a director of the ISAU for a fixed term of six years. Emily Pedersen, who was named to the position in 2019 and reappointed in 2025, leads a unit budgeted for 11 full-time employees. With a Fiscal Year 2027 budget of $1,312,345, the ISAU oversees roughly $7.5 billion in spending by MassDOT and the MBTA, which have a combined workforce of approximately 13,300 employees.

II. The Massachusetts Bay Transportation Authority

The Legislature created the MBTA in 1964 to operate the Commonwealth's public transit system. It provides light rail, heavy rail, regional commuter rail, subway, trolley, bus, ferry, and paratransit services throughout eastern Massachusetts and parts of Rhode Island. The MBTA is one of the largest transit agencies in the United States based on ridership. The MBTA reports that in February 2026, the average weekday ridership was 828,874 across all modes. Its annual budget for Fiscal Year 2026 was $3.243 billion.

The MBTA currently serves 176 cities and towns in the greater Boston metropolitan area. While the exact hours of MBTA operation vary by mode, line, and day of the week, MBTA transportation

[2] The Legislature created the OIG pursuant to the recommendation of the Special Commission Concerning State and County Buildings (known as the "Ward Commission," named after its chair, John William Ward), which spent two years probing corruption in the construction of public buildings in Massachusetts.

generally runs from 5:00 a.m. to 1:00 a.m., seven days a week. The MBTA currently employs a workforce of approximately 8,600.

III. OIG's Review

A. Scope

This report documents the OIG's review of the MBTA's privatization of its warehouse operations from February 1, 2017, through January 31, 2026, in accordance with the requirements of the MBTA's "privatization waiver" from the Taxpayer Protection Act.[3]

As the privatization waiver specifies,[4] the OIG evaluated the MBTA's privatization of warehouse operations through its contract with Mancon in four areas:

1. The competitiveness and fairness of the procurement process resulting in the contract;
2. The quality of the services provided by the contract;
3. The expected and actual cost of the contract; and
4. Whether the costs of the contract exceeded the benefits derived from the contract.

This report contains the OIG's findings responding to these specific areas as well as additional findings that the OIG determined necessary for completeness.

The Legislature requires the OIG to review all contracts that the MBTA privatized pursuant to the privatization waiver and to publish a report with its findings 90 days after contract completion.[5] The MBTA and Mancon reached a final settlement to close out the contract on April 29, 2026.[6] On May 7, 2026, the MBTA made its final payment. For consistency across its privatization reports, the OIG has sought to use the date of final payment as the contract completion date for purposes of calculating the deadline for its report. With that approach, the present report would have been due on August 5, 2026, 90 days after completion. However, due to the lengthy period of this contract, the need to reconcile the preliminary OIG report with this final report, and the transition of warehousing and logistics services to a new vendor, the OIG took the position that extra time was warranted to complete this comprehensive report.

B. Methodology

To conduct the review, the OIG met with MBTA personnel, including (1) MBTA management involved in the oversight of the MBTA's warehousing and parts distribution network run primarily by Mancon; (2) MBTA employees who interacted directly with Mancon personnel; and (3) Mancon personnel

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[3] Formally known as an "Act Providing for the Delivery of State Services in a Fiscally Responsible Manner," the Taxpayer Protection Act is codified at M.G.L. c. 7, §§ 52-55. It is also known as the "Pacheco Law," named after the legislation's sponsor, Sen. Marc R. Pacheco.

[4] *See* Section 196 of Chapter 46 of the Acts of 2015.

[5] *Id.*

[6] *See* Finding 14.

at the central warehouse and MBTA base locations. The OIG also examined and analyzed documents produced by the MBTA in response to OIG requests. These documents included procurement materials, contracts, financial transactions, presentations, accounts payable data, invoices, and other documents related to the decision-making, solicitation, and evaluation processes. The OIG also evaluated relevant documents it obtained by request from Mancon. In addition, the OIG conducted research on relevant topics.

During the OIG's fifth base location site visit, the MBTA's chief operating officer terminated the OIG's visit in progress and imposed unreasonable conditions for future base location visits.

The OIG encountered a significant limitation on its scope for this review due to interference by the MBTA. As part of its review, the OIG planned to visit at least eight base locations – the garages and car houses the MBTA uses for warehousing in addition to its central warehouse – to assess the MBTA's warehousing operations and Mancon's performance. The OIG completed four of these base location site visits. While at the sites, the OIG spoke to Mancon material planners and MBTA personnel and assessed inventory accuracy. During the OIG's fifth site visit,[7] the MBTA's chief operating officer (COO) terminated the OIG's visit in progress and then interfered with the OIG's direct access to base locations and employees of both the MBTA and Mancon by imposing unreasonable conditions for future visits. By imposing conditions on the OIG's access to base locations and employees of both the MBTA and Mancon, the MBTA through its COO acted contrary to the cooperation mandated by Section 9 of Chapter 12A and impeded the OIG's investigation. This issue is described further in Finding 1.

IV. MBTA Warehouse Operations Before Privatization

The MBTA maintains and repairs its own revenue vehicles – buses, trolleys, and subway cars – at multiple MBTA maintenance facilities. The MBTA employs its own maintenance staff at 18 garages and car houses throughout the greater Boston area to upkeep this fleet.

Before privatization in 2017, the MBTA operated central warehouses in Everett and Charlestown for housing the parts, equipment, and other supplies necessary for maintaining and repairing buses, trolleys, and subway cars. Another central warehouse in Medford stored capital spares.[8]

In addition to its central warehouses, MBTA employees staffed the stockrooms at the MBTA's 18 maintenance and repair garages and car houses (collectively referred to as "base locations").

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[7] The visit occurred on January 28, 2026, at the Riverside base location.

[8] A "capital spare" is an item that is not required for normal maintenance, but may be required to restore equipment after an unusual event and (a) can only be economically produced as part of a production run, or (b) there is a long lead time for delivery of its replacement.

V. Decision to Privatize Warehouse Operations

A. The FMCB and the Privatization Waiver

During the winter of 2014-2015, Massachusetts experienced unprecedented winter weather and snow conditions that affected the MBTA's operations. Due to the weather and snow, the MBTA had to suspend rail service on multiple days. The impact of these service interruptions prompted then-Governor Charlie Baker to convene a special panel to investigate ways to improve the MBTA.

The special panel recommended creating a new oversight board to focus on securing the fiscal, operational, and managerial stability of the MBTA. The panel also recommended waiving the Taxpayer Protection Act for the MBTA so that it could more easily privatize operations where privatization would be beneficial and cost-effective. Following these recommendations, the Massachusetts Legislature passed legislation establishing the Fiscal and Management Control Board (FMCB) to replace the MBTA Board of Directors[9] and enacting the "privatization waiver." Governor Baker signed the measure on July 17, 2015.

B. Warehousing and Logistics Efficiency Assessments

In 2016, when the MBTA began identifying potential services to outsource under the new privatization waiver, it looked at materials management and warehouse logistics.

In February 2016, the MBTA conducted an internal bus maintenance efficiency study. The MBTA found that its vehicle maintenance cost per mile was about double that of its peer agencies. The study attributed some of the disparity to the age of the MBTA bus fleet. The study also found that inefficient parts warehousing and delivery to bus garages contributed to the MBTA's comparatively poor maintenance performance.

After this internal study, the MBTA hired Optio Tempore, a consulting firm, to assess the efficiency of its warehousing and logistics systems.

Optio Tempore confirmed the MBTA's internal findings of an inefficient system. For instance, in a striking example, Optio Tempore found that the MBTA's time to respond and deliver requested parts took over 82 hours in contrast to the industry standard of 12 hours.

C. May 2016 Presentation to MBTA Senior Management

The MBTA staff used the Optio Tempore analysis to make an internal presentation to MBTA senior management on May 25, 2016. In that presentation, the MBTA staff outlined the business case for the MBTA to procure third-party warehousing and logistics services and detailed the potential savings from privatizing the services compared to the then-current operating and inventory costs.

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9 *See* 2015 Mass. Acts c. 46, § 200. The FMCB expired on June 30, 2021, and was replaced by the current nine-member Board of Directors. *See* information about the MBTA's Board at MBTA Board of Directors | Leadership at The MBTA | MBTA.

Based upon the results of the MBTA's internal study, which were corroborated by Optio Tempore's findings, the MBTA senior management decided that it should privatize the services under the privatization waiver.

D. FMCB Approval to Move Forward

On June 13, 2016, the MBTA management presented its business case for privatizing warehouse operations to the FMCB.[10] In its presentation, the MBTA described the state of warehousing operations at that time, highlighting that the central warehouses were poorly maintained and very inefficient. The MBTA shared the results of the consultant's review stating that the warehousing and logistics systems were completely broken:

1. Inventory turnover was rated as **poor**.
2. Inventory accuracy was rated as **very poor**.
3. Stockouts/parts were not available to customers and were not measured; rated as **very poor**.
4. On-time delivery was not measured and not fully reliable; rated **as poor**.
5. Warehouse productivity was rated as **very poor**.
6. Parts warranty management did not exist; rated as **very poor**.
7. Process discipline was noted as **very poor** as there were different processes in different car houses and garages with low adherence.

The inventory accuracy at the MBTA's central warehouse in Everett was **71%**, well below the industry standard of **95%**. Delivery times, which could be 82 hours or more, were far in excess of the industry standard. And productivity at the Everett warehouse was five times below the productivity standards set by the Warehousing Education and Research Council.[11]

The MBTA cited the economic impact of these problems as one of the principal reasons for privatizing its warehouse operations. The MBTA reported that it spent millions of dollars above the needed amount on a system that delivered very poor performance. The MBTA expected privatization would (1) improve its warehouse operations, and (2) increase the efficiency of its fleet maintenance.

The MBTA told the FMCB that it had formed an internal steering committee to drive the proposed project from the development of a request for proposals through the outsourcing. The FMCB approved the MBTA's plan.

[10] *See* the FMCB's June 13, 2016 meeting info at Fiscal & Management Control Board Meeting | Events | MBTA. While not required by a specific law or policy, the MBTA decided to present its business cases to privatize services, including warehousing and logistics, to the FMCB since the procurements involved outsourcing and eliminating some MBTA employee positions.

[11] According to its website, the Warehousing Education and Research Council (WERC) is a professional organization focusing on warehousing, distribution, and fulfillment.

E. Issuing the RFP

> **Third-party logistics (or 3PL) providers help companies (here, the MBTA) manage warehousing, order fulfillment, delivery, and other inventory duties. Mancon was the MBTA's 3PL provider.**

On June 30, 2016, the MBTA issued the request for proposals[12] (RFP), for a third-party administrator for warehousing and logistics operations (commonly called a 3PL provider).

1. The MBTA's Requirements and Specifications

The MBTA set out information on the services it needed in the RFP and required bidders to respond to 49 categories, including transition plans, reporting, locations of warehouse facilities, issue resolution, after-hours coverage, emergency response rate time, order management hours and response rate, available technology systems, client references, staff and firm qualifications, and service level agreements.

In addition to setting standards for parts delivery and managing accurate inventory, the RFP set expectations of what the successful vendor would handle after the notice to proceed date:

Manage central warehouse and base location stockrooms. Operate both the MBTA's central warehouse and the inventory stockrooms at base locations, track inventory, and deliver bus and rail supplies from the central warehouse to the base locations.

Provide an inventory system. Provide a warehouse management system that interfaced with the MBTA's existing software system.

Conduct wall-to-wall inventory. Validate the inventory quantities at existing locations and transfer the centrally housed inventory to a new location owned or leased by the vendor by performing a "wall-to-wall inventory," or a complete physical inventory count.

Meet service level agreement (SLA) metrics.[13] Meet five metrics outlined in the RFP:

(1) Normal delivery: On-time delivery within the prescribed 10-hour window of correct parts in the correct quantity.

(2) Expedited (or emergency) delivery: Delivery within two hours or less for emergency part requests.

(3) Inventory accuracy: Measured as a percentage of inventory that is accurate during blind cycle counts. The RPF specified a target for Year 1 of 92% accuracy or greater.

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[12] MBTA RFP# 79-16: Third-Party Administration of MBTA Warehousing and Logistics.

[13] Metrics hold the vendor accountable for the services established in a contract and allow a purchasing entity (here, the MBTA) to measure the benefits it receives.

(4) Stockouts: How often (as a percentage) the vendor runs out of a specific part when someone tries to order or request it.

(5) Inventory turns: The number of inventory turnovers per year.

2. Advertising and Public Solicitation

The MBTA posted the RFP on June 30, 2016. Responses were initially due on August 8, 2016, but at the request of vendors the MBTA extended the due date for five weeks to September 12. The MBTA only posted the RFP on its Business Center website; it did not advertise the RFP anywhere else.

F. Evaluation and Selection

Five vendors responded to the MBTA's RFP: Alstom, Banneker Industries, Management Consulting, Inc. (now known as Mancon, LLC), Neovia Logistics Services, LLC, and Walker SCM, LLC. The MBTA's selection committee, comprised of the chief mechanical officer, deputy chief operating officer, chief financial officer, deputy director for third party contracting, and director of warehousing and logistics, evaluated the responses.

The committee selected three finalists – Banneker, Neovia, and Mancon – from the initial responses. The committee then evaluated these three vendors for another four weeks. On October 17, 2016, each finalist presented a "best and final offer," including costs for all option years, as requested by the MBTA. Banneker had the lowest price at $37,338,568. Neovia had the highest price at $58,562,000. Mancon's offer was in the middle at $50,753,478.35.

On October 14, 2016, the selection committee evaluated the final proposals and recommended awarding the contract to Mancon.

G. FMCB Approval to Contract with Mancon

On January 9, 2017, the MBTA requested approval from the FMCB to enter a contract with Mancon.[14] The MBTA made its request in a presentation that detailed the MBTA's procurement process and summarized the selection committee's recommendation to award the contract to Mancon. The MBTA specifically cited Mancon's ability to improve the existing warehousing operation, improve inventory management and emergency deliveries, and expand coverage of personnel at base locations, all at a substantial cost savings compared to the existing in-house operation.

The MBTA also told the FMCB that between savings and avoided costs, hiring a vendor would save an estimated $64 million overall over five years, comprised of a $25 million savings in operational costs;[15]

[14] *See* January 9, 2017 MBTA Presentation to the FMCB. The MBTA general manager has the authority to execute contracts up to $15 million. Because the contract with Mancon would exceed that amount, the MBTA needed to request the FMCB's approval to proceed.

[15] The MBTA reported that the annual operational cost for staffing warehouse operations internally was $12.1 million a year. This figure was based on fully loaded operational costs, which include long-term healthcare and pension costs. By contrast, the MBTA estimated that privatized warehouse operations would cost $7.1 million per year, for a total savings of $25 million over five years.

$16.1 million in avoided capital costs (including upgrades to the warehouse and upgrades to inventory software); and $22.7 million in saved capital costs by appropriately managing inventory levels (saving $11.7 million) and liquidating excess and obsolete inventory (saving $11 million[16]).

The MBTA laid out its goals for privatizing these services:

1. Reduce operating costs;
1. Improve inventory accuracy at the central warehouse;
2. Operate on a 24/7 schedule;
3. Provide reliable delivery times; and
4. Leverage a vendor's materials management experience.[17]

The FMCB voted to approve and authorize the general manager to execute a contract with Mancon for third-party administration of MBTA warehousing and logistics services, for a term of five years in a total amount not to exceed $28,400,000. The $28 million was only for the first five years of the contract; it did not include potential option years. Mancon's best and final offer with up to four option years was $50,753,478.35.

H. The MBTA's Contract with Mancon

On February 1, 2017, the MBTA executed the contract with Mancon (the 2017 MBTA-Mancon contract). The contract period was February 1, 2017, through January 31, 2022, with two additional two-year options, for a potential total contract period of nine years.

The 2017 MBTA-Mancon contract was comprised of the Commonwealth's Standard Terms and Conditions, the MBTA's RFP (including all attachments), and Mancon's best and final offer response to the RFP (contained in a PowerPoint).

The MBTA could not locate Mancon's original RFP response for the OIG to review.[18]

During its prior review, the OIG requested back-up data that supported these figures reported to the FMCB. The MBTA was unable to provide that additional detail. The OIG is concerned that this claim made by the MBTA to the FMCB was not documented, or, if documented, not retained.

[16] The MBTA characterized $11 million as "savings" from the disposal of obsolete parts. The OIG does not concur with this characterization. The proceeds from selling inventory represent a one-time recovery of previously expended funds, not a future savings. No future outlays of funds are avoided by liquidating inventory.

[17] The privatization waiver required that the MBTA submit an annual report to the Legislature detailing its privatization activities. In its September 1, 2016 report, the MBTA noted that a third-party vendor would leverage materials management expertise. *See* Massachusetts Bay Transportation Authority Annual Report on Waiver from Provisions of Sections 52-55 of Chapter 7 of Massachusetts General Laws.

[18] The MBTA did not have a copy of the original response in its procurement file. This is another instance where the MBTA did not maintain procurement documents, which is problematic for multiple reasons, including its inconsistency with procurement best practices and the state record retention schedule. The MBTA also knew that this procurement was subject to review by the OIG.

1. Scope of Work

The contract's scope of work (SOW) was set out in Section 3 of the RFP.

