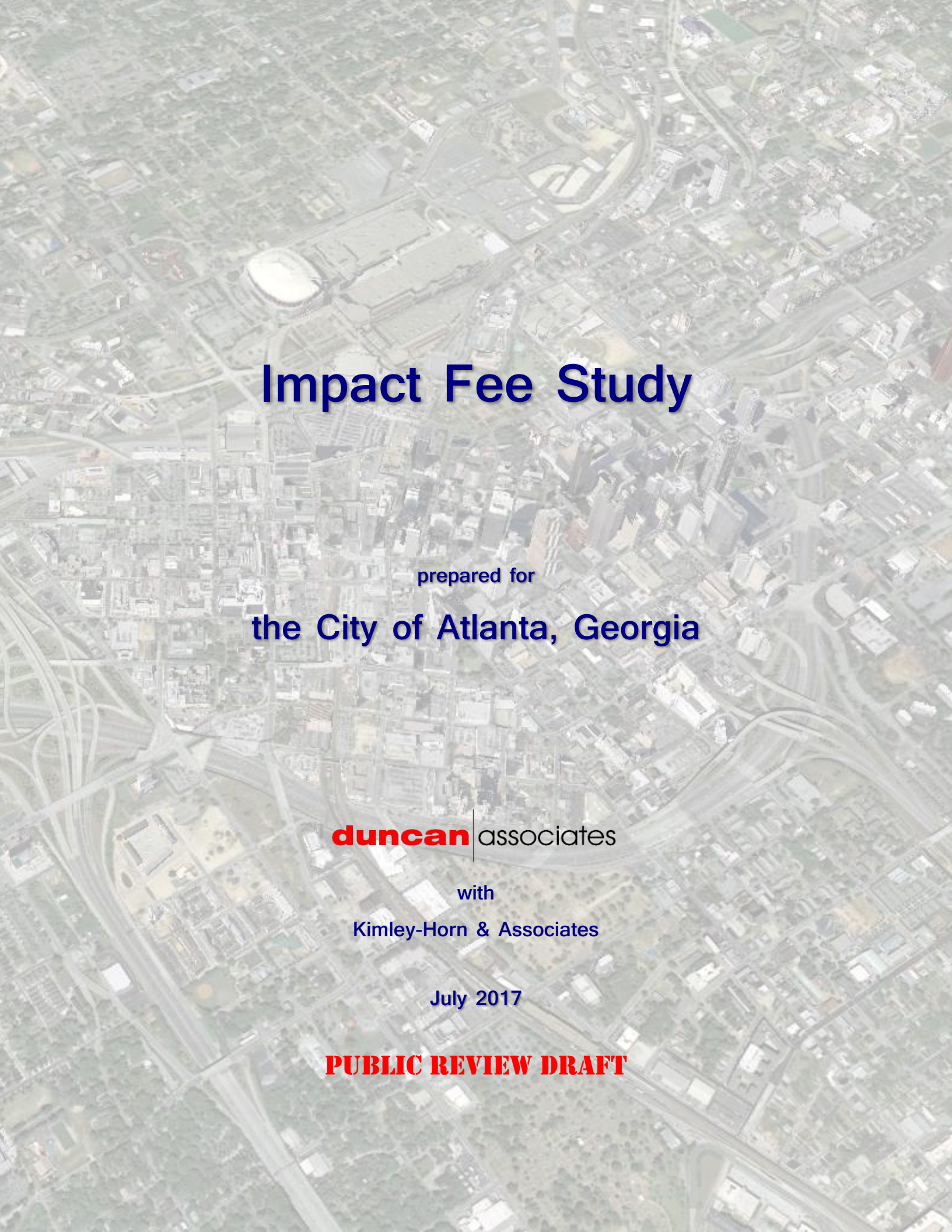

Impact Fee Study

prepared for

the City of Atlanta, Georgia

duncan associates

with

Kimley-Horn & Associates

July 2017

PUBLIC REVIEW DRAFT

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EXECUTIVE SUMMARY

This study updates the City's transportation, park, fire, and police impact fees. The impact fee study and ordinance have not been updated since they were originally adopted in 1993.

Need for Update

Much has changed in the 24 years since the impact fees were adopted. The City's fees are based on levels of service and costs that are almost a quarter-century old. Construction costs have almost doubled and land costs are five times what they were in 1993. Trip generation rates are based on the 1991 5th edition of the ITE manual, rather than the current 2012 9th edition. Large area designations once targeted for impact fee exemptions are no longer in active use by the City. Continued reliance on such outmoded data and procedures could weaken the defensibility of the City's impact fees.

Key Findings

- The procedures for programming transportation impact fees must comply with the Atlanta-specific statutory requirements related to proximity to new development, greatest effect on level of service, and annual review by the impact fee advisory committee.
- Current road fees do not include the cost of collector roads, which get the bulk of City improvements.
- Current park fees cover only land costs.
- Exemptions, particularly automatic exemptions for broad geographic areas, cost about 40% of potential revenue before the City ceased funding them in 2009.
- The recoupment approach designed in large part to avoid the need to fund exemptions resulted in lower park, fire and police fees for non-exempt developments, with reductions ranging from 5-24% depending on fee type and service area.

Key Recommendations

- Implement recommended procedures to ensure transportation fees are spent on projects that have the most effect on improving levels of service, and are spent in reasonable proximity to the developments that paid the fees.
- Establish an on-going Impact Fee Advisory Committee that meets at least annually to review the planned transportation projects to be included in the Capital Improvements Element.
- Expand transportation fees to include collectors, and park fees to include improvement costs.
- Base fees on existing levels of service, discontinuing the recoupment approach.

- Fund limited affordable housing and economic development exemptions by tracking non-impact fee expenditures.

Updated Fee Summary

Table 1 below summarizes the potential impact fees calculated in this report. The updated impact fees include collector road and park improvement costs. Transportation fees would be reduced by 50% when located within 1,000 walking feet of a MARTA or light rail station. Total updated fees are more than double current fees for most land use categories (see details in next chapter). This is not surprising. Since the original study was done 24 years ago, construction costs have almost doubled, and land prices have increased far more. In addition, current transportation fees do not include collector road costs, current park fees do not include improvement costs, and park, fire, and police fees were based on a lower than existing levels of service in order to fund exemptions with recoupment revenue.

Table 1. Updated Impact Fee Summary

			Park Fee by Service Area					Total Fee by Service Area		
Land Use Type	Unit	Road*	North	South	West	Fire	Police	North	South	West
Single-Family	Dwelling	$4,046	$1,526	$1,324	$2,319	$248	$147	$5,967	$5,765	$6,760
Multi-Family	Dwelling	$2,221	$1,035	$898	$1,573	$168	$100	$3,524	$3,387	$4,062
Hotel/Motel	Room	$1,269	$701	$608	$1,065	$114	$68	$2,152	$2,059	$2,516
Retail/Commercial	1,000 sq ft	$4,284	$1,609	$1,397	$2,445	$261	$155	$6,309	$6,097	$7,145
Office	1,000 sq ft	$3,253	$786	$682	$1,194	$128	$76	$4,243	$4,139	$4,651
Public/Institutional	1,000 sq ft	$1,190	$473	$411	$719	$77	$46	$1,786	$1,724	$2,032
Industrial	1,000 sq ft	$2,856	$293	$254	$445	$48	$28	$3,225	$3,186	$3,377
Warehouse	1,000 sq ft	$1,269	$204	$177	$309	$33	$20	$1,526	$1,499	$1,631
Mini-Warehouse	1,000 sq ft	$1,031	$96	$83	$145	$16	$9	$1,152	$1,139	$1,201

* fee reduced by 50% within 1,000 walking feet of a MARTA station or light rail station

Source: Potential fees from Table 26 (transportation), Table 39 (parks), Table 50, (fire), and Table 60 (police); updated residential fees represent average (untiered) rates; current fees from City of Atlanta (commercial/office fees are for a 100,000 square foot shopping center or office building).

Implementation Options

The City Council could consider phasing the increase in over time, and/or adopting them at a less than the maximum fees calculated in this report. With either of these implementation options, the adopted fees should be based on a percentage of the updated fees that applies to all land use types for a given fee type and service area, in order to ensure that the fees are based on the updated study and retain the proportionality to the impact of the development. For example, the adopted fees should not be based on a maximum percentage increase from current fees, because that would at least partially retain the proportionality between land uses from the 1993 study. Nor should the adoption percentage be different for different land use types, because that would also weaken the nexus between the fee amount and the demand generated by the development.

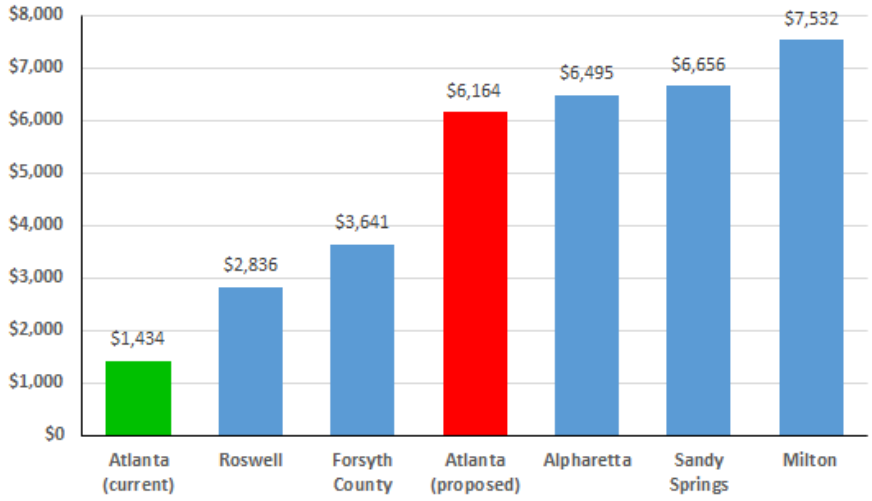
Another implementation option would be to cap updated park fees at the level of the Northside service area. The Northside has the highest current fees, because the fees are based strictly on land costs and a uniform city-wide ratio of acres to population, and because the Northside has significantly higher land costs than the other two service areas. Under the updated fees, which include improvement costs, the Northside park fees are only modestly higher than in the Southside, while the Westside has significantly higher fees. Higher updated fees in the Westside reflect more improvement value per service unit, rather than higher land costs (although land costs are modestly higher than in the Southside). In this context, it might make sense to have the same fees in the Northside and Westside service areas – that is, adopt Westside fees at the percentage required to equal Northside fees.

Competitiveness

It is easy to compare impact fee amounts charged by local jurisdictions, and it is natural to be interested in how Atlanta's impact fees compare. However, it would be a mistake to conclude that differences between Atlanta's impact fees and those charged by neighboring or similar jurisdictions are a significant factor in the City's ability to attract new development. Too many other factors are involved, most of them much more difficult to quantify and compare than impact fees. These include the availability of jobs, total housing costs (of which impact fees are only a small part), the quality of transportation infrastructure, schools, recreational amenities, entrepreneurial opportunities, economic synergies resulting from a concentration of workers, suppliers and customers, and other factors. The overall attractiveness of the community is a far greater factor in competitiveness than impact fee amounts. It is therefore not surprising that numerous studies comparing impact fees and growth rates between jurisdictions have failed to find any significant effects of impact fee levels on the pace of growth and development.

The City of Atlanta's current and proposed total non-utility impact fees for an average single-family unit are compared with total non-utility impact fees charged by five nearby jurisdictions in Figure 1 (Atlanta's fees assume average of the three park service area fees). Atlanta's fees are currently the lowest, but would be more mid-range under the proposed fees. Additional fee comparisons for retail development and for peer cities are presented in the next chapter.

Figure 1. Single-Family Fees, Atlanta and Nearby Jurisdictions



TECHNICAL SUMMARY

Impact fees are charges assessed on new development to cover the costs of capital improvements needed to accommodate growth. The City of Atlanta imposes impact fees for transportation, parks, fire and police facilities.

The impact fees were originally adopted by the City Council in 1993 based on an impact fee study produced by this consultant team,[1] and have not been updated since. The purpose of this study is to provide a comprehensive evaluation of the City's impact fee system, and calculate updated impact fees that cover the growth-related capital costs to maintains adequate levels of service for transportation, park, fire and police facilities.

Much has changed in the 24 years since the impact fees were originally adopted, but the City's fees and ordinance have not been updated. The City's fees are based on levels of service and costs that are almost a quarter-century old. Trip generation rates are based on the 1991 5th edition of the ITE manual, rather than the current 2012 9th edition. Reliance on such outmoded data could weaken the defensibility of the City's impact fees. The City also needs to ensure that its study, ordinance and procedures comply with the Atlanta-specific requirements related to road fee expenditures and annual review by the impact fee advisory committee imposed by the Legislature in 2007.

Current System Evaluation

The first chapter of this report consists of an evaluation of the City's current impact fee system. Policy areas addressed include service areas, levels of service, methodology, land use categories, exemptions, and administration. The recommendations from the policy analysis serve as guidelines for the impact fee calculations in this study, as well as for changes to the impact fee ordinance and administrative procedures. The major findings and recommendations are summarized as follows.

- The City is under a special legislative mandate to justify its expenditures of transportation impact fees in terms of proximity to fee-payers and effect on roadway level of service.

- Many of the City's planned transportation improvements are to the collector street system, which is not covered by the current transportation impact fees.

- Current road fees are calculated based strictly on vehicular improvement costs, while multi-modal improvements are increasingly required to expand the capacity of the City's transportation system.

- State law restricts transportation impact fees to road improvements. Although roads are broadly defined to include multi-modal elements within the roadway corridor, the City should seek explicit authorization before using transportation impact fees to fund transit improvements.

- Current level-of-service measures are overly simplistic and fail to capture the full extent of the City's infrastructure investment.

[1] James Duncan and Associates, *Impact Fee Study*, March 18, 1993.

- Before exemptions were put on hold in 2009, they accounted for about 40% of potential impact fee revenues, mostly from blanket exemptions granted in designated areas of the city. Criteria for affordable housing exemptions do not guarantee the housing remains affordable.

- The recoupment methodology for parks, fire and police impact fees was intended to avoid the need to fund exemptions with other revenue, but with the halt to exemptions they no longer perform that function.

- Reducing the number of nonresidential land use categories could simplify impact fee administration and avoid issues relating to change of use.

- The City has made significant strides in recent years in improving impact fee administration, but procedures remain that could be improved.

The major recommendations of the policy evaluation are summarized as follows:

- Implement recommended procedures to ensure that transportation impact fees are spent on projects that have the most effect on improving levels of service and are in closest proximity to where fees were paid.

- Extend the transportation impact fees to include collectors as well as arterials, and expand park fees to include improvements as well as land.

- Eliminate automatic blanket exemptions for development in designated geographic areas, or more narrowly target them to priority areas. Add criteria to affordable housing exemptions to ensure the housing remains affordable.

- Track non-impact fee expenditures on impact fee-eligible improvements to offset lost revenue from exemptions.

- Base the updated park and public safety fees on the existing level of service, rather than continue the recoupment approach of the original study.

- Replace the current level of service measures based on simple, physical ratios with ones that take into account the full range of the City's investments in land, buildings, equipment and other eligible improvements.

- Reduce the number of nonresidential land use categories in the fee schedules.

- Develop procedures to ensure that the Finance Department is notified of ordinances appropriating impact fee funds.

Potential Impact Fee Summary

Table 2 below summarizes the potential impact fees calculated in this report. The updated impact fees include collector road and park improvement costs. Transportation fees would be reduced by 50% when located in proximity to a MARTA or light rail station.

Table 2. Detailed Impact Fee Summary

			Park Fee by Service Area					Total Fee by Service Area		
Land Use Type	Unit	Road*	North	South	West	Fire	Police	North	South	West
Updated Fee										
Single-Family	Dwelling	$4,046	$1,526	$1,324	$2,319	$248	$147	$5,967	$5,765	$6,760
Multi-Family	Dwelling	$2,221	$1,035	$898	$1,573	$168	$100	$3,524	$3,387	$4,062
Hotel/Motel	Room	$1,269	$701	$608	$1,065	$114	$68	$2,152	$2,059	$2,516
Retail/Commercial	1,000 sq ft	$4,284	$1,609	$1,397	$2,445	$261	$155	$6,309	$6,097	$7,145
Office	1,000 sq ft	$3,253	$786	$682	$1,194	$128	$76	$4,243	$4,139	$4,651
Public/Institutional	1,000 sq ft	$1,190	$473	$411	$719	$77	$46	$1,786	$1,724	$2,032
Industrial	1,000 sq ft	$2,856	$293	$254	$445	$48	$28	$3,225	$3,186	$3,377
Warehouse	1,000 sq ft	$1,269	$204	$177	$309	$33	$20	$1,526	$1,499	$1,631
Mini-Warehouse	1,000 sq ft	$1,031	$96	$83	$145	$16	$9	$1,152	$1,139	$1,201
Current Fee										
Single-Family	Dwelling	$987	$410	$245	$245	$114	$33	$1,544	$1,379	$1,379
Multi-Family	Dwelling	$470	$285	$171	$171	$79	$23	$857	$743	$743
Hotel/Motel	Room	$793	$183	$110	$110	$51	$15	$1,042	$969	$969
Retail/Commercial	1,000 sq ft	$1,304	$584	$350	$350	$199	$57	$2,144	$1,910	$1,910
Office	1,000 sq ft	$1,977	$241	$145	$145	$71	$20	$2,309	$2,213	$2,213
Public/Institutional	1,000 sq ft	$519	$192	$115	$115	$53	$15	$779	$702	$702
Industrial	1,000 sq ft	$1,025	$169	$102	$102	$47	$14	$1,255	$1,188	$1,188
Warehouse	1,000 sq ft	$748	$94	$56	$56	$26	$8	$876	$838	$838
Mini-Warehouse	1,000 sq ft	$748	$94	$56	$56	$26	$8	$876	$838	$838
% Change										
Single-Family	Dwelling	310%	272%	440%	847%	118%	345%	286%	318%	390%
Multi-Family	Dwelling	373%	263%	425%	820%	113%	335%	311%	356%	447%
Hotel/Motel	Room	60%	283%	453%	868%	124%	353%	107%	112%	160%
Retail/Commercial	1,000 sq ft	229%	176%	299%	599%	31%	172%	194%	219%	274%
Office	1,000 sq ft	65%	226%	370%	723%	80%	280%	84%	87%	110%
Public/Institutional	1,000 sq ft	129%	146%	257%	525%	45%	207%	129%	146%	189%
Industrial	1,000 sq ft	179%	73%	149%	336%	2%	100%	157%	168%	184%
Warehouse	1,000 sq ft	70%	117%	216%	452%	27%	150%	74%	79%	95%
Mini-Warehouse	1,000 sq ft	38%	2%	48%	159%	-38%	13%	32%	36%	43%

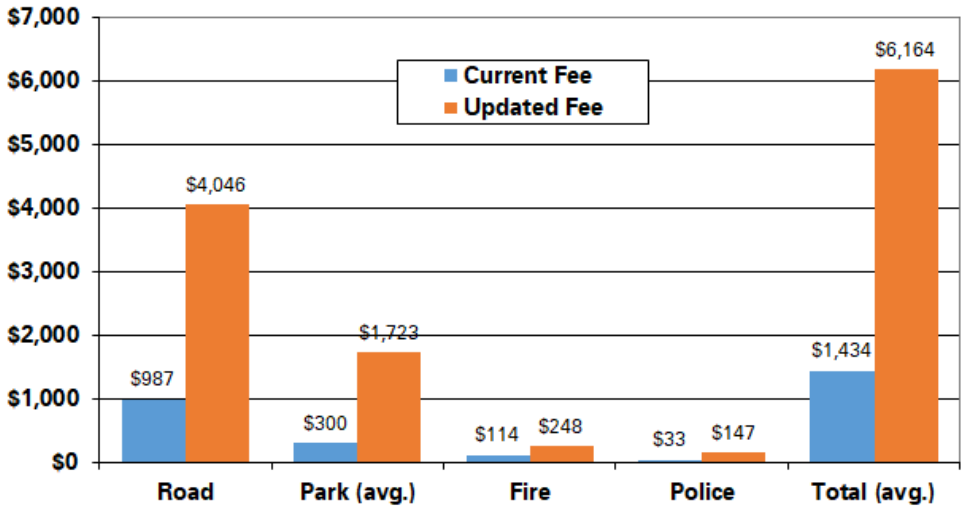
* fee reduced by 50% within 1,000 walking feet of a MARTA or light rail station

Source: Potential fees from Table 26 (transportation), Table 39 (parks), Table 50, (fire), and Table 60 (police); updated residential fees represent average (untiered) rates; current fees from City of Atlanta (commercial/office fees for 100,000 square foot development, public/institutional fees based on church).

The significant increases from current fees reflect a number of factors, including increases in construction and land costs over the last 24 years, the expansion of transportation impact fees to include the cost of collector road improvements, the expansion of park fees to include improvement costs (versus land only), and basing the updated fees on the current level of service for parks, fire, and police facilities (the previous study used a recoupment approach that assumed these facilities had excess capacity to accommodate growth).

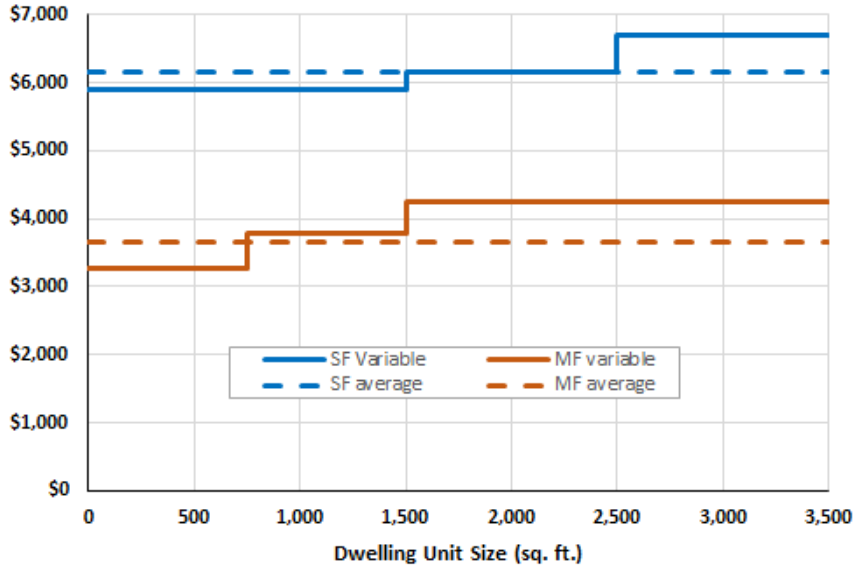
Current and updated fees for a single-family unit are illustrated in Figure 2. The average park fee for the three service areas is shown for simplicity.

Figure 2. Current and Updated Fees, Single-Family Unit



The summary table above shows flat rate residential fees, but tiered fees that vary by the size of the dwelling unit are also calculated in this update and are an option. The optional total residential fees (using the average park fees for the three service areas) are illustrated in Figure 3. While arguably more accurate, the total impact fee for the smallest size category is only $259 lower than the average fee for single-family, and only $508 less for multi-family. Given that these small differentials are unlikely to have much effect on encouraging smaller, more affordable units, this alternative may not be worth the additional complexity in impact fee administration that would be required to implement it.

Figure 3. Total Tiered Residential Impact Fees



Comparative Fees

It is easy to compare impact fee amounts charged by local jurisdictions, and it is natural to be interested in how Atlanta's impact fees compare. But it would be a mistake to conclude that differences between Atlanta's impact fees and those charged by neighboring or similar jurisdictions are a significant factor in the City's ability to attract new development. Too many other factors are involved, most of them much more difficult to quantify and compare than impact fees. These include the availability of jobs, total housing costs (of which impact fees are only a small part), the quality of transportation infrastructure, schools, and recreational amenities, entrepreneurial opportunities, economic synergies resulting from a concentration of workers, suppliers and customers, etc.

The cost of impact fees is not like the cost of shoes. One cannot comparison-shop for the jurisdiction that charges less to obtain a building permit, and use that permit to build somewhere else. The purchase of a building permit entails the commitment to locate one's home or business in that community, and that decision is seldom made solely or even primarily on the basis of the lowest impact fees. Instead, the three-rule mantra of real estate prices – location, location, location – applies equally to the ability of a community to attract development. The overall attractiveness of the community is a far greater factor in competitiveness than impact fee amounts.

The argument typically made by the development community is straight-forward. The effect of impact fees is more like a tax, where no special benefit is provided in return, than a user fee, which purchases specific services. Impact fees, by raising the local cost of construction, steer housing development and job creation to neighboring or competing jurisdictions, and make housing more expensive and less affordable.

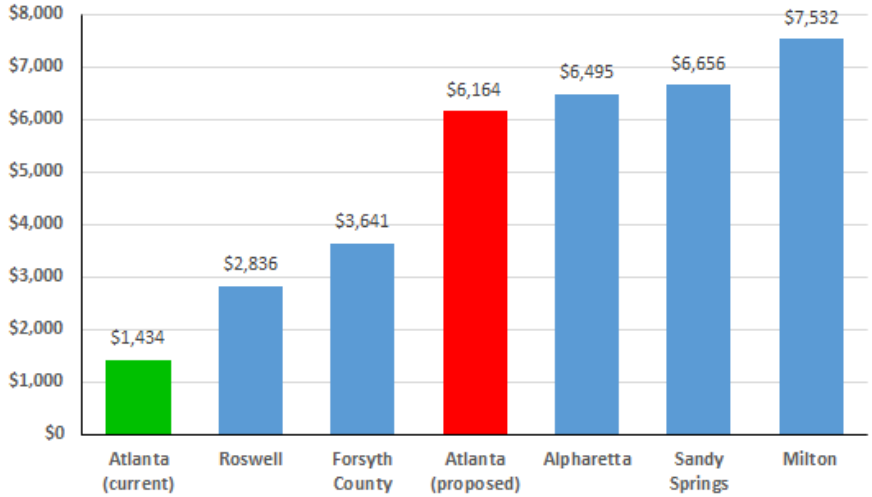
While the actual effects of impact fees on growth and housing affordability are not completely understood, economic theory and empirical evidence paint a much more nuanced picture.[2] Impact fees are not just an additional cost on construction that comes with no corresponding benefits, because the revenues are earmarked to be used only for infrastructure (roads, parks, fire and police facilities and equipment, etc.) required to serve the new development. Studies comparing impact fees and growth rates between jurisdictions, both in terms of residential construction and jobs, have not found consistent, statistically-significant effects of impact fee levels on the pace of growth and development. Finally, while impact fees may raise housing purchase prices, they also reduce the need for property tax increases to fund the expansion of infrastructure needed to serve growth, which in turn tends to reduce long-term housing costs. With these caveats on the uncertainties of the effect of impact fee differentials between jurisdictions, the following comparisons are presented.

Nearby jurisdictions. The City of Atlanta's current and proposed total non-utility impact fees for an average single-family unit are compared with total non-utility impact fees charged by five nearby jurisdictions in Figure 4 below. Atlanta's fees are currently the lowest, but would be more mid-range under the proposed fees. Single-family fees for the comparison jurisdictions tend to be dominated by park impact fees, which are $4,544 per unit in Sandy Springs, $4,963 in Alpharetta, and $6,215 in

[2] For a recent review of the economic literature on the effects of impact fees on growth rates and housing prices, see Gregory Burge, "Impact Fees in Relation to Housing Prices and Affordable Housing Supply," May 2016, https://www.researchgate.net/publication/265228760_Impact_Fees_in_Relation_to_Housing_Prices_and_Affordable_Housing_Supply.

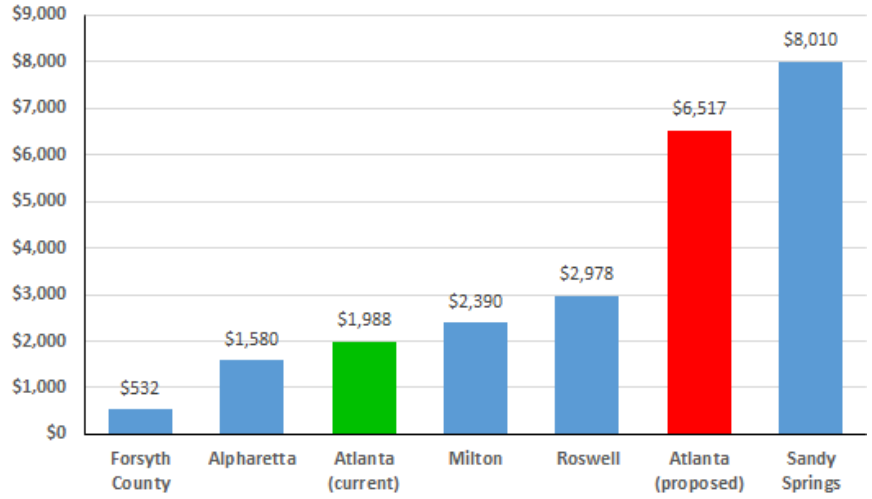
Milton, compared to Atlanta's proposed average park fee for the three service areas of $1,723. In contrast, Atlanta's proposed road impact fee of $4,046 per unit is higher than that charged by any of the nearby comparison jurisdictions, which charge fees for a single-family unit averaging about $1,500 per unit (ranging from a low of $678 in Milton to a high of $1,968 in Forsyth County).

Figure 4. Single-Family Fees, Atlanta and Nearby Jurisdictions



The comparison with nearby jurisdictions looks quite different for nonresidential land uses. Total non-utility impact fees for retail uses (100,000 square foot shopping center or general retail) are compared in Figure 5. Atlanta's proposed total retail fee is the second-highest of the group. This is because total nonresidential fees in the region tend to be dominated by road impact fees, and Atlanta's proposed road fees are the highest after Sandy Springs. Forsyth County has the lowest retail fees because it assesses road fees only on residential uses, making up for the lost revenue by tracking non-impact fee funding.[3]

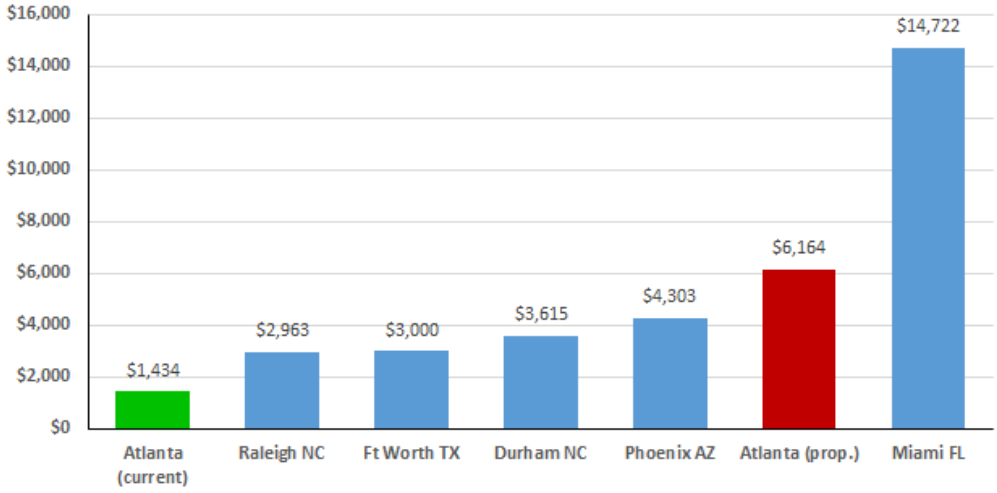
Figure 5. Retail Fees per 1,000 sq. ft., Atlanta and Nearby Jurisdictions



[3] Communication with David Gruen, Chief Financial Officer, Forsyth County, February 22, 2017.

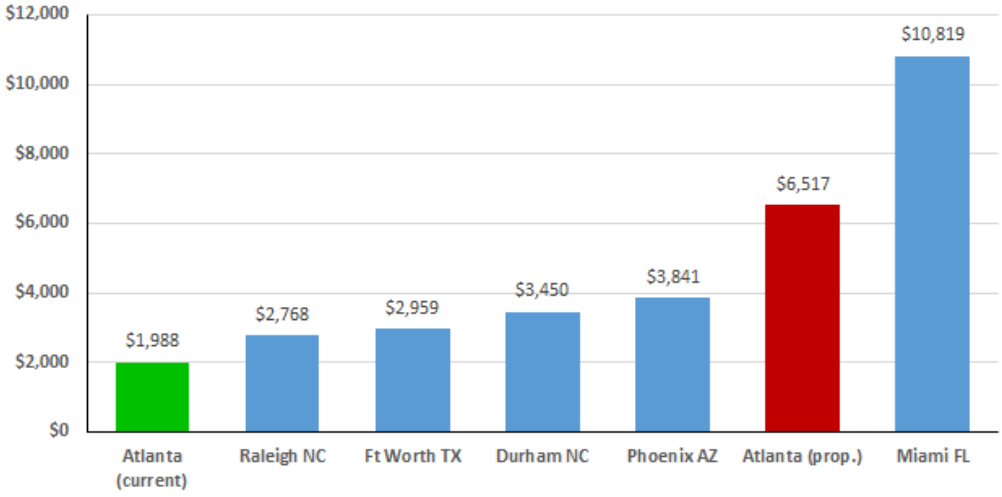
Peer jurisdictions. The City of Atlanta's current and proposed total non-utility impact fees for an average single-family unit are compared with total non-utility impact fees charged by five comparable jurisdictions in Figure 6. Atlanta's fees are currently the lowest, and would be the second-highest after Miami-Dade County under the proposed fees, although only modestly higher than Raleigh, Durham, Fort Worth and Phoenix.

Figure 6. Single-Family Fees, Atlanta and Peer Jurisdictions



The peer city comparison looks similar for nonresidential land uses. Total non-utility impact fees per 1,000 square feet for retail uses (for a 100,000-square foot shopping center or general retail development) are compared in Figure 7.

Figure 7. Retail Fees per 1,000 sq. ft., Atlanta and Peer Jurisdictions



CURRENT SYSTEM EVALUATION

Impact fees are charges assessed on new development to cover the costs of capital improvements needed to accommodate growth. Impact fees provide a mechanism to fund public infrastructure necessary to serve new development.

The City of Atlanta assesses impact fees on new development to help pay for the expanded capital facilities that will be needed to serve the new residents and businesses that will occupy those developments. The City assesses impact fees for transportation, parks, police and fire facilities. The fees were originally adopted in March 1993, and the fee amounts have not been changed since that time.

This chapter of the report provides an analysis of the City's current impact fee system, and develops recommendations for improvement. It starts with an overview of the legal framework that governs impact fees nationally and within Georgia. Subsequent sections address the fee calculation methodology, land use categories, exemptions and administrative procedures. Facility-specific changes are discussed in more detail in subsequent chapters for each facility type.

Legal Framework

The *Georgia Development Impact Fee Act*, Chapter 36-71, Georgia Code Annotated, was passed by the legislature in 1990. An important provision of the *Act* was that all developer exactions for "system improvements" must comply with the requirements of the Act. System improvements are defined as "public facilities" that provide service to the community at large, as opposed to "project improvements," which are improvements that are designed primarily to serve a particular development project. Public facilities are defined to include water, wastewater, roads, stormwater, parks, public safety and library facilities. To be eligible to adopt impact fees, a local government must have adopted a capital improvements element that sets out a schedule of capital improvements needed over the planning horizon of the comprehensive plan, including anticipated funding sources.

The *Development Impact Fee Act* provides some general guidance on how impact fees are to be calculated. The *Act* mandates that the fees:

- "shall not exceed a proportionate share of the cost of system improvements;"
- "shall be calculated and imposed on the basis of service areas;"[4]
- "shall be calculated on the basis of levels of service … that are applicable to existing development as well as the new growth and development;" and
- "shall be calculated on a basis that is net of credits for the present value of revenues that will be generated by new growth and development based on historical funding patterns and that

[4] Service area is defined in the Act as "a geographic area defined by a municipality, county, or intergovernmental agreement in which a defined set of public facilities provide service to development within the area. Service areas shall be designated on the basis of sound planning or engineering principles or both" (Chapter 36-71-2(13), Georgia Code Annotated)

are anticipated to be available to pay for system improvements, including taxes, assessments, user fees, and intergovernmental transfers."

Determining the "proportionate share" of the cost of planned improvements that is attributable to growth is at the heart of any impact fee methodology. The third bulleted phrase provides the most guidance, and captures one of the most fundamental principles of impact calculation, which is that impact fees should not charge new development for a higher level of service than is provided existing development. While impact fees can be based on a higher level of service than is currently being provided to existing development, a source of funding other than impact fees must be identified and committed to remedy the deficiency.

The fourth bulleted phrase reflects another fundamental impact fee principle, which is that new development should not have to pay more than its proportionate share when multiple sources of payment are considered. As noted above, if impact fees are based on a higher-than-existing level of service, the fees should be reduced by a credit that accounts for the contribution of new development toward remedying the existing deficiencies. A similar situation arises when the existing level of service has not been fully paid for. Outstanding debt on existing facilities that are counted in the existing level of service will be retired, in part, by revenues generated from new development. Given that new development will pay impact fees to provide the existing level of service for itself, the fact that new development may also be paying for the facilities that provide that level of service for existing development could amount to paying for more than its proportionate share. Consequently, impact fees should be reduced to account for future payments that will retire outstanding debt on existing facilities.

In general, credits against impact fees are not necessarily required for other types of funding that have historically been used for, or that are committed to be used for growth-related, capacity-expanding improvements. While new development may contribute toward such funding, so does existing development, and both existing and new development benefit from the higher level of service that the additional funding makes possible. To insist that historical capacity funding patterns must be continued after the adoption of impact fees, and that new development is entitled to an offset for its contribution to those funding sources, would be to argue that local governments cannot require "growth to pay for growth" unless they have always done so. As long as the fees are based on new development paying to maintain existing levels of service that have been paid for in full by existing development, and additional funding can reasonably be used to raise the level of service for existing and new development alike, no additional revenue offsets are warranted.

The *Act* imposes a number of important requirements for the imposition and collection of impact fees.

- The fees may not be collected earlier than the issuance of a building permit.
- The ordinance must include an impact fee schedule for each service area.
- Credit must be given for system improvements provided by the developer.

- The ordinance must provide an option for individual assessment of impact fees for a particular project, as well as a procedure for certification of the impact fee for a particular project for a period of 180 days.

- The fees can be used to recoup previous expenditures made to construct system improvements in anticipation of growth.

- Exemptions may be granted for economic development or affordable housing projects, provided the exemption is funded through a revenue source other than impact fees.

- The impact fees collected can only be spent for the category of system improvements for which the fees were collected and in the same service area.

- Prior to the adoption of an impact fee ordinance, Development Impact Fee Advisory Committee, with at least 50% of the members representing the development, building or real estate industries, must be appointed to review the proposed ordinance.

- Impact fees must be refunded if they are not encumbered or spent within six years.

Several amendments to the state enabling act, some specifically targeting the City of Atlanta, were made in 2007 and became effective on July 1, 2007. The accounting requirements were amended to require the recording of the address of each property for which impact fees are paid, the amount of each category of fees and the data of payment. For each exemption granted, the record must include the address, the reason for the exemption, and the revenue source used to pay for the exemption.

The other amendments concern how the City of Atlanta spends its transportation impact fees. The expenditure of transportation impact fees by the City must take into consideration the "proximity of the proposed system improvements to developments within the service area which have generated development impact fees," and projects that have "the greatest effect on levels of service" on transportation facilities impacted by the developments that have paid the fees. The City is also required to submit the transportation portion of the annual impact fee report to the Development Impact Fee Advisory Committee, who may report any perceived inequities in the expenditure of transportation impact fees to the City Council.

The City's Development Impact Fee Ordinance (Sec. 19-001, et. seq.) contains the standards and procedures relating to the development impact fee program. Key provisions of the ordinance include the circumstances under which impact fees will be imposed; administration of impact fees; method for computation of fees; rules for the issuance of development credits and development agreements; and rules for issuance of impact fee waivers and exemptions.

