

Memorandum

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To: Honorable Carlos Alvarez, Mayor, Miami-Dade County
Honorable Dennis C. Moss, Chairperson
and Members, Miami-Dade Board of County Commissioners

From: Christopher Mazzella, Inspector General

Date: March 2, 2009

Subject: OIG Final Report Re: *Inspection and Repair of MetroMover Escalators by Kone, Inc.*, Ref. IG07-81

Attached please find the Office of the Inspector General's (OIG) final report regarding the above-captioned matter. Commissioner Diaz requested that we conduct this review.

On February 6, 2009, the OIG provided copies of this report, as a draft for comment, to the General Services Administration (GSA), Miami-Dade Transit (MDT), and Kone, Inc. (Kone), which has been awarded County maintenance contracts for MetroMover elevators and escalators since 1996. The OIG received a jointly written response from GSA and MDT, as well as a written response from Kone. These responses are included as Appendix A and B, respectively.

This report addresses Kone's failure to adequately perform its duties and obligations pursuant to the maintenance contracts for MetroMover escalators. Although the escalators had a purported operational life of up to thirty years after initial installation, four of the escalators were corroded beyond repair after only eleven years of operation. Photographs of the corrosion damage taken in December 2005 are attached to the report as Exhibit Four. Further, an additional five escalators need significant repairs and refurbishment, again due to corrosion.

In July 2006, Kone agreed to repair the additional five escalators at no cost to the County. After extensive negotiations, Kone also agreed to replace the remaining four escalators—that had corroded beyond the point of economic repair—in exchange for the County's payment to Kone of \$800,000 (or approximately 46%) of the replacement cost.

The OIG's review determined that Kone has failed to comply with the inspection and record keeping functions as required by the contracts. For example, Kone was unable to produce records (such as inspection reports, annual supervisory reports, physical check charts, and detailed engineering reports of identified damage) for any of the corroded MetroMover escalators. The OIG's investigation also determined that both GSA and MDT failed to closely monitor Kone's performance pursuant to the contracts.

In their responses to the OIG draft report, Kone, GSA and MDT generally concurred with our findings. Those responses adequately addressed the concerns identified by the OIG. In addition, in response to preliminary recommendations made in the OIG draft report, GSA and MDT have undertaken a number of measures designed to improve contractual oversight, including the execution of a memorandum of understanding (MOU) between GSA and MDT clearly delineating responsibilities for contract management and administration. Finally, GSA and MDT also noted that liquidated damages have now been levied against Kone in the amount of \$1.2 million for past non-performance under the maintenance contracts.

The OIG requests that we are provided with a follow-up report in 60 days regarding the status of Kone's payment of the liquidated damages levied against it, and also provided with a copy of the MOU between GSA and MDT. The OIG would appreciate receiving these materials on or before April 30, 2009.

Attachment

cc: Mr. George M. Burgess, County Manager
Ms. Ysela Llort, Assistant County Manager
Ms. Wendi J. Norris, Director, General Services Administration
Mr. Harpal S. Kapoor, Director, Miami-Dade Transit
Ms. Cathy Jackson, Director, Audit and Management Services Department
Mr. Charles Anderson, Miami-Dade County Commission Auditor
Kone, Inc. (under separate cover)
Clerk of the Board (copy filed)

MIAMI-DADE COUNTY OFFICE OF THE INSPECTOR GENERAL
Final Report Re: Inspection and Repair of MetroMover Escalators by Kone, Inc.

INTRODUCTION & SYNOPSIS

In December 2007, the Miami-Dade County Office of the Inspector General (OIG) began an investigation at the request of current Miami-Dade Board of County Commissioners (BCC) Vice Chairman Jose “Pepe” Diaz. The concerns voiced by Vice Chairman Diaz related to a request for authorization to pay Kone, Inc. (Kone) \$800,000 for the replacement of four severely corroded Miami-Dade County Transit (MDT) MetroMover Station escalators. Although the escalators had a purported operational life of up to thirty years after initial installation, the four escalators were corroded beyond repair after only eleven years of operation.¹ Further, an additional five MetroMover Station escalators need significant repairs and refurbishment, again due to corrosion.²

The MetroMover escalators were installed by the Montgomery Elevator Company (Montgomery) in 1993. In 1996, after it had acquired Montgomery, Kone was awarded the Miami-Dade County Elevators and Escalators Maintenance Services contract (maintenance contracts)³ for the escalators in question. The maintenance contracts require that Kone periodically inspect and maintain the MetroMover escalators, and perform not only routine maintenance, but also specific repairs as needed. The contracts also mandate that Kone perform a complete survey of the escalators bi-annually to insure compliance with the contract and determine the condition of the equipment. Each of the contracts also requires that Kone generate and maintain records documenting the services it performs—including inspections, preventive maintenance, and repairs—as well as an annual supervisor’s inspection report.

In September 2005, the escalator at the Park West MetroMover Station was removed from service due to structural concerns after an MDT maintenance mechanic’s foot went through a corroded floor plate. Thereafter, Kone was advised of the problem and directed by MDT to perform a structural assessment of all the MetroMover escalators. Only then did Kone identify the widespread corrosion damage which has afflicted the escalators, which was subsequently verified by MDT staff.

¹ These escalators are located at the Park West, 10th Street, 11th Street, and Brickell MetroMover Stations.

² These escalators are located at the School Board, Freedom Tower, 8th Street, Financial District Stations, and Omni MetroMover Stations.

³ Kone has been successively awarded three such contracts since 1996, the most recent of which—for the period of May 2003 through April 2008, and thus the focus of this investigation—contains three five-year options to renew. The first option to renew was exercised on April 1, 2008, so that the maintenance contract with Kone is now in effect through March 2013.

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In July 2006, Kone agreed to repair five of the escalators at no cost to the County. In addition, after extensive negotiations, Kone agreed to replace the remaining four escalators—which had corroded beyond the point of economic repair—in exchange for the County’s payment to Kone of \$800,000 (or approximately 46%) of the replacement cost.

Nevertheless, the OIG’s investigation determined that Kone has failed to adequately perform its duties and obligations pursuant to the maintenance contracts. In particular, Kone has failed to comply with the inspection and record keeping functions as required by the contracts. For example, Kone was unable to produce records (such as inspection reports, annual supervisory reports, physical check charts, and detailed engineering reports of identified damage) for any of the corroded MetroMover escalators.

During an interview conducted by OIG Special Agents, David Lytle, District Manager of Kone, admitted that Kone was unable to locate any of the above-described documents, for a period dating back to 2002. Mr. Lytle did produce “summary printouts” for preventive maintenance, callbacks and repairs, but those printouts provided few details about either the work Kone claimed to have performed or the deteriorating condition of the escalators.

The OIG’s investigation also determined that both GSA and MDT failed to closely monitor Kone’s performance pursuant to the maintenance contracts. The contracts designate GSA as the County authority with responsibility for the administration of the contracts. GSA also has a regulatory role as the County’s primary inspection authority for all elevators and escalators. However, MDT is entrusted with day-to-day oversight of Kone’s inspection and maintenance efforts. Suffice it to say, if only because the MetroMover escalator corrosion was discovered by sheer accident—rather than as a result of the inspections that Kone was required to perform—it is apparent that neither GSA nor MDT adequately enforced the inspection and reporting requirements of the maintenance contracts.

Kone, GSA and MDT provided discretionary responses to the OIG draft report, in which they generally concurred with our findings. Those responses adequately addressed the concerns identified by the OIG investigation. In addition, in response to preliminary recommendations made in the OIG draft report, GSA and MDT have undertaken a number of measures designed to improve contractual oversight and clearly delineate administrative responsibilities. A summary of those measures can be found on page 10 of this report. GSA and MDT’s joint response of the corrective steps that they have enacted is attached as Appendix A. Kone’s response is also summarized herein and attached as Appendix B.

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OIG JURISDICTIONAL AUTHORITY

In accordance with Section 2-1076 of the Code of Miami-Dade County, the Inspector General has the authority to make investigations of County affairs and the power to review past, present and proposed County and Public Health Trust programs, accounts, records, contracts and transactions. The Inspector General is authorized to conduct any reviews, audits, inspections, investigations or analyses relating to departments, offices, boards, activities, programs and agencies of the County and the Public Health Trust. The Inspector General shall have the power to review and investigate any citizen's complaints regarding County or Public Health Trust projects, programs, contracts or transactions. The Inspector General may exercise any of the powers contained in Section 2-1076, upon his or her own initiative.