As the chosen 3PL provider, Mancon would manage the inventory of the MBTA's central warehouse. That meant Mancon would be responsible for picking and shipping inventory from the central warehouse to the MBTA's base locations and managing the inventory stockrooms at the base locations. At the outset of the contract period, Mancon was also responsible for conducting the RFP's wall-to-wall inventory count, validating the MBTA's inventory quantities, and transferring the inventory from the MBTA's central warehouses to a new central warehouse owned or leased by Mancon. Mancon was responsible for leasing a private warehouse to serve as the central warehouse,[19] and leased a warehouse in Stoughton, Massachusetts, for that purpose.

Mancon would accept orders and deliver parts. According to the MBTA, a Mancon material planner or MBTA employee at a base location would manually generate parts orders or the MBTA's system would automatically generate an order when a part reached its "minimum" level at a base location. During normal operating hours, Mancon material planners at base locations would be responsible for making a parts order. In the after-hours, MBTA employees at the base locations, typically a foreperson or mechanic, would make the orders.

To place a normal order manually, the Mancon material planner or MBTA employee would submit a requisition in the MBTA's inventory and purchasing system, the Financials & Materials Information System (FMIS). The MBTA deputy director of 3PL operations and an MBTA storekeeper would be responsible for approving requisitions. Once they approved a requisition, the order would become a "pick," drop onto a "pick plan," and would be assigned a "pick batch" number.

Automatic requests would be generated when a part at a base location fell to a set minimum level in FMIS. Then the system would automatically send a replenishment requisition for the part. These orders would then go through the above process in FMIS for approval and delivery.

Under the original contract, Mancon was responsible for delivering normal orders within 10 hours. In practice, Mancon made the delivery overnight, with arrival at the base locations early the following day. The Mancon material planner at each base location was responsible for receiving the parts, storing them, and updating the base location stockroom inventory in the MBTA's FMIS system.

Mancon was also responsible for handling emergency orders, also known as emergency requests. Emergency requests could be made via a dedicated email or by calling a dedicated hotline after operating hours. Mancon was responsible for delivering these orders to the requesting base location in two hours or less. The Mancon material planner (or MBTA employee if after hours) at the requesting base location

[19] Later in the contract period, the MBTA decided to consolidate all inventory into an MBTA-leased warehouse in West Bridgewater, Massachusetts, that the MBTA used for storing capital spares. The MBTA realized it could also use the West Bridgewater site to serve as its central warehouse for warehousing and logistics. The MBTA and Mancon completed the transfer of all MBTA inventory to the West Bridgewater warehouse in November 2025.

would receive the parts, provide them to the MBTA mechanic using them, and update the base location inventory in FMIS.

The contract's SOW reiterated other deliverables from the RFP as noted earlier, including that Mancon would provide an inventory system and conduct the wall-to-wall inventory.

2. Service Level Agreements

The contract included what are known as Service Level Agreements (SLAs) – metrics for the vendor to meet. For this contract, the MBTA included SLAs for the required services and corresponding target baseline performance expectations for Mancon to meet. Specifically, the SLAs covered inventory accuracy, normal delivery time, emergency delivery time, stockouts, and inventory turnover.

Mancon was expected to meet or exceed the SLAs. If it did, it would earn a bonus. If it failed to meet an SLA, it would be assessed a penalty. As detailed below, for the first 16 months of the contract, the MBTA did not track Mancon's performance on the SLAs. Then, after a three-month period of adjustment, 19 months into the contract, the MBTA began tracking Mancon's performance on the SLAs and paying incentive bonuses and assessing penalties based on Mancon's performance.

3. Mancon's Staffing and Hours of Operation at Base Locations

Mancon was responsible under the contract for staffing 14 of the MBTA's 18 base locations.[20] As shown in Figure 1, the MBTA added two new base locations during the contract period, bringing the total number of base locations staffed by Mancon employees to 16.

[20] The MBTA had four other base locations that it did not include in the contract: Mattapan, North Cambridge, Arlington, and Engineering and Maintenance. Mancon did not staff these four locations due to their unique operations and the OIG did not question the MBTA's decision-making to not staff these locations. Mancon would, on occasion, deliver parts to these locations at the MBTA's request.

Figure 1. MBTA Base Locations Staffed by Mancon

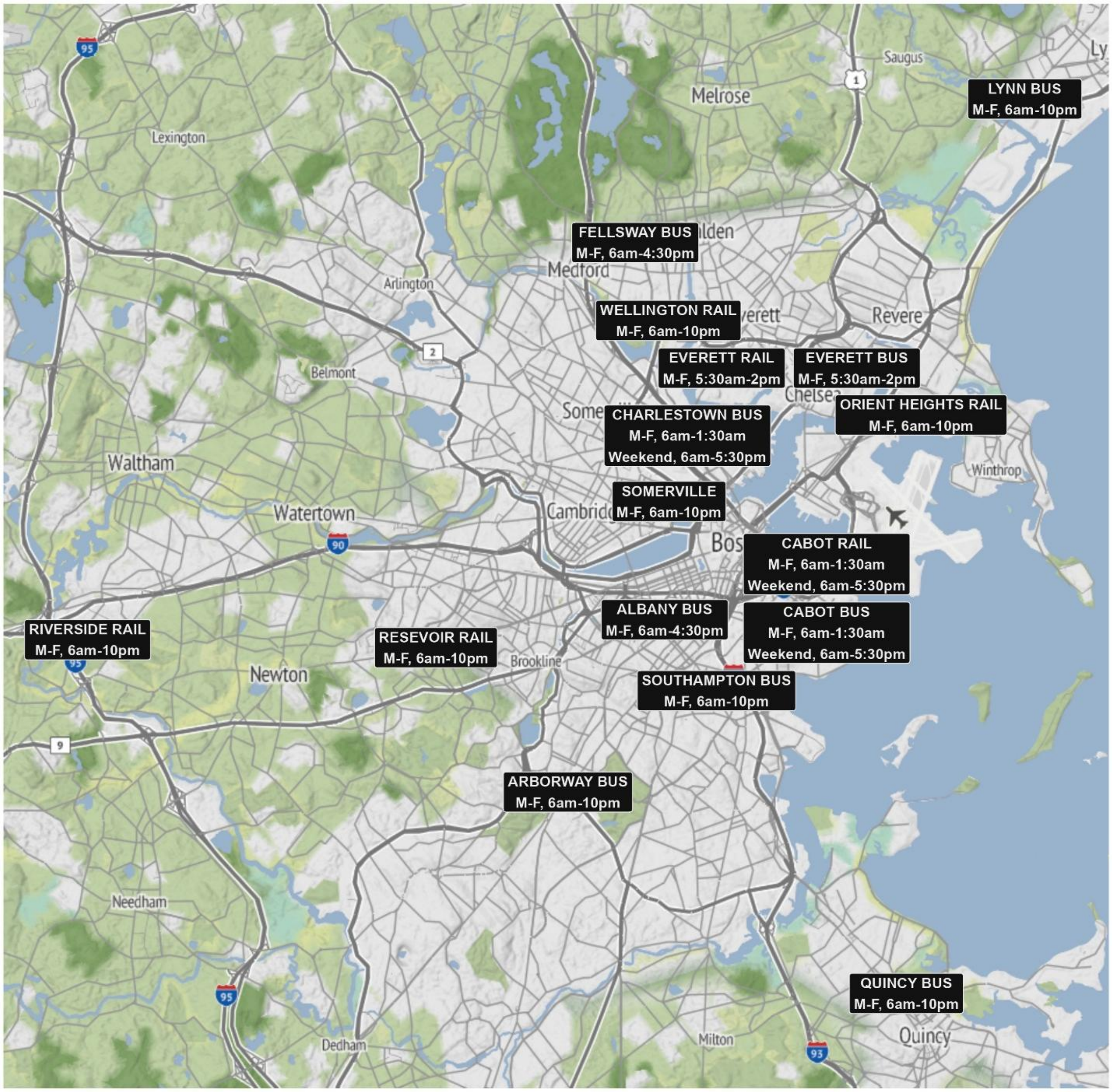
MBTA Base Locations	Address
Albany Bus Maintenance Facility	421 Albany Street, Boston, MA 02118
Arborway Bus Maintenance Facility	3570 Washington Street, Jamaica Plain, MA 02130
Cabot Bus Maintenance Facility	275 Dorchester Ave., South Boston, MA 02127
Cabot Rail Maintenance Facility	275 Dorchester Avenue, South Boston, MA 02127
Charlestown Bus Maintenance Facility	21 Arlington Avenue, Charlestown, MA 02129
Everett Bus Maintenance Facility	80 Broadway, Everett, MA 02149
Everett Rail Maintenance Facility (added to Mancon contract scope through an amendment)[21]	80 Broadway, Everett, MA 02129
Fellsway Bus Maintenance Facility	477 Salem Street, Medford, MA 02155
Lynn Bus Maintenance Facility	985 Western Avenue, Lynn, MA 01905
Orient Heights Rail Maintenance Facility	26 Barnes Avenue, East Boston, MA 02128
Quincy Bus Maintenance Facility	954 Hancock Street, Quincy, MA 02169
Reservoir Rail Maintenance Facility	400 Chestnut Hill Avenue, Brookline, MA 02445
Riverside Rail Maintenance Facility	325 Grove Street, Newton, MA 02465
Somerville Rail Maintenance Facility (added to Mancon contract scope through an amendment)	70 3rd Avenue, Somerville, MA 02143
Southampton Bus Maintenance Facility	238 Southampton Street, Boston, MA 02118
Wellington Rail Maintenance Facility	37 Revere Beach Parkway, Medford, MA 02118

Three of these base locations – Charlestown Bus, Cabot Rail, and Cabot Bus – were and are open for maintenance operations 24 hours per day, 7 days per week. The hours of operations at the other locations varied, as did Mancon's hours of operations. The contract did not require specific hours of operation for Mancon at the base locations. Mancon did not provide 24/7 staffing at any of the base locations and it was not required to staff any of the locations for the same hours as the MBTA.

[21] Both the Everett Rail Maintenance Facility and the Somerville Rail Maintenance Facility were added to the Mancon contract via an amendment, increasing the cost.

Figure 2 shows Mancon's hours of operation at the 16 base location that it staffed.[22]

Figure 2. MBTA Base Locations (16) and Mancon Hours of Operation.



4. Contract Rates

Mancon offered a fee-based cost schedule with both itemized fixed and variable fees (or unit prices) over multiple categories. The fixed and variable fees were broken into categories: base cost,[23]

[22] The Mancon hours of operation reflected on the map are those reported by the MBTA in February 2026 to the OIG.

[23] Base cost included all projected costs for Mancon employees' salaries, overtime payments at base locations, and other expenses related to warehouse operations such as trash pick-up and packaging.

receipt cost, issue cost, storage cost-pallet, storage cost-shelf, transportation cost, and contract reserve fund.[24] Mancon would use these fees in developing its monthly invoices.

Under the contract, Mancon would invoice the MBTA for base cost, transportation cost, and contract reserve fund at the monthly fixed rate. Mancon would invoice the receipt cost, issue cost, and storage cost for pallets per line[25] so those fees would vary from month to month. And it invoiced the MBTA for storage cost for shelves per linear foot, which could also vary from month to month.

Figure 3 shows the service type cost breakdown for the contract's first year. The contract had a table of service type costs similar to Figure 3 for each year. Mancon used these prices to estimate the contract price per year for its best and final offer.

Figure 3. Service Type Costs – Contract Year 1.[26]

Service Type	Unit	Quantity (monthly)	Unit Price	Monthly Price	Annual Price
Base Cost	Per Month	1	$332,799.64	$332,799.64	$3,993,595.68
Receipt Cost	Per Line	1,976.65	$7.98	$15,773.67	$189,284.00
Issue Cost	Per Line	7,784.96	$2.09	$16,270.57	$195,246.80
Storage Cost - Pallet	Per Pallet	4,200.00	$0.98	$4,116.00	$49,392.00
Storage Cost - Shelf	Per Lineal Foot	16,500.00	$1.96	$32,340.00	$388,080.00
Transportation Cost	Per Month	1	$48,718.67	$48,718.67	$584,624.04
Contract Reserve Fund	Per Month	1	$9,085.60	$9,085.60	$109,027.20
Total Cost for Year 1				$459,104.14	$5,509,249.72

[24] The contract did not include definitions for each of these costs. The OIG asked the MBTA for an explanation of each cost, summarized as follows. "Receipt cost" is a transaction charge or processing fee for Mancon receiving items. "Issue cost" is the shipping cost. As for storage costs, the MBTA paid a fee for the number of pallets that contained inventory in the central warehouse. According to the MBTA, it only paid for pallets holding inventory and did not pay for empty pallets. Shelf storage is for smaller parts (for example, bolts and screws) that are not stored on pallets. "Transportation cost" is the cost for Mancon to operate its vehicles. The "contract reserve fund" was for payment for additional services. For instance, payment from the reserve fund would cover an MBTA request that Mancon deliver capital spares that were normally outside the scope of Mancon's contract. If the MBTA did not use all of the reserve fund in a month, the remainder was credited back to the MBTA.

[25] Per the MBTA, a line is the same as an item.

[26] Source: OIG, based on schedule in Mancon's best and final offer.

Figure 4 reflects the estimated annual costs for Mancon's provision of warehouse services, based on the fees shown above, that were contained in Mancon's best and final offer in the 3PL Fee For Service Pricing Schedule. The restated contract, discussed below, outlined annual costs in the same schedule.

Figure 4. Estimated Mancon Contract Costs.[27]

Year 1 (February 1, 2017 – January 31, 2018)	**$5,509,249.72**
Year 2 (February 1, 2018 – January 31, 2019)[28]	$5,657,260.64
Year 3 (February 1, 2019 – January 31, 2020)	$5,764,990.28
Year 4 (February 1, 2020 – January 31, 2021)	$5,270,702.43
Year 5 (February 1, 2021 – January 31, 2022)	$5,389,863.29
Option 1 Year 1 (February 1, 2022 – January 31, 2023)	$5,534,313.61
Option 1 Year 2 (February 1, 2023 – January 31, 2024)	$5,701,303.60
Option 2 Year 1 (February 1, 2024 – January 31, 2025)	$5,874,158.43
Option 2 Year 2 (February 1, 2025 – January 31, 2026)	$6,051,634.55
Total	**$50,753,476.55**

I. Restated Contract

The parties did not have a strong start to the contract. The MBTA did not begin tracking Mancon's performance via the contract's SLAs until June 2018.[29] Even without tracking performance, the MBTA was well aware that Mancon was not performing as expected across its contract responsibilities. In September 2018 the MBTA and Mancon agreed to clarify the original contract terms in a restated contract. The resulting restated contract (referred to in this report as the 2018 restated contract) narrowed the five SLAs in the original contract to three: (1) inventory accuracy; (2) normal delivery time; and (3) emergency delivery time. The other two SLAs included in the original contract – stockouts and inventory turnover – were left out. Notably, although Mancon was no longer responsible for providing these services, the MBTA did not renegotiate the contract price.[30]

[27] Source: OIG, based on schedule in Mancon's best and final offer.

[28] The MBTA and Mancon agreed to create a restated contract in September 2018, during Year 2. While they narrowed the contract scope, particularly in the SLAs to be measured, they did not change the contract rates.

[29] As discussed in Finding 8, this was 16 months after the start of the contract, meaning that the MBTA did not properly manage the contract or assess penalties.

[30] As discussed at length in this report's findings, other than clarifying terms to measure compliance on the remaining three SLAs, without a contract reduction it is not clear what the MBTA received in exchange for reducing Mancon's contractual obligations. The OIG has found on prior privatization contract reviews that the MBTA similarly relieved the vendor of certain requirements/expectations without a corresponding reduction in the MBTA's contract price.

It was during this time that the OIG began its preliminary review of the Mancon contract, as summarized on pages 14 to 15, herein.

J. Contract Extensions and Termination

The restated contract did not change the original contract period of February 1, 2017, to January 31, 2022. On December 21, 2021, the MBTA provided notice of extension to exercise Option 1 to extend the contract from February 1, 2022, to January 31, 2024. On December 21, 2023, the MBTA provided notice of extension to exercise Option 2 to extend the contract from February 1, 2024, to January 31, 2026.

Throughout the life of the contract and options, the MBTA and Mancon amended the contract to add to and narrow the scope of work.

Before the end of the Mancon contract, the MBTA decided to continue using a 3PL warehouse and logistics operator. The MBTA issued a new request for proposals for those services in July 2025. Through this new procurement, two vendors submitted responsive proposals: Mancon and Unipart Rail (Unipart). Following its evaluation and selection process, the MBTA named Unipart as the successful proposer.

Unipart assumed operations of the MBTA's warehousing and logistics on February 1, 2026. With the transfer of services, Unipart hired many of Mancon's warehouse and base location staff, meaning that many staff members continued in their roles.

General Findings

While the findings in this report include those related to the four specific statutory directives in the privatization waiver (see Findings 5 through 15), the OIG exercises it independent oversight authority to address other aspects of the warehousing and logistics privatization in Findings 1 through 4.

Finding 1. Despite the OIG's enabling statute and legislative mandate to review the contract with Mancon, MBTA senior management obstructed the OIG's access to base locations and personnel during its investigation.

The OIG's ability to have access to needed information is one of the core tools that empowers an independent inspector general's office to perform its duties effectively.[31] Even though access is fundamental to both the OIG's enabling statute and its specific legislative mandate to review the MBTA's contract with Mancon, MBTA senior management restricted the OIG's access to base locations and personnel during the course of its investigation.