Study Methodology

There are two basic methodologies used in impact fee analysis, which may be called "plan-based" and "standards-based." The original impact fee study used the standards-based approach for transportation, parks, fire and police impact fees. The two approaches are briefly described as follows.

The plan-based approach generally uses a more complex level of service (LOS) measure than the standards-based approach. The standards-based approach typically uses a simple, system-wide ratio of capacity to demand, such as "5 acres of park land per 1,000 residents." Because of the simplicity of this LOS standard, fees can be calculated without a long-range master plan. For example, if the cost of an acre and the number of people associated with a single-family home is known, a growth-related park impact fee cost can be calculated for a single-family home. In contrast, the plan-based approach typically uses a LOS standard that is locationally-specific, such as "every road facility shall function at LOS D or better." In order to calculate a fee with this type of LOS standard, it is necessary to project where new development will occur in order to determine what improvements will be needed to accommodate growth, which is the essence of a facility master plan. The plan-based approach essentially divides the cost of needed improvements over the planning horizon by the anticipated growth. Since the LOS standard in a plan-based approach focuses on individual facilities, there are generally some facilities that are not functioning at the desired level, and thus there are generally some existing deficiencies. With the standards-based approach, it is possible to set the LOS equal to the existing system-wide LOS, which avoids creating existing deficiencies. Another important difference between the two approaches relates to the flexibility of spending impact fee funds. With plan-based fees, the fees should only be spent on improvements identified in the master plan, and if growth does not occur as planned, the master plan and impact fees should be revised. With standards-based fees, the fees can be spent on any improvement in the service area that will expand system capacity. This update retains the standards-based approach.

With the standards-based approach, the level of service used in calculating the fee can be set below the existing level of service to create a recoupment fee. The current park and public safety fees were designed as recoupment fees. Setting the fees based on a lower level of service reduces the amount of the fees themselves and indicates the City's desire to maximize the use of existing facilities. Recoupment fees are intended to recover costs incurred in advance of development that created capacity for future growth. Because recoupment fees are reimbursements to the City for past expenditures, they are not subject to the earmarking and expenditure restrictions of non-recoupment fees, although since exemptions were halted in 2009 they have functioned just like non-recoupment fees. Collection of the fees can be waived for affordable housing or economic development projects, for example, without identifying replacement funds, and this was the City's practice until 2009. In the early years of the program, some of the park and public safety fees were used to fund exemptions to the transportation impact fees, which were not recoupment fees, although this practice was discontinued about 1996. This update does not use the recoupment approach, and instead bases the fees for most of the facilities on the existing level of service.

Level of Service

The Georgia *Development Impact Fee Act* defines level of service (LOS) as "a measure of the relationship between service capacity and service demand for public facilities in terms of demand to capacity ratios, the comfort and convenience of use or service of public facilities, or both." The *Act* requires that the levels of service on which the impact fees are based be adopted in the local government's comprehensive plan. The Georgia Department of Community Affairs, which certifies local governments as in or out of compliance with the *Development Impact Fee Act*, has released guidelines suggesting that LOS measures "be expressed in quantifiable terms or in a manner sufficient to allow future evaluation of progress in meeting capital improvements goals."[5]

One of the most fundamental principles of impact fees, rooted in case law and norms of equity, is that impact fees should not charge new development for a higher level of service than is provided existing development. This principle is reflected in the *Georgia Development Impact Fee Act*, which requires that "impact fees shall be calculated on the basis of levels of service … that are applicable to existing development as well as the new growth and development." While impact fees can be based on a higher level of service than that existing at the time of the enactment or update of the fees, another funding source must be identified to remedy the existing deficiencies. In addition, impact fees must be reduced to account for any revenue that new development will generate that is used to remedy the existing deficiencies, in order to avoid double-charging. In order to avoid these complications, typical practice with standards-based impact fee methodologies is to base the fees on a LOS that is equal to or less than the existing LOS.

Recommendation: Replace the current level of service measures based on one-dimensional physical ratios with ones that take into account the full range of the City's investments in land, buildings, equipment and other improvements.

The issue of LOS is inextricably intertwined with impact fee methodology. In this update, the transportation LOS is expressed in terms of equivalent lane-miles per VMT, which takes into account transportation-related improvements beyond vehicular travel lanes. This approach recognizes that within an urban area, traditional improvements to expanding capacity are not as feasible as expanding capacity through other improvements, such as turn lanes, intersection improvements and signalization. The equivalency approach is also used for the park LOS, which is expressed as equivalent acres per 1,000 functional population. The equivalent acres approach captures improvements to the parks and amenities such as recreation centers, pools and other recreation facilities. The police and fire fees are based on equivalency factors that take into account central facilities: the police LOS is expressed in terms of equivalent building square feet and the fire LOS is expressed in terms of equivalent fire station square feet. As mentioned above, the updated park, fire and police fee calculations are based on the existing LOS using the standards-based approach rather than the recoupment methodology used in the prior study.

[5] Georgia Department of Community Affairs, "How to Address Georgia's Impact Fee Requirements," updated April 2008

Service Areas

The *Development Impact Fee Act* defines "service area" as "a geographic area … in which a defined set of public facilities provide service to development within the area. Service areas shall be designated on the basis of sound planning or engineering principles or both." It further provides that "Development impact fees shall be calculated and imposed on the basis of service areas." Impact fee schedules must be developed that apply to each service area, and impact fees collected in a service area must be spent on improvements located within the same service area.

Service Units

To develop a level of service standard, it is necessary to define a common unit of demand, known as a "service unit." This study maintains the use of peak hour trip rates for measuring transportation demand and nonresidential functional population for parks, police and fire. The trip rates in this study are updated to reflect the most recent published data on peak hour trip generation rates published in the ninth edition of the Institute of Transportation Engineers' (ITE) *Trip Generation* manual. Also, as in prior updates, the trip rates are adjusted to reflect the proportion of trips that are primary trips, as opposed to pass-by and diverted-link trips. The average length of a trip for each land use is updated in this study to reflect the most current national and local data available.

The functional population multipliers are derived from household size and employment data. The functional population factors are updated based on the most recent average household size data from the U.S. Census for residential land uses and current trip generation rates and other data for nonresidential land uses.

Proposed Methodology Summary

The methodology used in this study is the "standards-based" approach, where the fee is calculated based on the existing level of service (LOS). The existing LOS is calculated for each service area as the ratio of a common measure of existing facilities to a common measure of existing development. The common measures of existing facilities are equivalent lane-miles for transportation, equivalent park acres for parks, and equivalent square feet for fire and police. The common measure of existing development is the "service unit." The service units are peak hour vehicle-miles of travel (VMT) for transportation and functional population for parks, fire and police. For each facility type, there is a demand schedule that determines the number of service units represented by a unit of development for various land use types. The general impact fee formula is:

Impact Fee per Development Unit = Service Units per Development Unit x Net Cost per Service Unit
Net Cost per Service Unit = Cost per Service Unit – Credit per Service Unit
Cost per Service Unit = Equivalent Facility Units per Service Unit x Cost per Facility Unit

Land Use Categories

The City's current impact fee schedules have two residential categories (single-family detached and multi-family) and ten nonresidential categories (commercial, office, industry, warehousing, hotel/motel, elementary school, high school, church, hospital and nursing home). The commercial category is further broken down into eight size categories, ranging from less than 100,000 square feet to 1 million square feet or more, while the office category is broken down into five size categories. Counting the commercial and office size categories, Atlanta uses a total of 21 nonresidential land use categories.

Residential Categories

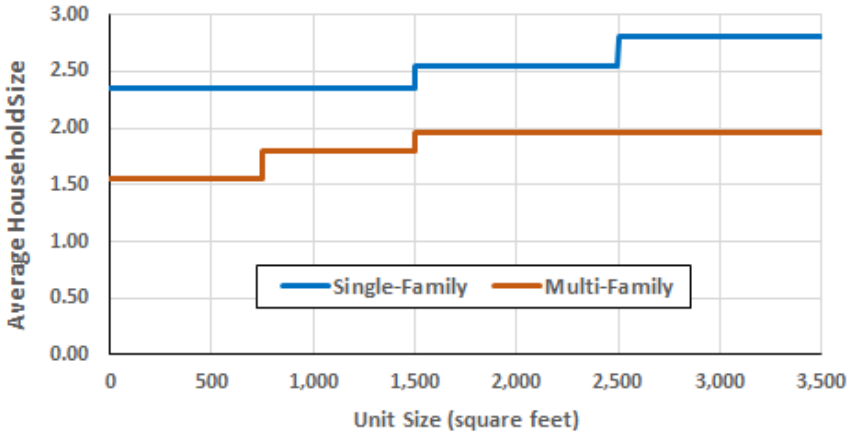
Currently, the City charges single-family detached and multi-family units based on a flat fee per dwelling unit. While this was standard impact fee practice for years, many communities today are switching to fees that vary by the size of the dwelling unit, whether measured in terms of bedrooms or square footage of living area. Charging residential fees based on unit size arguably provides a more accurate assessment of impacts, since the number of residents is a key indicator of the demand on public facilities, and unit size is related to the number of person in the dwelling unit. Varying the fees by dwelling size could also support the City's goal of encouraging affordable housing, since smaller units tend to be less expensive.

As noted above, dwelling unit size can be quantified either in terms of the number of bedrooms or the square footage of living area. The advantage of using bedrooms is that data on residents by number of bedrooms specific to housing in Atlanta is available from the U.S. Census, whereas information on the relationship between residents and square footage would need to rely to some extent on national data like that illustrated above, or else on indirect estimation techniques. The disadvantage of using bedrooms is that what constitutes a bedroom can be difficult to determine, especially when there is an incentive to disguise it as something else, whereas living area can easily be determined. Our recommendation would be to use square feet of living area rather than bedrooms.

Some communities charge all new units of the same square footage the same fee, regardless of the type of housing. However, as can be seen in Figure 8, which displays nation-wide data from the U.S. Department of Housing and Urban Development's 2013 *American Housing Survey*, multi-family units tend to have significantly fewer residents than single-family units of the same size. The fact that multi-family units tend to be smaller than single-family units explains less than one-third of the gap between them in terms of average persons per unit. The bigger factor is likely the preference of larger households for a yard. While these observations are derived from national data, they are likely to hold for Atlanta as well. Consequently, different size categories and fees should be used for the two housing types.

Figure 8 also shows that the number of persons residing in a dwelling unit varies only modestly by unit size. The largest single-family units have only 19% more residents than units under 1,500 square feet. The differential for multi-family units is a little higher, at 26% more residents for the largest units than units under 750 square feet. For each housing type, the middle category essentially represents the average or flat rate approach. The reduction in average household size for smaller units compared to average (middle-category) units is 7% for single-family and 13% for multi-family.

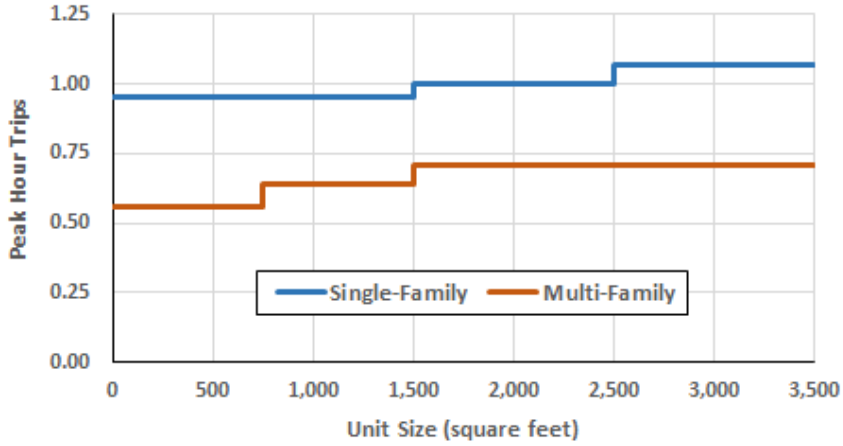
Figure 8. Persons per Unit by Dwelling Unit Size, U.S., 2013



Source: Table 69 in Appendix A.

Average household size is a direct input into the park, fire, and police fees. For transportation, average household size can be translated in trip generation rates, utilizing the relationship between number of persons in a household and trip generation from the U.S. Transportation Research Board. The differentials in trip rates are very similar to the differentials in average household size for multi-family, but are less pronounced for single-family, with an overall differential of only 13% between the largest and smallest size categories, and a reduction of only 5% for the smallest single-family units (under 1,500 square feet).

Figure 9. Estimated Peak Hour Trips by Dwelling Unit Size



Source: Table 9.

An issue that arises when residential fees are charged based on size is whether to charge residential additions that result in the size of the unit crossing a threshold. A variety of approaches are taken to this. Some communities exempt all residential additions to avoid the additional administrative effort. Others exempt additions under a certain size, such as under 500 square feet. Still others make no such exemptions.

While differential fees by dwelling unit size might align the impact fees more closely with the City's affordable housing goals, the differentials between size categories in trip generation and average household size are relatively small. The small resulting fee differentials would provide only a small incentive for affordable housing, and this should be weighed against the additional complexity in impact fee administration that would be entailed in such a change. This update calculates optional fees under a tiered approach, but the consultants recommend retaining flat rate fees by housing type.

Recommendation: Retain flat rate fees by housing type, given the small differentials by unit size.

Nonresidential Categories

Currently, fees for commercial uses vary based on the size of the shopping center, with eight categories ranging from less than 100,000 square feet to 1 million square feet or more. Similarly, fees for office uses are based on the size of the building, with five categories ranging from less than 50,000 square feet to 500,000 square feet or more. The differential fees are based on national data from the Institute of Transportation Engineers (ITE), showing that as shopping centers and office buildings increase in size, the number of trips generated per 1,000 square feet declines. ITE also publishes data on the percentage of trips to shopping centers that are primary trips, as opposed to trips that make a stop while on a route to another destination (passby), or that make a short diversion while going to another destination (diverted-linked). However, there are no similar national data on passby and diverted-linked trips for office buildings, nor are there data on the lengths of trips to shopping centers or office buildings of various sizes.

Variable rates for shopping centers by size of the center was virtually universal in early transportation impact fee systems. One reason for this unanimity is that ITE did not publish average daily trip generation rates for all sizes of shopping centers prior to the 6th edition of the *Trip Generation* manual in 1997 (before that, average rates were given for centers of less than 570,000 square feet and larger centers). Now that average rates are available, more communities are moving away from charging fees based on the size of the shopping center.

Large, regional shopping centers tend to have a lower percentage of passby trips than smaller, more neighborhood-oriented centers, and this relationship is also likely to hold for small, neighborhood-oriented offices versus large corporate office buildings. In addition, large, regional shopping centers have a much larger market area than smaller centers, and thus attract trips from longer distances, and this factor undoubtedly also comes into play for office developments. Clearly, the lower trip generation rates of larger shopping centers and office buildings is partially and perhaps even completely offset by higher percentages of primary trips and longer trip lengths. Given this and the lack of data on all the factors required to calculate variable rates by shopping center or office building size, the consultant recommends collapsing the size categories and charging commercial and office uses based on a flat rate per 1,000 square feet.

Besides commercial and office, the other major types of land uses are hotel/motel, industrial and institutional. The hotel/motel land use, assessed on a per room basis, is appropriate. The City's fee schedules currently distinguish between industrial and warehousing uses, and this distinction is appropriate. However, the City might want to add a category for mini-warehousing, which is a typical stand-alone use that has

Recommendation: Reduce the number of nonresidential land use categories in the fee schedules.

significantly different (lower) impacts than other warehousing uses. In terms of institutional uses, the City currently has five categories: elementary school, high school, church, hospital and nursing home. This is not an exhaustive list, and many communities collapse such uses into a single public/quasi-public/institutional category that includes other uses such as libraries, fire and police stations, universities, and public assembly uses. That is the approach recommended here.

The current land use categories are compared to the recommended categories in Figure 10. The total number of categories would shrink from 23 to 9 (or 13 if the tiered residential fee option is adopted). With the broad new public/institutional category, City staff should be able to relatively easily classify most proposed land uses. Definitions of the land use categories will also be provided in the revised ordinance to assist in administering the new categories.

Figure 10. Current and Proposed Land Use Categories

Current Land Uses	Proposed Land Uses
Single-Family	Single-Family, or optional 3 size categories: Single-Family Detached, <1,500 sq. ft. Single-Family Detached, 1,500-2,499 sq. ft. Single-Family Detached, 2,500 sq. ft.+
Multi-Family	Multi-Family, or optional 3 size categories: Multi-Family, <750 sq. ft. Multi-Family, 750-1,499 sq. ft. Multi-Family, 1,500 sq. ft.+
Hotel/Motel	Hotel/Motel
Commercial, <100,000 sf Commercial, 100,000-199,999 sf Commercial, 200,000-299,999 sf Commercial, 300,000-399,999 sf Commercial, 400,000-499,999 sf Commercial, 500,000-599,999 sf Commercial, 600,000-999,999 sf Commercial, 1,000,000 sf+	Shopping Center/Commercial
Office, <50,000 sf Office, 50,000-99,999 sf Office, 100,000-199,999 sf Office, 200,000-499,999 sf Office, 500,000 sf+	Office
Elementary School High School Church Hospital Nursing Home	Public/Institutional
Industry	Industrial
Warehousing	Warehousing Mini-Warehousing

Exemptions

The *Development Impact Fee Act* specifically allows affordable housing and economic development projects to be wholly or partially exempted from paying impact fees, provided that the policy that supports the exemption is contained in the comprehensive plan and that the lost impact fee revenue is replaced with non-impact fee funds.

Current Exemption Policy

The City's *Development Impact Fee Ordinance* (Sec. 19-001, et. seq.) establishes criteria for exemptions, including the requirement that the City's chief financial officer must certify that funds are available to fund the exemptions. In June 2009, the City's CFO decided to halt the granting and funding of impact fee exemptions. Consequently, no impact fee exemptions are currently being granted.

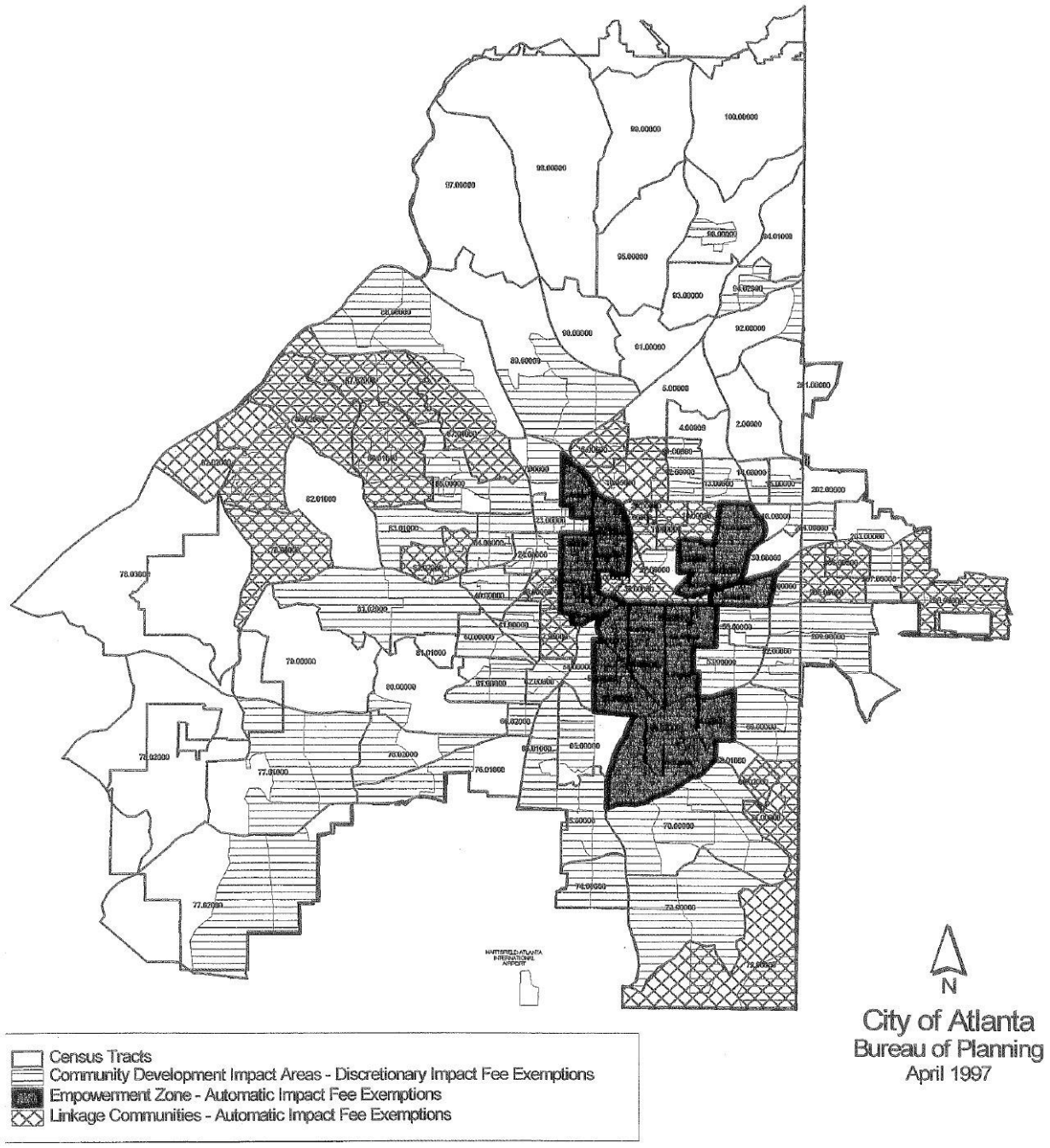
Nevertheless, based on the current ordinance, affordable housing projects may receive 50% or 100% exemption from impact fees, depending on the extent to which they are affordable to lower-income households. The only criterion is the pro-forma sales price or monthly rental rate. There are no income requirements for the buyers or renters of such housing, nor are there any requirements that the units continue to be affordable after construction.

Economic development projects are eligible for a 100% exemption. The City's ordinance defines economic development projects broadly. The most significant category includes any development located in the Atlanta Empowerment Zone or a Linkage Community. Although the City no longer uses these geographic designations, at the time exemptions were being granted these two types of automatic exemption areas covered roughly 25% of the area of the city (see Figure 11).

A much less significant category includes the narrow types of exemptions allowed in "community development impact areas," which cover an area of the city roughly equal to the automatic exemption areas. The ordinance exempts any commercial project in this area that (1) has $0.5 million or more annual revenues (at least 75% of which is derived from sales to residents of Empowerment Zone or Linkage Community), or (2) would create 10 or more permanent jobs, of which 75% are filled through the first source jobs program by residents of those two areas. The ordinance also exempts the construction of any new non-profit day care, vocational training or educational facility in a community development impact area.

Also defined as economic development projects, and thus eligible for a 100% exemption, is the rehabilitation or conversion of any historic building, the construction of any non-profit recreational facility, or the construction of any non-profit homeless facility. These types of projects may be exempted regardless of where they are located.

Figure 11. Impact Fee Exemption Areas



Affordable Housing Exemptions

A review of the City's records of housing exemptions granted from 2005 to the suspension of exemptions in 2009, summarized in Table 3, reveals that the City exempted 23 percent of all new housing units from impact fees. All but one of the single-family exemptions was justified based on affordability criteria, and all but two of the affordable single-family units were built by Habitat for Humanity. In contrast, 90 percent of the multi-family units exempted were based on being in an automatic exemption area (Empowerment Zone or Linkage Comminity), rather than meeting affordable housing criteria (although it is possible some of these projects could have met affordable housing criteria as well).

Table 3. Housing Exemptions, 2005-2009

Housing Type	Afford. Housing	Exempt Area	Total Exempted	Total Built	Percent Exempted
Single-family	161	1	162	5,234	3%
Multi-family	662	6,436	7,098	25,734	28%
Total	823	6,437	7,260	30,968	23%

Source: Exemptions from City of Atlanta, Impact Fee Waiver Reports, First Quarter 2005 through Second Quarter, 2009; total units built from U.S. Census Bureau, Monthly New Privately-Owned Residential Building Permits, January 2005 through June 2009.

Affordable housing exemptions for single-family units were relatively insignificant, amounting to about 35 units annually and accounting for about half of one percent of all new units built in the city. In addition, virtually all these units were built by Habitat for Humanity, whose process ensures that these units will be occupied by lower-income households and will remain a source of affordable housing for years.

Exemptions for multi-family housing were more problematic in terms of their promotion of affordable housing. Multi-family housing accounts for 98% of all housing units exempted. While multi-family tends to be the most affordable housing type, almost all these exemptions were based on location rather than on affordability criteria.

Recommendation: Restrict eligibility for affordable housing exemptions to projects that qualify for Federal housing assistance.

Even the 10% of exemptions granted on affordability criteria may not have resulted in units that continue to be affordable to lower-income residents over the long term. If affordable housing exemptions are to be funded again, they should be restricted to projects that can guarantee continued affordability. While the City could develop their own criteria, a simpler approach would be to restrict eligibility to projects that qualify for Federal housing assistance. This program assists low-income households that earn less than half the area median income. Provisions should also be added requiring that the housing remain affordable for 10 years or more, enforced by deed restriction or development agreement.

Economic Development Exemptions

Less detail is available on nonresidential exemptions, particularly the justification for the exemptions, but it is safe to say that the blanket area exemption accounts for most of them. In dollar amounts, nonresidential exemptions were more than double the amount of residential exemptions during the last three years that exemptions were funded, as shown in Table 4.

Table 4. Total Fees Exempted, 1/1/2007 – 9/30/2009

Residential Exemptions, 1/1/2007 - 9/30/09	$2,694,203
Nonresidential Exemptions, 1/1/2007 - 9/30/09	$6,236,371
Total Fees Exempted, 1/1/2007 - 9/30/09	$8,930,574

Source: Residential exemptions from City of Atlanta, Impact Fee Waiver Reports, First Quarter 2007 through Second Quarter 2009 (no exemptions since); total fee exemption amount from City of Atlanta Information Technology Department, "Impact Fees Exempt" spreadsheet, January 11, 2010; nonresidential exemption amount is the difference.

Recommendation: Eliminate blanket exemptions for geographic areas.

As has been seen, only about 10% of exemptions for new housing during the last five years when exemptions were funded were granted under affordable housing criteria. The other 90% of exemptions were granted under the rubric of "economic development." The most significant of the economic development exemptions was the automatic 100% exemption for any development occurring in the Empowerment Zones or Linkage Communities. These geographic designations are no longer used by the City.

Eligibility for economic development exemptions within Linkage Communities areas is more restricted, and is limited to the following:

> (a) Commercial development that, in opinion of the city council as expressed through an appropriate resolution, would either (1) generate annual revenues of $500,000.00 or more, of which at least 75 percent would be derived from the sale of goods and services to residents of the empowerment zone and linkage communities, or (2) create ten or more permanent jobs, of which at least 75 percent would be filled through the first source jobs program by qualified residents of the empowerment zone and linkage communities; or
>
> (b) The rehabilitation or conversion of any historic building; or
>
> (c) The construction of any new not-for-profit day care, vocational training, or educational facility; or
>
> (d) The construction of any private not-for-profit recreational facility; or
>
> (e) The construction of any not for profit homeless facility.

While information on the nonresidential fee amounts exempted in Linkage Communities is not available, it is likely that they were small relative to those in the automatic exemption areas, due to the restrictions imposed in Linkage Community areas. The criteria for commercial developments favor higher-revenue businesses catering to local customers in depressed area, and larger employers of local

residents in those areas. The criteria for non-profit development target very specialized categories of development.

Before the granting of economic development exemption is resumed, the criteria for such exemptions needs to be updated by the City. "Economic development" is a broad term. A logical first step is to decide whether to prioritize increasing nonresidential, job-creating developments in economically-deprived areas of the city, or promoting job growth in the city regardless of where it occurs. Each approach has significant implications:

Geographic approach. The geographic approach would encourage local job creation that might be more accessible to residents in low-income areas, both in terms of transportation and skill level, than a city-wide job creation incentive. On the other hand, lower-skill jobs are likely to increase city-wide regardless of such incentives, and the accessibility of such jobs to residents of depressed areas can be improved with more investments in public transit and roadway infrastructure.

If the geographic approach is taken, and automatic exemptions are to be granted for most nonresidential development, it should be targeted to a smaller area. The current automatic exemptions for any development cover about one-fourth of the city's land area. Combined with the areas eligible for more targeted exemptions, about half the city fell in such areas. The current ordinance designations for automatic exemption areas are no longer actively used by the City, and the community development impact area covers about half the city's land area. The designation of the areas that would be eligible for economic development exemptions would need to be updated prior to implementing a geographic exemption approach.

City-wide growth approach. This approach would call for incentives for nonresidential developments that would tend to fuel overall job growth. Economic theory suggests that incentives should be targeted to economic sectors that export goods and services to buyers outside the local area, such as manufacturing, technology companies, specialized financial institutions, and tourism, rather than to local-serving retail and service sectors. These are the types of industries typically targeted by economic development agencies.

In sum, economic development incentives should be targeted to promote City priorities, whether that is to bring more businesses and jobs to selected economically-depressed areas, or promoting city-wide job growth. Geographic areas would need to be defined, or criteria developed for the types of industries to be promoted. While both types of economic development could be targeted, that would necessitate a greater degree of prioritization. How to fund a more limited exemption program is addressed next.

Funding Exemptions

One way to evaluate the scale of exemptions is to compare the amount of the exemptions to total revenue that would have been received in the absence of the exemptions. While this comparison excludes in-kind developer contributions that were used to offset fees that would otherwise have been paid, it does give some sense of the order of magnitude involved. In a period covering almost three years when exemptions were funded, they amounted to about 40% of the potential revenue that would have been collected in the absence of the exemptions, as shown in Table 5. The higher percentage of waivers for transportation impact fees is likely due to the fact that impact fee revenue is understated

because it does not include the value of developer improvements made in lieu of impact fee payment. Nevertheless, it is clear that exemptions were granted on a substantial scale when they were funded.

Table 5. Impact Fee Exemptions and Collections, 1/1/2007 – 9/30/2009

	Roads	Parks	Fire	Police	Total
Fees Exempted, 1/1/07 - 9/30/09	$6,403,344	$1,639,570	$687,886	$199,774	$8,930,574
Actual Revenue, 1/1/07 - 9/30/09	$7,596,042	$3,749,978	$1,245,957	$363,174	$12,955,151
Total Potential Revenue	$13,999,386	$5,389,548	$1,933,843	$562,948	$21,885,725
Exemptions % of Potential Revenue	45.7%	30.4%	35.6%	35.5%	40.8%

Source: Actual revenue from City of Atlanta, December 29, 2009; fees exempted from City of Atlanta Information Technology Department, "Impact Fees Exempt" spreadsheet, January 11, 2010.

The *Development Impact Fee Act* allows impact fees to be waived for affordable housing or economic development projects, but requires that the resulting shortfall in the impact fee fund be made up with non-impact fee revenue. The need to come up with a funding source for exemptions was a consideration in designing the recoupment fee methodology for parks, fire and police impact fees in the original 1993 study. The recoupment fee approach avoided the need to fund waivers of parks, fire and police fees, since by their nature recoupment fees do not have to be earmarked to fund capital improvements (they are recovering the cost of existing capital improvements that have already been paid for).

The transportation impact fee waivers, however, had to be funded with non-impact fee revenue. The City has used bond funding of capacity-expanding transportation improvements to offset transportation impact fee exemptions. This was an accounting exercise that documented that the City was spending more non-impact fee money on impact fee-eligible projects than it was granting in exemptions, as opposed to directly depositing these funds into the impact fee account as an explicit payment for exemptions.

This general approach is a reasonable way to comply with the Act's requirement that exemptions be funded. The recommended approach to funding exemptions is to track non-impact fee expenditures on impact fee-eligible capital improvement projects. This information can be used to document that the reduction in impact fee revenues is being funded by revenues generated by existing development, and not by future development. To implement the recommended approach to funding exemptions, it is necessary to clearly define the types of non-impact fee revenue sources to be tracked, as well as the impact fee-eligible projects that are funded by these sources.

Recommendation:
Track expenditures of non-impact fee revenues for capacity-expanding improvements to document that exemptions are funded by existing development.

Non-impact fee funding sources. The City relies primarily on three types of revenue sources to fund capital improvements – bonds or other debt instruments, which are repaid with property or sales taxes, Federal and State funding that is typically designated for specific projects, most notably for transportation, and grants that are not designated for specific projects, such as Community Development Block Grants (CDBG). These funding sources are discussed below.

As noted, the City has traditionally relied on bond funding to offset exemptions. However, bonds will be retired by both existing development as well as future development. Because of this, a credit for outstanding debt that was used to construct or acquire existing capital facilities and equipment

serving existing development is provided in the impact fee calculations, to ensure that new development does not pay for the new facilities required to serve it through impact fees, while also paying to retire debt on facilities serving existing development. Similar considerations apply to the use of bond funds to offset exemptions. The portion of the debt that will be retired by future tax payments from new development should not be used to fund exemptions, while the portion to be retired by taxes from existing development can be counted as non-impact fee revenue eligible to offset exemptions.

The transportation impact fee calculations also provide a credit for the share of Federal and State funding that that is used for capacity-expanding transportation improvements, on the theory that such funding is ultimately generated by local payments of motor fuel taxes, some of which is paid by new developments. As with debt financing, some portion of outside funding for designated capacity projects is thus attributed to new development, and should not be used to fund exemptions.

Recommendation: 75% of debt and designated grant funding should be considered eligible to offset revenue lost due to exemptions.

Precisely determining what proportion of debt and designated grant funding earmarked for capacity-expanding capital improvements is attributable to new development would be complex and dependent on projections of future development. However, a reasonable approach to determining such a proportion is to rely on the approach used in the fee calculations for credits for outstanding debt and dedicated State/Federal funding. The approach would be to use the ratio of the debt and dedicated funding credits per service unit to the total cost per service unit. While this ratio varies considerably for the four types of impact fees, depending on the amount of such funding compared to total facility cost, most of the debt and all the dedicated funding is for transportation facilities. The transportation impact fee calculations result in a debt/grant credit that is 16.9% of the total cost per service unit. Based on this figure, 75% would appear to be a reasonable, conservative estimate of the share of debt and dedicated grant funding that is attributable to existing development and eligible to be used to fund impact fee exemptions.

Discretionary grant funding, such as Community Development Block Grants, that are not earmarked for specific improvements and are not restricted to capacity-expanding improvements are not subject to impact fee credits and should be considered fully eligible to offset revenue lost due to exemptions.

Eligible expenditures. Impact fees can only be used to fund improvements that expand capacity to accommodate new development, and cannot be used for operational expenses or for maintenance, replacement, renovation, or repair of existing facilities. Most capital improvements can relatively easily be distinguished as either capacity or replacement/repair. Capacity improvements add to the City's capital assets, while replacement/repair projects do not. While capacity improvements may necessitate replacement or repair of existing facilities, such as a street widening project that cannot be accomplished without reconstructing the existing travel lanes, as long as the replacement component is a necessary part of the capacity project the entire cost of the project should be deemed capacity-related.

Some improvements, however, are a true mixture of capacity-expansion and replacement, and in such cases the percentage of the cost that is eligible for impact fee funding must be determined. While it may not always be obvious how to determine the eligible percentage, it is sufficient to establish a reasonable metric. Take the example of a new fire station that replaces an existing station that is no

longer optimally located. Determining the capacity added by the replacement station in terms of improved response times would require extensive analysis, and would not be totally consistent with the level of service on which the fire impact fees are based (equivalent station square feet per functional population). A simpler and more consistent approach would be to base the percentage on the increase in station square footage. Another example would be the replacement of an existing emergency dispatch radio system with a new radio system that can accommodate higher call volumes or provide other, less quantifiable benefits in terms of improved communications and emergency response. A reasonable approach here would be to determine the replacement value of the existing radio system, and use the portion of the cost of the new system that exceeds the current cost as the eligible percentage.

The Development Impact Fee Act restricts impact fee expenditures to projects that are included in the jurisdiction's adopted Capital Improvements Element (CIE). However, not all projects that are capacity-expanding are necessarily included in the CIE. Many jurisdictions only include projects in the CIE that they intend to spend impact fee funds on. The Act also imposes additional restrictions on how the City of Atlanta spends transportation impact fees. For the purposes of offsetting exemptions, any capacity-expanding capital improvement should be considered impact fee-eligible, regardless of whether it was listed in the CIE or was determined to have the most effect on improving transportation levels of service.

Fact-Based Fee Reductions

An alternative to granting exemptions that must be funded from some other source is to reduce fees for types of development that further community goals, based on documentation that they will put less demand on infrastructure. Unlike exemptions, these kinds of reductions do not require funding.

An example of a fact-based fee reduction in the City's current impact system is the 50% reduction in transportation impact fees for projects located with 1,000 walking feet of a MARTA station, based on greater use of transit and less reliance on automobile travel. Recent research summarized in this study (see Figure 13 and accompanying citation) provides support for this reduction. The City has plans for a BeltLine light rail line, which should also be eligible for this reduction. It is recommended that the reduction be expanded from MARTA stations to any rail station, so that any future light rail station would also be eligible.

Recommendation: Expand eligibility for transportation fee reduction from only MARTA stations to any rail station.

A similar fact-based reduction that could potentially promote the City's affordable housing goals would be to base fees for housing on the size of the dwelling unit, using the differences in number of residents and demand for facilities between smaller and larger units. Because smaller units tend to be have smaller impacts and are also less expensive, lower fees for smaller units could help promote affordable housing. However, as discussed in greater detail in the "Land Use Categories" section of this chapter, fee reductions for smaller units are likely to be very modest, and should be weighed against the additional administrative complexity. Both flat-rate and variable rates by residential unit size are calculated in this report. Give the modest fee differentials, retention of the flat-rate approach is recommended.

Exemptions Summary

The City has an extensive system of exemptions from impact fee payment that, when exemptions were funded, resulted in about a 40% reduction in revenue from what would otherwise have been received. The City's park, fire and police impact fees were designed as recoupment fees partially to avoid the need to fund park, fire and police fee exemptions. Transportation impact fee exemptions had been offset with capacity-expanding transportation projects paid for with general obligation bonds. Impact fee exemptions have been suspended since June 2009 because funding for such exemptions has not been certified.

Recommendation: Abandon the recoupment methodology for parks, fire and police impact fees.

The original design of parks and public safety impact fees as recoupment fees was driven in large part by the concern that the City would have difficulty coming up with general fund moneys to offset the exemptions. However, the eligible portion of bond and grant expenditures should be sufficient to offset lost revenue from a scaled-back exemption program. Our recommendation is to discontinue using the recoupment approach for any of the City's impact fees. This update bases the fees on the existing levels of service, rather than lower levels of service needed to quality as recoupment fees.

The consultants recommend modifying the approach of tracking bond funded expenditures as an offset to lost revenues from exemptions. Because a portion of this funding will be paid for by new development in the future, only the percentage of the funding attributable to existing development should be used to offset exemptions. A similar approach should be taken with dedicated State/Federal funding.

A more limited exemption program would retain exemptions that promote affordable housing, with the requirement that the units meet the guidelines for Federal housing assistance, and the addition of the requirement that the housing remains affordable for some period of time. The City may also desire to provide other targeted economic development exemptions that promote community objectives.

In sum, our key recommendations with respect to impact fee exemptions are:

- Discontinue the recoupment approach as a method for funding impact fee exemptions;
- Rescind blanket exemptions for large geographic areas of the city, or revise the areas to reflect current priority economic development areas;
- Modify affordable housing exemption criteria to ensure that the housing serves low-income residents and remains affordable for some period of time;
- Track non-impact fee revenues spent on capacity-expanding capital improvements to offset future exemptions for affordable housing or specific economic development projects.

Administrative Procedures

The administration of the City's impact fee program involves several departments. Departmental responsibilities are summarized as follows.

