



# 2010 State of the City's Transportation Infrastructure & Fleet Inventory Report



City of Atlanta  
Department of Public Works  
January 2011



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Note: In accordance with the City of Atlanta Sustainability Plan, project lists sorted in various ways are only available by request. Please contact the Department of Public Works for distribution.

# 1.0 Executive Summary

## Overview

The City of Atlanta Department of Public Works has completed the 2010 State of the City's Transportation Infrastructure and Fleet Inventory Report to provide an assessment of the transportation infrastructure and fleet inventory as well as catalogue the maintenance progress since the last status report completed in 2008. The 2008 report excluded the infrastructure managed by other local government authorities such as that of the Atlanta Public Schools, the Metropolitan Atlanta Rapid Transit Authority (MARTA), the Atlanta Fulton County Recreational Authority, and Grady Hospital. The report also limited its focus to infrastructure related to general government operations, therefore excluding the City's water/sewer infrastructure (including storm water management) and the infrastructure at Hartsfield-Jackson Atlanta International Airport that receive funding through independent enterprise funds. Furthermore, the 2008 report did not address the City's expansion needs.



City of Atlanta Skyline

With the exception of a few differences, the 2010 report follows the same guidelines outlined in the previous report. The 2010 report does not analyze the state of the City's Facilities, such as police and fire stations; it also includes some additional transportation assets and studies to provide a more complete catalogue of the City of Atlanta's (COA) transportation infrastructure. The assets and studies that have been added are: Unpaved Streets (Roadway Construction), Reversible Lane Systems, Traffic Signs, a Street Classification Study, a Street and Sidewalk Condition Assessment, a Signs and Markings Condition Assessment, a City of Atlanta Standard Specifications and Construction Details Update, a Truck Route Analysis, and a Street Light Assessment.

## Action Since 2008

The 2008 report identified a deferred transportation maintenance cost, or backlog, of over \$586 million. Although there has been investment in the transportation infrastructure and fleet since 2008; the 2010 transportation infrastructure replacement project needs currently are approximately **\$922 million** (a **48%** increase over the needs identified in 2008). Without the additional scope items added in the 2010 transportation report, there has been an approximate **\$215 million** change or a **34%** increase in backlog project needs. A detailed breakdown of the changes from 2008 to 2010 is shown in Table 4-1, the "2008-2010 Transportation and Fleet Backlog Cost Summary."

## Prioritization Criteria

Across the asset categories tracked, there were various ways used to identify High, Medium, and Low Priority projects. The most common was to determine how many years the asset was past its life cycle (the assumed length of time that an entity will remain viable without significant maintenance). Asset category priority project values are shown in the fact sheets included in this report.

## Funding Plan

Currently, most of the funding for capital projects comes from the City's General Fund or a General Obligation Bond Referendum. However; there are many other options for funding. Alternative sources of funding and plans are discussed in the following Fact Sheets and the 10 and 20 year investment schedules found in Charts 4.3, 4-4, and 4-5. The 10 year period projected funding need for the backlog and annual maintenance is approximately \$195 million and the 20 year period projected funding need for backlog and annual maintenance is approximately \$145 million.

# 1.0 Executive Summary

## Recommendations

It is recommended that the City make it a priority to create a diversified plan which will eliminate the current transportation infrastructure and fleet inventory backlog. If the backlog is not eliminated, every year the deterioration of the transportation infrastructure and fleet will continue. Once the backlog has been eliminated, or addressed in parallel, it is estimated that an annual investment of approximately **\$95 million** a year, representing a **269%** funding gap, is needed to maintain the aging transportation infrastructure and fleet inventory to prevent the accumulation of another backlog. The 2008 report recommended an annual investment of \$100 million; however that calculation included the City's Facilities. A detailed breakdown of the annual investment needs by category is shown in Table 2-2, the Funding Gap Summary.



Atlanta at Night

## 2.1 Street Resurfacing Program Fact Sheet

### Overview

Street resurfacing, as defined in this report, consists of either micro-surfacing / crack sealing or milling and overlaying roadways. There are five categories of streets: Arterial, Collector, Residential, Industrial, and Unpaved.

- **Arterial** - A multi-lane street which functions to move traffic from one district of the city to another that is not designated to serve individual residences. Average 60' wide
- **Collector** - A multi-lane street which functions to move traffic from residential streets to arterial streets. Average 48' wide
- **Residential** - A street which provides frontage for access to lots and carries traffic to and from adjoining residential properties. Traffic shall have origin or destination in the immediate neighborhood. Traffic volume shall not exceed 1,200 ADT (Average Daily Traffic) at any point of traffic concentration. Average 26' wide
- **Industrial** - A street in an industrial area, which carries extreme axial loadings as a result of increased tractor-trailer volumes. Average 26' wide
- **Unpaved** - Gravel and/or dirt street which requires routine maintenance (adding new material, shaping, and ditch cutting) on a quarterly basis and after each heavy rain. (See section 12.0 of this report for the fact sheet.)



Pothole

### Paved Street Inventory

The paved street inventory is approximately 1,634 miles of City owned arterials, collectors, residential, and industrial roadways (1,705 miles in 2008) and unfinished subdivisions. The paved street inventory is the largest part of the transportation infrastructure.

### Action Since 2008

The City of Atlanta has resurfaced 67 miles of roadway since 2008. The inventory has been reduced by removing State routes (approximately 91 miles of arterials and collectors), whose maintenance is not the responsibility of the City, from our inventory roles. There was also an addition of 15 miles of industrial streets and 5.18 miles of unpaved subdivision roadways added to the inventory not previously tracked.

### State of the Paved Street Inventory

51% of the paved street inventory is past their life cycle (47 % in 2008) however, that does not necessarily mean that they are significantly deteriorated. The paved street inventory has 834 miles that are past their Life Cycle (796 miles in 2008). The cost to resurface the City streets that have passed their life cycle is approximately \$261.5 million (\$255.4 million in 2008).

### Prioritization Criteria

The Priority Ratings, of High, Medium, and Low, for the roadways was determined by their number of years past life cycle. High priority streets are over 10 years past life cycle, Medium priority streets are 5 to 10 years past life cycle, and Low priority streets are 0 to 5 years past life cycle. High priority streets will be further ranked based on Condition Data to determine the order of reconstruction.

## 2.1 Street Resurfacing Program Fact Sheet

Chart 2.1-1

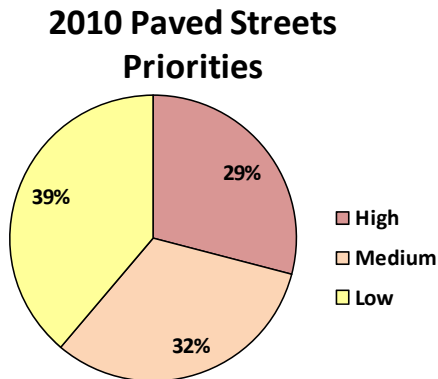


Chart 2.1-2

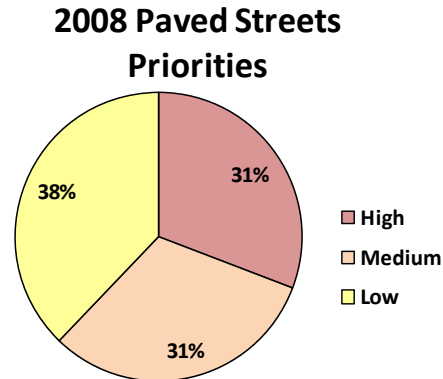


Table 2.1-1

2010 Paved Streets Backlog Inventory

Type of Street	Life Cycle (years)	Total Past Life Cycle (miles)	10+ Years Past Life Cycle (miles)	5 to 10 Years Past Life Cycle (miles)	0 to 5 Years Past Life Cycle (miles)	LIFE CYCLE	0 to 5 Years to Life Cycle (miles)	5+ Years to Life Cycle (miles)	Total Miles	Past Life Cycle (%)
Arterials	10	48	5	12	32			16	9	74
Collectors	15	102	11	29	62		48	80	230	45%
Industrial	10	17	4	5	8		3	3	22	76%
Residential	20	667	222	222	222		100	541	1,308	51%
<b>Totals</b>		<b>834</b>	<b>242</b>	<b>268</b>	<b>324</b>		<b>167</b>	<b>633</b>	<b>1,634</b>	<b>51%</b>

Note: All residential streets 10-20 years past their life cycles were evenly divided among High, Medium, and Low categories.

Table 2.1-2

2010 Street Status Summary

Type of Street	High Priority		Medium Priority		Low Priority		Total Cost (thousands)
	Resurface (miles)	Cost (thousands)	Resurface (miles)	Cost (thousands)	Resurface (miles)	Cost (thousands)	
Arterials	5	\$1,736	12	\$4,988	32	\$15,851	\$22,576
Collector	11	\$3,582	29	\$10,915	62	\$21,689	\$36,185
Industrial	4	\$2,636	5	\$2,083	8	\$3,335	\$8,055
Residential	222	\$65,252	222	\$65,252	222	\$65,252	\$195,755
<b>Totals</b>	<b>242</b>	<b>\$73,206</b>	<b>268</b>	<b>\$83,238</b>	<b>324</b>	<b>\$106,126</b>	<b>\$262,570</b>

Note: Excludes unpaved streets.

\* 5-15 years, \*\*15+ years

## 2.1 Street Resurfacing Program Fact Sheet

### Recommendations

The City should first eliminate the current paved streets inventory backlog. If the backlog is not eliminated, every year the deterioration of the transportation infrastructure will continue. The City should then make a commitment to specifically fund approximately \$38.32 million annually for a roadway maintenance program. One way to optimize the maintenance program is to investigate the use of alternate pavement rehabilitation options such as slurry sealing, Full Depth Reclamation or Recycling (FDR), and minimizing raw material costs by reusing milled asphalt as an aggregate source.

Table 2.1-3  
Street Resurfacing Funding Gap

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current Funding Gap (millions) B-A	Funding Gap % (B-A)/A
\$261.52	\$3.98	\$38.32	\$34.35	864%

Note: Current Annual Budget assumes that 73% of General Fund 130305 and 130306 is spent on Street Resurfacing. The elimination of the backlog is not considered when calculating the annual budget for maintenance and replacement.



Resurfaced Street



## 2.2 Bridge Program Fact Sheet

### Overview

The City of Atlanta is responsible for maintenance of 164 bridges. The Georgia Department of Transportation, upon completion of its bi-annual inspection of bridges, assigns Sufficiency Ratings for the bridges. Sufficiency ratings are based on over 20 factors in four categories: (1) structural adequacy and safety; (2) serviceability and functional obsolescence; (3) essentiality for public and (4) special reductions. A low sufficiency rating does not directly correlate to an unsafe bridge. Any bridge considered unsafe is immediately closed to traffic. The most current GDOT report was completed in 2009. Any bridge with a sufficiency rating below 50 is considered to be a candidate for major repairs or replacement.



Spring Street Bridge

### Bridge Inventory

There are 17 City of Atlanta bridges which have sufficiency ratings that correspond to fair or poor overall condition. This represents approximately 10% of the 164 bridges in the City inventory. Of these bridges: two are under construction, one is newly completed, one is under design with replacement funding identified, and one has been abandoned and is not slated for replacement. Considering that three of the 17 bridges are completed or under construction, there are 14 bridges remaining with ratings less than 50 which correspond to 9% of the overall inventory. The average age of the city's bridge structures is 57 years. The oldest bridges are 104 years old and were constructed in 1906. There are currently three closed bridges, not due to construction.

### Action Since 2008

The City of Atlanta has refurbished (painting, joint sealing and or minor repair) ten bridges since 2008. During subsequent inspection of these structures in 2008 and 2009, seven of these bridges saw an increase of between 3 and 24 points in sufficiency rating, two bridges remained the same and one decreased due to additional deterioration. Fifty eight bridges received repair work associated with the September 2009 Flood (ten of these repairs were structural).

### State of the Bridge Inventory

Bridge replacement and maintenance accounts for the largest dollar investment required to improve sufficiency ratings of all bridges to above 75, approximately \$288.58 million (\$162 million in 2008). Fourteen bridges are in poor or fair condition with sufficiency ratings between 0 and 50 and no identified or insufficient funding. Forty-one bridges are in good condition with sufficiency ratings between 50 and 75. The good category was not tracked in the 2008 report and primarily includes bridge refurbishment and required maintenance costs.

Chart 2.2-1

#### 2010 Bridge Sufficiency Ratings

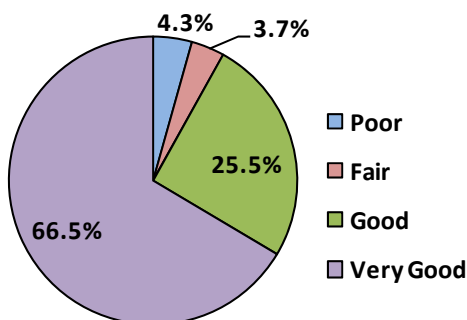
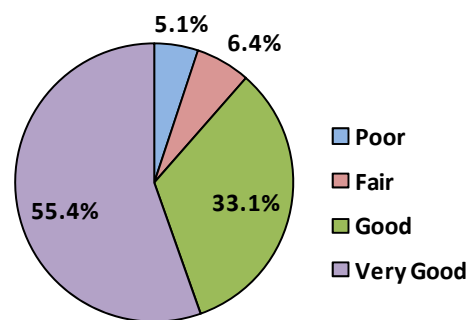


Chart 2.2-2

#### 2008 Bridge Sufficiency Ratings



## 2.2 Bridge Program Fact Sheet

### Prioritization Criteria

The Priority Ratings, of High, Medium, and Low for bridge replacement and refurbishment were determined by sufficiency ratings. High priority is sufficiency ratings of 0 to 34, Medium priority is sufficiency ratings of 35 to 50, and Low priority is sufficiency ratings of 50 to 75.

