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NOTICE OF MEETING AND AGENDA
BI-STATE DEVELOPMENT AGENCY / METRO
OPERATIONS COMMITTEE

Tuesday, January 27, 2015, 8:00 A.M.
Headquarters Building
707 North First Street, Board Room
St. Louis, MO 63102

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Agenda	Disposition	Presentation
1. Call to Order	Approval	Chairman Scott
2. Roll Call	Quorum	Shirley Bryant
3. Public Comment*	Information	Chairman Scott
4. Minutes from October 28, 2014 Operations Committee	Approval	Chairman Scott
5. Contract Award: Transit Advertising Services	Approval	D. Williams / L. Jackson
6. Sole Source Contract Award: Trapeze U.S.A., LLC AVL Message Boards - North County Transit Center	Approval	R. Friem / F. Bakarich / J. Dotson
7. Contract Modification: Downtown Transfer Center Design Consultant Services Time Extension with Arcturis	Approval	R. Friem / F. Bakarich / J. Dotson
8. Contract Award: Natural Wood Solutions, LLC - Wood Cross Tie Replacement Project Year Three (3)	Approval	R. Friem / L. Jackson
9. Contract Award: Cell Phones Services	Approval	D. Erickson / L. Jackson
10. Contract Award: Credit Card Services	Approval	L. Jackson
11. Sole Source Contract Award: Ten (10) Rebuilt 40 Ft Low Floor Buses Funded 100% by St. Clair County Transit District	Approval	R. Friem / L. Jackson / D. Curry
12. Transit Operations 2015 1st Quarter Performance Report	Information	R. Friem
13. Maintenance of Way State of Good Repair Asset Inventory and Database Development - Project Completion Overview	Information / Presentation	R. Friem / K. Klevorn / T. Beidleman
14. Disadvantage Business Enterprise (DBE) Contract Specific Goal Setting	Information / Presentation	L. Jackson
15. Unscheduled Business	Approval	Chairman Scott
16. Executive Session (If needed)	Approval	Chairman Scott
If such action is approved by a majority vote of The Bi-State		

Agenda	Disposition	Presentation
Development Agency's Board of Commissioners who constitute a quorum, the Board may go into closed session to discuss legal, confidential, or privileged matters under §610.021(1), RSMo; leasing, purchase or sale of real estate under §610.021(2); personnel actions under §610.021(3); discussions regarding negotiations with employee groups under §610.021(9); sealed bids, proposals and documents related to negotiated contracts under §610.021(12); personnel records or applications under §610.021(13); records which are otherwise protected from disclosure by law under §610.021(14); records relating to hotlines established for reporting abuse and wrongdoing under §610.021(16); or confidential or privileged communications with the District's auditor, including auditor work products under §610.021(17).		
17. Call of Dates for Future Committee Meetings	Information	Shirley Bryant
18. Adjournment	Approval	Chairman Scott

Note*: Public comment may be made at the written request of a member of the public specifying the topic(s) to be addressed and provided to the Agency's information officer at least 48 hours prior to the meeting.

Open Session Item

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BI-STATE DEVELOPMENT AGENCY / METRO
OPERATIONS COMMITTEE MEETING
OPEN SESSION MINUTES
OCTOBER 28, 2014

Committee Members in Attendance

Missouri
Hugh Scott, Chairman
Kevin Cahill

Illinois
Michael Buehlhorn (via phone)
Fonzy Coleman (absent)
Jeffrey Watson (absent)

Other Commissioners in Attendance
None

Staff in Attendance
John Nations, President & CEO
Barbara Enneking, General Counsel and Deputy Secretary
Shirley Bryant, Certified Paralegal/Assistant Secretary
Ray Friem, Chief Operating Officer-Transit Services
Linda Espy, Sr. Administrative Assistant
Kathy Klevorn, Sr. Vice President Chief Financial Officer
Patti Beck, Director Communications
Jessica Mefford Miller, Chief Transit Planning & System Development
Fred Bakarich, Director Engineering Systems
Kathy Brittin, Director Risk Management Safety & Claims
Sheila Hockel, Manager Emergency Preparedness
Mark Vago, Controller
David Toben, Director Benefits
Elke Campbell, Director Workforce Diversity/EEO

Others in Attendance
Kenneth Brostron, Lashly & Baer

1. Call to Order
8:00 a.m. Commissioner Scott called the Open Session Operations Committee Meeting to order at 8:00 a.m.

2. Roll Call
8:00 a.m. Roll call was taken.

3. Public Comment
8:01 a.m. There was no public comment.

4. Minutes of Prior Open Session Operations Committee Meeting

8:01 a.m. The August 27, 2014, Open Session Operations Committee Meeting minutes were provided in the Committee packet. A motion to approve the minutes was made by Commissioner Buehlhorn and seconded by Commissioner Cahill. **Motion passed unanimously.**

5. Sole Source Contract Award: General Electric Transportation Systems (GETS) Global Signaling

8:02 a.m. The briefing paper regarding the Sole Source Contract Award for General Electric Transportation Systems **(GETS)** Global Signaling was provided in the Committee packet. Ray Friem, Chief Operating Officer Transit Services, provided a brief overview. This upgrade replaces signal circuitry on Missouri Phase I of the MetroLink alignment. These components have a life expectancy of 20 years and are safety sensitive, critical elements of the system that detects absence and/or presence of a train allowing signals to indicate whether the train needs to slow down or stop due to another train being present. Pricing requests were sent to two other manufacturers of Impedance Bonds, and neither supplier could provide a product compatible with the Agency's current system. Investigation found that mixing items from various manufacturers is unsafe in that two different systems are not likely to be able to communicate with one another.

A motion was made by Commissioner Buehlhorn and seconded by Commissioner Cahill for the Committee to forward to the Board with a recommendation of approval this sole source contract with General Electric Transportation Systems (GETS) Global Signaling in an amount not to exceed $275,000. **Motion passed unanimously.**

6. Contract Increase: Four Nines Technology Design Support Services

8:05 a.m. The briefing paper regarding the Contract Increase for Four Nines Technology Design Support Services **(Four Nines)** was provided in the Committee packet. Ray Friem provided a brief overview. The Agency contracted with Four Nines in July 2013 to provide support service for the integration of the smart card system with the farebox system. Their major role was to provide technical knowledge to ensure that the integration between the smart card and farebox vendors met the Agency's needs. During the formal integration testing in July, it became apparent that there were still several unresolved issues between the two main vendors, Indra, for the smart card system, and Scheidt & Bachmann **(Scheidt)** for the farebox system. It was determined that a second round of preliminary integration testing is needed to properly integrate Indra, Scheidt, the Agency's AVL system, and the smart card system. Four Nines was to provide technical support to the Agency for this integration. Since the existing contract with Four Nines is not sufficient to provide the support services needed for the second round of integration testing and through the end of the project, a budget increase is necessary. The funding for this additional work will be secured by decreasing the existing consulting contract with Lumenor. Lumenor has provided general project implementation services and input on the establishment of a Smart Card Customer Support group. Due to the effectiveness of this group, that consisted of Agency personnel from the Marketing and Engineering Departments, it was determined that there was not as great a need for support services from Lumenor as originally envisioned. Therefore, the funds from Lumenor's contract could be transferred to Four Nines without impact to the project.

Commissioner Cahill requested that Mr. Friem prepare a graphic explanation showing the work and responsibilities of Indra, Trapeze, and Scheidt and how their collective work would help the smart card, farebox and Automatic Vehicle Location (AVL) systems be better integrated. John Nations, President & CEO confirmed that Commissioner Cahill wanted this report presented to the Board in January.

After some discussion, a motion was made by Commissioner Cahill and seconded by Commissioner Buehlhorn to forward to the Board with a recommendation of approval the request to increase the Four Nines Technologies contract in the amount of $50,000 for additional support services for smart card and farebox integration, bringing the contract value to a total of $175,000.

7. Contract Award: Pharmacy Benefit Management Services

8:20 a.m. The briefing paper regarding the Pharmacy Benefit Management Services was provided in the Committee packet. David Toben, Director of Benefits, provided a brief overview. The Agency joined the St. Louis Area Business Health Coalition **(BHC)** and engaged Express Scripts, Inc., as the Pharmacy Benefit Manager **(PBM)** under the terms of the BHC master purchasing cooperative contract on December 1, 2011, for a period of three (3) years. As a member of BHC, the Agency, together with other area employers, combine their purchasing power to ensure transparency, accountability, and best in class pricing. BHC contracted with Lockton Companies Excelsior Solutions group in November 2013 to issue a request for proposal. Of the eight (8) responses received and after extensive review and negotiations between the two finalists, Express Scripts was selected and the new contract was effective October 1, 2014. The BHC/Express Scripts contract includes a provision for annual market checks to ensure continuing pricing competitiveness. The Agency anticipates an 8.51% savings in plan costs, which represents negotiated improvements in discounts, rebates and a reduction in processing fees which will help mitigate prescription drug trends and cost inflation in 2015 and beyond. The Agency has a self-funded pharmacy benefit plan for its active employees and early retirees and another for its Medicare eligible (post age-65) retirees. Through the agreement with Express Scripts, the plan will receive drug manufacturer rebates as well as direct subsidy payments from the federal government for maintaining an employer sponsored Medicare Part D plan for the Medicare eligible retirees and dependents. The new contract is estimated to need additional funding of $1,320,000 to complete the current contract period ending November 30, 2014.

After some discussion regarding the increased use of high cost specialty medications, compounded drugs use, and cost containment features added to the plan in September 2014, a motion was made by Commissioner Cahill and seconded by Commissioner Buehlhorn to forward to the Board with a recommendation of approval to award Express Scripts, Inc. a contract for Pharmacy Benefit Management Services in the not-to-exceed amount of $22,000,000; and to approve additional funding for the current Express Scripts, Inc. contract in the amount of $1,320,000.

8. Contract Award: CIGNA for Medical Plan Stop Loss Insurance

8:30 a.m. The briefing paper regarding the Contract Award for Cigna for Medical Plan Stop Loss Insurance was provided in the Committee packet. David Toben provided a brief overview. Stop Loss Insurance provides a true insured protection against high dollar claims on an individual level. Currently, the Agency's specific stop loss limit is $600,000. If someone has up to $600,000 or beyond $600,000 in claims in a calendar year, the Agency gets reimbursed through an insurance protection plan. Aon Hewitt Consulting **(Aon)** issued, on behalf of the Agency, a request for proposal to retain a vendor to provide individual specific stop loss insurance protection for the Agency's self-funded medical/pharmacy plan. The solicitation was issued to eight (8) firms and as a result of the procurement, two (2) firms were deemed responsive, Cigna Healthcare and HM Insurance Group **(HMIG)**. The current provider, Cigna, has guaranteed their current 2014 rate of $12.65 per covered plan participant for plan year 2015. HMIG proposed a rate of $14.89 per covered plan participant. The stop loss protection includes all active employees, their dependents, retirees under age 65, and any dependent under the age of 65. As a result of the responses and proposed rates, Agency management recommends retaining Cigna Healthcare as the Agency's stop loss insurance carrier for the plan year of 2015.

Some discussion followed regarding the possibility of accumulating reserves to cover the stop loss and the potential to raise the stop loss limit. This agenda item was informational only and no Committee action was required.

9. Unscheduled Business

8:35 a.m. At the request of Commissioner Cahill, Agency staff prepared a report regarding DBE compliance participation on non-federal contracts. Elke Campbell, Director Workforce Diversity/EEO, provided an overview of the DBE participation. Ms. Campbell prepared a DBE Contract Compliance Summary, which identified the various contracts, the DBE goals and the DBE percentage achieved to date. Although it is not mandated by the federal government to have DBE participation on locally funded projects, the Agency has opted to make DBE goals mandatory. The prime contractors are getting the message that the Agency is firm on DBE participation and they are making every effort to meet or exceed the required goals. A certain methodology is used to determine how DBE goals are set, and as such, the Board has requested that a more detailed presentation on the methodology used to determine a DBE goal be presented to the Operations Committee in January 2015. This report was informational only and no Committee action was required.

10. Executive Session - If such action is approved by a majority vote of the Bi-State Development Agency's Board of Commissioners who constitute a quorum, the Board may go into closed session to discuss legal, confidential, or privileged matters under §610.021(1), RSMo; leasing, purchase or sale of real estate under §610.021(2); personnel action under §610.021(3); discussions regarding negotiations with employee groups under §610.021(9); sealed bids, proposals and documents related to negotiated contracts under §610.021(12); personnel records or applications under §610.021(13); records which are otherwise protected from disclosure by law under §610.021(14); records relating to hotlines established for reporting abuse and wrongdoing under §610.021(16); or confidential or privileged communications with the District's auditor, including auditor work products under §610.021(17).

8:42 a.m. Pursuant to the requirements of Section 610.021 (1) of the Revised Statutes of Missouri, Commissioner Scott requested a motion to allow the Committee to go into closed session. A motion was made by Commissioner Cahill and seconded by Commissioner Buehlhorn. A roll call vote was taken and the Commissioners present, Scott, Cahill and Buehlhorn voted to approve this agenda item. **Motion passed unanimously.**

11. Call of Dates for Future Committee Meetings

9:25 a.m. The next Board meeting is scheduled for Friday, November 21, 2014, at 8:00 a.m.; the next Audit Committee meeting is scheduled for Friday, January 23, 2015, at 8:00 a.m. and the next Operations Committee meeting is scheduled for Tuesday, January 27, 2015, at 8:00 a.m.

9:26 a.m. John Nations stated that the Agency is planning a 50% recognition event regarding the Eads Bridge Project, on Friday morning, November 7, 2014. There has been a lot of public interest and the Agency is committed to keeping the public informed on the progress of the Eads Bridge project, and as such, this event is a great opportunity to provide the public with a project update.

Mr. Friem informed the Board that although internal announcements have not yet been made, Scott Grott is returning to the organization as the Chief of MetroLink.

12. Adjournment

9:26 a.m. No motion was made; Commissioner Scott adjourned the meeting.

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Deputy Secretary to the Board of Commissioners
Bi-State Development Agency / Metro

Open Session Item

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Bi-State Development Agency/Metro
Operations Committee
Agenda Item
January 27, 2015

From:	Raymond A. Friem, Chief Operating Officer, Transit Services
Subject:	**Contract Award: Transit Advertising Services**
Disposition:	Approval
Presentation:	Dianne H. Williams - Vice President, Marketing and Communications; Larry B. Jackson, Vice President - Procurement, Inventory Management & Supplier Diversity

Objective:
To present to the Operations Committee for discussion and referral to the Board of Commissioners a request for authorization to award Contract 14-RFP-100941-SG for Transit Advertising Services to Direct Media USA for a three-year period commencing March 1, 2015 and ending February 28, 2018, with two one-year options for renewal at Bi-State Development Agency/Metro's **(BSDA/Metro)** discretion extending the contract until February 29, 2020.

Board Policy:
Board Policy Chapter 50 requires Board approval of Negotiated Procurements exceeding $500,000.

Funding Source:
Not Applicable - Revenue Contract
Guaranteed revenue for the three year period from the recommended vendor is $2,400,000 with additional guaranteed revenue of $1,900,000 for two option years. Once annual guarantee is achieved, BSDA/Metro will receive a revenue share of 60% of media sales up to $1,500,000 annually and 65% of annual media sales for revenue above $1,500,000.

Background:
BSDA/Metro generates revenue through advertising placements on bus and van interiors and exteriors, light rail vehicle interiors and exteriors, and light rail station platform windscreens, walls and tunnels.

The current contract for Transit Advertising Services was entered into on January 1, 2011. This contract ended with Option Year One (1) on December 31, 2014. A decision was made not to exercise the last Option Year.

BSDA/Metro issued Request for Proposal 14-RFP-100941-SG on November 6, 2014, seeking proposals from qualified parties interested in providing transit advertising services. Proposals were due on December 11, 2014. The solicitation was advertised on BSDA/Metro's website and sent to companies identified as being qualified to provide transit advertising services. Six companies requested and received copies of the solicitation.

A pre-proposal conference was held in St. Louis on November 14, 2014, which gave interested parties the opportunity to obtain clarification on the scope of work pertaining to the advertising on MetroBus, MetroLink, Paratransit Vans and at MetroLink Stations.

The objectives in the RFP included revenue in the form of a minimum guaranteed dollar amount, which increases annually by a set minimum amount or by 6% per year of gross advertising sales revenues, whichever was greater. The technical evaluation criteria for the RFP included a company's experience and capabilities and the experience and qualifications of staff to be assigned to the contract. A DBE goal was not established because, to our knowledge, there are no certified DBE's in the transit advertising business; however, bidders were encouraged to seek out diverse suppliers for outside services not performed on an internal basis.

Analysis:

A single proposal was received from Direct Media USA, who was deemed responsive and responsible. The evaluation process was adhered to in accordance with the evaluation criteria set forth in the Request for Proposal. The evaluation committee consisted of staff from various departments including Procurement, Planning & System Development, Quality Assurance, and Marketing.

Direct Media USA was then invited to participate in a presentation/interview with BSDA/Metro. The presentation allowed conversation regarding the firm's overall capabilities and what would make them a good fit for BSDA/Metro. Upon completion of the presentation and question and answer period, a debriefing was conducted to allow the evaluation team to further discuss their thoughts on the firm's presentations and score them accordingly.

After completion of the initial Individual Technical, Consensus, and Presentation, the technical scores were as follows:

Evaluation Criteria Scoring

	Initial	Consensus	Presentation
Direct Media USA	417.50	418.37	422.50

It was determined that an agreement with Direct Media USA offers a more favorable revenue share than the previous contract, and offers greater revenue potential overall. Direct Media USA continues to increase revenues in each year of all the transit advertising contracts they hold.

Committee Action Requested:

Management recommends that the Operations Committee approve and forward to the Board of Commissioners for approval this request to award Contract 14-RFP-100941-SG – Transit Adverting Services pending final negotiations with Direct Media USA.

Open Session Item

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Bi-State Development Agency / Metro
Operations Committee
Agenda Item
January 27, 2015

From:	Raymond A. Friem, Chief Operating Officer –Transit Services
Subject:	**Sole Source Contract Award: Trapeze U.S.A., LLC AVL Message Boards - North County Transit Center**
Disposition:	Approval
Presentation:	Frederick J. Bakarich, Interim Director of Engineering Systems; Larry B. Jackson, Vice President – Procurement, Inventory Management & Supplier Diversity; Jeremy Dotson, Project Manager

Objective:

To present to the Operations Committee for discussion and referral to the Board of Commissioners a request to award a sole-source contract to Trapeze Software Group. The North County Transfer Center **(NCTC)** Phase 1 Project requires the purchase of ten (10) - two line Automatic Vehicle Location **(AVL)** displays and one (1) large interior LED display.

Board Policy:

Board Policy Chapter 50 – Board of Commissioners' approval is required for sole source procurements exceeding $100,000.

Funding Source:

This project is 80% funded through FTA grants MO-95-X015 and MO-90-X296, with 20% local match provided through St Louis City and County sales tax proceeds.

Background:

Trapeze previously supplied all Computer Aided Dispatch / Automated Vehicle Location **(CAD/AVL)** equipment utilized with our transit management technology currently deployed on Metro buses and at existing transfer stations. Metro has since installed this proprietary technology on a majority of the MetroBus fleet. The remainder of the fleet will have AVL technology by the end of 2015. The displays for the NCTC will provide real time departure and arrival information for all bus routes served by the transfer center.

Analysis:

Metro's existing CAD/AVL infrastructure is a transit specific proprietary system. Only Trapeze U.S.A., LLC equipment and software can be used with our existing communications and data processing structures, and the only source for this equipment is Trapeze U.S.A., LLC.

Committee Action Requested:

Management recommends that the Operations Committee approve and forward to the Board of Commissioners this request for the purchase of real time passenger information displays with Trapeze U.S.A., LLC in an amount not to exceed $151,830.00, contingent upon successful completion of negotiations with Trapeze on same.

Open Session Item

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Bi-State Development Agency / Metro
Operations Committee
Agenda Item
January 27, 2015

From:	Raymond A. Friem, Chief Operating Officer –Transit Services
Subject:	**Contract Modification (Time Extension): Arcturis, Design Consultant for Downtown Transit Center**
Disposition:	Approval
Presentation:	Frederick J. Bakarich, Interim Director of Engineering Systems**;** Larry B. Jackson, Vice President – Procurement, Inventory Management & Supplier Diversity; Jeremy Dotson, Project Manager

Objective:
To present to the Operations Committee for discussion and referral to the Board of Commissioners for approval a request for a contract time extension with Arcturis to complete final design of the Downtown Transit Center.

Board Policy
Board Policy Chapter 50.G.2 – Board of Commissioners' approval is required for time extensions in excess of 180 days.

Funding Source:
This project is 80% funded through two FTA grants, MO-03-0103 and MO-04-0113, with 20% local match provided through St Louis City and County sales tax proceeds.

Background:
Arcturis is currently under contract to provide design services for the Downtown Transit Center project. The contract with Arcturis is set to expire on February 15, 2015.

The City of St. Louis ADA Office has made some requests, which were not anticipated in the original project design. The Agency is currently having discussions with the City to resolve these issues. It is anticipated that these issues will be resolved during the first quarter of 2015, with construction scheduled to begin in late spring / early summer of 2015.

Analysis
Arcturis's performance has met the Agency's expectations. The Design Consultant must be under contract through the construction period, which has an anticipated duration of one year, and through project close out (estimated three month duration). A contract extension of 686 days is required, resulting in a new contract completion date of December 31, 2016. The extension of the contract with Arcturis will not result in additional costs to the project.

Committee Action Requested:
Management recommends that the Operations Committee approve and forward to the Board of Commissioners this request to extend the contract with Arcturis through December 31, 2016.

Open Session Item

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Bi-State Development Agency / Metro
Operations Committee
Agenda Item
January 27, 2015

From:	Raymond A. Friem, Chief Operating Officer - Transit Services
Subject:	**Contract Award: Natural Wood Solutions, LLC – Wood Cross Tie Replacement Project Year Three (3)**
Disposition:	Approval
Presentation:	Larry B. Jackson, Vice President – Procurement, Inventory Management & Supplier Diversity

Objective:
To present to the Operations Committee for discussion and referral to the Board of Commissioners a request for approval for the President and CEO to award a one-time purchase to Natural Wood Solutions, LLC to provide wood cross ties for Tie Replacement Project Year Three (3).

Board Policy:
Board Policy Chapter 50.010(A)(8) and 50.010(E)(1)(b) – Board of Commissioners' approval is required for non-competitive ("sole source" or "single bid") procurements which exceed $100,000.

It is the policy of the Bi-State Development Agency / Metro **(BSDA/Metro)** to conduct all procurements in a manner which fosters full and open competition. In some cases, competition is not feasible or practical. Sole source procurements totaled 15.9% of all procurements over the last four quarters. The percentage is unusually high due to the recent purchase of radio communications equipment from Motorola.

Funding Source:
Funding for this project through grants MO-54-0001 and Prop M funds for Non-Capital Rehabilitation/Renovation.

Background:
Solicitation 15-SB-101255-DH for supply of wood cross ties and spikes was released through BSDA/Metro's on-line sourcing system December 11, 2014 with bids due December 17, 2014, and requesting August 2015 delivery to the Agency's contractor. The solicitation was sent to 11 targeted potential suppliers with notifications being sent to 20 additional potential sources. Three suppliers indicated pre-bid intent to participate.

Prior to the bidding period, BSDA/Metro was advised by multiple suppliers of a national hardwood shortage affecting rail tie production and deliveries. This shortage situation had not improved since the Agency's previous procurement in April 2014. Koppers, who had supplied wood cross ties for Agency projects in recent years, could not obtain definite pricing and delivery from their plant locations and indicated they could not currently meet all their orders in house nor the Agency's required delivery, therefore, declined to bid until 2016.

Analysis:
The Agency's last three competitive purchases for wood cross ties were at $54.50/ea., $60.75/ea and $61.94/ea. This procurement bid is at $68/ea and while slightly higher is still within the competitive range in a market shortage situation. The Agency's independent cost estimate submitted prior to issuance of the solicitation was $61.94/ea. The market shortage was verified through independent industry publications with log supply being down due to harsh winter conditions limiting logging activity last winter and demand for hardwood products being up. Production January 2014 through October 2014 decreased by 6.2% with purchases only decreasing by 5.7%

The Agency may now either cancel the solicitation and delay the wood cross tie replacement project by one year or award to the single bidder whose bid as been deemed fair and reasonable. This project is important to assuring the ride quality and safety of the MetroLink alignment. This project coexists with other maintenance projects and is time slotted to be accomplished in late summer and fall of this year. At this late date, it would be extremely difficult to reprogram existing labor resources to ensure system maintenance needs are accomplished in a timely manner.

Committee Action Requested:
Management recommends that the Operations Committee approve and forward to the Board of Commissioners this request for a single purchase of ties from Natural Wood Solutions, LLC in the amount of $612,000 to support Year Three (3) of the Tie Replacement Project.

Open Session Item

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Bi-State Development Agency / Metro
Operations Committee
Agenda Item
January 27, 2015

From: Raymond A. Friem, Chief Operating Officer - Transit Services
Subject: **Contract Award: Cell Phone Services**
Disposition: Approval
Presentation: Debbie Erickson, Vice President – Chief Information Officer; Larry Jackson, Vice President – Procurement, Inventory Management & Supplier Diversity

Objective:
To present to the Operations Committee for discussion and referral to the Board of Commissioners a request for approval to award a two (2) year contract with two (2) pre-priced option years exercisable at the Bi-State Development Agency/Metro's (BSDA/Metro) discretion to Sprint for cell phone services.

Board Policy:
Board Procurement Policy requires Board approval of negotiated procurements exceeding $500,000.

Funding Source:
Operating Budget. Cell phone costs are included in the annual Operating Budget for each of the cost centers utilizing cell phones.

Background:
Request for Proposal (RFP), 15-RFP-101101-VH was issued on October 6, 2014, seeking a qualified provider for cell phone and related services to meet the requirements of BSDA/Metro. The solicitation was advertised on BSDA/Metro's website and through the iSupplier Sourcing system. Three firms requested and received a copy of the RFP. Three firms responded with proposals by the closing date of November 4, 2014: AT&T, Sprint, and Verizon.

Analysis:
Technical elements were evaluated in accordance with the published evaluation criteria listed in the solicitation document. Technical Evaluation was performed by staff from the Information Technology Division. Cost was evaluated separately after the technical evaluation was completed. The chart below shows the final combined (Technical and Cost) scoring for each vendor.

Vendor	Technical Score	Cost Score	Total Score
Sprint	305.00	250.00	555.00
Verizon	301.00	201.87	502.87
AT&T	307.50	216.69	524.19

The highest possible attainable technical score was 500. The highest possible cost score was 250. The highest total score could not exceed 750 points.

The annual cost of service is dependent on the number of cell phones used and the type of service required. BSDA/Metro currently has over 500 cell phones for data, messaging, phone and direct connect services. The annual cost is approximately $216,000. The estimated total cost for the two (2) year contract and two (2) option years is $864,000.

Committee Action Requested:

Management recommends that the Operations Committee approve and refer to the Board of Commissioners the request to award a contract to Sprint for two (2) years for cell phone and related services at the proposed fixed prices; and when approved, recommend that the President & CEO exercise the option years of service if:

- Funding is available.
- The performance of the contract is satisfactory
- The exercise of any contractual option is in accordance with the terms and conditions of the option stated in the initial contract awarded; and
- The option price is determined to be equal to or better than prices available in the market or that the option is the more advantageous offer at the time the option is exercised.

Open Session Item

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Bi-State Development Agency / Metro
Operations Committee
Agenda Item
January 27, 2015

From: Raymond A. Friem, Chief Operating Officer - Transit Services
Subject: **Contract Award: Credit Card Services**
Disposition: Approval
Presentation: Larry B. Jackson, Vice President – Procurement, Inventory Management & Supplier Diversity

Objective:
To present to the Operations Committee for discussion and referral to the Board of Commissioners a request for approval to award a three (3) year contract with two (2) option years exercisable at the Agency's discretion to **US Bank** for credit card services.

Board Policy:
Board Procurement Policy requires Board approval of negotiated procurements exceeding $500,000.

Funding Source:
No funding source is required. Credit Card Services are provided at no cost to the Agency and provide revenue in the form of a rebate based on volume of dollars processed.

Background:
Request for Proposal **(RFP)** 15-RFP-101000-CB was issued on September 12, 2104 seeking proposals from qualified bank institutions to provide credit card services for Bi-State Development Agency/Metro **(BSDA/Metro's)** credit card programs. BSDA/Metro currently manages separate credit card programs for Travel/Executive credit cards and Procurement Card/Office Supply Card services. A stated goal of the new RFP was to maximize potential rebate revenue by combining all programs under a single provider capable of managing multiple uses including Procurement, Executive, Travel and Accounts Payable Cards.

The solicitation was advertised on BSDA/Metro's website and through the iSupplier Sourcing system. Fifteen banks requested and received a copy of the RFP. Six banks responded with proposals by the closing date of October 17, 2014. The banks that responded were US Bank, Bank of America, UMB Bank, PNC Bank, JPMorgan Chase Bank, and Fifth Third Bank.

Analysis:
Technical elements were evaluated in accordance with the published evaluation criteria listed in the solicitation document. Technical Evaluation was performed by staff from BSDA/Metro's Procurement, Accounting and Information Technology Departments. Pricing was evaluated separately after the technical evaluation was completed and ranked on the basis of highest overall rebate offered to the Agency.

The chart below shows the final combined (Technical and Pricing) scoring for each bank.

Bank	Technical Score	Cost Score	Total Score
US Bank	140.52	300.00	440.52
Bank of America	136.66	291.66	427.92
Fifth Third Bank	117.66	271.84	389.50
UMB Bank	124.20	233.01	357.21
PNC Bank	125.76	0	125.76
JP Morgan Chase	124.16	0	124.16

Cost scores were evaluated based on the Agency paying within 30 days of invoice. Banks that received a score of zero for pricing did not submit a rebate schedule for paying within 30 days as required for the evaluation, and the rebate schedules they proposed were less attractive than those of the other banks.

The chart below shows the anticipated rebate by card type for the highest ranking bank.

USBANK	ANNUAL VOLUME	REBATE PERCENTAGE	ANNUAL REBATE
Procurement Card	$ 5,000,000	1.60%	$ 80,000
Office Supplies	$ 200,000	1.60%	$ 3,200
Executive/Travel	$ 300,000	1.60%	$ 4,800
AP Cards	$ 10,000,000	1.60%	$ 160,000
TOTAL	$ 15,500,000		$ 248,000

The Procurement Card, Office Supplies Card, Executive and Travel card volume are based on historical information. The AP Card volume is a conservative estimate by US Bank based on our payables information. This amount will be dependent on implementation of card use for the payables function.

Award will be made to US Bank, the responsible firm whose proposal is most advantageous to the Agency with price and other factors considered.

Committee Action Requested:

Management recommends that the Operations Committee approve and refer to the Board of Commissioners this request to award a contract to US Bank to provide credit card services for a period of three (3) years with (2) one-year options to be exercised at BSDA/Metro's discretion.

Open Session Item

11

Bi-State Development Agency / Metro
Operations Committee
Agenda Item
January 27, 2015

From:	Raymond A. Friem, Chief Operating Officer - Transit Services
Subject:	**Sole Source Contract Award: Ten (10) Rebuilt 40 Ft Low Floor Buses Funded 100% by St. Clair County Transit District**
Disposition:	Approval
Presentation:	Raymond A. Friem, Chief Operating Officer – Transit Services; Larry B. Jackson, Vice President – Procurement, Inventory Management & Supplier Diversity

Objective

To obtain Board of Commissioners' permission to enter into a sole source contract with Complete Coach Works **(CCW)** for the purchase of up to ten (10) refurbished 40 foot Low Floor diesel powered buses.

Board Policy:

Board Policy Chapter 50.010(A)(8) and 50.010(E)(1)(b) – Board of Commissioners' approval is required for non-competitive ("sole source" or "single bid") procurements which exceed $100,000.

It is the policy of Bi-State Development Agency/Metro **(BSDA/Metro)** to conduct all procurements in a manner which fosters full and open competition. In some cases, competition is not feasible or practical. Over the last four operational quarters sole source procurements totaled 15.9% of all procurements. The percentage is unusually high due to the recent purchase of radio communications equipment from Motorola.

Funding Source:

This purchase will be 100% funded by St Clair County Transit District **(SCCTD).**

Background:

In 2000, 2001 and 2002, a decision was made to replace over half of the fleet in a three year period because Federal funding was available. Today, over half of the Illinois bus fleet has met and or has exceeded its design life. More importantly, this same group of buses has exceeded its design mileage by a minimum of 200,000 and as much as 400,000 miles. These high use buses are experiencing structural failures at a high rate. Furthermore, this fleet of high floor buses is equipped with a hydraulic wheel chair lift that is prone to fail due to age and life cycle usage. These systems are very costly to maintain. Continued daily operation of these vehicles will increase operational costs, while decreasing dependability and availability. In addition, the SCCTD has announced that its special service needs for the popular Redbird Express service has doubled between 2011 and 2014 and demand is expected to continue to increase in the future. The combination of higher demand for buses and the high utilization rate of Illinois buses has created an immediate need for additional replacement rolling stock ahead of initial planned levels. In fact, staff is now reviewing the likelihood that the Illinois buses will need to be

replaced at 12 year intervals rather than the 15 years planned for Missouri operations due to the fact that the buses operate almost 25% more miles per year in Illinois.

The FTA has recently granted the SCCTD permission to increase their bus spare ratio from 20% to 40%, the equivalent of 10 buses. The additional assets will be utilized to meet special service demands and will reduce mileage demands on existing assets.

If purchased, these buses will have a design life of 8 years (75% of new life expectancy, but will have a cost of approximately 68% of a new bus). In addition, these buses would augment the existing bus replacement plan. As stated, the current Illinois replacement plan is being driven by mileage to a 12 year interval. If approved the additional capital assets would extend the replacement plan to a more desirable 14 year interval and provide both SCCTD and BSDA/Metro with a higher level of reliability and availability for years to come.

Analysis:

Vehicle Maintenance plans to visit CCW in early February 2015 to inspect vehicles that CCW has on hand to be refurbished. The Vehicle Maintenance Department will evaluate the available vehicles to ensure they meet BSDA/Metro's specifications to be integrated into the Illinois fleet.

BSDA/Metro staff has reservations about procuring rolling stock using a sole-source methodology, but believes that the business reasons for executing this agreement are compelling:

1. A clear need for the buses exists in the Illinois Service Area.
2. Chassis that meet our requirements are available right now at a vendor who has recently provided refurbished buses to SCCTD.
3. If a full RFP were initiated now, there is no guarantee that these chassis would be available when a procurement was completed and the production schedule could not meet the desired delivery (within the 2015 baseball season).
4. The price has been deemed fair and reasonable.

Committee Action Requested:

Complete Coach Works and BSDA/Metro have successfully partnered on two prior projects. In 2014 St. Clair County Transit District purchased 10 refurbished 40 foot Gillig buses, and BSDA/Metro purchased 15 refurbished New Flyer 60 foot Articulated buses. Management is confident that CCW can again deliver a quality product. Therefore, it is recommended that the Operations Committee approve and forward to the Board of Commissioners this request to enter into a contract with Complete Coach Works for the purchase of up to 10 rebuilt 40 Ft. Low Floor diesel powered buses, including all AVL equipment, in an amount not to exceed $2,951,500.

Open Session Item

12

METRO - Transit Operations Division
FY2015– 1st Quarter Summary
Report to the President /CEO and Board of Commissioners

Financials

YTD	FY2015 Actual	FY2015 Budgeted	FY2015 Variance	FY2015 %	FY2014 Actual	Diff FY2015 FY2014
Revenue*	$16,690,833	$16,845,681	($154,848)	-0.92%	$ 16,231,062	$459,771
Expenses*	$52,271,824	$55,105,462	($2,833,638)	-5.14%	$ 51,089,491	$1,182,333

The budget for system revenues was increased by 4% over FY2014 to reflect the July 1, 2014 implementation of the Board authorized fare increase.. Actual revenue for the first quarter was slightly lower than budget. Fixed route service and paratransit farebox met their revenue goals in the first quarter. The system again saw a decline in revenue through the Transportation Management Association contracts. Many state and other agencies are reducing the transportation portion of their budgets significantly. This results in less trips provided and lower revenues. The Operations Division was below budgeted expenses for the first quarter by almost 5%. The expense line items are expected to balance in the second and third quarters of FY2015 as the new labor contract terms and wages are implemented.

Ridership Comparison

System ridership grew at a 0.9% rate in the first quarter of FY2015. This was below expectations of closer to 1.5% growth. There are many possible reasons for the slower than expected growth rate; the 3.8% fare increase implemented in July, impacts to service created across the region by the civil unrest, and rapidly falling gasoline prices. MetroBus ridership has met targeted goals, while MetroLink ridership has trended lower. Average weekday ridership is a indicator of daily system utilization. In September the average daily boardings for MetroLink were lower by 4.2%. This is a fairly significant change in ridership pattern that needs to be monitored. Van ridership is lower largely due to the loss of contract trips for Medicare and other governmental agencies. The contract trip reductions are a long-term trend and probably reflect permanent changes in Government Policy.

Mode	1st Quarter FY2015	1st Quarter FY2014	+/- Previous Period
Rail	4,730,660	4,759,015	-0.6%
Bus	7,944,335	7,797,685	1.9%
Van	144,792	147,262	-1.7%
System	12,819,787	12,703,962	0.9%

YTD Service Profiles

	FY 2015 YTD Revenue Miles	FY2014 YTD Revenue Miles	+/- Previous Period	FY2015 YTD Revenue Hours	FY2014 YTD Revenue Hours	+/- Previous Period
Rail	787,374	789,196	-0.2%	33,351	33,677	-1.0%
Bus	4,679,409	4,684,693	-0.1%	348,069	348,001	0.0%
Van	1,354,466	1,343,446	0.8%	77,549	79,048	-1.9%
	FY2015 Pass/ Rev. Mile	FY2014 Pass/ Rev. Mile	+/- Previous Period	FY2015 Pass / Rev. Hour	FY2014 Pass / Rev. Hour	+/- Previous Period
Rail	6.01	6.03	-0.37%	141.84	141.31	0.38%
Bus	1.70	1.66	2.00%	22.82	22.41	1.86%
Van	0.1069	0.1096	-2.48%	1.87	1.86	0.22%

The Service Profile shows little change in year over year operating tempo for fixed route MetroLink and MetroBus service. With ridership and service levels fairly static, there is little change in system statistics for passengers per revenue hour or mile efficiency calculations. MetroBus has seen some measurable improvement in the first quarter with increases in passengers per unit of almost 2%. Paratransit was just the opposite, requiring more miles and hours to transport less people. This is purely a function of the customer trip requests as Call-A-Ride operates a demand based service that changes every day.

Security Activity

Enforcement Efforts	1st Qtr. FY2015	1st Quarter FY2014	Variance (%)
Custodial Arrests	117	302	-61%
Summons	3,865	4,560	-15%
Dispatched Calls	1,692	1,397	21%
Valid Customer Service Complaints	36	68	-47%

Consistent with Metro's Goals of improving operating performance, we adopted new tracking measures for the Public Safety Department in FY14. For the first time we now can directly measure year-over-year comparisons. One of the goals of the department is improved perception of personal security on the entire transit system. The Customer Service Department compiles complaint data and provides us the ability to drill down into modal issues if necessary. Generally the issues aren't modal, they are geographic or location driven, and need to be addressed as such. For example, if a security issue occurs at a bus rail transfer center and is witnessed by customers of both modes the perception of personal safety is no different between bus and rail riders. We are investing in tracking mechanisms that will allow improved insight and some predictive capabilities that will allow us to better deploy all security assets in what we believe will be a more effective manner going forward. There is some evidence of improvement in the area of valid customer security complaints which are down over 47% for the quarter, although a single quarter of improvement is not considered a trend. The definition of "Custodial Arrest" is when an individual is arrested and is physically taken into custody for an offense. A "Dispatched Call" is an event where a Public Safety Dispatcher directs Public Safety or Police personnel to report a particular scene. This occurs when assistance is requested by either a fare enforcement officer or passenger, or if activity is detected through video surveillance.

Service Quality Indicators

	FY2015 On Time Performance	FY2014 On Time Performance	+/- Previous Period	FY2015 Complaints / 100,000 Boardings	FY2014 Complaints / 100,000 Boardings	+/- Previous Period
Rail	97.97%	97.25%	0.74%	1.16	1.3	-10.77%
Bus	90.60%	91.30%	-0.77%	13.88	12.79	8.52%
Van	95.10%	94.70%	0.42%	30.39	23.09	31.62%
	FY2015 Preventable Accidents	FY2014 Preventable Accidents	+/- Previous Period	FY2015 Total Accidents/ Violations (ML)	FY2014 Total Accidents/ Violations (ML)	+/- Previous Period
Rail	0	0	0%	5	9	-44%
Bus	52	37	41%	107	70	53%
Van	17	17	0%	30	37	-19%
	FY2015 Service Delays – Equipment	FY2014 Service Delays – Equipment	+/- Previous Period	FY2015 MDBF	FY2014 MDBF	+/- Previous Period
Rail	29	53	-45%	55,120	35,706	54%
Bus	269	246	9%	21,189	21,759	-3%
Van	49	29	69%	31,256	53,077	-41%

The Transit System's Customer Service metrics continue to record satisfactory levels of accomplishment. On time performance is above the 97% threshold for MetroLink, 90% for MetroBus and 95% for Call-A-Ride. Complaint levels remain near system lows, with only Call-A-Ride experiencing a one quarter issue that bears watching. MetroBus saw an increase in accident rates greater than 50% in the first quarter. Staff believes this is an outlier statistic as performance over the last ten quarters is +/- 5% of 2 total accidents per 100,000 miles operated. We will continue to monitor accident rates and will take action if necessary. Metro's Van rolling stock is aging rapidly with the entire fleet now near 200% of FTA operational requirements for retirement. We should take delivery of 37 vans (almost 40% of the fleet) by end of fiscal year, and another 17 by end of the calendar year. We continue to experience premature failure rates in the newly delivered buses. The defect is industry wide and is impacting performance across the country. The core issue for properly addressing the impact to service is the availability of parts. We are working closely with manufacturers to remedy these issues.

YTD Customer Service Call Center Statistics

Call volume on the Information looks to have begun to fall in the first quarter of FY2015, down almost 7%. Again improvement in a single quarter is not considered a trend, but the inclusion of real time data in online and some cell phone applications may be causing the public to not rely on the Metro Transit Information Call Center as much. These services have the added advantage of being available all day, where the call center is only open during normal business hours.