Law
- Provide legal counsel
- Review projects for compliance with state and local requirements
- Draft contracts for developers who choose to deliver system improvements in lieu of paying fees

Planning and Community Development
- Facilitate communication among all entities
- Serve as liaison for developers
- Make policy recommendations
- Establish and lead DIF Advisory Group
- Propose new projects
- Review proposals against planned and future transportation investments
- Compile information for CIE from functional departments
- Maintain records of impact fee credits in Accela
- Calculate and levy fees during permitting process

Public Works, Parks and Recreation, Fire Rescue, and Police
- Propose new projects
- Subject matter experts review proposals
- Submit funding legislation for projects on the CIE that are chosen to move forward
- Manage funded projects
- Oversee project delivery
- Provide annual updates to include in CIE

Finance
- Maintain official book of records for financial data
- Disseminate financial reports among operating departments
- Ensure accuracy in annual CIE report
- Monitor spending to alert when refunds are due

The City's ordinance calls for the Finance Department to be responsible for the administration of the City's impact fee ordinance, but the Finance Department has little control over the other departments involved in the process. Compounding the problem, there has been significant staff turnover within the departments administrating the impact fee program, which has eroded the institutional knowledge base relative to the program.

At the time of the 2010 impact fee study, there was no person or group with primary responsibility for the administration of the impact fee system. The study recommended that the City designate an impact fee administrator, and form a central administrative body that could make policy decisions that affect several City departments. Although the 2010 study was not adopted, the City has since designated an impact fee administrator within the Planning and Community Development Department, and created an Impact Fee Advisory Group that consists of members from all affected departments and meets monthly.

Impact Fee Collection Process

Impact fee payments are made when building permit fees are due. The impact fee rates for transportation, parks, police and fire facilities are unchanged since the adoption of the original ordinance in March 1993. The fees are based on the number of dwelling units, hotel rooms and nonresidential building square footage. These development characteristics are taken from architectural plans for the development. The permitting software system generates the impact fees that are due, along with all other applicable fees, and assigns each fee the appropriate accounting code. The permitting system uses the physical address for the permit to assign a code identifier for the appropriate parks service area (all the other fees are city-wide). Applicants show the walking distance to the nearest MARTA station on submitted plans to qualify for the reduced transportation impact fee. The applicant goes to the fee payment window at City Hall with a permit number and makes the appropriate payment. The clerk marks the permit as paid in the permitting software system and prints out the building permit, which serves as the receipt for the fees paid. At the end of the day, all payment information, including fee amounts and accounting codes, is uploaded into the revenue module of the City's accounting system. Impact fee funds appear to be properly segregated at time of collection and assigned proper account codes. Funds are immediately deposited into proper reserve accounts. These procedures appear to be working well.

The City converted from its previous KIVA permit software to the new Accela system in November 2009. The new system is made by the same company, and the impact fee collection process was not changed by the new implementation. The Accela system includes a module that is capable of interfacing with the Office of Zoning and Development's GIS system. It is currently utilized to ensure that park impact fee collections are earmarked for the appropriate service area account. Impact fee revenues over the last five fiscal years are summarized in Table 6.

Table 6. Impact Fee Revenues, FY 2011-FY 2016

Impact Fee Fund	FY 2011/12	FY 2013	FY 2014	FY 2015	FY 2016	Total
Parks North	$521,537	$826,221	$1,347,200	$1,833,050	$1,299,479	$5,827,486
Parks South	$79,404	$179,541	$90,890	$295,116	$219,348	$864,299
Parks West	$108,601	$26,324	$49,020	$36,596	$84,851	$305,391
Subtotal, Parks	$709,542	$1,032,085	$1,487,109	$2,164,762	$1,603,677	$6,997,176
Transportation	$1,385,786	$1,971,321	$2,418,032	$3,374,704	$3,439,441	$12,589,284
Fire	$259,818	$353,440	$445,904	$699,363	$542,985	$2,301,510
Police	$76,267	$107,711	$129,477	$229,995	$158,805	$702,255
Fee Administration	$73,689	$105,807	$137,710	$188,669	$176,195	$682,070
Total Revenue, FY 2011-16	$2,505,102	$3,570,363	$4,618,233	$6,657,493	$5,921,103	$23,272,296

Source: City of Atlanta Impact Fee Administrator, November 28, 2016.

Appropriations and Expenditures

After being received by the Finance Department's Revenue Division, impact fees are placed into designated reserve accounts in the General Government Capital Outlay Fund. This fund is a reserve that holds impact fee and non-impact fee moneys for capital improvement projects. The impact fees are placed in "available for use" accounts (segregated by fee type and service area) until a City Council ordinance authorizes their use for specific projects, at which time the amount and type of impact fee funds designated in the ordinance is transferred to a "restricted" account.

Suggestion:
Make the 3% administrative fee an additional charge, rather than take it out of impact fees collected.

In the past for each impact fee service area account (transportation, parks-Northside, parks-Southside, parks-Westside, police and fire), there was also a corresponding account for the 3% administrative charge. This seemed unnecessarily cumbersome, since most administrative activities related to impact fees, other than the review of developer credit applications, are not specific as to the type of fee. As of FY 2014, these administrative accounts were combined into a single account that would be available to fund all aspects of impact fee administration. In addition, since impact fees are intended to pay for capital improvements, it is suggested that the administrative charge should be added as an additional charge, rather than be taken out of the impact fee amount collected.

The Finance Department maintains a summary of all impact fee appropriations dating back to 1991. The data are summarized in a chart detailing impact fee reserve activity spanning all fee types and services areas. The information is displayed in columns, including an assigned project number, authorizing City Council ordinance(s), fee type, service area(s), and reserve amounts.

Each appropriation is assigned a project number and recorded into the accounting system via journal entry. The entry identifies the funds in a restricted project line item that enables user departments to encumber the funds for specific expense purposes. A purchase order or contract number is committed against the line item's available funds, allowing for invoices to be received and processed against specific project scopes for work and contracts authorized by City Council ordinance. For example, Bakers Ferry Sidewalks was assigned the number 94-O-9156. The" 94" represents the year the ordinance was approved by the City Council, "O" represents ordinance, while "9156" is the legislative tracking number. In 1994, $70,906 was transferred from reserves status in the General Government Capital Outlay Fund Budget to an expense line item designation for Bakers Ferry sidewalk construction.

A large number of transportation impact fee projects acted as payouts to match other sources of funds designated for system improvements. In some instances, funds paid to the Georgia Department of Transportation would hold the match sources of funds via State Grant match that serve to combine the sources of funding in order to complete the design and construction elements. In all cases the agreements were detailed legislatively, and approved by the City Council.

The park, police and fire funds are technically recoupment fees, meaning that they represent a reimbursement to the City of prior capital investments, and therefore can be used for any public purpose. The recoupment approach was intended to avoid the need to make up for the lost revenue with general funds, but they ceased to be used for that purpose when the City suspended exemptions in 2009.

After impact fee projects are completed, no written policy currently exists that governs how remaining project balances are closed out. This is the responsibility of the real estate acquisition and project monitoring areas within the Parks and Recreation Department, the Public Works Department and the Transportation Department. The acceptance of completed projects is usually done via inspection performed by field engineers, with no established procedures for reporting this information back to the parties that manage the project. Procedures should be developed to track the completion of impact fee-funded projects and how they will be reported to respective parties. This would allow for the identification of projects where no activity has occurred or where projects came in lower than budgeted to be quickly identified. The result would allow restrictions to be released from any unspent impact fee projects in a timelier fashion, so that funds could be redirected to other capital projects.

Recommendation: Develop procedures to track the completion of impact fee projects and close out completed or inactive projects.

In some cases, due to a delay in notification to Finance, ordinances appropriating impact fee funds to specific projects have not been immediately recorded in the City's accounting system. As a result, there is a temporary overstatement of available fund balances until the appropriations are entered into the system. Usually the indication that an ordinance has recently passed is discovered when expenditures begin to be charged on the new project. Procedures need to be designed and established so that General Accounting is notified promptly of all ordinances once they are approved.

Recommendation: Develop procedures to ensure that the Finance Department is promptly notified of the approval of ordinances appropriating impact fee funds.

Accounting for the Fund

The accounting of impact fee projects is tracked and maintained within the Projects and Grants (PNG) Module of the City's Oracle accounting software. In addition, the Finance Department issues a monthly financial report documenting all impact fee activity. The monthly report includes a detailed and summarized schedule of year-to-date and life-to-date history; reflecting appropriations, collections, fund balances, expenses, encumbered or restricted funds, funds available for new projects and interest earned. Individuals reports are issued to each respective department that summarizes impact fee data by the authorized funds for transportation, parks (broken down by Northside, Southside and Westside service areas), police, fire and administration (3% of the fees collected are earmarked for the costs of administering the impact fee program). Impact fee fund balances (excluding administration) at the end of the 2016 fiscal year are summarized in Table 7.

Table 7. Impact Fee Fund Balances, FYE 2016

Impact Fee Fund	Unrestricted	Restricted	Total
Transportation	$10,740,439	$9,162,530	$19,902,969
Parks North	$7,363,495	$611,774	$7,975,270
Parks South	$1,442,602	$81,927	$1,524,529
Parks West	$1,593,355	$232,542	$1,825,897
Fire	$3,458,853	$196,514	$3,655,367
Police	$1,529,639	$432,823	$1,962,461
Total	$26,128,384	$10,718,110	$36,846,493

Source: City of Atlanta Impact Fee Administrator, balances on June 30, 2016.

As a reporting tool, the format in use is adequate in terms of information needed to serve the user departments and to provide input for the compliance report submitted annually to the State of Georgia Department of Community Affairs.

Developer Credits

Developer credits represent the value of system improvements constructed by developers, most often for transportation facilities. The credits can be used to reduce the impact fees owed for the same types of facilities. Developer credits pose challenges to impact fee administration because (1) the improvements are often made at the time of subdivision or site plan approval, before there is any building permit application to which to tie them, and (2) the extended period of time required for review, approval, construction and acceptance by the City sometimes results in the credits being effective after the impact fees have already been paid. Staff interviews indicate that developers may pay impact fees, which are due at time of building permit issuance, under protest if a credit application is pending, or if the fee assessment was not correctly determined and applied during staff reviews in the Office of Buildings. Staff could not recall any instances where credits were not properly applied, and none have occurred since the new Accela permit issuance system was implemented.

Once the amount of the credit has been determined and approved, developers receive an identifier and credit holder identification number. A letter is received from the Office of Buildings stating the date the credit became active, designation as a pre- or post-ordinance credit, type by service area, and the dollar value of the credit. The Office maintains notations in the permitting software system reflecting when a credit is granted, and if the actual use was transferred to another development. Each use of a credit is shown as a debit subtracted from the credit balance until the balance is $0.

Pre-ordinance credits are those that were granted for developer improvements made before the 1993 effective date of the original impact fee ordinance. All pre-ordinance credits have expired. Post-ordinance credits must be used within 10 years of the date they were approved. As of February 28, 2017, the Office of Buildings was holding on file a total of $3.28 million in post-ordinance credits remaining to be claimed for future use, as summarized in Table 8.

Table 8. Outstanding Developer Credits

Transportation	$2,818,351
Parks	$342,769
Fire	$95,428
Police	$27,632
Total	$3,284,180

Source: Atlanta Department of Planning and Community Development, February 28, 2017.

While the City tracks outstanding credits, the responsibility for claiming a credit lies with the building permit applicant. If the building permit applicant claims a credit, and the claim is verified, the amount of credit available is applied against the amount of the fee otherwise due for the building permit, up to the full amount. The credit amount applied against the permit is subtracted from the applicable credit balance. These procedures appear to be working well.

Short-Term Work Program

The City utilizes the Capital Improvements Program (CIP) and the Short Term Work Program (STWP) to implement construction, maintenance, and renovation of public facilities and infrastructure projects spanning a twenty-year period. The CIP represents planned public improvements within a 5-year time frame, while the STWP includes both funded and unfunded capital initiatives planned over the following 15-year period.

The City of Atlanta is required to adopt both documents annually in order to maintain eligibility for all State and regional funding. The State of Georgia Department of Community Affairs and the Atlanta Regional Commission review each document by October 31st. The Department of Community Affairs then issues correspondence to the City's Office of Planning allowing the City to collect development impact fees.

Functioning under the Department of Planning and Community Development, the Office of Zoning and Development is responsible for the preparation of the CIP and the STWP. It also oversees a sub-cabinet of representatives from each operating department and agency. These representatives assist the Office in compiling data and project information summaries making up the CIP and STWP.

The City of Atlanta utilizes the CIP as the funding mechanism for capital initiatives adopted from the Comprehensive Development Plan. The document includes project cost estimates, narrative or project scope, programming over 5 years, departmental responsibility and sources of funding The document "identifies major improvements and capital purchases needed to provide services to the community." For a project to be included in the CIP, planned infrastructure and facility improvement should have a "useful life of longer than 5 years, with monetary value of at least $25,000." The CIP includes any project that is currently funded in an existing capital improvement or bond program that will not be completed by July 1st of the current year. To be included in the CIP, a project must be included in both the Comprehensive Development Plan and the STWP.

Both documents are prepared annually by the Office of Zoning and Development and the CIP sub-cabinet. Work begins in February. The process allows for input from the Neighborhood Planning Units (NPU) by April 30. Draft documents are prepared by June 1, and public hearings are held in June and September. The process concludes with adoption by the City Council in October. A check with the State of Georgia Department of Community Affairs indicates the City's schedule for adoption of the CIP and the STWP is adequate for the State to issue the annual designation of the City of Atlanta as a Qualified Local Government to continue the collection of impact fees.

Exemptions

The issue of exemptions is addressed in greater detail in a previous section of this chapter. The accounting for granted exemptions consists of a list with the name of the development receiving the exemption and the amount exempted. Since June 2009, no exemptions have been granted, based on the directive from the Chief Financial Officer. In the event that the granting of exemptions is resumed, exemption reports should indicate the offsetting source being used to fund the exemption. In addition, the Department of Planning and Community Development should investigate whether an application in the new Accela permitting system can accomplish a better means of tracking exemptions and customizing periodic queries. The Impact Fee Administrator could be the keeper of a revised data file for exemptions.

Administrative Procedures Summary

Some improvements are recommended to strengthen the management of the development impact fee program. There is a lack of formal procedures for some processes that can lead to a lack of continuity when staff members with informal knowledge of the system are replaced. In addition, improvements need to be made in the process of tracking expenditures of funds once they have been appropriated and moved to restricted accounts.

In summary, the following key process improvements would assist the City in developing a more effective and efficient process for administering the impact fee program:

- Procedures should be designed and established so that General Accounting is notified in a timely manner of ordinances passed that have an effect on the impact fee accounts.

- Procedures should be designed and established so that the expenditures of impact fee funds on projects can be tracked and any remaining funds transferred back to the available fund balance as projects are finished (or remain inactive).

- In the event that the granting of exemptions is resumed, the Department of Planning and Community Development should investigate whether an application in the new Accela permitting system can accomplish a better means of tracking exemptions and non-impact fee funding of exemptions.

TRANSPORTATION

This chapter updates the City's transportation impact fees, which have not been updated since they were originally adopted in 1993. The City's authority to adopt its transportation impact fee comes from the *Development Impact Fee Act*, which authorizes impact fees for "roads, streets, and bridges, including rights of way, traffic signals, landscaping, and any local components of state or federal highways." The current fees are based on non-interstate arterial roads (plus three major collectors that function as arterials). The updated fees include all collector roads, but are contracted to exclude State and Federal highways. The major road network that the impact fees are designed to improve are illustrated in Figure 12. The graphic shows park service areas simply as a point of reference – multiple transportation service areas are not proposed in this update.

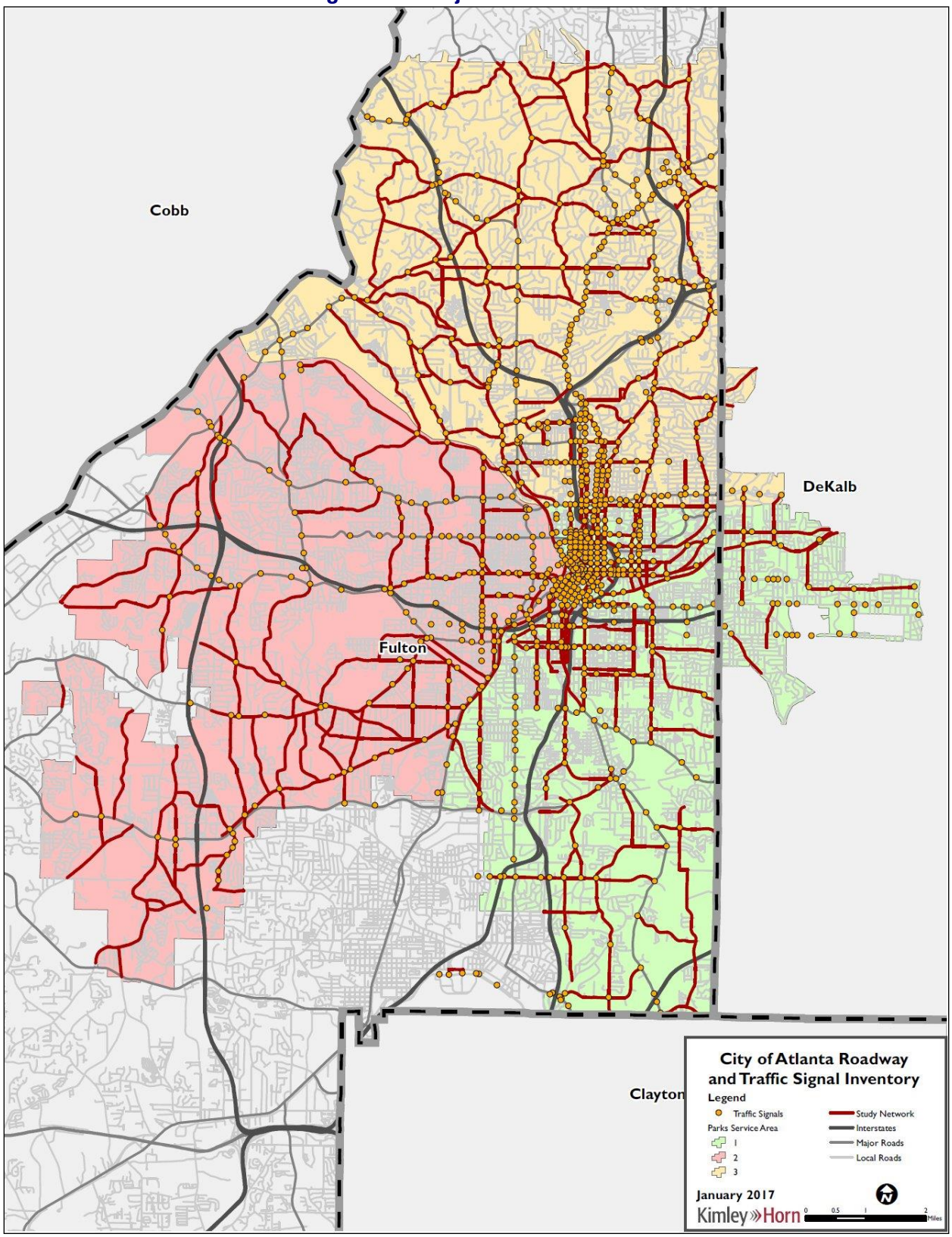
A relatively expansive definition of "public road" is provided in Section 32-1-3(24) of the Georgia Code: "a highway, road, street, avenue, toll road, tollway, drive, detour, or other way open to the public and intended or used for its enjoyment and for the passage of vehicles in any county or municipality of Georgia, including but not limited to the following public rights, structures, sidewalks, facilities, and appurtenances incidental to the construction, maintenance, and enjoyment of such rights of way:…" The subsequent list includes wayside parks, rest areas and scenic and access easements.

While neither definition includes any specific reference to public transit, buses, trolleys, streetcars and trains are certainly vehicles, and lanes or other improvements within roadways to accommodate them could fall under the purview of this authorization. A bill to explicitly authorize impact fees for public transit facilities failed in the Georgia legislature in 2007. Given the lack of clarity on this matter in Georgia statutes, it is recommended that the City not attempt to expand the transportation impact fee to include public transit improvements, but rather seek to amend the *Act* to secure explicit authorization.

Major Roadway System

A transportation impact fee should have a clear definition of the types of facilities that the fee is designed to help fund. In this update, the major roadway system is defined as all City-owned arterial and collector roads, and excludes interstates, State and Federal highways, and local streets. A map of the major roadway system is shown in Figure 12. (While the map shows the boundaries for the park service areas, this is for reference only and this update recommends that a city-wide service area should be retained.) For a detailed inventory of the existing major roadway system, see Appendix D.

Figure 12. Major Road Network



Source: Kimley-Horn, January 16, 2017

Service Area

The *Development Impact Fee Act* defines "service area" as "a geographic area defined by a municipality, county, or intergovernmental agreement in which a defined set of public facilities provide service to development within the area." The Act requires that (1) "impact fees shall be calculated and imposed on the basis of service areas," (2) the "ordinance shall include a schedule of impact fees specifying the development impact fee ... on a service area by service area basis," and, (3) "impact fees shall only be spent ... in the service area in which ... the fees were paid." Consequently, a service area is a geographic area at which: (1) the level of service and maximum fee schedule is calculated, (2) the fee schedule is adopted; and (3) the fees collected are earmarked to be spent.

The Legislature amended the *Development Impact Fee Act* in 2007 to put additional restrictions on Atlanta's use of transportation impact fee revenues, effective on July 1, 2007. These Atlanta-specific provisions require that the funds be spent only for projects that they take into consideration the proximity of the improvements to developments that have generated the fees. The City currently has a single, city-wide service area for transportation impact fees, and the fees collected can be spent on projects anywhere in the city. The City has decided to retain the city-wide service area for transportation impact fees, and use other means of complying with the proximity requirement.

Proximity Analysis

The Atlanta-specific proximity requirement states that the City, in programming expenditures of transportation impact fees, must consider the "proximity of the proposed system improvements to developments within the service area which have generated development fees." Because this analysis must be undertaken within each service area, dividing the city into multiple service areas would not be sufficient.

The recommended approach is to use the City's geographic information system (GIS) capabilities, in combination with the building permit database, to ensure that the funds collected from transportation impact fee payments would be spent within reasonable proximity of the location of the developments for which the fee was paid. The Georgia impact fee statute stipulates that impact fees are to be spent on a first-in/first-out (FIFO) basis. This means older funds collected in a service area are spent before funds that were collected more recently.

The proximity analysis needs to be done for a set of proposed projects. It is not possible to determine which project is in closest proximity to the feepayers by looking at a single project. This reinforces the need to limit CIE amendments to once a year. To comply with the FIFO rule, it would be necessary to do the analysis sequentially, starting with the oldest available fees, which are the ones that will be spent first. Otherwise, those same fees would be considered available to spend on multiple projects.

The first step is to identify the oldest permits whose fees have not been spent. The City knows the total amount of unspent and unencumbered funds in the transportation impact fee account. Using the FIFO rule, and building permit records with information on address, transportation fees paid, and date of payment, the locations of permits that paid the oldest unspent funds can be determined.

The City's information technology department has indicated it could develop an algorithm to compute the average distance to the project from where the oldest fees were paid, weighted by the amount of fees paid for each permit, with the total amount of fees paid by those permits equaling (or slightly exceeding) the total cost of the project. This would be done by multiplying the fees paid for each permit by the distance to the project, then summing those products and dividing by the total dollars to compute the weighted average distance in miles from the project.

The City would consider these proximity scores in conjunction with LOS rankings (discussed in the next section) for all the potential projects to determine the project that best optimizes both proximity and LOS enhancement for these oldest funds. Each project would have both a proximity ranking and a LOS ranking, and there would be different types of LOS rankings for vehicular and multi-modal projects. It could turn out that the project with the highest proximity ranking also has the highest LOS ranking for its mode, but in most cases a judgement call would be required to try to optimize both. Still, the proximity and LOS ratings would provide important guidelines for expenditure programming, and should be sufficient to demonstrate a good faith effort to meet the statutory requirements that proximity and LOS be taken into consideration in the expenditure of impact fee funds.

Once the first project has been selected, the process would be repeated for programming the expenditure of the next oldest fees. This process would be repeated until all the available funds have been programmed, or until the City decides that remaining projects do not meet minimum proximity or LOS standards.

If the cost of all the proposed projects does not exceed the amount of unspent funds available, the exercise described above would be relatively meaningless, because all projects would be funded, regardless of proximity. This points to the need to have some minimum standards, although these could vary by project and would be guidelines, rather than hard-and-fast rules. For example, the maximum proximity score for a sidewalk improvement might be one mile, while a major arterial widening project might be determined to have city-wide benefit. The City's Public Works Department should develop some reasonable guidelines for its decision-making process.

As noted above, the proximity analysis can only meaningfully be used to guide selection from a pre-determined set of projects. The selection of the set of eligible proposed projects should be done before the proximity analysis, and involves the application of the LOS analysis, which is discussed next.

LOS Analysis

In addition to the proximity test, there is what might be called the level of service (LOS) test. Not only should the funds be spent in reasonable proximity to where they were collected, they should also be spent on projects that will have the greatest effect of improving the level of service. The bottom line is that this test would seem to require that the improvements being funded can be shown to have a significant effect on expanding the capacity of transportation facilities that are most in need of additional capacity.

Any attempt to determine which projects have the greatest effect on LOS presupposes a list of projects against which a particular project is to be compared. Per compliance with the Georgia Development Impact Fee Act, the City creates a Capital Improvement Element (CIE) each year. The CIE serves as a menu of projects that are eligible for impact fee funding.

The City of Atlanta is currently undergoing an update to its Comprehensive Transportation Plan (CTP), which is designed to identify projects that would be of the greatest impact to the City. Because of the thorough analysis of the CTP and the broad public engagement effort that process entails, the consultant team recommends allowing the CTP process to drive the project selection rather than have projects created out of the impact fee process. The City should use its discretion to include short-term projects (ideally projects that are ready to complete within five years) from the top tiers of the CTP in the CIE. Because the CTP is updated every 5-7 years on average, the CTP is a valuable mechanism for revisiting projects and taking a holistic approach to identify high-priority projects.

If all short-term projects from the CTP are completed, or staff feels that needs have changed and the CTP no longer represents the most important needs, additional projects should be added to the CIE, provided that staff can document that the benefit of the projects has been vetted in a similar manner. In particular, a project that is required as a condition of a Development of Regional Impact (DRI) approval should be eligible for inclusion in the CIE. To discourage pressure to override thorough vetting of projects, amendments to the CIE should be restricted to once a year. Maintenance projects that do not add capacity are not eligible for inclusion in the CIE, nor are transit projects.

When determining which projects from the CIE to fund with impact fee funding, City staff should focus on which projects provide the greatest benefit to level of service (LOS). "Level of service" is defined by the Georgia Development Impact Fee Act as "a measure of the relationship between service capacity and service demand for public facilities in terms of demand to capacity ratios, the comfort and convenience of use or service of public facilities, or both." LOS is a common measure within the transportation engineering industry to quantify the performance of a particular roadway segment or intersection. LOS is also used to measure bicycle and pedestrian facilities.

Vehicular LOS – The Travel Demand Model

Travel demand modeling uses data such as roadway networks, population, and employment data to calculate the expected modal trip demand throughout a region. The Atlanta Regional Commission (ARC), the Metropolitan Planning Organization for the metropolitan Atlanta area, utilizes an activity-based model reflecting demographic information, household structure, and employment information to predict travel demand along metro Atlanta's roadways and transit systems. The travel demand model provides outputs regarding volume to capacity (v/c) ratios for roadway segments, which can be attributed to standard A through F LOS thresholds, with F being the worst. While a very powerful tool for estimating transportation impacts regionwide, the ARC model would require an intense amount of refinement and calibration to be used for the purposes of determining LOS for impact fee calculations. As mentioned previously, the City of Atlanta is currently undergoing a CTP to identify current and future needs within all modes of the transportation network. The City has chosen not to use the model as part of the CTP process because of the effort required for calibration and because of the City's focus on more multimodal transportation improvements. Because the model will not be readily available from the CTP, it is not recommended that the impact fee process attempt to use the model to determine LOS.

Vehicular LOS – Highway Capacity Manual

The Highway Capacity Manual provides guidance on calculating LOS for roadway segments. LOS calculations are performed using data such as daily traffic volume, number of lanes, presence of medians/access control measures, and signal spacing. The Georgia Regional Transportation Authority (GRTA) provides a methodology that is a variation of Highway Capacity Manual procedures to calculate LOS as part of the Developments of Regional Impact (DRI) program. The Georgia Department of Community Affairs requires GRTA to administer a review of all developments over a certain threshold within a 13-county metro Atlanta jurisdiction. All data necessary to calculate roadway segment LOS are included in the roadway inventory associated with this impact fee project (see Appendix D). While the study network for this project consists of non-state roadways, the GRTA method also includes data for determining LOS for State Two-Way Arterials and Freeways. Once a roadway category and number of lanes are identified for each segment, adjustments are applied to account for medians and left-turn lanes. Additional adjustments are provided to convert two-way volumes for one-way traffic flow.

One necessary data point for roadway segment LOS is the number of signals per mile along a corridor. From a roadway segment LOS perspective, the installation of a new traffic signal reduces the LOS of a corridor as it introduces an additional location for vehicles to stop. While the installation of a new signal will reduce roadway segment LOS, it can help improve access and LOS for minor intersecting streets. Discretion must be used so beneficial new signals are not discredited due to a reduction in roadway segment LOS.

Because the travel demand model is not being used for the CTP, the consultant team recommends using the GRTA LOS tables to determine roadway segment LOS. All necessary roadway criteria inputs were collected as part of the original study network inventory in 2010 and updated based on a list of completed projects provided by the City of Atlanta. Traffic count data were obtained from the Georgia Department of Transportation (GDOT) and are not available for all roadways within the study network. It is recommended that the count data be updated annually as GDOT releases new traffic counts. Additional counts may be added to the study network on an as-needed basis or as the City acquires them through other projects.

Bicycle and Pedestrian LOS

Bicycle and pedestrian LOS is traditionally determined for a facility based on numerous physical features, such as width of facility and buffer from the roadway. Based on the data collected within this study and data readily available to the City, bicycle and pedestrian LOS would be very labor intensive to calculate. However, using a traditional method for bicycle and pedestrian LOS would augment "the comfort and convenience of use or service of public facilities."

An alternative to determining LOS based on facility characteristics would be to run a spatial analysis in GIS to determine the areas of greatest alternative mode need. This method would address the areas with the greatest demand for multi-modal facilities. A spatial analysis could be performed using population and employment data for Census block groups to determine the areas with the highest population and employment per square mile (or other measure of area). Additional demand-generating elements could be included such as transit and locations with key destinations like retail, schools, parks, and other community facilities (however, it is possible that these are encompassed within the areas with the highest density of population and employment).

LOS Summary

The Comprehensive Transportation Plan (CTP) should drive the selection of high-impact and high-priority projects and allow the impact fee process to build upon it. The Capital Improvements Element (CIE) should include short-term, high-priority projects from the CTP. Determining which projects in the CIE have the greatest impact on LOS is not a completely numerical exercise. There is not one consistent methodology available to compare projects of multiple modes. Many projects that improve bicycle or pedestrian LOS have a negative impact on roadway segment LOS. Staff should use discretion to determine which mode's LOS should take priority. Within a particular mode, relative need and greatest effect on LOS should be quantified to the extent possible and the selections made on the basis of that analysis.

The approaches to ranking projects by effects on level of service described above unfortunately offer little guidance in comparing the LOS effects of projects between vehicular, bicycle, and pedestrian modes of travel. It may be useful for the Department of Public Works to develop some rough guidelines for an appropriate modal mix for the total dollar amount of project costs.

A final consideration is the desirability of using the LOS analysis to select a group of potential projects whose total cost exceeds available impact fee funds. Both LOS and proximity must be taken into consideration in programming transportation impact fee funds, and the proximity analysis could be a relatively meaningless exercise if it can't be used to select projects within a pool of potential projects that is larger than available unspent funds.

Methodology

The original impact fee study used a standards-based methodology for the transportation impact fees. This approach is commonly referred to as a "consumption-based" methodology. The concept is that new development should pay for the cost of replacing the capacity that the additional traffic consumes in the major roadway system. It is based on the existing system-wide level of service, expressed as a ratio of vehicle-miles of travel (VMT) to vehicle-miles of capacity (VMC). Existing VMC was quantified based on an inventory of all existing arterial road segments within the city limits. Generalized peak hour capacity estimates were used that took into consideration the number of lanes, presence of a median, number of signalized intersections per mile and percentage of intersections with left turn lanes. The estimated capacity of each road segment was multiplied by the length of the segment in miles to determine segment VMC, and the VMC for all segments was summed to determine system-wide VMC. At the time of the 1993 study, the existing system-wide ratio was 0.70 VMT/VMT, and the fees were based on the slightly worse level of service of 0.75 VMT/VMC.

A limitation of the current approach is the difficulty of quantifying the VMC added by improvements other than new roads or widening projects. The capacity added by intersection improvements, for example, is difficult to quantify in terms of vehicle-miles. In Atlanta's as in most standards-based systems, the cost per VMC is determined based on a list of road segment improvements, while the ordinance allows the fees to be spent on any capacity-expanding improvement. In Georgia, the Department of Community Affairs, which certifies local governments as in or out of compliance with the *Development Impact Fee Act*, has released guidelines suggesting that level of service measures "be expressed in quantifiable terms or in a manner sufficient to allow future evaluation of progress in

meeting capital improvements goals."[6] The City's current approach can only quantify the capacity added by new through lanes or new left turn lanes (while it does take into consideration traffic signals, installing new signals may actually reduce the capacity of the arterial while increasing the capacity of the crossing street). Consequently, if the current approach is retained, the impact fee funds could possibly be restricted to expenditures on these types of improvements that add quantifiable VMC to the system.

Such a restriction might not be a major problem for growing communities with pressing needs for new lane-miles, but Atlanta is a relatively mature city with greater needs for other types of improvements. The City transportation master plan, the *Connect Atlanta Plan*, focuses on adding road-related connections (completing the sidewalk system, extending roads across barriers like train tracks, adding transit lanes) to accommodate and encourage redevelopment. While the road extensions across barriers add lane-miles and thus quantifiable capacity, most of them are likely to be local and collector roads, rather than arterials, which is the roadway class addressed by the current impact fee. As a result, this update expands the scope of the fees to cover collector roads. In addition, as discussed in the level of service analysis, the level of service in this update is measured in terms of equivalent lane-miles rather than vehicle-miles of capacity to include other transportation components allowable under the Georgia Impact Fee Act.

Travel Demand

A service unit is a common unit of demand generated by different land uses. An appropriate service unit basis for traffic impact fees is vehicle-miles of travel (VMT). Vehicle-miles is a combination of the number of vehicles traveling during a given time period and the distance (in miles) that these vehicles travel.

The two time periods most often used in traffic analysis are the 24-hour weekday (average daily trips or ADT) and the single hour of the weekday with the highest traffic volume (peak hour trips or PHT). This update maintains the use of the PM peak hour trip rates, because evening rush hour traffic is generally the most critical period of roadway use in urban areas like Atlanta.

The travel demand generated by specific land use types is a product of three factors: 1) trip generation; 2) percent new trips; and 3) trip length. The result is the vehicle-miles of travel (VMT) placed on the major roadway system during the peak hour by a land use.

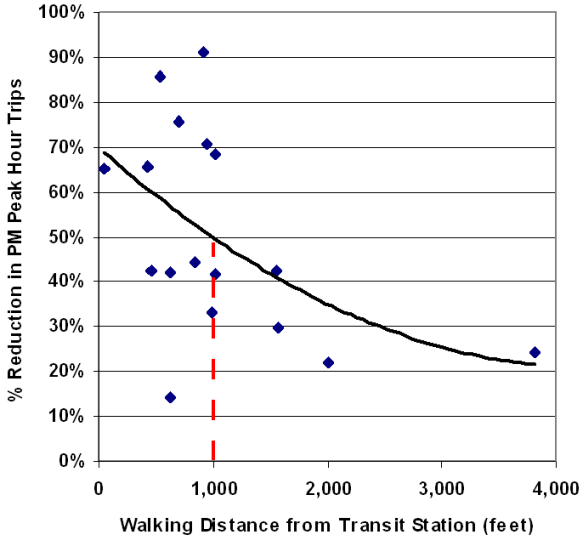
Trip Generation

Trip generation rates are based on information published in the most recent edition of the Institute of Transportation Engineers' (ITE) *Trip Generation* manual. Trip generation rates represent trip ends, or driveway crossings at the site of a land use. Thus, a single one-way trip from home to work counts as one trip end for the residence and one trip end for the work place, for a total of two trip ends. To avoid over counting, all trip rates have been divided by two. This allocates the burden of travel equally between the origin and destination of the trip and eliminates double-charging for any trip.

[6] Georgia Department of Community Affairs, "How to Address Georgia's Impact Fee Requirements," updated April 2008

The City's current transportation impact fees are reduced by 50% for development within 1,000 feet of a MARTA station. Such a reduction is supported by research. A 2008 study published by the Transportation Research Board studied 17 transit-oriented housing developments in four metropolitan areas (Philadelphia, PA; Washington, DC; Portland, OR and San Francisco, CA). The projects were all apartment buildings with the exception of one condominium project. The average walking distance to the nearest transit stop was 1,060 feet. The number of units ranged from 90 to 854, four of the projects were high-rises (10-21 stories), and the number of parking spaces ranged from 1.0-2.5 per unit. The study found that PM peak hour trip rates for these developments were, on average, 50.6% lower than the published ITE rates. Most of the projects were located within 1,000 feet of a transit station (see Figure 13).[7]

Figure 13. Trip Reduction Near Transit



The City's ordinance already provides that the distance from the rail station be measured in terms of walkable distance. City transportation staff propose that the ordinance language for the reduction be modified to require that developments provide reduced parking (e.g., no more than 103% of the minimum requirement, and no more than 80% of the maximum requirement unless that is lower than the minimum requirement, in which case no more than 103% of the minimum requirement would be determinative). It should also extend the reduction to any rail transit station, in order to accommodate future light-rail stations.

This study gives the City the option of charging single-family and multi-family residential units based on the size of the dwelling unit. Data from the National Cooperative Highway Research Program reveal that the number of trips generated by a dwelling unit is related to the number of persons residing in the unit. While the national data are for average daily trips, the relationships between the various household sizes in terms of daily trips can be used to estimate peak hour trip generation by dwelling unit size. As part of this study, average household sizes have been determined for three single-family and three multi-family square footage categories (see Appendix A). Based on these average household sizes, average daily trip generation rates were estimated for each size category using the NCHRP data. The daily trip generation rates were then used to estimate peak hour trip rates by dwelling size. The resulting tiered residential trip rates are summarized in Table 9. These rates are illustrated in Figure 9 in the previous chapter.

[7] G.B. Arrington and Robert Cervero, *Effects of TOD on Housing, Parking, and Travel*, Transit Cooperative Research Program, TCRP Report 128, Washington, DC: Transportation Research Board, 2008

Table 9. Tiered Residential Trip Rates

Housing Type	Average Household Size	Pk Hr Trip Ends
Single-Family, Detached (All)	2.55	1.00
Less than 1,500 sf	2.36	0.95
1,500 to 2,499 sf	2.54	1.00
2,500 sf or greater	2.81	1.07
Multi-Family (All)	1.73	0.62
Less than 750 sf	1.56	0.56
750 to 1,499 sf	1.79	0.64
1,500 sf or greater	1.96	0.71

Source: Average household sizes from Table 70; peak hour derived from Transportation Research Board, NCHRP Report 365, "Travel Estimation Techniques for Urban Planning," Washington, D.C.: National Academy Press, Table 9 (for areas with populations of more than 1 million), 1998 based on household sizes (daily trips converted to peak hour assuming 10% of daily travel during PM peak hour); peak hour trip rates for all single-family and multi-family units from Table 9; tiered peak hour trip rates based on the ratio of daily trips for the size category to daily trips for all single-family or multi-family units times the peak hour trip rate for all single-family or multi-family units.