Chart 2.2-3

**2010 Cost Estimates for Bridge Replacement and Refurbishment**

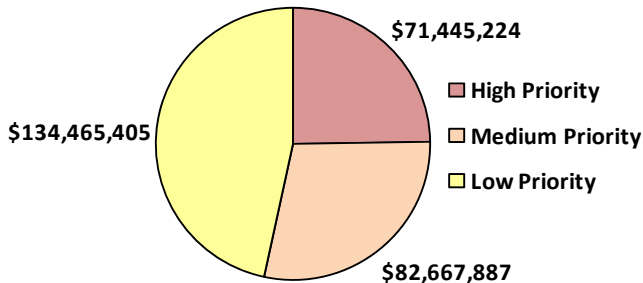


Chart 2.2-4

**2008 Cost Estimates for Bridge Replacement and Refurbishment**

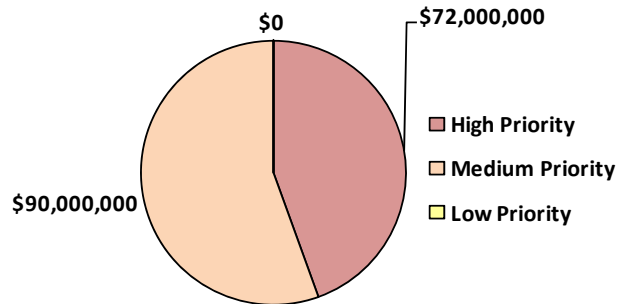


Table 2.2-2

**Bridges - Sufficiency Rating Summary**

Category	GDOT Sufficiency Rating	# of Bridges 2008	# of Bridges 2010
Poor	0 - 34	8	8*
Fair	35 -50	10	6**
Good	51 - 75	52	41
Very Good	75 - 100	87	107
Total Bridges:		157	162

Table 2.2-2

**2010 Bridges - Replacement and Refurbishment Needs**

	High Priority	Medium Priority	Low Priority	Totals
Sufficiency Rating	0 - 34	35 -50	51 - 75	
# of Bridges 2010	7	6	41	54
Cost (thousands)	\$71,445	\$82,668	\$134,465	\$288,579^

**Notes: Bridges abandoned, funded and/or under construction**

\*Mitchell Street (over Southern Railroad) is currently under construction (included in the very good category)

\*\*Mitchell Street (over abandoned railroad) is currently under construction (included in the very good category), Hollywood Road (over Southern Railroad) is recently completed (included in the very good category), Bankhead Avenue (old truss bridge over CSX Railroad) is closed & abandoned (demolition cost included medium priority)

^Fairburn Road (over CSX Railroad) is GDOT funded (construction cost not included)

## 2.2 Bridge Program Fact Sheet

### Recommendations

The City should first eliminate the current bridge backlog. If the backlog is not eliminated; every year the deterioration of the bridge infrastructure will continue, resulting in additional closed and weight limited bridges. This will have an exponential impact on mobility and traffic flow throughout the city. Once the backlog has been addressed the City should then make a commitment to specifically fund approximately \$5 million annually for a bridge maintenance program. This amount will allow for refurbishing of all bridges on a 10 year cycle as well as fund minor repairs needed annually.

**Table 2.2-3  
Bridge Funding Gap**

<b>Total Backlog (millions)</b>	<b>Current Annual Budget (millions) A</b>	<b>Annual Budget Needed (millions) B</b>	<b>Needed vs. Current Funding Gap (millions) B-A</b>	<b>Funding Gap % (B-A)/A</b>
\$288.58	\$0.85	\$5.00	<b>\$4.15</b>	<b>486.94%</b>

Note: The elimination of the backlog is not considered when calculating the annual budget for maintenance and replacement.



Edgewood Road Bridge over abandoned railroad

## 2.3 Sidewalk and Curbing Program Fact Sheet

### Overview

Although new sidewalks have been installed under the Quality of Life Bond Program and minor trip hazards have been addressed since the 2008 Infrastructure Report, there is no substantive change to the estimate of existing deteriorated sidewalks and curbing in the City of Atlanta. The inner City's sidewalk network of hexagonal concrete and brick pavers are beyond the expected life of fifty years. These sidewalks have deteriorated, and do not meet the requirements of the Americans with Disabilities Act (ADA) of 1990. Curbing, particularly in outlying areas annexed from Fulton County, include non-standard header rock providing little stormwater control.



Deteriorated & Non-ADA Compliant Sidewalk

### Estimated Sidewalk and Curbing Inventory

Based on the 2008 State of the City's Infrastructure Report, it is estimated that the City has 2,158 miles of sidewalks and curbing.



Deteriorated & Non-ADA Compliant Sidewalk

### Action Since 2008

Eighteen miles of replacement sidewalks and curbing have been constructed since the State of the City's Infrastructure Report dated December, 2008. This represents less than one percent of the sidewalk and curbing inventory, merely four percent of the 2008 estimated backlog for sidewalks, and eight percent of the 2008 estimated backlog for curbing.

### State of the Inventory

The 2008 Infrastructure Report estimated that about 18% of our sidewalk network can be categorized as deteriorated; 10% of curbing is estimated in the report to be deteriorated. While small amounts of infrastructure replacement have occurred over the past two years, the Department of Public Works estimates that these replacements have been offset by further deterioration of the remaining infrastructure. Therefore, the estimated backlog rates remain the same as in the 2008 report. However, replacement costs per mile of construction have been revised upward from the 2008 report.

Table 2.3-1  
Sidewalks and Curbing – Backlog Inventory

Sidewalk Program Component	Total Inventory (miles)	Estimation Rate	Backlog (miles)	Estimated Backlog Cost Per Mile (thousands)	Estimated Total Backlog Cost (thousands)
Sidewalks	2,158	18.3%	395	\$268	\$109,012
Curbing	2,158	10.0%	216	\$132	\$29,340
Engineering Services	Not Applicable	10.0%	Not Applicable	Not Applicable	\$14,250
<b>TOTAL</b>					<b>\$152,603</b>

## 2.3 Sidewalk and Curbing Program Fact Sheet

### Prioritization Criteria

A comprehensive sidewalk and curbing assessment of magnitude and condition is needed for the Sidewalk & Curbing Replacement Program. This report estimates an equal distribution of high, medium, and low priority sidewalk and curbing projects in the City. The Department of Public Works will utilize street classification and the following additional data in determining priority of sidewalks and curbing for replacement.

- Street Classification: Arterials (highest priority), Collectors, or Residentials/Locals (lowest priority)
- Connectivity to: Schools, bus routes, parks, and commercial/community/medical center nodes
- Safety: Reports of pedestrian accidents
- Population Density

Table 2.3-2  
Sidewalk and Curbing Status Summary

Sidewalk Program Component	High Priority (thousands)	Medium Priority (thousands)	Low Priority (thousands)	Totals (thousands)
Sidewalk	\$39,971	\$39,971	\$39,971	\$119,913
Curbing	\$10,758	\$10,758	\$10,758	\$32,274
<b>Totals</b>	<b>\$50,729</b>	<b>\$50,729</b>	<b>\$50,729</b>	<b>\$152,187</b>

Note: Includes engineering.

### Recommendations

The City should first eliminate the current sidewalk repair inventory backlog. If the backlog is not eliminated; every year the deterioration of the sidewalk infrastructure will continue. Once the backlog has been addressed the City should then make a commitment to specifically fund approximately \$15 million annually for a sidewalk maintenance program.

Table 2.3-3  
Sidewalks and Curbs Funding Gap

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget* Needed (millions) B	Needed vs. Current Funding Gap (millions) B - A	Funding Gap % (B - A)/A
\$152.19	\$0.42	\$15.18	\$14.76	3514.28%

Note: The elimination of the backlog is not considered when calculating the Annual Budget.

## 2.4 ADA Ramp Program Fact Sheet

### Overview

In 2009, the United States Department of Justice initiated a compliance review of the facilities and policies of the City of Atlanta related to the Americans with Disabilities Act (ADA) of 1990. Among other outcomes for City of Atlanta Departments, the Department of Public Works (DPW) is required to identify and install adequate curb ramps at sidewalk locations of streets resurfaced since January, 1992. However, the Department has a desire to do more by providing adequate curb ramps at all sidewalk locations throughout the City.



Intersection Node with Missing ADA Ramp

### ADA Ramp Inventory

During this calendar year, in-house staff of the Department of Public Works has extensively revisited non-state route locations within the City which have been resurfaced since 1992. The DPW assessment inventoried 757 miles of City streets. This inventory represents 44% of the entire street network. The inventory found 18,884 intersection nodes with ADA ramp requirements. See the inventory assessment below for the assessed condition of these intersection nodes. An intersection node is defined as one corner of crossing streets. For example, a T-intersection would have two intersection nodes; an X-intersection would have four intersection nodes. Based on this partial inventory, the Department of Public Works estimates that throughout the City there are approximately 43,000 intersection nodes with ADA ramp requirements. This compares to 52,800 from the 2008 State of the Infrastructure Report.

### Action Since 2008

Since 2008, the City of Atlanta has replaced ADA ramps primarily through funding from the Quality of Life Bond Program. This replacement program provided ADA-compliant ramps wherever sidewalk replacement projects occurred, as well as when intersection improvement projects were implemented. The count of ADA ramp replacements since 2008 is 813 ramps. This represents 1.9 percent of the estimated ADA ramp inventory. This represents 2.6 percent of the estimated backlog for ADA ramps.

### State of the Inventory

This year's ADA ramp assessment found the following at 18,884 intersection nodes with ADA ramp requirements:

- 3,080 intersection nodes were compliant.
- 8,705 intersection nodes had ADA ramps that are currently non-compliant with today's standards.
- 7,099 intersection nodes have no ADA ramps where needed.

The condition of ramps along streets that have not been resurfaced since 1992 has not been inventoried. An assessment is needed to confirm the existence and condition of these ramp requirements. Ramps on the un-inventoried arterials and collectors are estimated at a rate of 4 ramps per 500 feet of street length. It is assumed that 20 percent of the un-inventoried local roads have a sidewalk system. For these sidewalks, it is estimated that there are ramps at a rate of 4 ramps per 500 feet of length.

## 2.4 ADA Ramp Program Fact Sheet

### Prioritization Criteria

In the schedule for improvements provided to the Department of Justice, the inventory of ADA ramp needs have been defined as Priority 1 (high) and Priority 2 (medium) ramps. Priority 1 ramps are along the City's arterial and collector roads that have been resurfaced since 1992. Priority 2 ramps are along the City's local streets that have been resurfaced since 1992. In this report, all ramps mandated in the Department of Justice agreement are high priority. Medium priority ramps are those ramps not included in the Department of Justice mandate that are on arterials and collectors that have not been resurfaced since 1992. Low priority ramps are those ramps not included in the Department of Justice mandate on local streets that have not been resurfaced since 1992.

**Table 2.4-1  
ADA Ramp - Backlog Inventory**

ADA Ramps	High Priority	Medium Priority	Low Priority	Totals
Arterials	1,794	3,886	0	5,680
Collectors	4,380	3,252	0	7,632
Locals	9,630	0	8,500	13,312
<b>Totals</b>	<b>15,804</b>	<b>7,138</b>	<b>8,500</b>	<b>31,442</b>

**Table 2.4-2  
ADA Ramp Status Summary**

ADA Ramps	High Priority (thousands)	Medium Priority (thousands)	Low Priority (thousands)	Totals (thousands)
Arterial	\$2,966	\$6,424	\$0	\$9,390
Collectors	\$7,241	\$5,376	\$0	\$12,617
Local	\$15,920	\$0	\$14,052	\$22,007
<b>Totals</b>	<b>\$26,126</b>	<b>\$11,800</b>	<b>\$14,052</b>	<b>\$51,978</b>



Intersection Node with Non-Compliant ADA Ramp



Missing ADA Ramp Location

## 2.4 ADA Ramp Program Fact Sheet

### Recommendations

The City should first eliminate the current ADA ramp repair inventory backlog. If the backlog is not eliminated; every year the deterioration of the ADA ramps will continue, and the mobility of ADA protected individual will not improve. Once the backlog has been addressed the City should then make a commitment to specifically fund approximately \$5 million annually for a ADA ramp maintenance program.

Table 2.4-3  
ADA Ramp Funding Gap

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current Funding Gap (millions) B-A	Funding Gap % (B-A)/A
\$52.00	\$0.18	\$5.22	\$5.04	2800.00%

Note: The elimination of the backlog is not considered when calculating the Annual Budget.



## 2.5 Traffic Signal Program Fact Sheet

### Overview

Upgrading traffic signals by replacing components that are obsolete and/or past life cycle, optimizing signal timing, and establishing remote communication for emergency management purposes continues to be a critical concern for the City of Atlanta. It is the ultimate goal of the City to update all traffic signals to communicate with the Atlanta Traffic Control Center (ATCC) so that all signals can be adjusted remotely to react to traffic and safety concerns (such as a city-wide evacuation). Approximately 300 of the signals currently in-service have remote communication access. All new signals will be equipped with one of two types of communication modes: wireless or fiber optic. While wireless is the preferred method of remote access, site conditions may dictate the installation of fiber optic cable. Also, video communications upgrades via closed circuit television will be evaluated as an additional option.



Upgraded Traffic Signal

- **Traffic Signal Cabinets** – Metal (typically aluminum) cabinet enclosures that provide water-tight and tamper-proof protection to the heart and brains of the traffic signal. The enclosures contain power to the signal and the electronic control equipment which senses traffic movement on roads and controls the signal light timing and various phases.
- **Poles and Mast Arms** – Metal poles with an anchor base designed to support signal system. Mast arms are horizontally extended metal poles mounted to vertical poles that hold traffic signal heads, signs, and cameras.
- **Bulbs/LED Displays** – The majority of the bulbs in the City's traffic signals are incandescent light bulbs. They require significantly more energy because 90% of the energy generated by this type of bulb is released as heat. LEDs or light emitting diodes, although initially more expensive than incandescent light bulbs, are more reliable, use less energy, and last considerably longer than incandescent light bulbs.
- **Controller and Conflict Monitor** – Signal controller monitors signal phases and timing and can provide surveillance capabilities that include traffic detection and video surveillance. The conflict monitor is an independent controller that monitors traffic signal operation and when a conflict occurs (such as all green phase) places the signal in a "flash mode".
- **Wiring** – Various types of stranded traffic signal cable is used as wiring for the installation and connection between traffic signals.
- **Signal Timing** – Timing given to each conflicting movement phase (red, amber, green, walk, and don't walk cycles) to optimize pedestrian and vehicular movements through a signalized intersection or a series of signalized intersections in a safe and efficient manner.
- **Communication** - Data Transmission via wireless communication or fiber optic cable between traffic signals and a centralized control center. This data is used to monitor and coordinate traffic signal operation and traffic movement (via closed circuit television), for real-time adjustments that decrease wait times and promotes safe and efficient traffic movements throughout the entire network.

## 2.5 Traffic Signal Program Fact Sheet

### Traffic Signal Inventory

Currently there are 938 signalized intersections in the City of Atlanta.

### Actions Since 2008

In 2008 there were 922 signalized intersections. Since that time 25 additional intersections have been brought online and signals at 9 intersections have been removed. Approximately 150 intersections have been partially upgraded with cabinet, controller, and/or signal head replacements. Funding to complete upgrades to 67 signals has been secured under the American Recovery and Reinvestment Act; upgrades to 37 signalized intersections in the Central Business District (CBD) have been completed with funding provided by the Georgia Department of Transportation (GDOT) and the Community Improvement Districts (CIDs).

### State of the Inventory

536 or 57% of the City's traffic signals are beyond the average life cycle of 10 years (the various components of a traffic signal system have varying life cycles ranging from 5 to 20 years). The following table summarizes traffic signal components past life cycle:

Table 2.5-1:  
Life Cycle Summary

Signal Components	Obsolete/Beyond Life Cycle	Within Life Cycle
Signal Cabinets	388	550
LED Displays	624	314
Controller/Conflict Monitor	465	473
Wiring	484	454
Signal Timing	774	164
Communications	938	0
Steel Poles	38	not available

### Prioritization Criteria

Prioritization for the replacement of the various traffic signal components is a function of age. Each component has its own specific life cycle, and thus for the purposes of this report, the average life cycle will be normalized at 10 years. Components that are 10 or more years past life cycle will be categorized as High Priority; components that are 5 to 10 years past life cycle will be categorized as Medium Priority; and components that are 0 to 5 years past life cycle will be categorized as Low Priority.