	FY2015	FY2014	+/-
Information Calls Presented	186,547	199,854	-6.66%
% Information Calls Answered	87.78%	91.61%	-4.18%
Service Calls Presented	17,441	16,943	2.94%
Service Calls % Answered	88.49%	91.90%	-3.70%

Transit Operations Snapshot:

Planning Department Schedule Performance Comparison

	9-Jun-14	10-Mar-14	2-Dec-13	3-Sep-13	10-Jun-13	11-Mar-13	26-Nov-12	3-Sep-12	% Change June '14 - Sept '12
Peak Vehicles (Train)	25	25	25	25	25	25	25	25	0%
Peak Vehicles (Bus)	314	313	312	314	307	307	307	313	0%
Full Time Runs (Rail)	73	73	73	73	73	73	73	73	0%
Full Time Runs (Bus)	665	661	661	662	665	665	665	662	0%
Part Time Runs (Bus)	83	83	83	83	77	77	77	77	8%
Open Pieces (Rail)	4	4	4	4	4	4	4	4	0%
Open Pieces (Bus)	0	0	0	7	0	0	0	9	-100%
Downtown Exp (Bus)	5	5	5	5	5	5	5	5	0%
Downtown Local (Bus)	1	1	1	1	1	1	1	1	0%
Feeder Routes	68	68	60	60	60	60	60	60	13%
Weekly Pay Hrs. -Train	3,117	3,117	3,109	3,109	3,109	3,109	3,109	3,125	0%
Weekly Pay Hrs. - Bus	30,837	30,882	30,890	31,069	30,986	31,064	30,997	30,992	0%
Weekly Plat. Hrs.-Train	2,597	2,597	2,597	2,597	2,597	2,597	2,597	2,599	0%
Weekly Plat Hrs – Bus	27,754	27,725	27,725	27,884	27,926	27,830	27,784	27,831	0%
Weekly OT Hrs - Train	92	92	92	92	92	92	92	90	2%
Weekly OT Hrs - Bus	742	745	748	743	690	782	775	761	-2%
Pay to Plat Ratio -Train	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	0%
Pay to Plat ratio - Bus	1.11	1.11	1.11	1.11	1.11	1.12	1.12	1.11	0%
Bus - % of PT Plat Hrs.	6.79%	6.95%	6.94%	6.84%	6.83%	6.95%	6.50%	6.31%	8%
System Speed - Rail	28.83	28.83	28.82	28.82	28.82	28.82	28.82	28.83	0%
System Speed - Bus	16.47	16.45	16.53	16.48	16.47	16.51	16.57	16.51	0%
Recovery % - Train	18.09%	18.09%	18.11%	18.11%	18.11%	18.11%	18.11%	18.09%	0%
Recovery % - Bus	15.74%	15.76%	15.73%	15.85%	15.87%	15.82%	15.93%	15.70%	0%
Deadhead Ratio- Train	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0%

Key Capital Project Status as of 1/15/2015

Construction / Acquisition / Rehabilitation Projects						
Project	**Action**	**Total Units**	**Completed Units**	**% Complete**	**Estimated Completion**	CODE
EADS Bridge Rehab	Rust Mitigation / Recoat (Panels)	256	128	50.00%	2016	
North County Transfer Center Construction	Contract Award	1	0	0.00%	2015	
Downtown Transfer Center Construction	Design Issues (City)	1	0	0.00%	2016	
Radio System Deployment	Current Design Calls For 18 Transmitter sites	18	16	88.89%	2015	
Capital Commercial Leases	Negotiate	10	9	90.00%	2015	
New Construction	Construct	1	1	100.00%	2015	
	Existing (Owned)	2	2	100.00%	2015	
	Intergovernment Agreement	5	4	80.00%	2015	
Automatic Vehicle Locator	Bus Installation	375	432	Completed	Jan-2014	
Smart Card	Bus Fareboxes	449	449	Completed	Feb-2013	
	Rail TVM's	28	28	Completed	Aug-2012	
	Rail Validators	115	110	95.65%	Oct-2014	
Vehicle Acquisition						
New Bus Rolling Stock	Procure 40' Buses	47	47	100.00%	Completed	
New Bus Rolling Stock (ILL)	Procure 40' Buses	4	4	100.00%	Completed	
New Bus Rolling Stock	Procure 40' Buses	43	0	0.00%	Dec-2015	
New Bus Rolling Stock (ILL)	Procure 40' Buses	4	0	0.00%	Oct-2015	
Refurbished Bus Rolling Stock (ILL)	Procure 40' Buses	10	0	0.00%	Jun-2015	
Van Rolling Stock	Procure (New RFP)	37	0	0.00%	Proposals production date 9/1/2014	
	2015 Procurement	17	0	0.00%		
Non Revenue Vehicles	Procure / Lease	70	63	90.00%	Feb-2015	
MetroLink Capital Maintenance						
Wood Tie Phase 1of 3	Replace	36000	26050	72.36%	Jan-2016	
Catenary Contact Wire Phase 1 of 4	Replace Wire (miles)	10	10	100.00%	Jul-2016	
Station Edges - Phase 1 of 3	Replace	13	13	100.00%	Jul-2014	
Station Edges - Phase 2 of 3	Replace	10	4	40.00%	Dec-2015	

Research, Planning, Customer Interface or Management Control Projects			
	Tasks	**Issue / Title**	**Estimated Completion**
Phase 2 and 3 Software Upgrades to AVL / Trapeze software suites authorized by Board of Commissioners	Transmit Real Time Bus data	INFO-MOBILE APP + Google Feed	Dec-2014
	Public Safety Projects	Genetec Update / Incident Mapping	Jul-2016
	Operations Management Projects	Dispatch/PSD/Cust. Service	8/1/2016
	Operation Business Intelligence	Transit Business Suite / Dashboard	Aug-2016
	Fare Collection	ADA and Employee Card Interface / Repeat Offender Database	9/1/2014
State of Good Repair	MOW DataBase	100%	Completed
MOW Work Integrated Plan	Asst Mgmt Plan Capital Planning Software Tool		2017
Color Code KEY	FY2014 4thQ 8-27-14	No issues / Regulatory/ Economic / Technical issues / Behind schedule/overbudget	

Open Session Item

13

Bi-State Development Agency / Metro
Operations Committee
Agenda Item
January 27, 2015

From:	Raymond A. Friem, Chief Operating Officer - Transit Services
Subject:	**Maintenance of Way State of Good Repair Asset Inventory and Database Development – Project Completion Overview**
Disposition:	Informational
Presentation:	Raymond A. Friem Chief Operating Officer – Transit Services; Kathy Klevorn, Sr. Vice President & CFO; Tracy Beidleman, Director of Program Development and Grants

Objective:
To provide the Operations Committee with an overview of the completed Maintenance of Way State of Good Repair **(SGR)** Asset Inventory and Database Development project that was authorized by the Board of Commissioners in January 2013 and completed in December 2014.

Board Policy:
No Board Policy applies.

Funding Source:
No funding is required.

Background:
The Moving Ahead for Progress in the 21st Century Act (P.L. 112-141) (MAP-21) was signed into law by President Obama on July 6, 2012. MAP-21 is intended to create a streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system. These challenges include improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery. As part of the MAP-21, a new FTA formula-based funding program, State of Good Repair Grants, has been developed to provide dedicated funding to repair and maintain the nation's rail infrastructure. This funding replaces funding that was previously included in the FTA Fixed Guideway Rail Modernization Program. To be eligible for these funds, transit agencies will be required to develop a Transit Asset Management plan.

In anticipation of the development of the SGR funding program, FTA provided grant funding to transit agencies for various pilot Transit Asset Management **(TAM)** projects. In one of these pilot projects, Metro partnered with CodeRed Business Solutions **(CRBS)** to develop the initial elements of a Transit Asset Management Program for MetroLink Maintenance of Way **(MOW)** assets. During this project a TAM system was developed. The developed system includes utilization of a graphical software concept with asset information embedded in facility and system drawings. As a validation of the TAM system, asset inventories were completed and schematics developed for the MOW areas of Rail Facility Maintenance, Signals, and Traction Power Substations.

The Board of Commissioners in its January 25, 2013 Board meeting authorized an award to CRBS in an amount not to exceed $757,944.00 for the purpose of continuing work originally funded under an FTA pilot grant program. The continuation project began in March 2013, and CRBS has been working with Agency management and staff to complete a comprehensive inventory of its MOW areas of MetroLink Rail Maintenance Facilities, Rail Stations, Signal and Crossing Houses/Cases, Traction Power Substations, Overhead Catenary System **(OCS)**, Communication System, and Track System areas. CRBS has worked with management and staff in the development of a hierarchical breakdown structure as well as design and input data into the Agency's Maximus M-5 maintenance asset management system and Oracle financial databases for the OCS, Communication System, and Track System. Additionally, training support for Maximus M-5 and SmartDraw software training was provided for several MOW maintenance disciplines.

A comprehensive review and loading of all MOW assets to the Fixed Asset database was necessary to match the asset hierarchical structure of the Maximus M-5 database and National Transit Database as well as the identification and loading of all MOWassets into the Oracle parts ordering database. In addition, support for the development of a comprehensive Asset Management Plan **(AMP)** was needed to provide for a more robust accounting of all Authority assets and their condition. The AMP is an essential management tool, which brings together all related business processes and stakeholders to achieve a common understanding and commitment to improve performance. The AMP will quantify the level of funding required to achieve SGR and make better, more informed resource allocation decisions that are linked to Agency goals understood and supported by the entire organization.

An amendment to the CodeRed Business Solutions contract was authorized by the Board of Commissioners in its January 24, 2014 Board meeting to add additional scope of work to include the comprehensive inventory of all MetroBus Operating and Maintenance Facilities, transfer centers, administrative building and ancillary facilities, increasing the project costs to $954,944. The remaining work was identified to ensure compliance with MAP-21 State of Good Repair requirements. The work included the complete inventory, condition assessment and hierarchical breakdown of all assets and loading of information into the Maximus M-5 database and loading of key asset data into the Fixed Asset database.

Upon completion of this project, staff will then be able to update the database for future asset conditions, replacements and dispositions.

CodeRed Business Solutions was deemed as uniquely qualified to complete these tasks. The firm developed the Transit Asset Management System currently being implemented in MOW. CRBS had completed asset inventorying and entry for some of the MOW maintenance units. They had the resources in place to immediately address the implementation of this program.

The successful completion of this project has placed BSDA/Metro in the position of meeting the forthcoming guidelines under the State of Good Repair program.

Analysis:

CodeRed Business Solutions successfully completed all assigned tasks on time and within budget. Documentation of all Agency assets and their conditions has been provided to the Maintenance of Way departments as well as the Accounting and Program Development and Grants departments. As a result of the efforts of CodeRed Business Solutions and the many BSDA/Metro staff hours contributed to the success of the project, the Agency will be able to better assess the condition of its assets through the comprehensive assessment and loading of data into the Oracle database and M-5 database and will utilize the tools created to update and maintain the databases on a regular basis. Additionally, the AMP will assist BSDA/Metro and senior management in making informed financial decisions that will drive the operating and capital needs of the Agency.

Committee Action Requested:

Information only.

Attachments:

1. Presentation - Project Completion Overview
2. Metro Asset Management Plan

Open Session Item

Attachment 1

Bi-State Development Agency of the Missouri-Illinois Metropolitan District

Maintenance of Way State of Good Repair Asset Inventory and Database Development Project Completion and Overview

January 27, 2015

Bi-State Development Agency
MAP-21 Overview

- Under MAP-21, all FTA grantees and subrecipients are required to develop transit asset management plan
- FTA grantees will be required to report the condition of its systems
- These must include: capital asset inventories, condition assessments, decision support tools and investment prioritization
- Sets performance targets based on the safety performance criteria and state of good repair standards

Bi-State Development Agency
Project Background

- April 2011 - Grant Awarded to Code Red Business Solutions to conduct Asset Management Methodology/Condition Assessment Methodology Research
  - Partnered with BSDA/Metro to conduct research to develop the beginning of a Transit Asset Management Program for MetroLink Maintenance of Way (MOW) assets

- July 2012 - Completed FTA Research, Published 2013

Bi-State Development Agency
Project Background

- January 2013 – Metro Board authorized contract to Code Red Business Solutions to continue the development of the comprehensive inventory and hierarchical breakdown structure, as well as design and input Maximus M5 data into St. Louis Metro asset management system
- January 2014 – Contract amended to include a comprehensive inventory of all Metro Bus operating and maintenance facilities, transfer centers, administrative building and ancillary facilities and development of an asset management plan

Bi-State Development Agency
Scope of Work

- Conduct a comprehensive review and loading of Asset Accountant's database to match the asset hierarchical structure of the Maximus M-5 Database with the forthcoming National Transit Database (NTD) requirements
- Load Maintenance of Way (MOW) asset data into the Oracle parts ordering database
- Complete a comprehensive inventory of all remaining track system assets as well as undertake the inventory and hierarchical structure breakdown of Communication systems, overhead catenary system and structures
- Perform comprehensive inventory inspections and surveys that will include preparing reports and project punch lists, collecting and reviewing specification sheets and taking digital photos
- Detailed asset condition assessment, original cost and replacement cost will be captured and entered into the Fixed Asset System and Maximus M-5 databases
- Develop an Asset Management Plan

Bi-State Development Agency
Project Accomplishments

- Enhanced Metro's existing Oracle database, including the incorporation of physical asset data, asset condition ratings, and integration with existing asset management systems (M-5) in order to better understand the relationship between asset age, condition, and maintenance costs

- Conducted a comprehensive inventory and inspection of the Overhead Catenary System, Communication System, and Track System along MetroLink's infrastructure (Phase 1 - Airport to 5th and Missouri, Phase 2 - 5th and Missouri to Scott AFB, and Phase 3 - Cross County) and identified all key assets/components for Overhead Catenary System (OCS), Communication Systems, Track, and Structures for MetroLink's physical assets

- Conducted asset condition inspections of all St. Louis Metro's facilities and insured all data was documented with photos and uploaded into M-5; a written report was provided to each facility manager

- Developed Metro's Asset Management Plan and ensured that it was consistent with FTA policies and forthcoming requirements on asset management currently under development

- Assisted Metro in determining the optimal organizational structure to implement an effective Transit Asset Management Program

Bi-State Development Agency
Asset Management Plan

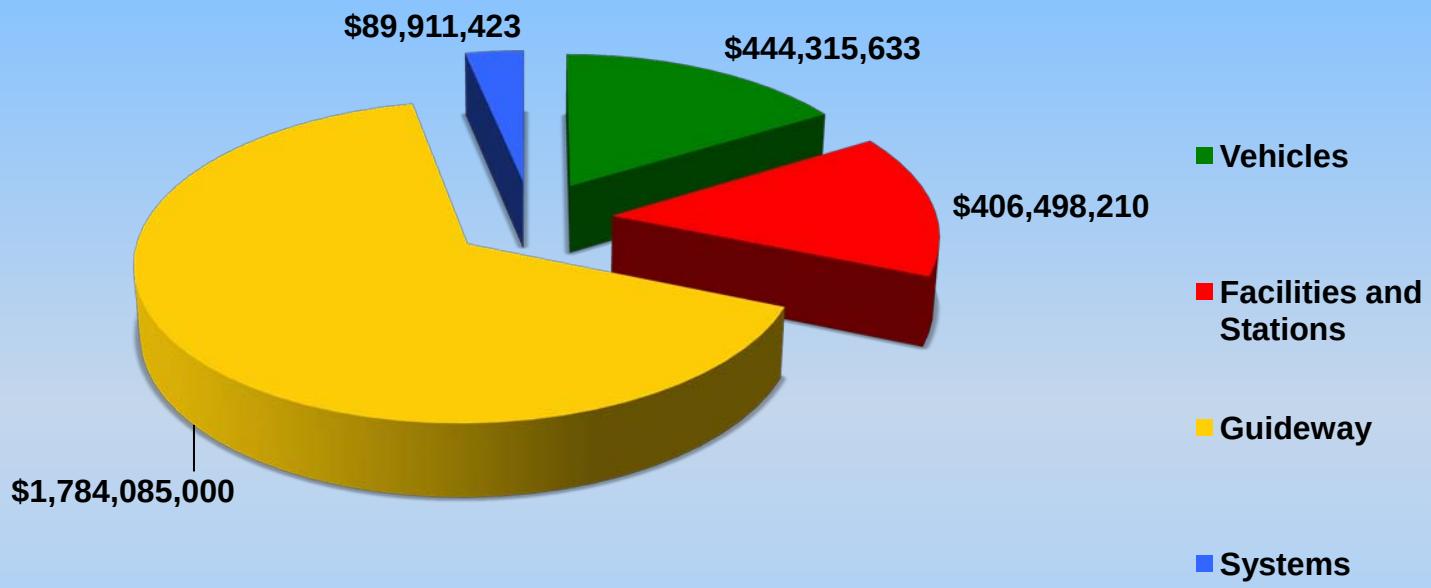
- The AMP
  - is an essential management tool that brings together all related business processes to achieve a common understanding and commitment to improve performance
  - is a tactical-level document that focuses its analysis on alternatives, prioritization, delivery and reporting mechanisms to ensure that strategic objectives are achieved
  - provides accountability and communicates performance and asset condition to stakeholders
  - acts as a focal point for information about the agency's assets and will quantify the level of funding required to achieve State of Good Repair over time; demonstrate the customer service and maintenance cost impacts of under-funding SGR projects; and enable better, more informed resource allocation decisions that are linked to the agency's goals and supported by the entire organization
  - will enable compliance with MAP-21 and FTA State of Good Repair grant requirements

Bi-State Development Agency Asset Management Plan Summary

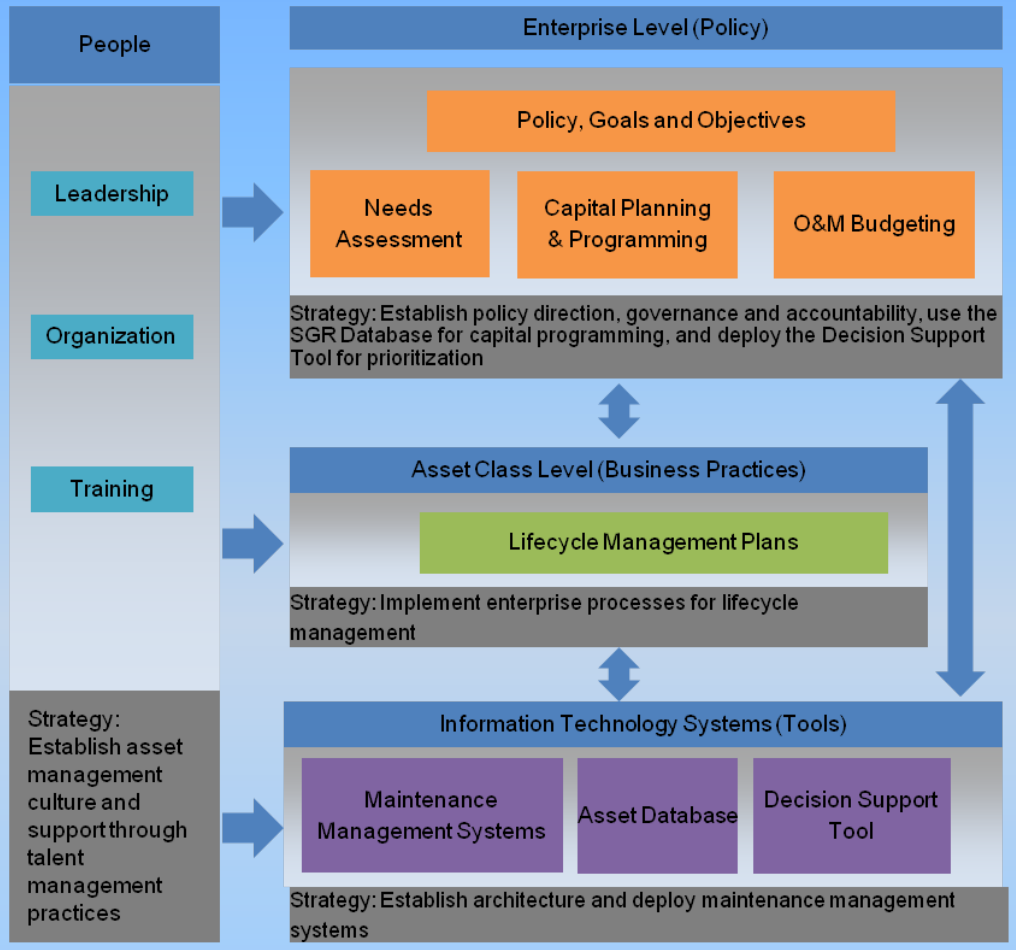
- Metro has a total of 3,972 assets with the total value of $2.8 Billion dollars

- Eighty-five percent of these assets meet the FTA's State of Good Repair goals requiring no additional funding at this time

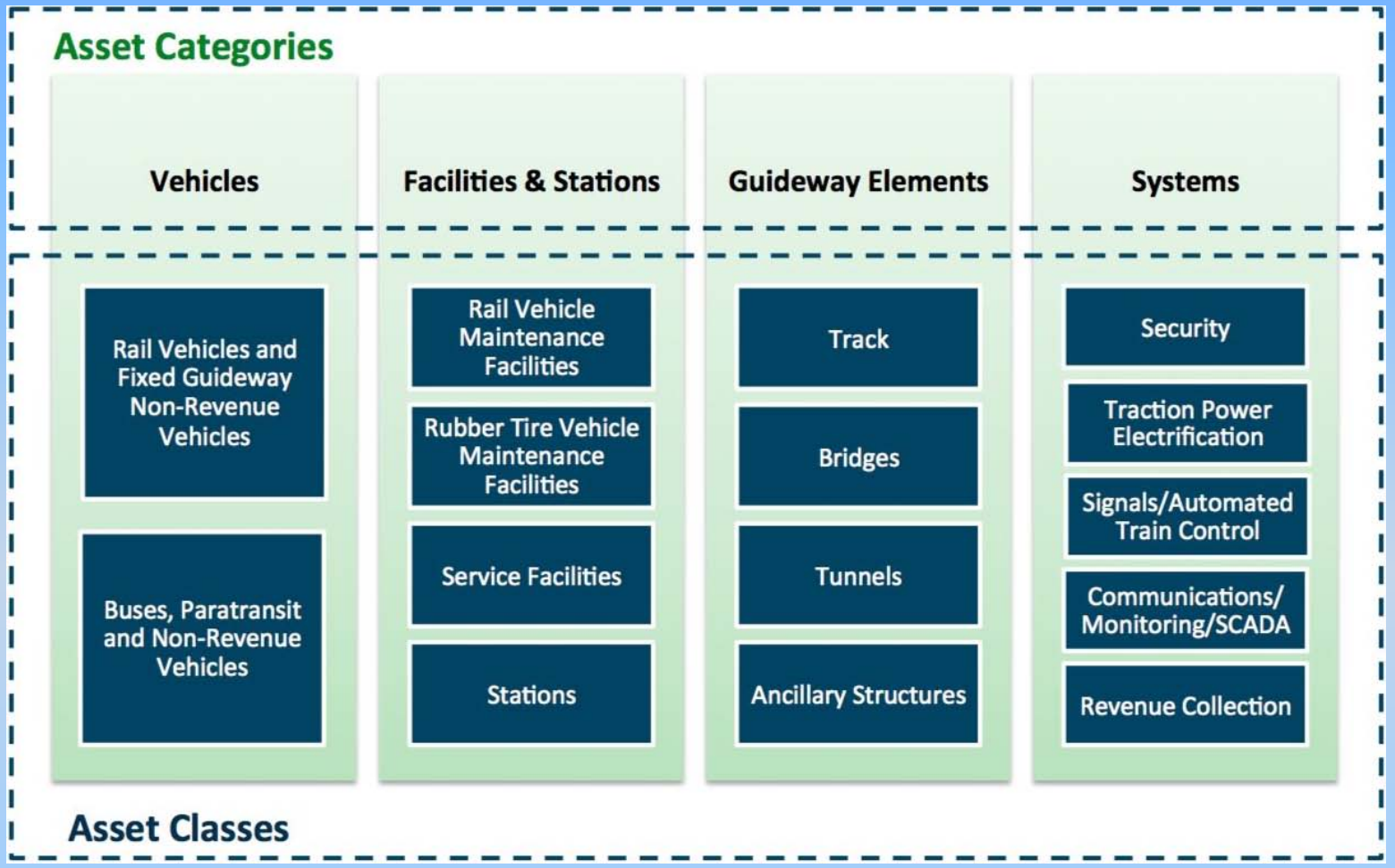
Bi-State Development Agency
Overall Major Asset Replacement Value
$2.8 Billion



Bi-State Development Agency
Asset Management Implementation Strategy



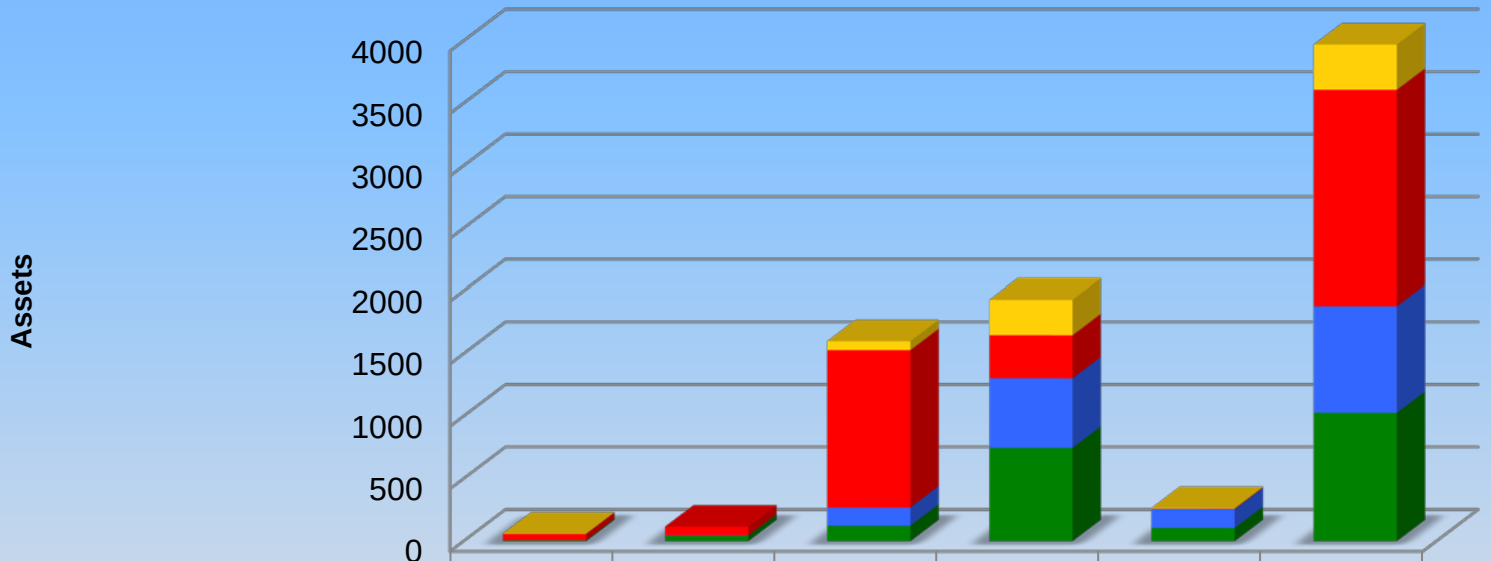
Bi-State Development Agency
Transit Asset Categories and Classes



Bi-State Development Agency
Asset Condition Assessment Scoring

Asset Rating Score	Asset Age (Percent % of Useful Life Remaining)	Asset Condition (Quality, Level of Required Maintenance)	Asset Performance (Reliability, Ambience, Safety, Meets Industry Standards)	Level of Maintenance (Level of Preventative and Corrective Maintenance)
5	Asset new or nearly new 75%-100%	Asset new or like new; no visible defects	Asset meets or exceeds all performance and reliability metrics, industry standards	No unfunded or deferred maintenance activities
4	Asset nearing or at its midlife point 50%-75%	Asset showing minimal signs of wear; some slight defects or deterioration	Asset generally meets performance and reliability metrics, industry standards	Some temporary deferments of PM or CM; but no activities skipped completely
3	Asset has passed its midlife point 50%-25%	Some moderately defective or deteriorated components; expected maintenance needs	Occasional performance and reliability issues; may be substandard in some areas	More frequent and extended deferments of PM and CM; some activities skipped altogether
2	Asset nearing or at end of its useful life 0%-25%	Increasing number of defects deteriorating components; growing maintenance needs	Performance and reliability problems becoming more serious; sub-standard elements	PM and CM activities frequently delayed or skipped until major problems surface
1	Asset is past its useful life	Asset in need or replacement or restoration; may have critically damaged components	Frequent performance and reliability problems; does not meet industry standards	Significant backlog of PM and CM work due to history of deferred and skipped activities
0	Asset non-operable	Asset non-operable	Asset non-operable	Asset non-operable

Bi-State Development Agency
Major Overall Asset Condition Assessment



	1	2	3	4	5	Total
Guideway Asset Condition	3		71	282	6	362
Facilites and Stations Asset Condition	50	71	1260	345	4	1730
Systems Asset Condition		2	145	556	150	851
Vehicles Asset Condition	8	43	124	747	105	1027

Bi-State Development Agency

Questions?

Open Session Item

Attachment 2

BI-STATE DEVELOPMENT AGENCY

METRO

Asset Management Plan

DECEMBER 2014

PREPARED BY

CodeRed Business Solutions Inc.

Asset Management Plan

This plan covers all transit assets maintained and operated by Metro.

DECEMBER 2014

PREPARED BY
CodeRed Business Solutions Inc.

Approvals

Transit Asset Management Plans are mandatory for all Federal Transit Administration (FTA) grantees per Moving Ahead for Progress in the 21st Century (MAP-21) legislation. Furthermore, development of this Asset Management Plan supports Metro's strategic objectives, ensuring Metro meets goals outlined in the St. Louis Regional Long-Range Transit Plan. The benefits from enhanced asset management practice include improved system safety and reliability, reduced costs, better customer service and optimized resource allocation. With aging infrastructure, limited funding and a growing demand for service, Metro desires to find ways to better manage and extend the life of existing critical assets, while optimizing it's investment in new capital projects. This Transit Asset Management Plan outlines Metro's strategic approach and specific actions to improve its asset management practices over the next three years.

Concurrence

(By Executive Sponsors):

Ray Friem	Kathy Klevorn
Senior Vice President and CFO	Senior Vice President and COO
Tracy Beidleman	Scott Grott
Director of Program Development and Grants	Chief of MetroLink Operations
Darren Curry	Kathy Brittin
Chief Mechanical Officer	Director of Risk Management

Approval:

I, John Nations, Metro President & CEO	Date
Do fully authorize and endorse Metro's Transit Asset	
Management Plan, dated October 2014	
Metro's Transit Asset Management Plan	

Acknowledgements

This Asset Management Plan (AMP) could not have been developed without the leadership of the Chief Operating Officer and the Director of Grants, as well as valuable input of management and staff throughout the Metro organization.

CRBS would like to express special thanks to Maintenance of Way and Vehicle Maintenance Departments, whose support at the beginning of this project was the key factor that ensured the project's overall success.

Foreword

Transit Asset Management (TAM) is the foundation by which the Bi-State Development Agency, doing business as Metro, proposes to continually improve system safety, reliability and availability. It is also a means to, reduce life-cycle costs, improve investment decisions, and provide excellent service to our customers. With an aging infrastructure, limited funding and an increasing demand for service, Metro must find ways of managing and extending the life of existing critical assets, while optimizing its investment in new capital projects. This Asset Management Plan (AMP) outlines Metro's policy, approach and specific actions to improve its asset management practices over the next three years.

As the plan was developed senior leadership made the following key decisions:

- The plan will be a living document that would change and improve over time.
- The plan will concentrate on how rolling stock, systems and physical assets are being maintained during their lifecycle.
- The plan will focus on the requirements of MAP-21 and the Federal Transit Administration's State of Good Repair Program.
- The plan will improve the processes/methods in which Metro plans for the replacement of rolling stock, systems and physical assets.

Four primary themes emerged as critical success factors for assisting Metro in achieving its asset management goals:

1. **Policy** - Providing policy direction, ensuring accountability and committing the resources required for AMP implementation, including an effective organizational structure to oversee it.
2. **People** - Establishing an asset management culture that supports employees through better communication, skills assessment, training, knowledge sharing and succession planning.
3. **Tools** – Improving decision making by providing asset managers with the data systems and support needed to collect and analyze data relative to asset age, maintenance costs, condition and performance.
4. **Business Practices** – Processes for improved lifecycle management within each of our major asset classes will be developed and implemented. This is expected to lead to a robust reliability centered maintenance approach, extended asset useful life and the reduction in total lifecycle cost, while improving performance.

Metro's management team is committed to addressing each of these success factors and has developed an Asset Management Policy Statement to document and communicate that commitment.

Metro is committed to implementing a strategic process for acquiring, operating, maintaining, upgrading, and replacing its transit assets to directly support the organization's mission of providing safe and reliable public transportation services to the St. Louis Metropolitan region.

Our policy is to continue a culture that supports asset management at all levels of the organization, to employ effective asset management business practices and tools to ensure optimum asset performance and useful life, and to use timely, quality data to support transparent and cost-effective decision-making for resource allocation and asset preservation.

Metro is committed to enhancing our outstanding personnel by providing coaching, training, innovative state-of-the-art technology, and improved processes. Metro will ensure our workforce's ability to identify and meet Metro's asset management needs, incorporate sustainability and accessibility into our business practices, and deliver to our customers the best service and value for all community's and tax dollars expended.

Definitions

Key concepts and terms used throughout the AMP are defined below to provide for a common understanding of the vocabulary.

Asset Management: Refers to the optimal lifecycle management of physical assets to sustainably achieve the stated business objectives.

Asset Hierarchy: Refers to segmenting assets into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

Asset Management Business Processes: Refers to the key processes that comprise the asset management framework. Business processes include: policy and strategy; inventory, condition assessment and performance monitoring, lifecycle management planning, capital planning and programming, O&M budgeting, and performance modeling.

Asset Management Maturity: Refers to an agency's level of asset management practice. An agency's asset management maturity may be as basic as understanding the nature of all critical assets owned.

Maintenance Management System: Refers to M5, the work order and maintenance tracking system used to manage, plan and track maintenance activities on all assets at Metro.

Physical Assets - Refers to an agency's facilities, stations and fixed guideways; as defined in the FTA Transit Asset Management Guide.

State of Good Repair: Refers to an asset is in a state to function at their full design and performance levels.

Acronyms

ADA	-	Americans with Disability Act
AMP	-	Asset Management Plan
AMIT	-	Asset Management Improvement Team
APTA	-	American Public Transportation Association
CEO	-	Chief Executive Officer
CFO	-	Chief Financial Officer
CIP	-	Capital Investment Program
CMO	-	Chief Mechanical Officer
COO	-	Chief Operating Officer
CRBS	-	CodeRed Business Solutions
DBA	-	Doing Business As
FTA	-	Federal Transit Administration
HVAC	-	Heating, Ventilating, and Air Conditioning
IAM	-	Institute of Asset Management
IT	-	Information Technology
LCAMP	-	Life Cycle Asset Management Philosophy
LRV	-	Light Rail Vehicle
MAP-21	-	Moving Ahead for Progress in the 21st Century
M5	-	Computerized Maintenance Work Order Management System
MMS	-	Maintenance Management System
MODOT	-	Missouri Department of Transportation
MOW	-	Maintenance of Way
NTD	-	National Transit Database
OTP	-	On Time Performance
PM	-	Preventive Maintenance
PMI	-	Preventive Maintenance Inspection
QA	-	Quality Assurance
ROW	-	Right-of-Way
SGR	-	State of Good Repair
SSO	-	State Safety Oversight
SSPP	-	System Safety Program Plan
SSSP	-	System Safety Security Plan
STIP	-	State Transportation Improvement Plan
TAM	-	Transit Asset Management
TAMP	-	Transit Asset Management Plan
TIP	-	Transportation Improvement Plan
VMD	-	Vehicle Maintenance Department

Table of Contents

Executive Summary

The Bi-State Development Agency, doing business as Metro, was created through an interstate compact between the States of Missouri and Illinois, ratified by the United States Congress in 1949. This AMP focuses specifically on Metro's transit-related assets. Assets that do not assist Metro with providing transit services (such as the Gateway Arch, St. Louis Downtown Airport and other downtown attractions) are not included in this plan. Furthermore, this AMP does not include financial assets or intangible assets commonly used in financial statements.

Metro embarked on its asset management journey in 2010, as a major participant in the FTA's State of Good Repair research program. After gaining tremendous enthusiasm by educating key staff responsible for maintaining critical assets, Metro's senior leadership decided to embrace the principles of asset management to ensure the entire organization makes a paradigm shift on the processes Metro would employ to improve their Asset Management System (AMS).

Metro is an asset intensive organization, where the reliability, availability, maintenance and condition of all critical assets are safe for the agency's operation. Metro is focused on developing an asset management program that benefits the organization's bottom line that leads to "total asset visibility". Metro is committed to having its asset managers produce benefits for the organizations bottom-line, through a reduction in the requirements of resources without creating an impediment to asset stewardship or increasing the overall organizational risk.

Asset Management is a strategic discipline that involves making the best decisions about the management of all rolling stock, systems and physical assets throughout the organization, as well as the asset's life cycle. Asset management is about embedding processes and systems to increase an assets efficiency, effectiveness and value. This Asset Management Plan combines engineering and analyses with sound business practice and economic theory.

Metro is committed to the highest level of safety, security and emergency preparedness for its customers, employees and the general public. Safety and security are primary concerns that affect all Metro activities; including Operations, Maintenance, Planning and Design, Construction, Procurement, Testing and Training for all modes of transportation. Metro has incorporated its safety into its Asset Management Plan (AMP) and the System Safety Program Plan (SSPP) as the governing document of it's bus, paratransit and rail fixed guideway system — MetroLink. Assets that could impact the delivery of safe and reliable transit service for the public have been identified by the SSPP and are monitored to ensure assets are maintained and functioning as designed to meet their operational goals and objectives.

Metro's Safety Policy is an articulated commitment from management to establish long term, meaningful and achievable goals for Metro's System Safety Program. The primary purpose of this System Safety Program Plan is to set out the department tasks within the organizational structure that will fulfill Metro's mandate to provide a safe and secure transit system. In support of that, Metro has adopted the following goals and objectives.

Safety Program Goals

The safety of passengers, Metro personnel and the general public are overriding and paramount in system design and operating considerations.
Metro will pay specific and continual attention to the safety aspects of all system elements.
Metro's health, safety, and environmental policies meet or exceed local, state and federal regulations.

Metro will assure that all applicable safety standards and practices for all construction, operations, and maintenance activities.

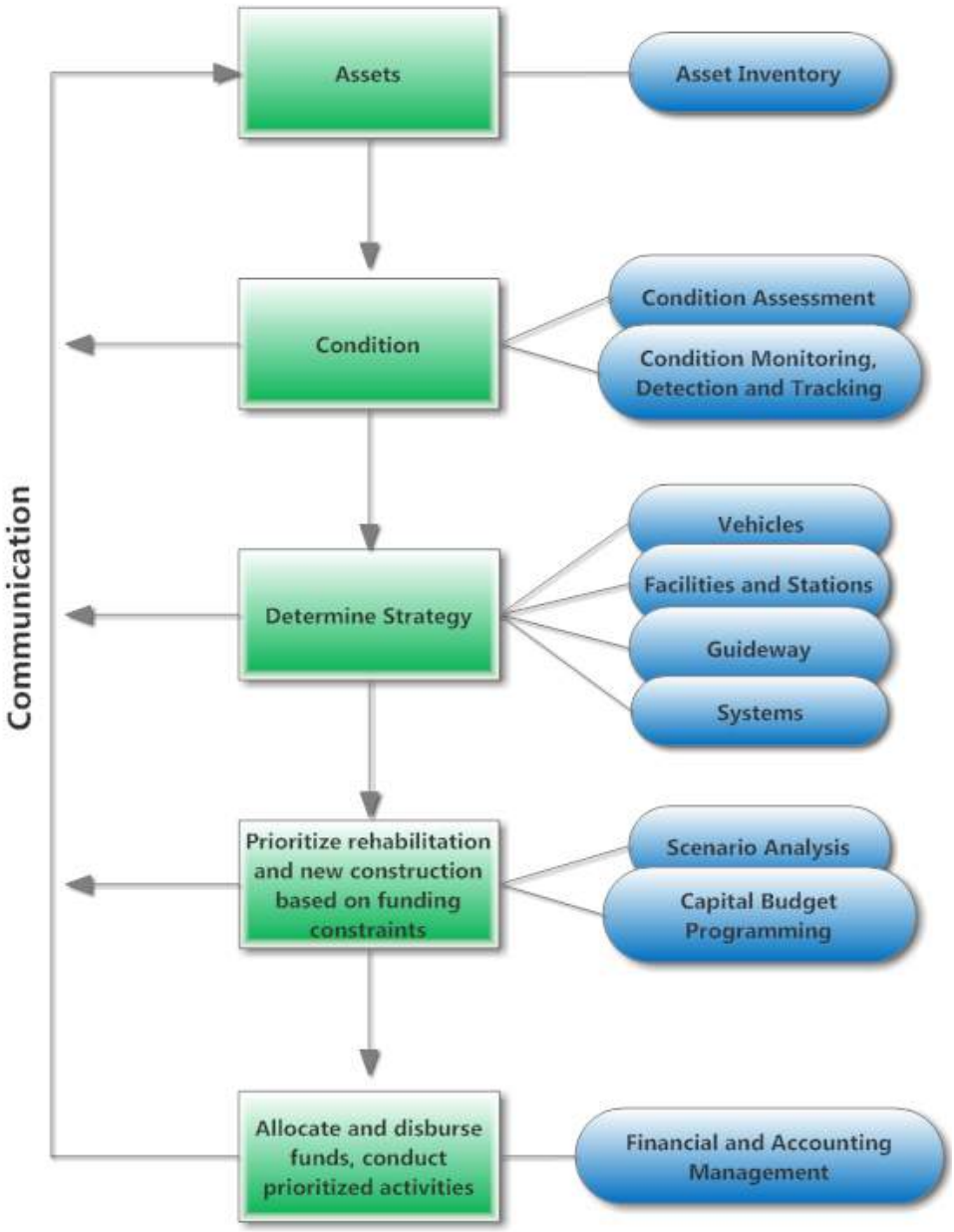
- Engineering and operational systems as well as facilities are maintained at the level of safety that is identified prior to the commencement of passenger service.

Safety Program Objectives

The Department of Risk Management, Claims & Safety strives to accomplish objectives and implement activities to attain goals in accordance with the requirements of the SSPP. This includes conformance to applicable laws and meeting the needs of the affected transit mode utilizing available resources. The following objectives are established for attaining the program goals:

- Publish, revise and implement the SSPP as well as any applicable policies and procedures and ensure its implementation on an annual basis.
- Continue to develop a safety conscious culture throughout Metro, it’s customers, and contractors.
- Identify, analyze, and resolve hazards in a timely and appropriate manner; including reporting to the State Safety Oversight (SSO) officials.
- Determine the appropriate practices and processes to eliminate, control, or minimize hazards.
- Provide the actions and measures necessary to obtain safety-related agreements, permits and approvals from departments, agencies, or organizations having jurisdiction.
- Develop and maintain documentation of all activities related to the goals of the SSPP and its implementation.
- The conceptual model below (Figure 1) is designed to describe the overall scope of Asset Management and the high-level groups of activities that are included within this discipline. The model highlights the fact that Asset Management is focused on the integration of these groups of activities and not just the activities in isolation.

Figure 1 Asset Management System Components and Functionality



Metro's Asset Summary

Metro has a total of 3,972 assets, with the total value of $2.8 Billion dollars. Eighty five percent of these assets meet the FTA's State of Good Repair goals requiring no additional funding at this time.