The Inspector General shall have the power to require reports from the Mayor, County Commissioners, County Manager, County agencies and instrumentalities, County officers and employees, and the Public Health Trust and its officers and employees regarding any matter within the jurisdiction of the Inspector General.

BACKGROUND

Kone, Inc.

Kone is an international corporation based in Helsinki, Finland, which does business in approximately 50 countries worldwide. In 1996, Kone purchased Montgomery, which installed the MetroMover escalators in 1993. Since 1996, Kone has been awarded the maintenance contracts not only for the escalators in question, but for all other County equipment installed by either Montgomery or Kone.

Kone's district office is located in Miramar, Florida. David Lytle has been the District Manager for Kone since 2006. Mr. Lytle was preceded at Kone by two managers who were terminated by Kone after the MetroMover corrosion issues surfaced.

The Elevators and Escalators Maintenance Services Contracts

An abridged version of the maintenance services contract between the County and Kone, for the period between May 2003 and April 2008, is attached as Exhibit One. The total contract value was \$26,250,000.⁴ The contract identified MDT as the user department for \$2,175,000 of the funds, approximately \$16,000 per month of which was designated to be paid to Kone for inspection and servicing of fourteen MetroMover escalators.

⁴ The vast majority of that amount—approximately \$21,000,000—was allocated through the Miami-Dade County Aviation Department for the service of equipment located at the Miami International Airport.

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The maintenance services contract, at Section 3.1.2, identifies GSA as the contract administrator. GSA's Office of Elevator Safety administrates the contract.

In addition, Section 3.1.15 identifies the "Project Manager" as "the Director of the using agency or their authorized representative." Both GSA and MDT personnel have acknowledged that pursuant to Section 3.1.15, MDT acts as the project manager. MDT's Elevator and Maintenance Contract Supervisor is responsible for the day-to-day oversight of Kone's inspection and maintenance efforts on the MetroMover escalators.

Finally, at Section 3.15, the contract clearly establishes Kone's responsibility to routinely inspect the escalators, and to generate and keep detailed records of its activities.

The addendum to the contract, which reflects the \$800,000 payment amount to Kone, is attached as Exhibit Two. GSA's offer letter regarding the \$800,000 payment, dated July 17, 2006, is attached as Exhibit Three.

INVESTIGATION

During the course of the investigation, OIG Special Agents reviewed documents including, but not limited to, the maintenance contracts; records of inspection and service maintained by Kone; and GSA and MDT records relating to the administration of, and addendum to, the maintenance contracts. In addition, OIG Special Agents interviewed various individuals, including the GSA Office of Elevator Safety's Elevator Engineer (contract administrator); the MDT Elevator and Maintenance Contract Supervisor (project manager); and Kone's District Manager, Mr. Lytle.

In September 2005, the escalator at the Park West MetroMover Station was removed from service due to structural concerns after an MDT maintenance mechanic's foot went through a corroded floor plate. Thereafter, Kone was advised of the problem and directed by MDT to perform a structural assessment of all the MetroMover escalators. Only then did Kone identify the widespread corrosion damage that has afflicted the escalators, which was subsequently verified by MDT staff. Photographs of the corrosion damage taken by Kone engineers in December 2005 are attached as Exhibit Four.

Table 1, on the next page, contains a list of the nine escalators that were found to have significant corrosion problems and that needed to be either fully replaced or extensively repaired:

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TABLE 1
MetroMover Escalators Afflicted By Corrosion

| MetroMover Station Name | Escalator In Service Date | Date Corrosion Found and Escalator Taken Out of Service | Degree of Structural Damage from Corrosion* (1=no damage; 10=severe damage) | Replacement or Repair of Escalator | Replacement Back in Service Date (Or Repair Due Date) | Out of Service Duration |
|---------------------------------|----------------------------------|--|--|---|--|--------------------------------|
| Park West Station | 5/25/94 | 9/15/05 | 10 | Full Replacement | 90% Complete – Due Back in Service early 2009 | 3 years, 4 months |
| 10 th Street Station | 5/25/94 | 12/1/05 | 10 | Full Replacement | 90% Complete- Due Back in Service early 2009 | 3 years, 1 month |
| 11 th Street Station | 5/25/94 | 11/17/05 | 10 | Full Replacement | 90% Complete – Due Back in Service early 2009 | 3 years, 2 months |
| Brickell Station | 5/25/94 | 12/2/05 | 9-10 | Full Replacement | 90% Complete – Due Back in Service early 2009 | 3 years, 1 month |
| School Board Station | 5/25/94 | 12/5/05 | 6 | Significant Corrective Action Required | Back in Service 11/1/2008 | 2 years, 11 months |
| Freedom Tower Station | 5/25/94 | 12/5/05 | 6 | Significant Corrective Action Required | 0% Complete – Due Back in Service 1/1/2010 | 4 years, 1 month |
| 8 th Street Station | 5/25/94 | 12/2/05 | 5 | Significant Corrective Action Required | Back in Service 11/1/2008 | 2 years, 11 months |
| Financial District Station | 5/25/94 | 12/1/05 | 4 | Significant Corrective Action Required | 50% complete – Due Back in Service 9/30/2009 | 3 years, 9 months |
| Omni Station | 5/25/94 | 12/5/05 | 4 | Significant Corrective Action Required | 0% Complete – Due Back in Service 1/1/2010 | 4 years, 1 month |

*Source: Kone's Letters of Assessment

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In July 2006, Kone agreed to repair five of the escalators at no cost to the County. In addition, Kone agreed to replace the remaining four escalators—which had corroded beyond the point of economic repair—in return for a payment of \$800,000 (or approximately 46%) of the replacement cost. (See Exhibit Two, addendum to the contract, and Exhibit Three, GSA’s offer letter) Although GSA originally suggested that the \$800,000 be allocated from People’s Transportation Plan Surtax funds (PTP Surtax) to pay for the escalator replacement, the funding was eventually obtained from MDT operating funds.

Kone’s Performance of the Maintenance Contracts

The maintenance contracts require that Kone periodically inspect and maintain the MetroMover escalators, and perform not only routine maintenance, but also specific repairs as needed. The contracts also mandate that Kone perform a complete survey of the escalators bi-annually to determine the condition of the equipment. All of the successive maintenance contracts have also required that Kone generate and maintain records documenting the services it performs—including inspections, preventive maintenance, and repairs—as well as an annual supervisor’s inspection report.

The OIG’s investigation determined that Kone has failed to adequately perform its duties and obligations pursuant to the maintenance contracts. In particular, Kone has failed to comply with the record keeping and inspection functions mandated by the contracts. For example, Kone was unable to produce records (such as inspection reports, annual supervisory reports, physical check charts, and detailed engineering reports of identified damage) for any of the corroded MetroMover escalators.

As a part of the investigation, OIG Special Agents asked Kone to provide documents, including annual inspection reports for the nine escalators in question covering the first eleven years of the maintenance contracts. Kone eventually provided 31 inspection reports for the four severely corroded escalators that require complete replacement.⁵ Only one report, dated November 18, 2004, indicated any escalator corrosion prior to the accident that occurred at the Park West MetroMover Station that precipitated the eventual closing of the escalators. In addition, eight of the Kone reports merely document the County’s findings of corrosion after the Park West accident.

Table 2, on the next page, summarizes the response from Kone regarding the OIG’s request for these documents:

⁵ The OIG notes that there should have been 44 reports for the four severely corroded escalators for the eleven-year period. Kone failed to supply thirteen reports, without explanation. Kone also failed to provide any inspection reports for the five additional corroded escalators that require repair.

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TABLE 2
Summary of Kone’s Production of Documents

| Document Name | Appropriate Section of the Maintenance Services Contract No. SS1246-3/22 | Response from Kone to the Request for the Documents | Results of Review of Documents Related to Escalator Corrosion |
|--|--|--|--|
| Survey reports: Bi-Annual Survey Annual Supervisor Inspection Reports Internal Supervisory Reports | Section 3.15(B) – Records Management – Survey Reports | No copies of any of these reports for the nine escalators were found in Kone’s files | No documents to review |
| Monthly Logs | Section 3.15(C) – Records Management – Monthly Log (repairs, minor adjustments, preventive maintenance) | Provided monthly logs for preventive maintenance, callbacks and repairs | Reviewed logs – no significant information regarding corrosion |
| Check Chart | Section 3.15(D) – Records Management – Check Chart indicating the service routine that has been performed on the most recent visit | Check Chart left on site of each escalator for one year, then removed and disposed – no copies provided | No documents to review |
| Engineering Reports, internal and external, for all nine escalators that were inspected on November, 2005 and December, 2005 by Kone | Not Applicable | 11/17/05 letter re: Park West Station and School Board Station; 12/5/05 letter re: School Board Station; 12/13/05 letter with structural rating on all nine escalators | No backup information or further information on criteria used to establish the ratings assigned by the Kone engineer to each escalator (1= no corrosion damage to 10=severe structural damage) |

OIG Special Agents interviewed Mr. Lytle, Kone’s current District Manager, on multiple occasions regarding the escalator situation. Mr. Lytle admitted that Kone was unable to provide numerous required documents, for a period dating back to 2002. Mr. Lytle attributed Kone’s non-performance to “changes in supervisory personnel.” However, Mr. Lytle did produce “summary printouts” for preventive maintenance, callbacks and repairs, but those printouts provided few details about either the work Kone claimed to have performed or the deteriorating condition of the escalators.