Table 2.5-2:  
Life Cycle Categorization

Signal Components	Life Cycle (years)	High Priority 10+ years past	Medium Priority 5 - 10 year past	Low Priority 0 -5 years past
Signal Cabinets	10	76	242	70
LED Displays	5	82	316	226
Controller/Conflict Monitor	5	79	242	144
Wiring	20	84	266	134
Signal Timing	5	340	347	87
Communications	20	87	347	504
Steel Poles	20	38	not available	not available

## 2.5 Traffic Signal Program Fact Sheet

Table 2.5-3:  
Traffic Signal Status Summary

Traffic Signal Component	High Priority (millions)	Medium Priority (millions)	Low Priority (millions)	Total Cost (millions)
Signal Cabinets	\$0.98	\$3.11	\$0.90	\$4.98
LED Displays	\$1.58	\$6.09	\$4.35	\$12.02
Controller/Conflict Monitor	\$0.51	\$1.56	\$0.92	\$2.99
Wiring	\$0.72	\$2.28	\$1.15	\$4.14
Signal Timing	\$1.46	\$1.49	\$0.37	\$3.31
Communications	\$1.86	\$7.43	\$10.79	\$20.07
Steel Poles	\$1.31	\$0	\$0	\$1.31
<b>Totals</b>	<b>\$8.40</b>	<b>\$21.94</b>	<b>\$18.48</b>	<b>\$48.82</b>

Chart 2.5-1

**2010 Traffic Signal Priorities**

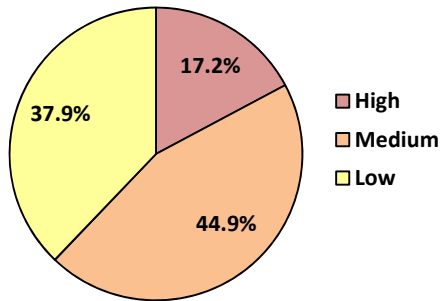
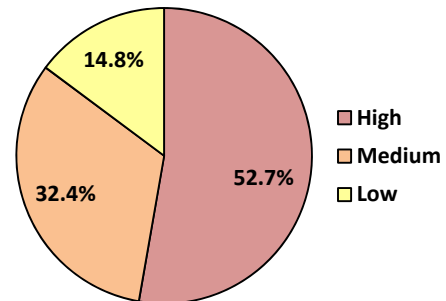


Chart 2.5-2

**2008 Traffic Signal Priorities**



### Recommendations

Eliminating the backlog associated with the Traffic Signal Projects should be a priority. Failure to address this backlog will further increase funding needs and cause continued system wide deterioration. A commitment to fund \$2.3 million annually for the Traffic Signal Program should also be a priority.

Table 2.5-4  
Traffic Signal Funding Gap

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current Funding Gap (millions) B-A	Funding Gap % (B-A)/A
\$31.22	\$.72	\$2.30	\$1.58	221.38%

Note: The elimination of the backlog is not considered when calculating the annual budget for maintenance and replacement.

## 2.6 Reversible Lane System Program Fact Sheet

### Overview

Reversible lane systems allow one or more lanes on a roadway to reverse direction during peak travel periods to provide additional vehicle capacity which assists in reducing congestion. The systems consist of special pavement markings, controllers, cabinets, signal displays, and signs.



Reversible Lane System

### Reversible Lane System Inventory

The City of Atlanta currently has four reversible lane systems on three major arterials.

- Northside Drive from I-75 to Northside Parkway (State Route 3)
- Memorial Drive from Pearl Street to Whitefoord Avenue (State Route 154)
- Memorial Drive from Second Avenue to Candler Road (State Route 154)
- Decatur Street/Dekalb Avenue from Jackson Street to Oxford Place

### Action Since 2008

The state of the Reversible Lane Systems was not presented in the 2008 State of the City's Infrastructure Report. However, there have been no improvements to the City of Atlanta reversible lane system since 2008.

### State of the Inventory

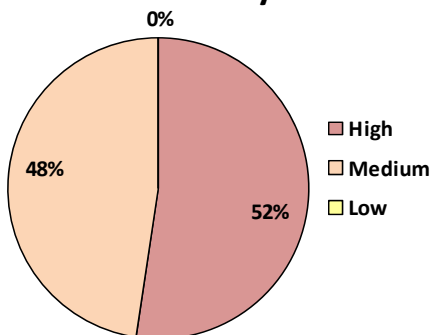
All four systems are past their Life Cycle and need to be replaced. The reversible lane system on Northside Drive between I-75 and Collier Road is slated to be decommissioned in 2011 or 2012 by the Georgia Department of Transportation (GDOT). Therefore, funding for its replacement is not considered in this report.

### Prioritization Criteria

The Priority Ratings of High, Medium, and Low for replacement of the reversible lane systems were determined by the probability of funding by other entities, such as GDOT. Systems which have definite funding are ranked as Low, those with a strong possibility of funding are ranked as Medium and the system with no alternate funding identified is ranked as High.

Chart 2.6-1

### 2010 Reversible Lane System Priorities by Cost



## 2.6 Reversible Lane System Program Fact Sheet

Table 2.6-1  
2010 Reversible Lane System Status Summary

High Priority		Medium Priority		Low Priority		Total Cost	Total Count
Cost (thousands)	Count	Cost (thousands)	Count	Cost (thousands)	Count	(thousands)	Count
\$1,376	1	\$1,251	2	\$0	1	\$2,628	4

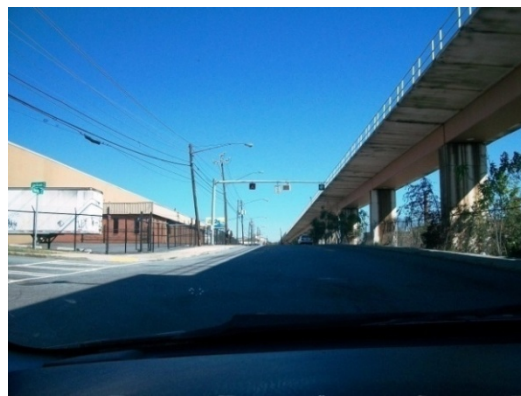
### Recommendations

The City should first replace the High Priority reversible lane system then secure alternate funding and scheduling for the remaining inventory backlog. Afterward, the City should make a commitment to specifically fund approximately \$260,000 annually for a reversible lane system maintenance program (approximately 44% less than is currently allocated).

Table 2.6-2  
Reversible Lane System Funding Gap

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current Funding Gap (millions) B-A	Funding Gap % (B-A)/A
\$2.55	\$0.14	\$0.26	\$0.11	78.20%

Note: Current Annual Budget assumes that 5% of General Fund 130304 is spent on Reversible Lane Systems. The elimination of the backlog is not considered when calculating the annual budget for maintenance and replacement.



Reversible Lane Systems

## 2.7 Traffic Signage Program Fact Sheet

### Overview

The Manual on Uniform Traffic Control Devices (MUTCD) establishes uniform standards for the installation and placement of traffic signs on public roads. Recently adopted standards require all public agencies to establish and implement a sign maintenance program, and require that all signs meet a minimum retro-reflectivity requirement. It also establishes several compliance dates.

### Traffic Signage Inventory

It is estimated that there are 120,000 traffic signs in the City of Atlanta (30,000 of which are Guide Signs, 40,000 are Warning Signs, and 50,000 are Regulatory Signs).



Non-compliant Street Name Signage

### Actions Since 2008

Traffic signage was not considered in the 2008 State of the City's Infrastructure Report. Currently, traffic signs are being replaced on an as needed basis and updated to comply with current MUTCD standards.

### State of the Traffic Signage Inventory

It is estimated that 63% of the total sign inventory is inadequate and does not meet the recently established guidelines, standards, and warrants as set forth in the MUTCD. All Guide Signs and Warning Signs are inadequate. 10% of Regulatory Signs are inadequate.

### Prioritization Criteria

A comprehensive sign inventory and condition assessment is needed to determine the magnitude of the City's sign inventory. For the purposes of this report, the compliance dates outlined in the MUTCD have been used to determine High, Medium, and Low priority projects.

- High Priority – Sign standards that should be complete by the January 2012 compliance date.
- Medium Priority - Sign standards that should be complete by the January 2015 compliance date.
- Low Priority - Sign standards that should be complete by the January 2018 compliance date

Table 2.7-1:  
2010 Traffic Signs Status Summary

Program Component	High Priority (millions)	Medium Priority (millions)	Low Priority (millions)	Totals (millions)
Establish and Implement Sign Maintenance Program	N/A	N/A	N/A	Cost included in Signs & Markings Inventory & Condition Assessment
Meet Size and Lettering Requirement for Street Name Signs	\$4.30	N/A	N/A	\$4.30
Retro-reflectivity Requirement for Regulatory Signs (except street name signs)	N/A	\$12.09	N/A	\$12.09
Retro-reflectivity Requirement for Overhead Guide Signs and all Street Name Signs	N/A	N/A	\$5.17	\$5.17
<b>Total:</b>	<b>\$4.30</b>	<b>\$12.09</b>	<b>\$5.17</b>	<b>\$21.56</b>

## 2.7 Traffic Signage Program Fact Sheet

### Recommendations

Eliminating the existing backlog of approximately \$21 million coupled, with an annual funding commitment of \$1.84 million to ensure that this backlog does not increase, is paramount in meeting the compliance dates set forth in the 2009 edition of the MUTCD.

Chart 2.7-1

**2010 Traffic Signage  
Priorities**

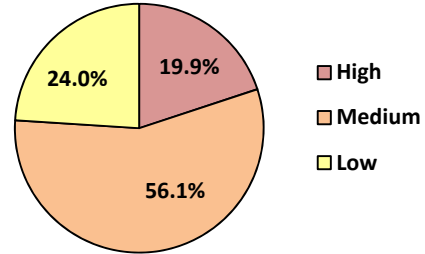


Table 2.7-2  
Traffic Signage Funding Analysis

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current Funding Gap (millions) B-A	Funding Gap % (B-A)/A
\$21.56	\$0.80	\$1.84	\$1.04	130.95%



Compliant Street Name Signage

## 2.8 Street Lighting Fact Sheet

### Overview

There have been no significant physical changes or upgrades to the City of Atlanta's street light inventory since the 2008 report. The inventory of street lights continues to deteriorate, and there have been 48 additional knock downs. Unit price cost increases account for a significant change in the overall cost of deferred maintenance needs related to our street light inventory.



Tear Drop Street Light on Hank Aaron Drive

### Street Light Inventory

The City of Atlanta is currently paying energy costs on 51,093 street lights (14,459 City owned and 36,634 leased - owned by Georgia Power).

### Actions Since 2008

There have been no significant changes or improvements to the City's street light network since 2008.

### State of the Inventory

The state of the street light inventory has been divided into four major components. Wiring problems with 4,986 street lights (10% of the inventory) have been identified; 3,234 poles need to be replaced and/or re-installed (6%); 673 shrouds are damaged and/or missing (1%); and 2,230 poles need to be repainted (4%).

### Prioritization Criteria

A comprehensive inventory and condition assessment is needed to determine scope and magnitude of problems with the City's street light inventory.

- High Priority – Replacement of wiring that is five to ten years past life cycle, and all poles and shrouds that are currently missing.
- Medium Priority – Replacement of wiring that is up to five years past life cycle.
- Low Priority – Replacement of poles that are past life cycle and poles needing repainting.

Table 2.8-1  
2010 Street Light Status Summary

Problem	High Priority		Medium Priority		Low Priority		Totals	
	Count	Cost (thousands)	Count	Cost (thousands)	Count	Cost (thousands)	Count	(thousands)
Wiring	2,950	\$7,824	2,036	\$5,400	-	\$0	4,986	\$13,224
Pole	284	\$1,537	-	\$0	2,950	\$15,961	3,234	\$17,498
Shroud	673	\$607	-	\$0	-	\$0	673	\$607
Repaint	-	\$0	-	\$0	2,230	\$15,961	2,230	\$15,961
<b>Totals</b>	<b>3,907</b>	<b>\$9,968</b>	<b>2,036</b>	<b>\$5,400</b>	<b>5,180</b>	<b>\$31,922</b>	<b>11,123</b>	<b>\$47,290</b>



## 2.8 Street Lighting Fact Sheet

### Recommendations

The backlog of \$34.6 million will continue to increase without a significant investment in this program. An annual funding commitment of \$8.1 million will ensure that the backlog does not increase.

Chart 2.8-1

### 2010 Street Lighting Priorities

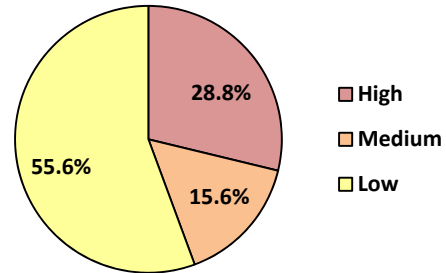


Table 2.8-2

### Street Light Funding Analysis

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current Funding Gap (millions) B-A	Funding Gap % (B-A)/A
\$34.64	\$1.92	\$10.98	\$9.06	472.24%

Note: The elimination of the backlog is not considered when calculating the Annual Budget.



Cobra Head Street Lights at Spring Street and Trinity Avenue

## 2.9 School Zone Flasher Fact Sheet

### Overview

The primary purpose for school zone flashers is to reduce the speed of vehicles in a school zone, in an effort to provide a safer environment for school children.

### School Zone Flasher Inventory

There are 110 school zone flashers in the City of Atlanta inventory.

### Action Since 2008

50 school zone flashers have been updated since 2008.

### State of the Inventory

There are 52 school zone flashers with components that are past their Life Cycle. This represents a 53% improvement from 2008 when all 100% of flashers were past their Life Cycle. The total cost to replace all of the school zone flashers past their Life Cycle is approximately \$496,500.

### Prioritization Criteria

All school zone flashers past their Life Cycle are considered to be High Priority. The Life Cycles for school zone flashers are 5 years for the signage, 10 years for the communications and 10 years for the control box / signal.



School Zone Flasher

### Recommendations

The City should first eliminate the current school zone flasher inventory backlog. If the backlog is not eliminated; every year the deterioration of the inventory will continue. The City should then make a commitment to specifically fund \$102,000 annually for a school zone flasher maintenance program.

Table 2.9-1  
Funding Gap

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current Funding Gap (millions) B-A	Funding Gap % (B-A)/A
\$0.48	\$0.09	\$0.10	\$0.02	18.72%

Note: The elimination of the backlog is not considered when calculating the Annual Budget.

## 2.10 Roadway Construction Program Fact Sheet for Unpaved Streets

### Overview

Roadway construction, as defined in this report, consists of full depth paving of previously unpaved roadways in the City of Atlanta. The unpaved classification means that the roadway is a gravel road that requires routine maintenance (adding new material, shaping, and ditch cutting) on a quarterly basis and after each heavy rain.

### Unpaved Roadways Inventory

Less than 1% of the City street inventory consist of unpaved streets. There remain 87 unpaved street segments in the City's current roadway inventory totaling 8.55 miles.

### Action Since 2008

The condition of unpaved streets was not tracked in the 2008 report. However, since the report was issued, the City of Atlanta has paved 6.44 miles of unpaved streets through funding from the Quality of Life Bond Program and by private developers.