As part of its efforts to assess Mancon's performance in the MBTA's base locations and to ascertain the reasons for inventory discrepancies (as explained further in Finding 15), the OIG planned to conduct site visits to at least eight base locations. The OIG coordinated these site visits with the MBTA's 3PL management. During these site visits, the OIG spoke to Mancon material planners and the MBTA forepersons who directly interacted with them. Their cooperation provided the OIG with critical ground-level insight into the MBTA's warehousing operation and Mancon's performance.

During the OIG's fifth site visit, the MBTA's director of 3PL operations advised that the MBTA's chief operating officer directed him to halt the site visit. The director of 3PL operations subsequently advised that going forward, all OIG interviews and visits with MBTA forepersons and mechanics needed to be scheduled with the MBTA's chief mechanical officer. Additionally, he said, in-person interviews of vendor central warehouse employees or base location material planners needed to be conducted at the central warehouse, rather than at the base locations where the OIG had inventory concerns. The director of 3PL operations requested 48-hour prior notice so the MBTA could arrange coverage for the vendor employee while they were being interviewed by the OIG at the central warehouse. In addition to prohibiting base location site visits, the MBTA did not respond to the OIG's repeated requests to resume interviews of MBTA forepersons at the base locations, thus limiting the OIG's access to information directly from those most familiar with base location operations. The MBTA's obstruction limited the OIG's

[31] *See Ensuring Independence and Integrity Through Unobstructed Conduct of Investigative Interviews*, ASS'N OF INSPECTORS GENERAL, April 4, 2025.

ability to review warehouse operations first-hand, including base location operations and inventory practices, and to conduct an independent examination of vendor performance.[32]

Finding 2. The MBTA heavily relied on an outside consultant to restate the original contract and guide the MBTA's vendor oversight, at significant additional costs to the MBTA that reduced the expected savings from privatization.

As a result of the MBTA's and Mancon's difficulties in transitioning warehousing and logistics operations in the beginning months of the contract, as described more fully in the Quality of Services section of this report, in December 2017 the MBTA retained an outside consultant, Alvarez & Marsal (A&M), to assist the MBTA with oversight of Mancon. As stated in the scope of services in the A&M contract, "Due to challenges with the implementation of the new agreement, MBTA requested support from A&M on future-state functional operations and processes."

The MBTA initially engaged A&M for seven to eight weeks, at a cost of $250,000. The plan was for A&M to collaborate with the MBTA and Mancon teams to identify gaps in workflow processes and assist in closing critical day-to-day operational and management issues.

A&M's specific areas of support included:

1. Providing 3PL expertise related to demand planning, warehouse, distribution, and overall supply chain operations;
2. Identifying, prioritizing, and closing critical integration issues;
3. Providing project management support and serving as liaison between the MBTA and Mancon integration team members;
4. Defining and mapping future operating processes within key functional areas;
5. Prioritizing process areas needing immediate changes; and
6. Recommending areas for modifications of the contract terms, such as:
    a. Key performance indicators (KPIs);
    b. Defined customer service level expectations;
    c. Rigor of cycle counts; and
    d. Staff training.

Following the initial seven-to-eight-week engagement with A&M, the MBTA and Mancon continued to experience operational difficulties. The MBTA determined that it needed additional support from A&M to achieve all of the MBTA's desired improvements and to strengthen operations. By change

[32] Due to the fact that the OIG had completed some site visits and considering its desire to meet its statutorily mandated reporting deadline, the OIG decided not to pursue further site visits and interviews.

order dated January 16, 2018, the MBTA extended its engagement with A&M for approximately 12 weeks (January 16, 2018, to April 6, 2018) at a weekly rate of $53,000. The MBTA asked A&M to:

1. Replace proposed daily stand-up meetings with weekly supply chain reviews, to be designed and facilitated by A&M in collaboration with the MBTA and Mancon leadership;
2. Support the responsibilities of the MBTA's director of warehousing and inventory management until the permanent resources were identified and onboarded; and
3. Provide support to enable immediate operational execution of recommended quick-hit opportunities, supply chain reviews, and enhancements to the current warehouse and inventory management processes.

The parties executed a second change order on June 12, 2018, to extend A&M's consultant work. During the first period covered by this change order, from July 2, 2018, through July 27, 2018, A&M would support the MBTA's senior director of warehouse and inventory management at a weekly rate of $24,000. During the second period covered by this change order, from August 1, 2018, through January 31, 2019, A&M would provide additional subject matter expert support at a rate of $9,000 to $18,000 per month.

Over the course of the engagement, the MBTA paid A&M more than $1.8 million to assist with the administration of the MBTA-Mancon contract, expenditures not anticipated at the outset of the contract. The OIG considers the $1.8 million paid to A&M as an actual cost of privatization because it was necessary for Mancon to perform its contractual obligations. Mancon had represented in its RFP response that it would be partnering with Unipart Rail, an experienced 3PL vendor. As described more fully in Finding 7, this arrangement to bring subject matter expertise to the engagement never came to fruition.[33]

While the OIG appreciates that the MBTA realized it needed to make changes in how it oversaw the vendor and managed the contract, the MBTA expended significant public funds in hiring this outside expertise to make its engagement with Mancon work. Mancon's lack of experience and failure to bring on an experienced partner likely contributed to the need for the MBTA to hire additional subject matter expertise.

Over the course of the engagement, the MBTA paid A&M more than $1.8 million to assist with the administration of the MBTA-Mancon contract, expenditures not anticipated at the outset of the contract.

The OIG finds that the cost of A&M – which was necessary due to Mancon's poor performance and the MBTA's need to hire experts to assist – is an actual cost of this contract which the MBTA did not foresee in its cost estimate to the FMCB when advocating for privatizing warehouse operations.

[33] While difficult to quantify because of how Mancon priced the contract, it is reasonable to assume that the contract rates included the cost of partnering with Unipart Rail.

Finding 3. A lack of coordination between the decision-makers who developed procurements for the privatization of MBTA services and the teams responsible for operating the affected services resulted in the MBTA's inability to achieve outcomes in line with all of its proposed objectives and anticipated savings presented to the FMCB.

In previous privatization reviews, the OIG observed instances of a disconnect between the stated goals of the privatization and the realities of operations. In other words, there was inadequate coordination and collaboration between the MBTA employees (or consultants) who developed the RFP specifications for the services to be procured and the MBTA end user business unit.

For instance, the MBTA's 2017 agreement with IXP Corporation to provide police dispatch services required IXP to comply with certain metrics and responsibilities. During the OIG's later review of the privatized contract, IXP stated that the MBTA Transit Police informed IXP that it did not need to comply with those metrics and responsibilities, such as those related to dispatch times and telecommunicator certifications.

Similarly, the MBTA's 2016 RFP for customer service call center operations included certain technology requirements that were ultimately not fulfilled largely due to the MBTA's own opposition to transferring its technology administration to a vendor.

The OIG identified the same trend during the review of the Mancon contract, where the MBTA included RFP requirements that did not align with the MBTA's actual operations. A consulting company, Optio Tempore, developed the RFP for warehousing and logistics. In interviews conducted during its preliminary review, the OIG learned the consultants were not familiar with the MBTA's warehousing and logistics operations and did not engage with the MBTA's employees. The result was an RFP that included requirements and specifications that were extraneous or in conflict with the MBTA's warehousing needs. Multiple requirements laid out in the RFP (which became the original contract) would not come to fruition over the course of the MBTA and Mancon engagement. Mancon's nonconformance with both its proposal and certain contract terms is detailed in Findings 7 and 8.

Vendors consider the required elements of an RFP in calculating their bids, and these figures are ultimately included as part of the agreed-upon contract rate. Significantly, in instances such as those described above where the vendor is released from certain contractual obligations, the MBTA has not pursued a corresponding reduction in the contract price it pays.

In the case of Mancon, one costly example of a key deliverable that the RFP development team included in the RFP – but which was undesired by the business unit – was a new warehouse inventory system. The RFP required a warehouse management system that interfaced with the MBTA's in-house logistics system. After the contract was signed, the MBTA decided not to use Mancon's inventory system because it could not meet the MBTA's inventory and supply chain management needs. The MBTA never sought or received a reduction in price when MBTA staff decided not to use Mancon's inventory system.

Had the team that developed the RFP specifications consulted the MBTA IT and warehouse teams, this costly misalignment of goals could have been avoided.

It is important that government solicitations for services (here, in the form of an RFP) include only those terms, specifications, and desired deliverables that the agency business unit requires. Accurate RFPs (1) ensure that proposers understand the agency's true needs and can submit accurate, competitive proposals; (2) promote evaluation of proposals on criteria that are relevant to the service being procured; (3) reduce the risk of contract modifications, implementation delays, and disputes over expectations; (4) encourage a fair and transparent procurement process because all requirements have a legitimate business need; and (5) ensures that the cost of the contract does not waste public funds by including costs for services that are not desired and will not be used.

Agencies should not pay for unnecessary features, capabilities, or deliverables in contracted engagements because of poorly-developed RFPs and specifications.

Vendors should expect they will need to perform all the tasks or requirements laid out in the RFP and develop their proposals and calculate their pricing proposals accordingly. When the vendor does not have to perform every specification that it accounted for in its proposal price, a government agency overpays for the actual services it receives.

The RFPs for privatizing MBTA services were developed by employees outside of the business units, with assistance from consultants. In the 10 years since the MBTA's procurement for warehousing and logistics operations, its procurement office has established procedures for developing RFPs that include the end user business units. Now, the end user business unit develops the RFP and determines which services it needs, with support from the procurement office. This collaboration promotes the MBTA business units receiving the services they seek, and the MBTA paying only for what it needs. The OIG notes that if this change is firmly established in the MBTA's practices, the MBTA should see the results in fewer contract modifications and improved contract management.

Finding 4. Resistance from the MBTA's unionized workforce to working with non-unionized Mancon staff impacted the MBTA's privatization efforts.

The OIG learned during its 2018 and 2019 site visits that at the time the MBTA was considering privatizing warehouse operations and once Mancon became operational, many MBTA employees at the central warehouses and base locations feared losing their jobs to Mancon's employees, who were not unionized. During its preliminary review, the OIG learned that once Mancon took on responsibilities under the contract, some MBTA employees at the central warehouse and base locations resisted providing on-the-job training to Mancon employees. Although the OIG saw evidence that MBTA leadership at the time considered the potential impacts of introducing non-union vendor employees into a predominantly unionized MBTA work environment, they did not fully foresee the operational difficulties of ensuring that bargaining staff worked cooperatively and collaboratively with the firm chosen to run the MBTA's warehouse operations. It appears that the MBTA's leadership underestimated the impacts of the risks associated with the MBTA's staff working alongside non-union workers, and its mitigation strategy was inadequate.

In November 2018, Mancon staff joined the International Association of Machinists Local 264 union. Interviews with MBTA management, employees, and Mancon personnel indicate that, following this development, MBTA employees became more cooperative and willing to work with Mancon employees at the base locations.

This change came at a cost. When Mancon's staff unionized, the MBTA signed a contract amendment with Mancon increasing the contract rates to offset the change in pay to Mancon employees. The OIG finds that the MBTA missed its opportunity to better manage these challenges, which ultimately increased contract costs by $2,861,680.93 (as reflected in Amendments 3 and 5 of the contract).[34]

Privatization Waiver Findings

I. Competitiveness and Fairness

To evaluate the fairness, competitiveness, and openness of the MBTA's procurement for warehousing and logistics operations, the OIG evaluated the MBTA's compliance with its own procurement manual.[35] The manual, which was publicly available on the MBTA's website, set out the MBTA's policies and procedures for obtaining goods and services and also provided vendors with the MBTA's decision-making principles underlying its invitations for bids or RFPs. The OIG focused on six "procurement elements" that require the MBTA to (1) develop clear, accurate, and complete specifications; (2) ensure adequate competition; (3) avoid unreasonable qualifications and excessive bonding requirements; (4) complete an independent cost estimate; (5) advertise and publicize the solicitation effectively; and (6) solicit an adequate number of sources.

This is the OIG's fifth review of MBTA procurements undertaken between 2015 and 2018 to privatize services pursuant to the privatization waiver. The OIG has seen similar process issues across these five procurements.

Finding 5. While the MBTA's procurement process for warehousing and logistics operations was generally competitive and fair, it was deficient in cost estimating and publicizing, similar to flaws in its other procurements for privatized services.

The OIG made the following findings on whether the MBTA met its six procurement elements:

[34] Mancon's proposed contract rates in 2017 did not account for its staff being unionized. The original 2017 contract did note, "If the Contractor workforce becomes subject to a Collective Bargaining Agreement, Team Mancon reserves the right to a price adjustment for the increase[d] labor expenses."

[35] MASS. BAY TRANSP. AUTH., *MBTA Procurement Manual*, Chapter 1, Section 6 (2015). The MBTA's January 2015 procurement manual was in effect at the time of the subject procurement and therefore serves as the basis of the OIG's analysis.

A. Element 1: Develop clear, accurate, and complete specifications.

Partially. Despite what appeared to be clear, accurate, and complete specifications within the RFP, the MBTA was not internally aligned on all of the specifications. For example, the MBTA knew that its inventory accuracy and inventory process were very poor, but the MBTA did not fully account for services to improve these areas in the RFP. For instance, the RFP did not include a requirement that the vendor staff base locations for the same hours the MBTA staffed them or, alternatively, secure the inventory at those locations. As a result, the MBTA was unable to achieve its goal of inventory control.

Also, the original MBTA-Mancon contract lacked a clear scope of services and agreement on the work that the parties were to perform throughout the contract, as evidenced by the revised SLAs in the restated contract. This lack of clarity clouded the performance expectations for Mancon and hindered the MBTA's ability to enforce contract terms.

B. Element 2: Ensure adequate competition.

Yes. The OIG considers the number of proposers that responded to the MBTA's solicitation as a measure of adequate competition. Five vendors responded to the RFP: Alstom, Banneker, Mancon, Neovia, and Walker. The OIG considers five proposals to be an adequate response to this solicitation.

As discussed in Subsection E. below, the number of responses may have been limited by the MBTA's decision to advertise the RFP only on the MBTA's Business Center and not in trade or industry publications or websites that are used by other transit systems.

C. Element 3: Avoid unreasonable qualifications and excessive bonding requirements.

Yes. The RFP did not contain unreasonable qualifications, excessive bonding requirements, or other restrictive specifications that might have unfairly inhibited vendor participation. Indeed, the OIG found the opposite: that the RFP's specified qualifications were not tailored enough.

The RFP informed respondents that the selection committee would attach significant weight to the information gained from vendor references. Yet, the RFP did not require references to speak to the vendor's capacity in any specific skillset or project, such as warehousing for rail and bus parts. This likely negatively impacted the procurement, considering, as the discussion below shows, that Mancon's performance was deficient. A more robust reference process would have likely uncovered Mancon's lack of proficiency in core areas.[36]

D. Element 4: Complete an independent cost estimate.

Partially. The MBTA completed an independent cost estimate in substance, but not in form.

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[36] For example, Mancon's original proposal represented that it would engage Unipart Rail as a subcontractor, which theoretically would have balanced out Mancon's lack of rail experience. As this report's later findings show, the MBTA took this proposed partnership with Unipart Rail into account when it awarded the contract to Mancon but later failed to act when the partnership did not materialize.

According to the MBTA's procurement manual, the required independent cost estimate provides the "essential information for procurement planning" to ensure the MBTA receives the necessary services at a reasonable price.

For its warehousing and logistics operations RFP, the MBTA hired a consultant, KPMG, to perform cost analyses for warehouse operations. KPMG provided the MBTA with a cost estimate for these services, which, according to the MBTA's current chief procurement officer, was derived from expected Boston labor rates and transportation and storage costs. However, the MBTA did not document KPMG's cost estimate as an independent cost estimate. KPMG embedded its cost information in presentations that were a part of the business case analysis it prepared for the MBTA's senior management. The MBTA then used KPMG's cost analysis in its own presentations to the FMCB in 2016 and early 2017 for its business case to privatize warehouse operations. As noted elsewhere in this report, the MBTA did not have the documentation to support these figures.

While the OIG concludes that the KPMG analysis satisfied the MBTA's requirement to perform an independent cost estimate for this procurement, the MBTA should complete formal written cost estimates that adhere to its policy and include the underlying data to support its conclusions. The MBTA should retain copies of these estimates in the procurement files.

E. Elements 5 and 6: Advertise and publicize the solicitation effectively. Solicit an adequate number of sources.

Partially. The MBTA's procurement manual does not establish a length of time that procurements must be advertised to be competitive, but it does state that "common sense dictates that a procurement opportunity should be advertised long enough to give the vendor community sufficient time to prepare and submit well considered proposals or bids." The MBTA posted its warehousing and logistics operations RFP on its Business Center on June 30, 2016, with an initial due date of August 8, 2016 – an open period of five weeks. In response to vendors' requests for additional time to respond, the MBTA revised the due date to September 12, 2016. This five-week extension doubled the procurement response window.

The MBTA should review the reasons the response time was extended by five weeks.

As stated in Subsection B. above, the MBTA received five responses to its RFP. Based on its experience reviewing MBTA procurements, the OIG considers five proposals to be an adequate response to this solicitation. At the same time, the MBTA's limited publication of its RFP on its Business Center was not conducive to soliciting a wide pool of vendors. Publishing its solicitation on a greater number of platforms – particularly in trade or industry publications – may have attracted a greater number of vendors and possibly could have given the MBTA a better value for the services it was requesting, especially given that these services were not unique.