The strongest argument in favor of the tiered option is that it might help to encourage the development of smaller units, which tend to be less expensive and therefore more affordable. However, because the differentials by size are relatively modest, especially for single-family detached units, the resulting fee differentials are not likely to be significant enough to have much effect on encouraging the production of smaller, more affordable units. Tiered residential fees would also increase the complexity of the impact fee system, raising issues such as whether the enlargement of an existing dwelling unit that caused it to cross a threshold should be subject to an impact fee. While this study calculates potential tiered residential fees, the consultant's opinion is that on balance the current flat rate per unit by housing type is the preferred approach.

New Trip Factor

Trip rates also need to be adjusted by a "new trip factor" to exclude pass-by and diverted-linked trips. This adjustment is intended to reduce the possibility of over-counting by only including primary trips generated by the development. Pass-by trips are those trips that are already on a particular route for a different purpose and simply stop at a particular development on that route. For example, a stop at a convenience store on the way home from the office is a pass-by trip for the convenience store. A pass-by trip does not create an additional burden on the street system and therefore should not be counted in the assessment of impact fees. A diverted-linked trip is similar to a pass-by trip, but a diversion is made from the regular route to make an interim stop. The reduction for pass-by and diverted-linked trips is drawn from published information and professional judgement.

Average Trip Length

In the context of a transportation impact fee based on a consumption-based methodology, it is important to determine the average length of a trip on the City's major road system (City-owned arterials and collectors). The point of departure in developing local trip lengths is to utilize national data. The U.S. Department of Transportation's *2009 National Household Travel Survey* identifies average trip lengths for specific land uses and trip purposes. These trip lengths are unlikely to be representative of travel on the City-owned major road system, given that they include travel on Federal and State roads, local streets, and roads outside the City's jurisdiction. Nevertheless, the relative lengths of trips for different land uses derived from the national data should be reasonably representative of trips in Atlanta as well. An adjustment factor can be derived by dividing the VMT that is observed on the major road system by the VMT that would be expected using national average trip lengths and trip generation rates.

The first step is to estimate the total VMT that would be expected to be generated by existing development in Atlanta based on national travel demand characteristics. This can be accomplished by taking existing city-wide land uses and multiplying existing development in each land use category by the appropriate national trip generation rates, new trip factors and trip lengths. Estimates on the total number of dwelling units and nonresidential square feet are presented in Appendix A. Total city-wide peak hour VMT is estimated by multiplying existing development units for each land use category by national data on average daily trip generation rates, new trip factors, and average trip lengths, and then summing for all land uses. As shown in Table 10, existing city-wide land uses, using national travel demand factors, would be expected to generate approximately 2.4 million peak-hour vehicle-miles of travel.

Table 10. Expected Vehicle-Miles of Travel

Land Use Type	Unit	Existing Units	Trip Ends	1/2 Trip Rate	New Trips	Trip Length	Peak Hr. VMT
Single-Family Detached	Dwelling	108,694	1.00	0.50	100%	9.22	501,079
Multi-Family	Dwelling	150,371	0.62	0.31	100%	8.68	404,618
Retail/Commercial	1,000 sq. ft.	130,237	3.71	1.86	42%	6.79	690,822
Office	1,000 sq. ft.	83,633	1.49	0.75	75%	7.12	334,950
Public/Institutional	1,000 sq. ft.	136,936	0.55	0.28	75%	7.12	204,747
Industrial	1,000 sq. ft.	38,943	0.73	0.37	95%	9.65	132,094
Warehouse	1,000 sq. ft.	88,978	0.32	0.16	95%	9.65	130,513
Total Expected City-Wide Vehicle-Miles of Travel on Major Roads							2,398,823

Source: Existing (2017) dwelling units from Table 62, Appendix A; existing (2017) nonresidential square footage (in thousands) from Table 63, Appendix A; trip rates and new trip factors from Table 13; average trip length in miles from U.S. Department of Transportation, *National Household Travel Survey*, 20019(retail/commercial based on "shopping," office and public/institutional based on "family/personal," industrial and warehousing based on average); peak hour VMT is product of existing units, ½ trip rate, new trips and trip length.

The next step in developing the trip length adjustment factor is to estimate current VMT on the major roadway system. The Georgia Department of Transportation maintains a database of existing traffic counts for major roads, and the data were compiled by Kimley-Horn and Associates as part of the inventory of major roads presented in Appendix C. As shown in Table 11, current travel on the major roadway system is only 11% of total travel that would be expected based on national travel demand factors. This is reasonable because travel on the major roadway system only includes travel on City-owned arterial and collector roads, and excludes travel on interstates, State roads, local streets and any roads outside Atlanta's city limits.

Table 11. Trip Length Adjustment Factor

Actual Peak Hour Vehicle-Miles of Travel	262,992
÷ Expected Peak Hour VMT	2,398,823
Local Adjustment Factor	0.11

Source: Actual peak/hour VMT on major roadway system from Table 76; expected VMT on all roadways from Table 10.

National average trip lengths are derived from the U.S. Department of Transportation's 2009 *National Household Travel Survey* for a variety of land uses and trip purposes, including single-family detached and multi-family units, shopping, family/personal and average trips. These national averages for travel on all roads have been adjusted by the local adjustment factor to estimate average trip lengths in the major roadway system in the City of Atlanta, as shown in Table 12 below.

Table 12. Average Trip Length by Trip Purpose

Land Use/Trip Purpose	National Trip Length (miles)	Local Adjustment Factor	Local Trip Length (miles)
Single-Family, Detached	9.16	0.11	1.01
Multi-Family	8.30	0.11	0.91
Shopping	6.27	0.11	0.69
Family/Personal	6.61	0.11	0.73
Average	9.28	0.11	1.02

Source: National trip lengths from U.S. Department of Transportation, *National Household Travel Survey*, 2009; local adjustment factor from Table 11.

The result of combining trip generation rates, new trip factors and localized average trip lengths is a travel demand schedule that establishes the peak hour VMT during the average weekday on Atlanta's major roadway system generated by various land use types per unit of development. The recommended travel demand schedule is presented in Table 13.

Table 13. Travel Demand Schedule

Land Use Type	Unit	Trip Ends	1/2 Trip Rate	New Trips	Trip Length	Pk Hr VMT
Single-Family Detached (Avg.)	Dwelling	1.00	0.50	100%	1.01	0.51
Less than 1,500 sf	Dwelling	0.95	0.48	100%	1.01	0.48
1,500 to 2,499 sf	Dwelling	1.00	0.50	100%	1.01	0.51
2,500 sf or greater	Dwelling	1.07	0.54	100%	1.01	0.55
Multi-Family (Avg.)	Dwelling	0.62	0.31	100%	0.91	0.28
Less than 750 sf	Dwelling	0.56	0.28	100%	0.91	0.25
750 to 1,499 sf	Dwelling	0.64	0.32	100%	0.91	0.29
1,500 sf or greater	Dwelling	0.71	0.36	100%	0.91	0.33
Hotel/Motel	Room	0.54	0.27	80%	0.73	0.16
Retail/Commercial	1,000 sq. ft.	3.71	1.86	42%	0.69	0.54
Office	1,000 sq. ft.	1.49	0.75	75%	0.73	0.41
Public/Institutional	1,000 sq. ft.	0.55	0.28	75%	0.73	0.15
Industrial	1,000 sq. ft.	0.73	0.37	95%	1.02	0.36
Warehouse	1,000 sq. ft.	0.32	0.16	95%	1.02	0.16
Mini-Warehouse	1,000 sq. ft.	0.26	0.13	95%	1.02	0.13

Source: PM peak hour trip rates from Institute of Transportation engineers (ITE), *Trip Generation Manual*, 9th ed., 2012 (retail-commercial based on shopping center, public/institutional based on church, industrial based on manufacturing); new trip percentages from ITE 9th edition for shopping centers, others based on judgement; tiered residential trip ends from Table 9; average trip lengths from Table 12.

The travel demand factors currently used by the City in determining impact fees are compared to the updated travel demand factors used in this study in Table 14. The travel demand factors fall for almost all land use categories when compared to those used in the prior study. Two factors contributed to this. Perhaps most important is the substitution of collectors for State roads. In addition, as discussed in the introduction, some of the land uses within the existing travel demand schedule have been eliminated or merged with other land use categories, some of which had somewhat higher trip generation characteristics. For example, the City's current travel demand schedule includes eight commercial land use size categories and five office size categories. While evidence suggests that trip rates decrease with size, the pass-by rates and trip lengths generally increase and tend to balance out the lower trip rate. On the other hand, this study provides the option to expand the number of residential land uses to include size categories – the variable rates reflect different household sizes, which have a relationship to a unit's travel demand.

As currently provided in the City's Ordinance, developers who feel their development will generate less traffic have the option of conducting an independent impact analysis. This process can be used to more accurately assess fees for unique developments, such as accounting for internal trip capture for mixed-use projects.

Table 14. Transportation Travel Demand Factor Comparison

Land Use Type	Unit	Current VMT/Unit	Updated VMT/Unit	% Change
Single-Family Detached (Avg.)	Dwelling	1.02	0.51	-50%
Less than 1,500 sf	Dwelling		0.48	-53%
1,500 to 2,499 sf	Dwelling		0.51	-50%
2,500 sf or greater	Dwelling		0.55	-46%
Multi-Family (Avg.)	Dwelling	0.50	0.28	-73%
Less than 750 sf	Dwelling		0.25	-50%
750 to 1,499 sf	Dwelling		0.29	-42%
1,500 sf or greater	Dwelling		0.33	-34%
Hotel/Motel	Room	0.78	0.16	-79%
Retail/Commercial	1,000 sq. ft.		0.54	
Less than 100,000 sf	1,000 sq. ft.	1.26		-57%
100,000-199,999 sf	1,000 sq. ft.	1.16		-53%
200,000-299,999 sf	1,000 sq. ft.	1.21		-55%
300,000-399,999 sf	1,000 sq. ft.	1.28		-58%
400,000-499,999 sf	1,000 sq. ft.	1.35		-60%
500,000-599,999 sf	1,000 sq. ft.	1.30		-58%
600,000-999,999 sf	1,000 sq. ft.	1.40		-61%
1,000,000 sf +	1,000 sq. ft.	1.53		-65%
Office	1,000 sq. ft.		0.41	
Less than 50,000 sf	1,000 sq. ft.	2.24		-82%
50,000-99,999 sf	1,000 sq. ft.	1.86		-78%
100,000-199,999 sf	1,000 sq. ft.	1.54		-73%
200,000-499,999 sf	1,000 sq. ft.	1.22		-66%
500,000 sf +	1,000 sq. ft.	1.02		-60%
Public/Institutional	1,000 sq. ft.		0.15	
Elementary School	1,000 sq. ft.	0.11		36%
High School	1,000 sq. ft.	0.67		-78%
Church	1,000 sq. ft.	0.58		-74%
Hospital	1,000 sq. ft.	1.38		-89%
Nursing Home	1,000 sq. ft.	0.20		-25%
Industrial	1,000 sq. ft.	0.98	0.36	-63%
Warehouse	1,000 sq. ft.	0.74	0.16	-78%
Mini-Warehouse	1,000 sq. ft.	0.74	0.13	-82%

Source: Current travel demand factors from Duncan Associates, *City of Atlanta Impact Fee Study*, March 18, 1993, Table 2-13; updated travel demand factors from Table 13.

Future Travel Demand

Future VMT is estimated based on residential and nonresidential development growth forecasts presented in Appendix A. As shown in Table 15, the total travel on the City's arterial and collector streets is estimated to grow by 74,911 VMT over the next 23 years.

Table 15. New Travel Demand, 2017-2040

Land Use Type	Unit	2017 Units	2040 Units	New Units	VMT/ Unit	New VMT
Single-Family Detached	Dwelling	108,694	148,717	40,023	0.51	20,412
Multi-Family	Dwelling	150,371	220,180	69,809	0.28	19,547
Retail/Commercial	1,000 sq. ft.	130,237	157,960	27,723	0.54	14,970
Office	1,000 sq. ft.	83,633	106,888	23,255	0.41	9,535
Industrial	1,000 sq. ft.	38,943	45,358	6,415	0.15	962
Warehouse	1,000 sq. ft.	88,978	97,224	8,246	0.36	2,969
Public/Institutional	1,000 sq. ft.	136,936	177,659	40,723	0.16	6,516
City-Wide Total						74,911

Source: Residential units from Table 62; nonresidential units from Table 63; VMT per unit from Table 13.

Level of Service

The current transportation level of service (LOS) is expressed in terms of the system-wide ratio of vehicle-miles of travel to vehicle-miles of capacity (VMT/VMC). As discussed in the methodology section of this chapter, it is difficult to quantify the VMC added by a roadway improvement other than a new road or a road widening project. Given the Georgia Department of Community Affairs' recommendation that LOS measures should be capable of being evaluated to show progress over time, retaining this LOS measure could potentially restrict eligible improvements to those that add quantifiable VMC. Since capacity improvements to Atlanta's relatively mature roadway system tend to be dominated by intersection and bicycle/pedestrian improvements, the current LOS measure is ill-suited to the City's current needs.

This study uses an alternative measure of LOS to capture road improvement components aside from road widening projects – "equivalent lane-miles per VMT." Under this approach, the total travel lane-miles in the major road system, which consists of City-owned collector and arterial roads, along with the equivalent lane-miles provided by other types of improvements (traffic signals, sidewalks, medians, turn lanes) are derived by dividing the total replacement value of the other, non-travel lane improvements by the average cost of adding a mile of travel lane. The advantage of this measure is that it takes account of non-vehicular transportation improvements, such as intersection improvements, signalization, turn lanes, bike lanes, and sidewalks.

Estimated construction costs per mile were prepared by Kimley-Horn based on their knowledge of recent local bids for through travel lanes (excluding curb and gutter, which is function of miles rather than lane-miles), medians, sidewalks and bike lanes. These component unit costs are summarized in Table 16.

Table 16. Transportation Construction Costs per Mile

Item	Travel Lane	Median Type			Side-Walk	Bike Lane
		TWLTL	Concrete	Landscape		
Pavement	$425,000	$492,800			$124,000	$176,000
Curb and Gutter			$211,200	$211,200		
Concrete Median			$765,000	$250,000		
Earthwork	$1,100,000	$1,100,000			$200,000	$500,000
Drainage	$650,000		$640,000	$640,000	$100,000	$319,000
Signs	$13,500		$13,500	$13,500	$6,750	$6,750
Pavement Marking	$18,000	$18,000				$23,000
Utility	$100,000				$50,000	$60,000
Total	$2,306,500	$1,610,800	$1,629,700	$1,114,700	$480,750	$1,084,750

Source: Kimley-Horn, January 16, 2017.

In addition to construction, road improvements also include the cost of land acquisition. A conservative estimate of the average cost of right-of-way (ROW) is based on recent park land acquisition costs. Assuming a typical travel lane width of 11 feet, a minimum of one and one-third acres of land is required per lane-mile of road. The city-wide average ROW cost is estimated to be $204,541 per lane-mile, as shown in Table 17.

Table 17. Right-of-Way Costs per Lane-Mile

City-Wide Average Park Land Cost per Acre	$153,444
Acres/Lane-Mile	1.333
ROW Cost/Lane-Mile	$204,541

Source: Cost per acre based on parkland acquisition costs from Table 29; acres per lane-mile assumes 11-foot lane width.

An inventory of the major road system is provided in Table 76, Appendix D. For each road segment, the inventory includes the segment length, number of through travel lanes, and the presence of other road-related components included in this study. The first step in calculating the LOS is to determine the existing lane-miles, as well as the quantities of other improvements, such as medians, curb and gutter traffic signals, and right-of-way, that are not included in the lane-mile cost. These are derived from the major road system inventory and average unit costs prepared by Kimley-Horn. The total city-wide replacement cost of the major roadway system is about $2.51 billion, as presented in Table 18.

Table 18. Transportation System Replacement Cost

Improvement Type	Unit	Quantity	Cost/Unit	Total Cost
Curb and Gutter for Travel Lanes	Mile	298.21	$211,200	$62,981,741
Turn Lane (12 ft. typical)*	Each	1,102	$43,684	$48,139,768
Two-Way Left Turn Lane (14 ft. typical)	Mile	8.05	$1,610,800	$12,966,940
Raised Median - Concrete (20 ft. typical)	Mile	3.86	$1,629,700	$6,290,642
Raised Median - Landscape (20 ft. typical)	Mile	4.25	$1,114,700	$4,737,475
Sidewalk, 1 Side (5 ft. typical)	Mile	381.74	$480,750	$183,521,505
Bike Lane, 1 Side (5 ft. typical)	Mile	82.33	$1,084,750	$89,307,468
Traffic Signal	Each	647	$225,000	$145,575,000
Right-of-Way (11 ft. typical)	Lane-Mi.	779.66	$204,541	$159,472,436
Subtotal, Other Improvements				$712,992,975
Through Travel Lane (12 ft. typical)	Mile	779.66	$2,306,500	$1,798,285,790
Total City-Wide Replacement Cost				$2,511,278,765

* assumes 100 feet as the typical length of a turn lane

Source: Quantities from Table 76 in Appendix C (curb and gutter quantity is road miles, number of signals from Kimley-Horn, February 7, 2017); construction unit costs from Table 16 (turn lane cost based on travel lane cost per foot and average 100-foot length); signal cost from Kimley-Horn, January 16, 2017; ROW cost per lane-mile from Table 17.

The total replacement cost of non-lane-mile transportation components is divided by the average cost of per travel lane-mile to determine the equivalent lane-miles of other improvements. This is then added to travel lane-miles to determine total equivalent lane-miles. The current level of service is 4.14 equivalent lane-miles per 1,000 VMT, as shown in Table 19 below.

Table 19. Equivalent Lane-Miles per 1,000 VMT

Other Improvement Replacement Value	$712,992,975
÷ Travel Lane Cost per Mile	$2,306,500
Equivalent Lane-Miles, Other Improvements	309.12
Travel Lane Lane-Miles	779.66
Total Equivalent Lane-Miles	1,088.78
÷ Vehicle Miles Traveled (VMT) in thousands	262.992
Equivalent Lane-Miles per 1,000 VMT	4.14

Source: Other (non-travel lane) replacement values, travel lane cost per mile, and travel lane lane-miles from Table 18; VMT from Table 76 in Appendix D.

Based on the existing level of service standard, future transportation improvement needs can be estimated by multiplying the projected growth in VMT from 2017-2040 by the existing equivalent lane-miles per 1,000 VMT. As shown in Table 20, future transportation needs city-wide over the next 23 years required to maintain the existing LOS based on projected growth amount to approximately 307,000 equivalent lane-miles.

Table 20. Future Transportation Demand, 2017-2040

Growth in VMT (1,000s), 2017-2040	74,202
x Existing LOS (Equivalent Lane-Miles per 1,000 VMT)	4.14
Equivalent Lane-Miles Needed, 2017-2040	307,196

Source: Growth in VMT from Table 15; equivalent lane-miles per 1,000 VMT from Table 19.

Cost per Service Unit

The cost per service unit is determined by multiplying the cost of a mile of travel lane by the existing level of service, expressed in equivalent lane-miles per 1,000 VMT. As shown in Table 21, the cost to maintain the existing LOS is $9,549 per peak hour VMT.

Table 21. Transportation Facilities Cost per Service Unit

Cost per Lane-Mile	$2,306,500
x Equivalent Lane-Miles per 1,000 VMT	4.14
Transportation Cost per VMT	$9,549

Source: Cost per lane-mile and equivalent lane-miles per 1,000 VMT from Table 19.

Net Cost per Service Unit

The net cost per service unit is based on the cost per service unit less credits to account for revenue generated by new development that will be used to pay for capacity-related capital improvements through motor fuel taxes and property taxes. This section provides an update of the transportation credits based on a review of the City of Atlanta's debt funding for road-related capacity expenditures and future funding programmed in the current regional Transportation Improvement Program (TIP) for transportation projects that expand the capacity of the road system. A debt credit is calculated to account for future taxes that will be utilized to pay for past road improvements. In addition, an analysis of future Federal and State funding for capacity improvements to the City-owned major road network identifies State and Federal gas tax funding eligible for credit.

Debt Credit

Transportation impact fees should provide credit for future tax revenues that will be used to pay outstanding debt incurred to expand the capacity of the City's road system. A summary of the City's outstanding debt is presented in Appendix E. A straight-forward method that ensures that new development is not required to pay for existing facilities, through funds used for debt retirement, as well as new facilities through impact fees, is to calculate the credit by dividing the outstanding debt by existing VMT on the City's major road network. This puts new development on the same footing as existing development in terms of the share of capital costs funded through debt. As shown in Table 22, the transportation debt credit is $887 per VMT.

Table 22. Transportation Debt Credit

Outstanding Transportation Debt	$233,240,782
÷ City-Wide VMT on Major Roads	262,992
Debt Credit per VMT	$887

Source: Outstanding debt from Table 77, Appendix E; city-wide VMT from Table 11.

State/Federal Funding

The City of Atlanta does not have a local fuel tax. The City has a local sales tax, but the revenue from the penny sales tax is dedicated toward wastewater infrastructure improvements. While a local fuel tax or sales tax credit is not necessary, a credit for State and Federal funding recognizes the Georgia Department of Transportation (GDOT) expenditures on City-owned roads in Atlanta.

The amount of Federal and State motor fuel tax revenue applied toward funding past capacity-expanding capital improvements on City roads could not be determined. Consequently, the credit is based on all planned improvements that add capacity to the major road network in the current six-year Transportation Improvement Program (TIP). As shown in Table 23, the current TIP programs $63.2 million in State-funded capacity improvements for major roads in the City of Atlanta.

Table 23. State/Federal Transportation Funding, 2016-2021

Project Description	Total Cost	City Share	State Share
SR 139 (MLK) Corridor Improvements Initiative, City Lmts-Northside Dr	$22,940,500	$2,215,965	$20,724,535
SR 154 Corridor Improvements, I-75/85 to SR 155	$1,362,300	$0	$1,362,300
SR 154 Multimodal Safety Improvements, US 23-SR 155	$2,888,783	$0	$2,888,783
SR 237 Signal Upgrades, 10 Locations	$2,640,990	$0	$2,640,990
SR 260/US 23 Intersection Realignment	$2,511,141	$663,811	$1,847,330
SR 3/US 41 Multi-Use Path, Mt Paran Rd-Chattahoochee River	$1,360,500	$1,360,500	$0
SR 41 (Peachtree Rd) and Lenox Rd Signal Upgrades, 8 Locatons	$1,080,000	$0	$1,080,000
SR 9/US 10 (Peachtree Rd) Complete Street Retrofit (6-4 lanes)	$2,025,050	$0	$2,025,050
US 19/41 Signal Upgrades, 13 Locatons	$2,540,000	$0	$2,540,000
US 23 (Moreland Av) and SR 154 (Memorial Dr) Signal Upgrades	$2,870,000	$0	$2,870,000
US 23/Arkwright Pl Multimodal Intersection Improvements	$2,238,935	$0	$2,238,935
US 41 and US 19 Signal Upgrades, 11 Locatons	$1,980,000	$0	$1,980,000
US 41 Scoping and Engineering Analysis, I-20 to I-75	$5,000,000	$0	$5,000,000
US 78 (Hollowell Pky) Pedestrian Facility, W Lake Ave-Proctor Crk	$5,807,509	$2,112,440	$3,695,069
Subtotal, State Road Improvements	$57,245,708	$6,352,716	$50,892,992
15th St Extension, W Peachtree St-Williams St	$2,469,928	$2,152,981	$316,947
Atlanta Traffic Control Center, ITS Expansion and Traffic Improvements	$567,476	$0	$567,476
Baker St 2-Way Conversion, Marietta St-Piedmont Ave	$1,650,000	$1,366,800	$283,200
Cycle Atlanta, Ph 1, Implementation, Various Locations	$3,187,500	$2,950,000	$237,500
Cycle Atlanta, Ph 2, Study	$100,000	$0	$100,000
Downtown Transportation Analysis and Prioritization Plan	$450,000	$0	$450,000
Ed Hogan Road Intersection Improvement at SR 8 and Bankhead Hwy	$3,691,903	$1,384,797	$2,307,106
Lakewood Trail Feasibility Study	$100,000	$0	$100,000
Lee St Trail, W end MARTA Stn-Lakewood/Ft McPherson MARTA Stn	$2,550,000	$2,170,000	$380,000
Lenox Rd Corridor Scoping Study	$250,000	$0	$250,000
Peachtree Corridor Complete Street Retrofit, Shadowlawn Ave-Maple Dr	$2,587,627	$673,780	$1,913,847
Piedmont Rd Widening, Ph 1, Lenxo Rd-Peachtree Rd	$15,600,000	$14,800,000	$800,000
Ponce de Leon Ave/Beltline Pedestrian Connection, Blvd Dr-Freedom Pky	$4,354,009	$0	$4,354,009
University Ave Scoping Study (Beltline, Invest Atlanta)	$200,000	$0	$200,000
Subtotal, City Road Improvements	$37,758,443	$25,498,358	$12,260,085
Total	$95,004,151	$31,851,074	$63,153,077

Source: Atlanta Regional Commission, *The Atlanta Region's Plan*, FY 2016-2021 Transportation Improvement Program, updated October 13, 2016.

The credit for State/Federal funding is based on the net present value of annual funding from the current six-year TIP. Assuming that the City continues to receive a similar amount of outside funding for capacity-expanding projects, new development will generate the present value equivalent of $729 in State/Federal funding per VMT over the next 25 years, as shown in Table 24.

Table 24. State/Federal Funding Credit

Total Planned State/Federal Capacity Funding FY 2016-2021	$63,153,077
÷ Years	6
Annual Capacity Funding	$10,525,513
÷ Peak Hour Vehicle-Miles of Travel (VMT)	262,992
Average Annual Funding per VMT	$40.02
x Net Present Value Factor (25 years @ 2.60%)	18.22
State/Federal Funding Credit per VMT	$729

Source: Planned Federal/State capacity funding from Table 23; existing City-wide VMT from Table 11; present value factor based on 25 years at 2.60% discount rate based on average yield on municipal AAA 20-year bonds from fmsbonds.com June 30, 2017.

As shown in Table 25, reducing the transportation cost per service unit by the debt credit and State/Federal funding credit leaves a net cost of $7,933 per VMT.

Table 25. Transportation Net Cost per Service Unit

Transportation Cost per VMT	$9,549
– Debt Credit per VMT	-$887
– State/Federal Funding Credit per VMT	-$729
Transportation Net Cost per VMT	$7,933

Source: Cost per VMT from Table 21; debt credit from Table 22; outside funding credit from Table 24.

Potential Fee Schedule

The maximum fees that can be adopted by the City based on this study are derived by multiplying the travel demand factor for each land use by the net cost per service unit. The potential fee schedule is shown in Table 26. It provides the option of charging residential uses either on a flat rate or on a tiered rate that varies by the size of the dwelling unit.

Table 26. Potential Transportation Impact Fee

Land Use	Unit	VMT/ Unit	Net Cost/ VMT	Net Cost/ Unit*
Single-Family Detached (Avg.)	Dwelling	0.51	$7,933	$4,046
Less than 1,500 sf	Dwelling	0.48	$7,933	$3,808
1,500 to 2,499 sf	Dwelling	0.51	$7,933	$4,046
2,500 sf or greater	Dwelling	0.55	$7,933	$4,363
Multi-Family (Avg.)	Dwelling	0.28	$7,933	$2,221
Less than 750 sf	Dwelling	0.25	$7,933	$1,983
750 to 1,499 sf	Dwelling	0.29	$7,933	$2,301
1,500 sf or greater	Dwelling	0.33	$7,933	$2,618
Hotel/Motel	Room	0.16	$7,933	$1,269
Retail/Commercial	1,000 sq. ft.	0.54	$7,933	$4,284
Office	1,000 sq. ft.	0.41	$7,933	$3,253
Public/Institutional	1,000 sq. ft.	0.15	$7,933	$1,190
Industrial	1,000 sq. ft.	0.36	$7,933	$2,856
Warehouse	1,000 sq. ft.	0.16	$7,933	$1,269
Mini-Warehouse	1,000 sq. ft.	0.13	$7,933	$1,031

* Impact fees reduced by 50% within 1,000 walking feet of a MARTA or light rail station
Source: VMT per unit from Table 13; net cost per VMT from Table 25.

Comparative Fees

The potential transportation impact fees calculated in this report are compared with the current fees in Table 27 below. The potential fee would more than double for most land use categories. The rate of increase should not be unexpected, given that the City's impact fees have not been updated since they were implemented in 1993 – almost a quarter century ago.

Table 27. Comparative Transportation Impact Fees

Land Use Type		Current Fee	Potential Fee	Change	Percent Change
Single-Family Detached (Avg.)	Dwelling	$987	$4,046	$3,059	310%
Less than 1,500 sf	Dwelling	$987	$3,808	$2,821	286%
1,500 to 2,499 sf	Dwelling	$987	$4,046	$3,059	310%
2,500 sf or greater	Dwelling	$987	$4,363	$3,376	342%
Multi-Family (Avg.)	Dwelling	$470	$2,221	$1,751	373%
Less than 750 sf	Dwelling	$470	$1,983	$1,513	322%
750 to 1,499 sf	Dwelling	$470	$2,301	$1,831	390%
1,500 sf or greater	Dwelling	$470	$2,618	$2,148	457%
Hotel/Motel	Room	$793	$1,269	$476	60%
Shopping Center/Commercial					
Less than 100,000 sf	1,000 sq. ft.	$1,304	$4,284	$2,980	229%
100,000-199,999 sf	1,000 sq. ft.	$1,189	$4,284	$3,095	260%
200,000-299,999 sf	1,000 sq. ft.	$1,246	$4,284	$3,038	244%
300,000-399,999 sf	1,000 sq. ft.	$1,327	$4,284	$2,957	223%
400,000-499,999 sf	1,000 sq. ft.	$1,408	$4,284	$2,876	204%
500,000-599,999 sf	1,000 sq. ft.	$1,350	$4,284	$2,934	217%
600,000-999,999 sf	1,000 sq. ft.	$1,466	$4,284	$2,818	192%
1,000,000 sf +	1,000 sq. ft.	$1,616	$4,284	$2,668	165%
Office					
Less than 50,000 sf	1,000 sq. ft.	$2,416	$3,253	$837	35%
50,000-99,999 sf	1,000 sq. ft.	$1,977	$3,253	$1,276	65%
100,000-199,999 sf	1,000 sq. ft.	$1,608	$3,253	$1,645	102%
200,000-499,999 sf	1,000 sq. ft.	$1,239	$3,253	$2,014	163%
500,000 sf +	1,000 sq. ft.	$1,008	$3,253	$2,245	223%
Public/Institutional					
Elementary School	1,000 sq. ft.	$0	$1,190	$1,190	n/a
High School	1,000 sq. ft.	$623	$1,190	$567	91%
Church	1,000 sq. ft.	$519	$1,190	$671	129%
Hospital	1,000 sq. ft.	$1,424	$1,190	-$234	-16%
Nursing Home	1,000 sq. ft.	$124	$1,190	$1,066	860%
Manufacturing/Industrial	1,000 sq. ft.	$1,025	$2,856	$1,831	179%
Warehouse	1,000 sq. ft.	$748	$1,269	$521	70%
Mini-Warehouse	1,000 sq. ft.	$748	$1,031	$283	38%

Note: Impact fees reduced by 50% within 1,000 feet walking distance of a MARTA station
Source: Current fee from City of Atlanta; potential impact fee from Table 26.

PARKS AND RECREATION

The City of Atlanta charges a parks and recreation impact fee on new residential and commercial development. As with all of the City's existing fees, the park impact fees have not been updated since they were adopted 24 years ago, in 1993. The current fees cover only land acquisition and development costs (grading, landscaping, utilities, parking), and were based on a level of service that was lower than the existing level of service in all three service areas. The fees are higher in the Northside service area, due to its higher land costs.

This report calculates the potential impact fees that could be charged to new development based on updated cost data and the park level of service provided by the City's existing parks and recreation facilities. The updated park impact fees would no longer be restricted to land acquisition and site development, but could also be used for park improvements.

The Department of Parks and Recreation (DPR) has responsibility for the City's parks and recreation facilities. The City's park system consists of about 3,800 acres of land, and includes block, garden, neighborhood, community, and regional parks, conservation areas, and nature preserves. An inventory of existing parks and major park amenities is provided in Table 78, Appendix F.

Service Areas

The city is divided into three service areas (see Figure 14), and parks and recreation impact fees collected in a service area are earmarked to be spent in the same service area. Park impact fees collected by service area for the last five years are summarized in Table 28. The bulk of the fees have been collected in the Northside service area, due to stronger growth and higher fees in that area.

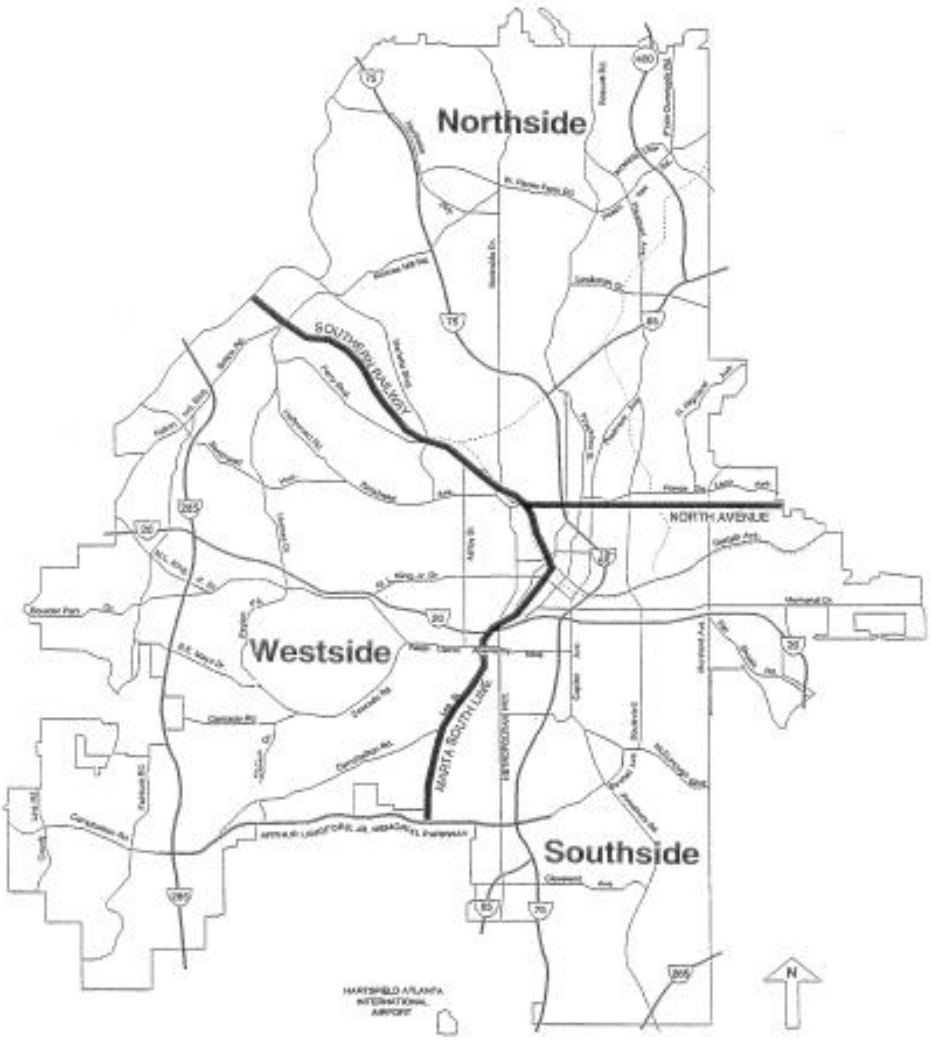
Table 28. Park Fee Collections by Service Area, FY 2012-2016

Service Area	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Total
Northside	$521,537	$826,221	$1,347,200	$1,833,050	$1,299,479	$5,827,486
Southside	$79,404	$179,541	$90,890	$295,116	$219,348	$864,299
Westside	$108,601	$26,324	$49,020	$36,596	$84,851	$305,391
Total	$709,542	$1,032,085	$1,487,109	$2,164,762	$1,603,677	$6,997,176

Source: Park fee collections and interest earned, City of Atlanta, November 28, 2016.

No problems have been noted with the current park service area structure. Each service area is able to generate enough revenue to finance some improvements. The service areas ensure that improvements are located in the same general proximity as the developments that pay the fees. Consequently, no changes are recommended to the current park impact fee service areas.

Figure 14. Park Impact Fee Service Areas



Methodology

The 1993 park impact fee study used a standards-based methodology. The fees were based on a level of service (LOS) of 5.75 acres per 1,000 functional population, which was lower than the existing LOS in each of the three service areas in 1993. A policy decision was made to exclude the cost of recreational improvements, so that the fees covered only the cost of acquiring land and making site improvements (i.e., grading, utilities, signage, fencing, road access, parking, and landscaping). Because the impact fee LOS was set below the existing levels of service in all three service areas, there was excess capacity relative to the adopted LOS. The 1993 study estimated there was sufficient excess acreage in the Northside and Westside service areas to accommodate growth for 7-8 years, while the Southside had sufficient acreage to accommodate projected growth for over 60 years.

Until the excess capacity was consumed, the fees were designed to function as recoupment fees. Recoupment fees are intended to recover costs incurred in advance of development to create capacity for future growth. Since the original costs were not known for many of the existing park improvements, the fees excluded all improvement costs. Because recoupment fees are reimbursements to the City for past expenditures, they are not subject to the earmarking and expenditure restrictions of non-recoupment fees. Recoupment fees can be waived for affordable housing or economic development projects, for example, without identifying replacement funds, and this was the City's practice until exemptions were halted in 2009. In the early years of the program, some of the funds were used to fund exemptions to the transportation impact fees, which were not recoupment fees, although this practice was discontinued about 1996. The granting of exemptions was suspended in 2009, and since that time the park fees collected have been spent on capacity-expanding park capital improvements in the service area in which they were collected.

Given Atlanta's renewed population growth, and following a recent city-wide process to identify outstanding park needs, this update will utilize the existing LOS in calculating the impact fee. However, in this update, the LOS will include both the acres of land and a measure of equivalent acres attributed to amenities such as recreation centers and pools in each service area.

Service Units

Atlanta's 1993 impact fee study used the same functional population approach used for fire and police for the calculation of the park impact fee. This approach recognizes that people use parks, and allocates park costs between residential and nonresidential development types based on where people spend their time. Functional population represents the number of "full-time equivalent" people present at the site of a land use, and it is used for the purpose of determining the impact of a particular development on the need for park facilities. For residential development, functional population is simply average household size times the percent of time people spend at home. For nonresidential development, functional population is based on a formula that factors trip generation rates, average vehicle occupancy and average number of hours spent by employees and visitors at a land use. The functional population multipliers for the various land use types and a detailed discussion of the methodology used in developing the multipliers are presented in Appendix C.

Capital Costs

In order to determine the existing level of service for parks in this update, it is necessary to determine the value of existing park land and amenities. Utilizing a simple ratio of acres to park functional population in the level of service analysis does not capture the value of amenities such as pools, recreation centers, gyms, ballfields, trails and playgrounds. In the current impact fee, the value of amenities is not reflected in the LOS.

Land Costs

Over the past few years the City has acquired land for parks in each of the three service areas. These land purchases can be used to provide an estimate of the cost to replace existing park land. The park land purchases used to determine the average cost per acre in each service area are based on the purchase of park land by the City from 2010 through 2016. The average land values range from $72,000 per acre in the Southside service area to $350,000 in the Northside service area, as shown in Table 29.