### State of the Inventory

The cost to pave the remaining unpaved streets is estimated at \$31,167,000.



Unpaved Roadway



Unpaved Roadway

### Prioritization Criteria

The priority ratings of High, Medium, and Low were determined by the Condition Rating (CR) of the streets. High priority condition ratings are greater or equal to 70; medium priority ratings are less than 70 but greater or equal to 50; and low priority ratings are less than 50. The factors used to determine the Condition Rating of unpaved streets include daily traffic volume, the number of houses fronting the roadway, the proximity to school locations and other pedestrian generators, if a roadside hazard such as an open ditch is present, the needed street drainage, and the current right-of-way availability.

Table 2.10-1

2010 Street Status Summary

High Priority CR ≥70		Medium Priority 50≤CR<70		Low Priority CR <50		Total Length	Total Cost
Miles	Cost (thousands)	Miles	Cost (thousands)	Miles	Cost (thousands)	Miles	(thousands)
1.23	\$4,598	3.60	\$13,493	3.73	\$14,011	<b>8.55</b>	<b>\$32,102</b>

## 2.10 Roadway Construction Program Fact Sheet for Unpaved Streets

Chart 2.10-1

### 2010 Roadway Construction Priorities

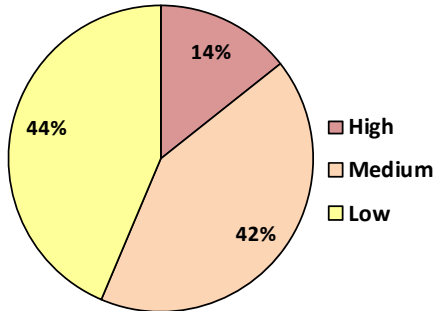
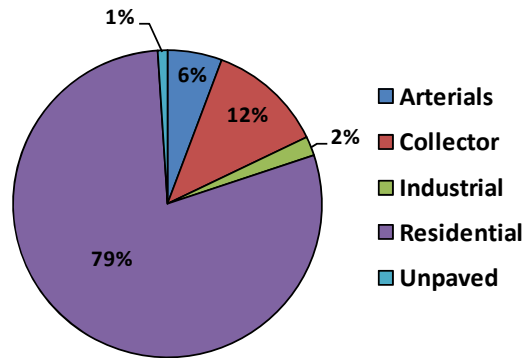


Chart 2.10-2

### 2010 Street Inventory



### Recommendations

The City should decide on and enforce funding sources for paving or maintenance of unpaved streets.

Table 2.10-3

### Roadway Construction Funding Gap

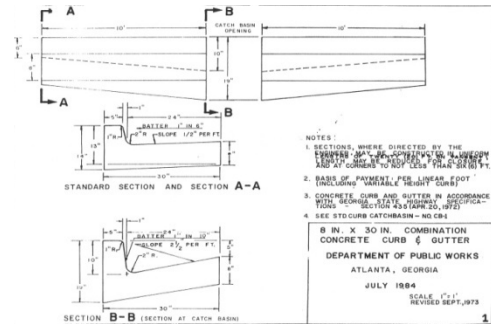
Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current Funding Gap (millions) B - A	Funding Gap % (B - A)/A
\$31.17	\$0.1136	\$0.1069	-\$0.0067	-5.9%

Note: The Current Annual Budget numbers are based on the following assumptions: Paved streets, bridges, sidewalks, curbs and ADA ramps, and unpaved streets consist of 73%, 15%, 10%, and 2% respectively of the sum of the DPW Roadways & Walkways Hill St General Fund 130305 and the DPW Roadways & Walkways North Ave General Fund 130306. The surplus represented in the chart is a result of the percentage breakdown; overall we are underfunding transportation related projects. The elimination of the backlog is not considered when calculating the Annual Budget.

## 2.11 Department of Public Works Studies and Assessments

### Overview

The Department of Public Works, Office of Transportation will seek professional services for Inventories and Condition Assessments for Signs and Markings, Streets and Sidewalks, and Street Lights, for a Street Classification Study and Truck Route System Assessment, and for a City of Atlanta Specifications and Standard Construction Details Update. These studies will be used for project prioritization within this infrastructure replacement program and for use in planning and implementing vehicle and pedestrian movement on the City's streets.



City of Atlanta Detail

### Action Since 2008

Studies needed for project prioritization were not tracked in the 2008 report.

### State of the Inventory

The following are needed studies listed in order of priority.

- **Signs and Markings Inventory and Condition Assessment:** The Manual on Uniform Traffic Control Devices (MUTCD) 2009 edition made many changes that affect City signs and markings. A sign inventory will be conducted to assess the affected signs and used to prepare a plan for compliance with the new standards. The federal deadline for this assessment is January, 2012. The first step, to locate all of the current City signs, has been started with a collaboration of the City of Atlanta and the Georgia Institute of Technology. Georgia Tech will use a web application to locate all of the signs and populate the City's GIS (Geographic Information System) database. The assessment will provide condition information for signs and will update the street markings file in an electronic format.

Cost: \$670,000

- **Streets and Sidewalks Inventory and Condition Assessment:** This inventory and assessment will determine street pavement conditions on all City streets. The assessment will also provide location and condition of sidewalks and ramps including compliance with the Americans with Disabilities Act (ADA) in digital files. The assessment will be utilized for further prioritization of projects for the infrastructure replacement program. The assessment will provide refinement of budgets and schedules the replacement program.

Cost: \$1,236,000

- **Street Light Assessment:** A comprehensive assessment of City owned street lights is required to inventory street light type, location, service point and wiring system configuration. The study should be inclusive of maps (paper and digital files), Computer Aided Design (CAD) files (AutoCAD and GIS format) and database creation. Coordination with Georgia Power Company will be required.

Cost: \$412,000

- **Street Classification Study and Truck Route System Assessment:** The City's current functional street classification consists of expressways, arterials, collectors, and locals categories. The Street Classification Study will develop official classification criteria for each street category, will review the current functional classification of the City street network based on the developed criteria, will redefine the classifications of existing streets based on the classification criteria, and will propose new official street classifications such as residential collector and industrial street categories. A comprehensive assessment of the City's truck route system has not occurred since 1953, although there have been changes in the City's land uses.

## 2.11 Department of Public Works Studies and Assessments

Many commercial areas have become residential and additional streets have been constructed. The assessment should consider adjacent land uses, the impact of truck traffic on residential neighborhoods, parks, institutional land uses, and future land development as described in the City's Comprehensive Development Plan (CDP).

Cost: \$361,000

- **City of Atlanta Standard Specifications and Construction Details Update:** Although some portions of the City's standard specifications and construction details were updated in 2003, other details date back to the 1960's. The purpose of the Update will be to review and update the standards for compliance with current regulations and construction practices. Following this update, the details should then be digitized so that they will be available for distribution and use in CAD format. Additionally, "green construction" alternatives to current details will be included, where applicable, and conflicts between standard details, the City's Code of Ordinances, and the Connect Atlanta Street Guide Plan will be resolved.

Cost: \$1,339,000

**Total Cost for Studies and Assessments: \$4,018,000.**

**Table 2.11-1  
Studies and Assessments Funding Gap**

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget* Needed (millions) B	Needed vs. Current Funding Gap (millions) B-A	Funding Gap % (B-A)/A
\$4.02	\$0.01	\$0.20	\$0.19	1900.00%

Note: The elimination of the backlog is not considered when calculating the Annual Budget.



City of Atlanta Street

## 3.0 Fleet Inventory Fact Sheet

### Overview

The Office of Fleet Management is responsible for maintaining and tracking the City of Atlanta (COA) Fleet which includes motorized equipment ranging from fire trucks to back hoes.

### Fleet Inventory

There are 3,079 units of General Fund rolling stock or Fleet equipment in the COA inventory.

### Action Since 2008

There have been 192 General Fund pieces of Fleet equipment purchased since 2008 for the Department of Public Works, Parks and Recreation, Atlanta Fire and Rescue, and the Atlanta Police Department; since 2008; approximately a 2.3 million dollar investment. However, there has been an overall decrease in the inventory due to a fleet reduction program in which many pieces of equipment were surplus and sold, resulting in a net deduction of 254 pieces of equipment.



Fire Truck

### State of the Fleet Inventory

56% of the Fleet inventory is past its Life Cycle (55% in 2008) and is the reason there are increased repairs, limited availability of parts, and long turnaround times for equipment. The cost to replace the backlog inventory is approximately \$40.9 million (\$54.4 million in 2008).

Table 3-1  
Fleet Inventory Summary

	<b>Total Backlog</b>	<b>Total Cost</b>	<b>Total Inventory</b>	<b>Total Inventory Cost</b>	<b>% Backlog</b>
<b>Department</b>	Equipment	(thousands)	Equipment	(thousands)	
<b>Atlanta Police Department</b>	645	\$12,416	1,057	\$22,306	61%
<b>Public Works</b>	446	\$21,610	843	\$43,112	53%
<b>Atlanta Fire &amp; Rescue</b>	246	\$1,487	409	\$24,435	60%
<b>Parks, Recreation &amp; Cultural Affairs</b>	348	\$4,358	631	\$10,330	55%
<b>Executive Offices</b>	9	\$358	17	\$488	53%
<b>Planning &amp; Community Development</b>	3	\$47	88	\$1,085	3%
<b>Other Departments</b>	26	\$601	34	\$727	76%
<b>Totals</b>	<b>1,723</b>	<b>\$40,876</b>	<b>3,079</b>	<b>\$102,484</b>	<b>56%</b>

### Prioritization Criteria

Equipment more than 10 years past its life cycle are rated as High Priority, equipment 5-10 years past its life cycle are rated as Medium Priority, and equipment less than 5 years past its life cycle are rated as Low Priority.

## 3.0 Fleet Inventory Fact Sheet

Chart 3-1

**2010 Fleet Priorities**

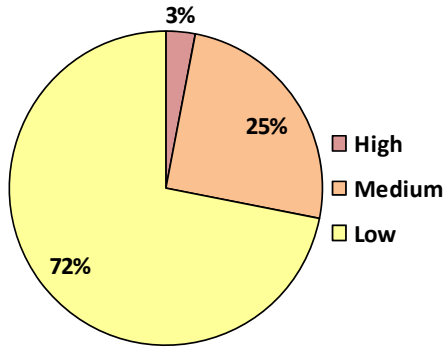


Chart 3-2

**2008 Fleet Priorities**

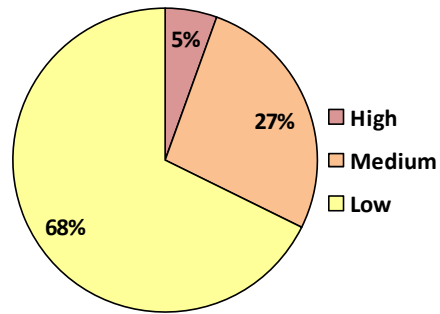


Table 3-1  
2010 Backlog Inventory

Department	High Priority >10 yrs past Life Cycle		Medium Priority 5-10 yrs past Life Cycle		Low Priority <5 yrs past Life Cycle		Total Backlog	Total Cost
	Count	Cost (thousands)	Count	Cost (thousands)	Count	Cost (thousands)	Count	(thousands)
Atlanta Police Department	4	\$62	152	\$2,522	489	\$9,832	<b>645</b>	<b>\$12,416</b>
Public Works	21	\$628	124	\$5,484	301	\$15,497	<b>446</b>	<b>\$21,610</b>
Atlanta Fire & Rescue	13	\$40	60	\$165	173	\$1,281	<b>246</b>	<b>\$1,487</b>
Parks, Recreation & Cultural Affairs	14	\$324	86	\$1,673	248	\$2,361	<b>348</b>	<b>\$4,358</b>
Executive Offices	0	\$0	3	\$105	6	\$253	<b>9</b>	<b>\$358</b>
Planning & Community Development	0	\$0	0	\$0	3	\$47	<b>3</b>	<b>\$47</b>
Other Departments	0	\$0	7	\$180	19	\$421	<b>26</b>	<b>\$601</b>
<b>Totals</b>	<b>52</b>	<b>\$1,054</b>	<b>432</b>	<b>\$10,130</b>	<b>1,239</b>	<b>\$29,692</b>	<b>1,723</b>	<b>\$40,876</b>



## 3.0 Fleet Inventory Fact Sheet

**Recommendations:** Elimination of the current Fleet inventory backlog should be a priority. If the backlog is not eliminated, every year the deterioration of the Fleet will continue. The City should then make a commitment to specifically fund \$17 million annually for a Fleet maintenance program. It should be noted that this capital investment will be offset, to a significant degree, by reductions in fleet maintenance expenses. Replacing equipment in a timely fashion would ensure that many will be replaced prior to the expiration of their warranty, thus reducing the need to maintain them in-house. Currently, the City spends approximately \$16.4 million each year to maintain its fleet with 85% going toward preventative maintenance and 15% going toward repairs vs. the industry standard of 70% to 30%. Other recommendations include leasing more equipment, to reduce the need for internally provided maintenance, and an additional fleet reduction to remove underutilized vehicles from inventory thus reducing maintenance costs and providing the City with a revenue source.

**Table 3-3  
Fleet Funding Gap**

Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current vs. Funding Gap (millions) B-A	Funding Gap % (B-A)/A
\$40.88	\$16.40	\$17.00	\$0.60	3.66%

Note: Current Annual budget is based on needs for Atlanta Police Department, Atlanta Fire Department, Department of Public Works, and Department of Parks and Recreation. The elimination of the backlog is not considered when calculating the Annual Budget.



Codes Compliance, Buildings, and Housing Trucks

## 4.0 Summary and Funding Options

### Summary

The City of Atlanta has approximately **\$922 million** of transportation infrastructure and fleet inventory backlog projects. Approximately **\$249 million** (27%) of those projects are rated as a High Priority. The annual budget to maintain the assets identified is approximately **\$26 million** which represents an **over \$200 million** annual maintenance funding gap. See Table 4-1 for a breakdown of asset priority costs and Table 4-2 for an illustration of the current maintenance funding gap.