Mr. Lytle advised that some of the reports requested for the nine escalators did not exist anymore. He also explained that “check charts”—lists of all maintenance and repair work performed within a given year that are required by the State of Florida—were left on site (in each specific escalator’s maintenance room) for one year, then removed and disposed of. None of the check charts for the nine escalators in question were provided by Kone.

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Similarly, in response to our request for copies of any and all engineering reports generated by Kone engineers who visited and inspected the Park West and School Board escalators on November 8, 2005, and then visited and inspected the remaining seven escalators shortly thereafter, Mr. Lytle stated that Kone did not have any such reports. Instead, Mr. Lytle produced only three letters purporting to summarize the condition of the escalators, the author of which is now deceased.⁶

County Administration of the Maintenance Contracts

The investigation determined that at various times, both GSA and MDT have shared responsibility for the administration of the maintenance contracts. As previously noted, the contracts designate GSA as the contract administrator, but they also designate the user department, in this case MDT, as the project manager. In addition, GSA also has a regulatory role as the County's primary inspection authority for all elevators and escalators. In practice, this means that MDT is entrusted with day-to-day oversight of Kone's inspection and maintenance efforts. In response to our requests for records maintained by the County, GSA and MDT were able to provide copies of only a few of the individual escalator reports of inspections performed by Kone.

OIG Special Agents met with the Office of Elevator Safety's Elevator Engineer (contract administrator) on multiple occasions. The contract administrator stated that he was not aware of any escalator corrosion issues until the unfortunate accident of the MDT maintenance mechanic's foot breaking through the Park West escalator's upper level metal floor plate due to extensive corrosion. He contacted Kone personnel to advise them of the problem and that the preventive maintenance contract required them to properly maintain the escalators.

According to the contract administrator, over the next several months personnel from GSA, MDT, and the County Attorney's Office met with and corresponded with personnel from Kone regarding the escalator problems. These efforts culminated in the addendum to the maintenance contracts that provided for the additional \$800,000 payment to Kone.

The contract administrator acknowledged that pursuant to the maintenance contracts, GSA administers the contracts for the County. As such, GSA has full authority to enforce compliance with the provisions, terms, conditions, and specifications of the contracts. The contract administrator also stated that GSA relies upon MDT to conduct escalator inspections or to monitor the contractor's work, and provide regular reports of its findings. He explained that pursuant to this arrangement MDT, not the GSA, has primary responsibility for day-to-day oversight of Kone's performance.

⁶ Those letters included the structural ratings assessed by Kone that are reflected in Table One.

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OIG Special Agents also met with the MDT Elevator and Maintenance Contract Supervisor (project manager), who confirmed that MDT provides the daily oversight function on the maintenance contracts. The project manager explained that he monitors Kone's compliance with the contracts, including cross-checking Kone's inspection and maintenance efforts and checking on Kone's reports that it now submits to MDT via e-mail on a daily basis. He also stated that MDT currently interacts by telephone with Kone almost every day.

With regard to Kone's failure to maintain adequate records during the relevant time period addressed by the OIG investigation, the project manager stated that he had assumed that Kone had complied with its record keeping responsibilities. He admitted that in the past, neither he nor his colleagues at MDT had undertaken to closely monitor Kone's generation and retention of inspection and maintenance records for the escalators.

RESPONSES TO THE DRAFT REPORT & OIG COMMENT

This report as a draft only was provided to Kone, GSA, and MDT for their discretionary written responses. The OIG received responses from GSA and MDT (jointly) and from Kone, which are attached as Appendix A and Appendix B, respectively. We appreciate both responses.

In its response, Kone acknowledged that "it must align its record keeping practice with the requirements of the contract." In addition, Kone pledged to work with GSA and MDT to develop a records retention policy that reflects not only contract requirements, but the needs of the County. Finally, Kone noted that it has accepted financial responsibility for failing to adequately perform its duties and obligations pursuant to the maintenance contracts.

Although Kone maintained that not all escalators under contract required corrective action—specifically citing the escalator located at the Dadeland Metrorail station—the condition of such other equipment has not been a focus of this investigation.

In their joint response, GSA and MDT also concurred with the findings of the draft report, including acknowledging "lapses on the part of GSA and MDT" to adequately enforce inspection and reporting requirements that pertained to Kone. GSA and MDT also noted that liquidated damages have now been levied against Kone in the amount of \$1.2 million for past non-performance under the maintenance contracts. Finally, GSA and MDT listed a number of corrective actions they have taken to prevent such lapses in the future.

CONCLUSIONS & RECOMMENDATIONS

The draft report of the OIG's investigation determined that Kone has failed to adequately perform its duties and obligations pursuant to the maintenance contracts. The OIG's investigation has also determined that both GSA and the MDT failed to closely monitor Kone's performance pursuant to the maintenance contracts. Upon review of the responses received from Kone, GSA and MDT, we did not believe that material changes to the draft report were necessary.

In particular, Kone has failed to comply with the record keeping and inspection functions mandated by the contracts. For example, Kone was unable to produce records (such as inspection reports, annual supervisory reports, physical check charts, and detailed engineering reports of identified damage) for any of the corroded MetroMover escalators.

In view of Kone's failure to document its performance under the contracts, the OIG is not convinced that Kone actually performed the inspections and repairs it was obligated to undertake. Our conclusion is exacerbated by the advanced condition of the escalator corrosion that was ultimately discovered only by accident in 2005, rather than as the result of any inspection efforts by Kone. Both the fortuitous nature of the discovery of the escalator corrosion, and the failure to require Kone to generate and retain proper records, render it apparent that neither the GSA nor the MDT adequately enforced the inspection and reporting requirements of the maintenance contracts.

In response to preliminary recommendations made in the OIG draft report, GSA and MDT listed a number of corrective actions they have taken, including enhanced contractual oversight; the institution of a computerized management system to monitor the performance of both vendors and the County with respect to all elevator and escalator maintenance contracts; the establishment of preventive maintenance and inspection protocols—including commissioning detailed inspections by either County or outside consultants—as part of the contract acceptance process for the installation of any new elevators and escalators; and the execution of a memorandum of understanding (MOU) between GSA and MDT clearly delineating responsibilities for contract management and administration.

We appreciate that GSA and MDT recognize the need to closely coordinate together the maintenance and inspection services for elevators and escalators with Kone and other vendors. Such vigilance is exceptionally important when the safety of the public is at stake.

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By way of follow-up to this report, the OIG requests that we be provided with a status update in 60 days, on or before April 30, 2009, regarding Kone's payment of the \$1.2 million liquidated damages claim levied against it. We further request to be provided with a copy of the MOU between GSA and MDT.

The OIG appreciates and thanks GSA and MDT staff, and Kone representatives, for the courtesies and cooperation extended to the OIG during the course of this review.

OIG

Final Report

Appendix A

Joint Response from GSA and MDT

IG07-81



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- Police
- Procurement Management
- Property Appraiser
- Public Library System
- Public Works
- Safe Neighborhood Parks
- Seaport
- Solid Waste Management
- Strategic Business Management
- Team Metro
- Transit
- Urban Revitalization Task Force
- Vizcaya Museum and Gardens
- Water and Sewer

February 20, 2009

Christopher Mazzella
 Inspector General
 Office of the Inspector General
 19 West Flagler Street, Suite 220
 Miami, FL 33130

RE: OIG Draft Report, IG07-81

Dear Mr. Mazzella:

Thank you for the opportunity to review and comment on the draft report prepared by your staff regarding the inspection and repair of MetroMover escalators by Kone, Inc. This response summarizes the comments and actions of both the General Services Administration (GSA) and Miami-Dade Transit (MDT).