Figure 2 Overall Major Asset Replacement Value

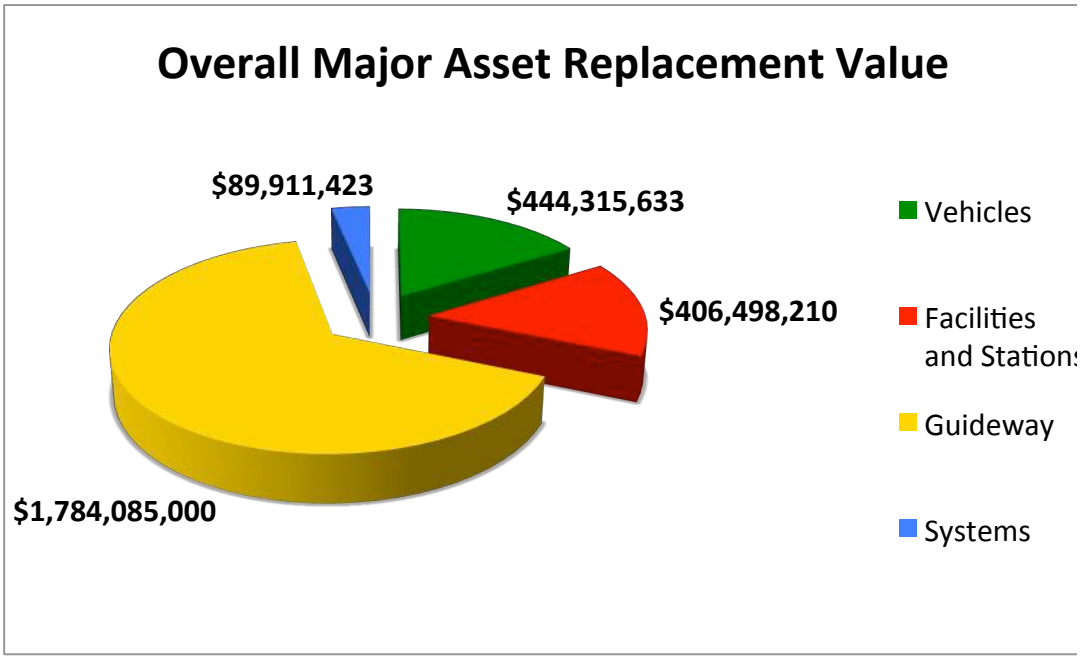


Figure 3 Overall Major Assets

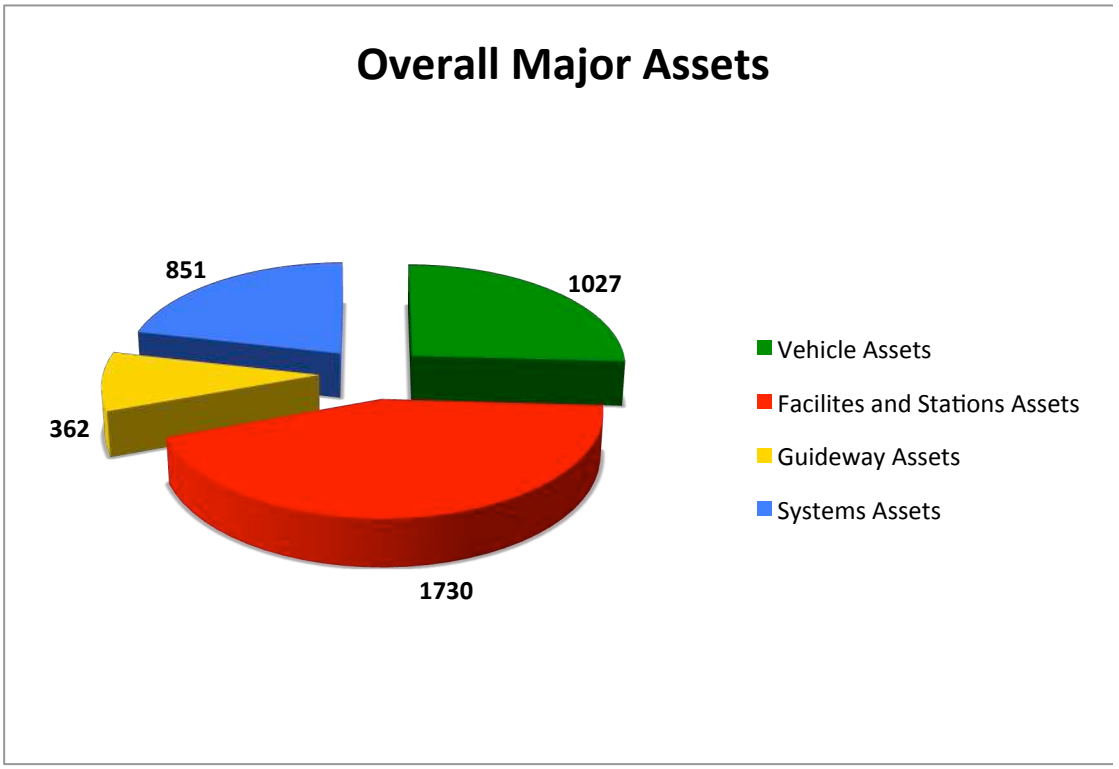
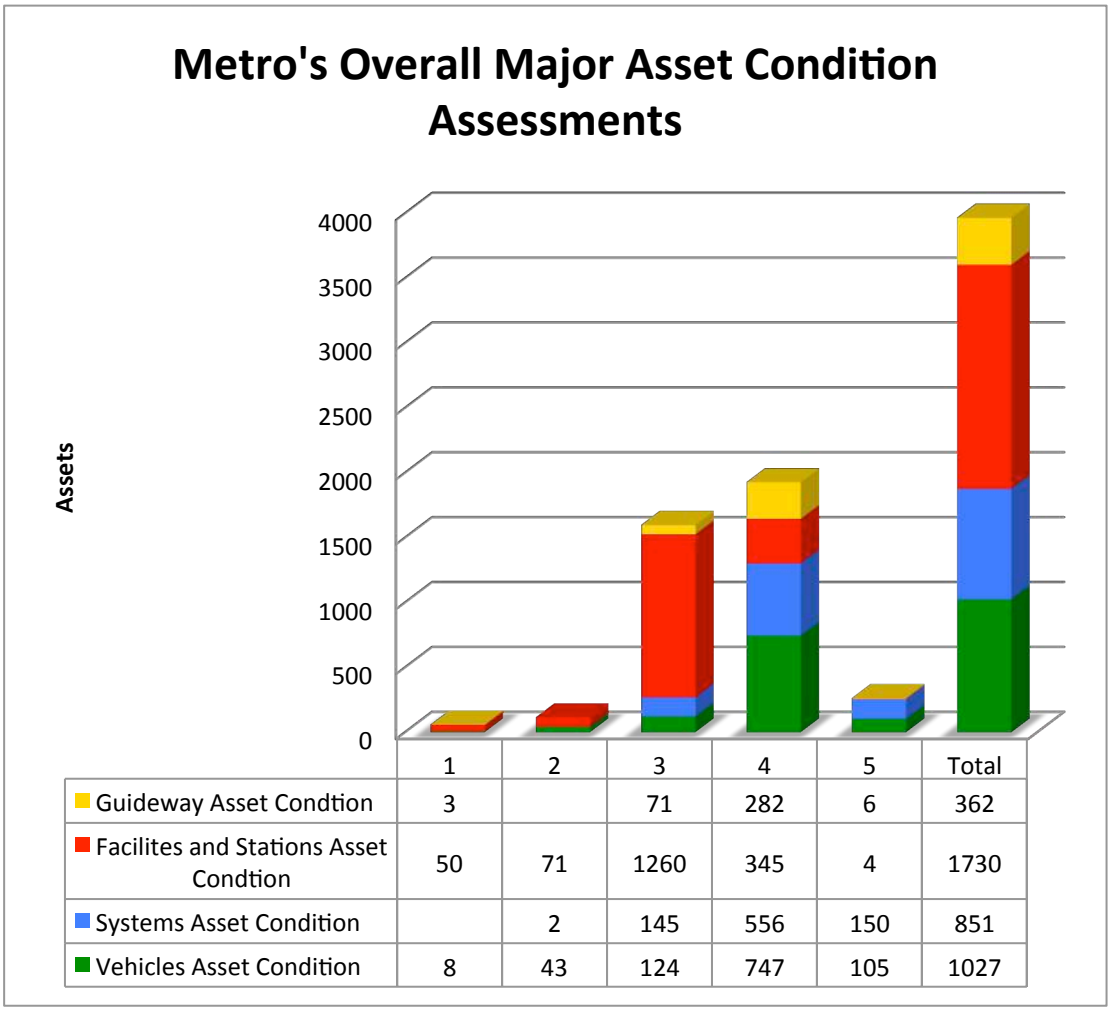


Figure 4 Metro's Overall Major Asset Condition Assessments



	1	2	3	4	5	Total
Guideway Asset Condtion	3		71	282	6	362
Facilites and Stations Asset Condtion	50	71	1260	345	4	1730
Systems Asset Condition		2	145	556	150	851
Vehicles Asset Condition	8	43	124	747	105	1027

Asset Management Plan Purpose

The purpose of this AMP is to meet the requirements of MAP-21 and the Federal Transit Administration's (FTA) State of Good Repair program, as well as provide a high degree of asset condition visibility that will be used to improve operations, maintenance and replacement decisions. In addition, the AMP will provide the entire organization with a written plan to continue to maintain its assets at maximum efficiency and report the condition of those assets to the FTA in a timely manner.

The AMP becomes the focal point for all asset decision-making including communicating and justifying funding requests, as well to demonstrate responsible asset management to all stakeholders.

Definition of asset management from Institute of Asset Management (IAM):

Asset management is "the optimal lifecycle management of physical assets to sustainably achieve the stated business objectives."
As stated earlier in the AMP, Metro's focus will be on how critical assets are being maintained during their lifecycle and to ensure it meets all requirements of MAP-21 and the Federal Transit Administration's State of Good Repair Program.

Definition of Metro's State of Good Repair:

- Assets are in a state to function at their full design and performance levels
  - Performance Measures provide objective standard for measuring an assets SGR.
- ***Vehicles*** *(Age/Condition/Performance Based)*
- ***Facilities/Stations*** *(Age/Condition Based)*
- ***Guideway*** *(Condition/Performance Based)*
- ***Systems*** *(Condition/Performance Based*

Metro maintains its assets in a state to function at their full design and performance levels. To sustain this high standard, Metro developed a maintenance policy which, emphases reliability and maximizes availability. This maintenance approach ensures the agency can sustain the maximum efficiency levels at lower costs without jeopardizing safety. Metro established the following goals and performance metrics to enhance customer experience and improve service quality. These support the vision of the maintenance organization, enabling the organization's improvement of asset maintainability:

- Vehicle Appearance
  - Ensuring that all vehicles are maintained to a particular standard that is app ealing to passengers and general public.

- Vehicle Reliability
  - Performing analysis and predicting failures to ensure the elimination of vehic le breakdowns.

- Vehicle/Operations Safety
  - Instituting a new series of train operator training classes to reduce the numb er of accidents occurring along the right-of-way.
  - Instituting maintenance training classes and established maintenance stand ards that are monitored and tracked by supervision.

- Control of Cost

Investing at midlife of an asset to ensure that the asset remains in a state of good repair during its life cycle.

- Maximizing investment of the asset

Performing life-cycle analysis to ensure that the asset investment was maximized and the serviceable condition of the asset was maintained throughout its useful life.

- Predetermine Needs (Plan)
  - Labor played a major role in this new philosophy, allowing maintenance man agers to plan effectively for the number of mechanics and the type of mecha nics required to maintain the asset at its optimal performance.
  - Supply and parts replacement planning was key to ensuring that the mecha nics had the right item at the right time at the right place to return Light Rail V ehicles (LRV), buses and vans back to the new required maintenance stand ard for revenue service.

Metro's Asset Management Policy

To communicate Metro's commitment to improve asset management, senior leadership is required to explain the link between it and the agency's core mission, and broadly outline our approach and expected outcomes. The Leadership Team developed the following Asset Management Policy Statement:

Metro is committed to implementing a strategic process for acquiring, operating, maintaining, upgrading, and replacing its transit assets to directly support the organization's mission of providing safe and reliable public transportation services to the St. Louis Metropolitan region.

Our policy is to continue a culture that supports asset management at all levels of the organization and the elimination of information silos. It is also our policy to employ effective asset management business practices and tools, to ensure optimum asset performance and useful life, and to use timely, quality data to support transparent and cost-effective decision-making for resource allocation and asset preservation.

Metro is committed to enhancing our exceptional personnel by providing coaching, training, innovative state-of-the-art technology and improved processes. Metro will ensure our workforce's ability to identify and meet Metro's asset management needs, incorporate sustainability and accessibility into our business practices. In addition, Metro will deliver to its customers a safe, valuable and reliable service for all communities for tax dollars expended.

Plan Development Approach

This AMP focuses specifically on Metro's transit-related assets as shown below in Table 1. The plan approach utilizes the FTA's Asset Management Guide and recommended practices developed by the American Public Transportation Association (APTA), Transit Asset Management (TAM) and State of Good Repair (SGR) committees. In addition, this plan includes elements of the IAM methodologies and strategies.

Table 1: Asset Categories and Classes Included in Transit Asset Management Plan[1]

Asset Categories			
Vehicles	**Facilities and Stations**	**Guideway**	**Systems**
Asset Classes			
• Rail vehicles and fixed guideway non-revenue vehicles • Buses, paratransit and non-revenue vehicles	• Rail maintenance facilities • Rubber tire vehicle maintenance facilities • Service facilities • Stations	• Track • Bridges • Tunnels • Ancillary structures	• Security • Traction power electrification • Signals / automatic train control • Communications, • monitoring, SCADA • Revenue collection

This Asset Management Plan (AMP) was developed through a shared process that included the structured involvement of key stakeholders who provided input throughout the plan's development. These key managers included: Executive-level managers, an Asset Management Improvement Team which included managers representing all of the asset classes within the agency, and the Asset Class Leaders, which included Metro key staff responsible for the lifecycle management of all critical asset classes.

These stakeholders were involved in each of the three major steps of the AMP development process, as summarized below:

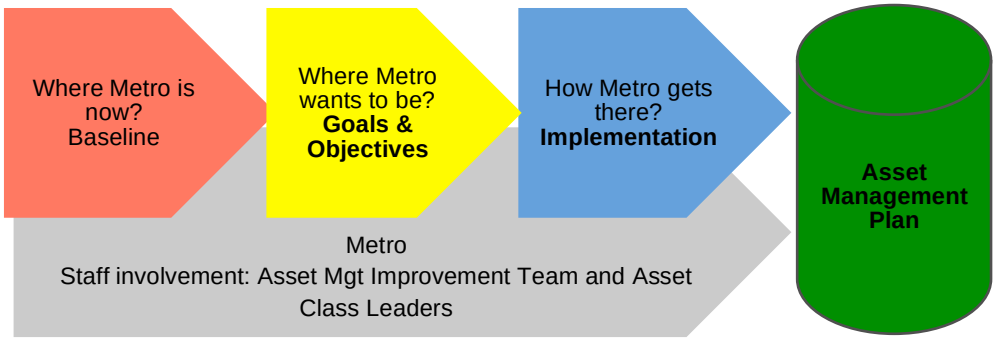
1. **Baseline Assessment:** Where Metro is Now: All of the stakeholder team members participated in a baseline assessment of existing asset management practices and the maturity level in key areas. This included review of documentation and interviews with consultant staff. The assessment evaluated the gap between the asset management baseline (i.e., what we do today) and best practices as outlined in FTA's Transit Asset Management Manual. Section II of this document (Metro Asset Management Baseline Assessment) provides greater detail relative to the assessment process and findings.

2. **Definition of Asset Management Goals and Objectives:** Where Metro Wants to Be:) Through a series of briefings, workshops and breakout sessions, the Leadership Team and the Asset Management Improvement Team (AMIT) established an asset management policy and a series of goals and objectives for asset management improvement. Section III of this document (Asset Management Policy, Goals and Objectives) provides further detail, including the implementing actions proposed to achieve these goals.

3. **Development of Asset Management Implementing Actions and Priorities:** How Does Metro Get There: With guidance from the Leadership Team and the Asset Management Improvement Team.

The Asset Management Plan development approach described above is depicted in Figure 1. The role of each of Metro stakeholder team throughout the Asset Management Plan development process is illustrated in Figure 5.

Figure 5 Asset Management Plan development process



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Section

1

Introduction

Background

Metro is the largest provider of public transportation services in the St. Louis Metropolitan area. The agency oversees the operations of MetroLink, MetroBus and Metro Call-a-Ride services. Consequently, Metro is responsible for operating and maintaining a large and diverse array of valuable transportation assets in the greater St. Louis region and more importantly, for moving people safely and efficiently throughout Metropolitan area.
The Federal Transit Administration in it's role as a provider of financial and technical assistance to local transit agencies is promoting asset management as a core business process to help transit agencies manage their valuable transportation assets. Transit asset management, as defined by the FTA in an informal manual, "is a strategic and systematic process through which as organization procures, operates, maintains, rehabilitates, and replaces transit assets to manage their performance, risks, and costs to current and future customers."[1] Under the legal authority of the Moving Ahead for Progress in the 21st Century Act, the FTA is drafting rules that will require local agencies to establish a Transit Asset Management Plan (TAMP). This plan provides an overview of MAP-21 provisions related to transit asset management and how Metro plans to comply with the new TAMP guidance.

To meet MAP-21 requirements and manage its transit assets effectively, Metro has developed this Asset Management Plan. The purpose of this document is to illustrate the strategic goals of Metro and describe the support levels.

[1]U.S. Department of Transportation, Federal Transit Administration, *Asset Management Guide, Focusing on the Management of Our Transit Investments*. (Washington, DC, 2012), 9.

Purpose of this Document

This Asset Management Plan developed by Metro involving input from all levels of the agency, is action-oriented and provides a roadmap for improving the maturity of asset management at Metro. The AMP documents Metro's asset management policy and presents the agency's overall asset management improvement program that is made up of specific implementing actions that will improve asset management outcomes. The AMP also includes the ongoing governance and accountabilities for managing implementation.

Plan Development

The AMP has been developed through a collaborative structured process involving Metro senior leadership and key stakeholders who make up the Asset Management Improvement Team

Leadership Team - This team is comprised of Executive-level managers, including the President & CEO, Chief Operating Officer, and Chief Financial Officer.

The Leadership Team provided guidance for the development of an asset management policy and provided input with respect to Metro's overall mission, goals, challenges, and agency strategy for asset management.

Asset Management Improvement Team - This committee is comprised of managers (generally not executives) that represent all of the enterprise-level functions within Metro, including Program Development and Grants, Operations, Information Technology, and Planning & Development.

The Asset Management Improvement Team (AMIT) provided input to the baseline assessment, including documentation of the agency's current asset management practices and to the Plan's development and review, including the development of goals and implementing actions.

Asset Class Leaders - This team is comprised of managers and staff (non-executives) that represent all of the major asset classes addressed in the Plan, including Bridges, Tunnels, Facilities, Communications, Elevators & Escalators, Revenue Equipment, Parking, Non-Revenue Vehicles, Bus and Rail Fleet, Signals, Traction Power, Stations, Information Technology, and Track.

The Asset Class Leaders helped define Metro's baseline asset management maturity and document it's existing practices at the asset class level; as well as helped develop asset management goals and implementing actions. These Asset Class Leaders will also play a key role in AMP implementation.

Goals and Objectives of Asset Ownership

As noted above, assets in the context of this AMP refer to physical assets, rolling stock and systems that are required to provide public transit services. Metro procures, maintains, rehabilitates and replaces transit assets so that it can offer safe and reliable public transportation to residents in the St. Louis region' while remaining a good steward of taxpayer dollars. Following the transit asset management best practices outlined in this AMP will allow Metro to meet these goals and objectives.

Metro is committed to implementing a strategic process for acquiring, operating, maintaining, upgrading, and replacing its transit assets. This is done to directly support the organization's mission of providing safe and reliable public transportation services.

Our policy is to continue a culture that supports asset management at all levels of the organization, to employ effective asset management business practices and tools, to ensure optimum asset performance and useful life, and to use timely, quality data to support transparent and cost-effective decision-making for resource allocation and asset preservation.

Metro will continue to enhance our outstanding personnel by providing coaching, training, innovate state-of-the-art technology and improved processes. Metro will ensure our workforce's ability to identify and meet Metro's asset management needs, incorporate sustainability and accessibility into our business practices, and to deliver to our customers the best service and value of every tax dollar expended for each community.

Plan Development Approach

This AMP focuses specifically on Metro's transit-related assets as shown below in Table 2. The plans approach utilizes the FTA's Asset Management Guide and recommended practices developed by the American Public Transportation Association (APTA), Transit Asset Management (TAM) and State of Good Repair (SGR) committees. In addition, this plan includes elements of the Institute of Asset Management (IAM) methodologies and strategies

Table 2: Asset Categories and Classes Included in Transit Asset Management Plan

Asset Categories			
Vehicles	**Facilities and Stations**	**Guideway**	**Systems**
Asset Classes			
• Rail vehicles and fixed guideway non-revenue vehicles • Buses, paratransit and non-revenue vehicles	• Rail maintenance facilities • Rubber tire vehicle maintenance facilities • Service facilities • Stations	• Track • Bridges • Tunnels • Ancillary structures	• Security • Traction power electrification • Signals / automatic train control • Communications, monitoring, SCADA • Revenue collection

Plan Framework/Elements

Based upon input/guidance from the Federal Transit Administration and State of Good Repair working groups, the remainder of this document is organized into the following nine sections:

Section Two: List of Assets/Condition Assessments
Section Three: List of Decision Support Tools
Section Four: Asset Investment Prioritization
Section Five: Asset Management Policy and Strategy
Section Six: Implementation Strategy
Section Seven: Key Asset Management Activities
Section Eight: Financial Requirements
Section Nine: Continuous Improvement
Section Ten: Appendices

Section

2

List of Assets/Condition Assessments

The following tables list all Metro assets reportable to Federal Transit Administration (FTA) as part of the National Transit Database (NTD). These lists of assets are sorted by asset category published in the FTA's Asset Management Guide published in 2013.

Figure 6 illustrates the asset management system components and functionality utilized to compile the asset database at Metro:

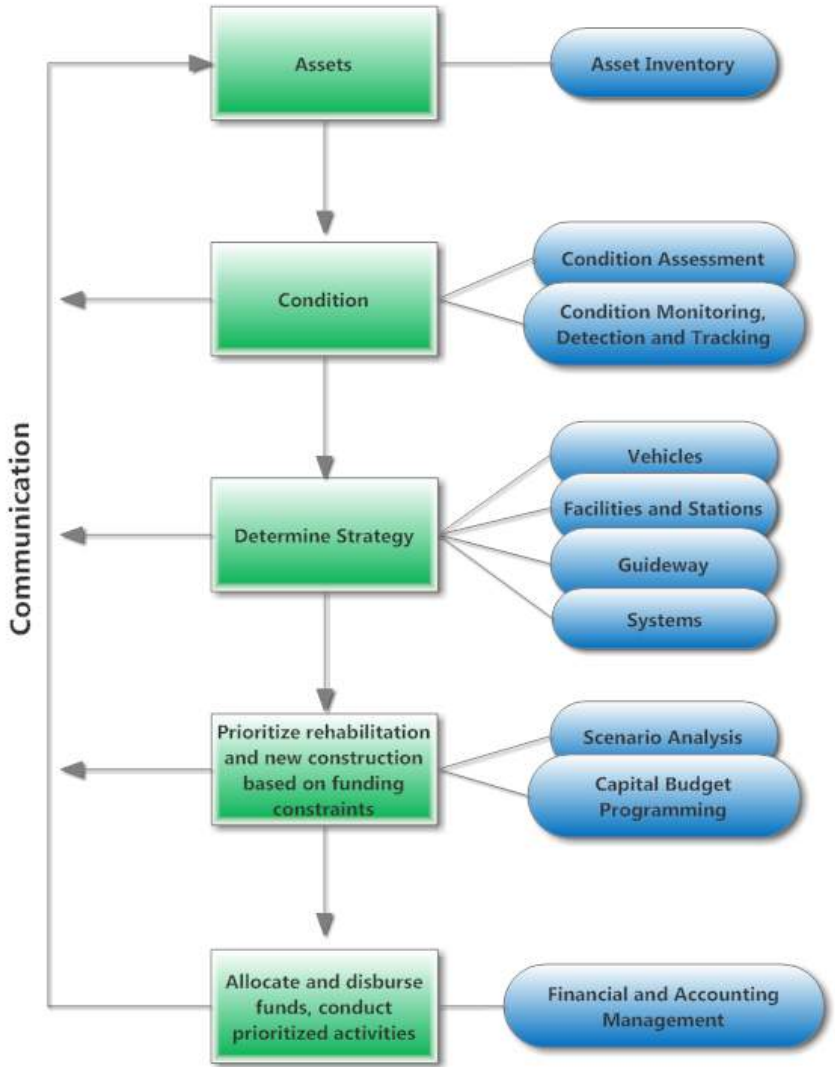


Figure 6 Asset Management System Components and Functionality

Metro defines the SGR based on a comprehensive assessment of assets. Table 3 combines the previous approaches to look at the age, condition and performance of an asset. Condition ratings are a weighted combination of metrics for all the above considerations, including asset age, condition assessments, system performance and the maintenance history of the asset. The objective here is to promote a comprehensive approach of managing assets that integrates performance objectives, maintenance management, short term capital project planning, and long term Capital Investment Program (CIP) planning, into a holistic process for resource allocation. This approach is data intensive, however, agencies that successfully implement this approach will have achieved a level of asset management maturity that would allow them to self-certify compliance with SGR requirements.

Table 3: FTA Condition Assessment Scoring Criteria

Asset Rating Score	Asset Age (Percent %of Useful Life Remaining)	Asset Condition (Quality, Level of Required Maintenance)	Asset Performance (Reliability, Ambience, Safety, Meets Industry Standards)	Level of Maintenance (Level of Preventative and Corrective Maintenance)
5	Asset new or nearly new 75%-100%	Asset new or like new; no visible defects	Asset meets or exceeds all performance and reliability metrics, industry standards	No unfunded or deferred maintenance activities
4	Asset nearing or at its midlife point 50%-75%	Asset showing minimal signs of wear; some slight defects or deterioration	Asset generally meets performance and reliability metrics, industry standards	Some temporary deferments of PM or CM; but no activities skipped completely
3	Asset has passed its midlife point 50%-25%	Some moderately defective or deteriorated components; expected maintenance needs	Occasional performance and reliability issues; may be substandard in some areas	More frequent and extended deferments of PM and CM; some activities skipped altogether
2	Asset nearing or at end of its useful life 0%-25%	Increasing number of defects deteriorating components; growing maintenance needs	Performance and reliability problems becoming more serious; sub-standard elements	PM and CM activities frequently delayed or skipped until major problems surface
1	Asset is past its useful life	Asset in need or replacement or restoration; may have critically damaged components	Frequent performance and reliability problems; does not meet industry standards	Significant backlog of PM and CM work due to history of deferred and skipped activities
0	Asset non-operable	Asset non-operable	Asset non-operable	Asset non-operable

Figure 7: Typical Metro Condition Assessment Inspection Form that is currently being utilized by the MOW Division.

Condition Assessment Inspection Form

Component /Unit Number	MP/Location	Description/ Model Number

Manufacturer	Acquisition Date

Rating system (FTA's Transit Economic Requirements Model (TERM))

Excellent	**5**	New asset; no visible defects
Good	**4**	Asset showing minimal signs of wear; some (slightly) defective or deteriorated component(s)
Adequate	**3**	Asset has reached its mid-life,some moderately defective or deteriorated component(s)
Marginal	**2**	Asset reaching or just past the end of its useful life; increasing number of defective or deteriorated component(s) and increasing maintenance needs
Poor	**1**	Asset is past its useful life and is in need of immediate repair or replacement; may have critically damaged component(s)

Inspection and Assessment Condition Rating

Operating Environment

Performed by	Date

Final Acceptance by	**Date**

FY 2013

Vehicles

Currently, Metro's Vehicle asset inventory consists of 441 buses, 87 LRVs, 125 paratransit vans, and 374 non-revenue vehicles, totaling 1027 vehicles. Figures 8 and 9 display asset condition ratings followed by a list of each asset nomenclature, and replacement costs.

Figure 8 Vehicle Assets Condition Ratings

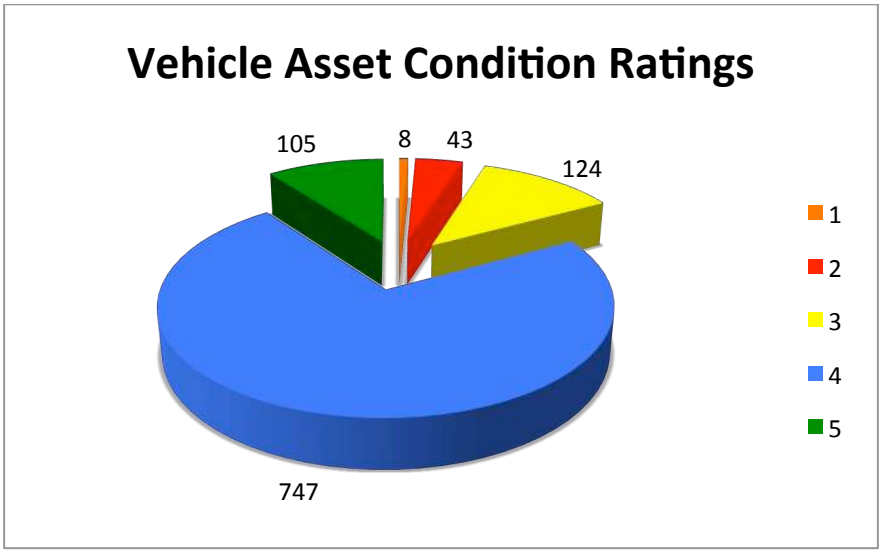
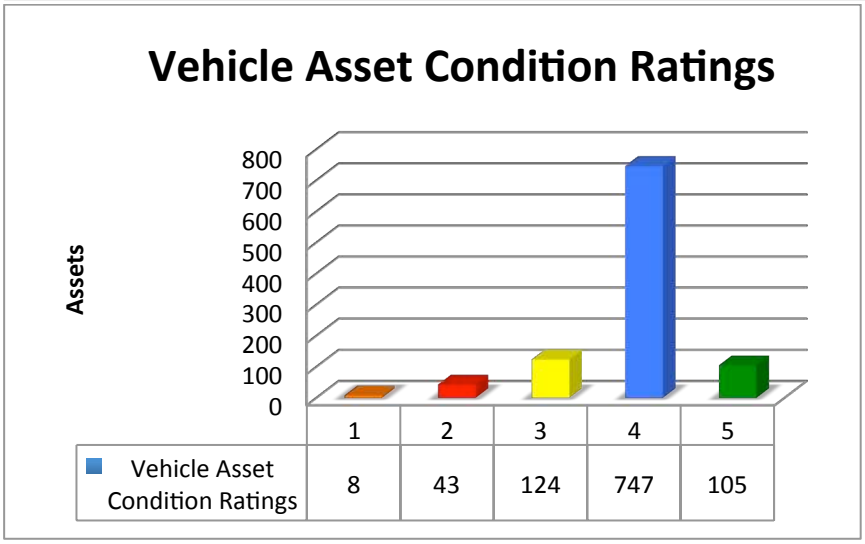


Figure 9 Vehicle Asset Condition Ratings



VEHICLE					
Year of Purchase/Name			Location	Condition	Replacement Cost
Non-Revenue					
2014	AIR-TOW	E14-9	Central	4	$4,700
2001	BACKHOE	445	Central	3	$47,000
2010	BACKHOE	420E	Central	4	$47,000
2001	BACKHOE	420D	Central	3	$47,000
2010	BELSHE	WB12-2EP	Central	4	$5,200
2007	BOBCAT	T300	Central	4	$24,500
2012	C-5	UTILITY TRLR	Central	4	$1,088
1995	CAT	CATAPILLAR	Central	2	$89,900
2003	CHEVROLET	PICKUP	Central	4	$31,300
2003	CHEVROLET	PICKUP	Central	4	$31,300
2003	CHEVROLET	PICKUP	Central	4	$31,300
2003	CHEVROLET	PICKUP	Central	4	$31,300
2001	CHEVROLET	BLAZER	Central	3	$30,700
2004	CHEVROLET	SUBURBAN	Central	4	$48,250
2005	CHEVROLET	PICKUP	Central	4	$31,300
2005	CHEVROLET	PICKUP	Central	4	$31,300
1997	CHEVROLET	PICKUP	Central	3	$31,300
2001	CHEVROLET	S-10	Central	3	$31,300
1998	CHEVROLET	UTILVAN	Central	3	$29,555
1998	CHEVROLET	UTILVAN	Central	3	$29,555
1998	CHEVROLET	UTILVAN	Central	3	$29,555
2001	CHEVROLET	C1500	Central	3	$31,300
2000	CHEVROLET	BLAZER	Central	3	$30,700
2001	CHEVROLET	BLAZER	Central	3	$30,700
2005	CHEVROLET	PICKUP	Central	3	$31,300
2000	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	IMPALA	Central	3	$27,060
2005	CHEVROLET	IMPALA	Central	4	$27,060
2005	CHEVROLET	IMPALA	Central	4	$27,060
2005	CHEVROLET	UPLANDER	Central	4	$31,300
2005	CHEVROLET	IMPALA	Central	4	$27,060
2007	CHEVROLET	IMPALA	Central	4	$27,060
2007	CHEVROLET	IMPALA	Central	4	$27,060
2005	CHEVROLET	2500 VAN	Central	4	$29,555
2005	CHEVROLET	2500 VAN	Central	4	$29,555
2005	CHEVROLET	2500 VAN	Central	4	$29,555
2005	CHEVROLET	2500 VAN	Central	4	$29,555
2012	CHEVROLET	EXPRESS VAN	Central	4	$29,555
2012	CHEVROLET	EXPRESS VAN	Central	4	$29,555
2014	CHEVROLET	EXPRESS VAN	Central	4	$29,555

Non-Revenue					
2014	CHEVROLET	EXPRESS VAN	Central	4	$29,555
2014	CHEVROLET	EXPRESS VAN	Central	4	$29,555
2005	CHEVROLET	TRAIL BLAZER	Central	4	$30,700
2006	CHEVROLET	TRAIL BLAZER	Central	4	$30,700
2005	CHEVROLET	SILVERADO	Central	4	$31,300
2006	CHEVROLET	SILVERADO	Central	4	$31,300
2005	CHEVROLET	SILVERADO	Central	4	$31,300
2005	CHEVROLET	EXPRESS VAN	Central	4	$29,555
2007	CHEVROLET	SILVERADO	Central	4	$31,300
2002	CHEVROLET	BLAZER	Central	3	$30,700
2002	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2006	CHEVROLET	EXPRESS VAN	Central	4	$29,555
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060

Vehicle: Non-Revenue					
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2011	CHEVROLET	IMPALA	Central	4	$27,060
2011	CHEVROLET	IMPALA	Central	4	$27,060
2011	CHEVROLET	IMPALA	Central	4	$27,060
2002	CHEVROLET	2500 HD	Central	3	$31,300
2004	CHEVROLET	C4500	Central	3	$31,300
2004	CHEVROLET	C4500	Central	3	$31,300
2004	CHEVROLET	C4500	Central	3	$31,300
2006	CHEVROLET	C4500	Central	4	$31,300
2006	CHEVROLET	C4500	Central	4	$31,300
2006	CHEVROLET	C4500	Central	4	$31,300
2006	CHEVROLET	C4500	Central	4	$31,300
2005	CHEVROLET	IMPALA	Central	4	$27,060
2005	CHEVROLET	IMPALA	Central	4	$27,060
2005	CHEVROLET	IMPALA	Central	4	$27,060
2005	CHEVROLET	IMPALA	Central	4	$27,060
2002	CHEVROLET	BLAZER	Central	3	$30,700
2002	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	BLAZER	Central	3	$30,700
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2003	CHEVROLET	S-10	Central	3	$31,300
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2008	CHEVROLET	IMPALA	Central	4	$27,060
2005	CHEVROLET	C8500	Central	4	$31,300

Vehicle: Non-Revenue					
2005	CHEVROLET	C8500	Central	4	$31,300
2012	CHEVROLET	IMPALA	Central	4	$27,060
2012	CHEVROLET	IMPALA	Central	4	$27,060
2012	CHEVROLET	IMPALA	Central	4	$27,060
2012	CHEVROLET	IMPALA	Central	4	$27,060
2012	CHEVROLET	IMPALA	Central	4	$27,060
2012	CHEVROLET	IMPALA	Central	4	$27,060
2012	CHEVROLET	IMPALA	Central	4	$27,060
2013	CHEVROLET	IMPALA	Central	4	$27,060
2013	CHEVROLET	IMPALA	Central	4	$27,060
2013	CHEVROLET	IMPALA	Central	4	$27,060
2013	CHEVROLET	IMPALA	Central	4	$27,060
2013	CHEVROLET	IMPALA	Central	4	$27,060
2013	CHEVROLET	IMPALA	Central	4	$27,060
2013	CHEVROLET	IMPALA	Central	4	$27,060
2013	CHEVROLET	IMPALA	Central	4	$27,060
2014	CHEVROLET	IMPALA	Central	4	$27,060
2014	CHEVROLET	IMPALA	Central	4	$27,060
2014	CHEVROLET	IMPALA	Central	4	$27,060
2014	CHEVROLET	IMPALA	Central	4	$27,060
2014	CHEVROLET	IMPALA	Central	4	$27,060
2006	CHRYSLER	TOWN&COUNTRY	Central	4	$29,995
2001	CLARK	CLARK	Central	3	$3,100
2001	CLARK	TMG15S	Central	3	$3,100
2012	COMPRESSOR	CPS 185	Central	4	$21,660
1999	DODGE	RAM TRUCK	Central	3	$28,920
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
2013	FORD	POLICE INTERCEPTOR	Central	4	$30,305
2014	FORD	F150	Central	4	$25,720
1997	FORD	E150	Central	2	$28,600
2012	FORD	E250	Central	4	$30,060
2012	FORD	E250	Central	4	$30,060
2012	FORD	F250	Central	4	$30,060
2012	FORD	F250	Central	4	$30,060
2012	FORD	F150	Central	4	$25,720
2012	FORD	F150	Central	4	$25,720

Vehicle: Non-Revenue					
2012	FORD	F150	Central	4	$25,720
2012	FORD	F150	Central	4	$25,720
2012	FORD	F150	Central	4	$25,720
2012	FORD	E250	Central	4	$30,060
2012	FORD	E250	Central	4	$30,060
2012	FORD	E250	Central	4	$30,060
2012	FORD	E250	Central	4	$30,060
2012	FORD	E250	Central	4	$30,060
2012	FORD	E250	Central	4	$30,060
2012	FORD	E350	Central	4	$33,560
2014	FORD	F150	Central	4	$25,720
2014	FORD	F150	Central	4	$25,720
1995	FORD	F250	Central	2	$30,060
1998	FORD	EXPLORER	Central	2	$30,700
1998	FORD	EXPLORER	Central	2	$30,700
1998	FORD	EXPLORER	Central	2	$30,700
2002	FORD	F150	Central	3	$25,720
2002	FORD	F150	Central	3	$25,720
2008	FORD	F150	Central	3	$25,720
2008	FORD	F150	Central	3	$25,720
2008	FORD	F150	Central	3	$25,720
2008	FORD	F150	Central	3	$25,720
2008	FORD	RANGER	Central	3	$30,700
2008	FORD	RANGER	Central	3	$30,700
2008	FORD	E150	Central	3	$28,600
2008	FORD	E150	Central	3	$28,600
2008	FORD	E150	Central	3	$28,600
2008	FORD	E150	Central	3	$28,600
2008	FORD	E150	Central	3	$28,600
2008	FORD	E150	Central	3	$28,600
2008	FORD	E150	Central	3	$28,600
2008	FORD	E150	Central	3	$28,600
2008	FORD	E150	Central	3	$28,600
2010	FORD	EXPLORER	Central	4	$30,700
2011	FORD	ESCAPE	Central	4	$23,100
2011	FORD	ESCAPE	Central	4	$23,100
2011	FORD	ESCAPE	Central	4	$23,100
2011	FORD	ESCAPE	Central	4	$23,100
2011	FORD	ESCAPE	Central	4	$23,100
2012	FORD	ESCAPE	Central	4	$23,100
2012	FORD	ESCAPE	Central	4	$23,100
2012	FORD	ESCAPE	Central	4	$23,100
2012	FORD	ESCAPE	Central	4	$23,100

Vehicle: Non-Revenue					
2012	FORD	ESCAPE	Central	4	$23,100
2012	FORD	ESCAPE	Central	4	$23,100
2012	FORD	ESCAPE	Central	4	$23,100
2012	FORD	ESCAPE	Central	4	$23,100
2012	FORD	ESCAPE	Central	4	$23,100
2011	FORD	TAURUS	Central	4	$26,790
2011	FORD	TAURUS	Central	4	$26,790
2011	FORD	TAURUS	Central	4	$26,790
2012	FORD	F250 SPRDUTY	Central	4	$31,045
2012	FORD	F250 SPRDUTY	Central	4	$31,045
2012	FORD	F450	Central	4	$51,720
2012	FORD	F450	Central	4	$51,720
2012	FORD	F450	Central	4	$51,720
2014	FORD	F450	Central	4	$51,720
2015	FORD	EXPLORER	Central	5	$30,700
2011	FORD	F250	Central	4	$30,060
2011	FORD	F250	Central	4	$30,060
2011	FORD	F250	Central	4	$30,060
2011	FORD	F250	Central	4	$30,060
2011	FORD	F450	Central	4	$51,720
2011	FORD	F450	Central	4	$51,720
2012	FORD	F150	Central	4	$25,720
2012	FORD	F150	Central	4	$25,720
2015	FORD	F350	Central	5	$31,940
2014	FORD	ESCAPE	Central	4	$23,100
2014	FORD	ESCAPE	Central	4	$23,100
2014	FORD	ESCAPE	Central	4	$23,100
2014	FORD	ESCAPE	Central	4	$23,100
2015	FORD	F250	Central	4	$30,060
2011	FORD	F350	Central	4	$31,940
2013	FORD	F-750	Central	4	$55,595
1996	FORD	F350	Central	3	$31,940
1996	FORD	F350	Central	3	$31,940
1998	FORD	F80	Central	3	$31,940
2006	FORD	F450	Central	4	$51,720
2006	FORD	F450	Central	4	$51,720
2007	FORD	F-750	Central	4	$55,595
2008	FORD	F350	Central	4	$31,940
2008	FORD	F-350 4X4	Central	4	$31,940
2008	FORD	F-350 4X4	Central	4	$31,940
2008	FORD	F450	Central	4	$51,720
2008	FORD	F450	Central	4	$51,720
2009	FORD	F-750	Central	4	$55,595

Vehicle: Non-Revenue					
2008	FORD	F450	Central	4	$51,720
2011	FORD	F-750	Central	4	$55,595
2011	FORD	F-750	Central	4	$55,595
2011	FORD	F-750	Central	4	$55,595
2012	FORD	F-750	Central	4	$55,595
2011	FORD	F-750	Central	4	$55,595
2005	FORD	F350	Central	4	$31,940
2005	FORD	F350	Central	4	$31,940
1998	FORD	F80	Central	3	$31,940
1996	FORD	F350	Central	3	$31,940
2001	FORD	AEROTCH E450	Central	4	$125,000
2001	FORD	AEROTCH E450	Central	4	$125,000
2001	FORD	AEROTCH E450	Central	4	$125,000
2001	FORD	AEROTCH E450	Central	4	$125,000
2001	FORD	AEROTCH E450	Central	4	$125,000
2001	FORD	AEROTCH E450	Central	4	$125,000
2001	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
1998	FORD	F250	Central	3	$30,060
1999	FORD	TAURUS	Central	3	$26,790
2004	FORD	VAN	Central	4	$30,230
1998	FORD	EXPLORER	Central	3	$30,700
1997	FORKLIFT	NPR-20	Central	3	$10,200
1990	FORKLIFT	FORKLIFT	Central	3	$10,200
2008	FORKLIFT	N35ZR	Central	4	$10,200
2008	FORKLIFT	8FGCU15	Central	4	$10,200
2002	FORKLIFT	FCG30F9	Central	4	$10,200
2002	FORKLIFT	FCG30F9	Central	4	$10,200
2002	FORKLIFT	FCG30F9	Central	4	$10,200
2002	FORKLIFT	5FBE15	Central	4	$10,200
2002	FORKLIFT	5FBE15	Central	4	$10,200
2002	FORKLIFT	FCG30F9	Central	4	$10,200
1990	FORKLIFT	FORKLIFT	Central	3	$10,200
2008	FORKLIFT	7FBEU15	Central	4	$10,200
2012	FORKLIFT	RR5725-45	Central	4	$10,200
2012	FORKLIFT	RR5725-45	Central	4	$10,200
2010	FORKLIFT	7FBEHU18	Central	4	$10,200
2010	FORKLIFT	7FBEHU18	Central	4	$10,200
1990	FORKLIFT	FORKLIFT	Central	3	$10,200
2001	FORKLIFT	H40XMS	Central	4	$10,200
2001	FORKLIFT	H40XMS	Central	4	$10,200
1996	FREIGHTLNR	BUCKET TRUCK	Central	3	$278,000
2002	FRGHT	FL80	Central	4	$278,000