The land values in the Northside service area reflects the high cost of land in that area; according to City staff, the value of vacant land in this area can exceed $5 million per acre for usable commercial land. The land values used in this study reflects the type of land purchased for recent parks, which often include environmentally sensitive land, steep terrain and other features that make the cost per acre lower than typical improved land costs for these areas.

Table 29. Park Land Value per Acre

Date	Address	Acres	Cost	Cost/Acre
February 18, 2013	3162 Lenox Road	2.5400	$1,170,000	$460,630
August 9, 2013	0 North Ivy Rd NE	0.9000	$98,000	$108,889
June 2, 2014	519 Old Ivy Rd NE	0.6500	$519,490	$799,215
June 11, 2014	3931 Land O' Lakes	3.7600	$650,000	$172,872
March 21, 2016	3148 Lenox Rd NE	1.5300	$1,503,707	$982,815
March 21, 2016	685 Loridans Dr NE	1.5500	$219,589	$141,670
May 16, 2016	650 Canterbury Rd NE	1.3800	$176,270	$127,732
July 5, 2016	751 Burke Rd NE	0.9100	$289,037	$317,623
Subtotal, Northside Service Area		13.2200	$4,626,093	$349,931
February 6, 2010	1067, 1071, 1075 Grant Way SE (Stanton Park)	0.8400	$145,000	$172,619
May 25, 2011	Harper Road, Schell Road (Swann Preserve)	16.2500	$560,000	$34,462
August 15, 2011	1181 Boulevard SE (Boulevard Crossing)	0.5170	$275,000	$531,915
October 3, 2011	94 Flat Shoals Road (Lang Carson)	0.1140	$230,000	$2,017,544
October 1, 2012	71 Weatherby (Lang Carson)	0.1047	$25,000	$238,777
April 15, 2013	Macon Dr & Mt Zion Rd SW	1.0800	$60,000	$55,556
June 2, 2014	133 Dearborn St SE	0.1500	$77,260	$515,067
Subtotal, Southside Service Area		19.0557	$1,372,260	$72,013
June 18, 2012	0 Waterford Rd NW	1.1900	$34,425	$28,929
July 16, 2012	Elm/Spencer Sts (Mims Park)	4.7000	$488,386	$103,912
November 19, 2012	145 Graves (Vine City Park)	0.1667	$438,500	$2,630,474
April 15, 2013	2853 Campbellton Rd SW	10.1800	$325,000	$31,925
August 19, 2013	320 Enota Pl SW	0.2000	$60,000	$300,000
November 2, 2015	534 Oliver St NW	1.2000	$171,563	$142,969
July 18, 2016	392 Enota Pl. SW	0.1800	$57,361	$318,672
July 18, 2016	396 Enota Pl. SW	0.1400	$134,258	$958,986
Subtotal, Westside Service Area		17.9567	$1,709,493	$95,201
City-Wide Total		50.2324	$7,707,846	$153,444

Source: City of Atlanta Department of Parks and Recreation, June 12, 2017.

Facility Costs

In addition to the cost to acquire land, parks include amenities, such as trails, picnic facilities, playgrounds and playing fields, and some parks have aquatic and community center facilities. For this analysis, the replacement cost of the City's park amenities is based on standardized unit costs for major amenities common to many parks. The cost data are based on recent construction costs estimates developed by the City of Atlanta and the inventory of standard amenities provided in Appendix F. The total replacement costs of amenities for each service area are summarized in Table 30.

Table 30. Park Amenities

Improvement Type	Unit	Cost/Unit	Units	Replacement Cost
Pavilion/Gazebo	Sq. Ft.	$100	15,652	$1,565,200
Playground	Playground	$225,000	32	$7,200,000
Basketball Court	Court	$60,000	3	$180,000
Tennis Court	Court	$70,000	61	$4,270,000
Baseball Field	Field	$500,000	14	$7,000,000
Soccer/Football Field	Field	$600,000	2	$1,200,000
Trail, Hard Surface	Mile	$22,440	10.61	$238,088
Trail, Natural Surface	Mile	$9,240	13.61	$125,756
Picnic Shelter	Shelter	$75,000	3	$225,000
Total, Northside Service Area				$22,004,044
Pavilion/Gazebo	Sq. Ft.	$100	45,791	$4,579,100
Playground	Playground	$225,000	56	$12,600,000
Basketball Court	Court	$60,000	38	$2,280,000
Tennis Court	Court	$70,000	59	$4,130,000
Baseball Field	Field	$500,000	33	$16,500,000
Soccer/Football Field	Field	$600,000	6	$3,600,000
Trail, Hard Surface	Mile	$22,440	11.63	$260,977
Trail, Natural Surface	Mile	$9,240.00	2.50	$23,100
Picnic Shelter	Shelter	$75,000	16	$1,200,000
Total, Southside Service Area				$45,173,177
Pavilion/Gazebo	Sq. Ft.	$100	32,651	$3,265,100
Playground	Playground	$225,000	48	$10,800,000
Basketball Court	Court	$60,000	20	$1,200,000
Tennis Court	Court	$70,000	54	$3,780,000
Baseball Field	Field	$500,000	30	$15,000,000
Soccer/Football Field	Field	$600,000	3	$1,800,000
Trail, Hard Surface	Mile	$22,440	5.80	$130,152
Trail, Natural Surface	Mile	$9,240.00	3.60	$33,264
Picnic Shelter	Shelter	$75,000	25	$1,875,000
Total, Westside Service Area				$37,883,516

Source: Improvement cost per unit from City of Atlanta Department of Parks and Recreation, November 14, 2016; units from Table 78, Appendix F.

The City of Atlanta maintains pools and aquatic facilities in numerous parks, and the value of those facilities is included in the updated level of service and impact fees. The replacement value of these types of facilities is based on the City's insured values listings. The existing facilities and estimated replacement costs for each service area are summarized in Table 31.

Table 31. Pools and Aquatic Facilities

Park	Facility	Street Address	Insur. Value
Chastain Memorial Park	Pool, Pool House & Pump Bldg	215 W Wieuca Rd, NW	$1,433,220
Garden Hills Park	Pool, Pool House & Pump Bldg	355 Pine Tree Dr, NE	$374,719
Piedmont Park	Pool and Pool Building	400 Park Dr, NE	$1,500,533
Total, Northside Service Area			$3,308,471
Candler Park	Pool/ Building	1500 Mclendon Ave, NE	$313,433
Grant Park	Swimming Pool Bldg	840 Cherokee Ave, SE	$546,513
John A. White Park	Swimming Pool	1053 Cascade Cir, SW	$672,543
Selena S. Butler Park	M.L.King, Jr Rec/Aquatic Center	Hillard St, SE	$23,500,000
Pittman Park	Pittman Park Pool	950 Girabaldi St, SE	$910,153
Rosa L. Burney Park	Dunbar Pool	477 Windsor St, SW	$467,220
South Bend Park	Pool and Pool Building	2000 Lakewood Ave	$1,441,226
Thomasville Park	Pool, Pool House & Pump Bldg	1835 Henry Thomas Dr, SE	$346,740
Total, Southside Service Area			$28,197,827
Adams Park	Pool Building	1581 Lagoon Ln	$501,669
Anderson Park	Pool & Bath House	98 Anderson Avenue	$313,160
Maddox Park	Swimming Pool & Bath House	1142 Bankhead Hwy	$1,366,935
Mozley Park	Powell Pool & Chlorine Bldg	1565 M. L. King Jr Dr, SW	$417,171
Rev Jms Orange Park at Oakland City	Pool, Pool House & Pump Bldg	1305 Oakland Dr	$861,539
Washington Park	Washington Park Natatorium	90 Ollie St	$4,099,591
Total, Westside Service Area			$7,560,066

Source: City of Atlanta Risk Management, insured values listings as of June 27, 2016.

The updated park impact fee includes recreation and community centers located in City parks. Such facilities typically include gyms, community meeting rooms and fitness areas. The replacement values for these facilities used in the impact fee analysis are based on the City's insured values. The replacement costs of the City's existing recreation and community centers in each of the three service areas are summarized in Table 32.

Table 32. Recreation and Community Centers

Park	Building	Street Address	Sq. Feet	Insur. Value
Chastain Memorial Park	Chastain Park Gymnasium	140 W Wieuca Rd., NW	16,479	$3,291,153
Garden Hills Park	Neighborhood Meeting	355 Pine Tree Dr, NE	2,144	$330,258
Peachtree Hills Park	Recreation Center	308 Peachtree Hills Rd	11,720	$1,070,263
Piedmont Park	Community Center	1071 Piedmont Ave	10,363	$1,192,932
Total, Northside Service Area			40,706	$5,884,605
Arthur Langford, Jr. Park	Community Center	211 Thornton St, SW	6,205	$916,917
Bass Recreation Ctr Park	Bass Recreation Center	326 Moreland Ave, NE	9,918	$915,159
Bessie Branham Park	Bessie Branham Rec Ctr	2051 Delano Dr	20,113	$3,256,933
Brownwood Park	Brownwood Rec Ctr	602 Brownwood Ave	5,616	$708,548
Cabbagetown Park	Recreation Center	701 Kirkwood Ave. SE	10,128	$1,024,746
Central Park	Central Rec Center	400 Merritts Ave	12,048	$1,701,876
Coan Park	Coan Recreation Center	530 Woodbine Avenue	14,855	$1,537,748
Daniel Stanton Park	Recreation Center	213 Haygood Ave, SE	7,412	$896,489
East Lake Park	Zaban Recreation Center	2617 Memorial Drive SE	4,844	$764,059
Four Corners Park	Rick McDevitt Youth Center	30 Haygood Ave	3,823	$419,999
Grant Park	Recreation Center	537 Park Ave	14,220	$2,330,825
J.D. Sims Park	Recreation Center	544 Angier Ave, NE	6,198	$733,546
Lang-Carson Park	Lang Carsen Rec Ctr	100 Flat Shoals Ave, SE	22,437	$3,158,646
MLK Recreation Ctr	MLK Recreation Center	90 Boulevard., St, NE	29,864	$5,016,185
Perkerson Park	Perkerson Park Rec Ctr	770 Deckner Ave	4,800	$717,102
Pittman Park	Sarah Lowrie Community Ctr	950 Girabaldi St, SE	28,692	$4,130,521
Rosa L. Burney Park	Dunbar Recreation Center	477 Windsor St, SW	n/a	n/a
Rosel Fann Park	Rosel Fann Rec Center	365 Cleveland Ave, SE	85,356	$12,668,963
Selina S. Butler Park	Butler Recreation Center	98 W. H. Borders Dr, SE	4,749	$629,607
Thomasville Park	Recreation Center	1835 Henry Thomas Dr, SE	18,178	$2,737,884
Total, Southside Service Area			309,456	$44,265,753
A.D. Williams Park	A. D. Williams Rec Ctr	1154 Jms Jackson Pky, NW	6,059	$613,964
Adams Park Rec Ctr	Adams Rec Ctr	2231 Campbellton Rd, SW	17,723	$2,435,621
Adamsville Gym Park	Adamsville Gym	3404 Delmar Ln, SW	11,412	$1,735,861
Adamsville Park	Rec Center/Natatorium	3201 M. L. King, Jr. Dr. SW	96,994	$15,207,073
Anderson Park	Recreation Center	98 Anderson Avenue	20,602	$2,967,903
Ben Hill Park	William Walker Rec Ctr	2405 Fairburn Rd., SW	59,520	$4,134,266
Collier Drive Park	Recreation Center	3691 Collier Dr	5,170	$728,214
English Park	Recreation Center	1350 Bolton Road, NW	5,236	$751,950
Grove Park	Recreation Center	709 Hortense Place	30,613	$4,756,351
Mozley Park	C. A. Scott Rec Ctr	1565 ML King Jr Dr., SW	6,200	$894,254
Oakland City Park	Recreation Center	1305 Oakland Dr	4,438	$830,442
West Manor Park	Anthony Flanagan Rec Ctr	3240 W Manor Cir	4,236	$588,364
Total, Westside Service Area			268,203	$35,644,261

Source: City of Atlanta Risk Management, insured values listings as of June 27, 2016.

Level of Service

The current park level of service (LOS) is expressed in terms of acres per 1,000 functional population. However, a parks and recreation system represents a capital investment in land, buildings and other improvements that provide service to residents and visitors. Reducing the LOS relationship to a simple ratio of acres of land to population does provide a concrete, measurable indicator, but it may unintentionally emphasize the acquisition of park land. The emphasis on park land in the traditional LOS comes at the expense of the provision of recreational facilities and improvements. The expansion of a park system may involve periods of extensive land acquisition, followed by periods that focus on the development of land with park improvements.

This study utilizes an approach that takes into account both land and recreational facilities and improvements in measuring the LOS. The alternative LOS measure is "equivalent acres per 1,000 functional population." Under this approach, the total replacement value of all improvements is divided by the average cost per acre in each service area to determine equivalent acres of improvements. Existing standard park amenities, aquatic facilities and recreation centers in each service area are converted into equivalent acres in Table 33.

Table 33. Park Facility Equivalent Acres

	Service Area		
	Northside	Southside	Westside
Amenity Replacement Value	$22,004,044	$45,173,177	$37,883,516
Aquatic Facility Value	$3,308,471	$28,197,827	$7,560,066
Recreation Center Value	$5,884,605	$44,265,753	$35,644,261
Total Park Facility Value	$31,197,121	$117,636,757	$81,087,843
÷ Land Cost/Acre	$349,931	$72,013	$95,201
Equivalent Parks Acres	89.15	1,633.55	851.75

Source: Amenity replacement value from Table 30; aquatic facility value from Table 31; recreation center value from Table 32; land cost per acre from Table 29.

The equivalent acres of improvements are added to the number of physical acres to determine total equivalent acres. With this LOS measure, improvements that add recreational value to existing parks can be quantified and reflected in the updated LOS, as shown in Table 34. These level of service measures can be used to measure changes in a service area over time, but are not very useful for comparing levels of service between service areas, because of the widely varying land costs per acre (which results in service areas with high land costs having fewer equivalent acres). Nevertheless, it is clear that the Northside has the lowest park LOS, whether measured in terms of acres of land, amenity value, or equivalent acres.

Table 34. Park Land and Facility Level of Service

	Service Area		
	Northside	Southside	Westside
Park Acres	968.77	1,340.72	1,343.79
Park Facility Equivalent Acres	89.15	1,633.55	851.75
Total Park Equivalent Acres	1,057.92	2,974.27	2,195.54
÷ Existing Functional Population (000s), 2017	379.437	249.456	145.066
Equivalent Park Acres per 1,000 Functional Population	2.79	11.92	15.13

Source: Park acres from Table 78, Appendix F; amenity equivalent acres from Table 33; 2017 functional population from Table 74.

Future park improvement needs are determined by multiplying the projected functional population growth for each service area in 2040 by the existing equivalent park acre LOS. As shown in Table 35, in order to maintain the recommended level of service the City would have to acquire park land or construct the equivalent cost in improvements by 316 acres in the Northside service area, 930 acres in the Southside, and 818 acres in the Westside.

Table 35. Future Park Needs, 2017-2040

	Service Area		
	Northside	Southside	Westside
2040 Functional Population (000s)	492.654	327.444	199.156
– 2017 Functional Population (000s)	-379.437	-249.456	-145.066
New Functional Population, 2017-2040 (000s)	113.217	77.988	54.090
x Equivalent Park Acres per 1,000 Functional Populatio	2.79	11.92	15.13
Equivalent Park Acres Needed, 2017-2040	316	930	818

Source: Functional population from Table 74 for 2017 and Table 75 for 2040; existing park LOS from Table 34.

Cost per Service Unit

The cost per service unit is based on the existing level of service, which includes both actual park land and park amenity equivalent acres, and the park land cost per acre for each service area, as shown in Table 36. The cost per service unit is $976 in the Northside service area, $858 in the Southside service area, and $1,440 in the Westside service area.

Table 36. Park Cost per Service Unit

	Service Area		
	Northside	Southside	Westside
Equivalent Park Acres/1,000 Func. Pop.	2.79	11.92	15.13
x Park Land Cost per Acre	$349,931	$72,013	$95,201
Total Park Cost per 1,000 Func. Pop.	$976,307	$858,395	$1,440,391
÷ 1,000	1,000	1,000	1,000
Park Cost per Functional Population	$976	$858	$1,440

Source: Existing park acres per 1,000 functional population from Table 34; land cost per acre from Table 29.

Net Cost per Service Unit

The City primarily funds park capital projects with Park Improvement (PI) property tax revenues, General Obligation bonds, and impact fees. Other facilities not included in this report, such as the Zoo, Omni, sports stadiums and Underground are financed in part from hybrid revenue bonds, dedicated sales tax revenue and some Park Improvement (PI) funds. Golf courses are excluded because they are enterprise fund facilities, and the Lakewood Amphitheater is excluded because it is leased by a private company.

To avoid requiring new development to pay more than its proportionate share of facility costs, impact fees should be reduced to account for future tax payments that will retire outstanding debt used to develop the existing parks. Additional credits are not necessary for grants, since grant funds are limited to available Federal or State funding, such as Community Development Block Grants, and the grant funding is not dedicated for growth-related improvements.

The PI Fund is supported by a half-mill property tax. It is used exclusively for capital improvements to the City's parks, recreation and cultural facilities. Up to half of this fund's annual receipts can be used for constructing a stadium and related facilities, or to retire debt on those facilities. The PI fund has been used as a pledge of revenue to fund park improvement revenue bonds issued by the City of Atlanta and Fulton County Recreation Authority. The City's share of revenue bond funds has been used to finance the acquisition, construction and equipping of new recreation areas, and replacing, renovating, upgrading and restoring existing recreation facilities and amenities. This update includes a credit for all the outstanding park improvement revenue bond principal.

An analysis of the City's outstanding debt is presented in Appendix E. Based on the analysis of debt-funded expenditures, $64 million of the outstanding debt is attributed to park and recreation projects. A simple method that ensures that new development is not required to pay for existing facilities, through funds used for debt retirement, as well as new facilities through impact fees, is to calculate the credit by dividing the outstanding debt by existing City-wide functional population. This puts new development on the same footing as existing development in terms of the share of capital costs funded through debt. As shown in Table 37, the park credit for outstanding debt is $83 per service unit.

Table 37. Park Debt Credit

Outstanding Park Debt	$64,031,854
÷ City-Wide Functional Population	773,959
Debt Credit per Functional Population	$83

Source: Park debt from Table 77, Appendix E; city-wide functional population from Table 74, Appendix C.

The net cost per service unit for parks and recreation is derived by reducing the cost per service unit by the debt credit. As shown in Table 38, the net cost per service unit is $893 in the Northside service area, $775 in the Southside and $1,357 in the Westside.

Table 38. Park Net Cost per Service Unit

	Service Area		
	Northside	Southside	Westside
Cost per Functional Population	$976	$858	$1,440
– Debt Credit per Functional Pop.	-$83	-$83	-$83
Net Cost per Functional Pop.	$893	$775	$1,357

Source: Cost per functional population from Table 36; debt credit from Table 37

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Potential Fee Schedule

The maximum fees that can be adopted by the City based on this study are derived by multiplying the functional population for each land use by the net cost per functional population for each service area. As shown in Table 39, the park fee for a typical single family unit would range from $1,324 in the Southside to $1,526 in the Northside. The updated fee schedule also provides the option to adopt residential fees that vary by the size of the dwelling unit.

Table 39. Potential Parks and Recreation Impact Fee Schedule

		Park Func.	Service Area		
Land Use	Unit	Pop./Unit	Northside	Southside	Westside
Net Cost per Functional Population			*$893*	*$775*	*$1,357*
Single-Family Detached (Avg.)	Dwelling	1.709	$1,526	$1,324	$2,319
Less than 1,500 sf	Dwelling	1.581	$1,412	$1,225	$2,145
1,500 to 2,499 sf	Dwelling	1.702	$1,520	$1,319	$2,310
2,500 sf or greater	Dwelling	1.883	$1,682	$1,459	$2,555
Multi-Family (Avg.)	Dwelling	1.159	$1,035	$898	$1,573
Less than 750 sf	Dwelling	1.045	$933	$810	$1,418
750 to 1,499 sf	Dwelling	1.199	$1,071	$929	$1,627
1,500 sf or greater	Dwelling	1.313	$1,173	$1,018	$1,782
Hotel/Motel	Room	0.785	$701	$608	$1,065
Shopping Center/Commercial	1,000 sq. ft.	1.802	$1,609	$1,397	$2,445
Office	1,000 sq. ft.	0.880	$786	$682	$1,194
Public/Institutional	1,000 sq. ft.	0.530	$473	$411	$719
Industrial	1,000 sq. ft.	0.328	$293	$254	$445
Warehouse	1,000 sq. ft.	0.228	$204	$177	$309
Mini-Warehouse	1,000 sq. ft.	0.107	$96	$83	$145

Source: Net cost per functional population from Table 38; functional population per unit from Table 73, Appendix C.

Comparative Fees

The updated fees are compared with the current fees in Table 40. The large percentage increases in the fees for most land uses reflect (1) the change in park land costs since the last study was conducted in 1993 (increases ranging from 400-900%); (2) the inclusion of facility costs, which account for between 10-51% of the total updated fee, depending on service area; and (3) the use of a level of service that was lower than the existing level of service for all three service area.

Table 40. Comparative Parks and Recreation Impact Fees

	Northside			Southside			Westside		
Land Use Type	Current Fee	Updated Fee	% Change	Current Fee	Updated Fee	% Change	Current Fee	Updated Fee	% Change
Single-Family Detached (Avg.)	$410	$1,526	272%	$245	$1,324	440%	$245	$2,319	847%
Less than 1,500 sf	$410	$1,412	244%	$245	$1,225	400%	$245	$2,145	776%
1,500 to 2,499 sf	$410	$1,520	271%	$246	$1,319	436%	$246	$2,310	839%
2,500 sf or greater	$410	$1,682	310%	$246	$1,459	493%	$246	$2,555	939%
Multi-Family (Avg.)	$285	$1,035	263%	$171	$898	425%	$171	$1,573	820%
Less than 750 sf	$285	$933	227%	$171	$810	374%	$171	$1,418	729%
750 to 1,499 sf	$285	$1,071	276%	$171	$929	443%	$171	$1,627	851%
1,500 sf or greater	$285	$1,173	312%	$171	$1,018	495%	$171	$1,782	942%
Hotel/Motel	$183	$701	283%	$110	$608	453%	$110	$1,065	868%
Shopping Ctr/Commercial									
Less than 100,000 sf	$713	$1,609	126%	$428	$1,397	226%	$428	$2,445	471%
100,000-199,999 sf	$584	$1,609	176%	$350	$1,397	299%	$350	$2,445	599%
200,000-299,999 sf	$535	$1,609	201%	$321	$1,397	335%	$321	$2,445	662%
300,000-399,999 sf	$486	$1,609	231%	$292	$1,397	378%	$292	$2,445	737%
400,000-499,999 sf	$463	$1,609	248%	$278	$1,397	403%	$278	$2,445	779%
500,000-599,999 sf	$441	$1,609	265%	$265	$1,397	427%	$265	$2,445	823%
600,000-999,999 sf	$401	$1,609	301%	$241	$1,397	480%	$241	$2,445	915%
1,000,000 sf +	$370	$1,609	335%	$222	$1,397	529%	$222	$2,445	1001%
Office									
Less than 50,000 sf	$267	$786	194%	$161	$682	324%	$161	$1,194	642%
50,000-99,999 sf	$254	$786	209%	$153	$682	346%	$153	$1,194	680%
100,000-199,999 sf	$241	$786	226%	$145	$682	370%	$145	$1,194	723%
200,000-499,999 sf	$232	$786	239%	$139	$682	391%	$139	$1,194	759%
500,000 sf +	$223	$786	252%	$134	$682	409%	$134	$1,194	791%
Public/Institutional									
Elementary School	$437	$473	8%	$262	$411	57%	$262	$719	174%
High School	$445	$473	6%	$267	$411	54%	$267	$719	169%
Church	$192	$473	146%	$115	$411	257%	$115	$719	525%
Hospital	$477	$473	-1%	$286	$411	44%	$286	$719	151%
Nursing Home	$348	$473	36%	$209	$411	97%	$209	$719	244%
Manufacturing/Industrial	$169	$293	73%	$102	$254	149%	$102	$445	336%
Warehouse	$94	$204	117%	$56	$177	216%	$56	$309	452%
Mini-Warehouse	$94	$96	2%	$56	$83	48%	$56	$145	159%

Source: Existing fee from City of Atlanta; updated fee from Table 38.

FIRE

The Atlanta Fire Rescue Department provides fire protection and rescue services throughout the City of Atlanta, operating from 31 active fire stations. This chapter updates the fire impact fee and impact fee level of service standards to reflect current facilities and updated costs.

Service Area

The fire impact fee is structured as city-wide service area. This is appropriate, because public safety services are provided on a system-wide basis. Fire-fighting apparatus located in a particular fire station will respond to calls some distance from the station if the equipment located closer is out on another call. Consequently, no change to the fire service area is recommended in this update.

Methodology

The methodology used for the current fire impact fee is a standards-based approach, with an adopted level of service (LOS) of 470 square feet of fire station per 1,000 functional population. Since the adopted LOS was less than the 502 square feet per 1,000 functional population being provided at the time the 1993 study was performed, the fees were designed as recoupment fees. Consistent with that approach, the value of equipment was based on original, depreciated costs rather than replacement costs.

The recoupment approach was taken despite the fact that the need for three new stations had been identified for the 1993-2007 period. However, growth projections indicated that, even with the new stations, the LOS would fall from 502 to 477 square feet per 1,000 functional population by 2010. The decision was made to have the fees function as recoupment until the LOS fell to the adopted level, which was estimated to be about 1998. After that time, the fees would no long function as recoupment fees. Since 2009, when funding for exemptions ceased being certified, the fire impact fees have functioned like non-recoupment impact fees, with the funds earmarked for capacity-expanding improvements. This update is based on the existing LOS and current replacement values of existing facilities, rather than the recoupment approach used in the original study.

Service Units

The demand for fire services is quantified for different land use types using the "functional population" approach, which is consistent with approach used in the original study for developing public safety service units. This is a generally-accepted methodology for these facility types and is based on the observation that demand for public safety is generally proportional to the presence of people. The functional population concept is analogous to the concept of "full-time equivalent" employees. It represents the number of "full-time equivalent" people present at the site of a land use. Functional population is the equivalent number of people occupying a building or land use site on a 24-hours-per-day, 7-days-per-week basis.

For residential development, functional population is simply average household size times the percent of time people spend at home. For nonresidential development, functional population is based on a formula that factors trip generation rates, average vehicle occupancy and average number of hours spent by employees and visitors at a land use. The functional population multipliers for the various land use types and a detailed discussion of the methodology used in developing the multipliers are presented in Appendix C.

Capital Costs

The cost associated with each fire station includes land acquisition, facility construction and the purchase of necessary equipment and fire protection and rescue vehicles. The existing level of service for fire rescue facilities in this study is based on the existing facilities. An inventory of the existing City-owned fire stations is shown in Table 41. The City currently operates from 31 fire stations, excluding stations at the airport. The airport stations are excluded for two reasons: (1) the demand for airport stations is not as strongly related to land development and growth in the city, given Hartsfield-Jackson Atlanta's status as a major regional and international air traffic connection; and (2) the stations are funded from aviation fee revenues.

In addition to the stations, this study includes central facilities that serve the entire city. Centralized facilities include the Atlanta Fire Rescue headquarters and the training academy. The training academy is operated on land owned by Atlanta Public Schools and leased to Atlanta Fire Rescue and is not included in this update. The Atlanta Fire Rescue headquarters occupies one floor of the City's new five-story Public Safety facility in downtown Atlanta. Consequently, one-fifth of the land, building square footage and replacement value of the Public Safety building is included in the fire impact fee calculations. Similarly, the acreage, square footage, and replacement costs of two fire stations have been reduced to reflect the fact that approximately 1,000 square feet in each of the two stations is occupied by a police mini-precinct.

Table 41. Fire Land and Building Inventory

Station No.	Address	Year Built	Acres	Building Area (sf)	Insured Value
HQ*	226 Peachtree Street SW	2009	1.07	44,235	$18,000,000
1	71 Elliot St	1961	0.73	14,336	$2,220,691
2	1568 Jonesboro Rd, SE	1978	0.20	7,450	$1,338,465
3	721 Phipps Blvd, NE	1991	5.81	9,064	$1,275,059
4	309 Edgewood Ave, SE	2002	0.63	10,000	$1,558,146
5	2825 Campbellton Rd, SW	1991	2.30	9,600	$1,433,079
8	1711 Marietta Blvd, NW	1969	0.15	7,910	$1,539,414
9	3501 MLK Jr. Dr, SW	1967	0.93	8,465	$1,337,609
10	447 Boulevard, SE	1958	0.24	6,817	$1,421,799
11	165 16th Street, NW	2010	1.32	8,670	$4,779,705
12	1288 Dekalb Ave, NE	1958	0.59	7,247	$1,266,668
13	431 Flat Shoals Ave, SE	2010	0.47	6,727	$3,537,360
14	1203 Lee Street, SW	2002	0.17	6,500	$1,211,220
15	170 10th St, NE	1987	0.79	8,150	$1,586,270
16	1048 Joseph E. Boone Blvd	1963	1.08	7,744	$1,633,999
17	1489 Ralph D. Abernathy Blvd	1988	0.36	8,190	$1,167,121
18	2007 Oakview Rd, SE	2010	0.46	10,177	$3,537,360
19	1063 N. Highland Ave, NE	1924	0.24	5,428	$904,558
20	590 Manford Rd	1938	0.35	4,068	$695,635
21	3201 Roswell Rd, NE	1984	0.35	8,700	$1,478,043
22*	817 Hollywood Rd, NE	1938	0.29	1,653	$329,530
23	1545 Howell Mill Rd, NW	1948	0.41	5,265	$968,393
24	3300 N Inner Loop Cir (Airport)	2009	n/a	24,700	$6,733,120
25	2349 Benjamin E. Mays Dr, SW	1948	0.71	5,549	$1,045,535
26	2970 Howell Mill Rd, NW	1954	0.69	4,674	$1,050,512
27	4260 Northside Dr, SW	1953	0.41	3,862	$805,281
28*	1925 Hollywood Rd, NW	1953	2.00	12,225	$3,175,143
29	2167 Monroe Dr, NE	1956	0.72	6,845	$1,031,058
30	10 Cleveland Ave, SW	1956	1.33	4,048	$795,064
31	2406 Fairburn Rd, SW	1958	1.50	4,703	$959,772
32	8500 N Terminal Rd (Airport)	1985	n/a	22,161	$7,579,008
34	3631 Southside Industrial Park	1989	1.23	8,528	$1,388,931
35	2150 Central Cargo Cir (Airport)	1975	n/a	15,064	$4,420,341
36	4121 Cascade Rd, SW	VAC	2.50	n/a	n/a
38	2911 Bankhead Hwy, SW	1972	1.00	8,028	$1,237,177
39	4697 Wieuca Rd, NW	1975	1.38	19,648	$3,133,278
40	4600 ASR Rd (Airport)	1975	n/a	20,603	$5,690,623
Total			32.41	367,034	$92,264,966
Total, Excluding HQ and Airport Stations			31.34	240,271	$49,841,875

* values shown represent the portion of shared fire/police facilities attributable to fire based on square footage occupied (estimated 1,000 square feet occupied by each police mini precinct)
Source: Atlanta Fire Rescue, December 5, 2016, and City insured value listings provided on December 6, 2016 and January 25, 2017.

The City's most recent fire station land acquisitions were over 10 years ago. Nevertheless, they are the only available basis for estimating the replacement value of fire facility sites. In 2005, the City of Atlanta acquired two sites adjacent to existing facilities to allow for expansion. Using the lower of the two costs per acre, the replacement value of the City's existing fire facility land is about $15 million, as shown in Table 42 on the following page.

Table 42. Fire Facility Land Cost

Address	Year	Cost	Acres	Cost/Acre
431 Flat Shoals Rd	2005	$513,000	0.43	$1,193,023
1929 & 1937 Hollywood Rd	2005	$1,220,000	2.58	$472,868
Average Cost per Acre		$1,733,000	3.01	$575,748
Cost per Acre of Largest Parcel				$472,868
x Fire Station and HQ Land (Acres)				32.41
Fire Facility Land Replacement Cost				$15,325,659

Source: Land costs from Atlanta Fire Rescue, September 10, 2009; fire facility land from Table 41.

This study includes fire rescue apparatus and equipment that have a useful life of 10 or more years as allowed under the Development Impact Fee Act. The replacement cost of fire rescue equipment is based on the original cost from the City's fixed asset listings. As shown in Table 43, the replacement cost of existing fire rescue apparatus is about $35 million.

Table 43. Fire Rescue Department Equipment

Apparatus/Equipment Type	Cost
Fire Engines/Pumpers	$21,576,211
Ladder Trucks	$8,958,361
Specialized Equipment (HazMat, Extrication, Air)	$2,481,598
Heavy Duty Trucks	$300,905
Trailers	$1,050,699
Thermal Imaging Cameras	$137,139
Mobile Radios	$165,000
Other Equipment with 10-Year Life	$478,654
Total	$35,148,568

Source: Original costs from City of Atlanta fixed asset records provided by Atlanta Finance Department, November 5, 2016.

Level of Service

The current fire level of service (LOS) is expressed in terms of fire station building square feet per 1,000 functional population. The problem with this metric is that only the construction of additional fire stations will result in an improved LOS. An alternative is "equivalent square feet per 1,000 functional population." Under this approach, the total replacement value of land, vehicles and other capital equipment are divided by the average fire station construction cost per square foot to determine equivalent square feet of eligible non-station capital assets. The equivalent square feet of non-station assets are added to the number of physical square feet of the City's stations to determine total equivalent square feet. With this LOS measure, non-building improvements that add service capacity are quantified and reflected in the updated LOS.

The first step in determining the LOS related to non-station assets is to divide the total value of those assets by the replacement cost per square foot of fire station facilities. The average cost of a fire station based on the City's insured values is $207 per square foot, as shown in Table 44.

Table 44. Fire Station Cost per Square Foot

Fire Station Replacement Value	$49,841,875
÷ Fire Station Square Feet	240,271
Fire Station Cost per Square Foot	$207

Source: Value and square feet from Table 41.

Dividing the replacement cost of the Fire Rescue share of the public safety building, land, and apparatus and equipment by the cost per square foot indicates that non-station facilities are equivalent to 330,091 fire station square feet, as shown in Table 45.

Table 45. Fire Non-Station Equivalent Square Feet

Fire Headquarters Building Value	$18,000,000
Land Cost	$15,325,659
Fire Apparatus/Equipment	$35,148,568
Total Non-Fire Station Replacement Value	$68,474,227
÷ Fire Station Cost per Square Foot	$207
Equivalent Fire Station Square Feet, Other Costs	330,091

Source: Fire HQ building value from Table 41; land value from Table 42; equipment value from Table 43; cost per square foot from Table 44.

The fire fee in this update is based on the existing fire level of service. As shown in Table 46, the fire level of service is developed based on the total square feet of the existing fire stations and the fire station equivalent square feet associated with non-station assets. The City of Atlanta currently has 570,362 fire station equivalent square feet. Based on the existing city-wide functional population, the fire station equivalent level of service is 0.737 square feet per functional population. It is recommended that the City of Atlanta adopt this LOS standard for the updated fire impact fees.

Table 46. Fire Level of Service

Fire Station Building Square Feet	240,271
Equivalent Fire Station Square Feet, Other Costs	330,091
Total Equivalent Fire Station Building Square Feet	570,362
÷ Existing City-Wide Functional Population	773,959
Equivalent Fire Station Square Feet per Functional Population	0.737

Source: Non-station equivalent square feet from Table 45; fire station square feet from Table 41; 2017 functional population from Table 74, Appendix C.

Cost per Service Unit

The cost per service unit is based on the existing level of service, which includes stations, fire apparatus and the Fire Rescue Department's share of the public safety building. As shown in Table 47, maintaining the existing fire level of service for new development will cost $153 per functional population.

Table 47. Fire Cost per Service Unit

Fire Station Cost per Square Foot	$207
x Equivalent Square Feet per Functional Population	0.737
Cost per Functional Population	$153

Source: Fire station cost per square foot from Table 45; equivalent square feet per functional population from Table 46.

Net Cost per Service Unit

The City has traditionally funded fire facilities through a mix of general fund revenue, long-term and short-term debt, capital leases and grant funds. Additional offsets are not necessary for grants, since grant funds are limited to available Federal or State funding, such as Community Development Block Grants, and the grant funding is not dedicated for growth-related improvements.

An analysis of the City's outstanding debt is presented in Appendix E. A straight-forward method that ensures that new development is not required to pay for existing facilities, through funds used for debt retirement, as well as new facilities through impact fees, is to calculate the credit by dividing the outstanding debt by existing city-wide functional population. This puts new development on the same footing as existing development in terms of the share of capital costs funded through debt. As shown in Table 48, the debt credit for outstanding lease/purchases, Public Safety Authority Bonds and GO Bonds is $8 per service unit

Table 48. Fire Debt Credit

Outstanding Fire Facility Debt	$5,861,763
÷ City-Wide Functional Population	773,959
Debt Credit per Functional Population	$8

Source: Outstanding debt from Table 77; city-wide functional population from Table 74.

The net cost per service unit is derived by reducing the cost per service unit by the debt credit. As shown in Table 49, the updated net cost of fire facilities is $145 per functional population.

Table 49. Fire Net Cost per Service Unit

Cost per Functional Population	$153
– Debt Credit per Functional Population	-$8
Net Cost per Functional Population	$145

Source: Cost per functional population from Table 47; debt credit from Table 48.

Potential Fee Schedule

The maximum fire impact fees that can be adopted by the City based on this study are derived by multiplying the functional population estimates for each land use by the net cost per functional population. The potential fire impact fee schedule (with optional flat rate and variable fees by unit size for residential) is shown in Table 50.

Table 50. Potential Fire Impact Fee Schedule

Land Use	Unit	Functional Pop./Unit	Net Cost/ Func. Pop.	Net Cost/ Unit
Single-Family Detached (Avg.)	Dwelling	1.709	$145	$248
Less than 1,500 sf	Dwelling	1.581	$145	$229
1,500 to 2,499 sf	Dwelling	1.702	$145	$247
2,500 sf or greater	Dwelling	1.883	$145	$273
Multi-Family (Avg.)	Dwelling	1.159	$145	$168
Less than 750 sf	Dwelling	1.045	$145	$152
750 to 1,499 sf	Dwelling	1.199	$145	$174
1,500 sf or greater	Dwelling	1.313	$145	$190
Hotel/Motel	Room	0.785	$145	$114
Shopping Center/Commercial	1,000 sq. ft.	1.802	$145	$261
Office	1,000 sq. ft.	0.880	$145	$128
Public/Institutional	1,000 sq. ft.	0.530	$145	$77
Industrial	1,000 sq. ft.	0.328	$145	$48
Warehouse	1,000 sq. ft.	0.228	$145	$33
Mini-Warehouse	1,000 sq. ft.	0.107	$145	$16

Source: Functional population per unit from Table 73, Appendix C; net cost per functional population from Table 49.

Comparative Fees

The fire impact fees calculated in this report are compared with the current fees in Table 51 on the following page. For most land uses, the potential fee would roughly double from the current fee. The rate of increase should not be unexpected, given that the City's impact fees have not been updated since they were implemented in 1993 – almost a quarter century ago. The variation in the potential increase by land use type reflects the change in functional population multipliers since the last study was conducted, as well as the use of more general land use categories.