Both agencies concur with the majority of the findings in the OIG Report, particularly as they relate to failures of the vendor, Kone, Inc. "to comply with the record keeping and inspection functions mandated by the contracts," and to lapses on the part of GSA and MDT to adequately enforce "the inspection and reporting requirements of the maintenance contracts." However, it is important to note that independent of your investigation, as a result of our experience with Kone in this matter, we saw the need for increased contract administration and oversight, and the necessity to develop a clearer delineation of responsibilities between GSA and MDT, as well as to more strictly enforce the maintenance contracts.

Notwithstanding our general concurrence with the report's findings, we would like to clarify that there is a distinction between bi-annual supervisory survey inspections which are conducted by the vendor's supervisory personnel as a part of the maintenance contract, and code compliance inspections conducted by the agencies' official inspectors as a regulatory function. Code compliance inspections were conducted and reported on all units throughout the period in question. Routine maintenance was performed on a weekly, monthly and quarterly schedule by Kone technicians, although there were deficiencies of record keeping by Kone management. Kone was able to produce some annual reports, although inconsistently and incomplete.

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 MDT OFFICE OF THE INSPECTOR GENERAL

Additionally, as we noted at the December 11, 2007 Budget and Finance Committee meeting when the item was discussed, the primary factor resulting in the premature corrosion and failure of these units was that the escalator trusses in the affected units were not suitable for the intended purpose, i.e. continuous operation in a high-humidity, outdoor application in a coastal location. The escalator trusses, machinery floor plates, et al should have been protected with an electro-galvanic treatment of zinc, otherwise known in the trade as "hot dipped galvanized." Instead, key escalator components were protected via a significantly less durable painting process using zinc oxide and other surface-applied corrosion inhibitive chemicals.

To prevent such lapses from occurring in the future, GSA and MDT have enacted the following:

- We have stepped up our oversight and recording of contractual performance to ensure that the contractors meet their obligations, including submittals of reports.
- GSA and MDT will execute a memorandum of understanding clearly delineating responsibilities for contract management and administration
- GSA is exploring the continued use of a Consulting Contract to assist the County in assessing vendor performance, as a part of a related BCC request. A budget analysis will be performed to determine if adding County staff in lieu of hiring the consultant would be more cost effective in the long run.
- GSA will be employing a computerized management system to assist them and other agencies to track and measure performance of the vendor's and the County's efforts in managing elevator and escalator maintenance contracts.
- MDT will be working with GSA to develop a preventive maintenance and inspection protocol for the repaired escalators which are not equipped with galvanized trusses. This will entail periodic removal of all stainless steel cladding to expose the trusses for detailed inspections.

- GSA has levied liquidated damages against Kone in the amount of \$1.2 million for past non-performance, which is pending a Kone response.
- GSA and MDT will include commissioning inspections (a thorough and detailed inspection and performance testing process) to be conducted by either GSA and/or MDT elevator and escalator experts, or an outside third party elevator escalator expert consultant, for all elevators and escalators as a part of their final inspection and acceptance process for new construction and major modernization projects to ensure the design guideline and the architect/engineer specs have been adhered to. The cost of commissioning inspections will be included in all projects. A similar commissioning inspection is in process on the four new replacement units.
- GSA and MDT are establishing a Minimum Design Guideline Manual for use by architects and engineers designing new facilities and infrastructure systems to help ensure that we obtain suitable products for future projects. Elevator and escalator requirements will be established as recommended by the GSA and MDT elevator and escalator experts.


As an update on the progress of ongoing work for the replacement of the four units and repair of the other five units:

- We are pleased to report that the new units at Park West Station, 10th Street Station, 11th Street Station and Brickell Station were all completed and placed into service for public use on February 9, 2009.
- The repairs on the unit at Financial District Station are completed and it was inspected for code compliance on February 19, 2009. Some deficiencies were found and corrections are in progress. We expect final completion and placement into service for public use by the first week of March, 2009.
- As to the units at Freedom Tower Station and Omni Station, we have asked Kone to expedite the repairs on a simultaneous schedule. We expect completion by mid July, 2009.

Christopher Mazzella
Response to OIG Draft Report IG07-81
Page Four

If you have any questions or require further information, do not hesitate to contact either one of us.

Sincerely,



Wendi J. Norris, Director
General Services Administration



Harpal Kapoor, Director
Miami-Dade Transit

c: Jerry S. Hall, Division Director, GSA
Michael Chavez, Chief Elevator Inspector, GSA
Steve Chayt, Chief of Facility Maintenance, MDT
Robert McClellan, Chief, Infrastructure and Engineering, MDT

OIG

Final Report

Appendix B

Response from Kone, Inc.

IG07-81

Service Business Center
Service - Americas



Elevators Escalators

February 20, 2009

Office of the Inspector General
19 West Flagler Street
Suite 220
Miami, FL 33130

KONE Inc.
325 19th Street
Moline, IL 61265
Tel 309-743-5287
Fax 309-764-5658
www.kone.com
jay.dietz@kone.com

Attn: Mr. Christopher Mazzella, Inspector General

RE: OIG Draft Report, IG07-081

Dear Mr. Mazzella:

We have reviewed the above subject draft report.

Although there are various minor factual inaccuracies contained in the report, they are not germane, and we will instead focus on the primary findings of the OIG related to KONE's performance under the maintenance contract for this equipment. These findings are effectively summarized in the following excerpt from the OIG Draft Report:

"The OIG's investigation determined that KONE has failed to adequately perform its duties and obligations pursuant to the maintenance contract. In particular, KONE has failed to comply with the record keeping and inspection functions mandated by contracts. For example, KONE was unable to produce records such as inspection reports, annual supervisory reports, physical check charts, and detailed engineering reports of identified damage, for any of the corroded MetroMover escalators."

We acknowledge that KONE must align its record keeping practice with the requirements of the contract. We also need to work with the GSA and the MDT to develop a record retention policy that more clearly delineates who is responsible for retention of each record type (GSA, MDT or KONE), and the corresponding duration of record retention. In addition we offer the following specific clarifications related to the OIG's findings:

- The statement regarding the inability of KONE to produce any records such as inspection reports is contradicted in the following paragraph. Further, joint inspections (KONE personnel and MDT inspectors) occurred at least annually on all of the units in question. The results of these inspections were captured on inspection reports by the MDT inspectors and a copy provided to KONE.
- The annual supervisory audit reports were provided by KONE to the GSA through 2003. The period from 2004 through 2008 is currently under review by KONE and the GSA.
- The detailed engineering reports referenced are not a contract requirement, but we believe an expectation of OIG related to KONE's review of the corrosion discovered on these units. Our

Life Cycle Management (LCM) group reviewed these units on site (during multiple visits) and from a design perspective to determine the appropriate course of action for each of the affected units. The course of action taken was based on a conservative engineering approach. Detailed engineering reports for the refurbished units have been provided to the GSA, as units have been completed.

We also wish to expand on one important point related to inspection of these units. Again, these units were jointly inspected annually (or more frequently) by KONE and MDT inspectors. As indicated in your report, only one of these inspection reports makes as mention of any corrosion. These facts align with the findings from our post discovery site inspections – much of the corrosion that necessitated the refurbishment or replacement of the units started from the inside of the tube steel truss cords, and was not readily visible during preventive maintenance or the annual inspections (until it was too late).

Further, you will note that of the units under contract, not all required corrective action. This is due to the differences in design between the affected units and those which were not affected. The units affected had a special paint applied to the tube steel truss members to protect them from corrosion. This specified coating only protects the exterior of the truss members. Using the units at the Dadeland station as a comparison, you will find the trusses protected through hot dip galvanizing. You will also find no evidence of corrosion at Dadeland station since the tube steel truss cords are protected inside and out. These units were subject to the same type of operating environment and same preventive maintenance program as the units affected.

We would also like to point out that KONE, in the interest of its long term business relationship with Miami-Dade County, accepted full financial responsibility for the issues identified. Miami-Dade County only paid for the undue benefit they would receive from the new units. Further, KONE provided these new units with several weather resistant features not originally specified for the units that were replaced, and one of these additional features was a hot dip galvanized truss.

Finally, as stated above, we will work with the GSA and the MDT to develop a record retention policy that more clearly delineates who is responsible for the retention of each record type (GSA, MDT or KONE), and the corresponding duration of record retention, and reflects not only the contract requirements, but the needs of Miami-Dade County.

Respectfully,
KONE Inc.