Chart 4-1

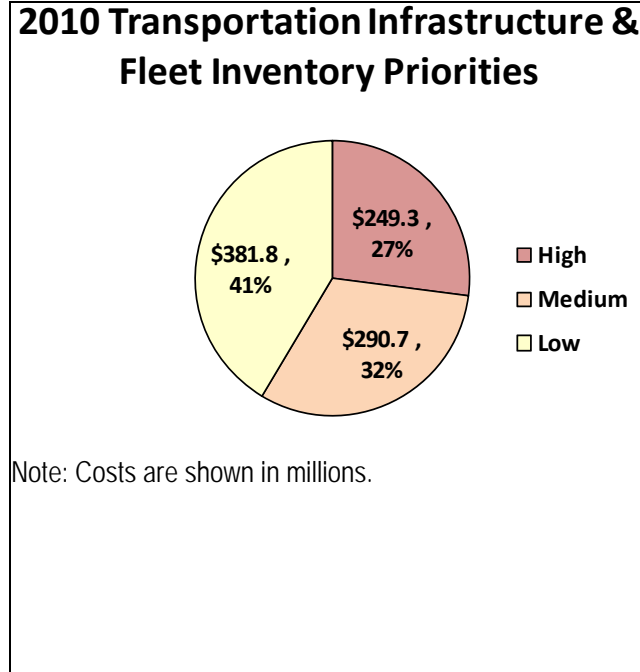
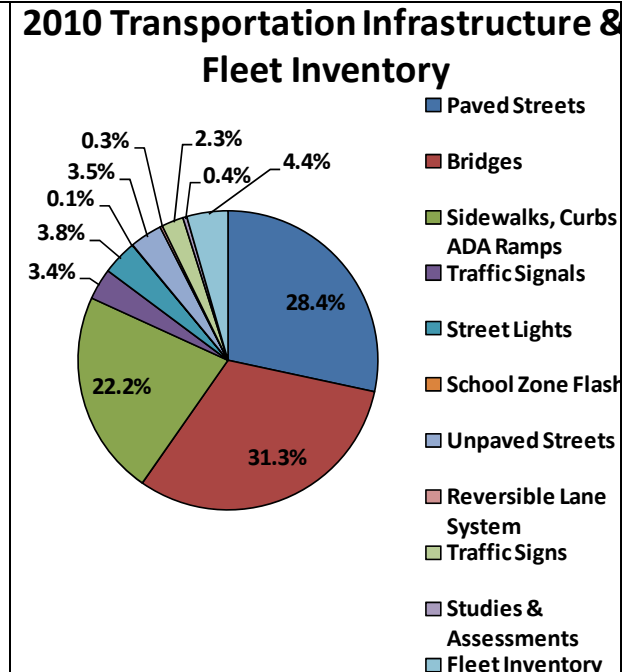


Chart 4-2



### Funding Options

The existing and possible sources of funding identified for the transportation infrastructure and fleet inventory backlog projects and annual maintenance budget are as follows:

#### Existing Funding Source:

- Quality of Life Bond Program Funds
- Transportation Impact Fees
- Annual Bond Funds
- MARTA Offset Funding
- Grant Funding from Georgia Department of Transportation(ex. State Local Maintenance Improvement Grant (LMIG) formally LARP (Local Assistance Road Program)
- Supplemental Funding from the Community Improvement Districts
- General Operating Fund

#### Potential Funding Source:

- General Obligation Bond Referendum
- Annual General Fund Allocation

## 4.0 Summary and Funding Options

- Enforcement of existing City of Atlanta Code of Ordinances, Section 138-103 requiring maintenance of sidewalks and curbing through assessments to abutting property owners for low priority projects.
- Enforcement of existing City of Atlanta Code of Ordinances, Section 138-76 requiring assessments to abutting property owners for paving of unpaved streets.
- Street Light Utility Fee
- Fleet Reduction Sale
- Street Cut Impact Fee
- Commercial Solid Waste Road Impact Fee
- Regional Transit Impact Fee
  - Georgia State House Bill 277
- Federal Community Development Block Grant (CDBG) Program
- State Transportation Improvement Plan
- Federal Transportation Bill
- Federal Earmarks
- Future Federal Stimulus



Atlanta Evening Traffic

The source of funding for the majority of the infrastructure and inventory projects will most likely come from the General Fund budget or a general obligation bond referendum. However it is encouraged that the City pursue various avenues of funding in order to minimize the financial impact of the maintenance program for City of Atlanta constituents. For example, projects with regional impact may be eligible for funding by Georgia State House Bill 277.

Other examples of alternate funding are listed in the Potential Funding Source listed above. They include a mix of Local, State, and Federal sources to diversify the way the City of Atlanta maintains its transportation infrastructure and fleet inventory. An investigation is needed to determine the specific timeline to fund the backlog and annual maintenance budgets based on factors such as the financial health of the City, future growth projections and the availability and terms of funding products in the market. Examples of potential funding strategies are found in the 10 and 20 year investment schedules in Appendix B.

### Conclusion

It is recommended that the City of Atlanta create a diversified funding plan to eliminate the existing backlog and increase the annual funding for transportation infrastructure and fleet inventory maintenance to ensure that a new backlog is not created, assets do not continue to deteriorate, and the City provides good customer service to constituents and visitors. Without a well reasoned and diversified plan to maintain the transportation and fleet inventory, it will be difficult for the City of Atlanta to continue to provide a safe and efficient environment for the City's public to thrive.

## 4.0 Summary and Funding Options

Table 4-1  
2008-2010 Transportation and Fleet Backlog Cost Summary

Asset	Priority 1 / High				Priority 2 / Medium			
	2008 (millions)	2010 <sup>1</sup> (millions)	Change (millions)	% Change	2008 (millions)	2010 <sup>1</sup> (millions)	Change (millions)	% Change
Arterials Streets	\$5.6	\$1.7	-\$3.9	-69%	\$4.8	\$5.0	\$0.2	4%
Collector Streets	\$7.2	\$3.6	-\$3.6	-50%	\$11.7	\$10.9	-\$0.8	-7%
Industrial Streets	\$1.4	\$2.6	\$1.2	88%	\$0.7	\$2.1	\$1.4	198%
Residential Streets	\$56.3	\$64.9	\$8.6	15%	\$56.3	\$64.9	\$8.6	15%
<b>Paved Streets Subtotals</b>	<b>\$70.5</b>	<b>\$72.9</b>	<b>\$2.4</b>	<b>3%</b>	<b>\$73.5</b>	<b>\$82.9</b>	<b>\$9.4</b>	<b>13%</b>
Bridges	\$72.0	\$71.4	-\$0.6	-1%	\$90.0	\$82.7	-\$7.3	-8%
Sidewalks, Curbs and ADA Ramps	\$26.0	\$76.9	\$50.9	196%	\$26.0	\$62.5	\$36.5	140%
Traffic Signals	\$32.0	\$2.4	-\$29.6	-93%	\$19.0	\$20.2	\$1.2	7%
Street Lights	\$2.0	\$10.0	\$8.0	398%	\$3.0	\$5.4	\$2.4	80%
School Zone Flashers	\$1.0	\$0.5	-\$0.5	-50%	\$0.0	\$0.0	\$0.0	N/A
<b>Base 2008 Infrastructure Subtotals</b>	<b>\$203.5</b>	<b>\$234.0</b>	<b>\$30.5</b>	<b>15%</b>	<b>\$211.5</b>	<b>\$253.7</b>	<b>\$42.2</b>	<b>20%</b>
Unpaved Streets	\$0.0	\$4.6	N/A	N/A	\$0.0	\$13.5	N/A	N/A
Reversible Lane System	\$0.0	\$1.4	N/A	N/A	\$0.0	\$1.3	N/A	N/A
Traffic Signage	\$0.0	\$4.3	N/A	N/A	\$0.0	\$12.1	N/A	N/A
Truck Route & Street Classification Study	\$0.0	\$0.4	N/A	N/A	\$0.0	\$0.0	N/A	N/A
COA Standard Specifications and Construction Detail Update	\$0.0	\$1.3	N/A	N/A	\$0.0	\$0.0	N/A	N/A
Street and Sidewalk Inventory and Condition Assessment	\$0.0	\$1.2	N/A	N/A	\$0.0	\$0.0	N/A	N/A
Signs and Markings Inventory and Condition Assessment	\$0.0	\$0.7	N/A	N/A	\$0.0	\$0.0	N/A	N/A
Street Light Assessment	\$0.0	\$0.4	N/A	N/A	\$0.0	\$0.0	N/A	N/A
<b>Infrastructure Subtotals, Additional 2010 Items</b>	<b>\$0</b>	<b>\$14</b>	<b>N/A</b>	<b>N/A</b>	<b>\$0</b>	<b>\$27</b>	<b>N/A</b>	<b>N/A</b>
<b>Infrastructure Category Totals</b>	<b>\$203.5</b>	<b>\$248.3</b>	<b>\$44.8</b>	<b>22%</b>	<b>\$211.5</b>	<b>\$280.6</b>	<b>\$69.1</b>	<b>33%</b>
Fleet Inventory	\$3.1	\$1.1	-\$2.0	-66%	\$17.7	\$10.1	-\$7.6	-43%
<b>Category Totals</b>	<b>\$206.6</b>	<b>\$249.3</b>	<b>\$42.7</b>	<b>21%</b>	<b>\$229.2</b>	<b>\$290.7</b>	<b>\$61.5</b>	<b>27%</b>

## 4.0 Summary and Funding Options

Priority 3 / Low				Totals				Asset
2008 (millions)	2010 <sup>1</sup> (millions)	Change (millions)	% Change	2008 (millions)	2010 <sup>1</sup> (millions)	Change (millions)	% Change	
\$31.2	\$15.9	-\$15.3	-49%	\$41.6	\$22.6	-\$19.0	-46%	Arterials Streets
\$22.8	\$21.7	-\$1.1	-5%	\$41.7	\$36.2	-\$5.5	-13%	Collector Streets
\$1.4	\$3.3	\$1.9	138%	\$3.5	\$8.1	\$4.6	130%	Industrial Streets
\$56.3	\$64.9	\$8.6	15%	\$168.9	\$194.7	\$25.8	15%	Residential Streets
<b>\$111.7</b>	<b>\$105.8</b>	<b>-\$5.9</b>	<b>-5%</b>	<b>\$255.7</b>	<b>\$261.5</b>	<b>\$5.8</b>	<b>2%</b>	<b>Paved Streets Subtotals</b>
\$0.0	\$134.5 <sup>2</sup>	\$134.5	N/A	\$162.0	\$288.6	\$126.6	78%	Bridges
\$26.0	\$64.8	\$38.8	149%	\$78.0	\$204.2	\$126.2	162%	Sidewalks, Curbs and ADA Ramps
\$9.0	\$8.6	-\$0.4	-4%	\$60.0	\$31.2	-\$28.8	-48%	Traffic Signals
\$5.0	\$19.3	\$14.3	285%	\$10.0	\$34.6	\$24.6	246%	Street Lights
\$0.0	\$0.0	\$0.0	N/A	\$1.0	\$0.5	-\$0.5	-50%	School Zone Flashers
<b>\$151.7</b>	<b>\$332.9</b>	<b>\$181.2</b>	<b>119%</b>	<b>\$566.7</b>	<b>\$820.6</b>	<b>\$253.9</b>	<b>45%</b>	<b>Base 2008 Infrastructure Subtotals</b>
\$0.0	\$14.0	N/A	N/A	\$0.0	\$32.1	N/A	N/A	Unpaved Streets
\$0.0	\$0.0	N/A	N/A	\$0.0	\$2.6	N/A	N/A	Reversible Lane System
\$0.0	\$5.2	N/A	N/A	\$0.0	\$21.6	N/A	N/A	Traffic Signage
\$0.0	\$0.0	N/A	N/A	\$0.0	\$0.4	N/A	N/A	Truck Route & Street Classification Study
\$0.0	\$0.0	N/A	N/A	\$0.0	\$1.3	N/A	N/A	COA Standard Specifications and Construction Detail Update
\$0.0	\$0.0	N/A	N/A	\$0.0	\$1.2	N/A	N/A	Street and Sidewalk Inventory and Condition Assessment
\$0.0	\$0.0	N/A	N/A	\$0.0	\$0.7	N/A	N/A	Signs and Markings Inventory and Condition Assessment
\$0.0	\$0.0	N/A	N/A	\$0.0	\$0.4	N/A	N/A	Street Light Assessment
<b>\$0</b>	<b>\$19</b>	<b>N/A</b>	<b>N/A</b>	<b>\$0</b>	<b>\$60</b>	<b>N/A</b>	<b>N/A</b>	<b>Infrastructure Subtotals, Additional 2010 Items</b>
<b>\$151.7</b>	<b>\$352.1</b>	<b>\$200.4</b>	<b>132%</b>	<b>\$566.7</b>	<b>\$880.8</b>	<b>\$314.1</b>	<b>55%</b>	<b>Infrastructure Category Totals</b>
\$33.6	\$29.7	-\$3.9	-12%	\$54.4	\$40.9	-\$13.5	-25%	Fleet Inventory
<b>\$185.3</b>	<b>\$381.8</b>	<b>\$196.5</b>	<b>106%</b>	<b>\$621.1</b>	<b>\$921.7</b>	<b>\$300.6</b>	<b>48%</b>	<b>Category Totals</b>

1. All costs reflect in 2010 dollars and will need to be adjusted for market changes and inflation.
2. Low priority bridge costs were not included in 2008 report.

## 4.0 Summary and Funding Options

Table 4-2  
Funding Gap Summary

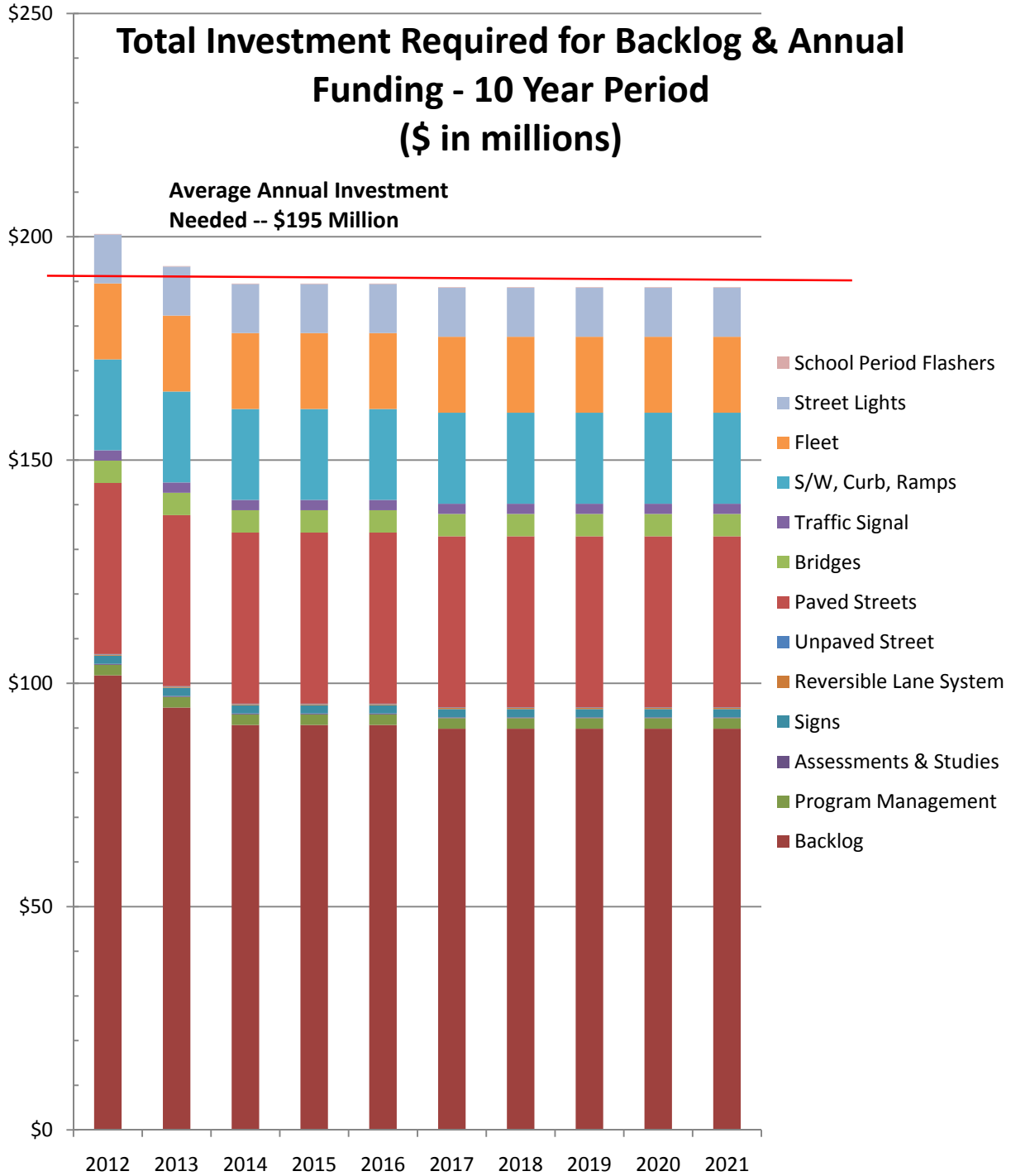
Asset	Total Backlog (millions)	Current Annual Budget (millions) A	Annual Budget Needed (millions) B	Needed vs. Current Funding Gap (millions) B-A	Funding Gap % (B-A)/A
Paved Streets	\$261.52	\$4.15	\$38.32	\$34.18	824.40%
Bridges	\$288.58	\$0.85	\$5.00	\$4.15	486.94%
Sidewalks, Curbs and ADA Ramps	\$204.17	\$0.57	\$20.37	\$19.80	3486.92%
Traffic Signals	\$31.22	\$0.72	\$2.30	\$1.58	221.38%
Street Lights	\$34.64	\$1.92	\$10.98	\$9.06	472.24%
School Zone Flashers	\$0.48	\$0.09	\$0.10	\$0.02	18.72%
Unpaved Streets	\$32.10	\$0.11	\$0.11	-\$0.01	-5.91%
Reversible Lane System	\$2.55	\$0.14	\$0.26	\$0.11	78.20%
Traffic Signage	\$21.56	\$0.80	\$1.84	\$1.04	130.95%
Studies and Assessments	\$4.02	\$0.01	\$0.20	\$0.19	1900.00%
<b>Transportation Infrastructure Subtotal</b>	<b>\$880.84</b>	<b>\$9.35</b>	<b>\$79.47</b>	<b>\$70.13</b>	<b>750.18%</b>
Fleet Inventory	\$40.88	\$16.40	\$17.00	\$0.60	3.66%
<b>Total</b>	<b>\$921.72</b>	<b>\$25.75</b>	<b>\$96.47</b>	<b>\$70.73</b>	<b>274.68%</b>