Table 51. Comparative Fire Impact Fees

Land Use Type	Unit	Current Fee	Potential Fee	Change	Percent Change
Single-Family Detached (Avg.)	Dwelling	$114	$248	$134	118%
Less than 1,500 sf	Dwelling	$114	$229	$115	101%
1,500 to 2,499 sf	Dwelling	$114	$247	$133	117%
2,500 sf or greater	Dwelling	$114	$273	$159	139%
Multi-Family (Avg.)	Dwelling	$79	$168	$89	113%
Less than 750 sf	Dwelling	$79	$152	$73	92%
750 to 1,499 sf	Dwelling	$79	$174	$95	120%
1,500 sf or greater	Dwelling	$79	$190	$111	141%
Hotel/Motel	Room	$51	$114	$63	124%
Shopping Ctr/Commercial					
Less than 100,000 sf	1,000 sq. ft.	$199	$261	$62	31%
100,000-199,999 sf	1,000 sq. ft.	$163	$261	$98	60%
200,000-299,999 sf	1,000 sq. ft.	$146	$261	$115	79%
300,000-399,999 sf	1,000 sq. ft.	$136	$261	$125	92%
400,000-499,999 sf	1,000 sq. ft.	$129	$261	$132	102%
500,000-599,999 sf	1,000 sq. ft.	$124	$261	$137	110%
600,000-999,999 sf	1,000 sq. ft.	$112	$261	$149	133%
1,000,000 sf +	1,000 sq. ft.	$104	$261	$157	151%
Office					
Less than 50,000 sf	1,000 sq. ft.	$74	$128	$54	73%
50,000-99,999 sf	1,000 sq. ft.	$71	$128	$57	80%
100,000-199,999 sf	1,000 sq. ft.	$67	$128	$61	91%
200,000-499,999 sf	1,000 sq. ft.	$64	$128	$64	100%
500,000 sf +	1,000 sq. ft.	$62	$128	$66	106%
Public/Institutional					
Elementary School	1,000 sq. ft.	$122	$77	-$45	-37%
High School	1,000 sq. ft.	$124	$77	-$47	-38%
Church	1,000 sq. ft.	$53	$77	$24	45%
Hospital	1,000 sq. ft.	$133	$77	-$56	-42%
Nursing Home	1,000 sq. ft.	$97	$77	-$20	-21%
Manufacturing/Industrial	1,000 sq. ft.	$47	$48	$1	2%
Warehouse	1,000 sq. ft.	$26	$33	$7	27%
Mini-Warehouse	1,000 sq. ft.	$26	$16	-$10	-38%

Source: Current fee from City of Atlanta; potential fee from Table 50.

POLICE

The Atlanta Police Department provides uniformed law enforcement patrol, investigations, communications and 911 communications. Law enforcement services to City residents and businesses are supported by central facilities, six patrol precincts, training, mini-precincts, airport and other facilities. Each precinct station serves as a base for the City's police patrol zones. The City's 911 calls are handled by the Police Department through the 911 Communications Center. As with the other impact fees, the current police fee was implemented in 1993. This chapter calculates the potential police impact fees that could be charged based on current data to maintain the existing level of service.

Service Area

Like the fire impact fee, the police impact fee is structured as city-wide service area. This is appropriate, since public safety services are provided on a system-wide basis. Police services are provided by officers on patrol, regardless of the location of the police headquarters or police substations. Consequently, no change to the police impact fee service area is recommended in this update.

Methodology

The methodology used for the current police impact fees is a standards-based approach, with an adopted level of service (LOS) of 660 square feet per 1,000 functional population. At the time of the 1993 study, the City was planning to use CDBG funds to construct three planned precinct headquarters, and had no concrete plans for any other police capital improvements. Consequently, the police fees were designed to recoup existing excess capacity. The adopted LOS was the projected LOS for 2010, based on existing station square footage and growth projections. Consistent with the recoupment approach, the value of equipment was based on original, depreciated costs rather than replacement costs.

Since the fees were adopted, the City has built a new police headquarters and purchased a new radio system. While these new facilities likely have excess capacity to serve future development, they were funded with debt and have not been fully paid for. While the updated police fees could be structured as recoupment fees, this approach is not necessary because impact fee funds could be used to retire outstanding debt on facilities with excess capacity to accommodate growth. This update bases the fees, in part, on a future LOS for central facilities that takes into consideration excess capacity in existing facilities that have been funded with debt and the existing LOS for precinct stations.

Service Units

As with fire, the police fees are based on the functional population approach. The functional population multipliers for the various land use types and a detailed discussion of the methodology used in developing the multipliers are presented in Appendix C. The proposed functional population multipliers for developing the updated impact fee calculations are summarized in Table 73, Appendix C.

Capital Costs

The City's patrol functions operate from six zone precincts and several mini-precincts. The patrol function is supported by central facilities (police headquarters and annex) and ancillary facilities. The existing level of service is based on City-owned facilities. Leased facilities do not represent a capital investment by the City, and are therefore excluded from the impact fee calculations. An inventory of the existing City-owned police facilities is shown in Table 52. Because there have been no recent police land acquisitions, land values are based on the cost per acre for fire station sites. Building values are based on the City's current insured values.

Table 52. Police Building Inventory

Building/Usage	Address	Acres	Land Value	Building Sq. Ft.	Building Insured Value
Public Safety Building*	226 Peachtree Street SW	4.27	$2,019,147	176,940	$54,496,152
Public Safety Annex	3493 Hollowell Pkwy NW	7.10	$3,357,364	184,765	$30,795,840
Police Academy	180 Southside Pkwy	n/a	n/a	58,036	$10,407,348
Subtotal, Central Facilities		11.37	$5,376,511	419,741	$95,699,340
Zone 1 Precinct	2315 Hollowell Pkwy NW	0.75	$354,651	10,578	$1,303,458
Zone 2 Mini Precinct/Fire Station 22*	817 Hollywood Rd NW	0.17	$80,388	1,000	$199,352
Zone 3 Precinct	880 Cherokee Ave SE	n/a	n/a	4,737	$569,818
Zone 3 Mini-Precinct/Birdine Nhood Ctr*	215 Lakewood Way	0.57	$269,535	8,600	$1,628,558
Zone 4 Precinct	1125 Cascade Circle SW	n/a	n/a	4,270	$784,791
Zone 6 Precinct	2025 Hosea Williams Dr	0.33	$156,047	9,000	$1,505,793
Mini Precinct/Fire Station 28*	1925 Hollywood Rd NW	0.16	$75,659	1,000	$259,090
Subtotal, Precincts		1.98	$936,280	39,185	$6,250,860
Detective Unit/Adamsville Rec Ctr*	3201 MLK, Jr. Drive SW	0.14	$66,202	2,800	$264,335
Training Facility/Public Works*	1500 Key Road	n/a	n/a	14,122	$1,000,802
Subtotal, Ancillary Facilities		0.14	$66,202	16,922	$1,265,137
Total, City-Owned Police Facilities		13.49	$6,378,993	475,848	$103,215,337

* values shown represent the portion of shared facilities attributable to police based on square footage occupied by police

Source: Facilities and acres from Atlanta Police Department, December 5, 2016; land value based on acres and cost per acre from Table 42; building square feet and insured values from Atlanta Risk Management, January 27, 2017.

In addition to buildings, the City also owns major equipment used to support police functions, including the radio system and other equipment with a useful life of at least 10 years, as shown in Table 53.

Table 53. Police Equipment Cost

Equipment Type	Replacement Cost
Public Safety Radio System	$41,907,904
Helicoptors	$2,993,837
Heavy Vehicles	$1,894,266
Mobile Radios	$360,759
Other Equipment with 10-Year Life	$1,797,753
Other Vehicles and Equipment	$7,046,615
Total Equipment	$48,954,519

Source: Radio system value based on insured value from Atlanta Risk Management, January 27, 2917; other equipment based on original cost from City fixed asset records, November 16, 2016.

Level of Service

The current police level of service is expressed in terms of building square feet per 1,000 functional population. The level of service (LOS) used in the 1993 study was based on the projected LOS for 2010, because it was determined at the time of the study that police capital facilities were already in place to serve projected community needs to the year 2010. As a result, the prior study used an LOS of 660 square feet per 1,000 functional population, even though the LOS in 1992 was 787 square feet per 1,000 functional population.

This update continues to use building square feet in the LOS measure. However, this update utilizes equivalent square footage rather than physical square footage, to take into account for the cost of land and equipment. The value of these components is converted into equivalent square feet by dividing the replacement value of the component by the average building cost, which is $217 per square foot, as shown in Table 54.

Table 54. Police Building Cost per Square Foot

Police Building Replacement Value	$103,215,337
÷ Police Building Square Feet	475,848
Police Building Cost per Square Foot	$217

Source: Total value and square feet from Table 52.

Separate levels of service analyses are conducted for central facilities and precinct/ancillary facilities. Central facilities include the Police Department headquarters in the Public Safety Building, the Public Safety Annex, and the radio system. The police headquarters occupies four floors of the City's new five-story Public Safety facility in downtown Atlanta. These central facilities have all recently been expanded or improved, and have capacity to serve a significant amount of future development. Consequently, the level of service for central facilities is based on 2040 functional population. As shown in Table 55, the central facility level of service is 0.646 equivalent square feet per functional population.

Table 55. Police Central Facility Level of Service

Central Facility Building Replacement Value	$95,699,340
Central Facility Land Replacement Value	$5,376,511
Radio System Replacement Value	$41,907,904
Total Central Facility Replacement Value	$142,983,755
÷ Building Cost per Square Foot	$217
Central Facility Equivalent Square Feet	658,911
÷ City-Wide Functional Population, 2040	1,019,254
Central Facility Equivalent Sq. Ft. per Functional Population	0.646

Source: Replacement values from Table 52 for buildings and land and Table 53 for radio system; building cost per square foot from Table 54; 2040 city-wide functional population from Table 74.

In contrast, the City has identified the need to construct additional precinct stations in the coming decades to achieve industry standards and optimize operational efficiencies, and will also need to expand ancillary facilities and equipment as the city grows. For this reason, the level of service for non-central facilities is based on 2017 functional population. As shown in Table 56, the non-central facility level of service is 0.093 equivalent square feet per functional population.

Table 56. Police Non-Central Facility Level of Service

Precinct Building and Land Replacement Value	$7,187,140
Ancillary Facility Building Replacement Value	$1,331,339
Support Vehicles and Equipment Replacement Value	$7,046,615
Total Non-Central Facility Replacement Value	$15,565,094
÷ Precinct Building Cost per Square Foot	$217
Non-Central Facility Equivalent Square Feet	71,729
÷ City-Wide Functional Population, 2017	773,959
Non-Central Facility Equivalent Sq. Ft. per Functional Population	0.093

Source: Replacement values from Table 52 for buildings and land and Table 53 for radio system; building cost per square foot from Table 54; 2040 city-wide functional population from Table 74.

Cost per Service Unit

The cost per service unit is based on the impact fee LOS, which the sum of the current LOS for precincts and ancillary facilities and equipment, and the future LOS for central facilities. As shown in Table 57, multiplying the combined level of service (equivalent square feet per functional population) by the cost per square foot yields the police cost per service unit of $160 per functional population.

Table 57. Police Cost per Service Unit

Central Facility Equivalent Sq. Ft. per Functional Population	0.646
Non-Central Facility Equivalent Sq. Ft. per Functional Population	0.093
Total Equivalent Sq. Ft. per Functional Population	0.739
x Building Cost per Square Foot	$217
Cost per Functional Population	$160

Source: Equivalent square feet/ functional population from Table 55 and Table 56; building cost per square foot from Table 54.

Net Cost per Service Unit

The City has traditionally funded police facilities through a mix of general fund revenue, long-term and short-term debt, capital leases and grant funds. More recently, the City has funded the construction and acquisition of police facilities through the Atlanta Public Safety Authority, which issues bonds that are repaid by the City through lease arrangements. Additional offsets are not necessary for grants, since grant funds are limited to available Federal or State funding, such as Community Development Block Grants, and the grant funding is not dedicated for growth-related improvements.

An analysis of the City's outstanding debt is presented in Appendix E. Based on the analysis of debt-funded expenditures, the amount of debt attributed to Police Department projects was determined. The City has issued revenue bonds through the Atlanta Public Safety Authority to fund the new public safety facility, public safety radio upgrade and public safety annex. A straight-forward method that ensures that new development is not required to pay for existing facilities, through funds used for debt retirement, as well as new facilities through impact fees, is to calculate the credit by dividing the outstanding debt by existing city-wide functional population. This puts new development on the same footing as existing development in terms of the share of capital costs funded through debt. As shown in Table 58, the debt credit for the outstanding police-related debt is $74 per service unit.

Table 58. Police Debt Credit

Outstanding Police Facility Debt	$56,959,655
÷ City-Wide Functional Population	773,959
Debt Credit per Functional Population	$74

Source: Outstanding debt from Table 77, Appendix E; 2017 functional population from Table 74, Appendix C.

The police net cost per service unit is derived by reducing the cost per service unit by the debt credit. As shown in Table 59, the net cost is $86 per functional population.

Table 59. Police Net Cost per Service Unit

Cost per Functional Population	$160
– Debt Credit per Functional Population	-$74
Net Cost per Functional Population	$86

Source: Cost per functional population from Table 57; debt credit from Table 58.

Potential Fee Schedule

The maximum police impact fees that can be adopted by the City based on this study are derived by multiplying the functional population estimates for each land use by the net cost per functional population. The potential impact fee schedule is shown in Table 60.

Table 60. Potential Police Impact Fee Schedule

Land Use	Unit	Functional Pop./Unit	Net Cost/ Func. Pop.	Net Cost/ Unit
Single-Family, Detached (Avg.)	Dwelling	1.709	$86	$147
Less than 1,500 sf	Dwelling	1.581	$86	$136
1,500 to 2,499 sf	Dwelling	1.702	$86	$146
2,500 sf or greater	Dwelling	1.883	$86	$162
Multi-Family (Avg.)	Dwelling	1.159	$86	$100
Less than 750 sf	Dwelling	1.045	$86	$90
750 to 1,499 sf	Dwelling	1.199	$86	$103
1,500 sf or greater	Dwelling	1.313	$86	$113
Hotel/Motel	Room	0.785	$86	$68
Shopping Center/Commercial	1,000 sq. ft.	1.802	$86	$155
Office	1,000 sq. ft.	0.880	$86	$76
Public/Institutional	1,000 sq. ft.	0.530	$86	$46
Industrial	1,000 sq. ft.	0.328	$86	$28
Warehouse	1,000 sq. ft.	0.228	$86	$20
Mini-Warehouse	1,000 sq. ft.	0.107	$86	$9

Source: Functional population per unit from Table 73, Appendix C; net cost per functional population from Table 59.

Comparative Fees

The police impact fees calculated in this report are compared with the current fees in Table 61. For residential, commercial and office uses, the potential fee is generally more than double the current fee, although fees for public/institutional and industrial uses would increase more modestly. The rate of increase should not be unexpected, given that the City's impact fees have not been updated since they were implemented in 1993 – almost a quarter century ago. The variation in the potential increase by land use type reflects the change in functional population multipliers since the last study was conducted, as well as the use of more general land use categories.

Table 61. Comparative Police Impact Fees

Land Use Type	Unit	Current Fee	Potential Fee	Change	Percent Change
Single-Family, Detached (Avg.)	Dwelling	$33	$147	$114	345%
Less than 1,500 sf	Dwelling	$33	$136	$103	312%
1,500 to 2,499 sf	Dwelling	$33	$146	$113	342%
2,500 sf or greater	Dwelling	$33	$162	$129	391%
Multi-Family (Avg.)	Dwelling	$23	$100	$77	335%
Less than 750 sf	Dwelling	$23	$90	$67	291%
750 to 1,499 sf	Dwelling	$23	$103	$80	348%
1,500 sf or greater	Dwelling	$23	$113	$90	391%
Hotel/Motel	Room	$15	$68	$53	353%
Shopping Ctr/Commercial					
Less than 100,000 sf	1,000 sq. ft.	$57	$155	$98	172%
100,000-199,999 sf	1,000 sq. ft.	$47	$155	$108	230%
200,000-299,999 sf	1,000 sq. ft.	$42	$155	$113	269%
300,000-399,999 sf	1,000 sq. ft.	$39	$155	$116	297%
400,000-499,999 sf	1,000 sq. ft.	$37	$155	$118	319%
500,000-599,999 sf	1,000 sq. ft.	$35	$155	$120	343%
600,000-999,999 sf	1,000 sq. ft.	$32	$155	$123	384%
1,000,000 sf +	1,000 sq. ft.	$30	$155	$125	417%
Office					
Less than 50,000 sf	1,000 sq. ft.	$21	$76	$55	262%
50,000-99,999 sf	1,000 sq. ft.	$20	$76	$56	280%
100,000-199,999 sf	1,000 sq. ft.	$19	$76	$57	300%
200,000-499,999 sf	1,000 sq. ft.	$18	$76	$58	322%
500,000 sf +	1,000 sq. ft.	$18	$76	$58	322%
Public/Institutional					
Elementary School	1,000 sq. ft.	$35	$46	$11	31%
High School	1,000 sq. ft.	$36	$46	$10	28%
Church	1,000 sq. ft.	$15	$46	$31	207%
Hospital	1,000 sq. ft.	$38	$46	$8	21%
Nursing Home	1,000 sq. ft.	$28	$46	$18	64%
Manufacturing/Industrial	1,000 sq. ft.	$14	$28	$14	100%
Warehouse	1,000 sq. ft.	$8	$20	$12	150%
Mini-Warehouse	1,000 sq. ft.	$8	$9	$1	13%

Source: Current fee from City of Atlanta; potential fee from Table 60.

APPENDIX A: EXISTING AND PROJECTED LAND USE

This appendix presents existing and projected population, dwelling units by housing type, and employment and nonresidential square footage by land use type. Data are derived from the U.S. Census for population and housing, and from Atlanta Regional Commission (ARC) estimates for 2015 and projections for 2040. Current 2017 estimates are based on straight-line interpolations between 2015 and 2040.

2010 Census data is used as a baseline to establish the percentage of census tract population within the City of Atlanta, as well as occupancy rates and single-family percentages by census tract. Forecasts of population and housing are based are ARC projections. Total housing units for 2015 and 2040 by census tract are based on number of households from ARC multiplied by occupancy rates and the percentage of units in Atlanta from the 2010 census. Total units are split between single-family and multi-family based on the single-family percentage from the 2010 census. The detailed data are presented later in this appendix. Table 62 summarizes existing and projected population and housing units the three park service areas and the entire city from 2010 to 2040.

Table 62. Population and Housing Units, 2010-2040

	Park Service Areas			City-Wide
	Northside	Southside	Westside	Total
Population, 2010	167,742	126,649	125,612	420,003
Population, 2015	170,584	129,961	131,347	431,892
Population, 2017	176,550	135,163	135,069	446,782
Population, 2040	245,164	194,992	177,873	618,029
Housing Units, 2010	97,388	64,529	62,656	224,573
Housing Units, 2015	109,754	69,344	70,416	249,514
Housing Units, 2017	113,800	72,672	72,593	259,065
Housing Units, 2040	160,324	110,945	97,628	368,897
Single-Family Units, 2010	32,106	29,446	33,675	95,227
Single-Family Units, 2015	35,895	31,041	38,278	105,214
Single-Family Units, 2017	37,239	32,045	39,410	108,694
Single-Family Units, 2040	52,701	43,587	52,429	148,717
Multi-Family Units, 2010	65,282	35,083	28,981	129,346
Multi-Family Units, 2015	73,859	38,303	32,138	144,300
Multi-Family Units, 2017	76,561	40,627	33,183	150,371
Multi-Family Units, 2040	107,623	67,358	45,199	220,180

Source: 2010 data from Table 64 in Appendix A; 2015 and 2040 data from Table 65 in Appendix A; 2017 is interpolation between 2015 and 2040; single-family and multi-family based on percent single-family from Table 64.

Estimates and projections of nonresidential employment by employment type and census tract have been compiled for the Atlanta metropolitan area by the Atlanta Regional Commission (ARC). The employment categories used in the ARC estimates have been categorized into the five proposed nonresidential land use categories, as follows: retail/commercial (retail, entertainment, hotel/restaurant, and service), office (information technology, finance, real estate, professional, management, and administration), industrial (agriculture, mining, utilities, construction, and textiles), warehouse (wholesale and warehouse), and public/institutional (education, health, and government).

The employment estimates are used to derive the estimate of square feet of nonresidential land uses based on employee density ratios. The estimated and forecasted employees and building square feet by land use type for each park service fee area are summarized in Table 63.

Table 63. Nonresidential Employment and Square Feet, 2015-2040

Nonresidential Land Use Type	Park Service Areas			City-Wide
	Northside	Southside	Westside	Total
Retail/Commercial Employees, 2015	65,767	32,454	9,153	107,374
Office Employees, 2015	112,523	51,561	8,929	173,013
Public/Institutional Employees, 2015	36,270	70,662	14,457	121,389
Industrial Employees, 2015	13,681	10,421	6,606	30,708
Warehouse Employees, 2015	17,447	18,867	6,934	43,248
Total Employment, 2015	245,688	183,965	46,079	475,732
Retail/Commercial Employees, 2040	78,052	39,463	15,171	132,686
Office Employees, 2040	150,784	63,368	12,448	226,600
Public/Institutional Employees, 2040	53,970	86,316	21,383	161,669
Industrial Employees, 2040	17,569	11,015	7,702	36,286
Warehouse Employees, 2040	19,743	19,635	8,262	47,640
Total Employment, 2040	320,118	219,797	64,966	604,881
Retail/Commercial Employees/1,000 Sq. Ft.	0.84	0.84	0.84	0.84
Office Employees/1,000 Sq. Ft.	2.12	2.12	2.12	2.12
Public/Institutional Employees/1,000 Sq. Ft.	0.91	0.91	0.91	0.91
Industrial Employees/1,000 Sq. Ft.	0.80	0.80	0.80	0.80
Warehouse Employees/1,000 Sq. Ft.	0.49	0.49	0.49	0.49
Retail/Commercial Sq. Ft. (1,000s), 2015	78,294	38,636	10,896	127,826
Office Sq. Ft. (1,000s), 2015	53,077	24,321	4,212	81,610
Public/Institutional Sq. Ft. (1,000s), 2015	39,857	77,651	15,887	133,395
Industrial Sq. Ft. (1,000s), 2015	17,101	13,026	8,258	38,385
Warehouse Sq. Ft. (1,000s), 2015	35,606	38,504	14,151	88,261
Total Nonresidential Sq. Ft. (1,000s), 2015	223,935	192,138	53,404	469,477
Retail/Commercial Sq. Ft. (1,000s), 2017	79,464	39,304	11,469	130,237
Office Sq. Ft. (1,000s), 2017	54,521	24,767	4,345	83,633
Public/Institutional Sq. Ft. (1,000s), 2017	41,413	79,027	16,496	136,936
Industrial Sq. Ft. (1,000s), 2017	17,490	13,085	8,368	38,943
Warehouse Sq. Ft. (1,000s), 2017	35,981	38,629	14,368	88,978
Total Nonresidential Sq. Ft. (1,000s), 2017	228,869	194,812	55,046	478,727
Retail/Commercial Sq. Ft. (1,000s), 2040	92,919	46,980	18,061	157,960
Office Sq. Ft. (1,000s), 2040	71,125	29,891	5,872	106,888
Public/Institutional Sq. Ft. (1,000s), 2040	59,308	94,853	23,498	177,659
Industrial Sq. Ft. (1,000s), 2040	21,961	13,769	9,628	45,358
Warehouse Sq. Ft. (1,000s), 2040	40,292	40,071	16,861	97,224
Total Nonresidential Sq. Ft. (1,000s), 2040	285,605	225,564	73,920	585,089

Source: Employment by land use category and service area for 2015 and 2040 from Table 66 and Table 67, Appendix A; employees per 1,000 sq. ft. from U.S. Department of Energy, *Commercial Buildings Energy Consumption Survey*, 2012 (released February 2015, revised May 2016); 2017 square feet interpolated.

Table 64. Population and Housing by Census Tract, 2010

Census Tract	City Population	City Share of Pop.	Total Units	Percent Single-Family	House-holds	Occup. Rate
Census Tract 1, Fulton Co	4,413	100.00%	2,012	73.49%	1,893	94.09%
Census Tract 2, Fulton Co	5,449	100.00%	2,912	51.25%	2,686	92.24%
Census Tract 4, Fulton Co	1,715	100.00%	1,175	18.22%	998	84.94%
Census Tract 5, Fulton Co	4,687	100.00%	3,417	40.76%	2,498	73.11%
Census Tract 6, Fulton Co	5,203	100.00%	2,814	48.20%	2,315	82.27%
Census Tract 10.01, Fulton Co	2,272	100.00%	867	20.16%	748	86.27%
Census Tract 10.02, Fulton Co	6,315	100.00%	608	20.16%	341	56.09%
Census Tract 11, Fulton Co	3,633	100.00%	3,458	1.29%	2,664	77.04%
Census Tract 12.01, Fulton Co	3,479	100.00%	2,642	7.24%	2,361	89.36%
Census Tract 12.02, Fulton Co	3,937	100.00%	3,299	7.24%	2,826	85.66%
Census Tract 13, Fulton Co	4,073	100.00%	2,505	16.94%	2,257	90.10%
Census Tract 14, Fulton Co	2,182	100.00%	1,489	20.60%	1,409	94.63%
Census Tract 15, Fulton Co	4,326	100.00%	2,898	22.61%	2,553	88.10%
Census Tract 86.01, Fulton Co	4,917	100.00%	2,165	59.89%	1,592	73.53%
Census Tract 86.02, Fulton Co	1,285	100.00%	563	26.19%	489	86.86%
Census Tract 87 (part), Fulton Co	4,372	100.00%	2,244	49.37%	1,837	81.86%
Census Tract 88, Fulton Co	4,578	100.00%	2,265	59.43%	1,946	85.92%
Census Tract 89.02, Fulton Co	5,765	100.00%	3,947	32.30%	3,267	82.77%
Census Tract 89.03, Fulton Co	2,372	100.00%	1,085	20.90%	860	79.26%
Census Tract 89.04, Fulton Co	4,883	100.00%	2,726	20.90%	2,490	91.34%
Census Tract 90, Fulton Co	4,417	100.00%	1,987	66.78%	1,880	94.61%
Census Tract 91.01, Fulton Co	4,248	100.00%	3,241	14.20%	2,791	86.12%
Census Tract 91.02, Fulton Co	3,677	100.00%	2,511	14.20%	2,146	85.46%
Census Tract 92, Fulton Co	6,468	100.00%	4,033	32.77%	3,609	89.49%
Census Tract 93, Fulton Co	4,533	100.00%	2,704	39.42%	2,479	91.68%
Census Tract 94.02, Fulton Co	4,073	100.00%	2,927	3.73%	1,953	66.72%
Census Tract 94.03, Fulton Co	4,625	100.00%	3,233	14.11%	3,009	93.07%
Census Tract 94.04, Fulton Co	4,207	100.00%	2,671	14.11%	2,400	89.85%
Census Tract 95.01, Fulton Co	4,015	100.00%	2,058	31.47%	1,807	87.80%
Census Tract 95.02, Fulton Co	3,869	100.00%	2,970	31.47%	2,461	82.86%
Census Tract 96.01, Fulton Co	2,438	100.00%	1,731	24.07%	1,482	85.62%
Census Tract 96.02, Fulton Co	4,461	100.00%	3,124	24.07%	2,584	82.71%
Census Tract 96.03, Fulton Co	4,388	100.00%	2,986	24.07%	2,529	84.70%
Census Tract 97, Fulton Co	3,534	100.00%	1,547	61.84%	1,419	91.73%
Census Tract 98.01, Fulton Co	4,680	100.00%	1,999	68.96%	1,900	95.05%
Census Tract 98.02 (part), Fulton Co	4,020	97.08%	1,979	68.96%	1,806	91.26%
Census Tract 99, Fulton Co	4,993	100.00%	2,428	53.33%	2,213	91.14%
Census Tract 100.01 (part), Fulton Co	4,471	99.64%	2,559	48.47%	2,226	86.99%
Census Tract 100.02 (part), Fulton Co	6,027	86.09%	3,402	48.47%	2,793	82.10%
Census Tract 101.14 (part), Fulton Co	169	2.76%	64	87.65%	58	90.63%
Census Tract 102.06 (part), Fulton Co	13	0.26%	9	100.00%	7	77.78%
Census Tract 102.11 (part), Fulton Co	1,125	26.67%	387	97.95%	373	96.38%
Census Tract 201 (part), Dekalb Co	1,492	100.00%	572	84.72%	538	94.06%
Census Tract 202, Dekalb Co	1,943	100.00%	1,175	24.11%	1,051	89.45%
Census Tract 211.02 (part), Dekalb Co	0	0.00%	0	48.47%	0	0.00%
Subtotal, Northside Service Area	167,742		97,388		83,544	

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Table 64. Population and Housing by Census Tract, 2010 (continued)

Census Tract	City Population	City Share of Pop.	Total Units	Percent Single-Family	House-holds	Occup. Rate
Census Tract 16, Fulton Co	2,072	100.00%	1,392	25.62%	1,278	91.81%
Census Tract 17, Fulton Co	2,800	100.00%	1,630	25.00%	1,421	87.18%
Census Tract 18, Fulton Co	3,927	100.00%	3,002	3.74%	2,707	90.17%
Census Tract 19, Fulton Co	4,636	100.00%	2,212	3.10%	1,351	61.08%
Census Tract 21, Fulton Co	2,451	100.00%	1,282	4.93%	883	68.88%
Census Tract 28, Fulton Co	3,547	100.00%	1,579	2.05%	873	55.29%
Census Tract 29, Fulton Co	2,523	100.00%	1,564	28.17%	1,282	81.97%
Census Tract 30, Fulton Co	2,870	100.00%	1,755	41.65%	1,616	92.08%
Census Tract 31, Fulton Co	1,599	100.00%	840	69.18%	750	89.29%
Census Tract 32, Fulton Co	2,015	100.00%	1,459	42.75%	1,205	82.59%
Census Tract 35, Fulton Co	2,241	100.00%	914	0.00%	767	83.92%
Census Tract 44, Fulton Co	2,238	100.00%	1,134	13.85%	970	85.54%
Census Tract 48, Fulton Co	936	100.00%	627	5.85%	579	92.34%
Census Tract 49, Fulton Co	2,481	100.00%	1,192	61.37%	1,080	90.60%
Census Tract 50, Fulton Co	1,899	100.00%	1,022	49.76%	890	87.08%
Census Tract 52, Fulton Co	4,094	100.00%	2,158	70.53%	1,937	89.76%
Census Tract 53, Fulton Co	3,443	100.00%	1,749	72.19%	1,554	88.85%
Census Tract 55.01, Fulton Co	2,307	100.00%	1,188	55.77%	857	72.14%
Census Tract 55.02, Fulton Co	2,556	100.00%	1,327	59.30%	1,094	82.44%
Census Tract 57, Fulton Co	1,544	100.00%	907	56.72%	644	71.00%
Census Tract 58, Fulton Co	1,412	100.00%	729	60.39%	508	69.68%
Census Tract 63, Fulton Co	1,924	100.00%	1,116	63.28%	715	64.07%
Census Tract 64, Fulton Co	1,346	100.00%	565	29.36%	430	76.11%
Census Tract 65, Fulton Co	3,678	100.00%	1,694	86.51%	1,404	82.88%
Census Tract 67, Fulton Co	3,570	100.00%	1,976	60.21%	1,540	77.94%
Census Tract 68.01, Fulton Co	2,418	100.00%	18	100.00%	8	44.44%
Census Tract 68.02, Fulton Co	1,958	100.00%	525	21.33%	504	96.00%
Census Tract 69, Fulton Co	3,166	100.00%	1,530	57.60%	1,270	83.01%
Census Tract 70.01, Fulton Co	3,943	100.00%	1,736	77.30%	1,352	77.88%
Census Tract 70.02, Fulton Co	2,975	100.00%	1,277	60.91%	988	77.37%
Census Tract 71, Fulton Co	2,145	100.00%	997	53.52%	791	79.34%
Census Tract 72 (part), Fulton Co	1,706	100.00%	908	41.61%	576	63.44%
Census Tract 73 (part), Fulton Co	6,683	100.00%	3,008	45.43%	2,511	83.48%
Census Tract 74, Fulton Co	3,326	100.00%	1,435	36.96%	1,203	83.83%
Census Tract 75, Fulton Co	3,511	100.00%	1,903	39.30%	1,576	82.82%
Census Tract 108 (part), Fulton Co	0	0.00%	0	0.00%	0	0.00%
Census Tract 119, Fulton Co	2,934	37.83%	1,788	7.65%	1,509	84.40%
Census Tract 120, Fulton Co	2,918	36.26%	1,603	23.66%	1,273	79.41%
Census Tract 9800 (part), Fulton Co	0	100.00%	0	0.00%	0	0.00%
Census Tract 203, Dekalb Co	3,574	100.00%	1,623	67.30%	1,518	93.53%
Census Tract 204, Dekalb Co	2,376	100.00%	1,309	45.04%	1,222	93.35%
Census Tract 205, Dekalb Co	2,802	100.00%	1,738	66.62%	1,425	81.99%
Census Tract 206, Dekalb Co	2,000	100.00%	969	37.63%	865	89.27%
Census Tract 207, Dekalb Co	2,032	100.00%	1,133	51.39%	939	82.88%
Census Tract 208.01, Dekalb Co	2,444	100.00%	1,147	91.60%	1,045	91.11%
Census Tract 208.02, Dekalb Co	3,945	100.00%	1,926	80.71%	1,730	89.82%
Census Tract 209, Dekalb Co	5,402	100.00%	2,848	77.47%	2,500	87.78%
Census Tract 224.01 (part), Dekalb Co	0	0.00%	0	0.00%	0	0.00%
Census Tract 224.03 (part), Dekalb Co	0	0.00%	0	0.00%	0	0.00%
Census Tract 237 (part), Dekalb Co	282	11.27%	95	80.71%	91	95.79%
Subtotal, Southside Service Area	126,649		64,529		53,231	

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Table 64. Population and Housing by Census Tract, 2010 (continued)

Census Tract	City Population	City Share of Pop.	Total Units	Percent Single-Family	House-holds	Occup. Rate
Census Tract 7, Fulton Co	2,794	100.00%	401	85.86%	338	84.29%
Census Tract 23, Fulton Co	1,476	100.00%	1,282	36.36%	618	48.21%
Census Tract 24, Fulton Co	2,273	100.00%	1,331	77.53%	790	59.35%
Census Tract 25, Fulton Co	1,904	100.00%	1,237	39.24%	779	62.97%
Census Tract 26, Fulton Co	914	100.00%	595	16.69%	421	70.76%
Census Tract 36, Fulton Co	1,207	100.00%	922	3.34%	699	75.81%
Census Tract 37, Fulton Co	0	100.00%	0	12.90%	0	57.62%
Census Tract 38, Fulton Co	3,967	100.00%	361	12.90%	208	57.62%
Census Tract 39, Fulton Co	1,331	100.00%	863	48.30%	551	63.85%
Census Tract 40, Fulton Co	2,231	100.00%	1,158	86.11%	870	75.13%
Census Tract 41, Fulton Co	1,862	100.00%	1,066	52.90%	723	67.82%
Census Tract 42, Fulton Co	2,212	100.00%	1,489	12.70%	1,255	84.28%
Census Tract 43, Fulton Co	2,421	100.00%	638	24.79%	557	87.30%
Census Tract 60, Fulton Co	3,390	100.00%	1,675	65.28%	1,338	79.88%
Census Tract 61, Fulton Co	3,471	100.00%	1,722	82.29%	1,317	76.48%
Census Tract 62, Fulton Co	1,311	100.00%	684	66.78%	446	65.20%
Census Tract 66.01, Fulton Co	1,889	100.00%	969	74.66%	758	78.22%
Census Tract 66.02, Fulton Co	1,129	100.00%	574	51.95%	380	66.20%
Census Tract 76.02, Fulton Co	2,418	100.00%	1,071	67.57%	925	86.37%
Census Tract 76.03, Fulton Co	4,296	100.00%	2,440	11.88%	1,984	81.31%
Census Tract 76.04, Fulton Co	2,730	100.00%	1,444	11.88%	1,165	80.68%
Census Tract 77.03 (part), Fulton Co	3,621	93.78%	1,558	56.78%	1,418	91.01%
Census Tract 77.04 (part), Fulton Co	4,551	100.00%	2,023	56.78%	1,733	85.66%
Census Tract 77.05, Fulton Co	3,628	100.00%	2,127	42.71%	1,781	83.73%
Census Tract 77.06 (part), Fulton Co	7,669	90.97%	3,802	42.71%	3,334	87.69%
Census Tract 78.02 (part), Fulton Co	5,668	69.95%	2,622	97.73%	2,174	82.91%
Census Tract 78.05 (part), Fulton Co	1,623	47.06%	785	54.01%	658	83.82%
Census Tract 78.06 (part), Fulton Co	5,474	100.00%	2,330	71.27%	2,086	89.53%
Census Tract 78.07, Fulton Co	3,116	100.00%	1,330	58.85%	998	75.04%
Census Tract 78.08, Fulton Co	4,306	100.00%	1,786	12.51%	1,526	85.44%
Census Tract 79 (part), Fulton Co	4,289	91.78%	2,121	91.36%	1,879	88.59%
Census Tract 80, Fulton Co	4,875	100.00%	2,269	86.47%	1,869	82.37%
Census Tract 81.01, Fulton Co	977	100.00%	447	98.09%	391	87.47%
Census Tract 81.02, Fulton Co	5,925	100.00%	3,327	35.62%	2,544	76.47%
Census Tract 82.01, Fulton Co	6,083	100.00%	2,915	82.43%	2,584	88.64%
Census Tract 82.02 (part), Fulton Co	1,893	100.00%	883	49.23%	702	79.50%
Census Tract 83.01, Fulton Co	2,903	100.00%	1,591	50.22%	1,046	65.74%
Census Tract 83.02, Fulton Co	2,000	100.00%	1,220	60.48%	691	56.64%
Census Tract 84, Fulton Co	3,181	100.00%	2,017	35.89%	1,185	58.75%
Census Tract 85, Fulton Co	3,774	100.00%	1,938	61.34%	1,333	68.78%
Census Tract 103.03 (part), Fulton Co	2,175	54.79%	922	100.00%	820	88.94%
Census Tract 118, Fulton Co	2,655	62.21%	2,721	26.47%	1,493	54.87%
Subtotal, Westside Service Area	125,612		62,656		48,367	
Total, City-Wide	420,003		224,573		185,142	

Source: City population, total units and households from 2010 U.S. Census for City of Atlanta; City share of population is ratio of City population to total tract population from Atlanta Regional Commission (ARC); percent single-family is share of total units that are single-family detached, mobile home or RV/boat/van from 2000 U.S. Census for City of Atlanta; occupancy rate is ratio of households to total units.