Vehicle: Non-Revenue					
1999	FRGHT	FL80	Central	3	$278,000
2002	FRGHT	FL80	Central	4	$278,000
2002	FRGHT	FL70	Central	4	$278,000
2001	GMC	SAFARI	Central	4	$30,970
1999	GMC	DUMP	Central	3	$30,899
1999	GMC	DUMP	Central	3	$36,795
2001	GMC	3500	Central	3	$36,795
2002	GMC	C6500	Central	3	$36,795
2001	GMC	3500	Central	3	$36,795
2001	GMC	3500	Central	3	$36,795
2001	GMC	3500	Central	3	$36,795
2001	GMC	3500	Central	3	$36,795
2002	GMC	3500 HD	Central	3	$36,795
2002	GMC	3500 HD	Central	3	$36,795
2002	GMC	C5500	Central	3	$36,795
2002	GMC	C6500	Central	3	$36,795
2002	GMC	C7500	Central	3	$36,795
2007	GMC	KODIAK	Central	4	$36,795
2001	GMC	3500	Central	3	$36,795
2002	GMC	3500 HD	Central	3	$36,795
2001	GMC	3500	Central	3	$36,795
2001	GMC	SAFARI	Central	3	$36,795
2002	GMC	SAFARI	Central	3	$36,795
2004	GOLF CART	G22E	Central	3	$5,595
2004	GOLF CART	G22E	Central	3	$5,595
2007	GOLF CART	YDRE	Central	4	$5,595
2007	GOLF CART	YDRE	Central	4	$5,595
1997	IHC	UTILITY TRUC	Central	3	$60,995
1999	IHC	UTILITY TRUC	Central	3	$60,995
1993	IHC	UTILITY TRUC	Central	3	$60,995
1990	IHC	DUMP	Central	2	$60,995
1990	IHC	DUMP	Central	2	$60,995
1991	IHC	DUMP	Central	2	$60,995
1998	INGERSOLL	P185WJD	Central	3	$19,750
2012	INTERSTATE	20DT	Central	4	$30,000
1999	JEEP	CHEROKEE	Central	3	$22,995
2001	JOHN DEERE	425	Central	3	$4,000
1998	JOHN DEERE	5310	Central	3	$27,100
2009	JOHN DEERE	4105	Central	4	$25,000
2008	LANDA	TR-3500	Central	4	$7,200
2008	LANDA	TR-3500	Central	4	$7,200
2009	LIBERTY	PU3K5X10	Central	4	$1,168
2007	LOAD TRAIL	TRAILER	Central	4	$6,999

Vehicle: Non-Revenue					
2001	LOADER	863H	Central	3	$6,541
2013	LOADER	S750H	Central	4	$6,541
2014	LOADER	S750H	Central	4	$6,541
2013	LOADER	S750H	Central	4	$6,541
2013	LOADER	S750H	Central	4	$6,541
2010	LOADMASTER	UB-10-1	Central	4	$129,000
2009	MAGNUM	MLT3060	Central	4	$8,100
2009	MAXI	RAILCR MVR	Central	4	$180,000
2002	MULE	MA30	Central	3	$25,000
1999	MULE	MA-50	Central	3	$25,000
2002	MULE	MA30	Central	3	$25,000
2002	MULE	MA30	Central	3	$25,000
2003	MULE	MA60-1	Central	3	$25,000
2008	NEWHOLLAND	T1520	Central	4	$18,000
2011	NEWHOLLAND	L230	Central	4	$18,000
2009	PATRIOT	PU7K82X16	Central	4	$2,750
1992	PETTIBONE	D300	Central	2	$352,000
2000	PHANTOM	ISC 3096	Central	4	$450,000
1995	PHANTOM	M11T3596	Central	4	$450,000
1999	PW3000	PW3520-60	Central	3	$2,950
2001	SKYJACK	4626	Central	3	$10,500
2001	SKYJACK	4626	Central	3	$10,500
2001	TAILIFT	FG30P	Central	3	$2,955
2001	TRACK CAR	MTM 200	Central	3	$4,500
1993	TRACTOR	YM2260	Central	3	$17,100
2015	TRAILER	7X12 UTILITY	Central	5	$7,000
2015	TRAILER	NH7T16TA2	Central	5	$7,000
2009	TRAILER	2RT122-7K-E	Central	4	$7,000
1999	TRUCKSTER	401	Central	3	$8,725
2011	UTIL TRALR	14' TNDM AXL	Central	4	$1,599
2014	UTILITY	3400XL	Central	4	$13,000
2003	WORLD	WFG60	Central	4	$26,000
1995	YALE	A815N02763T	Central	3	$10,200

Buses					
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000

Vehicle: Buses

2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000

Vehicle: Buses					
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	3.8	$450,000
2000	PHANTOM	C21D102NF	Central	4.4	$450,000
2000	PHANTOM	C21D102NF	Central	4.4	$450,000
2000	LOWFLR 40'	G18D102N4	Central	4.4	$450,000
2000	LOWFLR 40'	G18D102N4	Central	4.4	$450,000
2000	LOWFLR 40'	G18D102N4	Central	4.4	$450,000
2000	LOWFLR 40'	G18D102N4	Central	4.4	$450,000
2000	LOWFLR 40'	G18D102N4	Central	4.4	$450,000
2000	LOWFLR 40'	G18D102N4	Central	4.4	$450,000
2000	LOWFLR 40'	G18D102N4	Central	4.4	$450,000
2000	LOWFLR 40'	G18D102N4	Central	4.4	$450,000
2000	LOWFLR 40'	G18D102N4	Central	3.8	$450,000
2000	LOWFLR 40'	G18D102N4	Central	4.1	$450,000
2000	PHANTOM	ISC 3096	Central	3.8	$450,000
2000	PHANTOM	ISC 3096	Central	3.8	$450,000
2000	PHANTOM	ISC 3096	Central	3.8	$450,000
2000	PHANTOM	ISC 3096	Central	3.8	$450,000
2000	PHANTOM	ISC 3096	Central	5	$450,000
2000	PHANTOM	ISC 3096	Central	5	$450,000
2000	PHANTOM	ISC 3096	Central	5	$450,000
2001	PHANTOM	ISC 3096	Central	5	$450,000
2001	PHANTOM	ISC 3096	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	5	$450,000
2014	LOW FLOOR	D60LF2000	Central	3.8	$450,000
2014	LOW FLOOR	D60LF2000	Central	4.1	$450,000
2014	LOW FLOOR	D60LF2000	Central	3.8	$450,000
2014	LOW FLOOR	D60LF2000	Central	3.8	$450,000
2014	LOW FLOOR	D60LF2000	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000

Vehicle: Buses					
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000

Vehicle: Buses					
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000

Vehicle: Buses					
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	4.1	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2001	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	ADVANTAGE	ISL40102	Central	3.8	$450,000
2002	ADVANTAGE	ISL40102	Central	3.8	$450,000
2002	ADVANTAGE	ISL40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	3.8	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000

Vehicle: Buses					
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.1	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2002	PHANTOM	ISMT40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2004	PHANTOM	ISMTEGR40102	Central	4.4	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.4	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.4	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.4	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.4	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000

Vehicle: Buses

2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2008	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2009	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2009	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2009	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2009	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000

Vehicle: Buses

2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	5	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	5	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2011	LOWFLR 40'	G27D102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000

Vehicle: Buses					
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	4.7	$450,000
2012	L0WFLR 35'	G27B102N4	Central	5	$450,000
2012	L0WFLR 35'	G27B102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2012	LOWFLR 40'	G27D102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000

Vehicle: Buses

2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	L0WFLR 35'	G27B102N4	Central	5	$450,000
2013	LOWFLR 40'	G27D102N4	Central	5	$450,000
2013	LOWFLR 40'	G27D102N4	Central	5	$450,000
2013	LOWFLR 40'	G27D102N4	Central	5	$450,000
2013	LOWFLR 40'	G27D102N4	Central	5	$450,000
2013	LOWFLR 40'	G27D102N4	Central	5	$450,000
2013	LOWFLR 40'	G27D102N4	Central	5	$450,000
2013	LOWFLR 40'	G27D102N4	Central	5	$450,000
2013	LOWFLR 40'	G27D102N4	Central	5	$450,000
2014	LOWFLR 40'	G27D102N4	Central	5	$450,000
2014	LOWFLR 40'	G27D102N4	Central	5	$450,000
2014	LOWFLR 40'	G27D102N4	Central	5	$450,000
2014	LOWFLR 40'	G27D102N4	Central	5	$450,000
2014	LOWFLR 40'	G27D102N4	Central	5	$450,000
2014	LOWFLR 40'	G27D102N4	Central	5	$450,000
2014	LOWFLR 40'	G27D102N4	Central	5	$450,000
1992	PHANTOM	L10T3596	Central	5	$450,000
1992	PHANTOM	L10T3596	Central	4.1	$450,000
1992	PHANTOM	L10T3596	Central	3.8	$450,000

Vans					
2001	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2003	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2004	FORD	AEROTCH E450	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000

Vehicle: Vans

2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2008	CHEVROLET	AEROELITE250	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000

Vehicle: Vans

2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000
2010	CHEVROLET	AEROELITE240	Central	4	$125,000

LRV					
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
1993	SD400	DC	Central	2	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2000	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000

Vehicle: LRV

2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2001	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
2004	SD460	AC	Central	4	$2,500,000
Total:	**1027 Units**				**$445,315,633**

Facilities

Currently, Metro's Facilities and Stations asset inventory consists of 7 maintenance facilities, 6 transfer centers, 3 parking garages, 2 professional buildings, and 37 rail stations. Figures 10 and 11 display Metro's asset condition ratings for its total 55 facilities followed by a list of each asset's, location and replacement costs.

Figure 10 Facilities and Stations Major Asset Condition Ratings

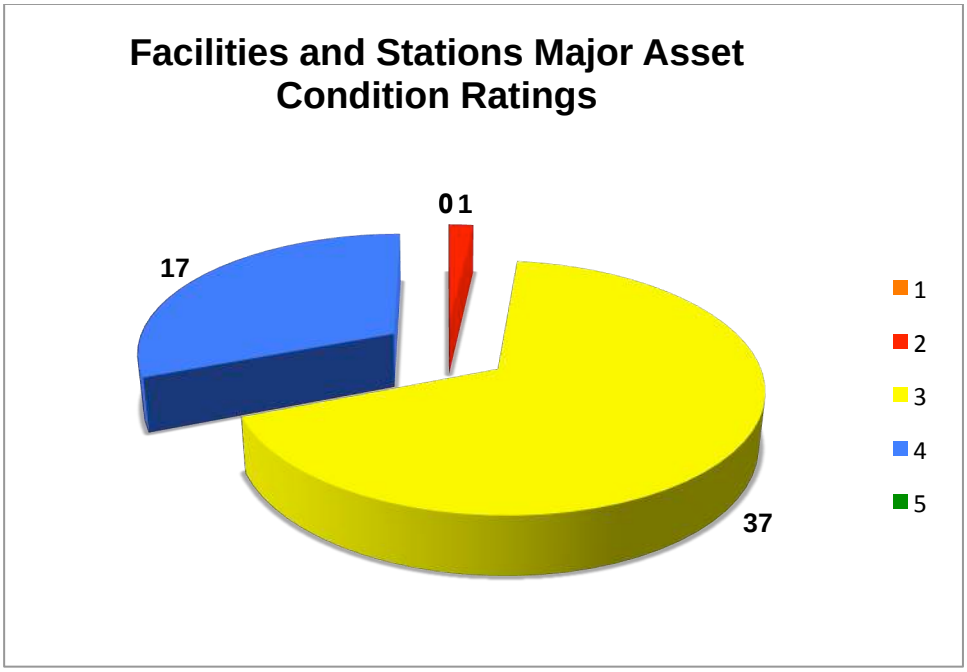
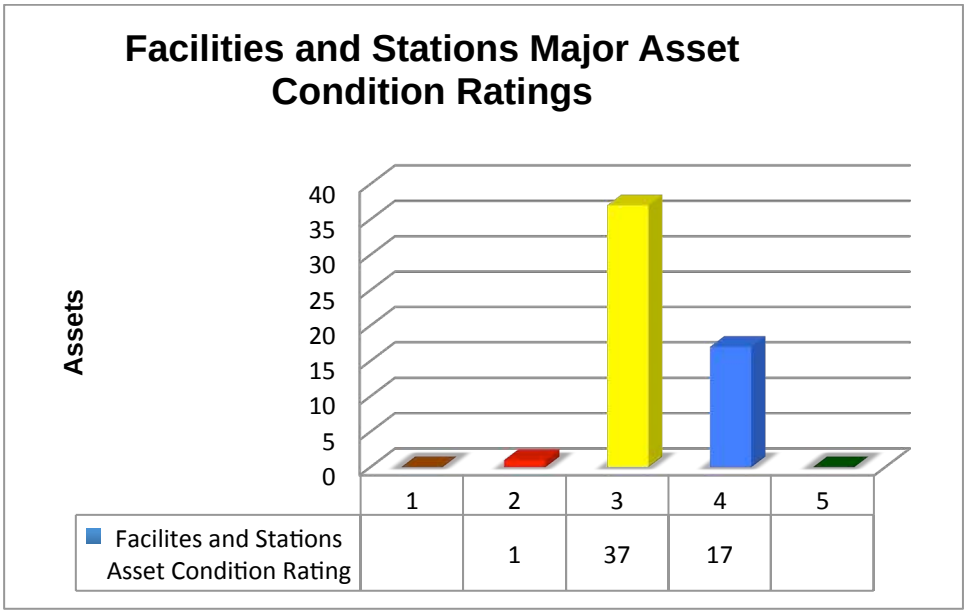


Figure 11 Facilities and Stations Major Asset Condition Ratings

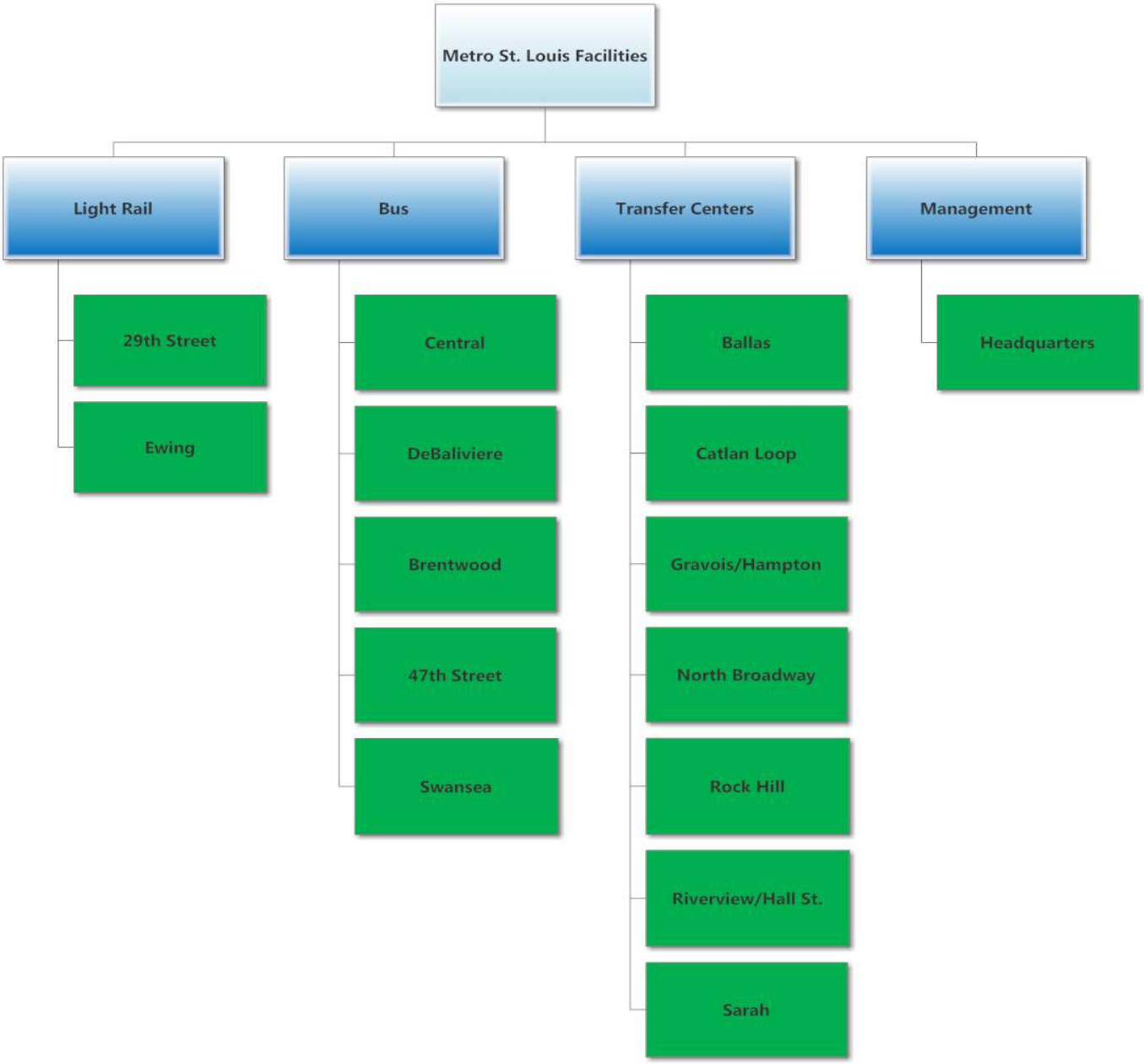


Facilities and Stations			
Name	Location	Condition	Replacement Cost (CY 2014)
Facilities			
Arch Garage	200 Washington Avenue	3	$15,088,485
Agency HQ Building	707 North First Street	3	$14,777,678
Central Facility	3300 Spruce Street	3	$44,506,255
Brentwood Bus Service Area	3000 South Brentwood	3	$29,913,143
DeBaliviere Bus Service Area	539-585 DeBaliviere Ave.	3	$35,992,173
Illinois Bus Service Area	801 North 47th Street	3	$27,627,647
Ewing ML Yard & Shop	700 Ewing Street	3	$12,031,273
IL Rail Maintenance Facility (29th Street)	2901 St. Clair Avenue	4	$10,100,180
Swansea ML Maintenance Bldg.	2208-2212 N. Illinois St.	3	$1,596,800
North Hanley Garage	4300 N. Hanley Rd.	4	$8,680,991
Meridian Garage	1451 S. Hanley Rd.	4	$21,899,752
N. Broadway Transfer Ctr	800 E. Taylor	4	$298,721
Riverview Transfer Center	9000 Riverview Drive	4	$1,458,664
Ballas Transfer Center	790 South New Ballas Rd	3	$1,326,615
Emerson Park Commercial Bldg.	922 North 15th	3	$760,482
Gravois-Hampton Transfer Center	7305 Gravois	3	$722,665
North County Transfer Center	3140 Pershall Rd	3	$2,501,678
St. Charles Rock Road Transfer Center	13570 Saint Charles Rock Rd	2	$50,000
Stations			
Main Airport Station	10701 Lambert Int'l Airport Blvd.	3	$848,255.07
Skinker Station	260 North Skinker Blvd.	3	$16,637,614.44
Union Station (MetroLink Station)	300 South 18th Street	3	$1,981,428.19
8th & Pine Station	800 Pine St	3	$10,020,571.73
East River Front Station	100 South Front Street	3	$2,273,390.98
JJK Center Station	1003 North 25 St.	4	$1,342,841.02
Belleville Station	924 N. Charles St.	4	$1,744,786.44
Airport Station/East	10201 Lambert Int'l Airport Blvd.	3	$145,346.08
North Hanley Station	4401 North Hanley Road	3	$979,714.60
Rock Road Station	7019 St. Charles Rock RD.	3	$1,389,596.78
Big Bend Station	7000 Forest Park Parkway	3	$17,641,223.89
Brentwood I-64 Station	8398 Eager Road	4	$4,307,714.78
Sunnen Station	21 Sunnen Drive	3	$2,419,813.90
Shrewsbury Lansdowne I-44 Station	7201 Lansdowne Avenue	3	$10,348,328.55
Central West End Station	410 South Euclid	3	$1,575,521.19
Stadium Station	323 South 8th	3	$4,797,725.97
Washington Park Station	867 North 54th St.	3	$2,052,525.02
Swansea Station	2222 N. Illinois St.	3	$2,000,811.71
UMSL North Station	1500 Mark Twain Drive	3	$943,271.06

UMSL South Station	7804 East Campus Drive	3	$1,533,664.82
Wellston Station	6402 Plymouth Avenue	3	$1,917,746.03
Forest Park Station	250 DeBaliviere Avenue	3	$25,614,789.46
Forsyth Station	7411 Forsyth Blbd.	4	$10,392,933.42
Clayton Station	275 Central Avenue	4	$4,159,403.61
Grand Avenue Platform	3560 Scott Avenue	3	$2,312,593.52
Civic Center Station	1414 Spruce Street	3	$1,772,709.25
Convention Center Station	600 North 6th Street	3	$7,848,158.90
5th & MO Station	150 North 5th Street	3	$1,278,811.19
Fairview Heights Station	9290 Highway 161	4	$2,558,737.12
College Station	2622 Carlyle Ave.	4	$1,872,419.25
Delmar Loop Station	731 Hodiamount Avenue	3	$1,595,398.36
Richmond Heights Station	8001 Galleria Parkway	4	$2,001,643.29
Maplewood Manchester Station	7911 Manchester Road	4	$4,382,427.93
Arch-Lacledes Landing Station	15 Washington Avenue	3	$2,500,637.29
Emerson Park Station	929 North 15th St.	4	$3,041,721.66
Memorial Hospital Station	1502 Flanagan Rd.	4	$1,565,169.38
Shiloh-Scott Station	880 Metro Plaza Lane	4	$3,254,547.35
Total: 55 Units			**$392,387,194.52**

Facilities Summary

Figure 12 is a list of locations where a comprehensive asset inventory that was conducted:



Agency Headquarter Building

Metro's Headquarters facility is located 707 North First Street. The facility was constructed in 1898 renovated in 1981. Currently the facility has 115,205 sq. ft. and supports approximately 200 employees, and contains 58 assets.

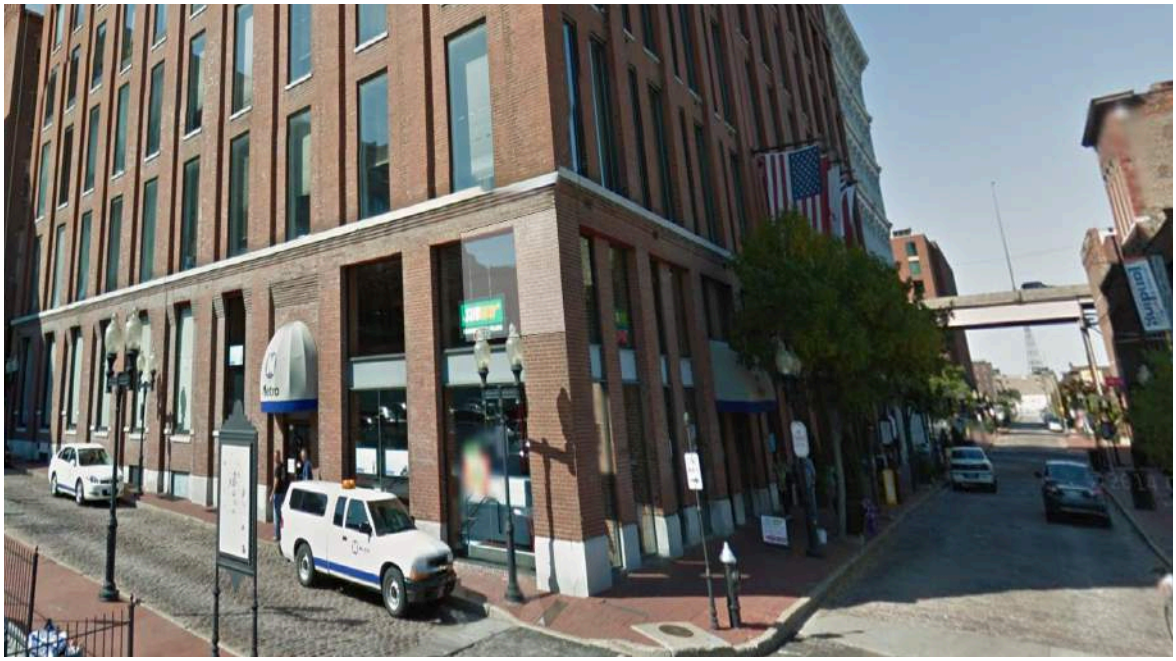
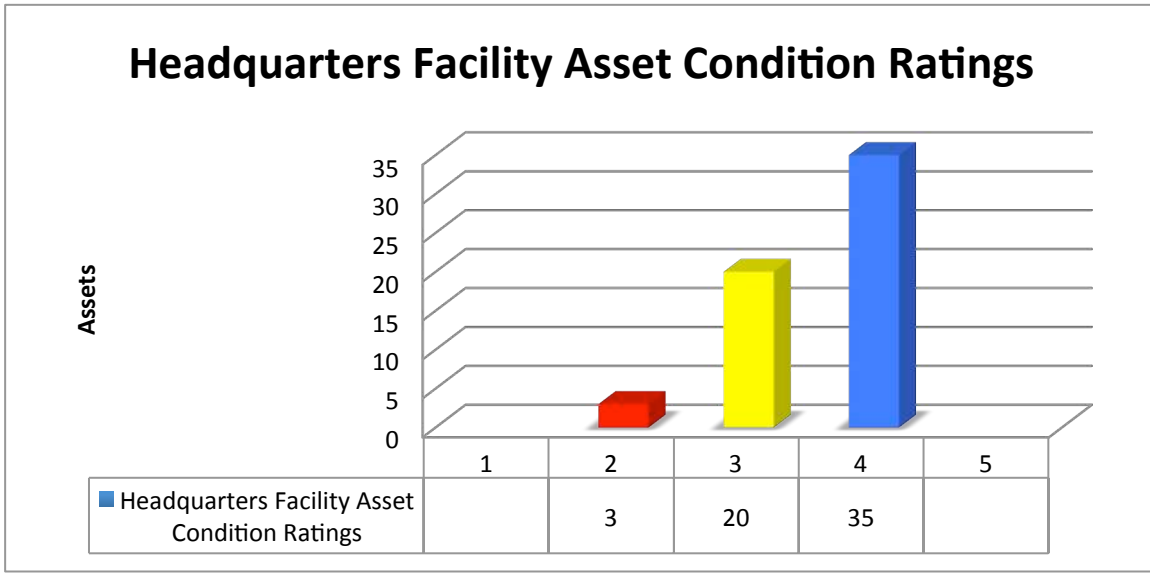


Figure 13
Headquarter's Facility Asset Condition Ratings



Headquarters			
Name	Location	Condition	Replacement Cost (CY 2014)
Backup Generator	Headquarters Basement	3	$23,000
Backup Generator	Headquarters Outside Rear Entrance	3	$23,000
Sprinkler System	Headquarters Basement	3	TBD
Air Compressor	Headquarters Basement	3	$2,500
Compressed Air Dryer Motor	Headquarters Basement	3	TBD
Chiller	Headquarters Basement	3	$1,200,000
A/C and Heating Unit	Headquarters Basement	3	$75,000
A/C and Heating Unit	Headquarters 2nd Floor	3	$75,000
A/C and Heating Unit	Headquarters 3rd Floor	3	$75,000
A/C and Heating Unit	Headquarters 4th Floor	3	$75,000
A/C and Heating Unit	Headquarters 5th Floor	3	$75,000
A/C and Heating Unit	Headquarters 6th Floor	3	$75,000
120 Gallon Hot water Heater	Headquarters 6th Floor	3	$3,000
Elevator	Headquarters 1st Floor	2	$40,000
Elevator	Headquarters 1st Floor	2	$40,000
Urinal and Flush Valve	Headquarters 3rd Floor	4	$680
Urinal and Flush Valve	Headquarters 4th Floor	4	$680
Urinal and Flush Valve	Headquarters 5th Floor	4	$680
Urinal and Flush Valve	Headquarters 6th Floor	4	$680
Urinal and Flush Valve	Headquarters 6th Floor	4	$680
Toilet and Flush Valve	Headquarters 1st Floor	4	$640
Toilet and Flush Valve	Headquarters 1st Floor	4	$640
Toilet and Flush Valve	Headquarters 2nd Floor	4	$640
Toilet and Flush Valve	Headquarters 2nd Floor	4	$640
Toilet and Flush Valve	Headquarters 3rd Floor	4	$640
Toilet and Flush Valve	Headquarters 3rd Floor	4	$640
Toilet and Flush Valve	Headquarters 4th Floor	4	$640
Toilet and Flush Valve	Headquarters 4th Floor	4	$640
Toilet and Flush Valve	Headquarters 5th Floor	4	$640
Toilet and Flush Valve	Headquarters 5th Floor	4	$640
Toilet and Flush Valve	Headquarters 6th Floor	4	$640
Toilet and Flush Valve	Headquarters 6th Floor	4	$640
Sink and Faucet	Headquarters 1st Floor	4	$180
Sink and Faucet	Headquarters 1st Floor	4	$180
Sink and Faucet	Headquarters 2nd Floor	4	$180
Sink and Faucet	Headquarters 2nd Floor	4	$180
Sink and Faucet	Headquarters 3rd Floor	4	$180

Headquarters			
Sink and Faucet	Headquarters 3rd Floor	4	$180
Sink and Faucet	Headquarters 4th Floor	4	$180
Sink and Faucet	Headquarters 4th Floor	4	$180
Sink and Faucet	Headquarters 5th Floor	4	$180
Sink and Faucet	Headquarters 5th Floor	4	$180
Sink and Faucet	Headquarters 6th Floor	4	$180
Water Cooler	Headquarters 1st Floor	4	$550
Water Cooler	Headquarters 2nd Floor	4	$550
Water Cooler	Headquarters 3rd Floor	4	$550
Water Cooler	Headquarters 4th Floor	4	$550
Water Cooler	Headquarters 5th Floor	4	$550
Water Cooler	Headquarters 6th Floor	4	$550
Cooling Tower	Headquarters Roof	2	TBD
A/C Condenser Unit	Headquarters Roof	3	$6,000
A/C Condenser Unit	Headquarters Roof	3	$6,000
A/C Condenser Unit	Headquarters Roof	3	$6,000
A/C Condenser Unit	Headquarters Roof	3	$6,000
A/C Condenser Unit	Headquarters Roof	3	$6,000
Boost Pump	Headquarters Basement	3	$4,000
Boost Pump Controller	Headquarters Basement	3	$3,000
Total: 58 Units			**$556,400**

Central Facility

Metro's Central facility is located 3300 Spruce Street. The facility was constructed in 1983. Currently the facility has 321,000 sq. ft. and contains 163 assets. Figure 14 illustrates the facilities asset condition rating followed by a list of assets, systems and components.

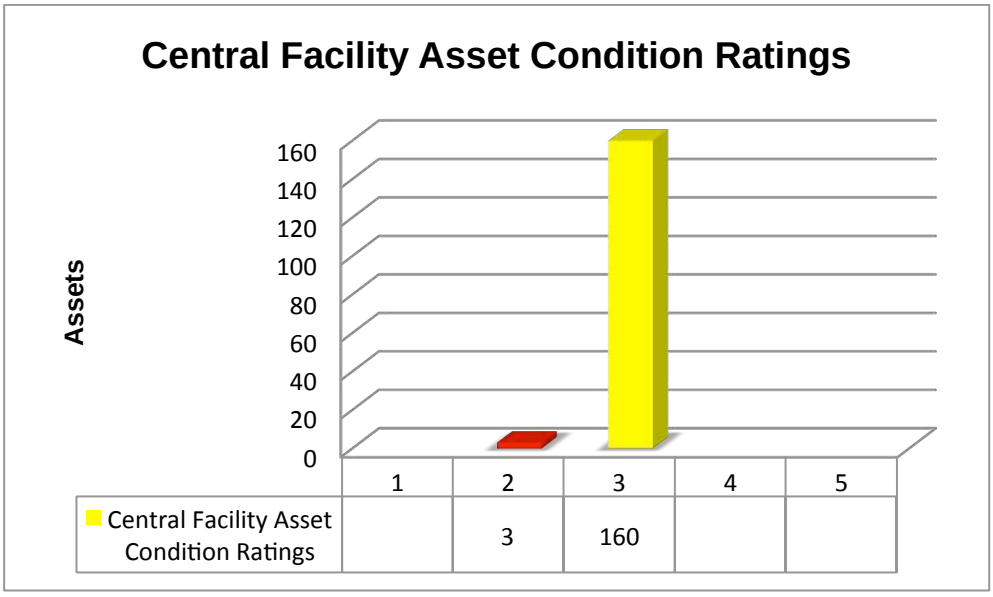


Figure 14 Central Facility Asset Condition Ratings

Central Facility			
Name	Location	Condition	Replacement Cost (CY 2014)
Cylinder Head Grinder	Machine Shop	3	$19,225
Grinder-Buffer1	Machine Shop	3	$1,295
Grinder-Buffer1	Machine Shop	3	$1,295
Brake Lathe	Machine Shop	3	$10,000
Brake Lathe	Machine Shop	3	$10,000
Brake Lathe	Machine Shop	3	$10,000
12" Lathe	Machine Shop	3	$14,150
12" Lathe	Machine Shop	3	$14,150
13" Lathe	Machine Shop	3	$14,150
13" Lathe	Machine Shop	3	$14,150
15" Lathe	Machine Shop	3	$26,695
15" Lathe	Machine Shop	3	$26,695
17" Lathe	Machine Shop	3	$40,790
17" Lathe	Machine Shop	3	$40,790
Drill Press	Machine Shop	3	$4,760
Drill Bit Sharpener	Machine Shop	3	$1,877
Turret Lathe	Machine Shop	3	TBD
Brake Lathe	Machine Shop	3	$6,000
Brake Lathe	Machine Shop	3	$6,000
2 Ton Crane	Machine Shop	3	$7,532
Circular Disc Vertical Saw	Machine Shop	3	TBD
Metal Heating Furnace	Machine Shop	3	$18,000
Turret Lathe	Machine Shop	3	TBD
Tool Grinder	Machine Shop	3	TBD
Horizontal Band Saw	Machine Shop	3	$6,895
Parts Freezer	Machine Shop	3	$180
Vertical Band Saw	Machine Shop	3	$4,000
Arbor Press	Machine Shop	3	$2,300
Hole Wizard Drill Press	Machine Shop	3	$12,000
Digital Position Readout	Machine Shop	3	$2,000
Digital Position Readout	Machine Shop	3	$2,000
Digital Position Readout	Machine Shop	3	$2,000
Digital Position Readout	Machine Shop	3	$2,000
Digital Position Readout	Machine Shop	3	$2,000
Digital Position Readout	Machine Shop	3	$2,000
Metal Lathe	Machine Shop	2	$40,000
Drill Press	Machine Shop	3	$4,500
6T Arbor Press	Machine Shop	3	$2,300
6T Arbor Press	Machine Shop	3	$2,300
Wood Planer	Machine Shop	3	$9,000
Midi Lathe	Machine Shop	3	$1,000
50 Ton Hydraulic Press	Machine Shop	3	$6,450

Central Facility			
Drill Press	Machine Shop	3	$4,500
Power File	Machine Shop	3	TBD
Tool & Cutter Grinder	Machine Shop	3	$14,950
Belt Sander	Machine Shop	3	$1,582
Ex-Cell-O Milling Machine	Machine Shop	3	$25,000
Bridgeport Milling Machine	Machine Shop	3	$25,000
Metal Shaper	Machine Shop	2	TBD
Precision Honing Machine	Machine Shop	3	$12,600
Line Hone	Machine Shop	3	$15,330
Cylinder Hone	Machine Shop	3	$39,930
Parts Washer	Machine Shop	3	$300
Boring Bar	Machine Shop	3	$7,000
Line Boring Machine	Machine Shop	2	TBD
Tool Grinder 2	Machine Shop	3	TBD
Boring Bar	Machine Shop	3	$7,000
1/2 Ton Jib Crane	Machine Shop	3	$6,376
36" Evaporative Cooler	Machine Shop	3	$2,600
Drill Press	Metal Shop	3	$12,000
50 Ton Hydraulic Press	Metal Shop	3	$6,450
Arbor Press 6 Ton	Metal Shop	3	$2,300
Grinder	Metal Shop	3	$3,700
Pneumatic Press	Metal Shop	3	TBD
Horizontal Band Saw	Metal Shop	3	$6,895
Pipe & Bolt Threading Machine	Metal Shop	3	$4,200
Pipe Bender	Metal Shop	3	$3,000
1/2 Ton Jib Crane	Metal Shop	3	$6,376
1/2 Ton Jib Crane	Metal Shop	3	$6,376
1 Ton Jib Crane	Metal Shop	3	$6,668
1 Ton Jib Crane	Metal Shop	3	$6,668
1 Ton Jib Crane	Metal Shop	3	$6,668
2 Ton Jib Crane	Metal Shop	3	$7,532
2 Ton Jib Crane	Metal Shop	3	$7,532
2 Ton Jib Crane	Metal Shop	3	$7,532
Grinder/Buffer	Metal Shop	3	$3,790
Cutoff Saw	Metal Shop	3	$350
Metal Shear	Metal Shop	3	$10,000
Slip Roll Metal Roller	Metal Shop	3	$1,000
Vertical Band Saw 20in.	Metal Shop	3	$6,000
Fabricating Machine	Metal Shop	3	$20,000
Aluminum Bending Brake	Metal Shop	3	TBD
Drill Press 3	Metal Shop	3	$650
Heat Recovery Unit	MS Roof	3	$30,000
Heat Recovery Unit	MS Roof	3	$30,000

Central Facility			
Heat Recovery Unit	MS Roof	3	$30,000
Heat Recovery Unit	MS Roof	3	$30,000
Heat Recovery Unit	MS Roof	3	$30,000
Exhaust Fan	MS Roof	3	$3,000
Exhaust Fan	MS Roof	3	$3,000
Exhaust Fan	MS Roof	3	$3,000
Exhaust Fan	MS Roof	3	$3,000
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Exhaust Fan	MS Roof	3	$3,000

Central Facility			
Exhaust Fan	MS Roof	3	$3,000
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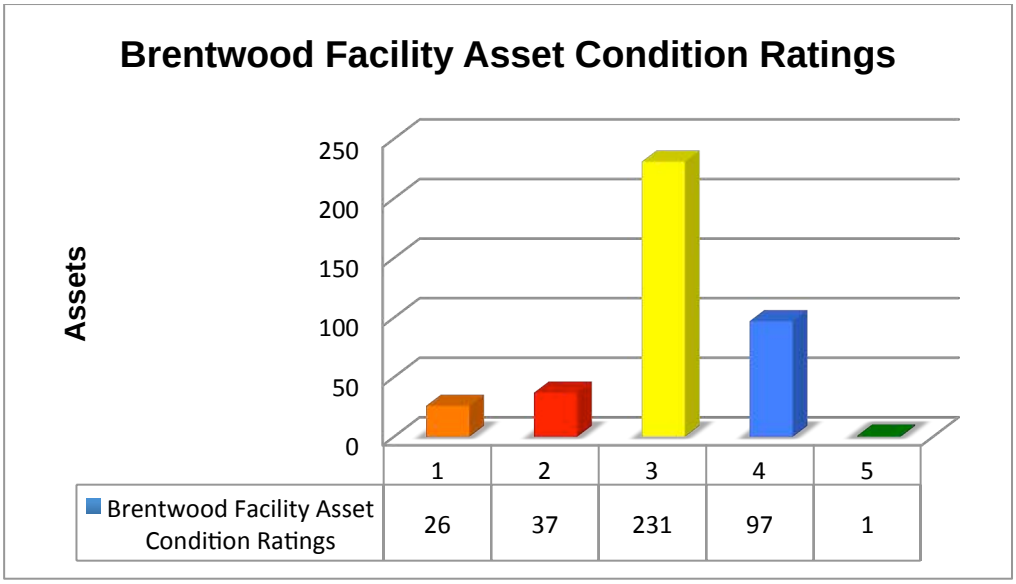
Exhaust Fan	MS Roof	3	$3,000
Exhaust Fan	MS Roof	3	$3,000
Exhaust Fan	MS Roof	3	$3,000
Exhaust Fan	MS Roof	3	$3,000
Heat & Vent Unit	MS Roof	3	$8,000
Heat & Vent Unit	MS Roof	3	$8,000
Heat & Vent Unit	MS Roof	3	$8,000
Heat & Vent Unit	MS Roof	3	$8,000
Heat & Vent Unit	MS Roof	3	$8,000
Rooftop Air Conditioner	MS Roof	3	$4,000
Rooftop Air Conditioner	MS Roof	3	$100,000
Overhead Door Heater	MS Roof	3	$7,000
Overhead Door Heater	MS Roof	3	$7,000
Overhead Door Heater	MS Roof	3	$7,000
Overhead Door Heater	MS Roof	3	$7,000
Overhead Door Heater	MS Roof	3	$7,000
Overhead Door Heater	MS Roof	3	$7,000
Overhead Door Heater	MS Roof	3	$7,000
Total: 163 Units			**$1,214,334**

Brentwood Bus Facility

Brentwood facility is located at 3000 South Brentwood. The facility was constructed in 1983. Currently the facility has 281,066 sq. ft. that supports 142 buses and has a total of 392-inventoried assets. Figure 15 illustrates the facility's asset condition rating followed by a list of assets, systems and components.