Jay Dietz
Director, Service – Americas

Cc: Jeff Milne, Regional Director, Service
Michael James, Regional Sr. Vice President

OIG

Exhibit One

IG07-81



CONTRACT AWARD SHEET
DEPARTMENT OF PROCUREMENT MANAGEMENT
BIDS AND CONTRACTS DIVISION

BID NO.: SS1246-3/22

Previous Bid No.: SS1246-4

TITLE: Elevator Maintenance Services

COMMODITY CODE NO.: 295-70

OTR YEARS: Three (3) Five Year Options

CONTRACT PERIOD: 05/1/03 through 04/30/08

AWARD BASED ON MEASURES: NO

PROCUREMENT AGENT: Albert Falcon
PHONE: 305-375-1354

- Set Aside
- Goal
- Local Preference
- Prevailing Wages (Reso. 90-143)

- Bid Preference
- BBE HBE WBE Owned Firms
- CSBE Level

PART #1: VENDOR AWARDED

F.E.I.N.: 362357423
VENDOR: Kone Inc,
STREET: 3901 Commerce Parkway
CITY/STATE/ZIP: Miramar, Florida 33025
F.O.B. TERMS: Destination
PAYMENT TERMS: Net 30 Days
DELIVERY: As required
TOLL FREE PHONE # N/A
PHONE: 954 437-4302
FAX: 954 437-4322
E-MAIL: DAN.SCARAVELLI@KONE.COM
CONTACT PERSON: Dan Scaravelli

PART #2: ITEMS AWARDED

SEE ATTACHED

PART #3: AWARD INFORMATION

BCC: March 11, 2003

**AGENDA ITEM #: 701C (030283)
Resolution R-226-03**

BIDS & CONTRACTS RELEASE DATE: 3/25/03

OTR YEAR: Original

ADDITIONAL ITEMS ALLOWED: YES

SPECIAL CONDITIONS: INSURANCE, TYPE 12

TOTAL CONTRACT VALUE: \$26,250,000.00

USER DEPARTMENT (S) DOLLAR ALLOCATED

| | |
|------------------------|-------------------------|
| AVIATION | \$ 21,000,000.00 |
| GSA | \$ 425,000.00 |
| MDTA | \$ 2,175,000.00 |
| MDHA | \$ 875,000.00 |
| Seaport | \$ 1,600,000.00 |
| EMERGENCY FUNDS | \$ 175,000.00 |

SECTION 3.0; TECHNICAL SPECIFICATION

ELEVATOR MAINTENANCE SERVICES

3.1 DEFINITIONS:

1. Call-Back Service is any service call or emergency call other than regular preventive maintenance calls.
2. Contract Administrator is the Elevator Engineer from General Services Administration (GSA) and is designated to coordinate and monitor efforts of the Contractor. The GSA contract administrator is responsible for managing the contract on behalf of Miami-Dade County and has full authority to enforce compliance with the terms, conditions, provisions and specifications of this contract in conjunction with the contracting officer.
3. Contractor or the successful bidder is the person or organization identified as such in the agreement to perform the specified work.
4. Contract Document consists of the agreement (acceptance of the proposal and issuance of a Purchase Order duly processed by the Department of Procurement Management and approved by the Board of County Commissioners, Miami-Dade County, Florida), the instructions to bidders, the general and special conditions of the contract, the technical specifications, the drawings, all addenda issued prior to the execution of the contract, and all modifications thereto.
5. Contracting Officer is the Director of the Department of Procurement Management and is authorized to exercise this agreement on behalf of Miami-Dade County, Florida.
6. Critical Elevators are high-speed elevators, and/or serve buildings with more than three floors, and/or have a high public traffic rate, and/or serve medical facilities. Critical elevators will be identified as such on the Bid Proposal.
7. Elevator Engineer is the representative from the General Services Administration, 200 NW 1st Street, Suite 206, Miami, Florida 33128, (305) 375-3912.
8. The term "Elevator Equipment" is used as a group designation of all equipment described in this specification, and refers to any and/or all of the "Equipment to be Maintained" and may include any or all of the following, but not limited to: Elevators, escalators, dumbwaiters, manlifts, conveyors, cranes, traveling sidewalks, people movers, merchandise movers, wheelchair lifts, etc., as are included in the ASME A17.1
9. Emergency is an unexpected situation or sudden occurrence involving the covered equipment of a serious nature that demands immediate action and response by the contractor.

10. Major work shall generally be considered as that which must be performed by a specialized mechanic or team (mechanic & helper), i.e. repair or replacement of hoist ropes, drive motors, re-wiring of entire controllers, (not component re-wire) etc.
11. Minor work shall generally be considered as that which can be performed within approximately two hours or less, or by one mechanic (i.e. call backs, replacement of key switches, relays, trouble shooting, etc.) not requiring engineering and supervision.
12. Non-Critical Elevators: are low speed elevators serving buildings with no more than three floors, and/or which are not necessary for the regular operation of said buildings. Non-critical Elevators will be identified as such on the Bid Proposal.
13. Owner is Miami-Dade County, Florida.
14. Regular callback service consists of responding (within 1-hour) to requests from the County by telephone or other means during regular working hours of the elevator and/or escalator trade.
15. Project Manager is the Director of the using agency or their authorized representative.
16. Overtime callback service consists of responding (within 2-hours) to requests from the County by telephone or other means during other than regular working hours.

3.2 TECHNICAL INTENT:

It is the intention of Miami-Dade County to purchase services as specified herein from a source(s) of supply that will give prompt and professional service to achieve full designed life-cycle of the equipment covered by this contract. Any failure of the supplier/contractor to comply with these conditions may be cause for terminating any resulting contract or imposition of a substantial liquidated damages upon the contractor upon written notice by the County.

This work includes the furnishing of all materials, tools, equipment, labor, services, permits, and licenses necessary for the full maintenance and for the modernization of Elevators and/or other related equipment herein specified, for Miami-Dade County.

- A. The Contractor shall furnish full maintenance service, except where otherwise noted, for the described units of equipment in the Miami-Dade County owned or leased buildings as named and/or located by address. See Bid Proposal Form for list of equipment to be maintained and for locations.
- B. The purpose of this contract is to put into operation a continuing system of full maintenance to provide necessary, systematic, periodic service, maintenance and repair for all of the elevator(s) and elevator related equipment listed.

3.14 CONTRACTOR'S PERSONNEL:

- A. The contractor agrees to use properly trained, appropriately licensed personnel directly employed and supervised by the contractor and that the personnel will have adequate experience and possess adequate skills, and licenses in the maintenance of elevator and/or escalator and related equipment similar to that in the County named buildings. All employees must possess a current employee photo identification card, issued by the contractor, with logo or name of the contractor, office address, and State Contractor license number of the contractor, State of Florida Elevator Technician certificate number of employee (as appropriate) physical description of employee, date of birth and position with the firm.
- B. Regularly assigned maintenance mechanics shall have not less than three (3) years installation and maintenance experience as an elevator and/or escalator mechanic, and shall possess license or certificate as required in paragraph 3.4 B (5).
- C. All service mechanics shall be equipped with an individually signaled paging service receiver or two-way radio or cellular telephone or other suitable two-way communication device while on duty. Each employee shall have and wear at all times while on County property, photo identification issued by the contractor complete with the name and license number of the contractor, as described in 3.14 A.
- D. The contractor shall maintain and use a separate and exclusive repair crew trained in elevator, escalator and/or moving walk repair. Repairs and major clean downs shall generally be performed by repair crews, not by maintenance mechanics. All repairs and clean downs shall be scheduled through the Project Manager.
- E. The contractor shall provide, maintain and use a "lock box" system for each machine room. The County will provide a key to each machine room door lock for placement into the "lock box". All Contractors' personnel are to possess keys (keyed alike) to the lock box to facilitate access to County equipment..

3.15 RECORDS MANAGEMENT:

The contractor is required to submit certain documents within this paragraph in written format. In the interest of efficiency and to minimize paperwork, the County will accept the contractor reports on electronic media in the form of data diskette (s) providing that the contractor provides the County the necessary software to read and if necessary copy the data to paper.

A. Service Receipts

The contractor shall submit monthly (with their invoice) to the Project Manager, a copy of the mechanic's service receipt indicating the date, time and nature of service performed. These service receipts shall be signed by a responsible County employee at the time the work is performed. In the event the mechanic cannot get the signature of a responsible County employee to give credit for the extra time expended in an emergency call response and/or repairs, they will leave a copy of the service receipt

in the machine room and/or complete log book provided by the County, and so advise the project manager as soon as possible.

B. Survey Reports

The Contractor shall perform a complete survey of the equipment bi-annually to insure compliance with the contract and determine the condition of equipment.

The Contractor shall submit an annual supervisor's inspection report, to Dade County Elevator Engineer and Project Manager due at the completion of each contract year. The inspection must be performed and signed by the contractor's maintenance supervisor, or designated Company regional representative. Forms may be obtained from GSA Facilities Management Division.