The MBTA has made procurement-related process improvements that address findings and recommendations from the OIG's previous reviews of other privatization contracts.

The MBTA's Procurement and Logistics Department has implemented policies and procedures that address deficiencies that the OIG previously found in the MBTA's procurement processes and contract management. For example, the MBTA has updated procedures for MBTA buyers and sourcing staff, including standard operating procedures and reference documents. The MBTA has also been updating its procurement manual to align with Federal Transit Administration recommendations.

The MBTA has improved its recordkeeping since 2022 when it committed to enhance internal procurement and oversight procedures. The MBTA's Procurement Department developed an electronic contract records filing system for all relevant procurement-related documents.

In addition, the MBTA has taken steps to increase communication among its business units, particularly when developing specifications for RFPs. The OIG has previously found – across contracts – that the business units were not sufficiently involved in developing the RFPs, leading to contract requirements that were never going to succeed, service level agreements that could not be measured (or simply were not), and invoicing errors that were overlooked. The Procurement Department now works more closely with the business units to develop the requirements and scope of services needed from a vendor and to clearly document those specifications in RFPs.

The procurement is only one part of responsible contracting. Strong vendor management requires designating specific individuals to be responsible for contract oversight. For contracts valued at over $250,000, the MBTA now formally assigns a dedicated contract administrator to oversee performance. The MBTA has also developed a contract administration reference guide for public construction projects that outlines standard actions that the contract administrator should undertake when managing these engagements.

The MBTA has reported to the OIG that it has implemented a new outreach process for contract administrators who oversee vendors and contracts. The MBTA designed this process to promote the resources available from the Procurement and Logistics Department to assist with vendor management, ensure the use of performance metrics, and require contract administrators to confirm that vendors are fulfilling all requirements within their scope of work. The MBTA has also rolled out a "contracts dashboard" to track contract due dates and open purchase orders and to identify those with contract administration duties.

Further, the MBTA has expanded its training for employees involved in vendor and contract oversight. Members of the OIG's ISAU team provided two in-person fraud awareness and prevention classes for MBTA employees in July and November of 2025. Together with the OIG, the MBTA's workforce management team developed self-paced fraud awareness training that it can assign to its employees. And, at the MBTA's request, the OIG developed a Contract Administration training that the MBTA will be able to assign to current and future contract administrators, as well as other staff. The OIG will deliver this virtual, self-paced training to the MBTA for its in-house use this fall. In addition, MBTA employees also attended OIG Academy classes.

Documenting these procedures and expectations in writing will further ensure business continuity and help the MBTA maintain and build on the progress it has made thus far.

The OIG recognizes these improvements, noting the role of the leadership within the MBTA's procurement office.

II. Quality of Services

To determine the quality of services that Mancon provided, the OIG examined the services that the MBTA requested through the RFP, Mancon's representations in its proposal, and Mancon's actual performance. The OIG looked at the results from the parties' restated contract, as well as later change orders and amendments to the contract.

In the original contract, the MBTA developed five performance metrics[37] in the form of service level agreements (SLAs) to track and evaluate Mancon's services. The parties entered a restated contract in October 2018 that removed the SLAs related to stockouts and inventory turnover. The restated contract retained three SLAs, pertaining to (1) inventory accuracy at the central warehouse; (2) normal parts delivery time; and (3) emergency parts delivery time. The parties agreed to these rewritten SLAs to make Mancon's obligations clear and enforceable.

The restated SLAs are described as follows:

> **Inventory Accuracy (Central Warehouse):** Inventory accuracy is "the percent of system-generated blind cycle counted part numbers **at the Central Warehouse** with quantity matching system record for part number, quantity and location in a given month."
>
> **Normal Delivery Time:** Referred to as "Normal Pick to Receipt Time" in the contract, normal deliveries must be received "ten hours or less from end of normal business day." As 13 of the 16 base locations operate Monday through Friday, the parties considered timely delivery to be at or before 10:00 a.m. on the business day following the business day the request was made.[38] The MBTA assessed a penalty if, throughout the month, Mancon did not deliver at least 98% of normal deliveries by 10:00 a.m. the day after the request was made.
>
> **Emergency Delivery Time:** Emergency delivery time is defined as the time from receiving a request for emergency parts – referred to as an emergency request – to delivery and receipt of the **correct parts** at the requesting base location. Each delivery that arrived more than two hours from the emergency request resulted in a penalty, unless the MBTA made an exception for extenuating circumstances. The MBTA charged the penalties each month by deducting from Mancon's invoices.

To meet the privatization waiver's directive to review the quality of services provided by Mancon under the contract, the OIG could only evaluate the data the MBTA collected for three of the five original SLAs because the MBTA had not required Mancon to meet two of the original SLAs that were later stricken in the restated contract. And because the MBTA did not track Mancon's performance on any of the SLAs during the first 16 months of the contract, the OIG only had data to evaluate from mid-2018 on. For each

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[37] Performance metrics hold vendors accountable for the services they are to provide under a contract. They allow a purchasing entity like the MBTA to measure the benefits it receives.

[38] For those locations only operated on weekdays, if a request was made on the weekend the parties considered timely delivery to be at or before 10:00 a.m. Tuesday.

of the SLAs for which the MBTA eventually did track data, both the original and restated contracts established penalties for failing to meet performance targets and incentives for exceeding performance targets.

Figure 5 shows the SLAs, as well as incentive targets and penalties, for all contract years, based on information in the restated contract. The MBTA and Mancon entered the restated contract in October 2018 during Year 2. Although bonuses and penalties were specified in the original contract, the MBTA considered the SLAs too difficult to measure and did not assess bonuses and penalties under those SLAs during the first 19 months of the contract.[39]

Figure 5. Contractual SLAs, Incentive Targets, and Penalties.

Contract Year	Service Level Agreement[40]	Target	Penalties
Year 1 *(Feb. 2017– Jan. 2018)*	Inventory Accuracy (Central Warehouse)	92%	No penalties (transition year)
	Normal Deliveries	Not enforced	
	Emergency Deliveries	Not enforced	
Year 2 *(Feb. 2018– Jan. 2019)*	Inventory Accuracy (Central Warehouse)	93%	1st missed month: warning and letter 2nd consecutive month: 2% penalty[41] 3rd consecutive month: 5% penalty
	Normal Deliveries	Received 98% of previous day's part requests in system by 10 a.m.	
	Emergency Deliveries	Delivered in less than 2 hours	$144 per missed delivery
Year 3 *(Feb. 2019– Jan. 2020)*	Inventory Accuracy (Central Warehouse)	94%	1st missed month: warning and letter 2nd consecutive month: 2% penalty 3rd consecutive month: 5% penalty
	Normal Deliveries	Received 98% of previous day's part requests in system by 10 a.m.	
	Emergency Deliveries	Delivered in less than 2 hours	$149 per missed delivery

[39] In June, July, and August 2018, the MBTA collected SLA data but did not assess penalties or bonuses.

[40] The RFP and original contract referred to the performance metrics as "service level agreements." In the 2018 restated contract, the MBTA began referring to the performance metrics as "key performance indicators."

[41] Penalty percentages were applied to the "incentive eligible cost," calculated as base cost net overhead, net general and administrative expenses (G&A), net profit, net transition cost. The incentive eligible cost for normal deliveries is standard delivery cost net overhead, net G&A, and net profit. The emergency delivery cost is the estimated labor and equipment costs per emergency order (assumed 4 total hours per event).

Contract Year	Service Level Agreement[40]	Target	Penalties
Year 4 *(Feb. 2020–Jan. 2021)*	Inventory Accuracy (Central Warehouse)	95%	1st missed month: warning and letter 2nd consecutive month: 2% penalty 3rd consecutive month: 5% penalty
	Normal Deliveries	Received 98% of previous day's part requests in system by 10 a.m.	
	Emergency Deliveries	Delivered in less than 2 hours	$153 per missed delivery
Year 5 & Option Years *(Feb. 2021–Jan. 2026)*	Inventory Accuracy (Central Warehouse)	95%	1st missed month: warning and letter 2nd consecutive month: 2% penalty 3rd consecutive month: 5% penalty
	Normal Deliveries	Received 98% of previous day's part requests in system by 10 a.m.	
	Emergency Deliveries	Delivered in less than 2 hours	$158 per missed delivery

The restated contract also included a bonus for the inventory accuracy SLA. Figure 6 shows the target for the inventory accuracy SLA and the associated bonus for all contract years, based on information in the restated contract.

Figure 6. Bonuses on Inventory Accuracy SLA.

Contract Year	Target	Bonus
Year 1 *(Feb. 2017–Jan. 2018)*	No bonuses (transition year)	No bonuses (transition year)
Year 2 *(Feb. 2018–Jan. 2019)*	Greater than 98%	2% bonus[42]
Year 3 *(Feb. 2019–Jan. 2020)*	Greater than 98%	2% bonus
Year 4 *(Feb. 2020–Jan. 2021)*	Greater than 98%	2% bonus
Year 5 & Option Years *(Feb. 2021–Jan. 2026)*	Greater than 98%	2% bonus

During 2018 and 2019, after receiving multiple complaints from MBTA employees, the OIG conducted a preliminary review of Mancon's performance under the contract to that point and the MBTA's oversight of the contract. The OIG conducted the review to identify areas of concern and provide recommendations that would help the MBTA successfully administer the contract. The OIG reported on

[42] The bonus percentage was applied to the "incentive eligible cost," calculated as base cost net overhead, net general and administrative expenses (G&A), net profit, net transition cost.

its work in the 2019 ISAU Annual Report, as discussed more fully on pages 14 to 15 of this report. In its preliminary report, the OIG highlighted that the original 2017 MBTA-Mancon contract lacked a clear scope of services regarding the work to be performed. This lack of clarity clouded performance expectations for Mancon and hindered the MBTA's ability to enforce contract terms. The ambiguities in the contract included SLAs that did not clearly define how bonuses and penalties would be determined. The MBTA found that the SLAs were too vague to track. The MBTA never used the original contract's SLAs to govern Mancon's performance (discussed further in Finding 8). The parties agreed to rewritten SLAs in the 2018 restated contract (discussed further in Finding 9).

Finding 6. The MBTA did not establish adequate inventory management controls for base locations in its contract with Mancon.

The OIG found that the MBTA did not develop an adequate process to achieve complete inventory control and management.

Although three of the MBTA's base locations perform maintenance 24/7 and thus require around-the-clock inventory control, the MBTA did not include a requirement in the RFP for 24/7 vendor staffing at these base locations, nor did it require vendor staffing to match hours of operation at other base locations.[43] Further, the RFP established the vendor's responsibility to deliver parts to overnight mechanics within two hours of an emergency request, but the RFP did not account for the need for staff to be available at base locations to accept these deliveries. In the hours when a Mancon employee was not monitoring the base location stockroom, there was limited, if any, inventory control.

The OIG also found that the MBTA did not adhere to procedures to ensure inventory accuracy at base location stockrooms when Mancon representatives were not working. This was a significant risk area and introduced a substantial gap in the inventory control system that the MBTA's contract with Mancon should have been designed to eliminate.

Mancon material planners use electronic barcode scanners at the central warehouse and base location stockrooms to record inventory transactions. Unlike the central warehouse, MBTA mechanics and other staff working in base locations are allowed to remove inventory from base location stockrooms.

Both Mancon material planners and MBTA employees told the OIG that when an MBTA mechanic removes an item from a base location stockroom, the material planner or the mechanic should scan the item so that the MBTA's inventory system, FMIS, is automatically updated. Material planners told the OIG that MBTA mechanics do not always use the scanners and do not notify the material planner to update the inventory count in FMIS.

MBTA base locations at Cabot Bus, Cabot Rail, and Charlestown Bus perform maintenance work 24/7. Mancon did not employ material planners to handle inventory management at base locations on a 24/7 basis, nor was it required to by the MBTA. Because access to base location stockrooms is not

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[43] As reflected in Figure 2, Mancon did not provide 24/7 staff coverage at any base location.

restricted, mechanics can access these stockrooms and take parts at any time of day. Some of the discrepancies in inventory at the base locations appear to be caused by MBTA mechanics who (1) remove parts without scanning them, resulting in a lower floor count than the count in FMIS; (2) scan parts out, realize they do not need them, and return the parts without notifying the material planner, resulting in a higher floor count than the count in FMIS; and (3) put parts on work orders – at which time the material planner will lower the count in FMIS – without removing the parts, resulting in a higher floor count than the count in FMIS.

Without inventory controls the base locations are at risk for fraud, waste, and abuse as well as poor management. This risk undermines the reliability of inventory control within the entire system.

According to the MBTA general foreperson who manages inventory at the base locations, the larger base locations (such as Charlestown and Cabot) are more prone to inventory discrepancies because they are especially busy and mechanics perform maintenance work 24/7.[44] Because Mancon does not staff these base locations overnight, material planners do not oversee the stockroom at night to ensure that MBTA mechanics properly account for parts they remove or return. The OIG notes busyness does not excuse the lack of controls; in fact it is one of the reasons controls are necessary.

The MBTA needs to implement additional inventory controls at its base locations, as a lack of inventory controls carries the risk of inventory loss.

At the time of the procurement, the MBTA should have realized the operational need for around-the-clock inventory control at base locations, in addition to the central warehouse, whether through additional staffing or restricting access to the parts in a secure location until Mancon staff was onsite. Because the MBTA had identified inventory control and inventory processing as critical areas for improvement in its 2016 studies and presentations, the MBTA's RFP should have expressly tied vendor staffing requirements to the agency's need for 24/7 inventory control at certain base locations. By omitting the requirement that inventory be managed or secured 24/7, the MBTA did not adequately address the risk of incomplete inventory management and inventory loss.

Finding 7. The MBTA failed to hold Mancon accountable for not delivering key components of its proposal and requirements under the contract.

The MBTA failed to hold Mancon accountable for not delivering key components of its proposal, including its plan to partner with a company with rail industry expertise, Unipart Rail (Unipart), securing warehouse space, and conducting a timely wall-to-wall inventory. In not delivering on all required contractual obligations, Mancon reduced its ability to perform the essential services required under the contract and increased costs to the Commonwealth.

At the time of the procurement, Mancon had limited experience with the rail transit industry. In its proposal to the MBTA, Mancon represented that it would partner with Unipart, a large logistics

[44] A recent federal indictment alleged misconduct by former and current Cabot Yard employees in an area unrelated to the scope of this review. The indictments underscore the importance of having, and enforcing, strong internal controls.

company based in the United Kingdom. Mancon would be the prime contractor, and Unipart would be its subcontractor. In voting in favor of Mancon's proposal, members of the selection committee thought that the two companies would work together on the MBTA contract. The MBTA's then-chief procurement officer wrote on October 26, 2016, that "Mancon's bus experience combined with Unipart's rail experience dramatically strengthened their overall solution."

The proposed partnership between Mancon and Unipart never came to fruition. The MBTA's contract was exclusively with Mancon, and the OIG was unable to learn from current MBTA employees what happened to the purported partnership or to what extent it ever existed. The OIG's only indication that Unipart was ever involved in the project came from an MBTA official who said Unipart helped move items from the Everett warehouse to the Stoughton warehouse. The OIG has not seen evidence of a dispute between Mancon and the MBTA over this significant deviation from Mancon's proposal.

Mancon's failure to subcontract with Unipart had substantial repercussions on Mancon's performance under the contract. Many of Mancon's hires for material planners lacked knowledge about bus and rail parts. The OIG learned that a few helpful MBTA employees, even though it was not their job nor required under the contract, provided Mancon staff on-the-job training on MBTA bus and rail parts at the base locations. This took those MBTA employees away from their primary job duties. With Mancon also experiencing high staff turnover during the early years of the contract, Mancon was unable to deliver on the contract as expected. The MBTA should have held Mancon to its obligation to provide staff that could perform the work set forth in the contract.

Additionally, during its preliminary review of Mancon operations and performance, the OIG learned that Mancon failed to meet the contractual requirement for secure warehouse space. The original contract required that Mancon establish an area in its central warehouse reserved for high-worth items or security-sensitive materials. At the time of the OIG's preliminary review, Mancon had not created this space, claiming instead that the entire central warehouse was secure.

Mancon's delayed completion of a wall-to-wall inventory is another area where Mancon failed to deliver as expected. Mancon did not conduct the required wall-to-wall inventory until September 6, 2018, 19 months after the contract began and after Mancon had moved the inventory from the MBTA's central warehouses to Mancon's central warehouse in Stoughton. Mancon should have conducted the wall-to-wall inventory before it moved any inventory to be certain that both the MBTA and Mancon had a full, accurate accounting of all inventory and quantities on hand and to ensure that parts were not lost in transit.

The significant alterations from Mancon's proposal and its failure to fulfill other contractual requirements should have prompted the MBTA to renegotiate contract costs. In not doing so, the MBTA likely overpaid for Mancon's services.

Finding 8. The MBTA failed to track Mancon's performance for the first 16 months of the contract.

The original contract included five SLAs, along with corresponding incentives and penalties. These SLAs related to (1) inventory accuracy, (2) normal delivery time, (3) emergency delivery time, (4) stockouts, and (5) inventory turnover. The MBTA did not use these SLAs to assess Mancon's performance for the first 16 months of the contract or otherwise hold Mancon accountable during that period.