Table 65. Population and Housing Units by Census Tracts, 2015-2040

	Total Population		Total Units		Single-Fam. Units		Multi-Fam. Units	
Census Tract	2015	2040	2015	2040	2015	2040	2015	2040
Census Tract 1, Fulton Co	3,693	4,438	2,072	2,513	1,523	1,847	549	666
Census Tract 2, Fulton Co	4,871	5,774	3,058	3,698	1,567	1,895	1,491	1,803
Census Tract 4, Fulton Co	1,982	4,011	1,498	3,297	273	601	1,225	2,696
Census Tract 5, Fulton Co	5,047	12,014	4,212	10,080	1,717	4,109	2,495	5,971
Census Tract 6, Fulton Co	5,496	9,243	3,283	5,560	1,582	2,680	1,701	2,880
Census Tract 10.01, Fulton Co	2,564	4,067	1,360	2,232	274	450	1,086	1,782
Census Tract 10.02, Fulton Co	9,298	14,320	1,027	1,434	207	289	820	1,145
Census Tract 11, Fulton Co	4,329	5,269	3,718	4,463	48	58	3,670	4,405
Census Tract 12.01, Fulton Co	4,064	5,863	3,215	4,717	233	342	2,982	4,375
Census Tract 12.02, Fulton Co	4,164	5,365	3,828	5,007	277	363	3,551	4,644
Census Tract 13, Fulton Co	3,728	5,081	2,740	3,781	464	641	2,276	3,140
Census Tract 14, Fulton Co	2,126	2,664	1,600	2,013	330	415	1,270	1,598
Census Tract 15, Fulton Co	3,915	4,603	3,126	3,737	707	845	2,419	2,892
Census Tract 86.01, Fulton Co	4,543	6,238	2,302	3,133	1,379	1,876	923	1,257
Census Tract 86.02, Fulton Co	1,698	2,805	598	976	157	256	441	720
Census Tract 87 (part), Fulton Co	5,147	7,693	2,483	3,689	1,226	1,821	1,257	1,868
Census Tract 88, Fulton Co	4,869	6,876	2,568	3,597	1,526	2,138	1,042	1,459
Census Tract 89.02, Fulton Co	6,925	10,924	4,967	7,780	1,605	2,513	3,362	5,267
Census Tract 89.03, Fulton Co	2,023	2,429	1,085	1,289	227	269	858	1,020
Census Tract 89.04, Fulton Co	4,497	5,040	2,852	3,212	596	671	2,256	2,541
Census Tract 90, Fulton Co	3,885	5,463	2,190	3,173	1,462	2,119	728	1,054
Census Tract 91.01, Fulton Co	4,320	5,115	3,582	4,322	509	614	3,073	3,708
Census Tract 91.02, Fulton Co	3,477	4,040	2,835	3,334	403	474	2,432	2,860
Census Tract 92, Fulton Co	7,390	13,960	5,163	9,882	1,692	3,238	3,471	6,644
Census Tract 93, Fulton Co	4,570	8,411	3,159	5,870	1,245	2,314	1,914	3,556
Census Tract 94.02, Fulton Co	5,171	7,995	3,146	5,443	117	203	3,029	5,240
Census Tract 94.03, Fulton Co	4,569	5,319	3,570	4,214	504	594	3,066	3,620
Census Tract 94.04, Fulton Co	4,071	4,809	2,930	3,525	413	497	2,517	3,028
Census Tract 95.01, Fulton Co	3,802	5,796	2,202	3,387	693	1,066	1,509	2,321
Census Tract 95.02, Fulton Co	3,846	5,618	3,398	5,025	1,069	1,581	2,329	3,444
Census Tract 96.01, Fulton Co	2,444	3,557	1,863	2,801	448	674	1,415	2,127
Census Tract 96.02, Fulton Co	4,314	6,666	3,492	5,378	840	1,294	2,652	4,084
Census Tract 96.03, Fulton Co	4,068	5,137	3,331	4,201	802	1,011	2,529	3,190
Census Tract 97, Fulton Co	3,188	4,096	1,632	2,144	1,009	1,326	623	818
Census Tract 98.01, Fulton Co	4,386	4,946	2,132	2,406	1,470	1,659	662	747
Census Tract 98.02 (part), Fulton Co	3,830	4,212	2,048	2,247	1,412	1,550	636	697
Census Tract 99, Fulton Co	4,344	4,986	2,530	2,926	1,349	1,561	1,181	1,365
Census Tract 100.01 (part), Fulton Co	4,024	6,741	2,771	4,866	1,343	2,359	1,428	2,507
Census Tract 100.02 (part), Fulton Co	5,585	8,252	3,708	5,727	1,797	2,776	1,911	2,951
Census Tract 101.14 (part), Fulton Co	167	177	92	100	81	88	11	12
Census Tract 102.06 (part), Fulton Co	14	17	7	9	7	9	0	0
Census Tract 102.11 (part), Fulton Co	827	853	381	404	373	396	8	8
Census Tract 201 (part), Dekalb Co	1,509	1,760	753	924	638	783	115	141
Census Tract 202, Dekalb Co	1,804	2,521	1,247	1,808	301	436	946	1,372
Census Tract 211.02 (part), Dekalb Co	0	0	0	0	0	0	0	0
Subtotal, Northside Service Area	170,584	245,164	109,754	160,324	35,895	52,701	73,859	107,623

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Table 65. Population and Housing by Census Tract, 2015-2040 (continued)

	Total Population		Total Units		Single-Fam. Units		Multi-Fam. Units	
Census Tract	2015	2040	2015	2040	2015	2040	2015	2040
Census Tract 16, Fulton Co	2,252	3,650	1,738	2,859	445	733	1,293	2,126
Census Tract 17, Fulton Co	2,795	7,136	1,843	4,967	461	1,242	1,382	3,725
Census Tract 18, Fulton Co	5,005	8,887	3,736	6,490	140	243	3,596	6,247
Census Tract 19, Fulton Co	2,623	6,443	2,608	6,574	81	204	2,527	6,370
Census Tract 21, Fulton Co	2,153	5,283	1,826	4,735	90	233	1,736	4,502
Census Tract 28, Fulton Co	4,745	8,742	2,545	5,372	52	110	2,493	5,262
Census Tract 29, Fulton Co	2,436	2,972	1,696	2,074	478	584	1,218	1,490
Census Tract 30, Fulton Co	2,781	3,270	1,869	2,232	778	930	1,091	1,302
Census Tract 31, Fulton Co	1,723	2,081	885	1,093	612	756	273	337
Census Tract 32, Fulton Co	2,176	2,696	1,671	2,101	714	898	957	1,203
Census Tract 35, Fulton Co	3,079	7,631	1,188	3,872	0	0	1,188	3,872
Census Tract 44, Fulton Co	2,081	2,433	1,162	1,382	161	191	1,001	1,191
Census Tract 48, Fulton Co	1,599	3,925	766	1,967	45	115	721	1,852
Census Tract 49, Fulton Co	2,171	2,722	1,256	1,636	771	1,004	485	632
Census Tract 50, Fulton Co	2,025	2,695	1,168	1,601	581	797	587	804
Census Tract 52, Fulton Co	4,122	4,878	2,196	2,636	1,549	1,859	647	777
Census Tract 53, Fulton Co	3,415	4,143	1,881	2,339	1,358	1,689	523	650
Census Tract 55.01, Fulton Co	2,418	2,872	1,267	1,558	707	869	560	689
Census Tract 55.02, Fulton Co	2,438	2,928	1,374	1,716	815	1,018	559	698
Census Tract 57, Fulton Co	1,612	2,057	917	1,214	520	689	397	525
Census Tract 58, Fulton Co	1,481	3,097	740	1,599	447	966	293	633
Census Tract 63, Fulton Co	1,730	2,230	1,202	1,595	761	1,009	441	586
Census Tract 64, Fulton Co	1,492	2,809	603	1,059	177	311	426	748
Census Tract 65, Fulton Co	3,799	5,293	1,707	2,469	1,477	2,136	230	333
Census Tract 67, Fulton Co	3,866	5,583	2,050	3,063	1,234	1,844	816	1,219
Census Tract 68.01, Fulton Co	3,307	5,163	29	70	29	70	0	0
Census Tract 68.02, Fulton Co	1,818	1,923	525	569	112	121	413	448
Census Tract 69, Fulton Co	3,333	4,872	1,596	2,409	919	1,388	677	1,021
Census Tract 70.01, Fulton Co	3,851	5,582	1,809	2,732	1,398	2,112	411	620
Census Tract 70.02, Fulton Co	3,570	4,930	1,373	1,927	836	1,174	537	753
Census Tract 71, Fulton Co	2,352	3,515	1,018	1,548	545	829	473	719
Census Tract 72 (part), Fulton Co	2,033	3,677	1,116	2,086	464	868	652	1,218
Census Tract 73 (part), Fulton Co	6,817	8,941	3,062	4,148	1,391	1,884	1,671	2,264
Census Tract 74, Fulton Co	3,762	4,143	1,473	1,631	544	603	929	1,028
Census Tract 75, Fulton Co	3,485	6,303	2,365	4,495	929	1,766	1,436	2,729
Census Tract 108 (part), Fulton Co	0	0	0	0	0	0	0	0
Census Tract 119, Fulton Co	1,674	3,941	920	2,271	70	174	850	2,097
Census Tract 120, Fulton Co	1,092	1,932	638	1,200	151	284	487	916
Census Tract 9800 (part), Fulton Co	0	0	0	0	0	0	0	0
Census Tract 203, Dekalb Co	3,171	3,839	1,730	2,179	1,164	1,466	566	713
Census Tract 204, Dekalb Co	2,114	2,773	1,371	1,879	617	846	754	1,033
Census Tract 205, Dekalb Co	3,368	4,133	1,779	2,267	1,185	1,510	594	757
Census Tract 206, Dekalb Co	2,444	3,391	1,034	1,481	389	557	645	924
Census Tract 207, Dekalb Co	2,304	3,424	1,160	1,794	596	922	564	872
Census Tract 208.01, Dekalb Co	2,801	3,839	1,242	1,788	1,138	1,638	104	150
Census Tract 208.02, Dekalb Co	3,901	4,541	2,003	2,456	1,617	1,982	386	474
Census Tract 209, Dekalb Co	6,010	6,860	2,932	3,498	2,271	2,710	661	788
Census Tract 224.01 (part), Dekalb Co	0	0	0	0	0	0	0	0
Census Tract 224.03 (part), Dekalb Co	0	0	0	0	0	0	0	0
Census Tract 237 (part), Dekalb Co	737	814	275	314	222	253	53	61
Subtotal, Southside Service Area	129,961	194,992	69,344	110,945	31,041	43,587	38,303	67,358

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Table 65. Population and Housing by Census Tract, 2015-2040 (continued)

	Total Population		Total Units		Single-Fam. Units		Multi-Fam. Units	
Census Tract	2015	2040	2015	2040	2015	2040	2015	2040
Census Tract 7, Fulton Co	4,406	6,827	469	731	403	628	66	103
Census Tract 23, Fulton Co	2,386	2,867	2,282	2,740	830	996	1,452	1,744
Census Tract 24, Fulton Co	2,022	2,663	1,585	2,099	1,229	1,627	356	472
Census Tract 25, Fulton Co	1,959	2,509	1,709	2,242	671	880	1,038	1,362
Census Tract 26, Fulton Co	1,146	2,330	813	1,682	136	281	677	1,401
Census Tract 36, Fulton Co	1,405	1,890	1,039	1,472	35	49	1,004	1,423
Census Tract 37, Fulton Co	234	580	153	392	20	51	133	341
Census Tract 38, Fulton Co	2,739	4,794	554	1,359	71	175	483	1,184
Census Tract 39, Fulton Co	1,343	3,671	946	1,944	457	939	489	1,005
Census Tract 40, Fulton Co	1,946	2,569	1,174	1,612	1,011	1,388	163	224
Census Tract 41, Fulton Co	1,855	2,544	1,154	1,657	610	877	544	780
Census Tract 42, Fulton Co	2,409	2,915	1,583	1,985	201	252	1,382	1,733
Census Tract 43, Fulton Co	4,439	6,427	652	696	162	173	490	523
Census Tract 60, Fulton Co	3,139	3,312	1,699	1,874	1,109	1,223	590	651
Census Tract 61, Fulton Co	3,213	3,333	1,740	1,891	1,432	1,556	308	335
Census Tract 62, Fulton Co	1,129	1,711	724	1,150	483	768	241	382
Census Tract 66.01, Fulton Co	2,217	4,216	1,231	2,435	919	1,818	312	617
Census Tract 66.02, Fulton Co	1,147	2,237	731	1,465	380	761	351	704
Census Tract 76.02, Fulton Co	2,232	2,327	1,073	1,162	725	785	348	377
Census Tract 76.03, Fulton Co	3,959	5,764	2,586	3,658	307	434	2,279	3,224
Census Tract 76.04, Fulton Co	2,445	2,460	1,445	1,526	172	181	1,273	1,345
Census Tract 77.03 (part), Fulton Co	3,373	3,421	1,589	1,669	902	948	687	721
Census Tract 77.04 (part), Fulton Co	4,138	4,847	2,073	2,561	1,177	1,454	896	1,107
Census Tract 77.05, Fulton Co	3,799	5,047	2,257	3,103	964	1,325	1,293	1,778
Census Tract 77.06 (part), Fulton Co	7,835	8,387	3,969	4,427	1,695	1,891	2,274	2,536
Census Tract 78.02 (part), Fulton Co	5,917	6,219	2,738	3,016	2,676	2,948	62	68
Census Tract 78.05 (part), Fulton Co	1,675	2,611	830	1,398	448	755	382	643
Census Tract 78.06 (part), Fulton Co	5,025	5,925	2,332	2,864	1,662	2,041	670	823
Census Tract 78.07, Fulton Co	2,681	3,168	1,381	1,700	813	1,000	568	700
Census Tract 78.08, Fulton Co	3,838	3,987	1,792	1,951	224	244	1,568	1,707
Census Tract 79 (part), Fulton Co	4,846	6,132	2,332	3,084	2,131	2,818	201	266
Census Tract 80, Fulton Co	4,840	5,889	2,466	3,099	2,132	2,680	334	419
Census Tract 81.01, Fulton Co	916	1,077	454	560	445	549	9	11
Census Tract 81.02, Fulton Co	5,771	9,112	3,534	5,839	1,259	2,080	2,275	3,759
Census Tract 82.01, Fulton Co	5,889	7,700	2,944	3,815	2,427	3,145	517	670
Census Tract 82.02 (part), Fulton Co	2,551	4,488	1,255	2,082	618	1,025	637	1,057
Census Tract 83.01, Fulton Co	2,946	4,856	1,895	3,141	952	1,578	943	1,563
Census Tract 83.02, Fulton Co	2,252	3,634	1,797	2,926	1,087	1,770	710	1,156
Census Tract 84, Fulton Co	3,824	5,694	2,865	4,301	1,028	1,544	1,837	2,757
Census Tract 85, Fulton Co	4,191	8,082	2,486	4,820	1,525	2,957	961	1,863
Census Tract 103.03 (part), Fulton Co	5,345	7,182	2,269	3,235	2,269	3,235	0	0
Census Tract 118, Fulton Co	1,925	2,469	1,816	2,265	481	600	1,335	1,665
Subtotal, Westside Service Area	131,347	177,873	70,416	97,628	38,278	52,429	32,138	45,199
Total, City-Wide	431,892	618,029	249,514	368,897	105,214	148,717	144,300	220,180

Source: Total population is projected population from Atlanta Regional Commission (ARC) times Atlanta percentage from Table 64; total units is projected households from ARC divided by occupancy rate and multiplied by Atlanta percentage from Table 64; single-family units is total units times single-family percentage from Table 64; multi-family units is difference between total units and single-family units.

Table 66. Employment by Census Tract, 2015

Census Tract	Retail/ Comm.	Office	Indus- trial	Ware- house	Public/ Instit.	Total
Census Tract 1, Fulton Co	259	186	139	10	183	777
Census Tract 2, Fulton Co	1,851	1,153	110	88	741	3,943
Census Tract 4, Fulton Co	3,444	10,425	237	2,093	226	16,425
Census Tract 5, Fulton Co	4,011	10,234	689	76	471	15,481
Census Tract 6, Fulton Co	2,020	814	145	627	782	4,388
Census Tract 10.01, Fulton Co	3,655	7,585	599	148	1,031	13,018
Census Tract 10.02, Fulton Co	1,163	1,396	48	8	7,257	9,872
Census Tract 11, Fulton Co	1,269	6,152	88	45	647	8,201
Census Tract 12.01, Fulton Co	569	226	12	10	148	965
Census Tract 12.02, Fulton Co	2,322	8,883	1,285	448	1,297	14,235
Census Tract 13, Fulton Co	1,914	390	15	9	2,941	5,269
Census Tract 14, Fulton Co	588	265	158	9	621	1,641
Census Tract 15, Fulton Co	1,019	357	28	39	318	1,761
Census Tract 86.01, Fulton Co	112	65	19	30	391	617
Census Tract 86.02, Fulton Co	346	498	1,100	400	142	2,486
Census Tract 87 (part), Fulton Co	83	512	261	547	403	1,806
Census Tract 88, Fulton Co	248	886	1,376	1,931	416	4,857
Census Tract 89.02, Fulton Co	3,853	3,773	2,634	2,734	841	13,835
Census Tract 89.03, Fulton Co	290	204	51	66	123	734
Census Tract 89.04, Fulton Co	306	1,137	971	397	120	2,931
Census Tract 90, Fulton Co	533	386	2	48	46	1,015
Census Tract 91.01, Fulton Co	1,419	1,943	123	63	9,000	12,548
Census Tract 91.02, Fulton Co	417	344	460	354	621	2,196
Census Tract 92, Fulton Co	2,490	1,776	459	160	466	5,351
Census Tract 93, Fulton Co	632	563	21	241	8	1,465
Census Tract 94.02, Fulton Co	2,049	3,471	19	1,101	26	6,666
Census Tract 94.03, Fulton Co	871	856	27	38	183	1,975
Census Tract 94.04, Fulton Co	123	476	0	25	70	694
Census Tract 95.01, Fulton Co	535	553	6	12	215	1,321
Census Tract 95.02, Fulton Co	3,095	3,347	171	49	219	6,881
Census Tract 96.01, Fulton Co	1,340	1,989	323	245	147	4,044
Census Tract 96.02, Fulton Co	9,053	10,862	42	525	600	21,082
Census Tract 96.03, Fulton Co	3,023	3,313	181	241	563	7,321
Census Tract 97, Fulton Co	546	470	203	18	738	1,975
Census Tract 98.01, Fulton Co	813	1,103	30	67	1,634	3,647
Census Tract 98.02 (part), Fulton Co	677	3,434	1,085	3,421	333	8,950
Census Tract 99, Fulton Co	1,053	582	22	118	201	1,976
Census Tract 100.01 (part), Fulton Co	2,695	13,862	224	677	1,216	18,674
Census Tract 100.02 (part), Fulton Co	4,706	7,723	254	323	487	13,493
Census Tract 101.14 (part), Fulton Co	16	12	0	2	9	39
Census Tract 102.06 (part), Fulton Co	1	7	0	0	0	8
Census Tract 102.11 (part), Fulton Co	39	122	9	3	100	273
Census Tract 201 (part), Dekalb Co	25	129	32	0	2	188
Census Tract 202, Dekalb Co	294	59	23	1	287	664
Census Tract 211.02 (part), Dekalb Co	0	0	0	0	0	0
Subtotal, Northside Service Area	65,767	112,523	13,681	17,447	36,270	245,688

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Table 66. Employment by Census Tract, 2015 (continued)

Census Tract	Retail/ Comm.	Office	Indus- trial	Ware- house	Public/ Instit.	Total
Census Tract 16, Fulton Co	1,125	275	7	64	83	1,554
Census Tract 17, Fulton Co	287	786	232	23	2,334	3,662
Census Tract 18, Fulton Co	149	2,029	2,203	4	158	4,543
Census Tract 19, Fulton Co	7,262	16,829	427	1,084	8,375	33,977
Census Tract 21, Fulton Co	2,215	1,912	3,932	1	782	8,842
Census Tract 28, Fulton Co	1,552	2,694	6	1	2,085	6,338
Census Tract 29, Fulton Co	521	376	52	38	409	1,396
Census Tract 30, Fulton Co	483	223	59	31	362	1,158
Census Tract 31, Fulton Co	74	101	121	28	64	388
Census Tract 32, Fulton Co	261	307	105	134	19	826
Census Tract 35, Fulton Co	5,175	8,439	151	2,560	24,613	40,938
Census Tract 44, Fulton Co	120	127	30	77	123	477
Census Tract 48, Fulton Co	0	180	0	0	8	188
Census Tract 49, Fulton Co	419	209	134	106	298	1,166
Census Tract 50, Fulton Co	200	126	71	28	319	744
Census Tract 52, Fulton Co	535	231	38	18	212	1,034
Census Tract 53, Fulton Co	367	87	87	74	380	995
Census Tract 55.01, Fulton Co	0	15	9	48	87	159
Census Tract 55.02, Fulton Co	52	75	27	105	265	524
Census Tract 57, Fulton Co	25	11	20	7	39	102
Census Tract 58, Fulton Co	74	189	333	170	16	782
Census Tract 63, Fulton Co	128	79	26	229	68	530
Census Tract 64, Fulton Co	117	62	0	9	376	564
Census Tract 65, Fulton Co	38	204	12	59	1,892	2,205
Census Tract 67, Fulton Co	101	121	189	29	458	898
Census Tract 68.01, Fulton Co	1	83	0	0	1,076	1,160
Census Tract 68.02, Fulton Co	2	0	0	0	6	8
Census Tract 69, Fulton Co	664	213	11	2	90	980
Census Tract 70.01, Fulton Co	149	40	0	2	181	372
Census Tract 70.02, Fulton Co	38	203	356	398	105	1,100
Census Tract 71, Fulton Co	25	125	0	231	106	487
Census Tract 72 (part), Fulton Co	835	1,995	355	947	769	4,901
Census Tract 73 (part), Fulton Co	371	227	309	869	229	2,005
Census Tract 74, Fulton Co	478	260	0	10	2,466	3,214
Census Tract 75, Fulton Co	708	204	27	299	180	1,418
Census Tract 108 (part), Fulton Co	0	0	0	0	0	0
Census Tract 119, Fulton Co	3,125	7,892	297	109	14,631	26,054
Census Tract 120, Fulton Co	111	70	9	60	253	503
Census Tract 9800 (part), Fulton Co	2,020	2,283	182	10,925	5,355	20,765
Census Tract 203, Dekalb Co	359	260	116	6	42	783
Census Tract 204, Dekalb Co	36	507	5	13	101	662
Census Tract 205, Dekalb Co	1,116	566	32	1	104	1,819
Census Tract 206, Dekalb Co	4	196	425	0	146	771
Census Tract 207, Dekalb Co	143	61	6	18	48	276
Census Tract 208.01, Dekalb Co	61	159	4	4	3	231
Census Tract 208.02, Dekalb Co	154	64	9	2	586	815
Census Tract 209, Dekalb Co	724	330	7	33	350	1,444
Census Tract 224.01 (part), Dekalb Co	0	0	0	0	0	0
Census Tract 224.03 (part), Dekalb Co	0	0	0	0	0	0
Census Tract 237 (part), Dekalb Co	50	136	0	11	10	207
Subtotal, Southside Service Area	32,454	51,561	10,421	18,867	70,662	183,965

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Table 66. Employment by Census Tract, 2015 (continued)

Census Tract	Retail/ Comm.	Office	Indus- trial	Ware- house	Public/ Instit.	Total
Census Tract 7, Fulton Co	98	666	413	134	1,133	2,444
Census Tract 23, Fulton Co	26	94	189	0	445	754
Census Tract 24, Fulton Co	133	93	4	66	78	374
Census Tract 25, Fulton Co	207	77	4	37	184	509
Census Tract 26, Fulton Co	377	384	184	4	64	1,013
Census Tract 36, Fulton Co	54	314	157	4	42	571
Census Tract 37, Fulton Co	2	8	2	2	0	14
Census Tract 38, Fulton Co	180	555	0	0	1,386	2,121
Census Tract 39, Fulton Co	35	27	0	3	207	272
Census Tract 40, Fulton Co	176	86	13	0	51	326
Census Tract 41, Fulton Co	147	109	180	0	90	526
Census Tract 42, Fulton Co	661	406	8	38	361	1,474
Census Tract 43, Fulton Co	108	452	2	6	1,988	2,556
Census Tract 60, Fulton Co	254	37	0	0	95	386
Census Tract 61, Fulton Co	43	34	0	6	98	181
Census Tract 62, Fulton Co	21	25	12	8	24	90
Census Tract 66.01, Fulton Co	33	98	759	219	177	1,286
Census Tract 66.02, Fulton Co	14	58	0	4	3	79
Census Tract 76.02, Fulton Co	119	44	8	1	165	337
Census Tract 76.03, Fulton Co	168	90	17	0	297	572
Census Tract 76.04, Fulton Co	17	13	4	0	3	37
Census Tract 77.03 (part), Fulton Co	231	53	0	43	104	431
Census Tract 77.04 (part), Fulton Co	96	112	56	1	265	530
Census Tract 77.05, Fulton Co	1,177	304	4	6	111	1,602
Census Tract 77.06 (part), Fulton Co	600	228	75	23	236	1,162
Census Tract 78.02 (part), Fulton Co	225	72	31	0	119	447
Census Tract 78.05 (part), Fulton Co	788	1,371	1,471	2,350	223	6,203
Census Tract 78.06 (part), Fulton Co	71	65	23	0	198	357
Census Tract 78.07, Fulton Co	84	88	6	0	72	250
Census Tract 78.08, Fulton Co	120	53	0	0	115	288
Census Tract 79 (part), Fulton Co	833	205	18	1	386	1,443
Census Tract 80, Fulton Co	238	53	32	27	292	642
Census Tract 81.01, Fulton Co	0	3	17	7	0	27
Census Tract 81.02, Fulton Co	486	317	10	57	2,550	3,420
Census Tract 82.01, Fulton Co	89	14	0	12	116	231
Census Tract 82.02 (part), Fulton Co	39	228	918	275	1,158	2,618
Census Tract 83.01, Fulton Co	81	28	0	0	218	327
Census Tract 83.02, Fulton Co	0	59	0	3	580	642
Census Tract 84, Fulton Co	52	256	68	5	314	695
Census Tract 85, Fulton Co	165	233	156	0	236	790
Census Tract 103.03 (part), Fulton Co	672	771	1,662	3,486	194	6,785
Census Tract 118, Fulton Co	233	746	103	106	79	1,267
Subtotal, Westside Service Area	9,153	8,929	6,606	6,934	14,457	46,079
Total, City-Wide	107,374	173,013	30,708	43,248	121,389	475,732

Source: 2015 estimates from Atlanta Regional Commission multiplied by Atlanta share from Table 64.

Table 67. Employment by Census Tract, 2040

Census Tract	Retail/ Comm.	Office	Indus- trial	Ware- house	Public/ Instit.	Total
Census Tract 1, Fulton Co	295	218	150	13	283	959
Census Tract 2, Fulton Co	2,487	1,907	167	103	2,005	6,669
Census Tract 4, Fulton Co	3,489	14,863	300	2,040	392	21,084
Census Tract 5, Fulton Co	5,354	14,946	924	85	757	22,066
Census Tract 6, Fulton Co	2,316	926	178	656	1,081	5,157
Census Tract 10.01, Fulton Co	4,262	14,473	850	169	1,585	21,339
Census Tract 10.02, Fulton Co	1,316	1,547	53	10	12,299	15,225
Census Tract 11, Fulton Co	1,700	8,037	190	142	852	10,921
Census Tract 12.01, Fulton Co	633	238	11	15	157	1,054
Census Tract 12.02, Fulton Co	2,441	10,737	1,259	626	1,765	16,828
Census Tract 13, Fulton Co	2,187	443	21	13	3,112	5,776
Census Tract 14, Fulton Co	688	351	158	13	635	1,845
Census Tract 15, Fulton Co	1,128	399	28	49	469	2,073
Census Tract 86.01, Fulton Co	128	68	30	39	457	722
Census Tract 86.02, Fulton Co	416	580	1,487	439	219	3,141
Census Tract 87 (part), Fulton Co	125	891	597	553	613	2,779
Census Tract 88, Fulton Co	273	1,145	1,832	2,102	560	5,912
Census Tract 89.02, Fulton Co	4,304	4,917	3,133	3,133	1,024	16,511
Census Tract 89.03, Fulton Co	345	258	69	76	157	905
Census Tract 89.04, Fulton Co	378	1,427	1,087	476	149	3,517
Census Tract 90, Fulton Co	612	500	2	52	80	1,246
Census Tract 91.01, Fulton Co	1,604	2,162	141	48	9,884	13,839
Census Tract 91.02, Fulton Co	471	375	584	407	2,181	4,018
Census Tract 92, Fulton Co	3,228	2,632	585	182	819	7,446
Census Tract 93, Fulton Co	754	854	29	289	21	1,947
Census Tract 94.02, Fulton Co	3,766	4,431	43	1,125	102	9,467
Census Tract 94.03, Fulton Co	1,253	1,836	45	43	372	3,549
Census Tract 94.04, Fulton Co	175	875	0	28	149	1,227
Census Tract 95.01, Fulton Co	653	779	10	17	524	1,983
Census Tract 95.02, Fulton Co	3,482	4,699	197	61	451	8,890
Census Tract 96.01, Fulton Co	1,359	2,935	428	294	250	5,266
Census Tract 96.02, Fulton Co	9,758	13,086	54	696	969	24,563
Census Tract 96.03, Fulton Co	3,719	4,295	230	287	1,008	9,539
Census Tract 97, Fulton Co	596	557	229	20	1,387	2,789
Census Tract 98.01, Fulton Co	1,026	1,131	39	76	2,528	4,800
Census Tract 98.02 (part), Fulton Co	746	3,886	1,632	4,183	649	11,096
Census Tract 99, Fulton Co	1,337	930	31	131	357	2,786
Census Tract 100.01 (part), Fulton Co	3,160	16,860	299	676	2,224	23,219
Census Tract 100.02 (part), Fulton Co	5,733	9,217	357	370	889	16,566
Census Tract 101.14 (part), Fulton Co	19	13	0	2	14	48
Census Tract 102.06 (part), Fulton Co	2	8	0	0	0	10
Census Tract 102.11 (part), Fulton Co	43	135	12	3	143	336
Census Tract 201 (part), Dekalb Co	26	152	57	0	4	239
Census Tract 202, Dekalb Co	265	65	41	1	394	766
Census Tract 211.02 (part), Dekalb Co	0	0	0	0	0	0
Subtotal, Northside Service Area	78,052	150,784	17,569	19,743	53,970	320,118

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Table 67. Employment by Census Tract, 2040 (continued)

Census Tract	Retail/ Comm.	Office	Indus- trial	Ware- house	Public/ Instit.	Total
Census Tract 16, Fulton Co	1,335	376	10	64	114	1,899
Census Tract 17, Fulton Co	301	807	262	32	2,472	3,874
Census Tract 18, Fulton Co	180	2,191	1,832	6	223	4,432
Census Tract 19, Fulton Co	9,059	19,432	474	1,268	10,145	40,378
Census Tract 21, Fulton Co	2,955	2,821	4,085	1	1,115	10,977
Census Tract 28, Fulton Co	1,670	3,049	8	1	2,373	7,101
Census Tract 29, Fulton Co	653	558	60	42	673	1,986
Census Tract 30, Fulton Co	599	384	88	48	402	1,521
Census Tract 31, Fulton Co	94	153	123	36	133	539
Census Tract 32, Fulton Co	298	331	137	144	19	929
Census Tract 35, Fulton Co	6,047	10,684	169	2,666	28,986	48,552
Census Tract 44, Fulton Co	110	143	32	77	154	516
Census Tract 48, Fulton Co	2	461	0	0	15	478
Census Tract 49, Fulton Co	585	347	140	126	560	1,758
Census Tract 50, Fulton Co	224	146	96	36	472	974
Census Tract 52, Fulton Co	750	382	43	24	409	1,608
Census Tract 53, Fulton Co	371	101	107	83	462	1,124
Census Tract 55.01, Fulton Co	0	24	12	66	148	250
Census Tract 55.02, Fulton Co	61	96	41	113	444	755
Census Tract 57, Fulton Co	32	21	23	19	57	152
Census Tract 58, Fulton Co	109	294	339	209	80	1,031
Census Tract 63, Fulton Co	147	95	26	240	110	618
Census Tract 64, Fulton Co	130	77	0	9	403	619
Census Tract 65, Fulton Co	44	382	14	70	2,370	2,880
Census Tract 67, Fulton Co	111	149	212	31	542	1,045
Census Tract 68.01, Fulton Co	1	143	0	0	1,021	1,165
Census Tract 68.02, Fulton Co	10	1	0	0	12	23
Census Tract 69, Fulton Co	862	346	17	3	209	1,437
Census Tract 70.01, Fulton Co	181	61	0	3	288	533
Census Tract 70.02, Fulton Co	43	259	372	402	210	1,286
Census Tract 71, Fulton Co	26	148	0	232	151	557
Census Tract 72 (part), Fulton Co	1,076	3,091	415	1,054	1,251	6,887
Census Tract 73 (part), Fulton Co	424	271	329	904	305	2,233
Census Tract 74, Fulton Co	548	312	0	15	3,383	4,258
Census Tract 75, Fulton Co	872	342	27	358	276	1,875
Census Tract 108 (part), Fulton Co	0	0	0	0	0	0
Census Tract 119, Fulton Co	3,638	9,088	406	127	17,651	30,910
Census Tract 120, Fulton Co	271	111	10	65	566	1,023
Census Tract 9800 (part), Fulton Co	2,218	2,539	264	10,961	5,387	21,369
Census Tract 203, Dekalb Co	525	466	286	6	97	1,380
Census Tract 204, Dekalb Co	43	599	10	19	259	930
Census Tract 205, Dekalb Co	1,261	594	57	1	155	2,068
Census Tract 206, Dekalb Co	6	360	439	0	327	1,132
Census Tract 207, Dekalb Co	219	131	16	21	106	493
Census Tract 208.01, Dekalb Co	94	283	8	4	7	396
Census Tract 208.02, Dekalb Co	339	119	17	3	1,173	1,651
Census Tract 209, Dekalb Co	874	456	8	35	573	1,946
Census Tract 224.01 (part), Dekalb Co	0	0	0	0	0	0
Census Tract 224.03 (part), Dekalb Co	0	0	0	0	0	0
Census Tract 237 (part), Dekalb Co	65	144	1	11	28	249
Subtotal, Southside Service Area	39,463	63,368	11,015	19,635	86,316	219,797

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Table 67. Employment by Census Tract, 2040 (continued)

Census Tract	Retail/ Comm.	Office	Indus- trial	Ware- house	Public/ Instit.	Total
Census Tract 7, Fulton Co	113	810	477	143	1,272	2,815
Census Tract 23, Fulton Co	35	171	254	0	670	1,130
Census Tract 24, Fulton Co	207	159	4	72	138	580
Census Tract 25, Fulton Co	248	101	4	40	278	671
Census Tract 26, Fulton Co	4,379	704	158	4	126	5,371
Census Tract 36, Fulton Co	178	438	163	4	64	847
Census Tract 37, Fulton Co	6	10	4	2	2	24
Census Tract 38, Fulton Co	259	656	0	0	2,287	3,202
Census Tract 39, Fulton Co	40	35	0	3	400	478
Census Tract 40, Fulton Co	262	215	28	0	106	611
Census Tract 41, Fulton Co	167	117	266	0	117	667
Census Tract 42, Fulton Co	744	483	6	42	512	1,787
Census Tract 43, Fulton Co	127	512	2	6	3,338	3,985
Census Tract 60, Fulton Co	290	41	0	0	124	455
Census Tract 61, Fulton Co	44	38	0	8	128	218
Census Tract 62, Fulton Co	55	51	11	10	75	202
Census Tract 66.01, Fulton Co	40	111	796	260	372	1,579
Census Tract 66.02, Fulton Co	27	104	0	4	5	140
Census Tract 76.02, Fulton Co	152	64	8	1	245	470
Census Tract 76.03, Fulton Co	206	266	55	0	828	1,355
Census Tract 76.04, Fulton Co	17	17	6	0	5	45
Census Tract 77.03 (part), Fulton Co	264	53	0	48	134	499
Census Tract 77.04 (part), Fulton Co	129	170	90	1	517	907
Census Tract 77.05, Fulton Co	1,338	323	3	9	165	1,838
Census Tract 77.06 (part), Fulton Co	698	275	126	24	357	1,480
Census Tract 78.02 (part), Fulton Co	269	91	48	0	169	577
Census Tract 78.05 (part), Fulton Co	935	1,887	1,662	2,623	464	7,571
Census Tract 78.06 (part), Fulton Co	85	68	32	0	247	432
Census Tract 78.07, Fulton Co	106	125	10	0	130	371
Census Tract 78.08, Fulton Co	129	58	0	0	144	331
Census Tract 79 (part), Fulton Co	899	251	29	1	551	1,731
Census Tract 80, Fulton Co	259	59	47	29	345	739
Census Tract 81.01, Fulton Co	1	5	24	5	0	35
Census Tract 81.02, Fulton Co	554	363	10	60	2,823	3,810
Census Tract 82.01, Fulton Co	96	21	0	12	174	303
Census Tract 82.02 (part), Fulton Co	72	274	1,116	582	1,295	3,339
Census Tract 83.01, Fulton Co	102	43	0	0	392	537
Census Tract 83.02, Fulton Co	0	92	0	3	1,149	1,244
Census Tract 84, Fulton Co	188	558	103	5	336	1,190
Census Tract 85, Fulton Co	300	531	325	0	456	1,612
Census Tract 103.03 (part), Fulton Co	736	934	1,730	4,141	270	7,811
Census Tract 118, Fulton Co	415	1,164	105	120	173	1,977
Subtotal, Westside Service Area	15,171	12,448	7,702	8,262	21,383	64,966
Total, City-Wide	132,686	226,600	36,286	47,640	161,669	604,881

Source: 2015 estimates from Atlanta Regional Commission multiplied by Atlanta share from Table 64

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APPENDIX B: AVERAGE HOUSEHOLD SIZE

An important input into the impact fee calculations is the number of persons associated with the single-family and multi-family housing units. The most current available data source is the U.S. Census Bureau's 5% sample data for 2010-2014 (aggregated annual 1% samples). However, the sample data over-estimates average household size for all units from the 2010 census 100% counts. Consequently, the average household sizes from the sample data are adjusted downward to account for the over-estimate. As shown in Table 68, average household sizes for Atlanta are estimated to be 2.55 persons per single-family unit and 1.73 persons per multi-family unit.

Table 68. Average Household Size by Housing Type

Housing Type	Total Units	Occupied Units	Household Population	Average HH Size	Adjust. Factor	Adjusted AHHS
Single-Family*	103,771	85,437	232,556	2.72	0.9378	2.55
Multi-Family	122,970	96,244	177,092	1.84	0.9378	1.73
Total	226,741	181,681	409,648	2.25	0.9378	2.11

* includes single-family attached, mobile home, and boat/RV/van

Source: Total units, occupied units, and household population from U.S. Census Bureau, American Community Survey, 2014 5-Year 5% sample data for the City of Atlanta published on AmericanFactfinder web site; average household size (AHHS) is ratio of household population to occupied units; adjustment factor is ratio of Atlanta 2010 AHHS for all units from 2010 U.S. Census 100% counts to sample AHHS for all units; adjusted AHHS for all units is 100% count from 2010 U.S. Census; adjusted AHHS for single-family and multi-family is AHHS from sample data times adjustment factor.

National data are available on average household size by square feet from the 2013 American Housing Survey. These data can be used to estimate the relative household sizes for the optional tiered single-family and multi-family impact fee categories used in this study. As can be seen in Table 69, average household sizes for single-family and multi-family units, respectively, vary somewhat by the size of the unit.

Table 69. Tiered Average Household Size, U.S.

Housing Type/Size	Sample	Persons	Households	AHHS
Single-Family Detached, <1,500 sq. ft.	12,448	64,602,402	25,822,959	2.50
Single-Family Detached, 1,500-2,499 sq. ft.	13,962	83,167,828	30,885,794	2.69
Single-Family Detached, 2,500 sq. ft. +	8,410	52,573,162	17,613,975	2.98
Single-Family Detached, Total	34,820	200,343,392	74,322,728	2.70
Multi-Family, < 750 sq. ft.	10,671	24,613,757	13,049,523	1.89
Multi-Family, 750-1,499 sq. ft.	9,413	35,918,452	16,616,654	2.16
Multi-Family, 1,500 sq. ft. +	2,911	11,740,666	4,945,605	2.37
Multi-Family, Total	22,995	72,272,875	34,611,781	2.09

Source: US Department of Housing and Urban Development, 2013 American Housing Survey, weighted microdata (WGT90GEO).