Note: Current Annual Budget for transportation infrastructure numbers were taken from the City of Atlanta Set of Books General Fund by Organization by Account dated October 21, 2010 and is based on the following assumptions:

1. Paved streets, bridges, sidewalks, curbs and ADA ramps, and unpaved streets consist of 73%, 15%, 10%, and 2% respectively of the sum of the DPW Roadways & Walkways Hill St General Fund 130305 and the DPW Roadways & Walkways North Ave General Fund 130306.
2. Traffic signals, street lights, school zone flashers, and reversible lane system consist of 25%, 67%, 3%, and 5% of the DPW Traffic Signals General Fund 130304 (with the Georgia power bill deducted).
3. Traffic signs are 100% of the DPW Traffic Signs & Markings General Fund 130303.
4. Program Management consists of the sum of DPW Transportation Administration General Fund 130301, DPW Traffic Engineering General Fund 130302, and DPW Transportation Design General Fund 130308.
5. Current Annual Budget for fleet is based on needs for Atlanta Police Department, Atlanta Fire Department, Department of Public Works, and Department of Parks and Recreation.
6. Annual budget needed does not account for Life Cycles and is based on year 2012. Actual average investment needs will depend on funding time periods.

## 4.0 Summary and Funding Options

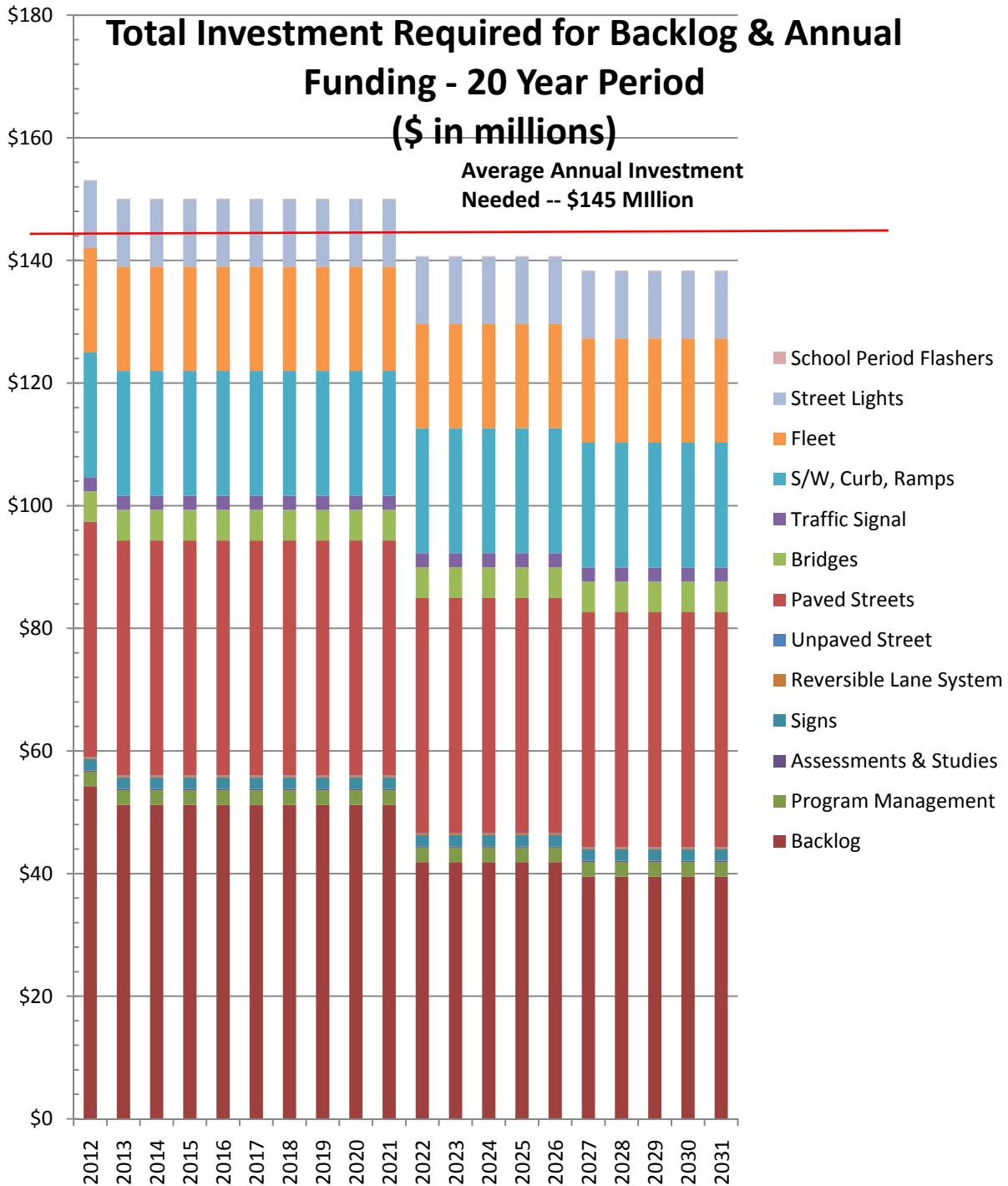
Chart 4-3



- Note:
1. Chart illustrates 10 year investment schedule needed to address the backlog and annual investment to maintain the City's transportation and fleet inventory.
  2. Charts do not include funding expenses or inflation.
  3. Signs could not be annualized over a 10 year period because of MUTCD Compliance Dates.
  4. Reversible lane systems and school period flashers were not annualized due to scope.

## 4.0 Summary and Funding Options

Chart 4-4

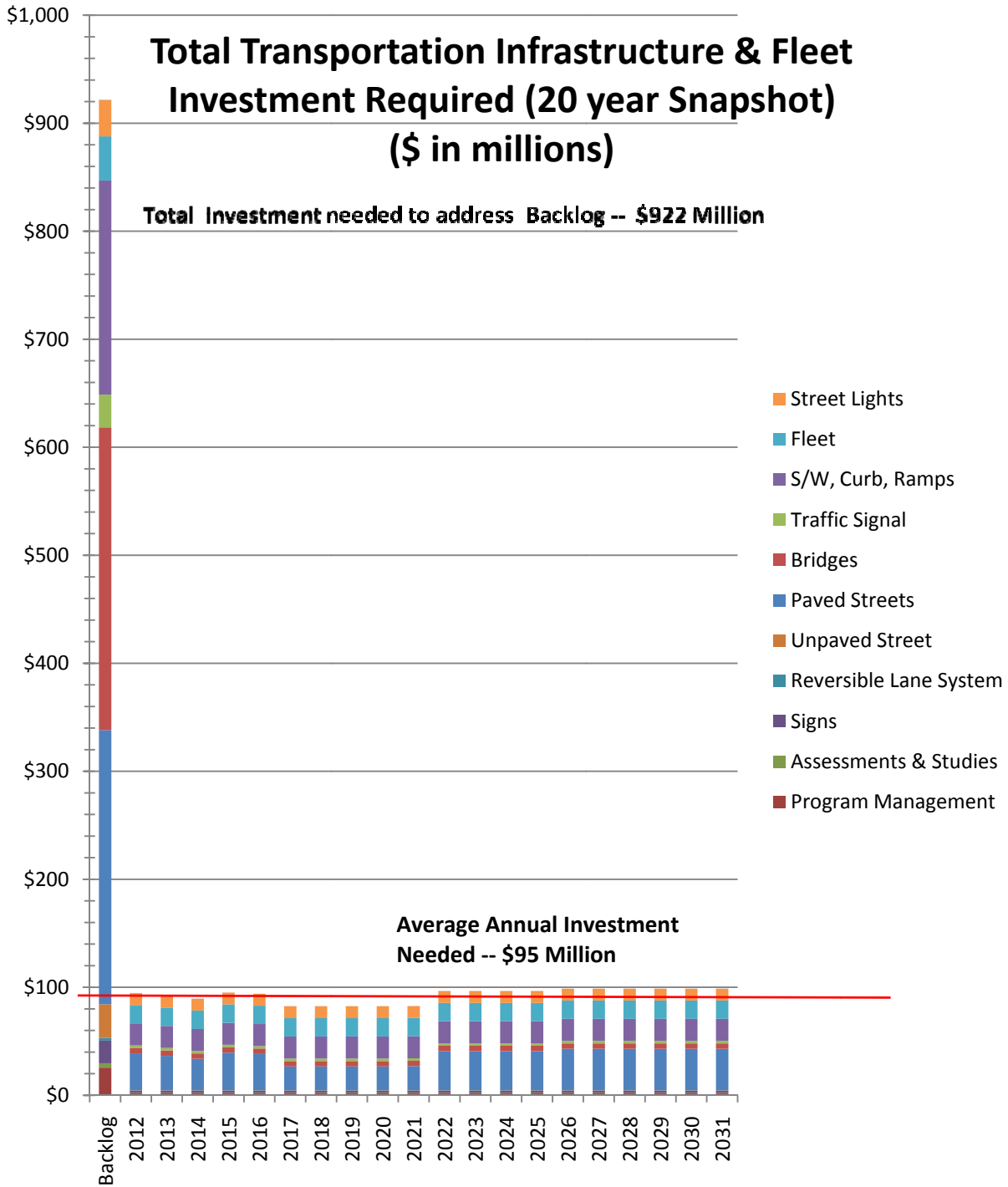


- Note:
1. Chart illustrates 20 year investment schedule needed to address the backlog and annual investment to maintain the City's transportation and fleet inventory.
  2. Charts do not include funding expenses or inflation.
  3. Signs could not be annualized over a 20 year period because of MUTCD Compliance Dates.
  4. Reversible lane systems and school period flashers were not annualized due to scope.



## 4.0 Summary and Funding Options

Chart 4-5



- Note:
1. Chart illustrates the total backlog compared to the 20 year Average Annual investment schedule needed to maintain the City's transportation and fleet inventory.
  2. Charts do not include funding expenses or inflation.
  3. Signs could not be annualized over a 20 year period because of MUTCD Compliance Dates.
  4. Reversible lane systems and school period flashers were not annualized due to scope.