The MBTA told the OIG that it did not initially track the SLAs because they were either too vague or too difficult to measure. After working with Alvarez & Marsal (A&M) to modify the SLAs, the MBTA was able to start collecting data in June 2018. In September 2018, the MBTA used the data it gathered to begin assessing penalties or considering incentives. In October 2018, Mancon and the MBTA signed the restated contract memorializing the changes to the SLAs. The restated contract contained three SLAs that had been rewritten (with A&M's assistance) to make Mancon's obligations clear and enforceable.

The OIG's preliminary investigation found that during the first years of the contract Mancon was largely failing to meet its performance expectations, notwithstanding the poorly developed SLAs. Once the MBTA began tracking Mancon's performance against the new SLAs, the early tracking data showed that it took Mancon almost a year to meet all SLA expectations. For instance, Mancon did not meet the restated normal parts delivery time SLA (arrival before 10:00 a.m. the next day) in June, July, August, and December of 2018. Mancon did not meet the restated inventory accuracy SLA (93% accuracy per month in Year 1, 94% per month in Year 2, and 95% per month every year thereafter) until April 2019.

Because the MBTA did not have data to track Mancon's performance against the established SLAs for the first 16 months, the MBTA also did not assess penalties. The MBTA undoubtedly made overpayments, as Mancon's inadequate performance during that time should have resulted in penalties.

The MBTA's failure to assess penalties on behalf of the Commonwealth when Mancon was not delivering the quality of services it was being paid to perform represents a waste of public funds.

Finding 9. In the 2018 restated contract, the MBTA reduced Mancon's obligations without negotiating a corresponding decrease in contract costs.

After contract execution, the MBTA and Mancon amended the scope of work to reduce the original performance requirements. The 2018 restated contract for warehousing and logistics modified Mancon's obligations in three ways: (1) removing two of the five original SLAs; (2) altering the remaining three SLAs; and (3) eliminating the requirement to deliver an inventory system.

Although the restated contract reduced Mancon's overall obligations that the parties originally agreed upon, Mancon's contract rates remained the same. In accordance with sound business practices, when a public agency reduces a vendor's obligations under a contract, the agency should negotiate a corresponding decrease in the contract costs. That did not happen here. When the MBTA restated the contract with Mancon, it did not obtain a corresponding reduction in rates. As it did with Mancon's failure to subcontract with Unipart and to conduct a timely wall-to-wall inventory, the MBTA gave up substantial commitments from Mancon without receiving anything in return.

In the restated contract the remaining SLAs were rewritten to make Mancon's obligations clear and enforceable, but at the same time had the effect of reducing Mancon's obligations, particularly with respect to normal delivery time.

The **restated normal delivery time** SLA changed the timeframe for deliveries to account for Mancon's work schedule. The original SLA stated that Mancon needed to make normal deliveries in 10 hours or less from the end of the normal business day. This original SLA was unenforceable because Mancon employees were responsible for receiving inventory at the base locations, but Mancon did not staff the base locations 24/7 or within the window of 10 hours from the end of the normal business day. Thus, there were hours when a Mancon employee was not available on-site at the base location to record when a delivery arrived. By adjusting the delivery time to 10:00 a.m. the next business day, a time when Mancon employees would be onsite and available to record the delivery and document the arrival time, the MBTA made the restated SLAs more practically enforceable.

The **restated emergency delivery** SLA clarified that Mancon must deliver the **correct parts** to base locations for the MBTA to consider the delivery on time. Technically, under the original SLA, Mancon could meet the emergency delivery SLA even if it delivered the wrong parts in under two hours.

The **restated inventory accuracy** SLA made clear that Mancon was responsible for inventory accuracy at the central warehouse only. The MBTA would not evaluate Mancon for inventory accuracy at the base locations, which in any event had not been specified in the original contract.

The current MBTA warehouse management team was not involved in creating the restated contract and therefore could not definitively answer why the MBTA removed the SLAs related to **stockouts** and **inventory turnover**. In an interview with the OIG, the MBTA management team stated that the SLAs were presumably dropped from the restated contract because Mancon was no longer responsible for inventory purchasing and management.

Sections 3.3 and 3.4 of the RFP required a "warehouse management system (WMS) that interfaces with [the MBTA's existing system]." Mancon accordingly proposed a warehouse inventory system called Counterpoint to improve the MBTA's existing system, FMIS. After the parties entered into the original contract, MBTA personnel considered how Counterpoint would integrate into FMIS and expressed concerns about the accuracy of the data flow between the two systems. An IT consultant for the MBTA found that Counterpoint did not have the inventory and supply chain management capabilities the MBTA needed. Instead of using Counterpoint to track warehouse inventory, the MBTA upgraded its existing FMIS system at an additional cost.[45] In the restated contract, the MBTA removed the requirement that Mancon provide an inventory system.

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[45] In its presentation to the FMCB on privatizing warehouse services, the MBTA estimated the cost to upgrade FMIS would be $1 million.

Regardless of the MBTA's rationale for not using Mancon's inventory system and for making changes to the SLAs, there is no doubt that these modifications represented a reduction in Mancon's obligations. As a steward of public funds, the MBTA had a duty to seek an adjustment to the contract's price when it agreed to reduce Mancon's obligations.

Finding 10. From the end of 2018, the MBTA's active contract management improved.

The first two years of the MBTA's contract with Mancon were marked by underperformance by Mancon and poor contract management by the MBTA. In its 2019 review, the OIG found that the MBTA did not have the necessary experience, resources, and capabilities to effectively administer the contract and monitor Mancon's performance during the first two years. Notably, the MBTA's director of warehousing and logistics departed the MBTA in 2017, during the first year of the contract; this position remained unfilled for about a year. The OIG found that this void, and the lack of other managers with third-party logistics expertise, negatively impacted the MBTA's oversight of Mancon during the early years of the contract.

By the end of 2018, the MBTA had hired a consultant, revised the contract, and hired new staff to manage it. Over the next few years, Mancon's performance improved and remained consistent through the final day of the contract on January 31, 2026. The OIG attributes Mancon's improvement mostly to the MBTA's hiring of in-house management with third-party logistics experience to oversee the operation (acquired by the MBTA at a significant cost) and an amended contract that set clear performance expectations.

A. New MBTA Warehouse Management Team

In 2018, both independently and in working with its consultant, Alvarez & Marsal (A&M), the MBTA identified gaps in its knowledge that were hindering its effective oversight of Mancon and warehouse operations.

In an interview with the OIG, the MBTA's director of vendor management who assisted Mancon from 2018 to early 2022 stated that early in the contract the lack of consistent subject matter expertise within MBTA management had a negative impact on the oversight of Mancon. One MBTA employee, who worked in warehouse operations before privatization and remains in their role, told the OIG that when the MBTA was transitioning operations to Mancon, MBTA management had no experience in logistics and did not know what questions to ask or how to hold Mancon accountable.

To address these information gaps, the MBTA took steps to boost its internal warehouse management team. First, in 2018, the MBTA filled the open director of warehouse operations role (now titled a senior director) that had been vacated during the Mancon transition period. Then, in 2019, the MBTA added a new deputy director position (now titled a director) to assist the then-director in overseeing Mancon and other logistics operations. MBTA employees and management told the OIG that the expertise and continuity that these new hires brought to their roles improved Mancon's accountability and performance. These two roles have remained filled as of the date of this report.

B. Implementation of A&M's Recommendations in Restated Contract

As described in Finding 2, in December 2017 the MBTA hired A&M to help course-correct the MBTA's oversight of Mancon. The MBTA used A&M through January 2019. A&M assisted the MBTA and Mancon in entering their restated contract in 2018.[46] That contract incorporated specific recommendations from A&M that updated the SLAs to be more measurable and enforceable than those in the original contract.

The parties established clearer expectations in the restated contract in several ways.

First, as described in Finding 9, the parties removed the requirement that Mancon provide the MBTA with an inventory management system. Mancon's proposed solution, Counterpoint, had neither the inventory and supply chain management capabilities the MBTA needed nor the capacity to integrate with FMIS to provide accurate data. Because of those limitations, the MBTA decided to internally upgrade FMIS instead of using Counterpoint.

Second, the restated contract required Mancon to designate a program manager dedicated to the MBTA. The program manager's responsibilities included managing the delivery of Mancon's services and working with the MBTA to address daily issues. The MBTA had final approval for the program manager hire.

Third, as also previously described in Finding 9, the MBTA and Mancon revised the original SLAs in the restated contract. The restated SLAs, although reducing Mancon's obligations, were measurable and allowed the MBTA to gather data to assess penalties and incentives for Mancon's performance.

Finding 11. Mancon's performance on SLAs improved with more experience and greater MBTA oversight.

As part of its review, the OIG met with Mancon material planners and MBTA employees during site visits to several base locations. MBTA employees told the OIG that Mancon employees' unfamiliarity with their inventory was a source of frustration in the early years of the contract. The Mancon employees that the OIG interviewed during the beginning years of the contract had limited experience with rail and bus parts.

Based on what the OIG was able to observe,[47] Mancon employees generally improved their performance on the restated SLAs over the life of the contract as they became more familiar with the MBTA's operations and parts and as the MBTA improved its contract management.

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[46] The restated contract the MBTA provided to the OIG was undated; the OIG learned that the MBTA and A&M developed it in October 2018.

[47] As noted in earlier in this report, the OIG was unable to assess the full extent of Mancon's performance at the base locations, as MBTA executive management halted the OIG's base location site visits and hindered the OIG from continuing to interview MBTA base location employees who interacted with Mancon's material planners.

A. Inventory Accuracy SLA

The revised inventory accuracy SLA required Mancon to achieve an inventory accuracy rate at the central warehouse of 92% per month during Contract Year 1, 93% per month during Contract Year 2, 94% per month during Contract Year 3, and 95% per month in subsequent contract years.

For the first month that Mancon missed the target percentage, the MBTA would issue a warning. If Mancon missed the SLA two months in a row, the MBTA would impose a penalty of 2% of the incentive eligible cost. If Mancon missed the target percentage for three or more months in a row, the MBTA would impose a penalty of 5% of the incentive eligible cost.

The MBTA began collecting SLA data in June 2018, but it did not track Mancon's performance on any of its SLAs until September 2018, after the restated contract went into effect. The OIG's data analysis thus starts with September 2018.[48]

Mancon failed to meet the inventory accuracy SLA for all months from September 2018 through March 2019 and the MBTA assessed $66,612 in penalties during this time. However, Mancon's inventory accuracy at the central warehouse was steadily improving, and Mancon managed to meet the SLA by April 2019 and then met it every month up to November 2025. The MBTA did not assess the inventory accuracy SLA for the contract's last two months (December 2025 and January 2026) because the inventory had been moved to the MBTA's West Bridgewater warehouse, and the parties did not agree on the inventory to be counted there.[49]

B. Normal Delivery SLA

"Normal" deliveries could be generated in two ways: (1) automatically – when the inventory at base locations reached a minimum quantity level and needed to be refilled; and (2) through manual requisitions by base locations. The MBTA set the minimum and maximum quantity levels for parts and supplies.

When the FMIS showed that an item was at its minimum quantity, the FMIS triggered a request to the central warehouse to deliver more of that item to the base location. Mancon employees at the central warehouse picked the requested items and transported them to the base location, and a Mancon material planner received the items. Under the restated contract, the MBTA required normal deliveries to arrive before 10 a.m. of the day after base locations made the request. As previously discussed, the MBTA implemented the 10 a.m. delivery time to ensure Mancon employees were available at base locations to receive deliveries.

[48] To more specifically evaluate Mancon's performance on SLAs, the OIG reviewed dashboards which the MBTA developed, although it did not verify the accuracy of its SLA dashboards as part of its review. Of note, the MBTA's dashboards did not specify the quantity of inventory the MBTA reviewed in each cycle count.

[49] The restated contract stated that "the contractor and MBTA will agree on cycle count frequency," which the MBTA and Mancon interpreted to mean that the MBTA required Mancon's approval to conduct cycle counts.

The contract's SLA required that Mancon deliver at least 98% of normal deliveries on time.[50]

As with the SLA for inventory accuracy, the MBTA did not collect and track data for the normal on-time delivery SLA until June 2018. Mancon did not meet this SLA until September 2018 but thereafter met the SLA for all months of the contract period except for December 2018.

Incorrect Deliveries

In its 2019 preliminary report, the OIG recommended that the MBTA implement a system to monitor deliveries of incorrect bus and rail parts after MBTA staff reported that it was not uncommon for Mancon to deliver the wrong supplies from the central warehouse to base locations. When the OIG conducted its current assessment, it did not find evidence that incorrect deliveries continued to be a problem. And while not a metric tracked by the MBTA, Mancon's achievement of the normal delivery SLA indicates that there were minimal instances in which Mancon delivered incorrect parts after September 2018.

C. Emergency Delivery SLA

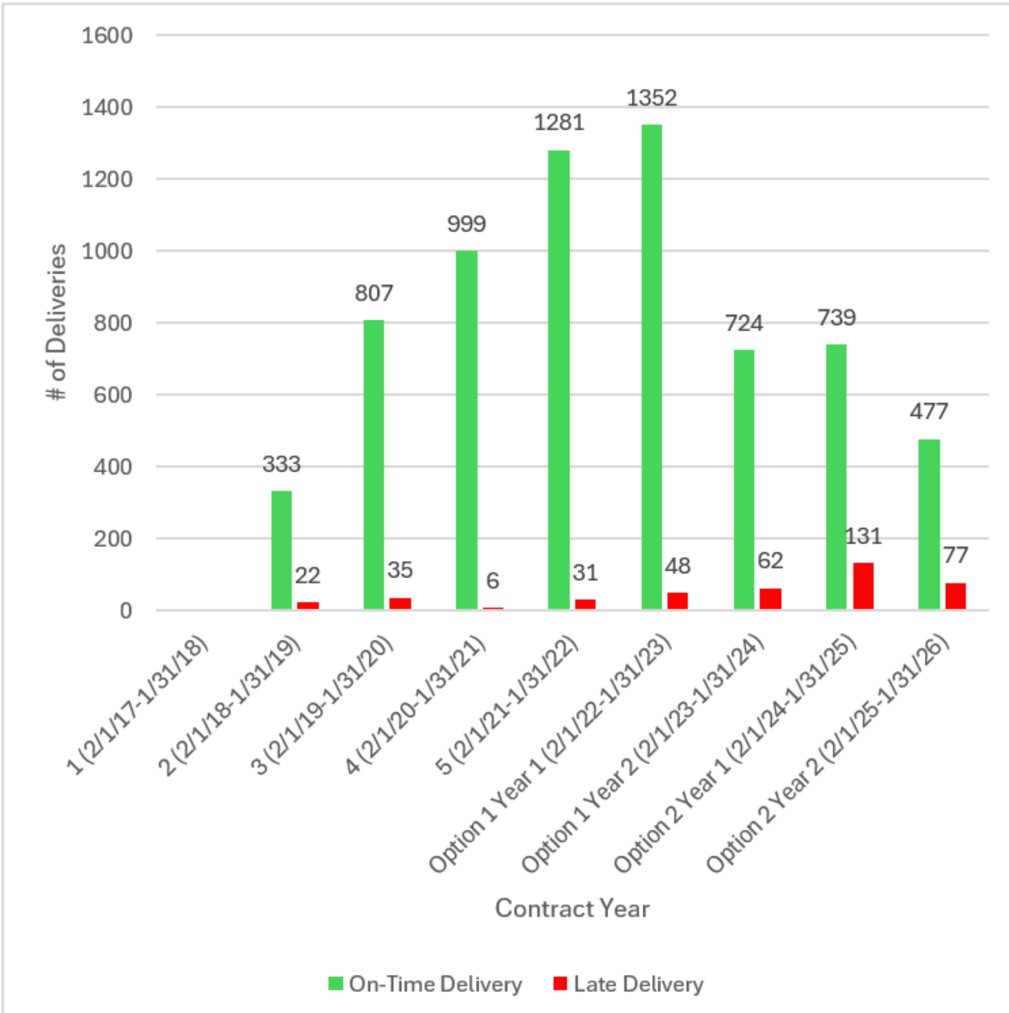
The contract required Mancon to deliver parts from emergency requests in less than two hours. Emergency deliveries were meant to quickly provide MBTA employees with parts needed to avoid bus and rail service disruptions.[51] Unlike the other SLAs, which the MBTA assessed on a monthly percentage, the MBTA penalized Mancon for each late emergency delivery. The MBTA assessed the penalties at the end of the month. The MBTA began recording emergency delivery data in July 2018.

[50] The MBTA did not record the number of normal deliveries that occurred each month, but recorded the percentage of deliveries that were on time.

[51] MBTA management told the OIG that MBTA employees did not always limit emergency requests to true emergencies where service could be impacted. Therefore, when Mancon was late on an emergency delivery, it did not mean that a service disruption resulted.

Figure 7 shows the number of Mancon's on-time and late emergency deliveries for each contract year.[52]

Figure 7. Mancon's On-Time and Late Emergency Deliveries – By Number.



As shown in Figure 7, Mancon made a total of 7,124 emergency deliveries over the course of the contract, 6,712 of which were on time and 412 of which were late. Late deliveries account for 6% of Mancon's total emergency deliveries made from July 2018 (when the MBTA began tracking this SLA) to the contract's end.

The MBTA management provided a few potential reasons why emergency requests increased between 2020 and 2022, including:

1. *New bus and rail fleets.* A period of adjustment usually follows instances in which the MBTA acquires new fleets with new parts it has not used before.