C. Monthly Log

The Contractor shall provide the Project Manager with a monthly log of all repairs and minor adjustments made in addition to the preventive maintenance work. This log shall consist of the time the complaint was registered, the nature of the complaint, the correction of the problem and the amount of time required to correct the problem. At the County's discretion, the logbook may be maintained either in the machine room or other designated area. The Service Contractor is to complete the log on each routine visit.

D. Check Chart

The contractor shall maintain on the job site and have available for inspection at all times, a check chart indicating the service routine that has been performed on the most recent visit. Copies of check charts will be submitted to the Elevator Engineer on the anniversary of each contract year and at the time of conclusion of the contract. A copy may be required upon demand by the Elevator Engineer. A copy of this chart will be displayed in the Elevator Machine room or a specified location in the case of escalators.

Check chart information may be stored and retained via electronic media, provided that the County is provided with the necessary software to access and retrieve data for all time periods.

E. Safety Test Reports

The Contractor shall perform periodic safety tests on all elevators, moving walks, and other equipment included in ASME A17.1. Tests are to include all semi-annual, annual, and including five (5) year safety, governor and buffer tests as specified in Paragraph 3.12J. The Contractor shall perform monthly tests of the elevator portion of emergency power operation and firefighter service Phase I and II as required by current edition of ASME A17.1. In the case of five (5) year safety tests, a written report conforming to ASME A17.1 and A17.2 reflecting results of the test shall be submitted to the Elevator Engineer following the test for County records (see attached

form). For other tests, the original reports shall be mailed to the authority having jurisdiction, as required by law, and a copy of a report for each test will be left in the elevator logbook referenced in 3.14C.

F. Witnessing of Tests

The ASME A17.1 and Florida Statutes Chapter 399 by adoption of A17.1, requires all periodic safety tests on elevator, escalator, moving walk, and other equipment, to be witnessed by a "Qualified Elevator Inspector". The contractor shall provide a schedule of tests to be performed to the authority having jurisdiction, the Miami-Dade County Building Department – Elevator Section, prior to the tests being performed, so the authority may provide a witness. The contractor shall allow for two hours at each site, exclusive of actual time, after which the contractor may petition the contract administrator for additional compensation, if delayed through no fault of theirs. If the authority does not provide a witness, and the State of Florida permits the witness to be an employee of the contractor, such witness, shall be provided as part of the contract. If the witness is an employee or a sub-contractor of the contractor, the report of the test results required by the State shall be transmitted to the authority having jurisdiction, and a copy shall be given to the Elevator Engineer.

G. Inspection/Audit

The County reserves the right to inspect any of the Contractor's local or regional facilities and records, for the purposes of insuring compliance with the requirements of this contract, at any time during normal working hours, by the Contract Administrator or authorized designee.

3.16 TOOLS:

The maintenance contractor shall provide evidence of their ability to execute efficient and timely repairs of the elevator and/or escalator equipment. Part of this evidence shall be a list of their inventory of special tools used in the maintenance and repair of the elevator and/or escalator equipment covered under this contract. A minimum list, in addition to the common tools of the elevator and/or escalator trade shall be provided. (See Bid Proposal Attachment Form #3) Contractor shall complete a list of the tools that they either on the service trucks or in their shop. Tools which they do not physically have, must be reported where they are available for mechanic's use. See attached Bid Proposal Attachment Form #3.

3.17 PARTS (SPARE):

A. The Contractor shall furnish and maintain in the building by description and quantity, as a minimum inventory of replacement parts, not less than the original manufacturer's recommended stock of parts listed in each manufacturer's renewal parts book for each elevator and/or each escalator. These replacement parts shall be stored in a steel cabinet provided by the Contractor and located in the County's elevator machine room or other designated location. Contractor shall maintain an accurate and up-to-date inventory control record indicating the date and quantities of

OIG

Exhibit Two

IG07-81



Addendum to Contract:

In accordance with the terms and conditions of the existing contract, Bid No. SS1246-3/22, paragraph 2.28 "ADDITIONAL FACILITIES MAY BE ADDED", paragraph 2.34 "DELETION OF FACILITIES", and paragraph 3.13 "ADDITIONAL WORK NOT SPECIFIED" the County may modify or modernize equipment and units within the existing contract through the life of the contract, as the need arises. The following described work is added to the contract.

Payment terms for this addendum shall be in accordance with the following progressive payment schedule:

- Payment 1: 40% of total due on delivery of equipment to job site or to County designated storage or a bonded warehouse.
- Payment 2: 12.5% of total due on completion of the first unit.
- Payment 3: 12.5% of total due on completion of the second unit.
- Payment 4: 12.5% of the total due on completion of the third unit.
- Payment 5: 12.5% of the total due on completion of the fourth and final unit.
- Payment 6: 10% retainage of the total due 60 days following completion of the final job, and final acceptance by Miami-Dade County.

The following equipment is to be replaced as identified and specified as follows; all other existing terms and conditions shall apply, no other change is applicable at this time:

Bid Item No. 4.13 - Standard Outside Escalators

| NAME OF FACILITY | Manufacturer # | County DC # |
|---------------------------------|----------------|-------------|
| Park West Station | CE 71653 | 8000 |
| 10th Street Station | CE 71399 | 7990 |
| 11 th Street Station | CE 71654 | 8002 |
| Brickell Station | CE 71400 | 7988 |

OVERALL SCOPE AND RATIONALE OF WORK:

The equipment in question has deteriorated prematurely, and as such is now required to be modernized and/or replaced under the contract. The contractor, Kone, Inc. agrees to absorb the bulk of the replacement cost, the County absorbing a portion due to the value received over the fifteen (15) year life of the equipment.

The work includes removal of four Montgomery escalators, referenced above at the locations indicated, and replacing with four new escalators.

Related work which may be required by other trades in general, in the following trades, shall be provided by the Kone, Inc. as the prime contractor:

Please note: Reference to section numbers and paragraph numbers are for this addendum only and are not intended to replace the sections or paragraphs in the specification entitled Bid No. SS1246 -3-22

- ADA Coordination
- Agenda Coordination
- Animal Services
- Art in Public Places
- Audit and Management Services
- Aviation
- Building
- Building Code Compliance
- Business Development
- Capital Improvements
- Citizens' Independent Transportation Trust
- Commission on Ethics and Public Trust
- Communications
- Community Action Agency
- Community & Economic Development
- Community Relations
- Consumer Services
- Corrections & Rehabilitation
- Cultural Affairs
- Elections
- Emergency Management
- Employee Relations
- Empowerment Trust
- Enterprise Technology Services
- Environmental Resources Management
- Fair Employment Practices
- Finance
- Fire Rescue
- General Services Administration
- Historic Preservation
- Homeless Trust
- Housing Agency
- Housing Finance Authority
- Human Services
- Independent Review Panel
- International Trade Consortium
- Juvenile Services
- Medical Examiner
- Metro-Miami Action Plan
- Metropolitan Planning Organization
- Park and Recreation
- Planning and Zoning
- Police
- Procurement Management**
- Property Appraisal
- Public Library System
- Public Works
- Safe Neighborhood Parks
- Seaport
- Solid Waste Management
- Strategic Business Management
- Team Metro
- Transit
- Task Force on Urban Economic Revitalization
- Vizcaya Museum And Gardens
- Water & Sewer

PART 1 – GENERAL

1.01 RELATED WORK

- A. Temporary Facilities and Controls
- B. Cast-in-Place Concrete:
- C. Unit Masonry
- D. Metal Fabrications
- E. Cementitious Waterproofing
- F. Heating, Ventilating, and Air Conditioning
- G. Electrical
- H. Electric Power Generating and Storing Equipment
- I. Voice Communications
- J. Fire Detection and Alarm
- K. Earthwork

1.02 SUBMITTALS

- A. Conform to requirements of Section 3.10 Submittal Procedures and Closeout Submittals.
- B. Product Data: Submit manufacturer's product literature for each proposed system.
 - 1. Layout, finishes, and accessories and available options
 - 2. System capacity and performance
 - 3. Controls, signals and operating system
- C. Project Schedule:
 - 1. Provide a detailed linear timeline progress schedule to include the complete project from submittal approvals through the manufacturing, delivery and installation of the project.
 - 2. Include the schedule in a database format.
- D. Shop Drawings:
 - 1. Maximum loads imposed on the building structure at all support points
 - 2. Rise of escalator and required clearances
 - 3. Dimensions of escalator and related systems

4. Electrical characteristics and connection requirements
- E. Closeout Submittals:
 1. Manufacturer's operation and maintenance manuals.
 2. Inspection Certificates and Permits

1.03 QUALITY ASSURANCE

- A. Manufacturer: Shall have a minimum of 10 years experience in the fabrication, installation and service of escalators. Manufacturer shall be ISO certified, and have a documented quality assurance program.
- B. Installer: Manufacturer shall install Escalators or a manufacturer recommended installer with a minimum 5 years experience in the installation and service of escalators.
- C. Inspection and Testing: In accordance with requirements of local jurisdiction, obtain required permits, inspections and tests.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Coordinate delivery of escalator material with the County Project Manager.
- B. The contractor shall store escalator materials in protected environment in accordance with manufacturer recommendations.