Figure 15 Brentwood Facility Asset Condition Ratings



Brentwood Bus Facility			
Name	**General Building Locations/ GIS Coordinate**	**Condition**	**Replacement Cost (CY 2014)**
Exhaust Fan 1	38.607745, -90.349315	3	$1,300
Exhaust Fan 2	38.607634, -90.349414	3	$1,300
Exhaust Fan 3	38.607527, -90.349282	3	$1,300
Exhaust Fan 4	38.607629, -90.348892	3	$1,300
Exhaust Fan 5	38.607554, -90.348953	3	$1,300
Exhaust Fan 6	38.607071, -90.349215	3	$1,300
Exhaust Fan 7	38.606942, -90.349344	3	$1,300
Exhaust Fan 8	38.607103, -90348888	3	$1,300
Exhaust Fan 9	38.606968, -90.348794	3	$1,300
Exhaust Fan 10	38.607854, -90.348694	3	$1,300
Exhaust Fan 11	38.607881, -90.348366	3	$1,300
Exhaust Fan 12	38.607619, -90.348578	3	$1,300
Exhaust Fan 13	38.607189, -90.348293	3	$1,300
Exhaust Fan 14	38.607394, -90.348566	3	$1,300
Exhaust Fan 15	38.607364, -90.348226	3	$1,300
Exhaust Fan 16	38.607368, -90.348026	3	$1,300
Exhaust Fan 17	38.607394, -90.347734	3	$1,300
Exhaust Fan 18	38.607417, -90.347493	3	$1,300
Exhaust Fan 19	38.607438, -90.347268	3	$1,300
Exhaust Fan 20	38.607234, -90.348554	3	$1,300
Exhaust Fan 21	38.607579, -90.348348	3	$1,300
Exhaust Fan 22	38.606873, -90.348553	3	$1,300
Exhaust Fan 23	38.606903, -90.348221	3	$1,300
Exhaust Fan 51	38.606780, -90.348412	3	$1,300
Exhaust Fan 52	38.607355, -90.348538	3	$1,300
Exhaust Fan 53	38.607478, -90.348128	3	$1,300
Exhaust Fan 54	38.607499, -90.347886	3	$1,300
Exhaust Fan 55	38.607523, -90.347625	3	$1,300
Exhaust Fan 60	38.607695, -90.348543	3	$1,300
Exhaust Fan 61	38.607467, -90.349074	3	$1,300
Exhaust Fan 62	38.607254, -90.349395	3	$1,300
Exhaust Fan 63	38.607655, -90.348745	3	$1,300
Exhaust Fan 64	38.607561, -90.348731	3	$1,300
Exhaust Fan 65	38.607466, -90.348734	3	$1,300
Exhaust Fan 65-1	38.607485, -90.348725	3	$1,300
Exhaust Fan 65-2	38.607323, -90.348715	3	$1,300
Exhaust Fan 66	38.607551, -90.348475	3	$1,300
Exhaust Fan 67	38.607073, -90.348657	3	$1,300
Exhaust Fan 68	38.607828, -90.348571	3	$1,300
Exhaust Fan 69	38.607702, -90.348751	3	$1,300
Exhaust Fan 70	38.606859, -90.349207	3	$1,300

Brentwood Bus Facility			
Exhaust Fan 71	38.604130, -90.348659	3	$1,300
Exhaust Fan 72	38.607294, -90.348433	3	$1,300
Exhaust Fan 73	38.606970, -90.348643	3	$1,300
Exhaust Fan 74	38.607207, -90.348705	3	$1,300
Exhaust Fan 75	38.607256, -90.348938	3	$1,300
Exhaust Fan 76	38.607241, -90.349108	3	$1,300
Exhaust Fan 77	38.607473, -90.348363	3	$1,300
Exhaust Fan 78	38.607304, -90.348338	3	$1,300
Exhaust Fan 79	38.607065, -90.348331	3	$1,300
MAU	38.607256, -90.349317	3	$110,000
A/C Unit	38.607465, -90349024	4	$2,808.99
Fairbox Receiver System 1	Bus Parking Entrance	4	$46,000
Fairbox Receiver System 2	Bus Parking Entrance	4	$46,000
Fairbox Receiver System 3	Bus Parking Entrance	4	$46,000
Fairbox Receiver System 4	Bus Parking Entrance	4	$46,000
Air Compressor	Bus Parking	4	$948.50
Speed Door	Bus Parking Entrance	4	$30,000
Speed Door	Bus Parking Exit	4	$30,000
Fire Door	1st Floor	3	$1,800
Fire Door	2nd Floor	3	$1,800
Fire Door	3rd Floor	3	$1,800
Manual Slide Fire Window	Fuel Island	3	$1,300
Emergency Exit Door	Bus Parking	3	$940
Emergency Exit Door	Bus Parking	3	$940
Emergency Exit Door	Bus Parking	3	$940
Emergency Exit Door	Bus Parking	3	$940
Emergency Exit Door	Bus Parking	3	$940
Emergency Exit Door	Bus Parking	3	$940
Portable Generator	Bus Maintenance	4	$600
Portable Generator	Bus Maintenance	4	$600
Straddle Stacker Forklift	Bus Parking	3	$23,586
Dynamometer	Dyna Room	2	$200,00
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270

Brentwood Bus Facility

Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
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Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Automatic Flush Toilet	2nd Floor	3	$270
Water Heater	1st Floor	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456

Brentwood Bus Facility			
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Plasma Cutter	Facility Maintenance	3	$1,300
Refrigerated Compressed Air Dyer	Facility Maintenance	3	$3,000
Drill Press	Bus Maintenance	3	$2,500
Arbor Press	Bus Maintenance	3	$12,800
Refrigerant Recovery Unit	Bus Maintenance	3	$2,500
Overhead Door	Facility Maintenance	3	$2,700
Grinder	Facility Maintenance	3	$1,761.29
Security Gate	Grounds	4	$41,372.92
Security Fence	Grounds	4	$384,607.89
Security Shack	Diesel Farm	1	$30,000
Crane	Store Room	3	$10,000
Arc Welder	Bus Maintenance	3	$1,933
Portable Battery Generator	Bus Maintenance	3	$803.50
Portable Battery Generator	Bus Maintenance	3	$803.50
Portable Battery Generator	Bus Maintenance	3	$803.50
Portable Battery Generator	Bus Maintenance	3	$803.50
Crane	Bus Maintenance	3	$10,000
Water Heater	Bus Maintenance	2	$363
Multi Refrigerant Recycle	Bus Maintenance	3	$10,475
Arbor press	Bus Maintenance	3	12, 800
Part Washer	Bus Maintenance	3	$2,000
High Light Wheel Dolly	Bus Maintenance	2	$2,500
Hydraulic Transmission Jack	Bus Maintenance	3	$1,500
Drill Press	Bus Parking	1	$2,500
Roll-A-Matic	Bus Parking	1	TBD
Air Compressor	Bus Parking	1	$1,104
A/C Unit	Guard Entrance Shack	3	$852.21
Steel Rolling Scaffold	Bus Maintenance	3	$402
Bus Lift Motor	Bus Maintenance	3	$549
Crimper	Bus Maintenance	3	$6,800
Grinder	Facilities Maintenance	3	$1,761
Drill Press	Bus Maintenance	3	$2,500
Arbor Press	Bus Maintenance	3	$12,800
Refrigerant Recovery Unit	Bus Maintenance	3	$2,500
Multi Refrigerant Recycler	Bus Maintenance	3	$10,475
Arbor press	Bus Maintenance	3	12, 800
Part Washer	Bus Maintenance	3	$2,000
High Light Wheel Dolly	Bus Maintenance	2	$2,500
Hydraulic Transmission Jack	Bus Maintenance	3	$1,500
Drill Press	Bus Parking	1	$2,500

Brentwood Bus Facility

Roll-A-Matic	Bus Parking	1	
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Line Striper	Bus Parking	1	$3,696
Air Compressor	Bus Parking	1	$1,104
Parts Washer	Bus Parking	1	$2,905
Parts Washer	Bus Parking	1	$2,905
A/C Unit	Guard Entrance Shack	3	$852.21
Bus Lift Control	Steam Room	2	TBD
Bus Lift Motor	Steam Room	3	TBD
Pressure Washer	Steam Room	3	$1,800
Bus Wash Bay	Wash Rack	4	$150,173
Bus Wash Bay	Wash Rack	2	$150,173
Pump	Pump	3	$2,037.33
Pump	Pump	3	$2,037.33
Pump	Pump	3	$2,037.33
Pump	Pump	3	$2,037.33
MAU 1	South MAU Room	2	$100,000
MAU 1	South MAU Room	3	$75,000
MAU 2	South MAU Room	3	$75,000
MAU 3	South MAU Room	3	$75,000
MAU 4	South MAU Room	3	$75,000
MAU 5	South MAU Room	3	$75,000
MAU 6	South MAU Room	3	$75,000
MAU 7	South MAU Room	3	$75,000
MAU 8	South MAU Room	3	$75,000
MAU 9	South MAU Room	3	$75,000
MAU 10	South MAU Room	3	$75,000
MAU 11	South MAU Room	3	$75,000
MAU 12	South MAU Room	3	$75,000

Brentwood Bus Facility

Vent Fan 1	South MAU Room		
Arc Welder	Maintenance Room	2	$1,933
Air Handler	South MAU Room	2	$100,000
Hydraulic Ram	Maintenance Room	2	$1,200
Pressure Washer	Maintenance Room	2	$1,800
Horizontal Band Saw	Maintenance Room	3	$1,500
Motor	Maintenance Room	3	$3,200
Motor	Maintenance Room	3	$3,200
Arc Welder Generator	Maintenance Room	2	$2,000
Welder	Maintenance Room	3	$360
Vertical Band Saw	Maintenance Room	3	$5,300
Grinder	Maintenance Room	3	$1,761
Storage Tank	Maintenance Room	3	$17,719.63
Soap Tank	Maintenance Room	3	$761
Floor Drill Press	Maintenance Room	3	$700
Engine Driven Centrifugal Pump	Maintenance Room	4	$720.50
Jewl Air Compressor	Maintenance Room	3	$2,500
Air Compressor	Maintenance Room	4	$2,900
Storage Air Tank	Maintenance Room	3	$3,000
Air Compressor	Maintenance Room	2	$3,000
Water Heater	Maintenance Room	3	$421.50
Snow blower	Maintenance Room	3	$1,000
A/C Unit	Maintenance Office	4	$417.99
Digital Torque Tester	Maintenance Office	3	$1,900
Fuel Nozzle	Fuel Island	3	$50
Fuel Nozzle	Fuel Island	3	$50
Fuel Nozzle	Fuel Island	3	$50
Hybrid Pump	Fuel Island	3	$700
Hybrid Pump	Fuel Island	3	$700
Hybrid Pump	Fuel Island	3	$700
Counter	Fuel Island	3	TBD
Counter	Fuel Island	3	TBD
Counter	Fuel Island	3	TBD
Fuel Pump	Fuel Island	3	10,000
Fuel Pump	Fuel Island	3	10,000
Fuel Pump	Fuel Island	3	10,000
Fire Door	Fuel Island	3	1,800
Fueling Nozzle	Fuel Island	3	$700
Fueling Nozzle	Fuel Island	3	$700
Fueling Nozzle	Fuel Island	3	$700
Water Heater	Boiler Room	5	$5,620
Boiler	Boiler Room	3	$9,098
Boiler	Boiler Room	3	$9,098

Brentwood Bus Facility

Booster Pump	Boiler Room	3	$1,302
Pump	Boiler Room	3	$1,058
Pump Motor	Boiler Room	3	$794
Pump	Boiler Room	3	$1,500
Pump Motor	Boiler Room	3	$530
Pump	Boiler Room	3	$422
Pump	Boiler Room	3	$422
Generator Transfer Switch	Generator Room	4	$4,075
Generator	Generator Room	3	$30,000
Hot Water Storage Tank	Boiler Room	1	TBD
Water Fountain	Wash Rack	2	$683.50
Water Fountain	Wash Rack	2	$683.50
Water Fountain	Wash Rack	2	$683.50
Air Compressor	Deluge Room	3	$948.50
Sprinkler Alarm System	Deluge Room	3	TBD
Sprinkler Valve	Deluge Room	3	$2,995
Sprinkler Valve	Deluge Room	3	$2,995
Sprinkler Valve	Deluge Room	3	$2,995
Sprinkler Valve	Deluge Room	3	$2,995
Sprinkler Valve	Deluge Room	3	$2,995
Sprinkler Valve	Deluge Room	3	$2,995
Sprinkler Valve	Dyna Room	3	$2,995
Sprinkler Valve	Bus Parking (East)	3	$2,995
Sprinkler Valve	Bus Maintenance	3	$2,995
Sprinkler Valve	Bus Maintenance	3	$2,995
Overhead Door	Store Room	2	$2,700
Forklift	Store Room	3	$23,856
Pallet Jack	Store Room	3	$1,040.50
Mounted Trolley Hoist	Store Room	3	$3,300
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
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Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719

Brentwood Bus Facility

Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
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Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650

Brentwood Bus Facility			
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
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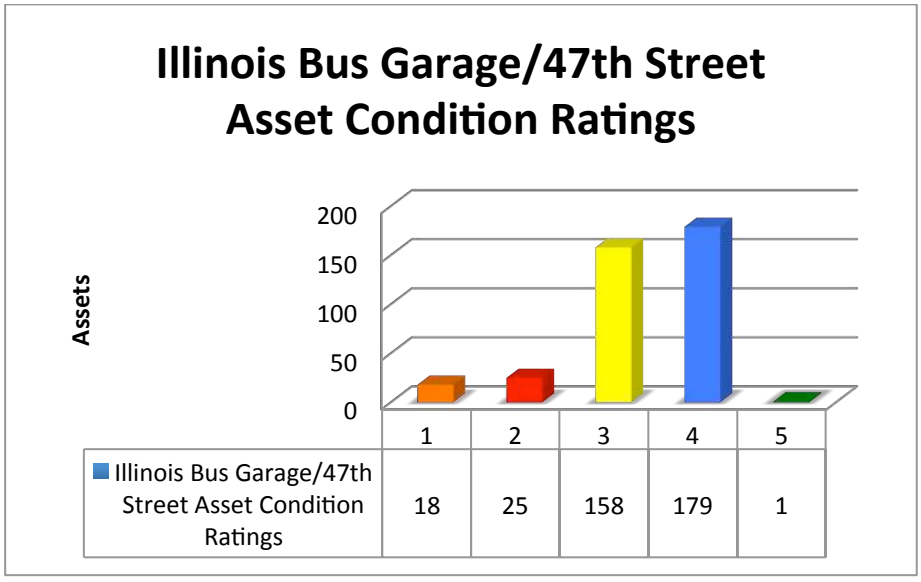
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Air Hose Reel	1st Floor	4	$650
Battery Charging Station	Battery Room	2	TBD
Blower	MAU Room	3	$7,000
Crane	Battery Room	3	$10,000
Fire Door	Bus Parking	3	$2,700
A/C Unit	PBX Room	3	$1,200
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Overhead Heater	Bus Parking	3	$1,300
Fire Alarm Control Panel	PBX Room	2	$2,000
A/C Unit	PBX Room	3	$528.57

Toyota Electric Forklift	Bus Maintenance	3	23,856
Electric Scissor Forklift	Bus Maintenance	3	$30,000
TUG M-31	Bus Maintenance	2	$13,950
Golf Cart	Bus Maintenance	2	$9,000
Golf Cart	Bus Maintenance	2	$9,000
Hydraulic Lift Table	Bus Maintenance	3	$3,000
Cyclone	Cyclone Room	3	$200,000
Cyclone Motor	Cyclone Room	3	TBD
Cyclone Motor	Cyclone Room	3	TBD
Cyclone Motor	Cyclone Room	3	TBD
Total: 393 Units			**$3,080,615**

47th Street Bus Facility

47th street facility is located at 801 North 47th Street. The facility was constructed in 1990. Currently the facility has 281,066 sq. ft. that supports 142 buses and has a total of 382-inventoried assets. Figure 16 illustrates the facility's asset condition rating followed by a list of assets, systems and components.

Figure 16 Illiinois Bus Garage/ 47th Street Asset Condition Ratins



Illinois Bus Garage/47th Street			
Name	Location/ GIS Coordinate	Condition	Replacement Cost (CY 2014)
Exhaust Fan 60	38.607695, -90.348543	3	$1,200
Exhaust Fan 61	38.607467, -90.349074	3	$1,200
Exhaust Fan 62	38.607254, -90.349395	3	$1,200
Exhaust Fan 63	38.607655, -90.348745	3	$1,200
Exhaust Fan 64	38.607561, -90.348731	3	$1,200
Exhaust Fan 65	38.607466, -90.348734	3	$1,200
Exhaust Fan 66	38.607551, -90.348475	3	$1,200
Exhaust Fan 67	38.607073, -90.348657	3	$1,200
Exhaust Fan 70	38.606859, -90.349207	3	$1,200
Exhaust Fan 71	38.604130, -90.348659	3	$1,200
Exhaust Fan 72	38.607294, -90.348433	3	$1,200
Exhaust Fan 73	38.606970, -90.348643	3	$1,200
Exhaust Fan 74	38.607207, -90.348705	3	$1,200
Exhaust Fan 75	38.607256, -90.348938	3	$1,200
Exhaust Fan 76	38.607241, -90.349108	3	$1,200
Exhaust Fan 77	38.607473, -90.348363	3	$1,200
Exhaust Fan 80	38.607304, -90.348338	3	$1,200
Exhaust Fan 81	38.607065, -90.348331	3	$1,200
MAU	38.607256, -90.349317	3	$75,000
Fairbox Receiver System 1	Bus Parking Entrance	4	$46,000
Fairbox Receiver System 2	Bus Parking Entrance	4	$46,000
Fairbox Receiver System 3	Bus Parking Entrance	4	$46,000
Fairbox Receiver System 4	Bus Parking Entrance	4	$46,000
Garage Door	Bus Parking	4	$1,800
Garage Door	Bus Parking	4	$1,800
Air Compressor	Bus Parking	4	$948.50
Speed Door	Bus Parking Entrance	4	$30,000
Speed Door	Bus Parking Entrance	4	$30,000
Speed Door	Bus Parking Entrance	4	$30,000
Speed Door	Bus Parking Entrance	4	$30,000
Fire Door	1st Floor	3	$2,700
Fire Door	Fuel Island	3	$2,700
Fire Door	Bus Parking	3	$2,700
Fire Door	Fuel Island	3	$2,700
Fire Door	Bus Parking	3	$2,700
Manual Slide Fire Window	Fuel Island	3	$2,700
Emergency Exit Door	Bus Parking	3	$940
Portable Generator	Bus Maintenance	4	$1,300
Automatic Flush Toilet	2nd Floor	3	$270
Water Heater	1st Floor Restroom	2	$456
Hand Dryer	Restroom	2	$456
Plasma Cutter	Facilities Maintenance	3	$1,300

Illinois Bus Garage/47th Street

Heat sink-Refrigerated Compressed Air Dryer	Facilities Maintenance	3	$3,000
Overhead Door	Facilities Maintenance	3	$2,700
Grinder	Bus Maintenance	3	$1,761
Security Gate	Grounds	3	$41,372.92
Security Fence	Grounds	3	$384,607
Diesel Farm	Diesel Farm	1	$30,000
Crane	Bus Maintenance	3	$10,000
Arc Welder	Bus Maintenance	3	$1,933
Welder	Bus Maintenance	3	$330
Welder	Bus Maintenance	3	$500
Portable Battery Charger	Bus Maintenance	3	$803.50
Portable Battery Charger	Bus Maintenance	3	$803.50
Crane	Bus Maintenance	3	$10,000
Water Heater	Bus Maintenance	2	$363
Steel Rolling Scaffold	Bus Maintenance	3	$402
Bus Lift Motor	Bus Maintenance	3	$549
Crimper	Bus Maintenance	3	$6,800
Grinder	Bus Maintenance	3	$1,761
Drill Press	Bus Maintenance	3	$700
Arbor Press	Bus Maintenance	3	$12,800
Refrigerant Recovery Unit	Bus Maintenance	3	$2,500
Multi Refrigerant Recycle	Bus Maintenance	3	$10,475
Arbor press	Bus Maintenance	3	12, 800
Part Washer	Bus Maintenance	3	$2,000
Wheel Dolly	Bus Maintenance	3	$1,709
Wheel Dolly	Bus Maintenance	3	$1,800
Jack	Bus Maintenance	3	$599
Hi-Rise Truck Component Jack	Bus Maintenance	3	$5,666
Hydraulic Transmission Jack	Bus Maintenance	3	$1,500
Drill Press	Bus Maintenance	1	$700
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD

Illinois Bus Garage/47th Street			
Roll-A-Matic	Bus Parking	1	
Air Compressor	Bus Parking	1	$1,104
A/C Unit	Guard Entrance Shack	3	$852.21
Pressure Washer	Steam Room	3	$1,800
Bus Wash Bay	Wash Rack	4	$150,173
Bus Wash Bay	Wash Rack	2	$150,173
Pump	Pump Room	3	$2,037.33
Pneumatic Air Pump	Pump Room	4	$2,037.33
Pneumatic Air Pump	Pump Room	3	$2,433
Pneumatic Air Pump	Pump Room	3	$2,433
Commodity Tank	Fuel Island	4	$2,871
Commodity Tank	Fuel Island	4	$2,871
Commodity Tank	Fuel Island	4	$2,871
Abrasive Cut-Off Machine	Bus Maintenance	4	$140
Abrasive Cut-Off Machine	Bus Maintenance	4	$140
Hose Machine	Bus Maintenance	3	TBD
Hose Assembly	Bus Maintenance	3	$1,800
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
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Product Hose Reel	1st Floor	4	$719

Illinois Bus Garage/47th Street			
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
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Product Hose Reel	1st Floor	4	$719
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Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Product Hose Reel	1st Floor	4	$719
Dry Pipe Valve	Deluge Room	3	$2,995
Deluge Valve	Deluge Room	3	$2,995
MAU 1	South MAU Room	2	$75,000
MAU 10	South MAU Room	1	$75,000
MAU 3	South MAU Room	3	$100,000
Air Handler	South MAU Room	2	$100,000
Hydraulic Ram	Maintenance Room	2	$1,200
Pressure Washer	Maintenance Room	2	$1,800
Horizontal Band Saw	Maintenance Room	3	$1,500
Motor	Maintenance Room	3	$3,200
Arc Welder Generator	Maintenance Room	2	$2,000
Welder	Maintenance Room	3	$360
Vertical Band Saw	Maintenance Room	3	$5,300
Storage Tank	Maintenance Room	3	$17,719.63
Soap Tank	Maintenance Room	3	$761
Drill Press	Bus Maintenance	3	$700
Engine Driven Centrifugal Pump	Maintenance Room	4	$720.50
Jewl Air Compressor	Maintenance Room	3	$2,500
Air Compressor	Maintenance Room	4	$2,900

Illinois Bus Garage/47th Street

Storage Air Tank	Maintenance Room	3	$3,000
Air Compressor	Maintenance Room	2	$3,000
Water Heater	Maintenance Room	3	$421.50
Snow blower	Maintenance Room	3	$1,000
A/C Unit	Maintenance Office	4	$417.99
Digital Torque Tester	Maintenance Office	3	$1,900
Hybrid Pump	Fuel Island	3	$700
Fuel Pump	Fuel Island	3	10,000
Fueling Nozzle	Fuel Island	3	$700
Water Heater	Boiler Room	5	$5,620
Boiler	Boiler Room	3	$9,098
Booster Pump	Boiler Room	3	$1,302
Pump	Boiler Room	3	$1,058
Pump Motor	Boiler Room	3	$794
Pump	Boiler Room	3	$1,500
Pump Motor	Boiler Room	3	$530
Pump	Boiler Room	3	$422
Generator Transfer Switch	Generator Room	4	$4,075
Generator	Generator Room	3	$30,000
Water Fountain	Wash Rack	2	$683.50
Sprinkler Valve	Deluge Room	3	$2,995
Overhead Door	Store Room	2	$2,700
Forklift	Store Room	3	$23,856
Pallet Truck	Bus Maintenance	3	$1,174
Mounted Trolley Hoist	Store Room	3	$3,300
Blower	MAU Room	3	$7,000
A/C Unit	PBX Room	3	$1,200
Fire Alarm Control Panel	PBX Room	2	$2,000
A/C Unit	PBX Room	3	$528.57
Electric Forklift	Bus Maintenance	3	16,000
Forklift	Bus Maintenance	3	$9,900
Pallet Truck	Steam Room	4	$250
TUG M-31	Bus Maintenance	2	$13,950
Parts Washer	Bus Maintenance	4	$2,095
Golf Cart	Bus Maintenance	2	$9,000
Golf Cart	Bus Maintenance	2	$9,000
Hydraulic Lift Table	Bus Maintenance	3	$3,000
Cyclone	Cyclone Room	3	$200,000
Pole Runner	Store Room	4	$650
Trimmer	Store Room	4	$400
Chainsaw	Store Room	3	$350
Blower	Store Room	3	$150
Chainsaw	Store Room	3	$180

Illinois Bus Garage/47th Street			
Law Mower	Bus Parking	3	$8,000
Tiller	Bus Parking	3	$750
Lawn Mower	Bus Parking	3	$240
Blower	Bus Parking	3	$85
Mower Deck	Bus Parking	3	$2,300
Snow Blower	Bus Parking	3	$1,000
Cart	Bus Parking	3	$100
Tractor	Bus Parking	3	$16,000
MXR Lift-Type Rotary Cutter	Bus Parking	4	$2,824
Rotary Screw Air Compressor	Air Pump Room	4	$5,500
Electric Air Compressor	Air Pump Room	3	$1,051
Air Compressor	Air Pump Room	3	TBD
Air Receiver	Air Pump Room	3	TBD
Air Dryer	Air Pump Room	3	$2,500
Transfer Switch	Generator Room	4	$4,075
Automatic Batter Charger	Generator Room	3	$970
Panel Board	Generator Room	3	TBD
Panel Board	Generator Room	3	TBD
Fuel Tank	Generator Room	3	$1,100
Blower Motor	Generator Room	3	$200
Line Striper	Air Pump Room	3	$3,969
Fire Pump Controller	Fire Pump Room	3	$3,149
Centrifugal Pump	Fire Pump Room	3	$3,000
Mobile Column Lifts	Bus Maintenance	4	$2,349
Mobile Column Lifts	Bus Maintenance	4	$2,349
Mobile Column Lifts	Bus Maintenance	4	$2,349
Mobile Column Lifts	Bus Maintenance	4	$2,349
Mobile Column Lifts	Bus Maintenance	4	$2,349
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Illinois Bus Garage/47th Street			
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Mobile Column Lifts	Bus Maintenance	4	$2,349
Mobile Column Lifts	Bus Maintenance	4	$2,349
Mobile Column Lifts	Bus Maintenance	4	$2,349
Post Lifts	Bus Maintenance	3	$1,095
Rotary Lift	Bus Maintenance	3	$21,995
Rotary Lift	Bus Maintenance	3	$21,995
Rotary Lift	Bus Maintenance	3	$21,995
Rotary Lift	Bus Maintenance	3	$21,995
Rotary Lift	Bus Maintenance	3	$21,995
Rotary Lift	Bus Maintenance	3	$21,995
Rotary Lift	Bus Maintenance	3	$21,995
Rotary Lift	Bus Maintenance	3	$21,995
Support Stands 12-Ton	Bus Maintenance	4	$240
Support Stands 12-Ton	Bus Maintenance	4	$240
Support Stands 12-Ton	Bus Maintenance	4	$240
Support Stands 12-Ton	Bus Maintenance	4	$240
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Illinois Bus Garage/47th Street

Support Stands 12-Ton	Bus Maintenance	4	$240
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Support Stands 10-Ton	Bus Maintenance	4	$240

Illinois Bus Garage/47th Street

Support Stands 10-Ton	Bus Maintenance	4	$240
Support Stands 10-Ton	Bus Maintenance	4	$240
Automatic Flush Toilet	Restrooms	3	$270
Automatic Flush Toilet	Restrooms	3	$270
Automatic Flush Toilet	Restrooms	3	$270
Automatic Flush Toilet	Restrooms	3	$270
Automatic Flush Toilet	Restrooms	3	$270
Automatic Flush Toilet	Restrooms	3	$270
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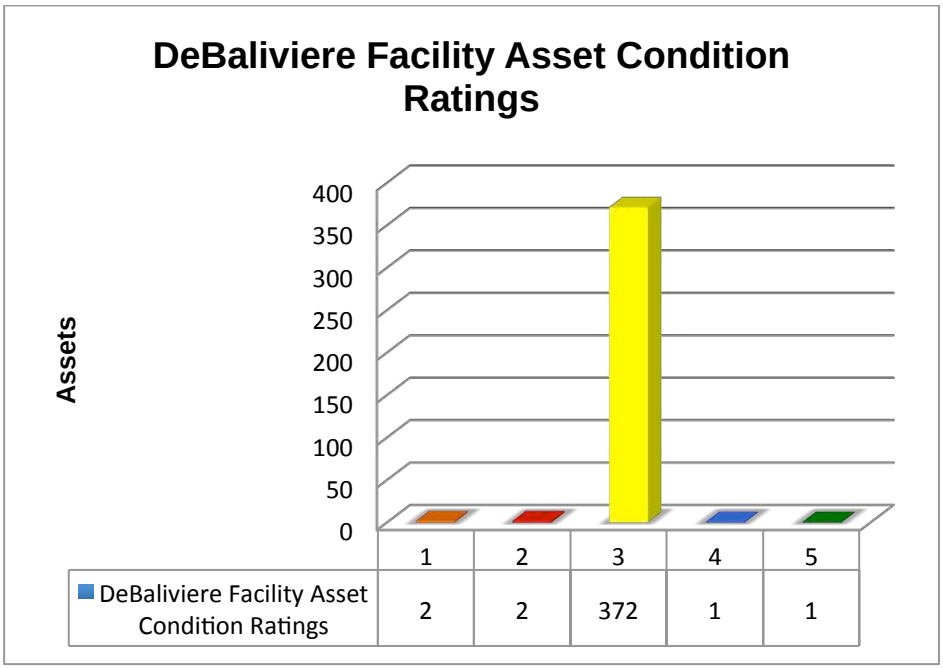
Automatic Flush Toilet	Restrooms	3	$270
Automatic Flush Toilet	Restrooms	3	$270
Automatic Flush Toilet	Restrooms	3	$270
Automatic Flush Toilet	Restrooms	3	$270
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Hand Dryer	Restrooms	2	$456
Total: 382 Units			**$301,930**

DeBaliviere Bus Facility

DeBaliviere facility is located at 539-585 DeBaliviere Ave. The facility was constructed in 1983. Currently the facility has 351,993sq. ft. that supports 180 buses and has a total 378 inventoried assets. Figure 17 illustrates the facilities asset condition rating followed by a list of assets, systems and components.

Figure 17 DeBaliviere Facility Asset Condition Ratings



DeBaliviere Facility			
Name	Location/ GIS Coordinate	Condition	Replacement Cost (CY 2014)
Air Compressor	2nd Floor	3	$2,900
Air Compressor	2nd Floor	3	$2,900
Air Compressor Tank	2nd Floor	3	$750
Air Storage Tank	2nd Floor	3	$3,000
Battery Charger	2nd Floor	3	$550
Bench Grinder	2nd Floor	3	$440.50
Horizontal Band Saw	2nd Floor	3	$1,500
Piston Air Compressor	2nd Floor	3	$2,684
Refrigerated Compressed Air Dryer	2nd Floor	3	$3,000
PRV 39	38.652903, -90.285845	3	$1,200
PRV 7	38.652910, -90.285965	3	$1,200
MAU 5	38.652943, -90.286064	3	$75,000
PRV 5	38.652977, -90.286127	3	$1,200
PRV 40	38.653010, -90.285818	3	$1,200
PRV 12	38.653031, -90.287261	3	$1,200
PRV 28	38.653058, -90.286802	3	$1,200
MAU 4	38.653119, -90.286056	3	$75,000
PRV 16	38.653121, -90.286614	3	$1,200
MAU 3	38.653151, -90.286379	3	$75,000
PRV 6	38.653194, -90.286238	3	$1,200
MAU 11	38.653198, -90.287002	3	$75,000
A/C	38.653222, -90.285801	3	$800
MAU 12	38.653223, -90.287135	3	$75,000
MAU 13	38.653256, -90.287653	3	$75,000
PRV 15	38.653267, -90.286586	3	$1,200
PRV 17	38.653268, -90.286856	3	$1,200
PRV 14	38.653296, -90.286561	3	$1,200
PRV 21	38.653298, -90.286744	3	$1,200
MAU 14	38.653312, -90.288166	3	$75,000
PRV 18	38.653364, -90.286842	3	$1,200
PRV 10	38.653413, -90.286110	3	$1,200
RTU 4	38.653413, -90.288598	3	$75,000
PRV 9	38.653429, -90.285776	3	$1,200
PRV 29	38.653439, -90.287085	3	$1,200
PRV 41	38.653440, -90.288587	3	$1,200
MAU 16	38.653442, -90.288472	3	$75,000
PRV 30	38.653465, -90.287347	3	$1,200
MAU 6	38.653481, -90.286719	3	$75,000
PRV 8	38.653487, -90.285880	3	$1,200
PRV 31	38.653490, -90.287605	3	$1,200
RTU 5	38.653492, -90.286416	3	$75,000
PRV 38	38.653503, -90.288654	3	$1,200

DeBaliviere Facility			
PRV 32	38.653515, -90.287867	3	$1,200
PRV 19	38.653516, -90.286820	3	$1,200
PRV 23	38.653518, -90.287032	3	$1,200
PRV 2	38.653522, -90.286190	3	$1,200
PRV 33	38.653539, -90.288126	3	$1,200
PRV 24	38.653543, -90.287289	3	$1,200
PRV 34	38.653567, -90.288397	3	$1,200
PRV 25	38.653568, -90.287548	3	$1,200
HVAC	38.653570, -90.286312	3	$800
PRV 20	38.653573, -90.286502	3	$1,200
PRV 35	38.653574, -90.288462	3	$1,200
PRV 26	38.653593, -90.287808	3	$1,200
PRV 27	38.653620, -90.288068	3	$1,200
MAU 1	38.653622, -90.285977	3	$75,000
MAU 2	38.653655, -90.286297	3	$75,000
PRV 3	38.653661, -90.286146	3	$1,200
PRV 1	38.653683, -90.285773	3	$1,200
PRV 13	38.653730, -90.286538	3	$1,200
MAU 7	38.653738, -90.286906	3	$75,000
RTU 2	38.653740, -90.288553	3	$75,000
MAU 8	38.653745, -90.287102	3	$75,000
MAU 15	38.653784, -90.288429	3	$75,000
MAU 9	38.653792, -90.287571	3	$75,000
PRV 37	38.653808, -90.288524	3	$1,200
PRV 22	38.653837, -90.286679	3	$1,200
MAU 10	38.653853, -90.288088	3	$75,000
RTU 3	38.653917, -90.288536	3	$75,000
PRV 36	38.653945, -90.288501	3	$1,200
Air Compressor	3rd Floor	3	$7,000
Jib Crane	Battery Room	3	$2,639
Boiler	Boiler Room	3	$9,098
Boiler Pump Motor	Boiler Room	3	$1,000
Booster Pump	Boiler Room	3	$1,302
Hot Water Heater	Boiler Room	2	$6,015
A/C Unit	Bus Maintenance	3	$800
A/C Unit	Bus Maintenance	3	$800
Air Hose Reel	Bus Maintenance	3	$650
Air Hose Reel	Bus Maintenance	3	$650
Air Hose Reel	Bus Maintenance	3	$650
Air Hose Reel	Bus Maintenance	3	$650
Air Hose Reel	Bus Maintenance	3	$650
Air Hose Reel	Bus Maintenance	3	$650
Air Hose Reel	Bus Maintenance	3	$650

DeBaliviere Facility			
Air Hose Reel	Bus Maintenance	3	$650
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Air Hose Reel	Bus Maintenance	3	$650
Air Hose Reel	Bus Maintenance	3	$650
Air Hose Reel	Bus Maintenance	3	$650
Air Hose Reel	Bus Maintenance	3	$650
Air/Hydraulic Jack	Bus Maintenance	3	$2,500
Arbor Press	Bus Maintenance	2	$12,800
Battery Charging Station	Bus Maintenance	3	$850
Crane	Bus Maintenance	3	$10,000
Crane	Bus Maintenance	3	$10,000
Crimper	Bus Maintenance	3	$6,800
Crimper	Bus Maintenance	3	$6,800
Cut-Off Saw	Bus Maintenance	3	$220
Drill Press	Bus Maintenance	3	$2,500
Drill Press	Bus Maintenance	3	$2,000
Drill Press	Bus Maintenance	3	$2,000
Drill Press	Bus Maintenance	3	$2,000
Drill Press	Bus Maintenance	3	$2,000
Drill Press	Bus Maintenance	3	$2,000
Electric Scissor Lift	Bus Maintenance	3	$30,000
Forklift	Bus Maintenance	3	$23,586
Forklift	Bus Maintenance	3	$23,586
Grinder	Bus Maintenance	3	$1,761.29
Grinder	Bus Maintenance	3	$1,761.29
Grinder Buffer	Bus Maintenance	3	$1,761.29
Grinder Buffer	Bus Maintenance	3	$1,761.29
Heavy Duty Shop Press	Bus Maintenance	3	$1,140
Hi-Rise Truck Component Jack	Bus Maintenance	3	$13,000
High Lift Wheel Dolly	Bus Maintenance	3	$2,500
Hydraulic Hand Pump	Bus Maintenance	3	$450

DeBaliviere Facility			
Hydraulic Pump	Bus Maintenance	3	$550
Mobile Engine Crane	Bus Maintenance	3	$1,200
Multi Refrigerant Recycler	Bus Maintenance	3	$10,475
Overhead Door	Bus Maintenance	3	$1,800
Overhead Door	Bus Maintenance	3	$1,800
Portable Battery Charger	Bus Maintenance	3	$804
Portable Evaporative Cooler	Bus Maintenance	3	$3,750
Portable Jack Stand	Bus Maintenance	3	$380
Portable Jack Stand	Bus Maintenance	3	$380
Portable Jack Stand	Bus Maintenance	3	$380
Portable Jack Stand	Bus Maintenance	3	$380
Portable Lift	Bus Maintenance	4	$25,000
Portable Lift	Bus Maintenance	3	$17,000
Portable Lift	Bus Maintenance	3	$17,000
Portable Lift	Bus Maintenance	3	$17,000
Portable Lift	Bus Maintenance	3	$17,000
Portable Lift	Bus Maintenance	3	$17,000
Portable Lift	Bus Maintenance	3	$17,000
Product Hose Reel	Bus Maintenance	3	$719
Product Hose Reel	Bus Maintenance	3	$719
Product Hose Reel	Bus Maintenance	3	$719
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Product Hose Reel	Bus Maintenance	3	$719
Product Hose Reel	Bus Maintenance	3	$719
Product Hose Reel	Bus Maintenance	3	$719
Product Hose Reel	Bus Maintenance	3	$719
Pump Motor	Bus Maintenance	3	$1,300
Pump Motor	Bus Maintenance	3	$1,300
Pump Motor	Bus Maintenance	3	$1,300

DeBaliviere Facility

Pump Motor	Bus Maintenance	3	$1,300
Transmission Jack	Bus Maintenance	3	$3,400
Water Fountain	Bus Maintenance	3	$620
Emergency Exit Door	Bus Parking	3	$940
Overhead Door	Bus Parking	3	$1,800
Sprinkler Valve	Bus Parking	3	$2,995
Sprinkler Valve	Bus Parking	3	$2,995
Wash Rack	Bus Parking	3	$150,173
Wash Rack	Bus Parking	3	$150,173
Fire Door	Bus Parking Entrance	3	$1,800
Roll Up Door	Bus Parking Entrance	3	$1,800
Roll Up Door	Bus Parking Entrance	3	$1,800
A/C Unit	Comm Room	3	$550
Sprinkler Control Panel	Deluge Room	3	$500
Sprinkler Motor	Deluge Room	3	$200
Sprinkler Valve #11	Deluge Room	3	$2,995
Sprinkler Valve #12	Deluge Room	3	$2,995
Dynamometer	Dyna Room	1	$200,000
Refrigerated Air Dryer	Facilities Maintenance	3	$900
Passenger Elevator	Facility	3	$60,000
A/C Unit	Farebox Shack	3	$650
A/C Unit	Fuel Island	3	$425
A/C Unit	Fuel Island	3	$1,250
Cyclone	Fuel Island	3	$200,000
Fuel Pump	Fuel Island	3	$10,000
Fuel Pump	Fuel Island	3	$10,000
Urea System	Fuel Island	3	$1,500
Urea System	Fuel Island	3	$1,500
Urea System	Fuel Island	3	$1,500
Welder	Fuel Island	3	$4,900
Generator	Generator Room	3	$30,000
Digital Torque Tester	Maintenance Office	3	$1,900
A/C Unit	Maintenance Room	3	$700
Expansion Tank	Maintenance Room	3	$800
Water Heater	Maintenance Room	5	$10,900
Water Heater	Maintenance Room	3	$440
Crane	Mezzanine	3	$10,000
Hydraulic Pedalift	Mezzanine	3	$1,500
Pallet Jack	Mezzanine	3	$500
Security Gate	North West	3	$2,700
A/C Unit	Office	3	$800
A/C Unit	Office	3	$800
A/C Unit	Office	3	$800

DeBaliviere Facility			
Security Gate	Parking Lot	3	$41,500
A/C Unit	PBX Room	3	$1,050
Power Washer	Pitts	1	$2,500
Portable Evaporative Cooler	Portable	3	$5,900
Portable Evaporative Cooler	Portable	3	$3,750
Hose Cutter	Pump Room	3	$4,000
Parts Washer	Pump Room	3	$2,905
Pump Motor	Pump Room	3	$1,300
Clean Agent Fire Suppression	Restroom	3	$5,000
Wash Fountain	Restroom	3	$3,500
Wash Fountain	Restroom	3	$3,500
Wash Fountain	Restroom	3	$3,500
Wash Fountain	Restroom	3	$3,500
A/C Unit	ROW	3	$300
Roll Up Door	ROW	3	$1,800
Roll Up Door	ROW	3	$1,800
A/C Unit	ROW Office	3	$300
A/C Unit	ROW Office	3	$300
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
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CO-Ray Vac	Shop Floor	3	$959

DeBaliviere Facility			
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
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CO-Ray Vac	Shop Floor	3	$959

DeBaliviere Facility			
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
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CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
CO-Ray Vac	Shop Floor	3	$959
Golf Cart	Shop Floor	3	$2,300
Golf Cart	Shop Floor	3	$3,000
Steam Room Platform Lift	Steam Room	3	$75,570
A/C Unit	Store Room	3	$500
Crane	Store Room	3	$10,000
Elevator	Store Room	3	TBD
Line Striper	Store Room	3	$3,696
MIG Welder	Store Room	3	$1,200
MIG Welder	Store Room	3	$1,200
MIG Welder	Store Room	3	$1,200
Overhead Door	Store Room	3	$1,800
Portable Evaporative Cooler	Store Room	3	$2,900
Water Storage Tank	Tank Room	3	$17,719.63
Unleaded Fuel Pump	Tank Farm	3	$958
Unleaded Fuel Pump	Tank Farm	3	$958
Soap Tank	Tank Room	3	$761
Wash Rack Soap Tank Motor	Tank Room	3	$3,200
Wash Rack Soap Tank Motor	Tank Room	3	$3,200
Security Gate	West	3	$2,500
A/C Unit	Workout Room	3	$720
Sprinkler Valve	Zone 6	3	$2,995
Sprinkler Valve	Zone 8	3	$2,995
Total: 378 Units			**$1,231,997**

Ewing Rail Facility

Ewing facility is located at 700 South Ewing Street and includes 12 acres of land and contains 168 assets. The facility was constructed in 1992 and also hosts Metro's Operation Control Center (OCC). In addition, the Ewing facility has office space occupied by MOW senior management. Figure 18 illustrates the current condition rating followed by a list of systems and components.