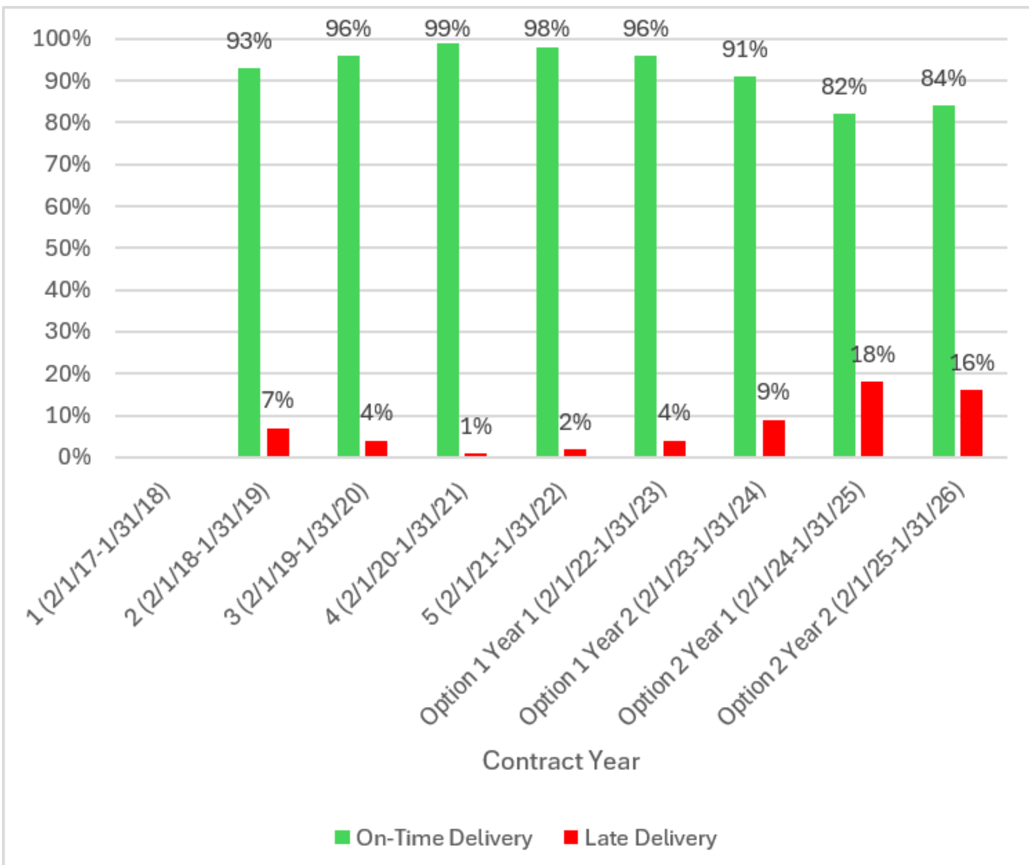
[52] The MBTA did not collect SLA data in the first year of the contract.

2. *Addition of new base locations.* Additional base locations result in additional requests.
3. *Adjustment of minimum and maximum levels.* The MBTA sets minimum and maximum levels for new parts and adjusts them over time as it becomes more familiar with the pace of replacement. In the short term, this can lead to more shortages and thus more emergency requests.

Conversely, the MBTA explained, emergency requests declined from 2023 to the contract's end because the MBTA improved its tracking and management of parts at base locations. With this improvement in parts tracking, the MBTA also made adjustments to minimum and maximum inventory levels, and communicated to its employees that base locations should not submit emergency requests solely to ensure that parts arrive by the next day.

Figure 8 reflects Mancon's on-time and late emergency deliveries shown as yearly percentages.[53]

Figure 8. Mancon's On-Time and Late Emergency Deliveries – By Percentages.



As shown in Figure 8, from 2018 through 2023, Mancon delivered 90% or more of its emergency requests within the two-hour window. From February 2024 through the end of the contract, Mancon

[53] The MBTA did not collect SLA data in the first year of the contract.

demonstrated a notably higher rate of late deliveries in response to emergency requests, doubling its rate of late emergency deliveries from 9% to 18% in Option 2, Year 1 (2024), before improving slightly to 16% in Option 2, Year 2 (2025).

According to MBTA management, Mancon had difficulty meeting the two-hour window for emergency requests during the last two years of the contract because of traffic and the location of the central warehouse.

Mancon met this SLA most successfully during Contract Year 4 (2020), when the onset of pandemic restrictions meant that roads had lighter traffic with fewer commuters. Mancon reported to the MBTA that its travel times increased once traffic congestion returned, reducing its ability to meet the two-hour delivery window for every emergency request.

The relocation of the central warehouse in November 2025 from Mancon's location in Stoughton, Massachusetts, to the MBTA's new central warehouse location in West Bridgewater, Massachusetts, increased emergency delivery times during the last months of the contract. The West Bridgewater warehouse is farther away from the base locations.

III. Expected and Actual Costs

In accordance with the privatization waiver, the OIG analyzed the expected costs of the contract against the actual costs the MBTA incurred.

To measure expected costs, the OIG used the rates that Mancon proposed in its best and final offer. The MBTA and Mancon agreed on these rates and included them in the original contract the parties signed.[54] The original contract was for five years, with two options to extend the engagement.

The OIG derived the actual costs from Mancon's invoices that the MBTA approved and paid over the life of the contract. Actual costs varied from year to year and month to month, based on the volume and nature of warehouse services performed under the contract.

For the five years making up the original base contract period (February 1, 2017, to January 31, 2022), the MBTA and Mancon agreed to a combined rate of $27,592,066.36 (the expected cost).[55] Over

[54] The original contract included performance-based bonuses (and penalties) if Mancon met (or did not meet) certain SLA requirements. The original contract did not define the base amount the MBTA would use to calculate the 2% bonus payment. As a result of this unclear methodology, the OIG could not reasonably estimate the expected bonus payments over the entire life of the contract and did not include bonus calculations in expected costs. The 2018 restated contract specified that the MBTA would calculate the bonus on a specific incentive eligible cost.

[55] During its January 9, 2017 presentation to the FMCB, the MBTA said that its "maximum obligation" for the original five-year contract period would be $28.4 million. Neither the original contract nor the MBTA's presentations to the FMCB provide a breakdown for how the MBTA arrived at this $28.4 million figure, which the FMCB relied on to approve the procurement. The OIG is concerned that the MBTA cannot replicate its calculations. Without any supporting documentation, the OIG cannot discern the reason for the variance between the expected cost presented to the FMCB and the expected cost defined in the contract. For its analysis, the OIG uses the contract rates.

this period, the actual cost was $27,927,540.95 – a 1.22% increase from the expected costs. Figure 9 below outlines the expected and actual costs, by year, for the original base contract period.

Figure 9. Expected Costs vs. Actual Costs for the Original Five-Year Contract Period.

Expected Costs Based on Contract Terms		Actual Costs Based on Invoices Submitted by Mancon		Variance
Year 1 (2/1/2017-1/31/2018)	$5,509,249.72	Year 1 (2/1/2017-1/31/2018)	$4,952,810.23	($556,439.49)
Year 2 (2/1/2018-1/31/2019)	$5,657,260.64	Year 2 (2/1/2018-1/31/2019)	$5,548,873.56	($108,387.08)
Year 3 (2/1/2019-1/31/2020)	$5,764,990.28	Year 3 (2/1/2019-1/31/2020)	$5,844,563.32	$79,573.04
Year 4 (2/1/2020-1/31/2021)	$5,270,702.43	Year 4 (2/1/2020-1/31/2021)	$5,633,709.04	$363,006.61
Year 5 (2/1/2021-1/31/2022)	$5,389,863.29	Year 5 (2/1/2021-1/31/2022)	$5,947,584.80	$557,721.51
Total Expected Cost	$27,592,066.36	Total Invoice Cost	$27,927,540.95	**$335,474.59**

As Figure 9 shows, when comparing the MBTA's actual invoices over the first five years of the contract – $27,927,540.95 – to the expected costs of $27,592,066.36, the MBTA exceeded those expected costs by $335,474.59. In addition to exceeding expected costs, as detailed in Findings 7 and 9, the MBTA received fewer services from Mancon than specified in the RFP and the original contract.

The two options included in the original contract were for two years each (February 1, 2022, to January 31, 2024; February 1, 2024, to January 31, 2026), altogether giving the parties the option to extend the engagement for an additional four years. Mancon's best and final offer included annual rates for these option years as well. For the extended timeline of a nine-year contract period, the adjusted expected cost was $50,753,476.55.

The MBTA and Mancon agreed to exercise both options and formalized the extensions in two Notice of Extension letters dated December 21, 2021, and December 21, 2023. Thus, the contract ultimately extended over nine years, from February 1, 2017, to January 31, 2026. Over this nine-year contract period, the adjusted expected cost was $50,753,476.55 and the actual cost was $55,032,265.93, an 8.43% increase from the expected costs. Figure 10 below outlines the expected and actual costs, by year, for the entire nine years of the contract.[56]

[56] The actual costs in Figure 10 include payments that the MBTA made to Mancon for the expanded scope of services the parties agreed to during the contract.

Figure 10. Expected Costs vs. Actual Costs for the Entire Nine-Year Contract Period.

Expected Costs Based on Contract Terms		Actual Costs Based on Invoices Submitted by Mancon		Variance
Year 1 (2/1/2017-1/31/2018)	$5,509,249.72	Year 1 (2/1/2017-1/31/2018)	$4,952,810.23	($556,439.49)
Year 2 (2/1/2018-1/31/2019)	$5,657,260.64	Year 2 (2/1/2018-1/31/2019)	$5,548,873.56	($108,387.08)
Year 3 (2/1/2019-1/31/2020)	$5,764,990.28	Year 3 (2/1/2019-1/31/2020)	$5,844,563.32	$79,573.04
Year 4 (2/1/2020-1/31/2021)	$5,270,702.43	Year 4 (2/1/2020-1/31/2021)	$5,633,709.04	$363,006.61
Year 5 (2/1/2021-1/31/2022)	$5,389,863.29	Year 5 (2/1/2021-1/31/2022)	$5,947,584.80	$557,721.51
Option 1 Year 1 (2/1/2022-1/31/2023)	$5,534,313.61	Option 1 Year 1 (2/1/2022-1/31/2023)	$6,301,853.06	$767,539.45
Option 1 Year 2 (2/1/2023-1/31/2024)	$5,701,303.60	Option 1 Year 2 (2/1/2023-1/31/2024)	$6,317,262.52	$615,958.92
Option 2 Year 1 (2/1/2024-1/31/2025)	$5,874,158.43	Option 2 Year 1 (2/1/2024-1/31/2025)	$7,537,042.73	$1,662,884.30
Option 2 Year 2 (2/1/2025-1/31/2026)	$6,051,634.55	Option 2 Year 2 (2/1/2025-1/31/2026)	$6,948,566.67	$896,932.12
Total Expected Cost	$50,753,476.55	Total Invoice Cost	$55,032,265.93	**$4,278,789.38**

As shown in Figure 10, when comparing the expected costs of the *initial* scope of services to the actual costs, the OIG found that the MBTA paid Mancon over $4.2 million more than it expected to pay over the length of the nine-year contract. As described in Finding 12, the MBTA requested additional services from Mancon over the nine-year period and Mancon's contract rates accordingly changed during the option years.

The actual cost of the contract with Mancon was less than expected for the first two years of the contract but greater than expected every year thereafter.

Finding 12. The MBTA initiated multiple changes allowed by the contract, which raised the actual contract costs.

The actual cost of the contract was less than expected for the first two years of the contract but greater than expected every year thereafter. The MBTA and Mancon extended the contract from five to nine years, which adjusted the expected costs and increased the actual costs. The MBTA paid more than the adjusted expected amount of the contract for other reasons allowed by the contract, including (1) additional work that Mancon would perform and additional Mancon staffing at two new base locations; (2) adjusted contract rates to account for the unionization of Mancon's staff; and (3) bonus payments for SLAs for inventory accuracy.

As detailed in Figures 11 and 12, the MBTA signed one contract change order and six contract amendments between October 2017 and August 2025, which increased the scope and cost of the contract.

A. Expanded Scope of Services

The OIG analyzed the MBTA's costs for the additional work that the MBTA requested from Mancon during the nine-year contract period. Over the course of the contract, the MBTA agreed to one change order and four amendments that added new warehouse-related Mancon services and Mancon staffing at two new base locations.

Figure 11 below details the expanded services and their related costs.[57]

Figure 11. Contract Change Order, Amendments, and Associated Costs.

Cost of Change Order and Amendments		Summary	Date Entered
Change Order 1	$951,217.42	Added a not-to-exceed sum of $951,217.42 for capital spares servicing. Required relocation and storage of material from capital spares warehouse in Medford to the Stoughton warehouse.	10/24/2017
Amendment 1	$427,316.10	Added one Mancon position at Everett bus base location and one at the capital stores warehouse.	2/24/2020
Amendment 2	$447,204.52	Removed the capital stores warehouse position and adjusted the price of the capital spares services.	2/1/2022
Amendment 4	$1,427,936.35	Accounted for a new base location at GLX Somerville and a new warehouse in West Bridgewater. Added five new employees between the two locations, increasing the cost.	3/1/2023
Amendment 6	$154,217.00	Accounted for the cost of relocating the central warehouse from Stoughton to West Bridgewater. Cost included pallets, shelves, trucks, and labor to move the inventory.	8/1/2025
Total	**$3,407,891.39**		

The $3,407,891.39 cost of the expanded scope of services itemized in Figure 11 was not part of the MBTA's 2017 total expected costs calculations. The larger adjustments that the MBTA did not include in its original cost estimates were the MBTA's addition of two base locations for Mancon to staff and support.

[57] The change order and amendments increased the contract's overall value and encumbered funds for the engagement. The MBTA paid for the expanded services related to the change order and amendments over time and not in lump sum payments. The costs of these expanded services are included in the contract's actual costs summarized in Figure 10.

B. Adjustments for Mancon Union Rates

The OIG reviewed two amendments related to the unionization of Mancon's staff, which resulted in higher labor rates that Mancon passed on to the MBTA. Figure 12 below details the increased labor rates.

Figure 12. Amendments and Associated Rates.[58]

Cost of Change Orders and Amendments		Summary	Date Entered
Amendment 3	$1,183,198.00	Adjusted the first two option year prices to account for union rate changes.	8/5/2022
Amendment 5	$1,678,482.93	Adjusted the last two option year prices to account for union rate changes. The amendment also ended the capital spares services from Change Order 1.	2/1/2024
Total	**$2,861,680.93**		

The original 2017 contract stated, "If the Contractor workforce becomes subject to a Collective Bargaining Agreement, Team Mancon reserves the right to a price adjustment for the increase[d] labor expenses." When Mancon's workforce unionized, Mancon increased its rates as allowed by the contract. This resulted in the MBTA increasing the cost of the contract by $2,861,680.93 more than its 2017 expected cost calculations.

C. Bonus Payments

In the later years of the contract, Mancon met the majority of its SLA targets and received performance-based bonus payments that increased actual costs. The OIG was not able to compute all potential bonus payments into its figure for expected costs because, as explained in Finding 8, the original contract did not define how bonuses would be determined. The OIG calculated that the MBTA awarded Mancon $837,973 in bonus SLA payments and assessed $133,806 in penalties over the life of the contract, resulting in the MBTA paying Mancon a net total of $704,167 more on the contract in bonus payments.[59] Notably, this amount would have been less had the MBTA tracked SLAs and charged penalties during the first 19 months of the contract.

Finding 13. Because the MBTA had to invest more resources than originally anticipated, the actual costs of the privatization were greater than expected costs.

In addition to payments made directly to Mancon under the contract, the MBTA incurred additional program costs to support warehousing and logistics privatization. These costs included

[58] The costs related to unionization are included in the contract's actual costs summarized in Figure 10.

[59] The net additional payments are included in the contract's actual costs summarized in Figure 10.

payments for consultants, extraneous storage, new MBTA hires, and other internal staff transfers. As a result, the total cost of the privatization extended beyond the costs anticipated by the contract.

The MBTA did recoup some costs initially identified in its presentation to the FMCB in 2017 – albeit significantly short of what the MBTA calculated. The MBTA was able to lease previously used warehouse space to a private company and sold obsolete inventory that was deemed unnecessary – as described later in this finding, receiving significantly less revenue for it than it had previously anticipated.

A. Additional Program Costs

During its preliminary review in 2018 and 2019,[60] the OIG deemed that "program costs" to privatize warehouse operations included more than just payments to Mancon. The OIG included the cost of all associated consultants, then-current and new MBTA employees to support warehouse operations, and other administrative expenses.

The OIG found in its preliminary review that consulting costs directly supported the MBTA's warehouse contract oversight and therefore were part of the actual cost of privatizing warehousing and logistics operations. The consultants, which included Optio Tempore, A&M, and two IT consultants, added over $2.5 million in privatization costs.

The MBTA told the FMCB it would avoid the cost of upgrading FMIS by privatizing. The MBTA then decided not to use Mancon's proposed inventory system because it could not meet the MBTA's inventory and supply chain management needs. In the end, the MBTA did pay to upgrade FMIS, which it did without seeking an adjustment in contract price when it decided not to use Mancon's system. The OIG did not calculate the cost of the upgrade.[61]

The MBTA hired two consultants to help the MBTA upgrade FMIS, but those consultants did not track the actual hours they spent on specific tasks. Therefore, the OIG could not evaluate the cost of these additional consultants. Although the total amount the MBTA spent on consultants for privatization is difficult to determine, the OIG has determined based on available information that it was over $2.5 million.