1.05 WARRANTY

- A. Provide Manufacturer warranty for a period of one year. Warranty period to begin upon escalator final acceptance. Warranty covers defects in materials and workmanship. Damage due to ordinary use, vandalism, improper or insufficient maintenance, misuse, or neglect do not constitute defective material or workmanship, but are covered elsewhere in the body of the main specification of Bid No. SS1246.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Design for escalator system is based upon products of the first listed manufacturer. Subject to compliance with design and performance requirements, additional manufacturers may include but are not limited to the following:
 1. Basis of Design Manufacturer: ECO3000 escalator system by KONE, Inc. One KONE Court, Moline, IL 61265 Tel 800-956-KONE Fax (309) 743-5469; www.kone.com

2. Other manufacturers: As the work is to be paid for in large part, by the original manufacturer, it is considered to be in the best interest of the County, that there will be no consideration for other manufacturers.

2.02 COMPONENTS

A. Truss:

1. Welded, hot-rolled, structural steel tube construction.
2. *Truss Extensions*: Provide truss and access cover extensions of adequate length to reach structural building support members as indicated on the drawings.
3. Intermediate Supports: Provide intermediate truss supports.
4. Finish coating: Hot-dipped galvanized truss
5. Isolation Mounting: Upper and lower end supports shall be isolated from building structure using a fabricated assembly of rubber and steel.

B. Upper and Lower ends

1. Drive Machine: Direct drive, totally enclosed, fan-cooled (TEFC) geared machine including drive motor and electro-magnetic brake. Machine to be truss mounted and connected by direct drive to the upper step drive sprocket. Provide output shaft to direct drive the handrail. The drive machine shall be designed to substantially match speeds of the step band and handrails. Lubrication of the gears and bearings shall be by synthetic based oil bath.
 - a. Drive Station Cover: Provide drive Station Cover for reduction of noise emitted from the drive station.
 - b. Motor: TEFC design, ball bearing type, integrally and horizontally mounted to the drive machine. Flange mount motor to main drive gear case and torsionally connect to gearbox input shaft.
 - c. Permanent Magnet Ceramic Brake: Capable of automatically stopping and holding the escalator stationary under full load upon interruption of power. Provide a "fail safe" mechanism with electric release. System shall have automatic adjustment of brake torque to maintain constant deceleration independent of the load.
 2. Upper Reversing Station: Precision-machined step chain, sprocket mounted on the machine output shaft and rotating on bearings.
 3. Lower Reversing Station: Machined floating track system designed to maintain proper tension on the step chain by use of springs.
- C. Step Band and Chain: The step band shall consist of consecutively running steps powered and spaced with a chain. Chain shall be engineering class, roller chain with heat-treated bushings, pins and link plates. Chain to be standard.

1. Chain Type: Lubrication Free Chain
 2. Step Chain Covers: Provide covers to protect the step stub shaft and step roller sealed bearings from rainwater the length of the incline.
 3. Step Guidance: System shall include horizontal guide pads at each step axle and require no skirt brush deflectors to meet the step/skirt performance index requirements of ASME/ANSI A17.1.
 4. Steps: Formed from one-piece die cast aluminum with closely spaced tread and riser cleats. Step rollers shall rotate on sealed ball bearings. The step body shall be used to provide consistent step spacing between chains. The step shall be connected to the chain by a pin and bushing. Vertical curved step risers shall be furnished with vertical cleats arranged to pass between the cleats of the tread on the adjacent step to form an inter-meshing unit.
 5. Level Steps -The number of level steps at each end of the escalator shall be *two*.
 6. Step Demarcation: Provide plastic step demarcation inserts at sides and rear of each step. Inserts to be fabricated from reinforced structural plastic, and easily replaced. Attach inserts to step with concealed fasteners. Demarcation inserts shall be international safety yellow in accordance with ASME/ANSI A17.1.
 7. Step sound-deadening.
- D. Comb plates and Access Covers:
1. Comb Plates: Provide adjustable comb plates located at top and bottom landings. The comb plates shall support removable comb segments and mesh with step tread cleats. Skid resistant comb plates shall adjust to horizontal and vertical movement of the comb segments.
 - a. Provide comb plate(s) with manufacturer's insignia.
 2. Comb segments shall be international safety yellow plastic.
 3. Access Covers: Provide slip resistant access covers to allow for maintenance at upper and lower landings. Access covers to be fabricated *Aluminum*.
- E. Balustrade
1. Inclined Balustrade: Construct balustrade between escalator deck and handrail of solid panels. Panels shall be fabricated from the manufacturer's standard 304 stainless steel, brushed #4 finish. Factories finish the exposed surface of the panel(s) only
- F. Newel Ends: Provide multi-roller bearing system to support handrail around the newel at both the upper and lower ends.
- G. Decks: Provide inner and outer decks be fabricated 14 gauge stainless steel. Finish of both inner and outer decks to be # 4 satin stainless steel.

- H. Skirts: Construct from 11-gauge stainless steel reinforced with steel channels. Use concealed fasteners to attach skirt to truss. Finish for the skirts panels shall be #4 stainless steel satin finish, with clear Teflon coating.

- I. Handrails: Provide reinforced continuous handrails with a smooth splice. The handrails shall move on specially formed guides and traction sheaves. Provide guards at the openings in the newel base where the handrails pass through the front plates. The handrail color shall be black.
 - 1. Handrail Material: Provide Urethane thermoplastic handrails

- J. Controls and Wiring:
 - 1. Controller: The microprocessor type controller shall monitor each safety device, brake, and motor operation. The controller shall cause the escalator to come to a controlled stop upon activation of any safety device, brake problem, or motor overload. Should a power failure occur, the controller automatically removes power from the motor and brake. The controller shall include phase and overload protection. Additional options required include:
 - a. Control Cabinet/Electrification Rating:
 - i. Provide Escalator electrification meeting or exceeding NEMA 4 Rating
 - 2. Control Station: Key actuated station with direction starting switch at both the upper and lower landings. Restart of escalator shall require key operation.
 - 3. Wiring: Provide Pre-assembled wiring harness, complete with modular assemblies for upper end, incline section, and lower end of truss. Provide terminal boxes at upper and lower harnesses for easy access. Coordinate installation of S.O. cord between terminal boxes and safety devices with Class 2 power limited circuitry as defined by NFPA 70 (NEC).
 - 4. Diagnostic Display
 - a. Provide escalator fault display, integral the inner deck, (standard location for diagnostic display with vertical balustrade type)
 - b. {Controller cooling package} – System to include a thermostat that activates fan when the ambient temperature rises above 104 degrees Fahrenheit.

- K. Safety Devices: The following safety devices shall be provided:
 - 1. Reversal Stop Device: Provide controller sensitive device to automatically stop the escalator should its direction reverse while operating in the ascending direction.
 - 2. Broken Step Chain Device: Provide device on each chain as a component of the lower reversing station assembly a device to bring escalator to controlled stop when activated.