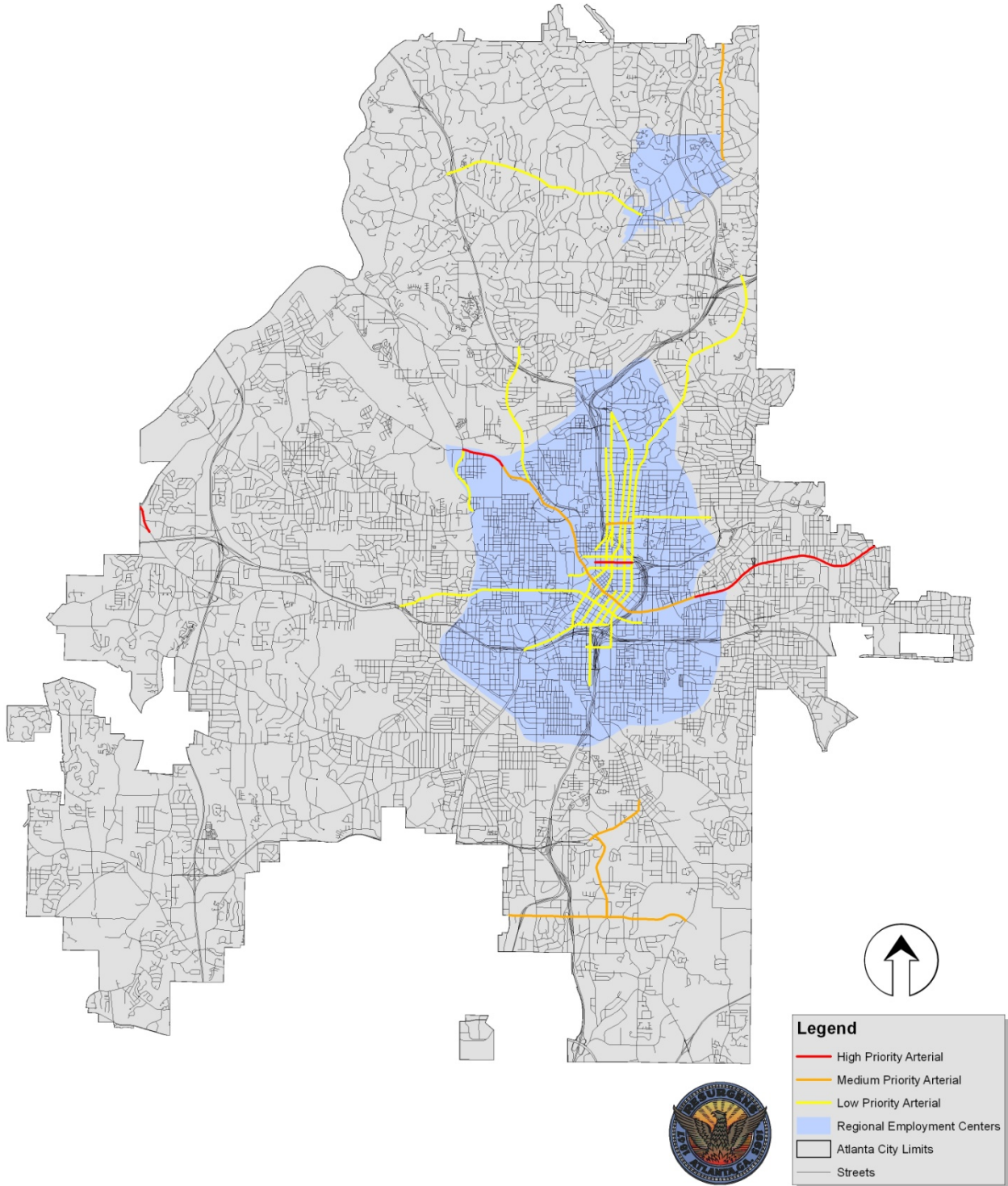
## 5.0 Appendix



# 5.0 Appendix A - Maps

## Map B.1 Street Resurfacing Projects: Arterials

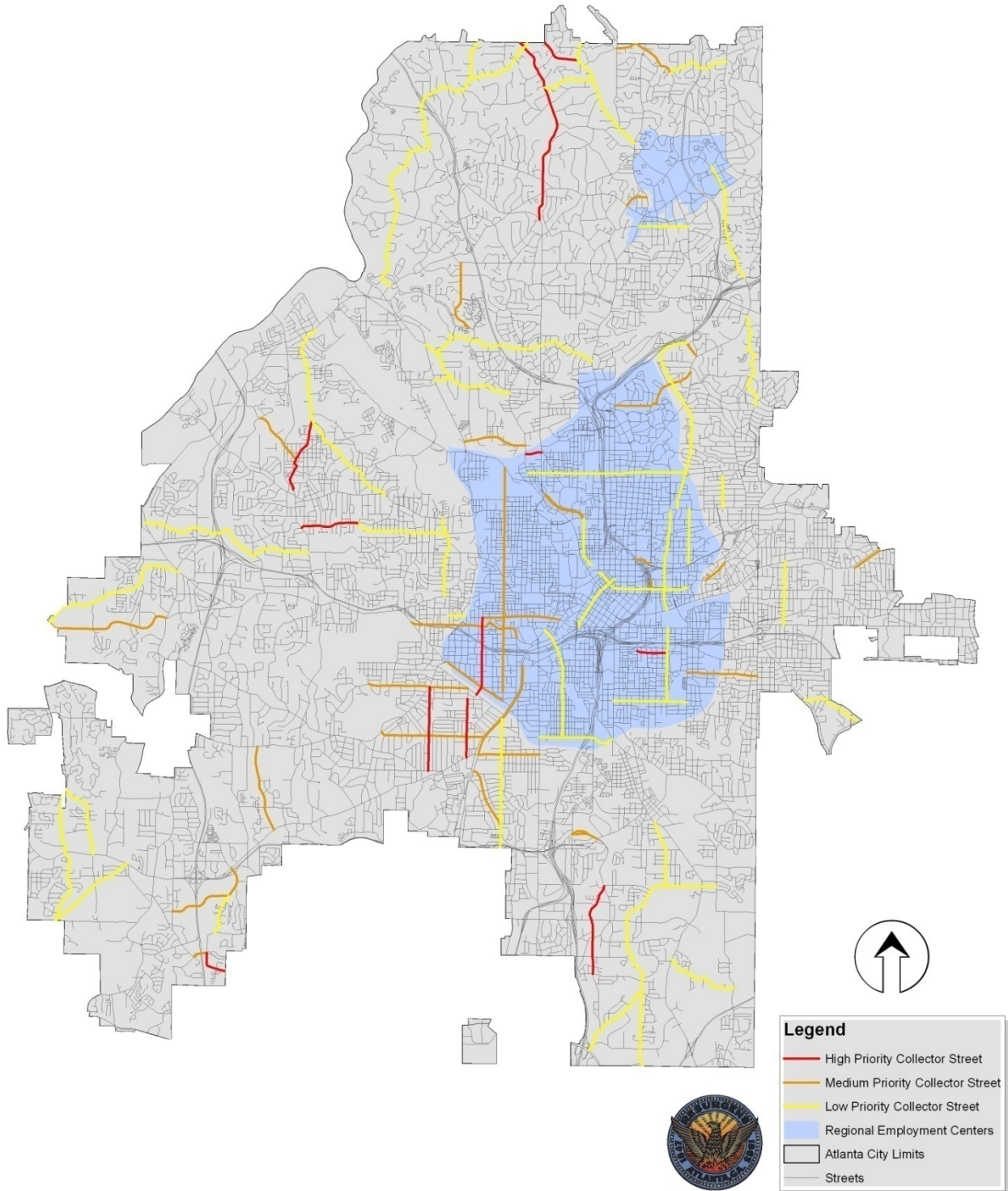
Note: Regional Employment Centers include Buckhead, the Central Business District, and Midtown.



# 5.0 Appendix A - Maps

## Map B.2 Street Resurfacing Projects: Collectors

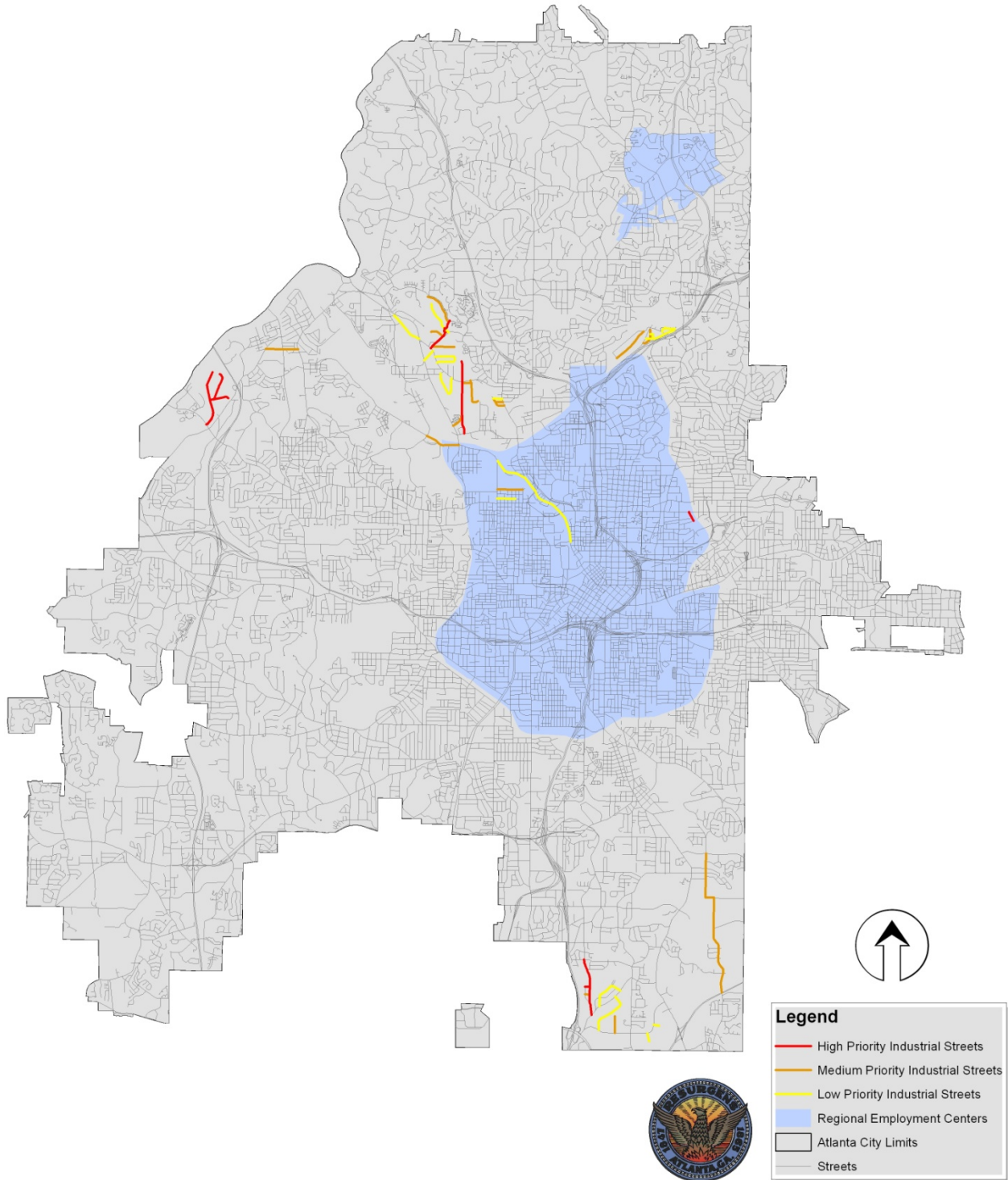
Note: Regional Employment Centers include Buckhead, the Central Business District, and Midtown.



## 5.0 Appendix A - Maps

### Map B.3 Street Resurfacing Projects: Industrials

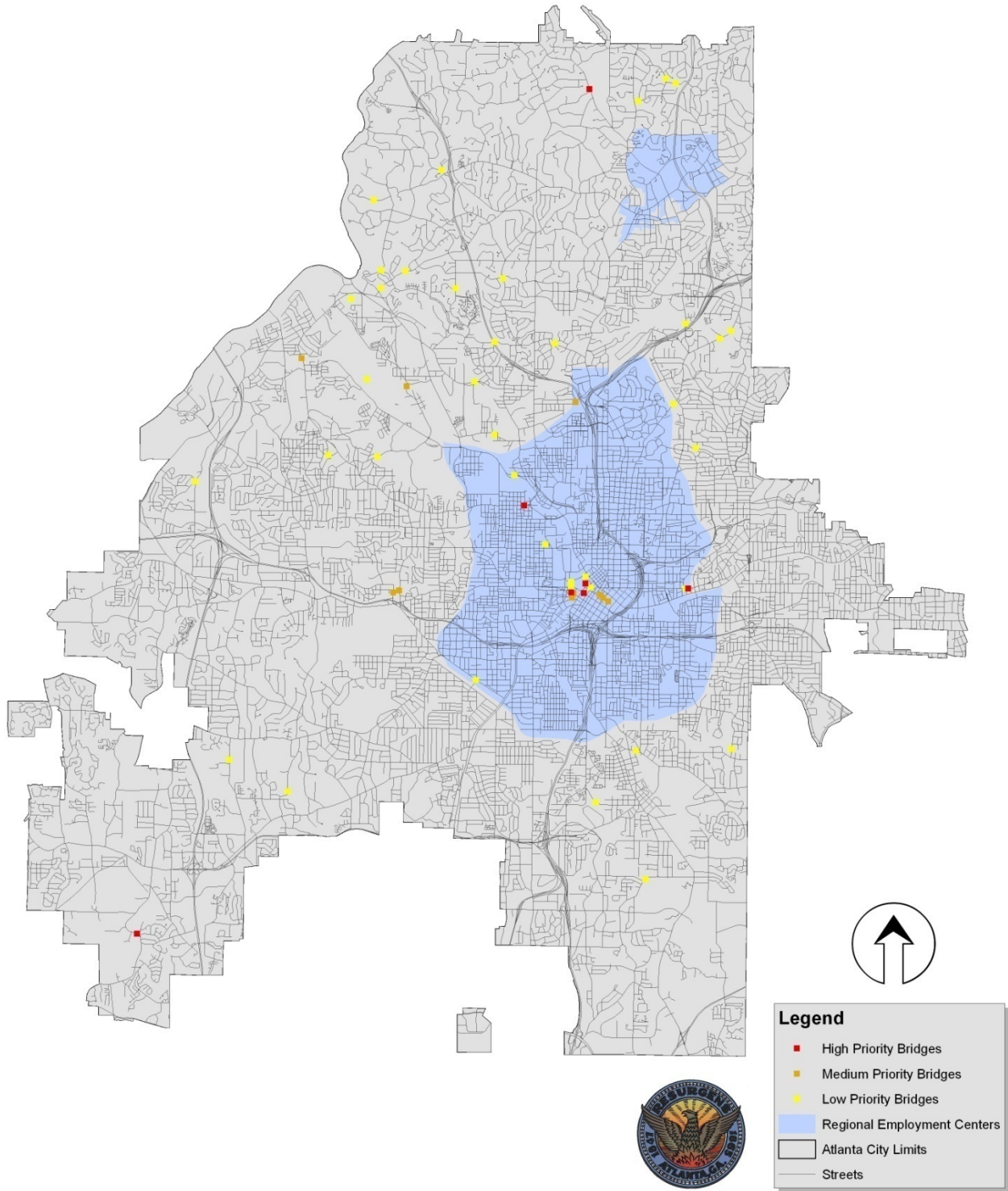
Note: Regional Employment Centers include Buckhead, the Central Business District, and Midtown.



# 5.0 Appendix A - Maps

## Map B.4 Bridge Projects

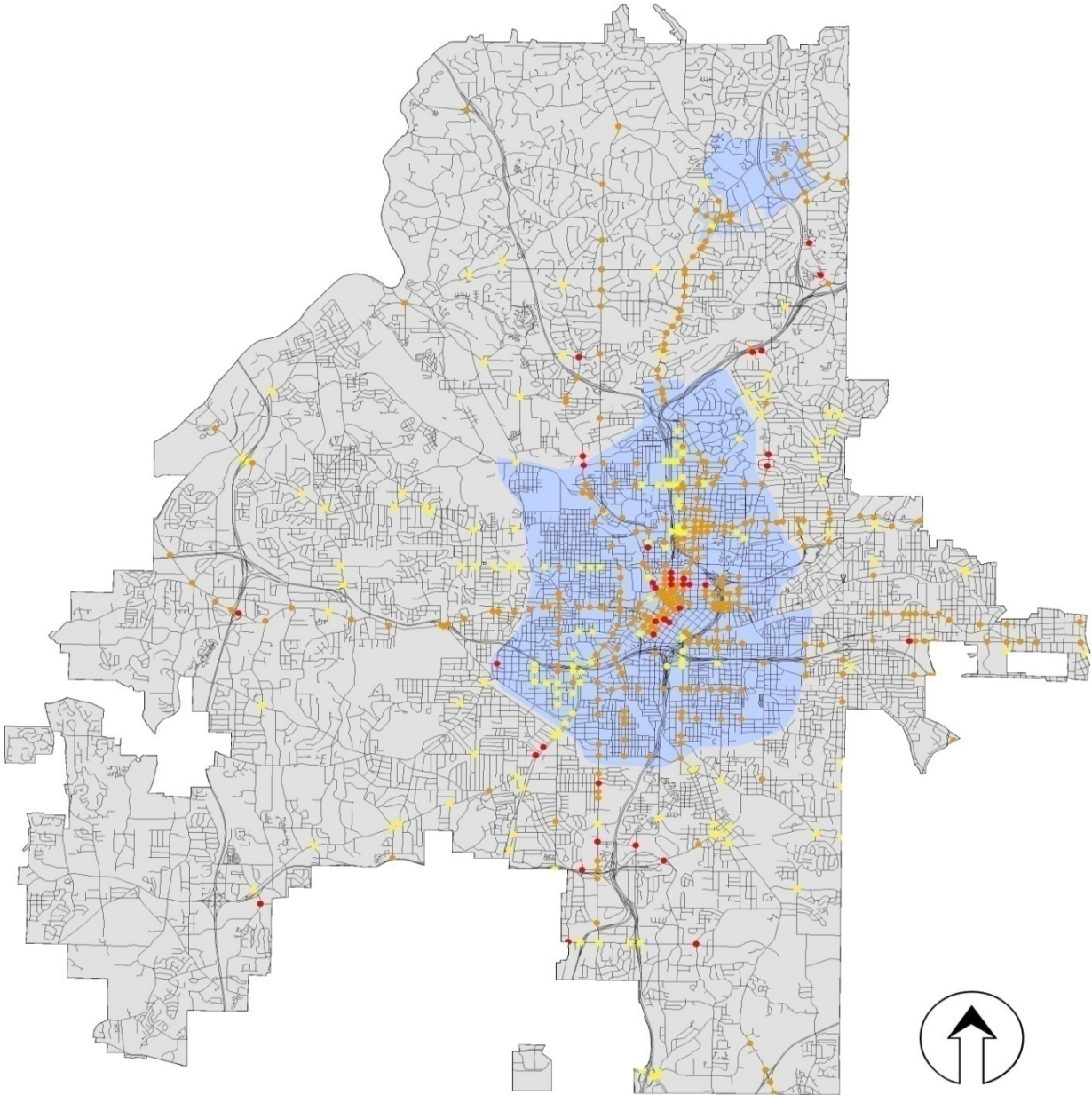
Regional Employment Centers include Buckhead, the Central Business District, and Midtown.