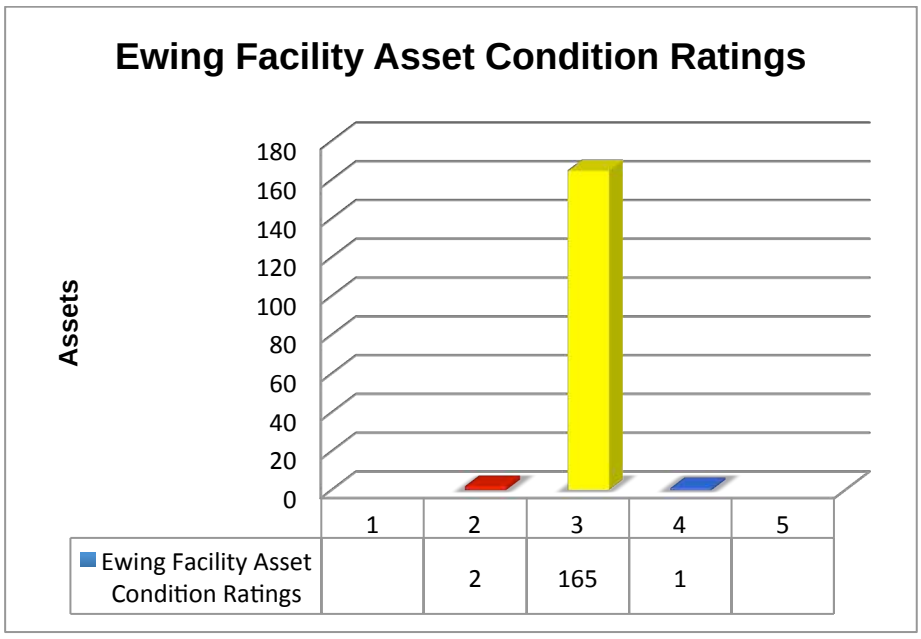

Figure 18 Ewing Facility Asset Condition Ratings

Ewing Facility			
Name	Location/ GIS Coordinate	Condition	Replacement Cost (CY 2014)
Parking Lot	Ewing	3	$70,000
Security Gate	Ewing	3	$200,000
Roof	Ewing	4	$400,000
Plumbing	Entire Building	3	$300,000
Wash Bay	Wash Bay	3	$185,000
Folding Door	Wash Bay	3	$25,000
Folding Door	Wash Bay	3	$25,000
Wash Bay Controller	Wash Bay	3	$10,000
Heater	Wash Bay	3	$5,000
Storage Tank	Wash Bay	3	$6,000
Storage Tank Pump	Wash Bay	3	$6,000
Lighting	Wash Bay	3	$20,000
MAU	Wash Bay	3	$8,000
Exhaust Fan 20	38.625504, -90.221103	3	$5,500
Exhaust Fan 21	38.625450,-90.220859	3	$5,500
Exhaust Fan 22	38.625374,-90.220428	3	$5,500
Mezzanine Walk	Main Shop	3	$50,000
Roll Up Door	Main Shop	3	$10,000
Roll Up Door	Main Shop	3	$10,000
Roll Up Door	Main Shop	3	$10,000
Roll Up Door	Main Shop	3	$10,000
Sky Jack	Main Shop	3	$18,000
Fork Lift	Main Shop	3	$20,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
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Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Mobile Lift	Main Shop	3	$40,000
Overhead Crane	Main Shop	3	$180,000
Heater	Main Shop	3	$5,000
Heater	Main Shop	3	$5,000

Ewing Facility			
Heater	Main Shop	3	$5,000
Heater	Main Shop	3	$5,000
Heater	Main Shop	3	$5,000
Heater	Main Shop	3	$5,000
Heater	Main Shop	3	$5,000
Lighting	Main Shop	3	$80,000
Fork Lift	Main Shop	3	$15,000
Turn Table	Main Shop	3	$120,000
Turn Table	Main Shop	3	$120,000
Turn Table	Main Shop	3	$120,000
Turn Table	Main Shop	3	$120,000
2 Ton Crane	Main Shop	3	$17,000
Miter Band Saw	Main Shop	3	$9,000
Axel Press	Main Shop	3	$130,000
Wheel Retiring Machine	Main Shop	3	$20,000
Press	Main Shop	3	$8,000
LRV Assembly Table 1	Main Shop	3	$40,000
LRV Assembly Table 2	Main Shop	3	$35,000
Hydraulic Lift	Main Shop	3	$6,000
Wheel Press	Main Shop	3	$3,000
Gear Head	Main Shop	3	$15,000
Milling Machine	Main Shop	3	$9,000
Grinder	Main Shop	3	$8,000
Grinder	Main Shop	3	$8,000
Vertical Band Saw	Main Shop	3	$10,000
Press	Main Shop	3	$7,000
Press	Main Shop	3	$9,000
Hacksaw	Main Shop	3	$10,000
Sunnen	Main Shop	3	$7,000
Press	Main Shop	3	$7,000
Truing Machine	Main Shop	3	1 Million
Press	Main Shop	3	$9,000
Overhead Crane	Main Shop	3	$10,000
Roll Up Door	Main Shop	3	$10,000
Roll Up Door	Main Shop	3	$10,000
Eyewash Station	Main Shop	3	$1,000
Sand Blaster	Main Shop	3	$13,000
Powder Coating Oven	Main Shop	3	$2,000
Engine Stand	Main Shop	3	$7,000
Exhaust Fan 1	38.625766,-90.221031	3	$5,500
Exhaust Fan 2	38.625710, -90.221050	3	$5,500
Exhaust Fan 3	38.625636,-90.221050	3	$5,500
Exhaust Fan 4	Main Shop	3	$5,500

DeBaliviere Facility

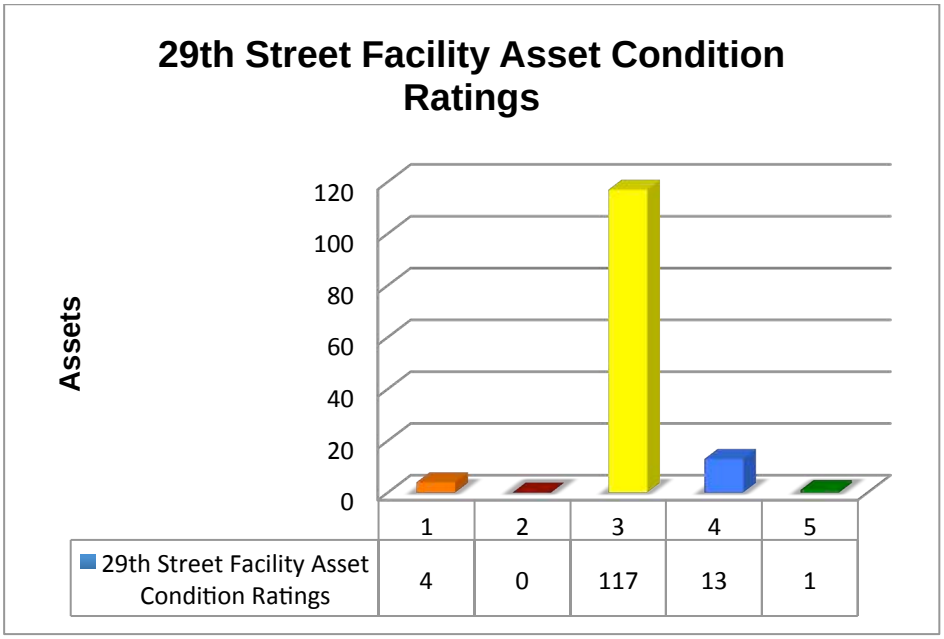
Exhaust Fan 5	Main Shop	3	$5,500
Exhaust Fan 6	Main Shop	3	$5,500
Exhaust Fan 7	Main Shop	3	$5,500
Exhaust Fan 8	Main Shop	3	$5,500
Exhaust Fan 9	Main Shop	3	$5,500
Exhaust Fan 10	Main Shop	3	$5,500
Elevator	Main Shop	3	$20,000
Roll Up Door	Parts Washer Room	3	$5,000
Parts Washer	Parts Washer Room	3	$7,000
Small Parts Washer	Parts Washer Room	3	$17,000
Spray Washer	Parts Washer Room	3	$17,000
Combination Washer	Parts Washer Room	2	$7,000
Overhead Crane	Parts Washer Room	3	$6,000
Eyewash Station	Parts Washer Room	3	$1,000
Welder	Weld Room	3	$5,000
Welder	Weld Room	3	$5,000
Welder	Weld Room	3	$5,000
Welder	Weld Room	3	$5,000
Grinder	Weld Room	3	$6,000
HVAC 1	38625742,-90.220610	2	$100,000
HVAC 2	38.625812,-90.220999	3	$55,000
HVAC 3	38.625899,-90.221062	3	$55,000
Weather Maker I	38.625882,-90.221004	3	$8,000
Weather Maker	38.625882,-90.221004	3	$8,000
Exhaust Fan 13	38.625790, -90.220387	3	$5,500
Exhaust Fan 14	38.5625855, -90.221060	3	$5,500
Exhaust Fan 15	38.625775, -90.220846	3	$5,500
Exhaust Fan 16	38.625850, -90.220726	3	$5,500
Exhaust Fan 17	38.625834, -90.220642	3	$5,500
Exhaust Fan 25	38.625758, -90.220581	3	$5,500
HD 1	38.625758, -90.220395	3	$5,500
Exhaust Fan 19	38.625765, -90.220347	3	$5,500
Exhaust Fan 18	38.625731, -90.220363	3	$5,500
Exhaust Fan 23	38.625731, -90.220363	3	$5,500
Exhaust Fan 24	38.625563, -90.220342	3	$5,500
Exhaust Fan 26	38.625683, -90.220146	3	$5,500
Air Compressor	Mechanic Room	3	$6,000
Dryer	Mechanic Room	3	$8,000
Water Tank	Mechanic Room	3	$8,000
Fire Suppression	Mechanic Room	3	$300,000
Intersoll-Rand 1	Mechanic Room	3	$20,000
Intersoll-Rand 2	Mechanic Room	3	$20,000
Air Tank	Mechanic Room	3	$10,000

DeBaliviere Facility			
Lighting	Blow Down Pit	3	$5,000
Roll Up Door	Blow Down Pit	3	$10,000
Unit Heater	Blow Down Pit	3	$5,000
Emergency Power	Electric Room	3	$100,000
Control Panel	Electric Room	3	$80,000
Emergency Generator 1	Electric Room	3	$16,000
Emergency Generator 2	Electric Room	3	$16,000
Fork Lift	Store Room	3	$15,000
Roll Up Door	Store Room	3	$10,000
Unit Heater	Store Room	3	$5,000
Roll Up Door	Store Room	3	$10,000
DOK-LOK	Store Room	3	$8,000
Roll Up Door	MOW	3	$10,000
Unit Heater	MOW	3	$10,000
FTU 1	Admin	3	$5,000
FTU 2	Admin	3	$5,000
FTU 3	Admin	3	$5,000
FTU 4	Admin	3	$5,000
FTU 5	Admin	3	$5,000
FTU 6	Admin	3	$5,000
FTU 7	Admin	3	$5,000
FTU 8	Admin	3	$5,000
FTU 9	Admin	3	$5,000
FTU 10	Admin	3	$5,000
FTU 11	Admin	3	$5,000
FTU 12	Admin	3	$5,000
FTU 13	Admin	3	$5,000
FTU 14	Admin	3	$5,000
FTU 15	Admin	3	$5,000
FTU 16	Admin	3	$5,000
FTU 17	Admin	3	$5,000
FTU 18	Admin	3	$5,000
FTU 19	Admin	3	$5,000
FTU 20	Admin	3	$5,000
FTU 21	Admin	3	$5,000
FTU 22	Admin	3	$5,000
FTU 23	Admin	3	$5,000
Storage Building	Ewing	3	$800,000
Roll Up Door	Storage Building	3	$10,000
Lighting	Storage Building	3	$40,000
Total: 168 Units			**$5,344,500**

29th Street Facility

29th Street facility is located at 2901 St. Clair Ave., E. St. Louis, IL and includes 51,800 sq. ft. of land and contains 135 assets. The facility was constructed in 2001. In addition, the 29th Street facility contains Metro's only paint facility supporting the LRV fleet.

Figure 19 29th Street Facility Asset Condition Rating



29th Street Facility			
Name	**Location/ GIS Coordinate**	**Condition**	**Replacement Cost (CY 2014)**
Fencing	East Saint Louis	3	$220,000
Security Gate	East Saint Louis	3	TBD
Roof Top	29th Street Roof	3	$500,000
Plumbing	Entire Building	3	$300,000
LRV Wash Bay	Wash Bay	3	$70,000
Wash Bay Washer Controller	Wash Bay	3	TBD
Oil Water Separator	Wash Bay	3	$20,000
Lighting	Wash Bay	3	$20,000
Eye Wash Station	Wash Bay	3	$500
Roll Up Door	Wash Bay	3	$5,000
Roll Up Door	Wash Bay	3	$5,000
Door Opener	Wash Bay	3	$1,000
Door Opener	Wash Bay	3	$1,000
Wash Bay Exhaust Fan 21	38.620639, -90.118023	3	$5,500
Wash Bay Exhaust Fan 22	38.620525, -90.117719	3	$5,500
Wash Bay Exhaust Fan 23	38.620374, -90.117313	3	$5,500
Unit Heater	Wash Bay	3	$4,000
Unit Heater	Wash Bay	3	$4,000
Unit Heater	Wash Bay	3	$4,000
Jib Crane	Store Room	3	$20,000
Fork Lift	Store Room	3	$45,000
DOK-LOK	Store Room	3	$15,000
MAU	Small Parts Booth	4	$22,000
Miller Welder	Small Parts Booth	4	$5,000
Powder Coating Oven	Small Parts Booth	3	$2,000
Dry Blast	Small Parts Booth	3	$13,000
MAU 21	Small Parts Booth	3	$22,000
Combination Washer	Parts Wash Room	1	$7,000
Pressure Washer	Parts Wash Room	1	$17,000
Parts Washer	Parts Wash Room	1	$7,000
Primary Paint Booth	Body Shop	4	$750,000
Secondary Paint Booth	Body Shop	4	TBD
Paint Booth Office	Body Shop	3	TBD
Lighting	Body Shop	3	TBD
Paint Booth Lift	Body Shop	3	TBD
Paint Booth Lift	Body Shop	3	TBD

29th Street Facility			
Miller Welder	Body Shop	5	$5,000
Miller Welder	Body Shop	3	$5,000
Powder Coating Oven	Body Shop	4	$15,000
Paint Booth Oven	Body Shop	4	$15,000
LRV Mover	Body Shop	3	$76,000
Scaffolding	Body Shop	3	$200
Air Compressor	Body Shop	3	$300,000
Exhaust Fan 11	38.620109, -90.117557	4	$10,000
Exhaust Fan 12	38.620098, -90.117523	4	$10,000
Exhaust Fan 13	38.620047, -90.117388	4	$10,000
Exhaust Fan 14	38.620035, -90.117355	4	$10,000
Exhaust Fan 1	38.620045,-90.117470	4	$2,000
Exhaust Fan 2	38.619918,-90.117354	4	$2,000
Exhaust Fan 3	38.620013, -90.117612	4	$2,000
MAU 11	38.620076, -90.117555	3	$80,000
MAU 12	38.620009, -90.117374	3	$80,000
Band saw	Main Shop	3	$9,000
Band saw	Main Shop	1	$9,000
Vertical Saw	Main Shop	3	$10,000
Grinder	Main Shop	3	$8,000
Grinder	Main Shop	3	$9,000
Drill Press	Main Shop	3	$7,000
Drill Press	Main Shop	3	$14,000
Drill Press	Main Shop	3	$7,000
Test Equipment	Main Shop	3	$5,000
Battery Charger	Main Shop	3	$5,000
Oscilloscope	Main Shop	3	$10,000
Crimper	Main Shop	3	$4,400
Recovery Pump	Main Shop	3	$4,000
Hydraulic Lift table	Main Shop	3	$5,000
Overhead Crane	Main Shop	3	$180,000
Man Lift	Main Shop	3	$16,000
Lighting	Main Shop	3	$80,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000

29th Street Facility

Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Mobile Crane	Main Shop	3	$40,000
Jib Crane	Main Shop	3	$10,000
Turn Table	Main Shop	3	$120,000
Unit Heater	Main Shop	3	$5,000
Unit Heater	Main Shop	3	$5,000
Unit Heater	Main Shop	3	$5,000
Unit Heater	Main Shop	3	$5,000
Unit Heater	Main Shop	3	$5,000
Unit Heater	Main Shop	3	$5,000
Unit Heater	Main Shop	3	$5,000
Unit Heater	Main Shop	3	$5,000
Exhaust Fan 1	38.620352, -90.118075	3	$5,000
Exhaust Fan 2	38.620427, -90.118231	3	$5,000
Exhaust Fan 3	38.620413, -90.118192	3	$5,000
Exhaust Fan 4	38.620322, -90.118247	3	$5,000
Exhaust Fan 7	38.620311, -90.117863	3	$5,000
Exhaust Fan 8	38.620334, -90.117729	3	$5,000
Exhaust Fan 9	38.620263, -90.117537	3	$5,000
Exhaust Fan 10	38.620205, -90.117571	3	$5,000
Exhaust Fan 11	38.620208, -90.117387	3	$5,000
Exhaust Fan 12	38.620149, -90.117419	3	$5,000
Exhaust Fan 13	38.620494, -90.118233	3	$5,000
Exhaust Fan 14	38.620383, -90.117929	3	$5,000
Exhaust Fan 15	38.620552, -90.118199	3	$5,000
Exhaust Fan 16	38.620440, -90.117895	3	$5,000
Exhaust Fan 17	38.620614, -90.118165	3	$5,000
Exhaust Fan 18	38.620502, -90.117861	3	$5,000
Exhaust Fan 19	38.620387, -90.117556	3	$5,000
Exhaust Fan 20	38.620276, -90.117252	3	$5,000
Exhaust Fan 24	38.620291, -90.117952	3	$5,000
HVAC 2	38.620298, -90.117924	3	$80,000
Exhaust Fan GS1	38.620264, -90.117625	3	$12,000
Exhaust Fan GS2	38.620400, -90.117747	3	$12,000

29th Street Facility			
Exhaust Fan GS3	38.620475, -90.117949		$12,000
Dust Collector	Mechanical Room	3	$100,000
Air Compressor Dryer	Mechanical Room	3	$6,000
Emergency Power	Electric Room	3	$100,000
FTU 1	Admin	3	$5,000
FTU 2	Admin	3	$5,000
FTU 3	Admin	3	$5,000
FTU 4	Admin	3	$5,000
FTU 5	Admin	3	$5,000
FTU 6	Admin	3	$5,000
FTU 7	Admin	3	$5,000
FTU 8	Admin	3	$5,000
FTU 9	Admin	3	$5,000
FTU 10	Admin	3	$5,000
FTU 11	Admin	3	$5,000
FTU 12	Admin	3	$5,000
FTU 13	Admin	3	$5,000
Total: 135 Units			$2,302,600

Guideway

Currently, Metro's Guideway asset inventory consists of 68 bridges, 8 tunnels, 210 retaining walls, 70 culverts, 3 phases of track, and 2 parking garages totaling 360. Figure 20 and 21 illustrate the asset condition ratings followed by a list of assets, systems and components.

Figure 20 Guideway Asset Condition Ratings

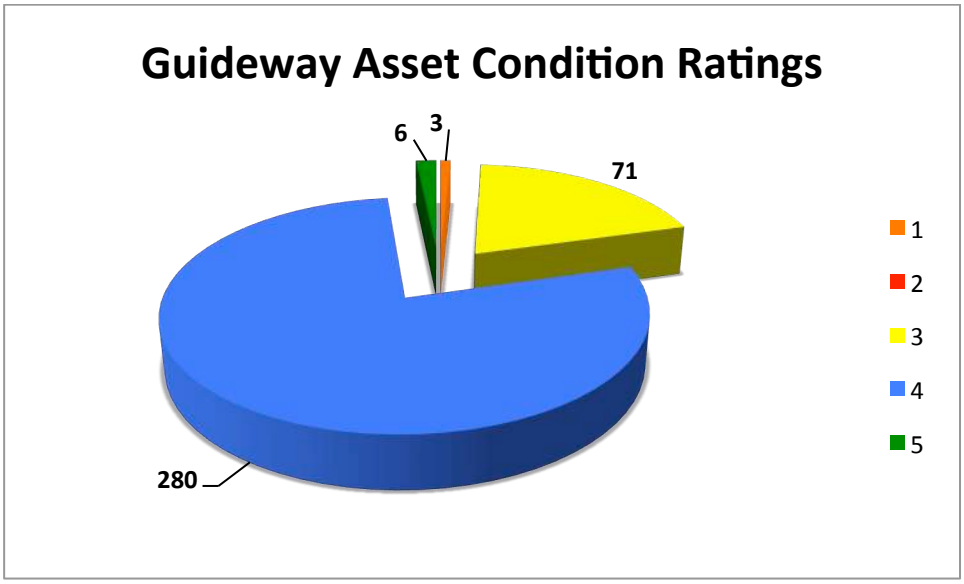
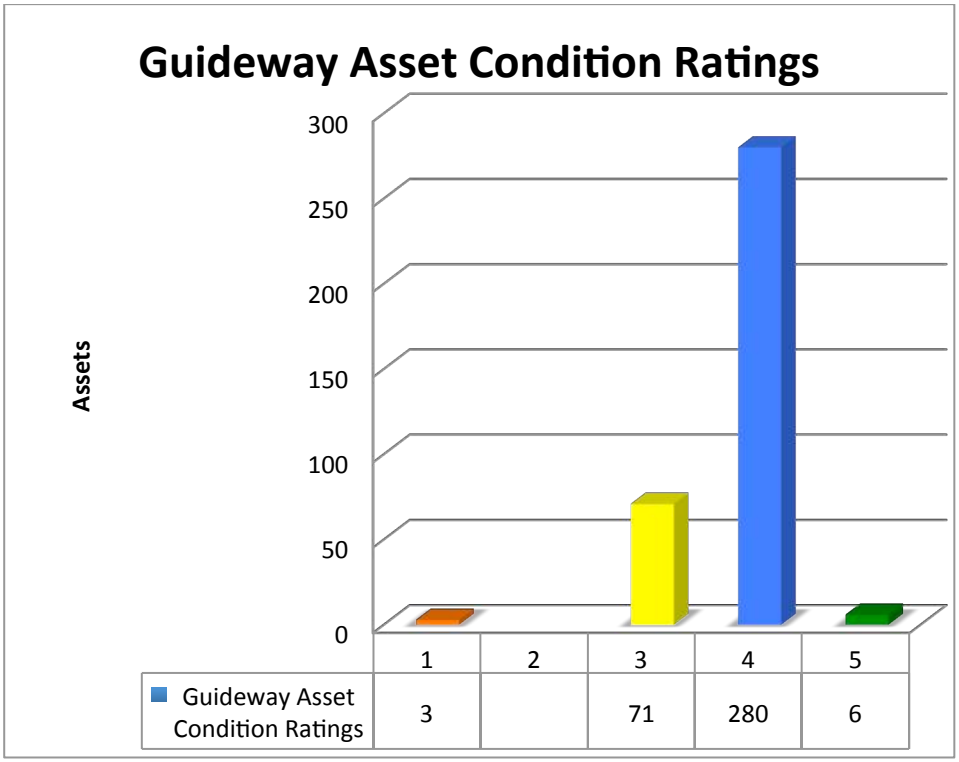


Figure 21 Guideway Asset Condition Ratings



Guideway			
Name	Location	Condition	Replacement Price (CY 2014)
Bridges			
Airport Bridge	Mile Post 0.41	4	$53,636,000
McDonnell Blvd. Bridge	Mile Post 1.31	4	$2,958,000
WB I-70 Bridge	Mile Post 1.84	4	$16,481,000
SB I-170 & EB I-70 Bridge	Mile Post 2	4	$20,094,000
NB I-170 & Ramp 24 Bridge	Mile Post 2.17	4	$8,491,000
Ramp 26 Bridge	Mile Post 2.31	3.5	$4,336,000
Springdale Bridge	Mile Post 2.59	3.5	$5,638,000
North Hanley Road Bridge	Mile Post 3.09	4	$6,849,000
Geiger Road Bridge	Mile Post 3.59	3	$10,746,000
UMSL Garage Bridge	Mile Post 3.87	3	$8,007,000
East Campus Drive Bridge	Mile Post 4	3.5	$9,061,000
Skinker Blvd. Bridge	Mile Post 7.62	3	$7,708,000
DeBaliviere Pedestrian Walkway (West)	Mile Post 8.73	4	$346,000
DeBaliviere Pedestrian Walkway (East)	Mile Post 8.75	4	$346,000
Vandeventer Bridge	Mile Post 11.49	4.5	$7,708,000
18th Street Bridge	Mile Post 13.67	3.5	$4,352,000
16th Street Bridge	Mile Post 13.82	3.5	$2,984,000
Spruce Street Bridge	Mile Post 14.50	1	$4,000,000
Eads Bridge	Mile Post 15.40	3	$658,000,000
East Riverfront Platform	Mile Post 15.90	3	$1,463,000
St. Clair Avenue Bridge	Mile Post 18.01	4	$4,269,000
I-64 & Baugh Bridge	Mile Post 18.06	4.5	$14,424,000
Southern RR Bridge	Mile Post 18.77	4.5	$3,873,000
Terminal RR Bridge	Mile Post 18.90	4.5	$3,247,000
25th Street Bridge	Mile Post 19.20	4.5	$4,016,000
Alton and Southern RR Bridge	Mile Post 20.18	3	$4,016,000
Harding Ditch Bridge	Mile Post 21.86	4.5	$2,262,000
79th Street Bridge	Mile Post 22.66	4.5	$2,402,000
Negro Hollow Creek Bridge	Mile Post 24.61	45	$3,288,000
Schoenberger Creek Bridge	Mile Post 26.06	4.5	$2,225,000
Dutch Hollow Road Bridge	Mile Post 26.27	4.5	$4,414,000
Llewelyn Road Bridge	Mile Post 26.38	4.5	$3,683,000
Schoenberger Creek Bridge	Mile Post 26.91	3.5	$2,259,000
Fullerton Road Bridge	Mile Post 28.96	4.5	$3,546,000
Swansea Creek Bridge	Mile Post 29.47	4.5	$1,356,000
Swansea Creek Bridge	Mile Post 29.65	4.5	$1,265,000
IL Route 159 Bridge	Mile Post 29.85	4.5	$4,584,000
Norfolk Southern RR Bridge	Mile Post 30.17	4.5	$4,322,000
B Street Bridge	Mile Post 31.01	4.5	$1,389,000
Main Street Bridge	Mile Post 31.25	4.5	$1,358,000
Carlyle Avenue Bridge	Mile Post 31.43	4.5	$3,436,000

Guideway: Bridges			
McClintock Drive Bridge	Mile Post 31.65	4.5	$1,288,000
Loop Creek Bridge	Mile Post 33.17	4	$1,688,000
Green Mount Road Bridge	Mile Post 33.42	4.5	$2,595,000
Little Loop Creek Bridge	Mile Post 33.47	4.5	$1,652,000
Illinois Route 161 Bridge	Mile Post 34.48	4.5	$5,855,000
Buss Farm Creek Bridge	Mile Post 35.36	3	$2,014,000
Loop Creek Bridge	Mile Post 36.16	3.5	$2,387,000
Norfolk Southern RR Bridge	Mile Post 37.27	4.5	$24,782,000
Des Peres Ave. Pedestrian Bridge	Mile Post CC 0.54	3.5	$876,000
Forsyth Blvd. Bridge	Mile Post CC 2.43	4	$11,831,000
Bridge 2.77 - Hanley	Mile Post CC 2.77	4.5	$1,704,000
Clayton Central Pedestrian Bridge	Mile Post CC 3.10	4.5	$584,000
Bridge 3.19 - Brentwood	Mile Post CC 3.19	4	$2,739,000
Bridge 3.29 - Forest Park Parkway	Mile Post CC 3.29	4	$13,275,000
Bridge 3.82 - Brentwood	Mile Post CC 3.82	3.5	$2,170,000
Bridge 4.02 - Clayton	Mile Post CC 4.02	3.5	$1,775,000
Bridge 4.32 - Linden	Mile Post CC 4.32	4.5	$1,844,000
Bridge 5.05 - Strassner	Mile Post CC 5.05	4	$18,562,000
Bridge 5.43 - Hanley	Mile Post CC 5.43	3	$5,338,000
Bridge 5.75 - Black Creek	Mile Post CC 5.75	4.5	$4,278,000
Black Creek Pedestrian Bridge	Mile Post CC 5.75	4.5	$1,070,000
Bridge 5.87 - Manchester	Mile Post CC 5.87	4	$3,320,000
Bridge 5.96 - Sunnen	Mile Post CC 5.96	4.5	$863,000
Bridge 6.43 - UPRR	Mile Post CC 6.43	3.5	$11,236,000
Bridge 6.77 - Big Bend	Mile Post CC 6.77	4.5	$4,913,000
Bridge 7.15 - BNSF/I-44	Mile Post CC 7.15	4	$20,532,000
Bridge 7.61 - Shrewsbury	Mile Post CC 7.61	4.5	$2,000,000
Tunnels			
North UMSL Tunnel	Mile Post 3.74	4	$12,410,000
Union Station Tunnel	Mile Post 13.60	1	$42,151,000
Downtown Tunnel	Mile Post 14.60	3	$120,000,000
A-Street Pedestrian Tunnel	Mile Post 31.14	4	$400,000
Tunnel #1	Mile Post CC 0.02	4	$14,967,000
Tunnel #2	Mile Post CC 0.70	3	$15,576,000
Tunnel #3	Mile Post CC 1.50	3	$45,862,000
Tunnel #4	Mile Post CC 4.60	4	$7,109,000
Retaining Walls			
MSE wall - Large Panel	Mile Post 0.9	4	$1,106,000
CIP Reinforced Concrete	Mile Post 0.94	4	$691,000
CIP Reinforced Concrete	Mile Post 0.94	4	$306,000
CIP Reinforced Concrete Boat Section	Mile Post 1.02	4	$3,900,000

Guideway: Retaining Walls

CIP Reinforced Concrete	Mile Post 1.1	4	$1,699,000
MSE wall - Large Panel	Mile Post 1.24	4	$756,000
CIP Reinforced Concrete Boat Section	Mile Post 1.3	4	$526,000
CIP Reinforced Concrete Boat Section	Mile Post 1.33	4	$489,000
CIP Reinforced Concrete	Mile Post 1.39	4	$386,000
Soldier Pile	Mile Post 2.2	4	$572,000
MSE wall - Large Panel	Mile Post 2.45	4	$2,301,000
MSE wall - Large Panel	Mile Post 2.96	4	$5,438,000
CIP Reinforced Concrete	Mile Post 3.07	4	$1,796,000
CIP Reinforced Concrete	Mile Post 3.08	4	$3,406,000
CIP Reinforced Concrete	Mile Post 3.08	4	$256,000
Boat Section	Mile Post 3.12	4	$968,000
CIP Reinforced Concrete	Mile Post 3.12	4	$217,000
CIP Reinforced Concrete	Mile Post 3.15	4	$1,394,000
CIP Reinforced Concrete Boat Section	Mile Post 3.63	4	$310,000
CIP Reinforced Concrete Boat Section	Mile Post 3.76	4	$262,000
Soldier Pile	Mile Post 3.8	4	$208,000
CIP Reinforced Concrete	Mile Post 3.81	4	$860,000
CIP Reinforced Concrete	Mile Post 3.81	4	$411,000
CIP Reinforced Concrete	Mile Post 3.95	4	$155,000
CIP Reinforced Concrete	Mile Post 3.95	4	$233,000
Gabions	Mile Post 4.3	4	$464,000
Soldier Pile	Mile Post 4.38	4	$1,758,000
CIP Reinforced Concrete	Mile Post 4.4	4	$317,000
Soldier Pile with Anchors	Mile Post 4.49	4	$1,618,000
MSE wall - Small block	Mile Post 4.5	4	$228,000
MSE wall - Small block	Mile Post 4.68	4	$626,000
CIP Reinforced Concrete	Mile Post 4.92	4	$956,000
MSE Wall - Small block	Mile Post 5.18	4	$1,161,000
MSE wall - Small block	Mile Post 5.5	4	$850,000
MSE wall - Small block	Mile Post 6.06	4	$247,000
MSE wall - Small block	Mile Post 6.65	4	$763,000
CIP Reinforced Concrete	Mile Post 8.43	4	$2,975,000
CIP Reinforced Concrete	Mile Post 8.43	4	$2,975,000
CIP Reinforced Concrete with Architectural Finish	Mile Post 12.88	4	$5,096,000
CIP Reinforced Concrete	Mile Post 13.39	5	$233,000
CIP Reinforced Concrete	Mile Post 13.39	3	$233,000
CIP Reinforced Concrete	Mile Post 13.98	4	$775,000
MSE wall - Small block	Mile Post 14.01	4	$775,000
MSE wall - Small block	Mile Post 18.17	4	$978,000
MSE wall - Small block	Mile Post 18.17	4	$1,561,000
MSE wall - Small block	Mile Post 18.7	4	$1,400,000
MSE wall - Small block	Mile Post 18.79	1	$4,524,000

MSE wall - Small block	Mile Post 18.92	4	$2,188,000
MSE wall - Small block	Mile Post 20.05	4	$2,721,000
MSE wall - Small block	Mile Post 20.12	3	$1,417,000
MSE wall - Small block	Mile Post 20.22	4	$1,965,000
MSE wall - Small block	Mile Post 20.22	4	$1,643,000
MSE wall - Small block	Mile Post 22.58		$1,061,000
MSE wall - Small block	Mile Post 22.6	4	$1,013,000
MSE wall - Small block	Mile Post 22.67	4	$1,044,000
MSE wall - Small block	Mile Post 22.68	4	$1,236,000
MSE wall - Small block	Mile Post 23.5	4	$118,000
MSE Wall - Small Block	Mile Post 23.79	4	$219,000
MSE wall - Small block	Mile Post 24.63	4	$39,000
MSE wall - Small block	Mile Post 25.01	4	$99,000
MSE wall - Small block	Mile Post 25.13	4	$664,000
Gabions	Mile Post 25.2	4	$589,000
MSE wall - Small block	Mile Post 25.22	4	$153,000
MSE wall - Small block	Mile Post 25.25	3	$249,000
Steel sheet piles	Mile Post 25.4	3	$799,000
MSE wall - Small block	Mile Post 25.63	4	$278,000
MSE wall - Small block	Mile Post 25.78	4	$339,000
MSE wall - Small block	Mile Post 25.97	3	$335,000
MSE wall - Small block	Mile Post 26.03	4	$243,000
MSE wall - Small block	Mile Post 26.08	3	$162,000
MSE wall - Small block	Mile Post 26.08	4	$44,000
MSE wall - Small block	Mile Post 26.32	4	$269,000
MSE wall - Small block	Mile Post 26.43	4	$441,000
MSE wall - Small block	Mile Post 26.76	4	$53,000
MSE wall - Small block	Mile Post 26.82	4	$81,000
MSE wall - Small block	Mile Post 26.88	4	$204,000
MSE wall - Small block	Mile Post 26.92	4	$147,000
MSE wall - Small block	Mile Post 26.95	4	$695,000
MSE wall - Small block	Mile Post 27.06	3	$448,000
MSE wall - Small block	Mile Post 27.12	5	$234,000
MSE wall - Small block	Mile Post 27.29	4	$359,000
MSE wall - Small block	Mile Post 27.33	5	$222,000
MSE wall - Small block	Mile Post 27.37	4	$310,000
MSE wall - Small block	Mile Post 27.4	4	$429,000
MSE wall - Small block	Mile Post 28.52	4	$316,000
MSE wall - Small block	Mile Post 28.83	4	$326,000
MSE wall - Small block	Mile Post 29.13	4	$275,000
MSE wall - Small block	Mile Post 29.58	3	$212,000
MSE wall - Small block	Mile Post 29.63	4	$378,000
MSE wall - Small block	Mile Post 29.67	4	$472,000

Guideway: Retaining Walls			
MSE wall - Small block	Mile Post 29.99	4	$1,232,000
CIP Reinforced Concrete	Mile Post 30.3	4	$1,024,000
CIP Reinforced Concrete	Mile Post 30.36	4	$1,042,000
MSE wall - Small block	Mile Post 30.79	4	$2,509,000
MSE wall - Small block	Mile Post 30.79	4	$2,387,000
MSE wall - Small block	Mile Post 31.02	3	$2,738,000
MSE wall - Small block	Mile Post 31.02	4	$2,931,000
MSE wall - Small block	Mile Post 31.27	4	$1,857,000
MSE wall - Small block	Mile Post 31.27	4	$947,000
MSE wall - Small block	Mile Post 31.42	4	$137,000
MSE wall - Small block	Mile Post 31.47	3	$220,000
MSE wall - Small block	Mile Post 31.56	4	$740,000
MSE wall - Small block	Mile Post 31.59	4	$767,000
MSE wall - Small block	Mile Post 31.66	4	$1,071,000
MSE wall - Small block	Mile Post 31.66	3	$616,000
MSE wall - Small block	Mile Post 32.01	4	$193,000
MSE wall - Small block	Mile Post 34.09	4	$455,000
CIP Reinforced Concrete	Mile Post 36.98	4	$642,000
CIP Reinforced Concrete	Mile Post 37.04	3	$261,000
Soil Nail Wall	Mile Post 37.07	3	$1,534,000
MSE wall - Small block	Mile Post 37.22	3	$675,000
MSE wall - Small block	Mile Post 37.34	3	$519,000
CIP Reinforced Concrete	Mile Post 37.72	3	$87,000
CIP Reinforced Concrete	Mile Post 8.7	3	$5,599,000
Soil Nail Wall	Mile Post 8.8	3	$461,000
CIP Reinforced Concrete	Mile Post 8.85	4	$3,338,000
CIP Reinforced Concrete	Mile Post 9.1	3	$4,213,000
CIP Reinforced Concrete	Mile Post CC0.01	3	$655,000
CIP Reinforced Concrete	Mile Post CC0.06	3	$2,736,000
CIP Reinforced Concrete	Mile Post CC0.08	3	$1,034,000
CIP Reinforced Concrete	Mile Post CC0.08	3	$1,034,000
CIP Reinforced Concrete	Mile Post CC0.12	4	$17,877,000
CIP Reinforced Concrete	Mile Post CC0.12	4	$17,877,000
CIP Reinforced Concrete	Mile Post CC0.63	4	$1,762,000
CIP Reinforced Concrete	Mile Post CC0.91	4	$2,642,000
CIP Reinforced Concrete	Mile Post CC0.97	4	$2,060,000
CIP Reinforced Concrete	Mile Post CC0.97	3	$1,624,000
CIP Reinforced Concrete	Mile Post CC1.03	4	$145,000
CIP Reinforced Concrete	Mile Post CC1.03	4	$145,000
CIP Reinforced Concrete	Mile Post CC1.31	4	$1,007,000
CIP Reinforced Concrete	Mile Post CC1.31	4	$1,007,000
CIP Reinforced Concrete	Mile Post CC1.34	4	$336,000
CIP Reinforced Concrete	Mile Post CC1.41	4.5	$2,206,000

Guideway: Retaining Walls			
CIP Reinforced Concrete	Mile Post CC2.51	4.5	$3,089,000
CIP Reinforced Concrete	Mile Post CC2.59	4.5	$504,000
CIP Reinforced Concrete	Mile Post CC2.59	4.5	$504,000
CIP Reinforced Concrete	Mile Post CC2.63	4.5	$82,000
CIP Reinforced Concrete	Mile Post CC2.63	4.5	$1,083,000
MSE wall - Small block	Mile Post CC2.70	4.5	$602,000
CIP Reinforced Concrete	Mile Post CC2.79	4.5	$397,000
CIP Reinforced Concrete	Mile Post CC2.81	4.5	$400,000
CIP Reinforced Concrete	Mile Post CC2.81	4.5	$417,000
CIP Reinforced Concrete	Mile Post CC2.83	4.5	$4,322,000
CIP Reinforced Concrete	Mile Post CC2.87	4.5	$149,000
CIP Reinforced Concrete	Mile Post CC2.87	4.5	$149,000
CIP Reinforced Concrete	Mile Post CC2.95	4.5	$740,000
CIP Reinforced Concrete	Mile Post CC2.95	4.5	$745,000
CIP Reinforced Concrete	Mile Post CC2.96	4	$4,771,000
MSE wall - Small block	Mile Post CC2.96	4.5	$527,000
MSE wall - Small block	Mile Post CC3.10	4.5	$703,000
MSE wall - Small block	Mile Post CC3.11	4.5	$297,000
CIP Reinforced Concrete	Mile Post CC3.14	4.5	$942,000
CIP Reinforced Concrete	Mile Post CC3.23	4.5	$757,000
CIP Reinforced Concrete	Mile Post CC3.23	4.5	$545,000
MSE wall - Small block	Mile Post CC3.23	4.5	$394,000
MSE wall - Small block	Mile Post CC3.24	4.5	$418,000
MSE wall - Small block	Mile Post CC3.24	4.5	$479,000
CIP Reinforced Concrete	Mile Post CC3.28	4.5	$204,000
CIP Reinforced Concrete	Mile Post CC3.53	4.5	$477,000
MSE wall - Small block	Mile Post CC3.54	4.5	$436,000
CIP Reinforced Concrete	Mile Post CC3.59	4.5	$310,000
MSE wall - Small block	Mile Post CC3.64	4.5	$2,069,000
CIP Reinforced Concrete	Mile Post CC3.69	4.5	$74,000
CIP Reinforced Concrete	Mile Post CC3.71	4.5	$299,000
CIP Reinforced Concrete	Mile Post CC3.74	4	$292,000
CIP Reinforced Concrete	Mile Post CC3.81	4.5	$71,000
CIP Reinforced Concrete	Mile Post CC3.84	4.5	$1,112,000
CIP Reinforced Concrete	Mile Post CC3.88	4.5	$379,000
CIP Reinforced Concrete	Mile Post CC3.92	4.5	$389,000
CIP Reinforced Concrete	Mile Post CC3.95	4	$387,000
CIP Reinforced Concrete	Mile Post CC3.95	4.5	$1,192,000
CIP Reinforced Concrete	Mile Post CC4.05	4.5	$654,000
MSE wall - Small block	Mile Post CC4.14	4	$24,000
MSE wall - Small block	Mile Post CC4.15	4.5	$253,000
MSE wall - Small block	Mile Post CC4.16	4.5	$490,000
CIP Reinforced Concrete	Mile Post CC4.26	4.5	$478,000

Guideway: Retaining Walls			
MSE wall - Small block	Mile Post CC4.32	4.5	$34,000
MSE wall - Small block	Mile Post CC4.34	4.5	$158,000
CIP Reinforced Concrete	Mile Post CC4.43	4.5	$473,000
CIP Reinforced Concrete	Mile Post CC4.43	4.5	$476,000
CIP Reinforced Concrete	Mile Post CC4.47	4.5	$7,171,000
Soldier Pile	Mile Post CC4.73	4.5	$2,688,000
Soldier Pile	Mile Post CC4.73	4.5	$2,416,000
CIP Reinforced Concrete	Mile Post CC4.84	5	$325,000
MSE wall - Small block	Mile Post CC4.90	4.5	$42,000
MSE wall - Small block	Mile Post CC4.95	4.5	$528,000
MSE wall - Small block	Mile Post CC4.95	4.5	$528,000
MSE wall - Small block	Mile Post CC5.31	5	$444,000
MSE wall - Small block	Mile Post CC5.31	4.5	$444,000
MSE wall - Small block	Mile Post CC5.49	5	$397,000
MSE wall - Small block	Mile Post CC5.50	4.5	$1,173,000
Soldier Pile	Mile Post CC5.55	4.5	$1,218,000
MSE wall - Small block	Mile Post CC5.70	4.5	$324,000
MSE wall - Small block	Mile Post CC5.70	4.5	$333,000
MSE wall - Small block	Mile Post CC5.80	4.5	$550,000
MSE wall - Small block	Mile Post CC5.81	4.5	$586,000
MSE wall - Small block	Mile Post CC5.83	4.5	$643,000
MSE wall - Small block	Mile Post CC5.90	4.5	$250,000
MSE wall - Small block	Mile Post CC5.90	4.5	$389,000
MSE wall - Small block	Mile Post CC5.96	4.5	$119,000
MSE wall - Small block	Mile Post CC5.97	4.5	$671,000
CIP Reinforced Concrete	Mile Post CC6.04	4	$708,000
MSE wall - Small block	Mile Post CC6.13	4.5	$532,000
CIP Reinforced Concrete	Mile Post CC6.18	4.5	$932,000
CIP Reinforced Concrete	Mile Post CC6.18	4.5	$799,000
MSE wall - Small block	Mile Post CC6.64	4.5	$2,678,000
MSE wall - Small block	Mile Post CC6.75	4.5	$507,000
MSE wall - Small block	Mile Post CC6.85	4.5	$1,796,000
MSE wall - Small block	Mile Post CC6.85	4.5	$1,872,000
MSE wall - Small block	Mile Post CC7.02	4.5	$709,000
MSE wall - Small block	Mile Post CC7.03	4.5	$50,000
Culverts			
12' x 12' Box Culvert Extended	Mile Post 1.43	4	$905,000
10" x 12" Triple Box Culvert (Existing)	Mile Post 2.46	4	$1,938,000
12' x 16.5' Box Culvert	Mile Post 4.89	3	$119,000
10' x 3' Box Culvert (Existing)	Mile Post 5.47	4	$237,000
20' x 10' Box Culvert (Existing)	Mile Post 6.60	3.5	$591,000
17' x 5.4' Box Culvert	Mile Post 7.39	3.5	$886,000
Pipe Culvert 19.99 - 18" (Inside) 0 (Precast)	Mile Post 19.99	4	$17,000