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3. Step Up-thrust Device: Provide device on each side of the lower curve track on the lower end of each escalator, that will actuate causing the escalator to come to a controlled stop should a step be displaced against the up thrust track.
4. Comb-step Impact Device: Provide device at the upper and lower comb plates, impact between comb segments and step, or other entrapped object, will cause the escalator to come to a controlled stop protecting equipment.
5. Skirt Obstruction Device: Provide devices on each side of the balustrade at upper and lower ends within the skirt panels. Device shall activate should an obstruction occur between the step and skirt panel. Switches shall be of the plunger, self-resetting type, adjustable to maintain the required position and clearance from the skirts.
6. Missing Step Device: Provide device to detect a missing step, or steps, at the upper or and lower ends of the escalator. Upon activation, the escalator will come to a controlled stop.
7. Step Demarcation Lights: Provide demarcation lights at top and bottom of each escalator. Light shall be mounted below the track system where the step leaves or enters the comb plate. The light shall be visible between the steps and the step/comb segment(s). Provide two green fluorescent lamps, capable of lighting the entire width of the step.
8. Handrail Entry Device: Provide device at the handrail inlet in the newel. The escalator will come to a controlled stop should an object enter the handrail inlet area.
9. Handrail Speed Monitoring Device: Provide device to sound an alarm, when the speed of the handrail deviates from that of the step band by a minimum fifteen percent. If the deviation lasts for more than two seconds, device will cause the escalator to come to a controlled stop.
10. Emergency Stop Buttons: Provide buttons to remove electrical power from the motor upon activation.
 - a. Locate emergency stop button at each landing in the newel upper radius quadrant, 45 degrees above horizontal. The stop button shall be red in color.
 - b. The button shall be housed under a clear, high impact resistant plastic, self-closing cover. Instructions for operating shall be imprinted on the cover in ½ inch high letters. When the cover is lifted, an audible alarm shall sound until returned to its closed position.
11. Safety Signs: In accordance with ASME/ANSI A17.1 provide pictorial sign at upper and lower landings. Safety signs will be provided in {English / French / Spanish}.
12. Stop Switch in the machinery spaces: Provide stop switch in the upper and lower pits, upon activation of either switch escalator will come to a controlled stop.
13. Out of Level Step Devices: Provide out of level devices at upper and lower ends of escalator. Devices shall detect a 4 mm downward displacement of the step prior to reaching the comb plates. Upon activation the escalator will

come to a controlled stop. Per ASTM A17.1 the device shall be of the manual reset type.

14. Step Guards: Provide guards in the upper and lower pit to protect maintenance personnel from step band.

2.03 FACILITY SERVICES REQUIREMENTS REQUIRED BY OTHERS

- A. Provide for connection to 460 /60 Hz/three (3) phase electrical power, including a fused disconnect switch and equipment-grounding conductor. Switch and grounding conductor shall terminate at the escalator controller terminal block.
- B. Provide for connection to single (1) phase, 120 volt, 60 hertz, 15 amps electrical power supply including a grounding conductor terminating receptacle. Receptacle to be located within the machine space. Single-phase receptacles within wellways shall have ground-fault circuit-interrupter protection.
- C. Provide for connection to dedicated phone line, located at upper end pit area at the escalator controller.

2.04 FABRICATION

- A. Escalators shall be partially pre-assembled prior to delivery to the job site.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Field measure and examine substrates, supports, and other conditions under which escalator work is to be performed. Conditions may include, but are not limited to:
 1. Installation of required permanent enclosures including railings and smoke baffles for the well ways.
 2. Well ways are clear of conduit, piping, ducts, sprinkler systems and any other utilities.
- B. Do not proceed with work until unsatisfactory conditions are corrected

3.02 PREPARATION

- A. Protect floor openings adjacent to and in the general area of escalator installation.
- B. Install barricades a minimum of 48" high (1219 mm), for the duration of the escalator erection period.

3.03 INSTALLATION

- A. Properly locate truss and required intermediate supports at locations in accordance with manufacturer's recommendations and approved shop drawings. Anchor to building structure.
- B. Install escalator components in strict accordance with manufacturer installation methods.
- C. Solid Balustrade shall be installed without overlapping joints or trim pieces.

3.04 ADJUSTING

- A. Adjust components to provide a smooth start, which shall prevent undue strain on drive components. As directed by manufacturer literature, adjust and lubricate operating parts in compliance with manufacturer recommended equipment-operating standards.

3.05 DEMONSTRATION

- A. Prior to final escalator acceptance, make a final check of each escalator operation with the owner or owner's representative present. Manufacturer representative shall be present to determine that control systems and operating devices are functioning properly.

3.06 PROTECTION

- A. Escalator shall be protected from damage throughout the remainder of the construction period. Contractor shall not put escalator into service until final escalator acceptance.

3.07 SCHEDULE

- c. Quantity: Four (4) escalators
- d. Unit Identification: Park West; 11th Street; 10th Street; Brickell
- e. Floors Served: 2
- f. Vertical Rise:
 - I. Park West: 27'- 10.875"
 - II. 11th Street: 27'- 9.375"
 - III. 10th Street: 30'- 4"
 - IV. Brickell: 23'- 11.75"
- g. Speed: Nominal speed of 100 feet/minute (0.5 M/sec.) ascending and descending
- h. Nominal Step Width: 24 inches (600 mm)
- i. Power Supply: 460 /3 Phase/60 Hertz

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- j. All units include KONE's upgraded weather-resistant package: This includes the following items:
 - 6. Oil and Water Separators
 - 7. NEMA 4 rated controllers, wiring, and micro switches.
 - 8. NEMA 3 rated junction boxes.
 - 9. Anodized access covers and comb plates.
 - 10. FEMA float switches

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PART 4 - PRICING

The total cost of the project has previously been identified as costing: One million six hundred ninety eight thousand six hundred fifty seven dollars **\$1,698,657.00**, plus extras, and the contractor, Kone Inc. has agreed to absorb all but the sum below, as it's share of the cost of the replacement. The balance is to be billed to the County as follows:

The bidder/contractor agrees to perform the above specified work as specified in the foregoing addendum for the sum of:

EIGHT HUNDRED THOUSAND Dollars **(\$ 800,000)**

KONE INC.

Submitted By: 2.15.07
Name of vendor/contractor

Date:

Signature: BRAD FLEMING
Authorized signature

Date:

Title: ASSISTANT VICE PRESIDENT
MODERNIZATION BUSINESS

There is no additional change to the specifications.

END OF ADDENDUM

OIG

Exhibit Three

IG07-81

Service Business Center
Service Operations



Elevators Escalators

July 17, 2006

General Services Administration
Facilities and Utilities Management Division
Office of Elevator Safety
201 W. Flagler Street
Miami, FL 33130-1510

KONE Inc.
325 19th Street
Moline, IL 61265
Tel 309-743-5287
Fax 309-764-5658
www.kone.com
jay.dietz@kong.com

Attn: Mr. Michael Chavez, Chief Elevator Inspector

RE: MDTA MetroMover Escalator Settlement Offer

Dear Mr. Chavez:

The Miami-Dade Transit Authority (hereafter MDTA) has offered KONE Inc., \$800,000.00 (eight hundred thousand and no/100's dollars) as the MDTA's cost sharing contribution to the replacement of the four Montgomery Escalators located at the MetroMover Stations listed below:

- Park West Station
- 10th Street Station
- 11th Street Station
- Brickell Station

The final contract terms and conditions, scope and schedule will be mutually agreed upon following KONE's submission of the equipment scope and installation schedule, and Miami-Dade County's subsequent issuance of the proposed contract. Note that the escalators provided will include the features outlined in our January 20, 2006 correspondence (e.g. hot dipped galvanized truss).

KONE accepts this offer conditioned upon the development of a contract form and schedule agreeable to both parties.

In addition to the replacement of the four units outlined above, KONE will undertake the refurbishment of the five units listed below:

- School Board Station
Omni Station
- Freedom Tower
- 8th Street Station
Financial Center Station



Elevators Escalators

The refurbishment of these five units will be performed at no charge to the MDTA, and the scope of work will be as identified in our January 20, 2006 correspondence - with one exception. In lieu of providing an additional intermediate support at the upper end of each unit, KONE will reinforce the upper end of the trusses. The reinforcement will include the horizontal truss members and extend through the knee of the truss. This approach will allow us to improve the schedule, eliminate potential interferences, and eliminate the obvious aesthetic issues that would arise from this approach, and will be discussed in more detail at a later date.

Following your review of this information please let me know if you have any questions, or require any additional information. If this meets with your approval, please confirm (e-mail confirmation is fine).

Respectfully,
KONE Inc.

A handwritten signature in black ink, appearing to read "JD" or "Jay Dietz", written over a horizontal line.

Jay Dietz
Vice President – Service Operations

Cc: Jeff Milne, Assistant Vice President, SEB Area Director - Southern Area
Eric Plummer, NEB Regional Manager, Florida

OIG

Exhibit Four

IG07-81

TENTH STREET STATION METROMOVER ESCALATOR CORROSION



SOURCE: Kone, Inc. (photographs taken in December 2005)

ELEVENTH STREET STATION METROMOVER ESCALATOR CORROSION



SOURCE: Kone, Inc. (photographs taken in December 2005)

BRICKELL STATION METROMOVER ESCALATOR CORROSION



SOURCE: Kone, Inc. (photographs taken in December 2005)

PARK WEST STATION METROMOVER ESCALATOR CORROSION



SOURCE: Kone, Inc. (photographs taken in December 2005)