# 5.0 Appendix A - Maps

## Map B.5 Traffic Signal Projects

Note: Regional Employment Centers include Buckhead, the Central Business District, and Midtown.



**Legend**

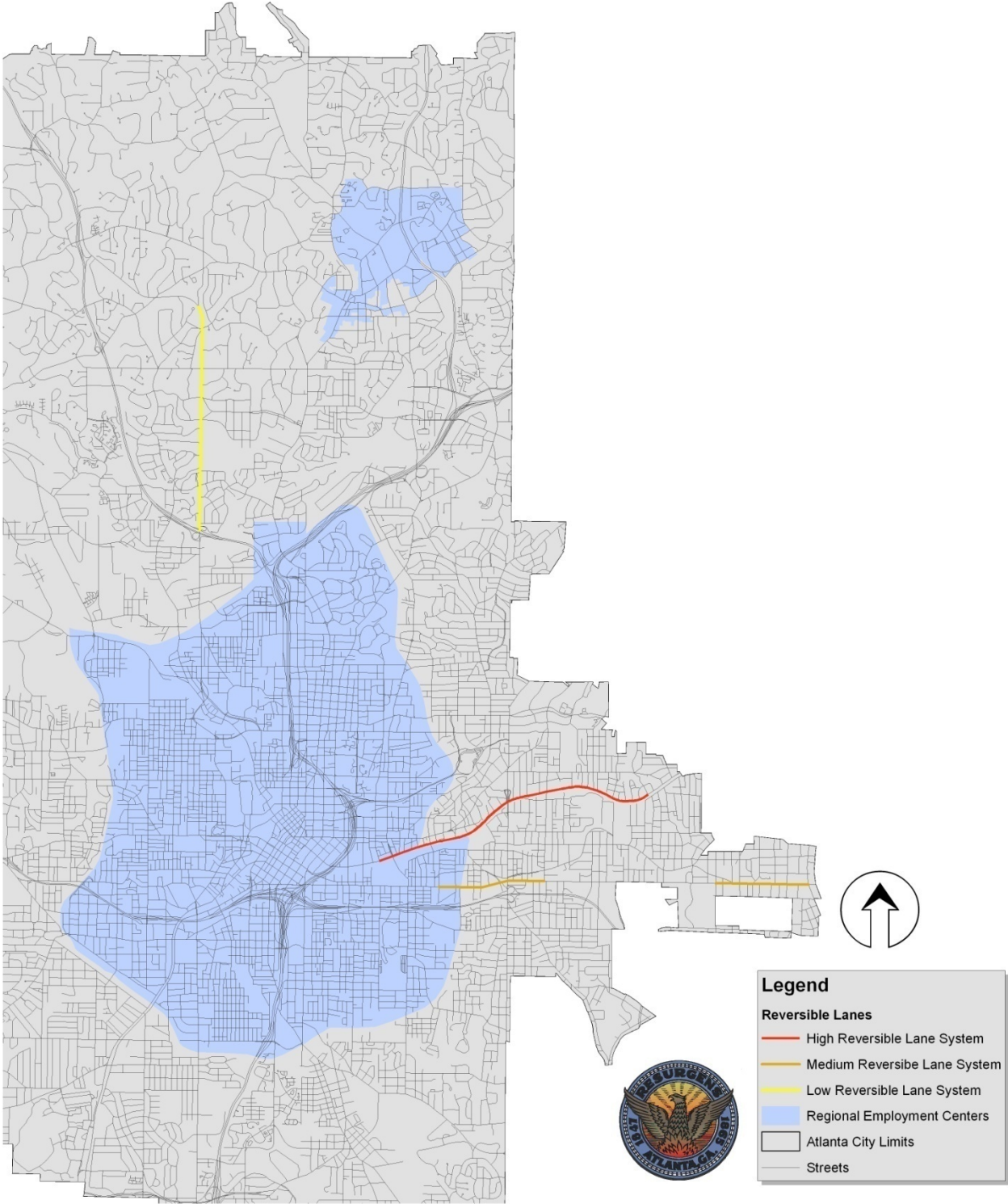
- High Priority Traffic Signals
- Medium Priority Traffic Signals
- Low Priority Traffic Signals
- Streets
- Regional Employment Centers
- City Limits



# 5.0 Appendix A - Maps

## Map B.6 Reversible Lane System Projects

Regional Employment Centers include Buckhead, the Central Business District, and Midtown.

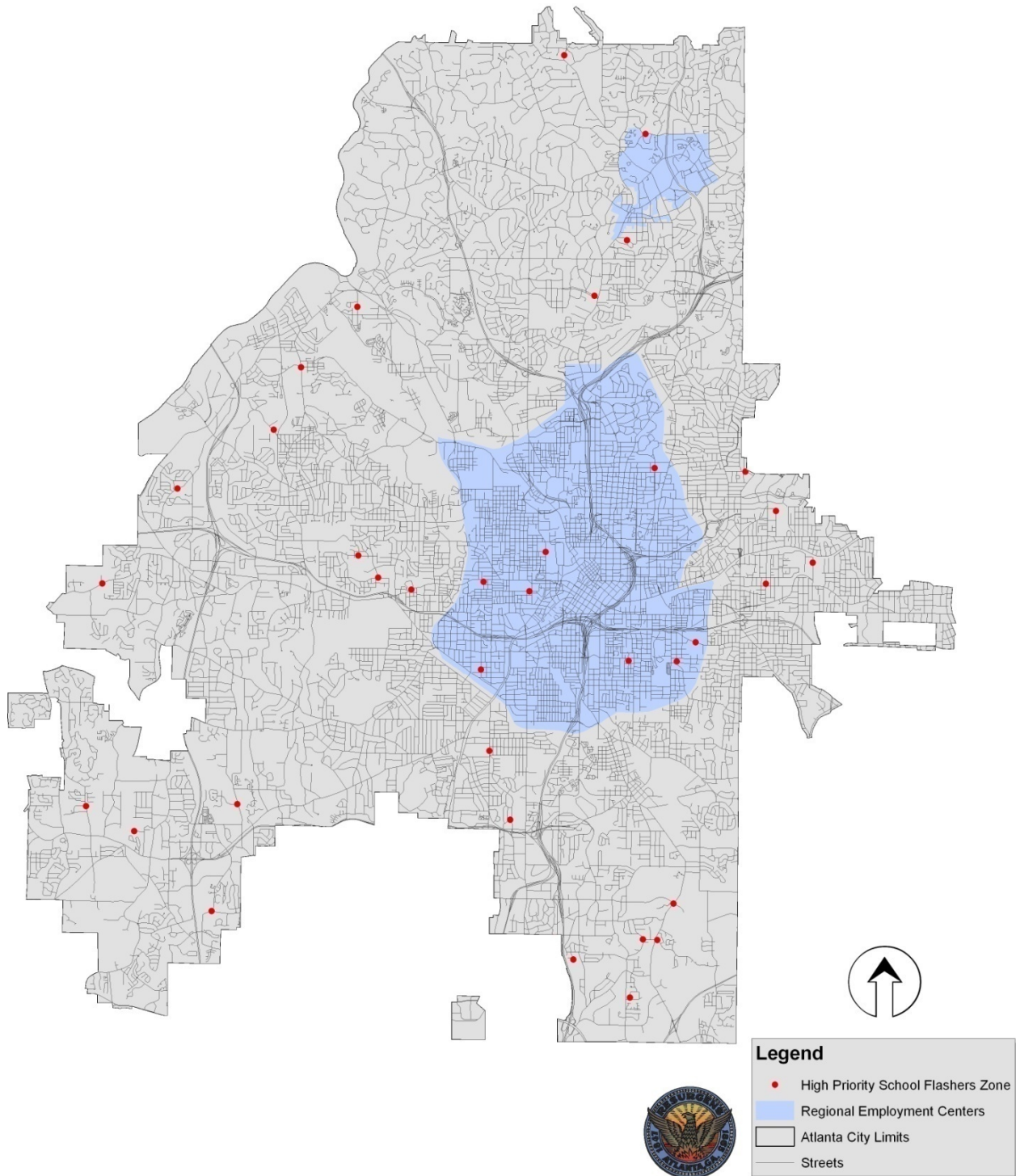




## 5.0 Appendix A - Maps

### Map B.7 School Zone Flasher Projects

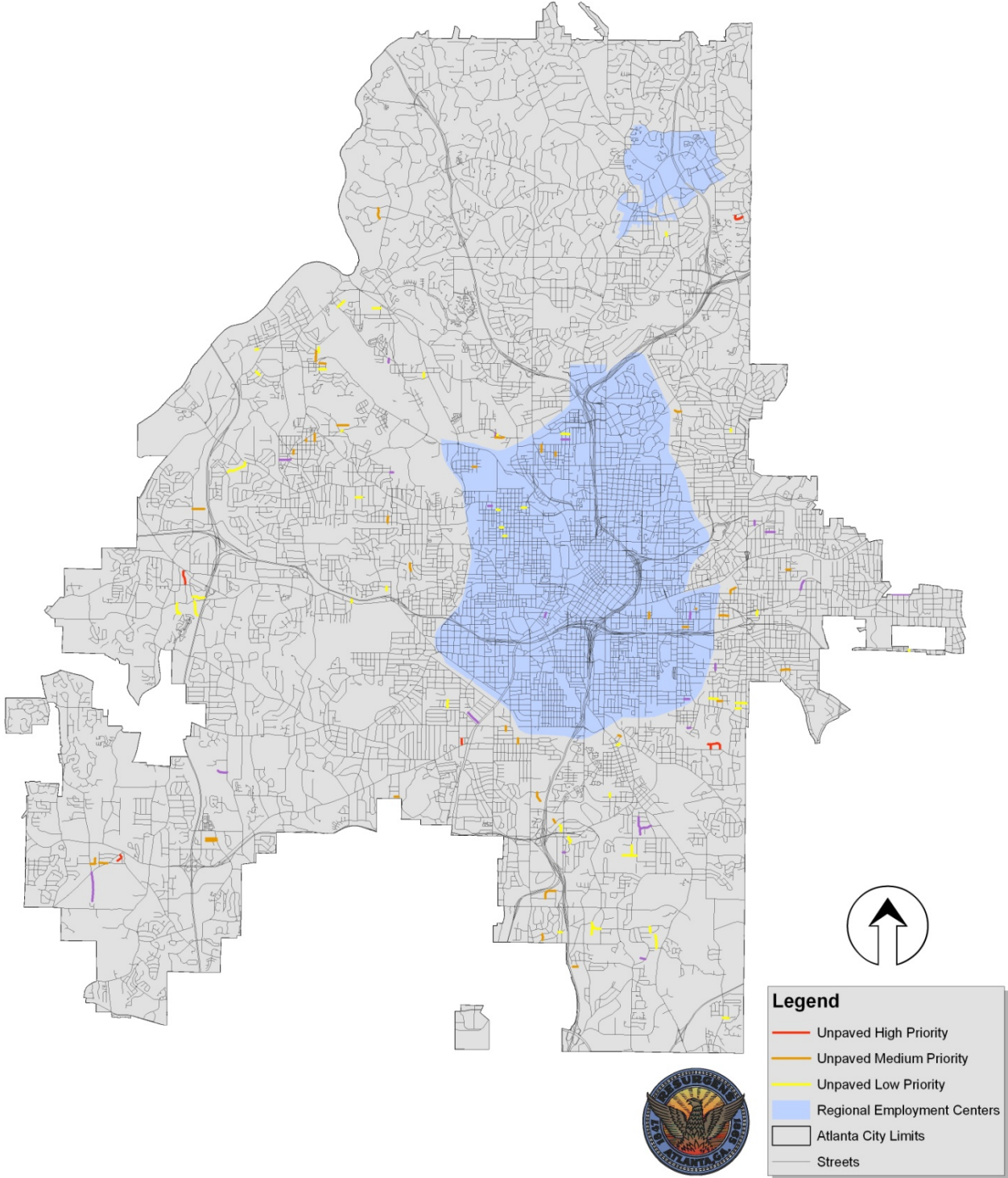
Note: Regional Employment Centers include Buckhead, the Central Business District, and Midtown.



# 5.0 Appendix A - Maps

## Map B.8 Unpaved Street Projects

Note: Regional Employment Centers include Buckhead, the Central Business District, and Midtown.







**Kasim Reed  
Mayor**

**ATLANTA CITY COUNCIL**

Caesar C. Mitchell  
President of Council

Carla Smith	Council District 1
Kwanza Hall	Council District 2
Ivory Lee Young	Council District 3
Cleta Winslow	Council District 4
Natalyn Archibong	Council District 5
Alex Wan	Council District 6
Howard Shook	Council District 7
Yolanda Adrean	Council District 8
Felicia A. Moore	Council District 9
Clarence T. Martin	Council District 10
Keisha Lance.Bottoms	Council District 11
Joyce M. Sheperd	Council District 12
Michael J. Bond	Post 1 At-Large
Aaron Watson	Post 2 At-Large
H. Lamar Willis	Post 3 At-Large

The “2010 State of the City’s Transportation Infrastructure and Fleet Inventory” is a collaborative effort between the Office of the Mayor and the Department of Public Works to update components of the State of the City’s Infrastructure Report issued in December, 2008.

Duriya Farooqui, Deputy Chief Operating Officer, Office of the Mayor  
Richard Mendoza, Commissioner, Department of Public Works  
Dexter White, Deputy Commissioner, Department of Public Works