Guideway: Culverts			
Box Culvert 20.16 - 8'-0"R x 10'-0"S	Mile Post 20.16	4.5	$469,000
Box Culvert 21.06 - 4'-0"R x 8'-0"S	Mile Post 21.06	4.5	$190,000
Pipe Culvert 21.55 - 36" (Inside) 0 (Precast)	Mile Post 21.55	3.5	$24,000
Double Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 21.97	4	$147,000
Double Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22	4	$147,000
Double Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.03	4	$147,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.78	4	$180,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.79	4	$180,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.80	4	$180,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.81	4	$180,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.82	4	$180,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.83	4	$180,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.84	4	$180,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.85	4	$180,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.86	4	$180,000
Triple Box Culvert 2'-0"R x 4'-0"S.E.C	Mile Post 22.87	4	$180,000
Box Culvert 12'-0"Rx 10'-0"S	Mile Post 23.51	3.5	$503,000
Triple Box Culvert 2'-10"R x 12'-0"S & 1-12'x12')	Mile Post 23.81	3	$3,518,000
Box Culvert 5'-0"R x 12'-0"S (CIP)	Mile Post 24.06	4.5	$268,000
Pipe Culvert 30" (Inside) 0 (Precast)	Mile Post 24.82	4.5	$18,000
Pipe Culvert 60" 0 I.D.	Mile Post 25.12	4.5	$89,000
Pipe Culvert 42" 0 I.D.	Mile Post 25.23	4.5	$27,000
Pipe Culvert 48" 0 I.D.	Mile Post 25.39	4	$166,000
Double Pipe Culvert 60" 0 I.D. E.C.	Mile post 25.58	4	$89,000
Pipe Culvert 60" 0 I.D. (Precast)	Mile post 25.64	3.5	$89,000
Double Pipe Culvert 48" 0 I.D. E.C. (Precast)	Mile post 25.87	4	$111,000
Pipe Culvert 48" 0 I.D. (Precast)	Mile Post 26.54	4.5	$56,000
Pipe Culvert 24" 0 I.D.	Mile Post 26.78	3.5	$13,000
Pipe Culvert 36" 0 I.D.	Mile Post 27.04	3.5	$30,000
Box Culvert 27.29 9'-0" x 9'-0" (CIP)	Mile Post 27.29	3	$896,000
Box Culvert 27.41 6'-0"R x 8'-0"S (CIP)	Mile Post 27.41	4	$734,000
Twin Pipe Culvert 48" 0 I.D. E.C. (Precast)	Mile Post 27.57	3	$362,000
Box Culvert 28.34 10'-0" x 10'-0" (CIP)	Mile Post 28.34	4	$824,000
Pipe Culvert 28.48 - 36" 0 I.D. (Precast)	Mile Post 28.48	4	$66,000
Box Culvert 28.55 6'-0"R x 8'-0"S	Mile Post 28.55	3.5	$631,000
Box Culvert 28.81 6'-0"R x 8'-0"S	Mile Post 28.81	3.5	$635,000
Pipe Culvert 29.05 - 42" 0 I.D. (Precast)	Mile Post 29.05	4	$83,000
Pipe Culvert 29.10 - 30" 0 I.D. (Precast)	Mile Post 29.10	3.5	$32,000
Twin Pipe Culvert 29.30 48" 0 I.D. E.C. (Precast)	Mile Post 29.30	3.5	$130,000
Pipe Culvert 29.93 48" 0 I.D. E.C. (Precast)	Mile Post 29.93	3.5	$48,000
Pipe Culvert 30.04 48" 0 I.D.	Mile Post 30.04	4	$185,000

Guideway: Culverts			
Twin Box Culvert 31.78 8'-0"R x 12'-0"S E.C. (CIP)	Mile Post 31.78	3.5	$828,000
Triple Pipe Culvert 32.03 42" 0 I.D. E.C. (Precast)	Mile Post 32.03	3.5	$93,000
Triple Pipe Culvert 32.25 42" 0 I.D. E.C. (Precast)	Mile Post 32.25	3.5	$77,000
Pipe Culvert 32.35 18" 0 I.D. (Precast)	Mile Post 32.35	4	$11,000
Twin Box Culvert 33.74 5'-0"R x 8'-0"S E.C. (CIP)	Mile Post 33.74	3	$488,000
Twin Box Culvert 33.92 5'-0"R x 8'-0"S E.C. (CIP)	Mile Post 33.92	4	$498,000
3-Precast Box Culvert 34.68 2'-0"R x 4'-0"S E.C.	Mile Post 34.68	4	$130,000
2-Precast Box Culvert 34.71 2'-0"R x 4'-0"S E.C.	Mile Post 34.71	4	$93,000
Cast in Place Box Culvert 35.27 5'-0"R x 8'-0"S	Mile Post 35.27	3	$267,000
Cast in Place Box Culvert 35.27 5'-0"R x 9'-0"S	Mile Post 35.56	3.5	$68,000
CIP Concrete Box	Mile Post 35.72	4	$227,000
Precast Concrete Triple Pipe	Mile Post 35.80	4	$112,000
Precast Concrete Triple Pipe	Mile Post 36.27	4.5	$72,000
Precast Concrete Triple Pipe	Mile Post 36.36	4	$71,000
4-Precast Box Culvert 36.54 2'-0"R x 4'-0"S E.C.	Mile Post 36.54	4	$216,000
2-Precast Box Culvert 36.59 2'-0"R x 4'-0"S E.C.	Mile Post 36.59	4	$151,000
2-Precast Box Culvert 36.67 2'-0"R x 4'-0"S E.C.	Mile Post 36.67	4	$124,000
2-Precast Box Culvert 36.70 2'-0"R x 4'-0"S E.C.	Mile Post 36.70	4	$116,000
1-Precast Box Culvert 36.77 2'-0"R x 4'-0"S	Mile Post 36.77	4	$74,000
2 - Cast in Place Box Culvert 36.79 57'-0"R x 14'-0"S	Mile Post 36.79	3.5	$881,000
3 -36" 0 Concrete Pipe Culvert 36.81 (Precast)	Mile Post 36.81	4	$110,000
Precast Concrete Quad Pipe	Mile Post 37.51	4	$197,000
Track			
Phase 1	Mile Post 0.0-1 to 16.9-02	3	$59,500,000
Phase 2	Mile Post 17.0-01 to 37.8-07	4	$73,100,000
Phase 3	Mile Post CC0.0-01 to CC7.6-03	3	$31,500,000
Parking Garages			
Meridian Parking Garage	1451 S. Hanley Rd.	4	$17,358,000
North Hanley Parking Garage	4300 N. Hanley Rd.	4	$20,460,000
Total: 362 Units			**$1,784,085,000**

Systems

Currently, Metro's Systems asset inventory consists of 31 traction power substations and 39 signal houses, 439 fareboxes, 50 cash receivers, 4 garage data management systems, 291 ticket validation machines. Figure 22 and 23 illustrate the asset condition ratings followed by a list of the asset's location and replacement cost.

Figure 22 System Asset Condition Ratings

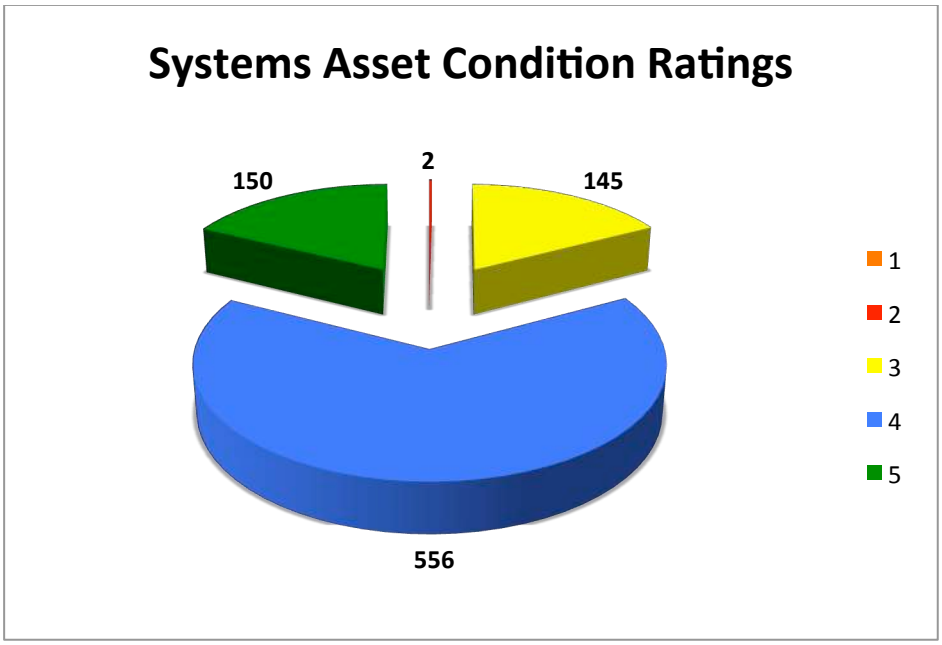
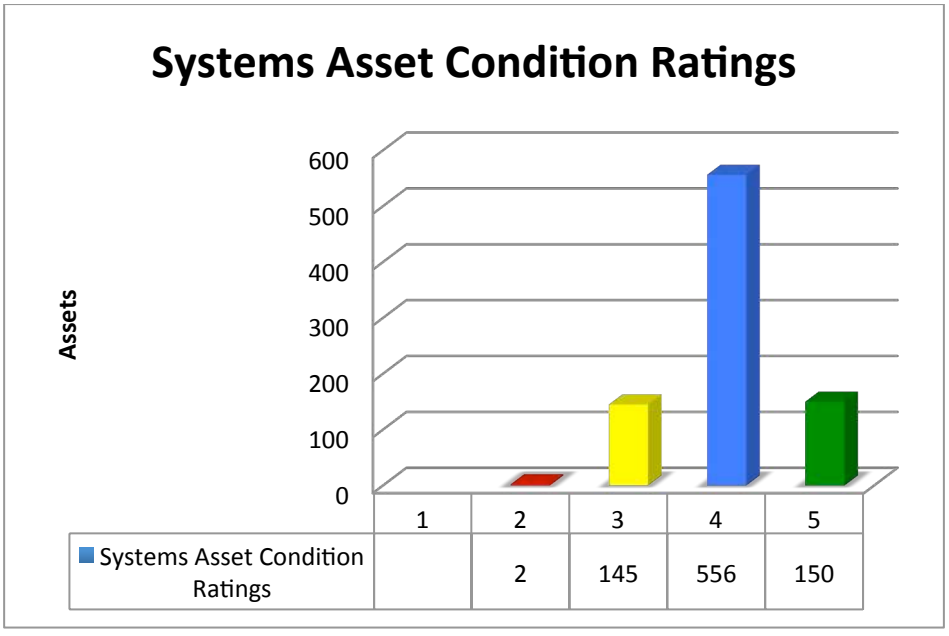


Figure 23 Systems Asset Condition Ratings



Systems			
Name	**Location**	**Condition**	**Replacement Cost (CY 2014)**
Substations			
Sub-Station IL-01	100 North 5th Street	4	$1,507,640
Sub-Station IL-02	219 North 5th Street	4	$1,321,470
Sub-Station IL-03	1601 Parsons Avenue	4	$1,321,470
Sub-Station IL-04	950 North 31st Street	4	$1,321,470
Sub-Station IL-05	6456 St. Clair Avenue	4	$1,321,470
Sub-Station IL-06	8831 St. Clair Avenue	4	$1,321,470
Sub-Station IL-07	2209 Dutch Hollow Road	4	$1,321,470
Sub-Station IL-08	1550 Flanagan Road	4	$1,321,470
Sub-Station IL-09	2808 Old Caseyville Road	4	$1,321,470
Sub-Station IL-10	920 North Charles Street	4	$1,321,470
Sub-Station IL-11	700 South McKinley Drive	4	$1,321,470
Sub-Station IL-12	2626 Carlyle Avenue	4	$1,321,470
Sub-Station IL-13	1090 Shiloh Station Road	4	$1,321,470
Sub-Station IL-14	872 Section Line Rd.	4	$1,321,470
Sub-Station MO-01	61 North 2nd Street	3	$1,507,640
Sub-Station MO-02	949 Poplar Street	3	$1,507,640
Sub-Station MO-03	326 South 21st Plaza Dr.	4	$2,003,064
Sub-Station MO-04	540 Ewing Street	3	$1,507,640
Sub-Station MO-05	3500 Scott Avenue	3	$1,507,640
Sub-Station MO-06	411 South Taylor	3	$1,507,640
Sub-Station MO-07	274 DeBaliviere	3	$1,507,640
Sub-Station MO-08	6410 Plymouth Avenue	4	$1,507,640
Sub-Station MO-09	7131 North Market St	3	$1,507,640
Sub-Station MO-10	7750 Florissant	4	$1,507,640
Sub-Station MO-11	4500 Springdale	4	$1,507,640
Sub-Station MO-12	9852 Air Cargo Road	4	$1,507,640
Sub-Station MO-21	7055 Forest Park Blvd	4	$1,934,728
Sub-Station MO-22	405 Corporate Drive	4	$1,934,728
Sub-Station MO-23	8396 Eager Road	4	$1,934,728
Sub-Station MO-24	7820 Flora Avenue	4	$1,934,728
Sub-Station MO-25	7201 Lansdowne Avenue	4	$1,934,728
Signals			
Airport	Mile Post 0.44	4	$789,261
I-70	Mile Post 1.68	4	$789,261
North Hanley	Mile Post 2.98	4	$789,261
UMSL	Mile Post 4.62	4	$789,261
St. Charles Rock Road	Mile Post 5.95	4	$789,261
Forest Park A	Mile Post 8.87	4	$789,261
Forest Park B	Mile Post 9.02	4	$789,261
Page	Mile Post 7.12	4	1,108,785

Systems: Signals			
Waterman	Mile Post 8.47	4	$651,200
DeBaliviere	Mile Post 8.70	4	$1,245,800
Central West End	Mile Post 10.62	4	$789,261
Grand	Mile Post 11.85	4	$789,261
Ewing	Mile Post 12.60	4	$789,261
Tucker	Mile Post 14.80	4	$789,261
Union Station	Mile Post 13.67	4	$789,261
Laclede's Landing	Mile Post 15.54	4	$789,261
Riverfront	Mile Post 15.90	4	$789,261
5th & Missouri	Mile Post 16.77	4	$430,582
Relay House-1	Mile Post 17.54	4	$430,582
Emerson Park A	Mile Post 18.41	4	$430,582
Emerson Park B	Mile Post 18.60	4	$430,582
Hall A	Mile Post 19.49	4	$430,582
Hall B	Mile Post 19.82	4	$430,582
Relay House-2	Mile Post 21.43	4	$430,582
Relay House-3	Mile Post 22.94	4	$430,582
Fairview Heights	Mile Post 23.98	4	$430,582
Relay House-4	Mile Post 25.88	4	$430,582
Royal	Mile Post 27.71	4	$430,582
Relay House-5	Mile Post 29.23	4	$430,582
Bellville	Mile Post 30.74	4	$430,582
Relay House-6	Mile Post 32.47	4	$430,582
College	Mile Post 34.15	4	$430,582
Relay House-7	Mile Post 35.82	4	$430,582
Shiloh-Scott	Mile Post 36.18	4	$430,582
Big Bend	Mile Post CC1.6	4	$408,900
Enterprise	Mile Post CC3.5	4	$1,182,400
Brentwood	Mile Post CC5.2	4	$1,221,900
Sunnen	Mile Post CC6.3	4	$660,800
Shrewsbury	Mile Post CC7.6	4	$696,600

Name	Units Assigned	Location	Condition	Replacement Cost (CY 2014)
Fareboxes				
Scheidt & Bachmann Fareboxes	185	Debaliviere	4	$12,000
Scheidt & Bachmann Fareboxes	145	Brentwood	4	$12,000
Scheidt & Bachmann Fareboxes	87	Illinois	4	$12,000
Spare Fareboxes	22	Revenue Operation	4	$12,000
Cash Receiver Systems				
Scheidt & Bachmann Cash Receiver Systems	7	Debaliviere	4	$60,000
Scheidt & Bachmann Cash Receiver Systems	4	Brentwood	4	$60,000
Scheidt & Bachmann Cash Receiver Systems	3	Illinois	4	$60,000
Spare CRS Upper Units	3	Revenue Operation	4	$45,000
Cash Receiver Systems Mobile Vaults				
Scheidt & Bachmann Mobile Vaults	7	Debaliviere	4	$20,000
Scheidt & Bachmann Mobile Vaults	4	Brentwood	4	$20,000
Scheidt & Bachmann Mobile Vaults	3	Illinois	4	$20,000
Mobile Vaults Spares	19	Revenue Operations	4	$20,000
Garage Data Management Systems				
Dell Computer System including Servers	1	Debaliviere "A"	4	$55,000
Dell Computer System including Servers	1	Debaliviere "B"	4	$55,000
Dell Computer System including Servers	1	Brentwood	4	$55,000
Dell Computer System including Servers	1	Illinois	4	$55,000

Name	Location	Quantity	Condition	Replacement Cost (CY 2014)
Fare Collection / Validation Equipment				
Ticket Vending Machines	Laclede's Landing	5	3	$325,000
Ticket Vending Machines	Convention Center	5	3	$325,000
Ticket Vending Machines	8th & Pine	4	3	$260,000
Ticket Vending Machines	Stadium	4	3	$260,000
Ticket Vending Machines	Civic Center	4	3	$260,000
Ticket Vending Machines	Union Station	5	3	$325,000
Ticket Vending Machines	Grand	2	3	$130,000

Systems: Fare Collection/Validation Equipment				
Ticket Vending Machines	Central West End	5	3	$325,000
Ticket Vending Machines	Forest Park	4	3	$260,000
Ticket Vending Machines	Delmar	4	3	$260,000
Ticket Vending Machines	Wellston	3	3	$195,000
Ticket Vending Machines	Rock Road	2	3	$130,000
Ticket Vending Machines	U.M.S.L. South	2	3	$130,000
Ticket Vending Machines	U.M.S.L. North	2	3	$130,000
Ticket Vending Machines	North Hanley	4	3	$260,000
Ticket Vending Machines	Airport East	2	3	$130,000
Ticket Vending Machines	Airport Main	3	3	$195,000
Ticket Vending Machines	Skinker	4	3	$260,000
Ticket Vending Machines	Big Bend	6	3	$390,000
Ticket Vending Machines	Forsyth	2	3	$130,000
Ticket Vending Machines	Clayton	2	3	$130,000
Ticket Vending Machines	Richmond Heights	2	3	$130,000
Ticket Vending Machines	Brentwood	3	3	$195,000
Ticket Vending Machines	Maplewood	2	3	$130,000
Ticket Vending Machines	Sunnen	2	3	$130,000
Ticket Vending Machines	Shrewsbury	6	3	$390,000
Ticket Vending Machines	Ballas Transfer Center	1	3	$65,000
Ticket Vending Machines	East Riverfront	3	5	$195,000
Ticket Vending Machines	5th & Missouri	3	5	$195,000
Ticket Vending Machines	Emerson Park	2	5	$130,000
Ticket Vending Machines	J.J.K.	2	5	$130,000
Ticket Vending Machines	Washington Park	2	5	$130,000
Ticket Vending Machines	Fairview Heights	3	5	$195,000
Ticket Vending Machines	Memorial Hospital	2	5	$130,000
Ticket Vending Machines	Swansea	2	5	$130,000
Ticket Vending Machines	Belleville	2	5	$130,000
Ticket Vending Machines	College	3	5	$195,000
Ticket Vending Machines	Shiloh / Scott	4	5	$260,000
Ticket Vending Machines	Spares -for North County	2	5	$130,000
Ticket Vending Machines	Spares - for Civic Center	2	3	$130,000
Ticket Vending Machines	Spare - Damaged	1	2	$65,000

Name	Location	Quantity	Condition	Replacement Cost (CY 2014)
Fare Collection / Validation Equipment				
Ticket Validators	Lacledes Landing	4	5	$60,000
Ticket Validators	Convention Center	9	5	$135,000
Ticket Validators	8th & Pine	7	5	$105,000
Ticket Validators	Stadium	9	5	$135,000
Ticket Validators	Civic Center	6	5	$90,000
Ticket Validators	Union Station	4	5	$60,000
Ticket Validators	Grand	3	5	$45,000
Ticket Validators	Central West End	5	5	$75,000
Ticket Validators	Forest Park	6	5	$90,000
Ticket Validators	Delmar	6	5	$90,000
Ticket Validators	Wellston	6	5	$90,000
Ticket Validators	Rock Road	4	5	$60,000
Ticket Validators	U.M.S.L. South	2	5	$30,000
Ticket Validators	U.M.S.L. North	2	5	$30,000
Ticket Validators	North Hanley	5	5	$75,000
Ticket Validators	Airport East	2	5	$30,000
Ticket Validators	Airport Main	2	5	$30,000
Ticket Validators	Skinker	4	3	$60,000
Ticket Validators	Big Bend	6	3	$90,000
Ticket Validators	Forsyth	5	3	$75,000
Ticket Validators	Clayton	2	3	$30,000
Ticket Validators	Richmond Heights	2	3	$30,000
Ticket Validators	Brentwood	3	3	$45,000
Ticket Validators	Maplewood	6	3	$90,000
Ticket Validators	Sunnen	4	3	$60,000
Ticket Validators	Shrewsbury	6	3	$90,000
Ticket Validators	Ballas Transfer Center	0	TBD	TBD
Ticket Validators	East Riverfront	6	5	$90,000
Ticket Validators	5th & Missouri	3	5	$45,000
Ticket Validators	Emerson Park	4	5	$60,000
Ticket Validators	J.J.K.	2	5	$30,000
Ticket Validators	Washington Park	3	5	$45,000
Ticket Validators	Fairview Heights	4	5	$60,000
Ticket Validators	Memorial Hospital	2	5	$30,000
Ticket Validators	Swansea	4	5	$60,000
Ticket Validators	Belleville	4	5	$60,000
Ticket Validators	College	3	5	$45,000
Ticket Validators	Shiloh / Scott	6	5	$90,000
Ticket Validators	Spares -	7	3	$105,000
Total: 853 Units				**$89,911,423**

Section

3

List of Decision Support Tools

- Oracle Database System
- M5 FleetFocus
- Geographical Information System

Oracle Database System

Metro has been using the Oracle financial system since 2005. Both the fixed assets and materials management (inventory) data are stored in the Oracle system. At Metro, all capital purchases with an asset life of more than one year and a cost greater than $5,000 are considered depreciable capital assets. Major improvements to existing plants and equipment that extend the lives of related assets are also capitalized. The fixed assets data are stored in the Oracle system and managed by the fixed assets accountant. Metro conducts a physical inventory of all fixed assets every two years, as required by state and local regulations. The most recent physical inventory was completed in 2014. This work was conducted mainly by the Director of Accounting & Budgeting, Manager of Accounting, Fixed Assets Accountant, and the Grant Accountant.

M5 FleetFocus Vehicle

The M5 FleetFocus vehicle maintenance system was implemented at Metro in 1999 as M4 and upgraded to the Web-based M5 version in 2005. The system tracks 370 buses, 120 vans, 87 LRVs, 6 facilities and approximately 300 other vehicles that support equipment. Since 2002, the agency's maintenance productivity has increased 100 percent. Without M5, Metro would have had great difficulty improving the agency vehicle reliability and reducing overall life cycle costs of its rail car and bus fleets. For buses, the agency has gone from an average breakdown after 6,000 miles to 20,000 miles between delays. In addition, Metro has been very successful in improving the reliability and integrating all of the preventive maintenance scheduling, predictive maintenance forecasting, parts data, and other maintenance performance metrics. In 2002, the agency established a preventive maintenance program for all vehicles. Key elements of this program include:

Establishment of a set of standard operating procedures for maintaining vehicles, with schedules for key inspection and maintenance activities based on a combination of time and mileage interval:

- Development of maintenance plans describing Metro's schedules for maintaining existing assets consistent with its standards and a capital acquisition plan for the purchase of new assets
- Implementation of the M5 program to manage the fleet; the system is currently being implemented for managing facilities, ordering parts, and supporting other maintenance-related activities

Metro keeps track of maintenance requirements and needs for 30, 60, or 90 days into the future. It is one of the few transit agencies to implement an 18-month maintenance work outlook program.

- M5 has added a fully integrated, automated fueling system option called FuelFocus. This hardware and software system is unique because it manages

fuel and fluid dispensing in the same database as the maintenance management application, rather than in two different programs.

M5 FleetFocus software provides an intuitive, familiar Web-based user interface that Metro's senior management and bus and rail maintenance users find extremely helpful in reducing overall maintenance costs, while improving the reliability of both the rail and bus fleets. The software has assisted with Metro's plan to adopt a new maintenance strategy that focuses on preventive maintenance, rather than the run-to-fail philosophy practiced in the past.

At a practical level, having detailed predictive maintenance data made possible by M5 is key to running a cost-effective maintenance operation. The improved fleet condition, original equipment maintenance recommendations and years of seamless operational effectiveness have enabled Metro to implement predictable component replacement instead of "time of failure" replacement. This enables Metro to combine some positions and eliminate others in the maintenance department. Better data, analysis, and control allow Metro to change inspection schedules to be more cost effective and efficient.

Metro has a planned maintenance schedule for its railcars, bus and van fleets from acquisition to retirement. This was designed to ensure that the highest maintenance dollars were spent at midlife, resulting in the greatest return on maintenance dollars invested. Metro also made another critical change, which was to schedule parts replacement before a part failure actually occurred. This strict predictive maintenance program and the planned preventive maintenance program were both enabled by the use of M5.

Type of Data

M5 FleetFocus is focused on equipment classification, utilization, availability, assignment, accounting, life-cycle tracking and basic equipment information. Life cycle management of equipment is a desired goal for users and Metro. It provides Metro with the ability to manage each stage in the life of critical asset’s from when the organization plans, procures, rehabilitates and disposes.

The basic steps of life cycle management are:

- Classification
- Acquisition activities
- In-service activities
- Maintenance of equipment information
- Disposal/retirement activities

There are numerous pieces of information that impact whether an organization can successfully manage equipment throughout its known life. Cost, condition, usefulness, and classifications, as well as the need for the equipment, are all part of the picture. This pertinent information is needed in order to know that Metro has the right equipment in the right place at the right time to deliver revenue service to the public.

M5 also provides Metro with the ability to attach files, images, and links to a work order, unit record, parts records, etc. All of Metro's inspections consist of electronic documents that are attached to standard jobs that a mechanic fills out electronically. The mechanic then attaches the inspection form file to the work order, thus eliminating all paper files. Additionally, Metro attaches all title information, licensing information, sale/disposal information, recalls and any other pertinent information to units within the M5 application.

Facilities Data

The M5 system has already been used to keep track of some Metro facility maintenance information. These facilities include Ewing Yard, the main shop, all bus facilities and Metro headquarters. These facilities are mainly for Metro internal use and not for Metro customers/riders.

In the M5 system, each facility is broken down into critical components, such as Heating, Ventilation, and Air Conditioning (HVAC). These major components are inspected on a regular basis (e.g., monthly or weekly). Some of the inspection results are scanned and attached to the M5 asset management system; the rest are in paper file format due to the shortage of staff. However, given enough resources, these paper files can be scanned and attached to the M5 system. Based on the inspection requirements (e.g., weekly or monthly) specified in the M5 system, the system automatically generates scheduled inspection requests or work orders. In addition to the scheduled inspection requests, there are other, unscheduled repair work requests. These requests are also input into M5, and a work order is then generated for each of them. In the M5 system, basic tables have been set up for the 29th Street Yard and MetroLink platforms. However, the maintenance data for these facilities has not been input into these tables. Also, the data structures for some rail and ROW assets have been set up in the M5 system. Theoretically, M5 can be used for tracking the maintenance history of rail and ROW assets as well. Similar to the practice of the bus maintenance department, the M5 system is used to keep track of the time Metro employees spent on each facility work order. The M5 system can automatically record the time each employee clocks in and out for a particular facility work order. This is very helpful for increasing labor accountability.

GIS for Right-of-Way (ROW) Structure Assets

Metro has developed a Web-based Asset Inspection and Monitoring System (GIS) for MetroLink infrastructures. This tool was developed over the past five years and provides MetroLink with the ability to identify, inspect, and monitor all critical assets required for safe and reliable operations using a system that brings together all the relevant information that affects any particular asset.

Metro has established a detailed asset inspection and maintenance standard that covers all MetroLink critical structure assets. The scope of this standard includes all *fixed structures* that support or carry loads. Figure 3-4 shows the structures inspected by the Metro ROW structure maintenance division. This standard derives from the American Public Transportation Association's (APTA) *Standard for Rail Transit Structure Inspection and Maintenance* (1st Edition, 2004), the American Association of State Highway and Transportation Officials' (AASHTO) *Manual for Condition Evaluation of Bridges* (2nd Edition) as required by current Federal Highway Administration (FHWA) regulations for highway bridges, and inspection and risk assessment practices recommended by American Railway Engineering and Maintenance-of-Way Association (AREMA). These structures are inspected on a regular basis ranging from two to five years. A summary report is provided with ratings and recommended repairs for each inspected structure.

Asset Condition Monitoring

The Geographical Information System tool GIS used for MetroLink's structural inspections and asset management is based on commercial software developed by the Environmental Systems Research Institute (ESRI). Metro has been successfully using the ESRI software for more than 10 years for a variety of service planning activities. The GIS software tool is based on ESRI's ArcGIS Server. This innovative inspection tool combines the power of GIS location capability with detailed databases that contain inspection reports, complete with the operational condition of the asset and detailed photographs of it's current condition. This combination provides a clear view of every major asset and its major components. It allows for all of the information related to a particular asset to be assembled and viewed across departments needing access to the information. This includes current asset conditions, maintenance history, operational agreements (easements, snow removal, limits of responsibility), record drawings, emergency operational risks (seismic, flood/scour, vehicle impact, and barge impact), major utility crossings (gas, water, and sewer), estimated remaining useful life, and inspection intervals.

This type of total asset visibility allows different departments to gather current information without going through a gatekeeper or other departments that could delay a time-sensitive response. This is particularly important in the cases of an emergency that occurs along the alignment. With complete access to all pertinent records of a particular asset, quick and competent decisions can be made.

This system is particularly useful for identifying assets that are not in a state of good repair, documenting the deficiencies and justifying rehabilitation/ replacement decisions. As shown in Figure 3-5 and Figure 3-6, the Web-based nature of the system provides FTA and state safety agencies with the ability to view reports as well as detailed photographs to get a clear representation of not only the higher-level asset conditions, but also the very detailed subsystem conditions; such as cracks in structural steel, deterioration and corrosion problems affecting bridges, stray current corrosion, aging masonry tunnel conditions, and passenger rail platforms.

Section

4

Asset Investment Prioritization

Metro has a thorough Capital Budget Request process for construction/rehabilitation, new equipment/replacement and major computer software procurement/development. The prioritization of a request is a two-tiered process, based on the project's priority and it's impact on the agency's strategic planning goals and objectives for the three-year budget cycle that is being developed. The primary tier is the priority assigned to the project. The second tier is the project's anticipated impact on the daily operation. The project ranking is a static rating, based on the project type. The impact of the project is presented in a composite score of several independent criteria that will allow points based on the project's impact toward meeting the agency's strategic planning and objectives.

After the initial scoring by the Program Development and Grants Department, senior management conducts a separate project scoring for each project. The combined scores from staff and senior management determine the project's prioritization within the capital budget process.

Capital projects must be approved by the Commissioners of the Bi-State Development Agency (Metro) as a part of the annual Operating and Capital Budget approval process. The projects are then submitted to the East West Gateway Council of Governments (EWGCOG) for inclusion in the Transportation Improvement Program (TIP). The TIP is a schedule of transportation improvements planned by various agencies in the St. Louis metropolitan area. The TIP is approved by the Board of Directors of the the East-West Gateway Council of Governments. EWGCOC is the metropolitan planning organization (MPO) for the St. Louis metropolitan area which includes the City of St. Louis; Franklin, Jefferson, St. Charles, and St. Louis counties in Missouri; Madison, Monroe, and St. Clair counties in Illinois. The Board of Directors is made up of the locally elected officials of those areas. Following the approval of the TIP, the Statewide Transportation Improvement Program (STIP) must be approved. The STIP is a federally required document that provides the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) a listing of all projects that are candidates for federal-aid or regionally significant projects that are not using federal-aid. For the St. Louis metropolitan area, the STIP is submitted to both the State of Missouri and the State of Illinois for approval by the respective governors of each state.

In addition, Metro's sustainable asset life cycle for the bus fleet provides critical data for analyzing costs of operating a safe and reliable transit service, which benefits the customers at significant cost savings. This AMP forms the basis for long-term financial planning (a projection of future expenditures) that reconciles both the objectives of operations and maintenance and capital budgeting, thus collectively contributing to extension of the useful life of all assets. It is essential that capital asset investments are systematic and data driven as well as it is necessary to conduct scheduled asset condition assessments and monitor performance metrics, so that Metro can continue to be good a steward of public funds.

Section

5

Asset Management Policy and Strategy

Metro's Asset Management Policy

The Leadership Team developed the following Asset Management Policy Statement to communicate Metro's commitment to improve asset management, explain the link between it and the agency's core mission, and broadly outline our approach and expected outcomes.
Metro is committed to implementing a strategic process for acquiring, operating, maintaining, upgrading and replacing its transit assets to directly support the organization's mission of providing safe and reliable public transportation services to the St. Louis Metropolitan region.

Our policy is to continue a culture that supports asset management at all levels of the organization and the elimination of information silos. Employ effective asset management business practices and tools, to ensure optimum asset performance and useful life, and to use timely, quality data to support transparent and cost-effective decision-making for resource allocation and asset preservation.

Metro is committed to enhancing our exceptional personnel by providing coaching, training, innovative state-of-the-art technology and improved processes. Metro will ensure our workforce's ability to identify and meet Metro's asset management needs, incorporate sustainability, and improve accessibility into our business practices. Metro will deliver to our customers a safe and reliable service and value for all community's and tax dollars expended.

The maintenance function at Metro is responsible for assuring that all assets owned by Metro are maintained in best possible condition. This includes all four FTA asset categories (Vehicles, Facilities and Stations, Guideway and Systems). Metro describes the best possible condition of a vehicle to mean that revenue equipment are clean and comfortable for the passengers, and the scheduled number of vehicles are available to meet peak service requirements as well as all surfaces of the vehicles are free of graffiti and accident damage. In addition, Metro maintains all MetroLink assets/components at a level consistent with the organization's State of Good Repair goals.

Metro Asset Management Goals and Objectives

In support of this asset management policy, the AMP includes specific goals, objectives, and implementing actions. Metro has identified four agency-wide asset management goals:

1. Policy: Provide agency-wide direction and leadership to ensure the implementation of asset management across the entire agency. In addition, policy is critical to establishing a vision and support for an asset management culture.

2. **People: Metro leadership must establish managerial positions to support asset management and support culture change throughout the organization.**

Improving staff asset management leadership skills and knowledge sharing within the agency enhances employees' lifecycle management competencies.

3. **Tools: Provide infrastructure and tools to support data-driven decision-making for asset management.**

This ensures that investment decisions are based on the assessment of organizational benefits are transparent and clearly communicated.

4. **Business Practices** Manage whole life cycle cost, risk and performance to achieve cost savings, improve service and reliability.

The following sides illustrate the results of Metro's Asset Management best practices:

Figure 24 Bus Maintenance Cost Per Mile for 15 Years, Before and After Plan

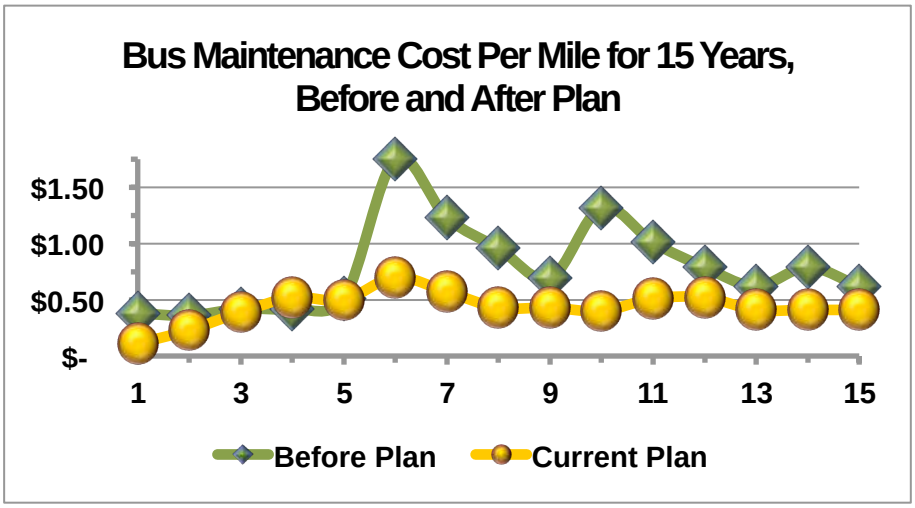


Figure 25 Inventory Dollars (Millions by Year)

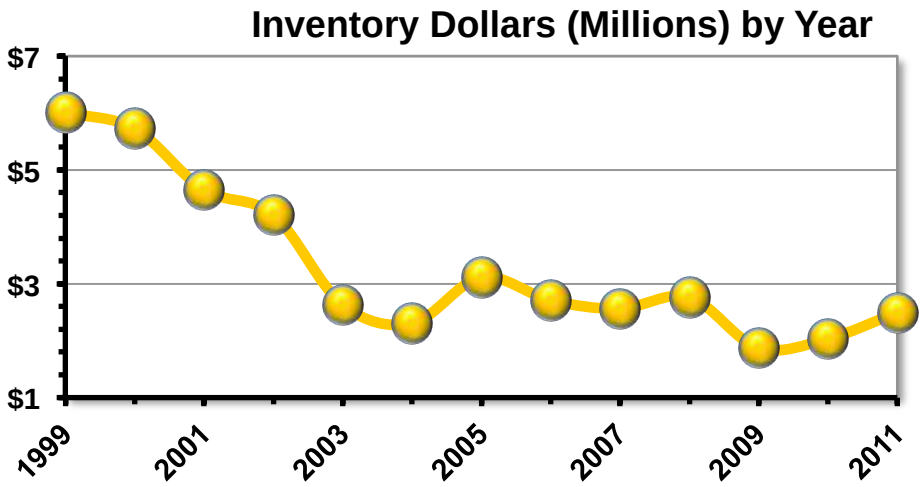
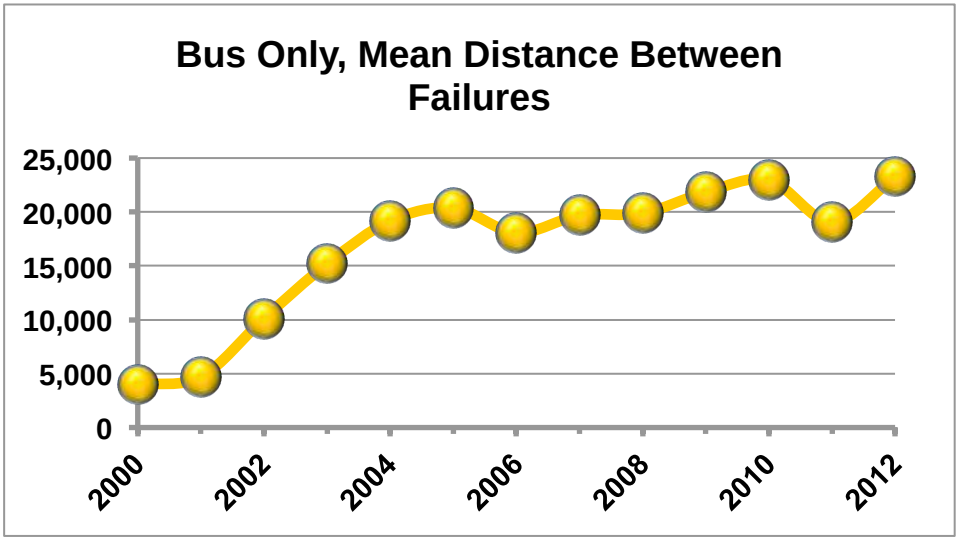


Figure 26 Bus Only, Mean Distance Between Failures



Section

6

Implementation Strategy

Asset Management Plan Implementation

Becoming a high performance asset management organization requires a long-term commitment. Experiences at other transit systems around the country and internationally demonstrate that it is a lengthy journey, but one that will realize significant benefits for Metro. This Asset Management Plan is intended to improve asset and system performance in the near term, while making changes that will institutionalize asset management and build a foundation for continual improvement and maturity in the long-term. Figure 27 provides an overview of how the improvement program will be implemented at every level of the organization to achieve these goals.