The MBTA hired four new staff members specifically for warehouse oversight and transferred three existing staff to support warehouse operations. The OIG included these salaries and related employment costs (pension and healthcare) in determining additional costs, as the MBTA used these salaries and costs in calculating in-house costs in its business case for privatization. The OIG also included an additional employee at 50% of their salary because the employee spent at least 50% of their time on warehouse operations.

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[60] *See* the ISAU 2019 Annual Report, pages 23 through 30.

[61] In its presentation to the FMCB on privatizing warehouse services, the MBTA estimated the cost to upgrade FMIS would be $1 million.

The OIG's preliminary review identified other costs, including rental costs for a warehouse in Medford where the MBTA stored obsolete inventory and staged items for auction. The MBTA had not anticipated or accounted for those costs or for the costs of handling, transporting, storing, and auctioning obsolete inventory in its expected costs estimate. The MBTA paid Mancon $51,747 to move obsolete inventory from the original Everett warehouse to Mancon's central warehouse in Stoughton, then to transport items to an auction site in Medford.[62]

B. Recouped Costs

The MBTA claimed it would save $11 million through better inventory management. During its preliminary review, the OIG could not validate this claim because – following the presentation to the FMCB where it pitched these figures – the MBTA did not internally track how it was accomplishing better inventory management. The MBTA, therefore, could not demonstrate that it realized $11 million in cost savings.

The MBTA also claimed that it could receive $11.7 million from the sale back, liquidation, or scrapping of obsolete inventory. The MBTA did not achieve these other financial benefits that the MBTA had characterized as savings in 2017. The prior OIG review of the Mancon contract found minimal benefits on this front. In fact, at the time of the OIG's preliminary review, the MBTA had auctioned 75 types of obsolete inventory and had received only $2,750.24.

After privatizing warehouse services, the MBTA was able to lease a section of its former Everett warehouse to Encore Boston Harbor. As shown in Figure 13, the OIG included this lease revenue as a credit because the warehouse space became available as the direct result of outsourcing warehouse operations. According to its terms, the Everett lease seems to have ended by November 1, 2019. The OIG did not find evidence that Encore Boston Harbor exercised the options to extend the lease for another two years.

C. Summary of Additional Program Costs and Recouped Costs

Collectively, these program costs substantially increased the difference between the MBTA's expected costs and its actual costs of privatization. Further, the anticipated earnings and recouped costs did not offset the additional program costs. Figure 13 below shows additional costs the MBTA incurred as part of the warehouse program, as well as the earnings and offsets (or credit) the MBTA realized by privatizing warehouse operations.

[62] Although this amount was de minis compared to the overall cost of privatization, it nevertheless represents another related, actual cost. The OIG considers these costs questionable as well because obsolete items were moved twice prior to auctioning. And, as described in Section B of this finding, revenue generated from these auctions was far less than what the MBTA predicted it would generate in its presentation to the FMCB.

Figure 13. Summary of Additional Warehouse Program Costs and Credits.

Program Expense or Credit	CY16	CY17	CY18	CY19 (to 10/01)	Total
Consultants to Support the Privatization	$32,825	$659,797	$1,853,394		**$2,546,016**
MBTA New Hires for Warehouse Oversight		$380,825	$667,700	$658,313	**$1,706,838**
MBTA Employees Transferred to Warehouse Oversight		$488,765	$553,269	$388,908	**$1,430,942**
Medford Rent		$174,652	$189,866	$48,442	**$412,960**
Everett Lease to Encore Boston Harbor		$(51,785)	$(630,735)	$(219,752)	**$(902,272)**
Sale of Obsolete Inventory		$(2,750)			**$(2,750)**
Inventory Storage and Auctioning Costs		$51,747			**$51,747**
Totals	**$32,825**	**$1,701,251**	**$2,633,494**	**$875,911**	**$5,243,481**

Finding 14. The MBTA paid more than $480,000 in miscalculated bonus payments.

Each month, Mancon sent an invoice to the MBTA for payment. Under the contract, the MBTA would pay Mancon through electronic funds transfer within 45 days from invoice receipt.

A. Invoice Analysis

The OIG analyzed Mancon's invoices to ensure the accuracy of the amounts billed and to determine whether the MBTA applied the prompt-pay discount (PPD) correctly. Per the contract, the PPD would reduce the invoice amount by 1% if the MBTA issued the payment within 10 days or by 0.5% if it issued payment within 20 days.

The OIG found minor discrepancies between the invoice amounts and the amounts the MBTA originally paid applying the PPD. The OIG further found that the MBTA had rectified all of the discrepancies, except one: the MBTA incorrectly applied a PPD discount to one invoice, which lowered the amount it paid by $5,507.05.

The MBTA reduced payment to Mancon on a few occasions for other reasons:

1. The MBTA deducted $15,000 from an invoice for an unspecified incident of theft.
2. The MBTA reduced three invoices by a total of $11,799.93 while it was in the process of negotiating the labor cost adjustment with Mancon after Mancon employees unionized.

3. The MBTA reduced an invoice by $2,031.35 to compensate for repairs the MBTA had to perform on infrastructure that Mancon damaged.

B. Overpayment of Bonuses

The MBTA alerted the OIG that Mancon had overbilled the MBTA by applying an inflated bonus percentage on 58 invoices between January 2020 and September 2025. The MBTA calculated the amount it paid in overbillings to be $480,694.

Section 6.2.1 of the contract addressed incentivized performance targets and financial implications (bonuses and penalties). The contract established potential bonus payments of 2% and penalties of up to 5%. Mancon was eligible to receive a 2% bonus on an incentive eligible cost beginning in Contract Year 2 if inventory accuracy was greater than 98% for the month. If Mancon failed to meet its SLA for inventory accuracy for two months in a row, the MBTA would apply a penalty of 2% on the incentive eligible cost. The penalty would increase to 5% if Mancon missed the SLA for three consecutive months.

Mancon began achieving greater than 98% inventory accuracy in December 2019. In subsequent months when Mancon continued to meet or exceed the 98% benchmark, Mancon included a 5% bonus amount on its invoices submitted to the MBTA. Mancon should have applied and billed a 2% bonus rather than a 5% bonus for meeting the SLA. Over this time, various MBTA employees signed off on Mancon's 58 invoices for payment.

MBTA vendor management staff eventually uncovered the overbilling in November 2025 and alerted MBTA senior management and the OIG.

MBTA officials pursued recovery of the overpayment by withholding money on Mancon's last invoice payments. Mancon disputed the MBTA's claim. The MBTA and Mancon ultimately agreed on April 29, 2026, that Mancon would pay the MBTA $319,060 to resolve all final payments due under the contract, including resolving the payment dispute.

Although the MBTA initially missed these overpayments, the OIG commends the MBTA for eventually discovering the miscalculated bonus payments and taking action to recover these funds.

IV. Cost-Benefit Analysis

In accordance with the privatization waiver, the OIG analyzed whether the costs of the contract exceeded the benefits derived from the contract.

The OIG reviewed the MBTA's main goals for hiring a third-party vendor to handle warehousing and logistics operations and found that the MBTA achieved some, but not all, of its expected benefits. As the MBTA represented in its 2016 and 2017 presentations to the FMCB and its required annual reports to the Legislature, the MBTA sought to partner with a third party that could:

1. Reduce operating costs;

2. Improve inventory accuracy at the central warehouse;
3. Provide reliable delivery times;
4. Operate on a 24/7 schedule; and
5. Leverage a vendor's materials management experience.

Based on its review, the OIG herein highlights the improvements realized, the original goals that were not totally achieved or prioritized, the continuing concerns regarding gaps in controls at the base locations, and the areas where the MBTA can continue to improve warehouse operations with its new vendor.

Finding 15. The privatization improved some aspects of warehousing and logistics operations, but the MBTA did not meet every goal it set.

At the time that the MBTA's warehousing operations were conducted in-house, MBTA staff and external studies described these operations as "poorly maintained and very inefficient." During its engagement with Mancon, the MBTA's warehousing and logistics operations improved when compared to pre-privatization in-house operations.

As represented in Figure 14, the OIG's review found that the MBTA fully achieved two of the five goals identified in its 2016 and 2017 presentations to the FMCB and reports to the Legislature, partially achieved one of its five goals, and failed to achieve one of its five goals. Due to the MBTA's lack of relevant documentation, the OIG could not make a determination whether the MBTA met its final goal of reducing operating costs.

Figure 14. Realized and Unrealized Goals of Privatization.

Goal	Result
Reduce operating costs	**Unknown**
Improve inventory accuracy at central warehouse	**Yes**
Provide reliable delivery times	**Yes***
Operate on a 24/7 schedule	**Yes for parts delivery but no for inventory control**
Leverage vendor's materials management experience	**No**

*During the contract, the MBTA and Mancon agreed to change the contractual delivery time for normal deliveries from "within ten hours" to "by 10:00 a.m. the following day."

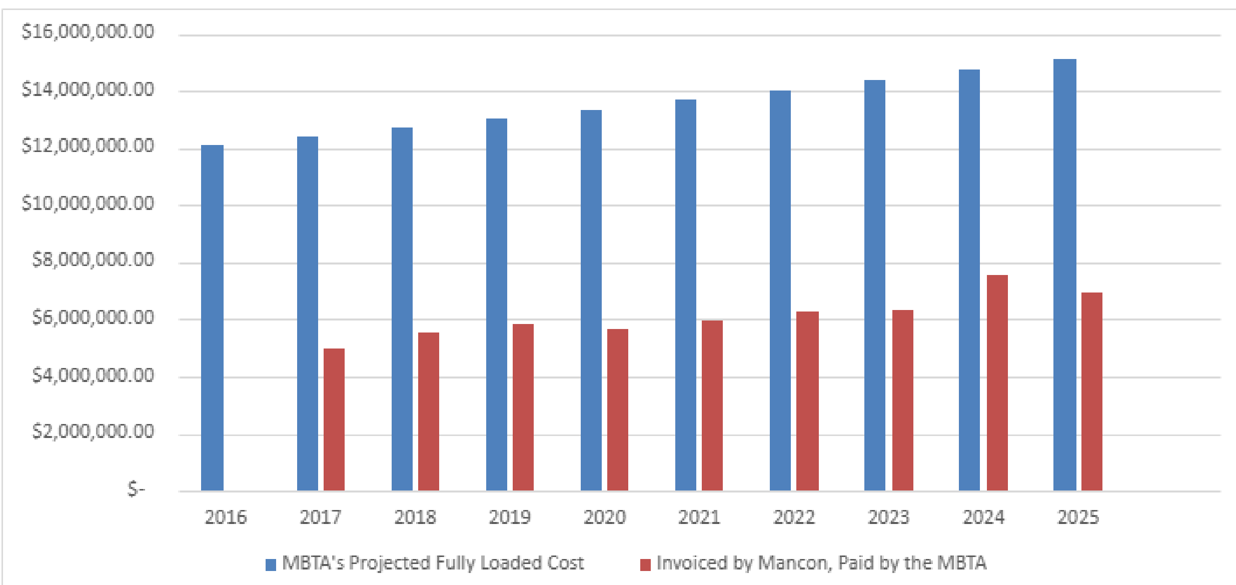
A. Because the MBTA could not provide data to substantiate its pre-privatization warehouse operations annual costs, the OIG was unable to determine if privatization reduced operating costs.

The MBTA could not provide the OIG with data to substantiate its cost calculation of pre-privatization warehouse operations. Without this information, the OIG was unable to determine whether the MBTA reduced its annual warehousing costs by partnering with Mancon.

The MBTA presented information on the in-house costs for its prior warehouse operations during its June 2016 and January 2017 presentations to the FMCB. At the June 2016 presentation, prior to receiving responses to the RFP, the MBTA reported that it spent $4.2 million on annual operating costs to run its warehousing. At the January 2017 presentation, when the MBTA requested approval from the FMCB to award the contract to Mancon, the MBTA reported that the "fully loaded" budget for warehouse operations was $12.1 million per year.[63] In the January 2017 presentation, the MBTA also projected that annual costs would grow at 2.5% annually for ten years if the services were maintained in-house.

Using the MBTA's reported figure of $12.1 million from its January 2017 presentation and adjusting for the reported annual 2.5% increase, the OIG calculated the MBTA's projected annual in-house costs, represented in blue in Figure 15 below. Actual costs under the contract, as invoiced by Mancon and paid by the MBTA, are represented in red.

Figure 15. Projected In-House Warehouse Operational Costs vs. Privatization Costs.[64]



[63] The MBTA reported that this fully loaded budget included the MBTA's calculations of long-term healthcare and pension costs of MBTA warehouse employees.

[64] The MBTA's contract with Mancon ended on January 31, 2026. The chart does not include the final month of payment.

The MBTA was unable to provide the OIG with specific support or documentation for the figures cited in its 2016 and 2017 presentations. The MBTA did not retain supporting documentation, if it ever had any, and staff could not otherwise explain the reasoning behind these figures.[65] Without such documentation, the OIG was unable to validate the MBTA's $12.1 million figure.

The MBTA was not transparent in its savings calculations.

By comparing the in-house cost figure of $12.1 million that the MBTA reported in January 2017 – and similar costs projections for subsequent years adjusted for inflation – to amounts invoiced by Mancon, the MBTA represented a cost savings of millions per year through privatizing warehouse services. However, the unsupported $12.1 million cost and the adjusted projections for subsequent years represented fully loaded costs, including long-term healthcare and pension costs for MBTA warehouse employees who remained on the MBTA's payroll over the course of the Mancon contract. These calculations, which the MBTA presented to the FMCB, were inaccurate representations of amounts the MBTA actually saved through privatization, and led to misleading conclusions over whether and how privatizing services benefited the MBTA.

In a March 2019 presentation to the Board, the MBTA reported that Mancon's services cost the MBTA millions of dollars less per year compared to the cost of pre-privatization warehouse operations. But any claim that that the "fully loaded" warehouse budget minus the amounts actually invoiced by Mancon shows cost savings that resulted from privatization would appear to be an overstatement. The MBTA's claim that privatization avoided the long-term costs included in its fully loaded cost calculation was inaccurate, at least for the length of the Mancon contract. Even when the warehouse employees left, the cost of their pensions was not eliminated.[66] The MBTA will eventually realize cost savings in this regard, because the MBTA will not accrue additional pension and healthcare liabilities from new warehouse employees.

B. The MBTA improved inventory accuracy at its central warehouse and should now focus on reaching similar inventory goals at its base locations.

The MBTA's contract with Mancon eventually produced the desired result for inventory accuracy at the central warehouse. But the revised inventory accuracy SLA was exclusive to the central warehouse, and the MBTA's inventory at base location stockrooms continues to be at risk of mismanagement and loss.

Before engaging Mancon, the MBTA reported that the weighted average for inventory accuracy across the MBTA's central warehouses was 56%. According to the MBTA, the industry standard for a high-

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[65] The OIG requested the documentation that the MBTA used to calculate the $12.1 million in-house cost of warehouse operations in Fiscal Year 2016, including a breakdown of the $9.2 million in operating and capital costs, $2 million in wasted salaries for times that mechanics were unproductive, and $900,000 for internal MBTA administrative costs. The MBTA could not provide the information and documentation necessary to validate its calculation.

[66] Even without factoring in long-term healthcare and pension costs, the MBTA said in June 2016 that annual warehousing operating costs were $4.2 million. As seen in Figure 15, the MBTA paid Mancon more than $4.2 million every year of the contract.

performing warehouse was 95% inventory accuracy or greater. Within a few years, Mancon brought accuracy up to that industry standard and achieved 95% or higher inventory accuracy at the central warehouse for every month following May 2019.

The central warehouse, located in West Bridgewater, was run by Mancon personnel. Unlike the base location stockrooms, the central warehouse is secured and completely detached from base locations; MBTA mechanics do not go in and out of the central warehouse to retrieve parts as they do at the base location stockrooms.

On January 27, 2026, the OIG conducted an unannounced visit to the central warehouse. The warehouse appeared to be well organized and clean, as evidenced in the recent photographs below.

During this visit, the OIG conducted a non-statistical, random sample of seven inventory items at the central warehouse. The floor count (the actual quantity) of all seven items matched the count in FMIS. While this was a very small sample size, the results of the OIG's sampling was consistent with the reported inventory accuracy data.

At the base locations, Mancon material planners, at the direction of the MBTA, conducted daily cycle counts. The MBTA did not track the results of those counts in its assessment of Mancon's performance. The OIG conducted non-statistical, random sample inventory exercises at four base locations. In the small sample size, the inventory control rate was far below 95%. The OIG selected a small sample of inventory items at each of four base location stockrooms. In contrast to the central warehouse, in approximately 50% of these sample counts, the OIG found discrepancies between the floor count of the items in the stockrooms and the count in FMIS, in most cases differing by one or two. Based on these findings, the OIG found that the inventory management at the base locations is deficient.

The MBTA and its new vendor should apply the best practices and internal controls employed at the central warehouse for inventory control to the base locations.

Further discussion on the MBTA and Mancon's deficiency in base location inventory management can be found in Finding 6.

C. Parts delivery times improved substantially under Mancon's management compared with the MBTA's previous in-house operations.

Compared to when the MBTA managed warehouse operations and logistics internally, Mancon made faster deliveries. Before privatization, the MBTA reported that from the time a base location requested a part, MBTA warehouse employees took, on average, over 82 hours to make deliveries.[67] From at least late 2018 on, Mancon delivered requested parts before 10:00 a.m. the next day.