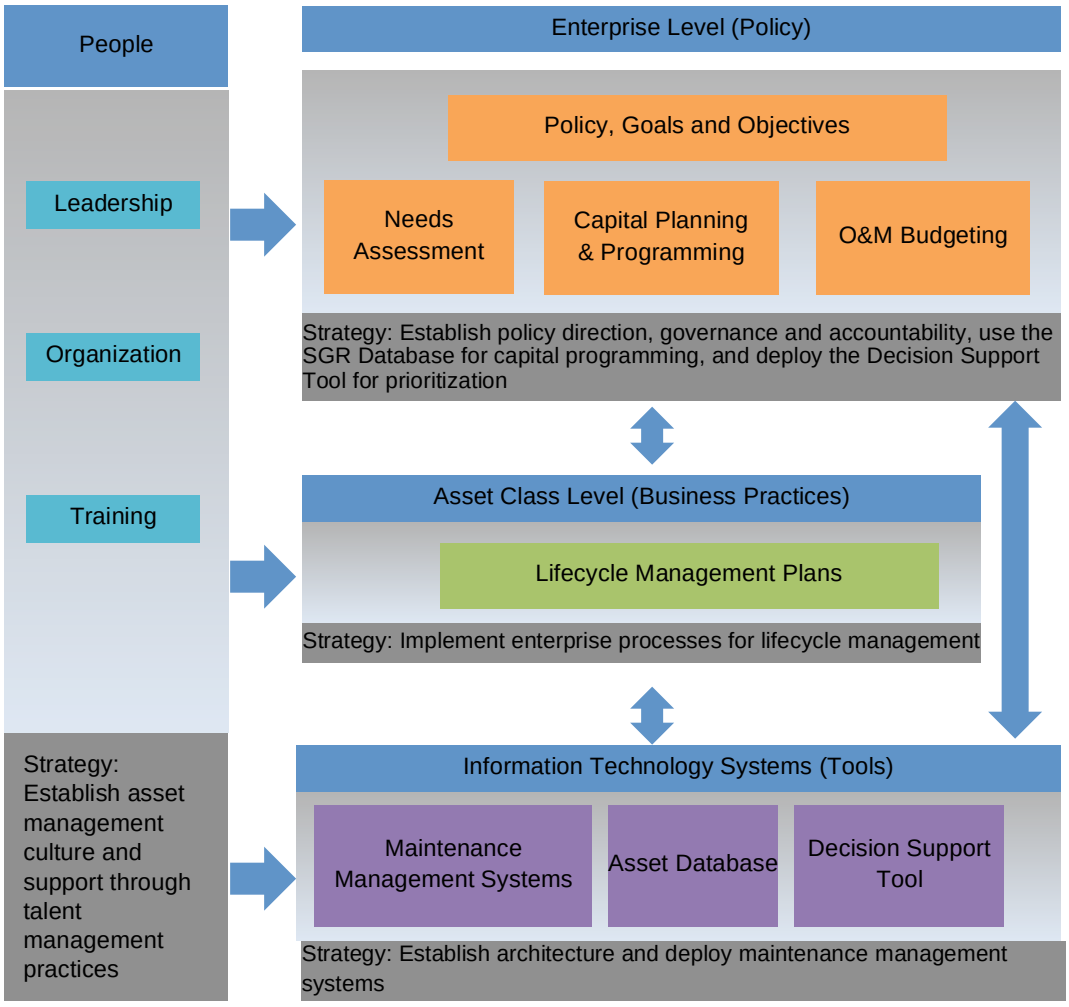


Figure 27
Implementation Overview

The improvement program is aligned with Metro's four asset management goals, addressing the foundational policy, people, tools and business practices required for improving asset management practice at Metro:

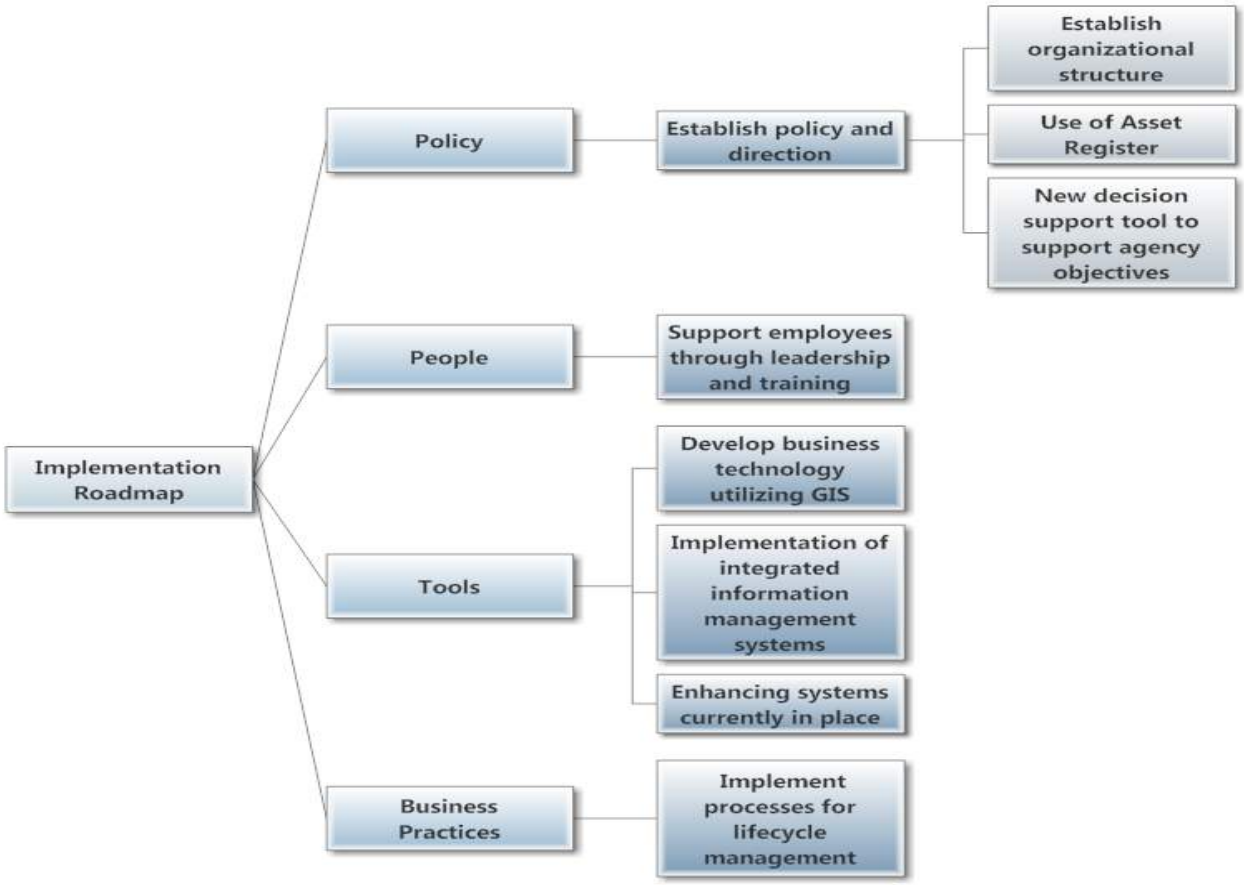
1. Policy: At the enterprise level, Metro management will establish policy direction, governance, and accountability for AMP implementation. This includes the establishment of an effective organizational structure to oversee and implement the asset management program, utilization of Metro's Asset Register for agency-wide capital programming and needs assessment, and a new decision support tool for investment prioritization to support agency objectives.

2. People: Through leadership, organization and training, an asset management culture will be established which supports employees through better communication, knowledge sharing, succession planning and various talent management practices.

3. Tools: Through its Information Technology (IT) systems and various software tools, Metro will develop and implement a business and technology architecture utilizing Geographical Information System (GIS) for asset management information. This includes the implementation of new integrated information management systems where none currently exist (e.g., facilities, physical assets) and enhancing the capabilities of those systems that are in place (e.g. rail, and bus fleets).

4. Business Practices: At the individual asset class level, Metro will implement processes for improved lifecycle management that will lead to better asset maintenance procedures, extended useful life, an education in total lifecycle cost, and improved performance.

Figure 28 Implementation Roadmap



Implementation Organization and Governance

The Asset Management Plan implementation establishes elements of new on-going roles for asset management and provides the dedicated resources to drive the implementation of new and improved business practices. The organization and governance for implementation has the following key elements: Asset Management Leadership Team - The Leadership Team is responsible for providing clear and effective direction for the policy, change management, and organizational components of the AMP. It includes the President & CEO and executives from the Chief Operating Officer and Chief Financial Officer divisions. Supporting these executives will be the Asset Management Improvement Team.

Asset Management Plan Implementation Program Manager – A Program Manager will oversee implementation of the AMP initiatives. The Program Manager will coordinate closely with the Asset Management Improvement Team, while working on a day-to-day basis with the asset stakeholders.

Communication and Change Management

The effective implementation of asset management as an enterprise process will require careful attention to change management. As Metro adjusts it's policies, organization, and business practices to better carry out it's asset management responsibilities, change management needs to account both for the areas directly and indirectly affected by the Asset Management Plan's implementation. Several support divisions will have new work requirements as they support new and updated business practices.

Communication by leadership and line management within Metro will be a key part of change management so that employees understand Metro's asset management vision. The role of this plan and its implementing actions will result in realizing that vision and their specific responsibilities to support the plan and implementing actions. The implementation roadmap addresses change management through implementing actions that:

Goal	Action Item
Develop clear communication processes	1.4 – Establish a communication strategy
Develop clear organization and accountabilities for asset management	1.2 – Establish a governance structure 1.3 – Establish an Asset Management 2.1 Working Group – Define organizational roles, responsibilities, and accountabilities
Identify and address specific training needs	2.2 – Identify skill gaps 2.3 – Provide targeted training
Implement cross-functional planning at the asset class level	4.1 - Develop and pilot an improved lifecycle management process for critical assets 4.2 – Implement the standardized lifecycle management process
Develop a performance management framework for asset management implementation	1.3 – Establish an Asset Management Working Group

To address the change management considerations, Metro internally and externally of, clear communication will be needed to demonstrate the progress being made in implementing asset management and the benefits to be gained from continuing the effort.

Section

7

Key Asset Management Activities

Asset Management Practices

The current asset management practice at Metro has developed maintenance strategies to ensure that all assets are maintained in a serviceable condition that meets and/or exceeds the MAP-21 requirements. Metro has focused its repair strategies on RCM, which is an industry best practice. This has manifested itself in the vehicle maintenance plan, which has resulted in the lowest cost per mile and produces the best vehicle performance in the transportation industry.

Metro Asset Management Goals and Objectives

In support of this asset management policy, the AMP includes specific goals, objectives, and implementing actions. Metro has identified four agency-wide asset management goals:

1. Policy: Provide agency-wide direction and leadership to ensure the implementation of asset management across the entire agency. In addition, Policy is critical in establishing a vision and support for an asset management culture.

2. **People: Metro leadership must establish managerial positions to support asset management and support culture change throughout the organization.**

Improving staff asset management leadership skills and knowledge sharing within the agency enhances employees' lifecycle management competencies.

3. **Tools: Provide infrastructure and tools to support data-driven decision-making for asset management.**

This ensures that investment decisions are based on the assessment of organizational benefits, are transparent, and are clearly communicated.

4. **Business Practices** Manage whole life cycle cost, risk, and performance to achieve cost savings, improve service.

Table 4 – Asset Management Goals, Objectives, Implementing Actions and Metrics

Goals	Objectives	Implementing Actions	Metrics
1. Policy: Provide agency-wide direction and leadership to increase asset management maturity	· Provide clear leadership and direction regarding the agency's asset management strategy and expected outcomes · Establish vision of and provide support for an asset management culture · Increase the agency's overall asset management maturity	1.1 Develop and maintain an Asset Management Plan that identifies implementing actions 1.2 Establish a governance structure that ensures accountability for implementation and outcomes 1.3 Establish an asset management improvement team that manages and oversees implementation and refinement of the AMP 1.4 Establish a communications strategy that provides regular, top-down direction and bottom-up feedback regarding asset management policy, strategies, and practices	**Asset Management Maturity Self-Assessment Scores:** ·Overall asset management maturity ·Policy ·Strategy ·Business Plan ·Organization and Leadership ·Communications
2. People: Establish asset management culture and support through talent management practices	· Improve asset management knowledge sharing within the agency · Improve asset management documentation practices	2.1 Specify staff's organizational roles, responsibilities, and accountabilities for asset management activities and outcomes 2.2 Identify skills required and any knowledge gaps in current staffing practices to carry out core lifecycle management activities for each asset class 2.3 Provide appropriate staff training on a regular basis to enhance asset management competencies and lifecycle management capabilities 2.4 Establish a succession planning program and supportive hiring policies to prepare for employee turnover	**Asset Management Maturity Self-Assessment Scores:** ·Skills and Training ·Values and Culture

Goals	Objectives	Implementing Actions	Metrics
3. Tools: Provide IT infrastructure and tools to support data-driven decision-making for asset management	· Implement the business processes, supporting systems, and data integration to provide the data and information required for better decision-making	3.1 Prepare the planned future business and technology architecture and migration plan for Metro's maintenance management system for facilities and linear assets 3.2 For critical assets: · Establish asset inventories of record that include asset condition, performance, and criticality · Update lifecycle management and related business processes · Implement/upgrade maintenance (and asset) management systems M5 based on the established business and technology architecture and migration plan (Action 3.1) and update related business processes 3.3 Deploy a capital planning tool that can perform long-range projections of the state of repair for key asset classes (with implications for capital costs, maintenance costs, and asset condition) and review processes to update data 3.4 Deploy a Decision Support Tool to assist with capital funding decisions in the Capital Improvement Plan	**Asset Management Improvements:** ·Incorporation of Decision Support Tool in upcoming Capital Improvement Plan cycle ·Full implementation of Stage of Good Repair Database (updated records, condition ratings) ·Initiation of M5 implementation for facilities and linear assets **Asset Management Maturity Self-Assessment Scores:** · Information Systems · Capital Planning and Programming

Goals	Objectives	Implementing Actions	Metrics
4. Business Practices: Manage whole lifecycle costs, risks, and performance to achieve cost savings, improve service reliability, and contribute to customer safety	·Reduce (or eliminate) corrective maintenance (CM) actions by asset type ·Minimize asset-related service disruptions ·Maximize asset availability	4.1 Develop and pilot an improved lifecycle management process for critical assets to include: · Inventory, condition inspection/monitoring program, and level of service/performance targets · Preventive maintenance programs · Lifecycle management strategy · Lifecycle management planning and coordination · Roles and responsibilities 4.2 Implement the lifecycle management process for key asset classes 4.3 Provide standard procedures, design standards, training documentation, and specifications in an accessible electronic location and establish processes to keep them up-to-date 4.4 Establish or review design standards to address whole lifecycle management 4.5 Evaluate and improve the process for purchasing and managing consumable inventory to raise maintenance efficiency and productivity 4.6 Incorporate asset management and lifecycle management considerations in a consistent way into capital projects and maintenance contract procurement processes and implement pilot 4.7 Use a risk-based approach to help identify and prioritize capital investments	**Asset Management Outcomes:** ·Asset availability ·Ratio of Preventive Maintenance to Corrective Maintenance actions and budget ·Number of Corrective Maintenance actions by asset type ·In-service failures by type of failure by passenger impact ·Specific lifecycle cost savings realized: Maintenance costs (savings for Planned maintenance instead of Corrective Maintenance); replacement costs (savings from delaying asset replacement); resource utilization costs (savings from reducing use of certain resources such as fuel, energy) **Asset Management Maturity Self-Assessment Scores:** ·Asset Inventory ·Condition Assessment and Performance Monitoring ·Lifecycle Management Planning ·Operations and Maintenance Budgeting ·Performance Modeling ·Project Management ·Continuous Improvement

Life Cycle Asset Management Plan

Metro's Life Cycle Asset Management Philosophy (LCAMP) is an integrated approach for optimizing the life cycle of its critical assets beginning at conceptual design of the vehicle class, facility or station, continuing through the disposal of the vehicle, facility or station. Other classes of assets (guideway and systems) begin with the procurement process and acquisition of the asset, thorough planning, analysis and timely execution allowing appropriate data-driven decision-making to occur and enable LCAMP to deliver the optimum performance:

- Operating and maintenance strategies
- Organizational structure
- Staffing requirements
- Reliability engineering processes
- Optimized PM procedures
- Work control/planning and scheduling processes
- Equipment criticality and hierarchy in the appropriate enterprise resource system format
- Maintenance inventory requirements with min./max. and stocking levels
- Training plan
- Start up and commissioning plan
- Decommissioning plan

To ensure effective asset investment decision-making and to achieve sustainable results in asset performance, Metro has taken a holistic approach that addresses not only physical assets, but also the supporting resources, organization processes, data and enabling technologies that are critical to success. Metro's holistic approach to life cycle asset management enables vast amounts of asset data to be effectively managed and leveraged at a practical day-to-day business level. With this approach, Metro ensures it can continue institutionalize asset management and make it a focus of the day-to-day business. Incorporating asset management into daily maintenance routines ensures Metro achieves optimum performance and full asset potential.

Metro has established of the following goals and performance metrics to enhance customer experience and improve service quality. These metrics support the vision of the maintenance organization, enabling the organization's improvement of asset maintainability:

- **Vehicle Appearance**: ensuring that all vehicles are maintained to a standard that is appealing to passengers and general public.
- **Vehicle Reliability**: performing analysis and predicting failures to ensure the elimination of vehicle breakdowns.
- **Control of Cost:** by investing at midlife of an asset to ensure that the asset remains in a state of good repair during its life cycle.
- **Maximizing investment of the asset**:
    - Performing life-cycle analysis to ensure that the asset investment was maximized and the serviceable condition of the asset was maintained throughout its useful life. (15 years 750,000 miles)
    - Predetermine Needs (Plan) Labor played a major role in this new philosophy, allowing maintenance managers to plan effectively for the number of mechanics and the type of mechanics required to maintain the asset at its optimal performance.
    - Supply and parts replacement planning is key to ensuring that the mechanics have the right item at the right time at the right place to return LRV's, buses and vans back to the new required maintenance standard for revenue service.

Metro Plan

Metro has created a plan that achieved departmental consensus on pre-programmed maintenance activities. This plan sets intervals for inspections, adjustments and replacement maintenance activities. Metro is focusing it's attention on the suggested audits and maintenance intervals recommended by the original equipment manufacturers (OEMs). In addition, Metro has developed standard work procedures for pre-planned and routine maintenance activities.

Policy:

It is the policy of Metro to sell and dispose of assets and property no longer necessary for the Agency purposes. Such sale and disposition shall be for Fair Market Value (FVM) or appraised value, unless otherwise approved by Bi-State Development Agency's Board of Directors. The Chief Procurement Officer shall be responsible for establishing procedures regarding the sale and disposal of excess assets/equipment, materials and supplies.

Cost center managers are responsible for maintaining control over and safeguarding of assets. The cost center manager initiates disposal of an asset by completing a disposal form located on W: Forms/0221 Request for Disposal Fixed Assets.xlt and forwarding the completed form to the Fixed Asset Accountant. In order to maintain the proper information on asset disposals and assure compliance with all federal requirements, all requests should at least include tag number, if available, and reason for disposal, method of determining FVM and the necessary approvals required on the form. (Disposal means sold, scrapped, lost, stolen, or retired).

Fixed Asset Accountant will identify if there is any federal and/or state grant funding contributed toward this asset. If so, it's documented on the form with the grant award number and grant percentage of the federal and/or state interest. Any federal and/or state interest will require notification to FTA or other state agency. Therefore, this form will be forward to Capital Budgeting and Grants. If the estimated Fair Market Value is $5,000 or greater, then the approval by the Controller is required. This form will be forward to Capital Budgeting and Grants. If the disposed asset will be sold or scrapped, then the form will be forward to Purchasing Department. If the disposed asset it to written off, then the Fixed Asset Accountant will retain the form as documentation to remove from fixed assets in Oracle.

The Director of Program Development, Capital Budget and Grants is required to notify FTA and/or other state agency on the Agency request to dispose of assets, which is no longer needed, lost, stolen, or retired. A letter is sent requesting concurrence to dispose or notifying with our intent to dispose of asset that has met its useful life. Any assets with FMV greater than $5,000, unamortized value (book value) or receipts of proceeds greater than $5,000, then the grant percentage owed to FTA must be reimbursed. "In lieu of returning the Federal share to FTA, the Agency may elect to use the proceeds from the asset to acquire a similar asset of like kind. Under the Like-Kind Exchange Policy, proceeds from the asset sales are not returned to FTA; instead, all proceeds are invested in acquisition of the like-kind replacement asset."[3] With the concurrence from FTA, a liability for like-kind exchange is setup on the Agency general ledger book.

Assets to be sold or scrapped are forward to Purchasing Department to be put out to bidders for sale. "If equipment is sold, and less than $100,000, then the President & CEO is authorized to approve contracts disposing of assets based on Board policies."[1] "If real property is disposed, then authorization is needed based on Board policies."[2]

In accordance with Board policies of Bi-State Development Agency Chapter 50-5, J.2 effective 08-14-2009, "The President & CEO is authorized to approve contracts disposing of assets (excluding real property) having a fair market or approved value up to $100,000.

The Board of Commissioners shall approve all sales and dispositions in excess of $100,000 fair market or appraised value."

In accordance with Board policies of Bi-State Development Agency Chapter 40-3, A.1-3 effective 01/27/2012, "The Board of Commissioners shall approve any dispositions of real property where the appraised value exceeds $250,000. The President & CEO is authorized to approve any disposition of real property where the appraised value is $250,000 or less. The Vice President of Economic Development is authorized to approve any disposition of real property where the estimated value is $100,000 or less."

In accordance with FTA C 5010.1D Chapter IV-26, I.6 effective 11-01-2008.

Section

8

Financial Requirements

The Federal Transit Administration acknowledges the growing concerns that a significant portion of the nation's public transportation assets are in need of capital reinvestment due to the historically inadequate level of financial resources from all sources available for maintenance and asset replacement activities. Metro recognizes that it is faced with the challenge of continuing to operate revenue service using assets that are approaching or have even exceeded their useful lifecycle. The following lists of assets are below the FTA's state of good repair goal of 2.5. The list represents the assets that have exceeded their useful lifecycle along with their 2014 replacement cost and asset condition assessment as defined by Metro maintenance staff.

The following assets listed below have been identified by senior management as not meeting the State of Good Repair (SGR). The asset condition and replacement cost has been communicated throughout the organization and the appropriate asset owner. The replacement or repair of these assets is recognized as a priority for the agency. These items will be monitored through the Continuous Improvement Program as referenced in section 9 of the Asset Management Plan.

VEHICLE					
Year of Purchase/Name			Location	Condition	Replacement Cost
Non-Revenue					
1995	CAT	CATAPILLAR	Central	2	$89,900
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595
1980	EXECUTIVE	898322-8310	Central	1	$5,595

Facilities and Stations			
Name	Location	Condition	Replacement Cost (CY 2014)
St. Charles Rock Road Transfer Center	13570 Saint Charles Rock Rd	2	$50,000

Ewing Rail Facility			
Name	Location	Condition	Replacement Cost (CY 2014)
Combination Washer	Parts Washer Room	2	$7,000
HVAC 1	38625742,-90.220610	2	$100,000

Brentwood Bus Facility			
Name	Location	Condition	Replacement Cost (CY 2014)
Dynamometer	Dyna Room	2	$200,000
Security Shack	Diesel Farm	1	$30,000
High Light Wheel Dolly	Bus Maintenance	2	$2,500
Drill Press	Bus Parking	1	$2,500
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Roll-A-Matic	Bus Parking	1	TBD
Line Striper	Bus Parking	1	$3,696

Air Compressor	Bus Parking	1	$1,104
Parts Washer	Bus Parking	1	$2,905
Parts Washer	Bus Parking	1	$2,905
Bus Lift Control	Steam Room	2	
MAU 1	South MAU Room	2	$100,000
Arc Welder	Maintenance Room	2	$1,933
Air Handler	South MAU Room	2	$100,000
Hydraulic Ram	Maintenance Room	2	$1,200
Pressure Washer	Maintenance Room	2	$1,800
Arc Welder Generator	Maintenance Room	2	$2,000
Air Compressor	Maintenance Room	2	$3,000
Hot Water Storage Tank	Boiler Room	1	TBD
Overhead Door	Store Room	2	$2,700
Battery Charging Station	Battery Room	2	TBD
Fire Alarm Control Panel	PBX Room	2	$2,000
TUG M-31	Bus Maintenance	2	$13,950
Golf Cart	Bus Maintenance	2	$9,000
Golf Cart	Bus Maintenance	2	$9,000

DeBaliviere Facility			
Name	**Location**	**Condition**	**Replacement Cost (CY 2014)**
Dynamometer	Dyna Room	1	$200,000
Power Washer	Pitts	1	$2,500
Hot Water Heater	Boiler Room	2	$6,015
Arbor Press	Bus Maintenance	2	$12,800

Central Facility			
Name	**Location**	**Condition**	**Replacement Cost (CY 2014)**
Metal Lathe	Machine Shop	2	$40,000
Metal Shaper	Machine Shop	2	TBD

Headquarters			
Name	**Location**	**Condition**	**Replacement Cost (CY 2014)**
Cooling Tower	Headquarters Roof	2	TBD
Line Boring Machine	Machine Shop	2	TBD
Elevator	Headquarters 1st Floor	2	TBD
Elevator	Headquarters 1st Floor	2	TBD

Guideway			
Name	Location	Condition	Replacement Price (CY 2014)
Bridges			
Spruce Street Bridge	St Louis	2	TBD
Tunnels			
Union Station Tunnel		2	$30,000,000

Section

9

Continuous Improvement

As part of Metro's commitment of continuous improvement to build the AMS several departments have initiated or plan to implement the following.

- Light Rail Vehicle predictive maintenance program that is a customize version of the MetroBus RCM program
- MOW Division utilization of the M5 maintenance management system to better track maintenance activities, costs and work orders
- Analysis and Planning of Metro Asset Management
- Asset Management Improvement Team executive level training session on the Principles of Asset Management

Asset Management Plan Monitoring and Improvement

Performance Measures

Develop detailed objective performance measures that clearly demonstrate how well Metro is following the asset management plan and continually improving the way assets are managed and maintained.

Senior management has identified assets not meeting the SGR in the previous section of this document (section 8). The Asset Improvement Team will closely monitor these assets during their quarterly Asset Improvement meetings and discuss the actions taken by the asset owner to ensure the asset is returned to a State of Good Repair. It is the responsibility of the asset owner to ensure critical assets have been identified to senior leadership through the capital budgeting process.

The key metric measuring Metro's adherence to this asset management plan will be the percent of assets that have been replace or repaired divided by the assets identified as not meeting the SGR from the previous AMP reporting period.

$$\frac{\text{Total number of assets that Metro has replaced or repaired that are now meeting the SGR from the previous year}}{\text{Total number of assets identified as not meeting SGR}}$$

Future metrics will be developed by the Asset Improvement Team and Metro senior leadership.

Section

10

References and Appendices

1. U.S. Department of Transportation, Federal Transit Administration, Transit *Asset Management Manual, Focusing on the Management of our Transit Investments*, (Washington, DC, 2012).

2. Bi-State Development Agency of the Missouri-Illinois Metropolitan District, *Metro Operating and Capital Budget, Fiscal Year 2015*. (St. Louis, MO, 2014).

3. Metro System Safety Plan, *Fiscal Year 2013*

4. MetroLink Right-of-Way Facilities Maintenance Plan, *Fiscal Year 2012*

5. MetroLink Track and Rail Right-of-Way Maintenance Standards Manual, *Fiscal Year 2012*

6. American Public Transportation Association (APTA), Recommended Practice, SGR-TAM-RP-002-13, "Defining a Transit Asset Management Framework to Achieve a State of Good Repair," August 2013. http://www.apta.com/gap/fedreg/Documents/Defining.a.transit.asset.management.framework.to.achieve.a.state.of.good.repair.pdf

7. Federal Transit Administration (FTA), "Asset Management Guide." http://www.fta.dot.gov/documents/FTA_Asset_Mgt_Guide_-_FINAL.pdf

8. FTA, "Fact Sheet, MAP-21, Section 5326 (TAM)." http://www.fta.dot.gov/documents/MAP-21_Fact_Sheet_-_Transit_Asset_Management.pdf

9. FTA, "Transit Asset Management Practices, A National and International Review," June 2010. http://www.fta.dot.gov/documents/TAM_A_National_and_International_Review_-_6.10_FINAL.pdf

10. The Institute of Asset Management: https://theiam.org/

11. MAP-21 legislation (49 U.S.C., Section 5326, Transit Asset Management): http://www.law.cornell.edu/uscode/text/49/5326

12. Transit Cooperative Research Program (TCRP), Report 157, "State of Good Repair: Prioritizing the Rehabilitation and Replacement of Existing Capital Assets and Evaluating the Implications for Transit," 2012. http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_157.pdf

APTA Asset Management Plan Checklist (if it's approved in time)
Other APTA documents
APTA Recommended Practice – SGR-TAM-RP-002-13 (Defining a Transit Asset Management Framework to Achieve a State of Good Repair)

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Bi-State Development Agency / Metro
Operations Committee
Agenda Item
January 27, 2015

From:	Raymond A. Friem, Chief Operating Officer –Transit Services
Subject:	**Disadvantaged Business Enterprise (DBE) Contract Specific Goal Setting**
Disposition:	Informational
Presentation:	Larry B. Jackson, Vice President – Procurement, Inventory Management & Supplier Diversity; Gerard Hutchinson, Supplier Diversity Program

Objective:
To present to the Operations Committee information regarding the process for determining contract specific DBE goals for projects.

Board Policy
Board Policy Chapter 50.030 Disadvantaged Business Enterprises requires the Agency to maintain a DBE program in compliance with US Department of Transportation, Federal Transit Administration regulations as contained in 49 CFR Part 23 and 26 and the policies and procedures of the Agency.

Funding Source:
N/A

Background:
It is the policy of Bi-State Development Agency/Metro **(BSDA/Metro)** to ensure that DBE, as defined in 49 CFR Part 26, have an equal opportunity to receive and participate in contracts. It is also our policy:

1. To ensure nondiscrimination in the award and administration of contracts;
2. To create a level playing field on which DBEs can compete fairly for contracting opportunities;
3. To ensure that the DBE Program is narrowly tailored in accordance with applicable law;
4. To ensure that only firms that fully meet 49 CFR 26 eligibility standards are permitted to participate as DBEs;
5. To help remove barriers to participation of DBEs in contracting opportunities; and
6. To assist the development of firms that can compete successfully in the marketplace outside the DBE Program.

Analysis
BSDA/Metro's Supplier Diversity Office reviews all procurements that are anticipated to exceed $100,000 prior to their release for bidding and sets DBE goals as appropriate for each contract. Goals are established in accordance with 49 CFR Part 26.51, which is attached for reference. Specifics of the goal setting process and an example are included in the attached presentation and will be discussed in greater detail during the Operations Committee meeting.

Management Recommendation:
None

Attachments
1. DOT Regulation 49 CFR 26.51
2. Goal setting process presentation

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Attachment 1

ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR Data is current as of January 6, 2015

Title 49 → Subtitle A → Part 26 → Subpart C → §26.51

Title 49: Transportation
PART 26—PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES IN DEPARTMENT OF TRANSPORTATION FINANCIAL ASSISTANCE PROGRAMS
Subpart C—Goals, Good Faith Efforts, and Counting

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§26.51 What means do recipients use to meet overall goals?

(a) You must meet the maximum feasible portion of your overall goal by using race-neutral means of facilitating race-neutral DBE participation. Race-neutral DBE participation includes any time a DBE wins a prime contract through customary competitive procurement procedures or is awarded a subcontract on a prime contract that does not carry a DBE contract goal.

(b) Race-neutral means include, but are not limited to, the following:

(1) Arranging solicitations, times for the presentation of bids, quantities, specifications, and delivery schedules in ways that facilitate participation by DBEs and other small businesses and by making contracts more accessible to small businesses, by means such as those provided under §26.39 of this part.

(2) Providing assistance in overcoming limitations such as inability to obtain bonding or financing (e.g., by such means as simplifying the bonding process, reducing bonding requirements, eliminating the impact of surety costs from bids, and providing services to help DBEs, and other small businesses, obtain bonding and financing);

(3) Providing technical assistance and other services;

(4) Carrying out information and communications programs on contracting procedures and specific contract opportunities (e.g., ensuring the inclusion of DBEs, and other small businesses, on recipient mailing lists for bidders; ensuring the dissemination to bidders on prime contracts of lists of potential subcontractors; provision of information in languages other than English, where appropriate);

(5) Implementing a supportive services program to develop and improve immediate and long-term business management, record keeping, and financial and accounting capability for DBEs and other small businesses;

(6) Providing services to help DBEs, and other small businesses, improve long-term development, increase opportunities to participate in a variety of kinds of work, handle increasingly significant projects, and achieve eventual self-sufficiency;

(7) Establishing a program to assist new, start-up firms, particularly in fields in which DBE participation has historically been low;

(8) Ensuring distribution of your DBE directory, through print and electronic means, to the widest feasible universe of potential prime contractors; and

(9) Assisting DBEs, and other small businesses, to develop their capability to utilize emerging technology and conduct business through electronic media.

(c) Each time you submit your overall goal for review by the concerned operating administration, you must also submit your projection of the portion of the goal that you expect to meet through race-neutral means and your basis for that projection. This projection is subject to approval by the concerned operating administration, in conjunction with its review of your overall goal.

(d) You must establish contract goals to meet any portion of your overall goal you do not project being able to meet using race-neutral means.

(e) The following provisions apply to the use of contract goals:

(1) You may use contract goals only on those DOT-assisted contracts that have subcontracting possibilities.

(2) You are not required to set a contract goal on every DOT-assisted contract. You are not required to set each contract goal at the same percentage level as the overall goal. The goal for a specific contract may be higher or lower than that percentage level of the overall goal, depending on such factors as the type of work involved, the location of the work, and the availability of DBEs for the work of the particular contract. However, over the period covered by your overall goal, you must set contract goals so that they will cumulatively result in meeting any portion of your overall goal you do not project being able to meet through the use of race-neutral means.

(3) Operating administration approval of each contract goal is not necessarily required. However, operating administrations may review and approve or disapprove any contract goal you establish.

(4) Your contract goals must provide for participation by all certified DBEs and must not be subdivided into group-specific goals.

(f) To ensure that your DBE program continues to be narrowly tailored to overcome the effects of discrimination, you must adjust your use of contract goals as follows:

(1) If your approved projection under paragraph (c) of this section estimates that you can meet your entire overall goal for a given year through race-neutral means, you must implement your program without setting contract goals during that year, unless it becomes necessary in order meet your overall goal.

Example to paragraph (f)(1): Your overall goal for Year 1 is 12 percent. You estimate that you can obtain 12 percent or more DBE participation through the use of race-neutral measures, without any use of contract goals. In this case, you do not set any contract goals for the contracts that will be performed in Year 1. However, if part way through Year 1, your DBE awards or commitments are not at a level that would permit you to achieve your overall goal for Year 1, you could begin setting race-conscious DBE contract goals during the remainder of the year as part of your obligation to implement your program in good faith.

(2) If, during the course of any year in which you are using contract goals, you determine that you will exceed your overall goal, you must reduce or eliminate the use of contract goals to the extent necessary to ensure that the use of contract goals does not result in exceeding the overall goal. If you determine that you will fall short of your overall goal, then you must make appropriate modifications in your use of race-neutral and/or race-conscious measures to allow you to meet the overall goal.

Example to paragraph (f)(2): In Year II, your overall goal is 12 percent. You have estimated that you can obtain 5 percent DBE participation through use of race-neutral measures. You therefore plan to obtain the remaining 7 percent participation through use of DBE goals. By September, you have already obtained 11 percent DBE participation for the year. For contracts let during the remainder of the year, you use contract goals only to the extent necessary to obtain an additional one percent DBE participation. However, if you determine in September that your participation for the year is likely to be only 8 percent total, then you would increase your use of race-neutral and/or race-conscious means during the remainder of the year in order to achieve your overall goal.

(3) If the DBE participation you have obtained by race-neutral means alone meets or exceeds your overall goals for two consecutive years, you are not required to make a projection of the amount of your goal you can meet using such means in the next year. You do not set contract goals on any contracts in the next year. You continue using only race-neutral means to meet your overall goals unless and until you do not meet your overall goal for a year.

Example to paragraph (f)(3): Your overall goal for Years I and Year II is 10 percent. The DBE participation you obtain through race-neutral measures alone is 10 percent or more in each year. (For this purpose, it does not matter whether you obtained additional DBE participation through using contract goals in these years.) In Year III and following years, you do not need to make a projection under paragraph (c) of this section of the portion of your overall goal you expect to meet using race-neutral means. You simply use race-neutral means to achieve your overall goals. However, if in Year VI your DBE participation falls short of your overall goal, then you must make a paragraph (c) projection for Year VII and, if necessary, resume use of contract goals in that year.

(4) If you obtain DBE participation that exceeds your overall goal in two consecutive years through the use of contract goals (*i.e.*, not through the use of race-neutral means alone), you must reduce your use of contract goals proportionately in the following year.

Example to paragraph (f)(4): In Years I and II, your overall goal is 12 percent, and you obtain 14 and 16 percent DBE participation, respectively. You have exceeded your goals over the two-year period by an average of 25 percent. In Year III, your overall goal is again 12 percent, and your paragraph (c) projection estimates that you will obtain 4 percent DBE participation through race-neutral means and 8 percent through contract goals. You then reduce the contract goal projection by 25 percent (*i.e.*, from 8 to 6 percent) and set contract goals accordingly during the year. If in Year III you obtain 11 percent participation, you do not use this contract goal adjustment mechanism for Year IV, because there have not been two *consecutive* years of exceeding overall goals.

(g) In any year in which you project meeting part of your goal through race-neutral means and the remainder through contract goals, you must maintain data separately on DBE achievements in those contracts with and without contract goals, respectively. You must report this data to the concerned operating administration as provided in §26.11.

[64 FR 5126, Feb. 2, 1999, as amended at 76 FR 5098, Jan. 28, 2011; 79 FR 59595, Oct. 2, 2014]

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Attachment 2

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROJECT SPECIFIC GOAL-SETTING PROCESS

Presented By:
Gerard Hutchinson, Supplier Diversity Program

Why Set Project Specific Goals?

- To ensure DBE firms are provided fair opportunity to participate in Agency awarded contracts.
- To better align with market availability of DBE firms.
- Provide a legally defensible framework for contract compliance.

Information Needed to Set Project Specific Goals

- Detailed scope of work by individual work category.
- Appropriate dollar value of each work category & weight relevant to overall cost.
- North American Industry Classification System (NAICS) code for each work category.
- Universe of DBE firms with NAICS codes.
- Geographic market for project work & firms.
- In depth understanding of the agency, community, DBE program, past utilization & any other factors that may impact the ability of firms to meet the goal.

Setting a Project Specific Goal Involves…

- Determining the weight of each work category on the project.
- Determining the availability of DBE firms for each work category on the project.
- Calculating each category goal.
- Calculating the overall project goal.

Determining the Weight of Each Category of Work on the Project

- Scope of work includes description of work to be performed & the corresponding NAICS code.

- Weight of each category of work = $\frac{\text{Dollar value of scope}}{\text{Dollar value of project}}$

Example: Independent Cost Estimate – North County Transfer Center

INDEPENDENT COST ESTIMATE and
OPINION OF PROBABLE CONSTRUCTION COST for
Metro - North County Transfer Center
Phase 1 - Bus Transfer Station
Ferguson, Missouri
90% Design Review Estimate

Project Controls Group, Inc.
#2 Campbell Plaza - Bldg C
59th & Juniata
St. Louis, MO 63139
tel: 314-647-0707

Chk By: mw
Start Date: 02/10/14
IFR: 02/17/14
ITO: 02/24/14

5,183,369

Line No.	Description	CSI Div.	Page	Activity	Units	Quantity	Unit Cost	Stti by DIV.	Total Cost
	Clarification Items:								
	Estimate Clarification: Refer to Basis of Estimate. Estimate quantities have been taken off per plan, section and detail.								
	Indicates Alternate #1 work.								
	02/17/2014, Estimate issued for review and comment.								
	CSI Cost Summary								
Div. 00	Procurement & Contracting Requirements	00						0	
Div. 01	General Requirements	01						0	
Div. 02	Existing Conditions, Demolition, Abatement	02						201,187	
Div. 02	Existing Conditions, Demolition, Abatement	02b		Alternate #1				4,381	
Div. 02	Sitework - Phase 1, Transfer Station	02a						1,115,351	
Div. 03	Concrete	03						455,464	
Div. 04	Masonry	04						11,843	
Div. 05	Metals	05						11,710	
Div. 06	Wood, Plastics, Composites	06						15,864	
Div. 07	Thermal, Moisture Protection	07						28,033	
Div. 08	Openings	08						58,967	
Div. 09	Finishes	09						160,879	
Div. 09	Finishes, Alternate #1	09a		Alternate #1				11,815	
Div. 10	Specialties	10						1,384,171	
Div. 11	Equipment	11						13,004	
Div. 12	Furnishings	12						21,013	
Div. 13	Special Construction	13						0	
Div. 14	Conveying Systems	14						10,000	
Div. 15	Fire Protection	15f						31,224	
Div. 15	Plumbing	15p						39,488	
Div. 15	HVAC	15h						17,950	
Div. 16	Electrical	16						280,695	
									3,851,039
S1.0	**Section 1 - Cost Summary**						Alt #1	Phase 1	
S1.1	**Summary**								
S1.2	Section 2 - Subtotal - Demolition							205,568	
S1.3	Section 3 - Subtotal - New Work						16,197	3,617,768	
S1.4	Combined Subtotal:						16,197	3,823,336	
S1.5	**Contingency**								
S1.6	Design			percent	0.05		810	191,167	
S1.7	Construction			percent	0.15		2,430	573,500	
S1.8	Subtotal:						3,239	764,667	
S1.9	Combined Subtotal:						19,436	4,588,003	
S1.10	**Overhead & Profit**								
S1.11	General Conditions			percent	0.05		810	191,167	
S1.12	Gen. Contractor's OH & Profit			percent	0.10		1,620	382,334	
S1.13	GC OH&P - Subtotal:						2,430	573,500	
S1.14							21,866	5,161,504	
S1.15				Total Opinion of Probable Construction Cost:				5,183,369	

Example: North County Transfer Center – Scope Weights

GOAL SETTING — **Total Project Amount:** $ 5,183,369.00

	Project Scope of Work	Scope $'s Amount	Weight of Scope = Scope $'s Amt / Project Amt		Estimated Availability		Scope Goal = Weight of Scope x Estimated
1	Demolition, Abatement, Sitework	$ 1,320,919.00	25.48%	x		=	
			☐Check here if 3 or fewer certified firms				
2	Concrete	$ 455,464.00	8.79%	x		=	
			☐Check here if 3 or fewer certified firms				
3	Masonry	$ 11,843.00	0.23%	x		=	
			☐Check here if 3 or fewer certified firms				
4	Carpentry	$ 112,574.00	2.17%	x		=	
			☐Check here if 3 or fewer certified firms				
5	Carpentry - Finishes	$ 172,694.00	3.33%	x		=	
			☐Check here if 3 or fewer certified firms				
6	Plumbing, HVAC, Fire Protection	$ 88,662.00	1.71%	x		=	
			☐Check here if 3 or fewer certified firms				
7	Electrical	$ 260,695.00	5.03%	x		=	
	TOTAL		☐Check here if 3 or fewer certified firms				0.0%
8				x		=	
			☐Check here if 3 or fewer certified firms				
9				x		=	

Determining the Availability of DBE Firms for Each Work Category on the Project

- Information typically used by Metro to determine availability for goal setting
  - List of certified DBE firms by NAICS code (www.modot.org/business/contractor_resources/external_civil_rights/mrcc.htm)
  - Census Bureau data. (www.census.gov/econ/cbp/)
- Availability must be determined for each scope, using NAICS codes & incorporating geographic market.
- Category Availability = $\frac{\text{DBE firms in category}}{\text{All firms in category}}$

Example: North County Transfer Center – Category Availability

AVAILABILITY CALCULATIONS

	Work Category	6 Digit NAICS	Certified Firms		Total Firms		Availability = Certified/Total Firms
1	Demolition, Abatement, Sitework	238910	125	/	296	=	42%
	☐Check here if 3 or fewer certified firms						
2	Concrete	238110	58	/	243	=	24%
	☐Check here if 3 or fewer certified firms						
9	Masonry	238140	19	/	216	=	9%
	☐Check here if 3 or fewer certified firms						
9	Carpentry	238130	31	/	94	=	33%
	☐Check here if 3 or fewer certified firms						
9	Carpentry - Finishes	238350	54	/	233	=	23%
	☐Check here if 3 or fewer certified firms						
9	Plumbing, HVAC, Fire Protection	238220	48	/	865	=	6%
	☐Check here if 3 or fewer certified firms						
9	Electrical	238120	29	/	488	=	6%
	☐Check here if 3 or fewer certified firms						
9				/		=	
	☐Check here if 3 or fewer certified firms						
9				/		=	

Calculating Category Goals

- Formula for determining category goals

  Category goal = Category Weight × Category Availability

- The overall project specific goal is the sum of all the category goals.

Example: North County Transfer Center – Calculated Contract Goals

GOAL SETTING	Total Project Amount:	$ 5,183,369.00						
	Project Scope of Work	Scope $'s Amount	Weight of Scope = Scope $'s Amt / Project Amt		Estimated Availability		Scope Goal = Weight of Scope x Estimated
1	Demolition, Abatement, Sitework	$ 1,320,919.00	25.48%	x	42.2%	=	10.76%
			☐Check here if 3 or fewer certified firms				
2	Concrete	$ 455,464.00	8.79%	x	23.87%	=	2.10%
			☐Check here if 3 or fewer certified firms				
3	Masonry	$ 11,843.00	0.23%	x	8.80%	=	0.02%
			☐Check here if 3 or fewer certified firms				
4	Carpentry	$ 112,574.00	2.17%	x	32.98%	=	0.72%
			☐Check here if 3 or fewer certified firms				
5	Carpentry - Finishes	$ 172,694.00	3.33%	x	23.18%	=	0.77%
			☐Check here if 3 or fewer certified firms				
6	Plumbing, HVAC, Fire Protection	$ 88,662.00	1.71%	x	5.55%	=	0.09%
			☐Check here if 3 or fewer certified firm S				
7	Electrical	$ 260,695.00	5.03%	x	5.94%	=	0.30%
	TOTAL		☐Check here if 3 or fewer certified firms				**14.8%**
8				x		=	
			☐Check here if 3 or fewer certified firms				
9				x		=	

Thank You

Questions & Answers