The time Mancon took to deliver parts for normal requests depended on when the base location submitted the request. Based on a sample of deliveries from 2024, normal deliveries often took approximately 12 hours, but no more than 24 hours, measured from the time Mancon retrieved the items in the central warehouse to the time Mancon material planners received the items at the base location. Reducing delivery times from 82 hours to a maximum of 24 hours represented a 71% reduction in delivery times.

The data shows that Mancon consistently met the SLA target for on-time normal deliveries from January 2019 through the end of the contract, which improved the availability and delivery of correct parts to mechanics throughout the transit system.

By extension, the OIG found that the improved delivery times likely led to a reduction in stockpiling and potential waste of parts. Before privatization, some of the base locations did not rely on the warehouses for parts delivery, but instead sent their own personnel to retrieve parts from the warehouses or other base locations. This practice allowed some base locations to stockpile an excess of parts to use in the event there was a sudden demand spike. This ad-hoc approach was wasteful, as base locations would accumulate excess inventory they might never actually use. In turn, this approach would lead the central warehouse to unnecessarily replenish its own supplies. MBTA 3PL management acknowledged that setting the ideal minimum and maximum inventory levels for parts is an imperfect, iterative process in which the MBTA tries to strike a balance between having enough parts and having an excess of parts. As part of this calculus, the MBTA should refer to the OIG's recommendations in the Conclusions and Recommendations section of this report which pertain to inventory accuracy at base locations.

[67] The MBTA's reporting of in-house delivery times varied across pre-privatization presentations to the FMCB. Later, the MBTA reported that, on average, MBTA in-house warehouse employees took over 68 hours to make deliveries.

D. Parts availability greatly improved even though Mancon did not provide a 24/7 on-site operation.

The MBTA's in-house central warehouse operated 40 hours per week prior to privatization: 8 hours a day, 5 days a week. In privatizing warehouse services, the MBTA was looking for a third-party vendor to provide 24-hour service, 7 days a week. During the contract period, Mancon worked more on-site hours than the MBTA's own warehouse staff had worked prior to privatization. But Mancon did not staff any locations on a full 24/7 schedule.

Mancon did provide emergency deliveries on a 24/7, on-call basis. That meant that during the hours that the warehouse was closed, an on-call Mancon employee would receive a call for an emergency delivery, travel to the central warehouse, collect the requested parts, and deliver these to the base location. In this way, Mancon delivered needed parts from the central warehouse to base locations regardless of the time or the day. This represented an improvement over the MBTA's pre-privatization central warehouse management, which did not provide 24/7 service of any kind.

The restated 2018 MBTA and Mancon contract stated the hours and days Mancon employees would work at the MBTA base locations:

(1) 10 hours per day, 7 days per week, at 10 small base locations;

(2) 20 hours per day, 7 days per week, at 3 large base locations; and

(3) 8 hours per day, 5 days per week, at 1 Everett shop location.

Later amendments added two additional locations, but Mancon did not operate either of them on a 24/7 basis.

Mancon moved further from a 24/7 operation as the contract progressed. Mancon initially staffed the central warehouse in Stoughton between 6:00 a.m. and 10:30 p.m. (16.5 hours per day). Those hours were reduced to 6:00 a.m. to 4:30 p.m. (10.5 hours per day) over the course of the contract. The current central warehouse in West Bridgewater operates from 6:00 a.m. to 2:30 p.m. (8.5 hours per day), 7 days per week.

Because Mancon did not staff any base locations for 24 hours per day, there were several hours each day in which Mancon's material planners were not on-site to receive deliveries or process requests for parts from MBTA employees.

E. Mancon did not bring the anticipated materials management expertise to the engagement.

As described in this report's Quality of Services section, Mancon had difficulty taking over the MBTA's warehouse operations in the first two years of the contract as well as meeting the SLAs and its overall responsibilities under the contract, due in part to its employees' lack of familiarity with bus and rail parts. Mancon's experience in inventory management and expertise in the MBTA's specific maintenance parts evolved throughout the contract, but Mancon never engaged Unipart Rail in the capacity that it had proposed. Bringing in Unipart Rail's materials management expertise would have theoretically allowed Mancon to deliver the services the MBTA was expecting from the start of the contract.

CONCLUSION AND RECOMMENDATIONS

The MBTA sought to improve its warehousing and logistics operations and reduce operating costs by partnering with a third-party vendor. The MBTA faced challenges in achieving these goals early in the engagement, but its contract management and Mancon's services improved over the duration of the contract. Within the first two years, the MBTA engaged a consultant to help address operational and contract-management issues, which resulted in a restated contract with reduced vendor obligations without a reduction in cost. Over time inventory accuracy improved, and the MBTA met its goal to improve delivery times and expanded the availability of parts with Mancon's 24/7 operation. However, the OIG could not validate that the MBTA reduced operating costs by privatizing.

The MBTA and Mancon took several years to establish processes and bring Mancon's performance in line with the expected service and performance levels. In 2018, the MBTA signed a restated contract with Mancon, due to a consensus between the two parties that Mancon needed to improve its ability to meet the SLAs in the first contract. The restated contract contained clear, updated, and trackable – albeit fewer – SLAs. The MBTA also hired two employees with subject matter expertise in logistics and warehouse management to oversee the Mancon contract. The new MBTA employees and the consultant's direction improved overall operations and Mancon's services improved through contract completion.

The MBTA did not receive all agreed upon contract services even before the 2018 restated contract, which reduced Mancon's scope of work. Despite this, the MBTA continued to pay Mancon at the original contract rate. Because the MBTA did not pursue adjusted contract rates and did not receive all of the expected services, the OIG concludes that the MBTA overpaid Mancon for the services it provided. The MBTA should have adjusted the contract rates to reflect what Mancon was actually delivering, not what it had promised to deliver – including partnering with an experienced rail logistics vendor, a proposal the MBTA took into consideration when it awarded the contract to Mancon.

Notably, and importantly, inventory accuracy improved at the central warehouse, but the MBTA needs to give further attention to address access controls and inventory management at the base locations. The gaps in controls at the 16 base locations is a risk to the MBTA's resources and a shortcoming in the MBTA's warehouse and inventory management. In light of other, unrelated investigations which evidenced the poor oversight and controls at some base locations, the lack of robust inventory control at base locations is a significant unmitigated risk.

The MBTA also saw an improvement in parts delivery. Before privatizing, by its own estimation, MBTA warehouse employees took, on average, 82 hours to deliver a part. Beginning in late 2018, Mancon delivered requested parts before 10:00 a.m. the next day and provided emergency parts delivery around the clock.

While the OIG found improvements in operations, the OIG could not conclude that the MBTA reduced operating costs by privatizing warehousing and logistics because the MBTA did not have data to support what it presented as in-house costs. The OIG identified additional, unanticipated costs that the MBTA incurred to support the engagement. By the OIG's analysis, the MBTA expended millions more than it anticipated over the life of the project, including $2.5 million for consultants to support the privatization.

After making significant changes from the original contract, the MBTA slowly began to realize its goals for outsourcing warehousing operations. The recommendations below describe in greater detail how the MBTA can make improvements in its general contract management and in its contract with Unipart Rail, its warehousing and logistics vendor as of February 1, 2026.

I. General Recommendations for the MBTA

1. Provide information, cooperation, and assistance as requested by the OIG to fulfill its statutory mandate and promote a spirit of cooperation throughout the agency.

The MBTA has an obligation to provide information, cooperation, and assistance to the OIG in fulfillment of its statutory mandate. Further, the MBTA, the same as all public entities, has a responsibility to embrace, encourage, and support independent oversight and to ensure that message is shared with all employees.

2. Require and maintain thorough supporting documentation for procurements.

The MBTA should have and maintain the supporting documentation that underlies its analysis and justification for procurements as part of the procurement file. Supporting documentation ensures the accuracy and transparency of reported figures.

3. Ensure that all necessary stakeholders are involved in developing RFPs, so that resulting contracts meet the agency's needs.

The MBTA must facilitate communication among its business units when developing specifications for RFPs and scopes of work prior to contracting. This will ensure that it includes necessary contract requirements and avoids the inclusion of specifications or SLAs that are not needed, realistic, or actionable.

4. Promote price transparency in the RFP proposal process.

The MBTA should review all proposed deliverables requested in a scope of work and promised by a vendor, ensuring they are viable and that the cost of each is clearly delineated. Doing so would put the MBTA in a better position to renegotiate contract price should the vendor fail to fulfill a deliverable specified in the scope of work.

5. **Renegotiate contract price when there is a reduction in the contract's scope of services.**

As a steward of public funds, the MBTA must use its funds appropriately to ensure that the Commonwealth receives the services and value for which it contracts. The MBTA should renegotiate contract prices when it changes or reduces the vendor's obligations under the contract. When changes to the contract scope reduce the vendor's obligations, the MBTA must ensure that those changes are a result of documented renegotiations and are appropriately reflected in the contract price.

6. **Ensure that employees responsible for reviewing invoices have a demonstrated knowledge of the terms and conditions of the contract.**

The employees reviewing and approving invoices must have a thorough knowledge of the contract terms and conditions in order to ensure proper payment of invoices. The MBTA should consider periodic desk audits and other internal review to check payment accuracy.

7. **Use bonuses and penalties effectively to drive performance.**

Whether called SLAs or KPIs (key performance indicators), trackable and measurable objectives are a primary means to assess performance. Bonuses and penalties tied to the objectives incentivize performance. The MBTA should ensure that its bonuses and penalties are significant enough to drive the performance it expects from its vendors, and to incentivize change when its vendors fail to meet these expectations.

8. **Use formulas to determine bonuses and penalties that are understandable and calculable for both the MBTA and its vendor.**

From the outset, the MBTA should be able to estimate the cost of the contract assuming the vendor meets the performance standards. This means using bonus and penalty formulas that are understandable and calculable for both parties. Establishing clear and calculable formulas for bonuses and penalties ensures that both the MBTA and the vendor understand how performance will affect compensation.

II. Recommendations for the MBTA's Warehousing and Logistics Operations

9. **Institute controls designed to reduce inventory discrepancies at base location stockrooms.**

Process improvements enacted by the MBTA at the central warehouse helped raise inventory accuracy in line with industry standards.

Now, the MBTA should develop processes and a formal parts tracking system to similarly raise inventory accuracy at its base location stockrooms. The MBTA has already taken some action in this direction: it informed the OIG that it requested the current vendor, Unipart Rail, to develop a process at the base locations and the MBTA is seeing improvements. Per the MBTA, as of April 2026, base location inventory accuracy was 91%. (The OIG did not confirm this figure; as detailed above, the MBTA hindered the OIG's access to base locations.)

10. Hold all staff accountable for following inventory procedures.

The MBTA must hold its staff accountable for following processes and procedures it has established, including procedures developed to ensure inventory accuracy and parts tracking at the central warehouse and base locations.

11. Implement a reporting process for incorrect deliveries.

In 2019, the OIG recommended that the MBTA track incorrect deliveries by Mancon. The MBTA did not adopt the recommendation at that time. The OIG again makes the recommendation so that the MBTA can maximize the efficiency of the its parts delivery system. Tracking incorrect deliveries would enable the MBTA to assess the nature or causes of incorrect deliveries and identify patterns or areas for improvement.

III. Recommendations for the MBTA's Contract with Unipart Rail

12. Perform unannounced inventory audits.

The MBTA should perform periodic unannounced cycle counts of inventory at the central warehouse and base locations to ensure that its current warehousing and logistics vendor, Unipart Rail, stays at or above its current performance level. The MBTA Inventory, Procurement, and Warehouse team informed the OIG that it intended to develop an audit process for cycle counting at the central warehouse, which it planned to implement in April 2026. The process would include cycle count audits to be conducted randomly twice per month by the MBTA storekeeper or another designated member of the MBTA Inventory, Procurement, and Warehouse team. The OIG recommends that the MBTA follow through on this commitment to inventory integrity.

13. Conduct periodic desk audits to ensure the accuracy of payments.

The MBTA should conduct periodic desk audits of vendor invoices and supporting documentation throughout the life of the contract to ensure accuracy of payments. The audits should include verification of invoice amount, contract rates, bonuses and penalty calculation, and other supporting documentation to ensure payments are accurate, properly supported, and consistent with the contract terms and conditions.

14. Manage contract terms and conditions, including assessing all bonuses and penalties, in real time.

The MBTA must enforce all terms and conditions of its contract with Unipart Rail continuously to ensure that issues are resolved timely and efficiently. From day one, the MBTA should assess bonuses and penalties established in the contract.

15. Ensure that any changes in contract scope receive appropriate consideration, including, where appropriate, reduction in contract price.

If at any time the MBTA reduces the scope of services with Unipart Rail or otherwise relieves Unipart Rail of any obligations under the contract, the MBTA must seek a corresponding change in the contract rates. A reduction in vendor services specified in the contract should correspond with an appropriate reduction in contract price.

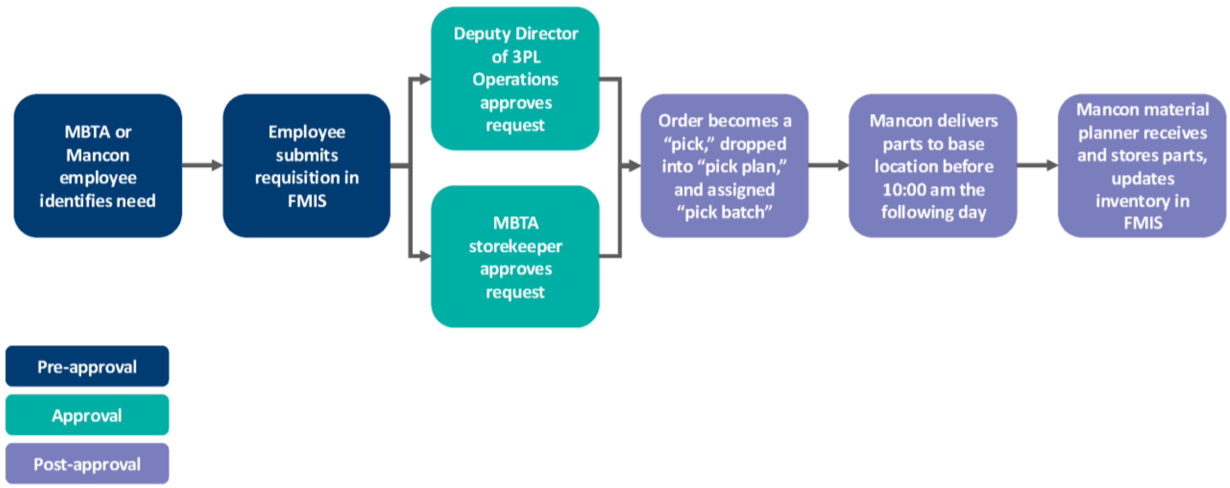
16. Train current contract administrators and others involved with the MBTA's contract with Unipart Rail.

The MBTA should ensure that its employees in charge of administering the MBTA's contract with Unipart Rail, and all MBTA employees involved in this contract, receive training appropriate for their responsibilities in fulfilling contract terms. The MBTA should consider enrolling employees involved in contract administration in the OIG's forthcoming Contract Administration class.

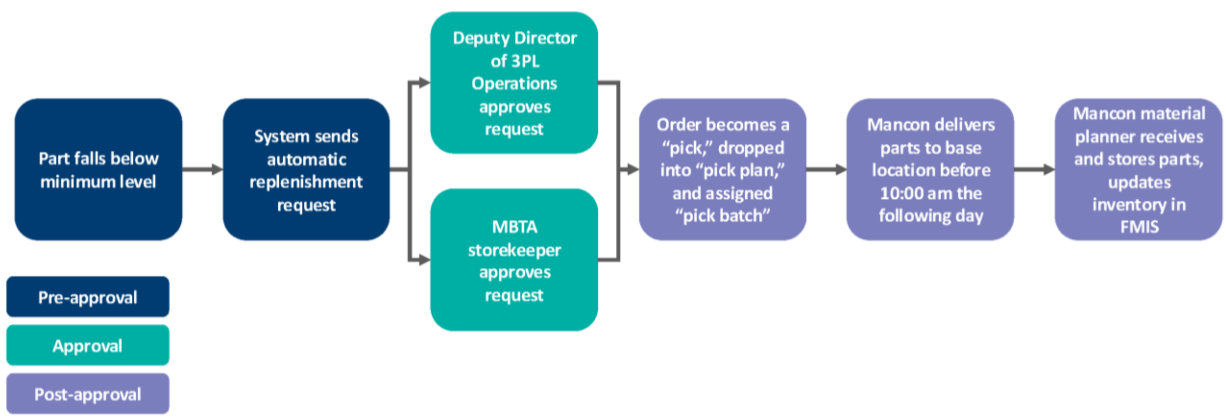
APPENDIX A. NORMAL AND EMERGENCY PARTS REQUEST PROCESS

During the MBTA's warehousing and logistics contract with Mancon, Mancon managed the inventory of the MBTA's central warehouse, which included picking and shipping inventory from the central warehouse to the MBTA's base locations following a delivery request. Below are charts depicting the processes for (1) a normal delivery following a manual request, (2) a normal delivery following an automatic request, and (3) an emergency delivery.

Normal Delivery Following a Manual Request



Normal Delivery Following an Automatic Request



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