For Atlanta, the tiered average household size for both single-family and multi-family units can be estimated by multiplying the ratio of Atlanta average household size for all units of the housing type to the national average household size for all units of the housing type. The tiered average household size data used in this study are summarized in Table 70.

Table 70. Tiered Average Household Size, Atlanta

Housing Type/Size	National Average	Ratio to National Average	Atlanta Tiered AHHS
Single-Family Detached, <1,500 sq. ft.	2.50	0.944	2.36
Single-Family Detached, 1,500-2,499 sq. ft.	2.69	0.944	2.54
Single-Family Detached, 2,500 sq. ft. +	2.98	0.944	2.81
Single-Family Detached, Total	2.70	0.944	2.55
Multi-Family, < 750 sq. ft.	1.89	0.828	1.56
Multi-Family, 750-1,499 sq. ft.	2.16	0.828	1.79
Multi-Family, 1,500 sq. ft. +	2.37	0.828	1.96
Multi-Family, Total	2.09	0.828	1.73

Source: National average from Table 69; Atlanta average from Table 68; ratio is Atlanta average to national average; Atlanta tiered is product of national average household size and Atlanta/national ratio.

APPENDIX C: FUNCTIONAL POPULATION

The two most common methodologies used in calculating public safety service units and impact fees are the "calls-for-service" approach and the "functional population" approach. As in the 1993 study, this update utilizes the "functional population" approach to calculate and assess the fire, police and park and recreation impact fees. This approach is a generally-accepted methodology for these impact fee areas and is based on the observation that demand for public safety facilities tends to be proportional to the presence of people at a particular site.

Functional population is analogous to the concept of "full-time equivalent" employees. It represents the number of "full-time equivalent" people present at the site of a land use, and it is used for the purpose of determining the impact of a particular development on the need for facilities. For residential development, functional population is simply average household size times the percent of time people spend at home. For nonresidential development, functional population is based on a formula that factors trip generation rates, average vehicle occupancy and average number of hours spent by visitors at a land use.

Residential Functional Population

For residential land uses, the impact of a dwelling unit on the need for capital facilities is generally proportional to the number of persons residing in the dwelling unit. This can be measured for different housing types in terms of either average household size (average number of persons per occupied dwelling unit) or persons per unit (average number of persons per dwelling unit, including vacant as well as occupied units). In this analysis, average household size is used to develop the functional population multipliers, as it avoids the need to make assumptions about occupancy rates.

The housing types proposed in this update include separating both the single-family and multi-family land use categories into three size categories. The average household size associated with each general housing category is shown in Appendix B. As mentioned above, the average household size is based on the occupied units and household population. These city-wide average multipliers will be used for all of the impact fee facility updates.

Determining residential functional population multipliers is considerably simpler than the nonresidential component. It is generally estimated that people spend one-half to two-thirds of their time at home and the rest of each 24-hour day away from their place of residence. In developing the residential component of 24-hour functional population, the 1993 study estimated that people, on average, spend 16 hours, or 67 percent, of each 24-hour day at their place of residence and the other 33 percent away from home. This estimate is also used in this update. A similar approach is used for the hotel/motel category. The functional population per unit for these uses is shown in Table 71.

Table 71. Functional Population per Unit for Residential Uses

Housing Type	Unit	Average HH Size	Occupancy	Func. Pop./Unit
Single-Family Detached (Avg.)	Dwelling	2.55	0.67	1.709
Less than 1,500 sf	Dwelling	2.36	0.67	1.581
1,500 to 2,499 sf	Dwelling	2.54	0.67	1.702
2,500 sf or greater	Dwelling	2.81	0.67	1.883
Multi-Family (Avg.)	Dwelling	1.73	0.67	1.159
Less than 750 sf	Dwelling	1.56	0.67	1.045
750 to 1,499 sf	Dwelling	1.79	0.67	1.199
1,500 sf or greater	Dwelling	1.96	0.67	1.313
Hotel/Motel	Room	1.57	0.50	0.785

Source: Average household size from Table 70; hotel/motel room occupancy based on one-half of average vehicle occupancy on vacation trips from U.S. Department of Transportation, *National Household Travel Survey*, 2009; occupancy factor for hotel/motel assumed.

Nonresidential Functional Population

The functional population methodology for nonresidential land uses is based on trip generation data utilized in developing the transportation demand schedule prepared for the updated transportation impact fee update. Functional population per 1,000 square feet is derived by dividing the total number of hours spent by employees and visitors during a week by 168 hours (24 hours/day times 7 days/week). Employees are estimated to spend nine hours per day at their place of employment seven days a week for retail/commercial and public/institutional land uses and five days a week for industrial and warehouse employees; and visitors are estimated to spend 0.5 to 1.0 hour per visit depending on land use. The formula used to derive the nonresidential functional population estimates is summarized in Figure 15.

Figure 15. Nonresidential Functional Population Formula

Functional population/unit = (employee hours/1000 sf + visitor hours/1000 sf) ÷ 24 hours/day

Functional population/employee = functional population/unit ÷ employee/unit

Where:

Employee hours = employees x 8 hours/day

Visitor hours/1000 sf = visitors/1000 sf x 1 hour/visit

Visitors/1000 sf = weekday ADT/1000 sf x avg. vehicle occupancy – employees/1000 sf

Weekday ADT/1000 sf = one way average daily trips (total trip ends ÷ 2)

Using this formula and information on trip generation rates used in this study for the transportation impact fee update, vehicle occupancy rates from the *National Household Travel Survey* and other sources and assumptions, nonresidential functional population estimates per 1,000 square feet of gross floor area and employee are calculated in Table 72.

Table 72. Functional Population per Unit for Nonresidential Uses

Land Use	Unit	Trip Rate	Persons/ Trip	Employee/ Unit	Visitors/ Unit	Functional Pop./Unit
Retail/Commercial	1,000 sq. ft.	21.35	1.75	0.84	36.52	1.802
Office	1,000 sq. ft.	5.52	1.15	2.11	4.24	0.880
Public/Institutional	1,000 sq. ft.	3.80	1.67	0.91	5.44	0.530
Industrial	1,000 sq. ft.	1.91	1.15	0.81	1.39	0.328
Warehouse	1,000 sq. ft.	1.78	1.15	0.49	1.56	0.228
Mini-Warehouse	1,000 sq. ft.	1.25	1.77	0.05	2.16	0.107

Source: Trip rates based on one-half of average daily trip rate from ITE, *Trip Generation*, 9th ed., 2012 (retail/commercial based on shopping center, public/institutional based on nursing home, industrial based on manufacturing); persons/trip is average vehicle occupancy from Federal Highway Administration, *Nationwide Household Travel Survey*, 2009; employees/unit from U.S. Department of Energy, *Commercial Buildings Energy Consumption Survey*, 2012; visitors/unit is trips times persons/trip minus employees/unit; functional population/unit calculated based on formula from Figure 15.

Functional Population Summary

The City's current impact fee schedules have 23 different land use categories; this update would reduce that number. This update proposes consolidating the nonresidential fee categories into 6 broader categories that are consistent among all of the updated impact fees addressed in this report. It also provides the option of assessing residential fees by the size of the unit. The functional population multipliers for the recommended residential and nonresidential land use categories are summarized in Table 73.

Table 73. Functional Population Multipliers

Land Use	Unit	Functional Pop./Unit
Single-Family Detached (Avg.)	Dwelling	1.709
Less than 1,500 sf	Dwelling	1.581
1,500 to 2,499 sf	Dwelling	1.702
2,500 sf or greater	Dwelling	1.883
Multi-Family (Avg.)	Dwelling	1.159
Less than 750 sf	Dwelling	1.045
750 to 1,499 sf	Dwelling	1.199
1,500 sf or greater	Dwelling	1.313
Hotel/Motel	Room	0.785
Retail/Commercial	1,000 sq. ft.	1.802
Office	1,000 sq. ft.	0.880
Public/Institutional	1,000 sq. ft.	0.530
Industrial	1,000 sq. ft.	0.328
Warehouse	1,000 sq. ft.	0.228
Mini-Warehouse	1,000 sq. ft.	0.107

Source: Residential dwelling unit functional population per unit from Table 71; nonresidential functional population per unit from Table 72.

Current estimates of functional population by park service area and city-wide are based on current housing and employment data from Appendix A. As shown in Table 74, the current functional population is about 774,000 city-wide.

Table 74. Functional Population Estimates, 2017

Land Use	Unit	Func. Pop./Unit	Units	Functional Population
Single-Family Detached	Dwelling	1.709	37,239	63,641
Multi-Family	Dwelling	1.159	76,561	88,734
Retail/Commercial	1,000 sq. ft.	1.802	79,464	143,194
Office	1,000 sq. ft.	0.880	54,521	47,978
Public/Institutional	1,000 sq. ft.	0.530	41,413	21,949
Industrial	1,000 sq. ft.	0.328	17,490	5,737
Warehouse	1,000 sq. ft.	0.228	35,981	8,204
Subtotal, Northside				379,437
Single-Family Detached	Dwelling	1.709	32,045	54,765
Multi-Family	Dwelling	1.159	40,627	47,087
Retail/Commercial	1,000 sq. ft.	1.802	39,304	70,826
Office	1,000 sq. ft.	0.880	24,767	21,795
Public/Institutional	1,000 sq. ft.	0.530	79,027	41,884
Industrial	1,000 sq. ft.	0.328	13,085	4,292
Warehouse	1,000 sq. ft.	0.228	38,629	8,807
Subtotal, Southside				249,456
Single-Family Detached	Dwelling	1.709	39,410	67,352
Multi-Family	Dwelling	1.159	33,183	38,459
Retail/Commercial	1,000 sq. ft.	1.802	11,469	20,667
Office	1,000 sq. ft.	0.880	4,345	3,824
Public/Institutional	1,000 sq. ft.	0.530	16,496	8,743
Industrial	1,000 sq. ft.	0.328	8,368	2,745
Warehouse	1,000 sq. ft.	0.228	14,368	3,276
Subtotal, Westside				145,066
Total City-Wide Functional Population				773,959

Source: Functional population per unit from Table 73; 2017 dwelling units from Table 62, Appendix A; 2017 nonresidential square feet from Table 63, Appendix A.

Projected estimates of functional population by park service area and city-wide are based on housing and employment projections from Appendix A. As shown in Table 75, the city-wide functional population is projected to be about 1.02 million in 2040.

Table 75. Functional Population Estimates, 2040

Land Use	Unit	Func. Pop./Unit	Units	Functional Population
Single-Family Detached	Dwelling	1.709	52,701	90,066
Multi-Family	Dwelling	1.159	107,623	124,735
Retail/Commercial	1,000 sq. ft.	1.802	92,919	167,440
Office	1,000 sq. ft.	0.880	71,125	62,590
Public/Institutional	1,000 sq. ft.	0.530	59,308	31,433
Industrial	1,000 sq. ft.	0.328	21,961	7,203
Warehouse	1,000 sq. ft.	0.228	40,292	9,187
Subtotal, Northside				492,654
Single-Family Detached	Dwelling	1.709	43,587	74,490
Multi-Family	Dwelling	1.159	67,358	78,068
Retail/Commercial	1,000 sq. ft.	1.802	46,980	84,658
Office	1,000 sq. ft.	0.880	29,891	26,304
Public/Institutional	1,000 sq. ft.	0.530	94,853	50,272
Industrial	1,000 sq. ft.	0.328	13,769	4,516
Warehouse	1,000 sq. ft.	0.228	40,071	9,136
Subtotal, Southside				327,444
Single-Family Detached	Dwelling	1.709	52,429	89,601
Multi-Family	Dwelling	1.159	45,199	52,386
Retail/Commercial	1,000 sq. ft.	1.802	18,061	32,546
Office	1,000 sq. ft.	0.880	5,872	5,167
Public/Institutional	1,000 sq. ft.	0.530	23,498	12,454
Industrial	1,000 sq. ft.	0.328	9,628	3,158
Warehouse	1,000 sq. ft.	0.228	16,861	3,844
Subtotal, Westside				199,156
Total City-wide Functional Population				1,019,254

Source: Functional population per unit from Table 73; 2040 dwelling units from Table 62, Appendix A; 2040 nonresidential square feet from Table 63, Appendix A.

APPENDIX D: MAJOR STREET INVENTORY

Table 76. Major Street Inventory

Street	From	To	Func. Class	Miles	Thru Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 Pk Hr Trips	2015 Pk Hr VMT
10th St	Howell Mill Rd	Fowler St	Coll	1.013	4	4.05	0.00	0.00	0.00	1	2.04	0.00	1,360	1,378
10th St	Fowler St	Techwood Dr	Coll	0.094	4	0.38	0.00	0.00	0.00	2	0.19	0.00	*1,390*	131
10th St	Techwood Dr	Williams St	Coll	0.079	5	0.40	0.00	0.00	0.00	4	0.16	0.00	*1,390*	110
10th St	Williams St	Spring St	Coll	0.082	6	0.49	0.00	0.08	0.00	0	0.16	0.00	*1,390*	114
10th St	Spring St	Peachtree St	Coll	0.301	4	1.20	0.00	0.08	0.00	5	0.61	0.00	*1,390*	418
10th St	Peachtree St	Monroe Dr	Coll	0.883	4	3.53	0.00	0.00	0.00	4	1.75	0.71	1,420	1,254
14th St	W Peachtree St	W of Cresent Av	Coll	0.268	4	1.07	0.00	0.00	0.00	0	0.54	0.00	2,070	555
14th St	Peachtree St	Juniper St	Coll	0.057	4	0.23	0.00	0.06	0.00	1	0.11	0.00	*1,720*	98
14th St	Juniper St	Piedmont Ave	Coll	0.232	2	0.46	0.00	0.06	0.00	3	0.47	0.00	1,720	399
14th St	Howell Mill Rd	Northside Dr	Coll	0.246	4	0.98	0.00	0.00	0.00	0	0.49	0.00	*1,805*	444
17th St	Peachtree St	W. Peachtree St	Coll	0.092	2	0.18	0.00	0.00	0.00	2	0.19	0.00	*1,805*	166
17th St	W. Peachtree St	Market St	Coll	0.437	4	1.75	0.00	0.00	0.00	9	0.88	0.88	1,890	826
17th St	Market St	State St	Coll	0.205	5	1.03	0.00	0.00	0.21	4	0.42	0.42	*1,890*	387
17th St	State St	Village St	Coll	0.274	4	1.10	0.00	0.28	0.00	3	0.55	0.55	*1,890*	518
17th St	Village St	Northside Dr	Coll	0.365	6	2.19	0.00	0.00	0.37	6	0.73	0.73	*1,890*	690
17th St	Northside Dr	Howell Mill Rd	Coll	0.249	2	0.50	0.00	0.00	0.09	2	0.17	0.00	121	30
Barnett St	Ponce De Leon Av	Virginia Ave	Coll	0.570	2	1.14	0.00	0.00	0.00	0	1.13	0.00	*358*	204
Beverly Rd	W Peachtree St	Montgom. Ferry	Coll	0.563	2	1.13	0.00	0.00	0.00	0	1.12	0.00	427	240
Bishop St	17th St	Mecaslin St	Coll	0.380	2	0.76	0.00	0.00	0.00	0	0.38	0.00	361	137
Blackland Rd	Roswell Rd	midpoint	Coll	0.294	2	0.59	0.00	0.00	0.00	2	0.00	0.00	*53*	16
Blackland Rd	midpoint	Northside Dr	Coll	1.058	2	2.12	0.00	0.00	0.00	0	0.00	1.07	53	56
Bohler Rd	Defoors Ferry Rd	W W.	Coll	1.140	2	2.28	0.00	0.00	0.00	0	1.16	1.16	452	515
Bolton Rd	Marietta Blvd	Moores Mill Rd	Coll	0.205	2	0.41	0.00	0.00	0.00	0	0.41	0.00	1,170	240
Boulevard	Ponce De Leon	North Ave	PA	0.443	4	1.77	0.00	0.00	0.00	2	0.89	0.00	1,610	713
Carroll Dr	Marietta Rd	Chattahoochee	Coll	0.261	2	0.52	0.00	0.00	0.00	0	0.26	0.00	*719*	188
Chattahoochee	Howell Mill Rd	Marietta Blve	Coll	1.658	4	6.63	0.00	0.00	0.00	2	1.21	0.00	1,240	2,056
Cheshire Br. Rd	N of Sheriden Rd	Lavista	PA	0.139	4	0.56	0.00	0.00	0.00	1	0.28	0.00	*1,840*	256
Cheshire Br. Rd	Lavista	Piedmont Rd	PA	1.178	4	4.71	0.00	0.00	0.00	3	2.35	0.00	1,840	2,168
Cheshire Br. Rd	Lenox Rd	N of Sheriden Rd	PA	0.206	5	1.03	0.00	0.00	0.00	2	0.42	0.00	3,250	670
Clifton Rd	DeKalb Ave	Ponce De Leon	Coll	0.847	2	1.69	0.00	0.00	0.00	1	1.67	0.00	500	424
Collier Rd	Chattahoochee	Defoors Ave	Coll	0.370	2	0.74	0.00	0.00	0.00	0	0.00	0.70	963	356
Collier Rd	Defoors Ave	Woodland Hills	Coll	0.451	2	0.90	0.00	0.00	0.00	0	0.60	0.90	*942*	425
Collier Rd	Woodland Hills	W of Emery St	Coll	0.293	2	0.59	0.00	0.00	0.00	2	0.59	0.59	*942*	276
Collier Rd	W of Emery St	Howell Mill Rd	Coll	0.091	2	0.18	0.00	0.00	0.00	2	0.18	0.00	*942*	86
Collier Rd	Howell Mill Rd	Ardmore Rd	Coll	0.940	2	1.88	0.00	0.00	0.00	4	1.88	0.87	920	865
Collier Rd	Ardmore Rd	Peachtree Rd	Coll	0.260	3	0.78	0.00	0.00	0.00	2	0.51	0.00	920	239
Deering Rd	Northside Dr	Mcaslin st	Coll	0.462	2	0.92	0.00	0.00	0.00	0	0.45	0.00	*944*	436
Deering Rd	Mcaslin St	Peachtree St	Coll	0.528	2	1.06	0.00	0.00	0.00	0	1.05	0.00	944	498
Defoor Ave	Collier Rd	Howell Mill Rd	Coll	1.102	2	2.20	0.00	0.00	0.00	0	1.11	0.00	*719*	792
Defoors Ferry	Bolton Rd	Collier Rd	Coll	2.003	2	4.01	0.00	0.00	0.00	2	1.59	1.22	808	1,618
E Morningside Dr	Piedmont Ave	E Rock Springs	Coll	0.757	2	1.51	0.00	0.00	0.00	0	1.51	0.00	*719*	544
E Paces Ferry Rd	Park Circle	Piedmont Rd	MA	0.158	2	0.32	0.00	0.00	0.00	0	0.32	0.00	*831*	131
E Paces Ferry Rd	Piedmont Rd	Grand View RD	MA	0.444	4	1.78	0.00	0.00	0.00	8	0.88	0.00	831	369
E Paces Ferry Rd	Grand View Rd	Peachtree Rd	MA	0.199	2	0.40	0.00	0.00	0.00	2	0.40	0.00	*831*	165
E Paces Ferry Rd	GA 400	Roxboro Rd	MA	0.686	3	2.06	0.29	0.00	0.00	6	1.38	0.00	621	426
E Rock Spgs Rd	E Morningside Dr	W Sussex Rd	Coll	0.415	2	0.83	0.00	0.00	0.00	2	0.84	0.53	*886*	368
E Rock Spgs Rd	W Sussex Rd	Johnson Rd	Coll	0.286	2	0.57	0.00	0.00	0.00	0	0.57	0.57	886	253
E Rock Spgs Rd	Johnson Rd	Beech Valley Wy	Coll	0.310	2	0.62	0.00	0.00	0.00	2	0.31	0.00	*886*	275
E Wesley Rd	Peachtree St	W Boiling Rd	Coll	0.192	2	0.38	0.00	0.00	0.00	0	0.38	0.00	*719*	138

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 PHT	Pk Hr VMT
E Wesley Rd	W Boiling Rd	Acorn Ave	Coll	0.325	2	0.65	0.00	0.00	0.00	0	0.32	0.00	*719*	234
E Wesley Rd	Acorn Ave	Ellwood Dr	Coll	0.157	2	0.31	0.00	0.16	0.00	0	0.16	0.00	*719*	113
E Wesley Rd	Ellwood Dr	Piedmont Rd	Coll	0.601	2	1.20	0.00	0.00	0.00	0	0.62	0.00	*719*	432
Garmon Rd	Mt Paran Rd	City Limit	Coll	0.615	2	1.23	0.00	0.00	0.00	0	0.00	0.00	*719*	442
Habersham Rd	Peachtree Battle	W Paces Ferry	Coll	1.759	2	3.52	0.00	0.00	0.00	0	0.00	3.53	*1,010*	1,777
Habersham Rd	W Paces Ferry	Roswell Rd	Coll	1.072	2	2.14	0.00	0.00	0.00	0	1.07	2.15	1,010	1,083
Habersham Rd	Roswell Rd	Piedmont Rd	Coll	0.064	2	0.13	0.00	0.00	0.00	4	0.12	0.00	*1,010*	65
Habersham Rd	Piedmont Rd	Old Ivy Rd	Coll	0.089	2	0.18	0.00	0.00	0.00	0	0.09	0.00	*1,010*	90
Hemphill Ave	Ferst St	10th St	Coll	0.274	2	0.55	0.00	0.00	0.00	0	0.55	0.00	*719*	197
Hemphill Ave	10th	Ethel St	Coll	0.227	3	0.68	0.00	0.00	0.00	0	0.23	0.00	*1,161*	264
Hemphill Ave	Ethel St	Northside Dr	Coll	0.194	4	0.78	0.00	0.00	0.00	0	0.20	0.00	*1,288*	250
Hills Ave	Collier Rd	Chattahoochee	Coll	0.266	2	0.53	0.00	0.00	0.00	1	0.04	0.00	*719*	191
Hillside Dr	Powers Ferry Rd	Northside Dr	Coll	0.798	2	1.60	0.00	0.00	0.00	0	0.80	0.00	*719*	574
Howell Mill Rd	W Marietta St	14th St	PA	0.505	3	1.52	0.00	0.00	0.00	0	1.02	0.00	*1,980*	1,000
Howell Mill Rd	14th St	Huff Rd	PA	0.136	4	0.54	0.00	0.00	0.00	0	0.27	0.00	*1,980*	269
Howell Mill Rd	Huff Rd	Trabert Ave	PA	0.427	3	1.28	0.00	0.00	0.00	0	0.42	0.00	1,980	845
Howell Mill Rd	Trabert Ave	Forrest St	PA	0.209	4	0.84	0.00	0.00	0.00	0	0.41	0.00	2,765	578
Howell Mill Rd	Forrest St	Chattahoochee	PA	0.241	3	0.72	0.00	0.00	0.00	1	0.48	0.00	2,765	666
Howell Mill Rd	Chattahoochee Av	Ridgeway Ave	PA	0.162	2	0.32	0.00	0.00	0.00	3	0.32	0.00	2,765	448
Howell Mill Rd	Ridgeway Ave	Shop Ctr Ent	PA	0.160	4	0.64	0.00	0.00	0.00	1	0.32	0.00	3,550	568
Howell Mill Rd	Shop Ctr Ent	I-75 ramps	PA	0.076	4	0.30	0.00	0.00	0.00	3	0.15	0.00	*2,780*	211
Howell Mill Rd	I-75 ramps	Beck St	PA	0.153	4	0.61	0.00	0.00	0.00	4	0.30	0.00	*2,780*	425
Howell Mill Rd	Beck St	Collier Rd	PA	0.169	3	0.51	0.00	0.00	0.00	2	0.34	0.00	*2,780*	470
Howell Mill Rd	Collier Rd	Norfleet Rd	PA	0.111	2	0.22	0.00	0.00	0.00	1	0.22	0.00	*2,780*	309
Howell Mill Rd	Norfleet Rd	Nawench Rd	PA	1.620	2	3.24	0.00	0.04	0.00	11	1.62	3.25	2,010	3,256
Howell Mill Rd	Nawench Rd	Robert Dr	PA	0.520	2	1.04	0.00	0.00	0.00	0	0.52	0.52	527	274
Howell Mill Rd	Robert Dr	Howell Mill Plant.	PA	0.144	2	0.29	0.00	0.00	0.00	0	0.15	0.15	*554*	80
Howell Mill Rd	Howell Mill Plant.	Northside Pkwy	PA	0.589	2	1.18	0.00	0.00	0.00	3	0.59	0.05	581	342
Huff Rd	Marietta Blvd	Howell Mill Rd	Coll	0.988	2	1.98	0.00	0.00	0.00	0	0.99	0.00	854	844
Juniper St	14th St	10th St	MA	0.329	3	0.99	0.00	0.00	0.00	4	0.67	0.00	*1,560*	513
Juniper St	10th St	Peachtree Pl	MA	0.075	4	0.30	0.00	0.00	0.00	1	0.15	0.00	*1,560*	117
Juniper St	Peachtree Pl	Courtland St	MA	0.648	4	2.59	0.00	0.00	0.00	8	1.30	0.00	1,560	1,011
Lake Forrest Dr	Powers Ferry Rd	Interlochen Dr	Coll	0.657	2	1.31	0.00	0.00	0.00	0	0.66	1.32	*719*	472
Lake Forrest Dr	Interlochen Dr	Lake Forrest Ln	Coll	0.186	2	0.37	0.00	0.00	0.00	0	0.00	0.37	*719*	134
Lake Forrest Dr	Lake Forrest Ln	City Limit	Coll	0.699	2	1.40	0.00	0.00	0.00	0	0.00	0.00	*719*	503
Jett Rd	Powers Ferry Rd	Jettridge Dr	Coll	0.645	2	1.29	0.00	0.00	0.00	0	0.66	0.00	*719*	464
Johnson Rd NE	E Rock Springs	Pasadena Ave	Coll	0.196	2	0.39	0.00	0.00	0.00	4	0.39	0.00	*1,070*	210
Johnson Rd NE	Pasadena Ave	Helen Dr	Coll	0.575	2	1.15	0.00	0.00	0.00	0	1.15	0.00	1,070	615
Johnson Rd NE	Helen Dr	Briarcliff	Coll	0.117	3	0.35	0.00	0.00	0.00	4	0.23	0.00	*1,070*	125
Lenox Rd	Cheshire Br Rd	Lenox Pt	Coll	0.262	4	1.05	0.00	0.00	0.00	12	0.53	0.00	4,210	1,103
Lenox Rd	Lenox Pt	Canteberry	Coll	0.076	3	0.23	0.00	0.00	0.00	2	0.15	0.00	*3,550*	270
Lenox Rd	Canteberry	Burke Rd	Coll	0.514	2	1.03	0.52	0.00	0.00	8	0.52	0.52	*3,550*	1,825
Lenox Rd	Burke Rd	Center Rd	Coll	0.492	2	0.98	0.00	0.00	0.00	0	0.50	0.97	2,890	1,422
Lenox Rd	Center Rd	Peachtree Rd	Coll	0.680	4	2.72	0.00	0.00	0.00	10	0.00	0.00	*2,890*	1,965
Lindbergh Dr	Peachtree Rd	Glenwood Dr	MA	0.188	2	0.38	0.00	0.00	0.00	3	0.38	0.00	*1,300*	244
Lindbergh Dr	Glenwood Dr	Peachtree Hills	MA	0.665	2	1.33	0.00	0.00	0.00	0	1.34	0.00	1,300	865
Lindbergh Dr	Peachtree Hills	Garason Dr	MA	0.168	3	0.50	0.00	0.00	0.00	2	0.34	0.00	*1,300*	218
Mecaslin St	17th St	Richards St	Coll	0.114	2	0.23	0.00	0.00	0.00	0	0.23	0.00	*719*	82
Mecaslin St	Richards St	14th st	Coll	0.169	2	0.34	0.00	0.00	0.00	0	0.34	0.00	*719*	122
Monroe Dr	Piedmont Ave	Monroe Cir NE	Coll	1.294	4	5.18	0.00	0.00	0.00	0	2.58	0.00	2,420	3,131
Monroe Dr	Monroe Cir NE	Boulevard	Coll	0.381	3	1.14	0.00	0.00	0.00	16	0.76	0.00	*2,420*	922

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 PHT	Pk Hr VMT
Montgom. Ferry	Piedmont Ave	Polo Dr	Coll	0.555	2	1.11	0.00	0.00	0.00	1	0.56	0.00	705	391
Montgom. Ferry	Beverly Rd	The Prado	Coll	0.287	2	0.57	0.00	0.00	0.00	0	0.47	0.00	*719*	206
Moores Mill Rd	Bolton Rd	W. W.	Coll	1.367	2	2.73	0.00	0.00	0.00	0	1.38	0.00	1,330	1,818
Moores Mill Rd	W. W. Rd	I-75	Coll	0.388	2	0.78	0.00	0.00	0.00	3	0.52	0.78	*1,180*	458
Moores Mill Rd	I-75	Howell Mill Rd	Coll	0.480	3	1.44	0.00	0.00	0.00	1	0.49	0.95	1,030	494
Moores Mill Rd	Howell Mill Rd	W Paces Ferry	Coll	1.077	2	2.15	0.00	0.00	0.00	5	0.64	2.17	986	1,062
Loridans Dr	Wieuca Rd	P'tree Dunwoody	Coll	0.976	2	1.95	0.00	0.00	0.00	0	0.98	0.00	305	298
Marietta Blvd	Bolton Rd	Coronet Rd	PA	0.515	4	2.06	0.36	0.00	0.00	4	1.03	0.00	*2,410*	1,241
Marietta Blvd	Coronet Rd	Chattahoochee	PA	0.724	4	2.90	0.00	0.00	0.00	2	1.45	0.00	2,410	1,745
Marietta Blvd	Chattahoochee	Thomas St	PA	0.628	4	2.51	0.00	0.00	0.00	10	0.63	0.00	*1,850*	1,162
Marietta Blvd	Thomas St	Huff Rd	PA	1.008	4	4.03	0.00	0.00	0.00	1	0.54	0.00	1,290	1,300
Marietta Rd	Thomas St	Bolton Rd	Coll	1.767	2	3.53	0.00	0.00	0.00	0	1.42	0.00	*719*	1,270
Marietta St	Peachtree St	Forsyth St	Coll	0.109	4	0.44	0.00	0.11	0.00	0	0.21	0.00	1,600	174
Mt Paran Rd	I-75 Entrance	City Limit	Coll	2.078	3	6.23	0.00	0.00	0.00	0	0.00	0.00	1,090	2,265
N Highland Ave	E Rock Springs	Cumberland Rd	Coll	0.086	3	0.26	0.00	0.00	0.00	2	0.17	0.00	*1,390*	120
N Highland Ave	Cumberland Rd	University Dr	Coll	0.185	2	0.37	0.00	0.00	0.00	0	0.37	0.00	*1,390*	257
N Highland Ave	University Dr	Wessyngton Rd	Coll	0.216	2	0.43	0.00	0.00	0.00	0	0.44	0.00	*1,390*	300
N Highland Ave	Wessyngton Rd	Virginia Ave	Coll	0.663	2	1.33	0.00	0.00	0.00	1	1.32	0.00	1,390	922
N Highland Ave	Virginia Ave	Highland View	Coll	0.229	2	0.46	0.00	0.00	0.00	6	0.44	0.00	*1,076*	246
N Highland Ave	Highland View	St Augustine Pl	Coll	0.333	2	0.67	0.00	0.00	0.00	0	0.66	0.00	*1,076*	358
N Highland Ave	St Augustine Pl	Ponce De Leon	Coll	0.043	3	0.13	0.00	0.00	0.00	0	0.09	0.00	*1,076*	46
N Highland Ave	Ponce De Leon	Freedom Pkwy.	Coll	0.322	3	0.97	0.00	0.00	0.00	6	0.64	0.00	*1,076*	346
North Ave	Piedmont	N Angier St	Coll	0.977	6	5.86	0.00	0.00	0.00	4	1.95	0.00	1,610	1,573
Northside Dr	Northside Pkwy	W Paces Ferry	PA	0.624	2	1.25	0.00	0.00	0.00	3	0.43	0.00	354	221
Northside Dr	W Paces Ferry	Blackland Rd	PA	0.937	2	1.87	0.00	0.00	0.00	1	0.00	1.59	*682*	639
Northside Dr	Blackland Rd	Highcourt Rd	PA	1.442	2	2.88	0.00	0.00	0.00	1	0.11	0.00	1,010	1,456
Oakdale Rd	Ponce De Leon	Fairview Rd	Coll	0.165	2	0.33	0.00	0.00	0.00	0	0.33	0.00	*719*	119
Oakdale Rd	Fairview Rd	North Ave	Coll	0.111	2	0.22	0.00	0.00	0.00	0	0.11	0.00	*719*	80
Old Ivy Rd	Roswell Rd	Wieuca rd	Coll	1.300	2	2.60	0.00	0.00	0.00	0	1.65	1.30	*719*	935
Paces Ferry Rd	W Paces Ferry	Northgate Dr	Coll	1.608	2	3.22	0.00	0.00	0.00	2	0.15	0.00	1,000	1,608
Peachtree Battle	Peachtree St	Dellwood Dr	Coll	0.591	1	0.59	0.00	0.61	0.00	1	0.22	1.18	*376*	222
Peachtree Battle	Dellwood Dr	Haven Ridge Dr	Coll	0.091	2	0.18	0.00	0.00	0.00	0	0.09	0.18	*376*	34
Peachtree Battle	Haven Ridge Dr	Northside Dr	Coll	0.527	2	1.05	0.00	0.00	0.00	2	0.54	1.03	*376*	198
Peachtree Battle	Northside Dr	Howell Mill Rd	Coll	0.559	2	1.12	0.00	0.00	0.00	2	0.56	0.56	376	210
Peachtree Battle	Howell Mill Rd	Moores Mill Rd	Coll	1.427	2	2.85	0.00	0.00	0.00	0	1.43	0.00	*376*	537
P'tree Dunwoody	Peachtree Rd	Haven Rd	PA	0.428	4	1.71	0.00	0.00	0.00	8	0.85	0.04	*1,130*	484
P'tree Dunwoody	Haven Rd	Brookhaven Sps	PA	1.629	4	6.52	0.00	0.00	0.00	2	1.64	0.34	1,130	1,841
Peachtree St	Pine St	Ponce De Leon	PA	0.332	5	1.66	0.00	0.00	0.00	0	0.66	0.08	*2,050*	681
Peachtree St	Ponce De Leon	11th St	PA	0.761	4	3.04	0.00	0.00	0.00	2	1.53	0.00	2,050	1,560
Peachtree St	11th st	W Peachtree st	PA	0.858	4	3.43	0.00	0.17	0.09	14	1.73	0.00	2,035	1,746
Pharr Rd	Slanton Dr	East of Pharr Ct	Coll	0.289	2	0.58	0.00	0.00	0.00	0	0.58	0.00	*719*	208
Pharr Rd	East of Pharr Ct	Piedmont Rd	Coll	0.770	3	2.31	0.00	0.00	0.00	11	1.56	0.00	*1,161*	894
Piedmont Ave	Ponce De Leon	Cheshire Bridge	PA	2.704	4	10.82	0.00	0.00	0.02	45	5.43	0.92	1,710	4,624
Polo Dr	Mont'y Ferry Dr	Beverly Rd	Coll	0.239	2	0.48	0.00	0.00	0.00	0	0.24	0.00	*719*	172
Ponce De Leon	Juniper	Peachtree St	Coll	0.096	3	0.29	0.00	0.00	0.00	0	0.19	0.00	1,600	154
Ponce De Leon	Peachtree St	Spring St	Coll	0.228	2	0.46	0.00	0.00	0.00	0	0.45	0.00	*1,600*	365
Powers Ferry Rd	Roswell Rd	W Wieuca Rd	Coll	1.462	2	2.92	0.00	0.00	0.00	1	1.49	1.45	567	829
Powers Ferry Rd	W Wieuca Rd	Stella Dr	Coll	0.285	3	0.86	0.00	0.00	0.00	0	0.37	0.13	*567*	162
Powers Ferry Rd	Stella Dr	Whitemere Ln	Coll	0.120	2	0.24	0.00	0.00	0.00	0	0.19	0.00	*567*	68
Ridgewood Rd	Paces Ferry Rd	Moores Mill Rd	Coll	2.634	2	5.27	0.00	0.00	0.00	0	0.00	0.00	73	192

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Thru Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 Pk Hr Trips	2015 Pk Hr VMT
Roxboro Rd	Peachtree Rd	Wieuca rd	MA	0.146	4	0.58	0.00	0.00	0.00	6	0.00	0.00	*1,910*	279
Roxboro Rd	Wieuca Rd	City Limit	MA	0.779	4	3.12	0.00	0.44	0.00	14	1.56	0.79	1,910	1,488
S Atlanta Rd	Chatt. River Br	Bolton Rd	PA	0.311	4	1.24	0.00	0.00	0.32	1	0.63	0.63	2,270	706
Sidney Marcus	Piedmont Rd	Buford Hwy	PA	0.651	4	2.60	0.00	0.65	0.00	20	1.31	0.00	4,280	2,786
Spring St	14th	10th st	PA	0.356	4	1.42	0.00	0.00	0.00	0	0.71	0.00	1,610	573
Tech Pky	North Ave	Northside Dr	Coll	0.925	2	1.85	0.00	0.00	0.93	5	0.00	0.00	754	697
Techwood Dr	16th St	14th	PA	0.210	3	0.63	0.00	0.00	0.00	3	0.21	0.00	*1,647*	346
Techwood Dr	14th	10th St	PA	0.355	3	1.07	0.00	0.00	0.00	6	0.36	0.00	*1,647*	585
The Prado	Piedmont Ave	Montgom. Ferry	Coll	0.430	2	0.86	0.00	0.00	0.00	0	0.85	0.00	*719*	309
The Prado	Montgom. Ferry	Peachtree Circle	Coll	0.344	2	0.69	0.00	0.00	0.00	0	0.69	0.00	*719*	247
Virginia Ave	I-85 bridge	Int'l Blvd	Coll	0.239	4	0.96	0.25	0.00	0.00	11	0.48	0.00	*1,288*	308
W Paces Ferry	Peachtree Rd	E Andrews	PA	0.320	4	1.28	0.00	0.00	0.00	4	0.63	0.00	*1,750*	560
W Paces Ferry	E Andrews	Chatham Rd	PA	0.452	2	0.90	0.00	0.00	0.00	5	0.46	0.00	*1,750*	791
W Paces Ferry	Chatham Rd	Northside Dr	PA	0.968	2	1.94	0.00	0.00	0.00	4	0.98	0.98	1,750	1,694
W Paces Ferry	Northside Dr	Randall Mill	PA	0.971	2	1.94	0.00	0.00	0.00	8	0.99	0.99	*1,750*	1,699
W Paces Ferry	Randall Mill	Northside Pkwy	PA	0.416	2	0.83	0.42	0.00	0.00	14	0.42	0.42	*1,750*	728
W Paces Ferry	Northside Pkwy	I-75	PA	0.087	4	0.35	0.00	0.00	0.00	2	0.09	0.09	1,930	168
W Paces Ferry	I-75	Paces Ferry Rd	PA	0.054	3	0.16	0.00	0.00	0.00	2	0.11	0.00	*1,109*	60
W Paces Ferry	Paces Ferry Rd	Ridgewood Rd	PA	1.020	2	2.04	0.00	0.00	0.00	1	0.08	0.00	287	293
W Peachtree St	5th St	10th St	PA	0.363	4	1.45	0.00	0.00	0.00	2	0.73	0.30	1,830	664
W Wesley Rd	Ridgewood Rd	Sequoyah Dr	Coll	0.562	2	1.12	0.00	0.00	0.00	0	0.00	0.00	*571*	321
W Wesley Rd	Sequoyah Dr	Northside Dr	Coll	2.187	2	4.37	0.00	0.00	0.00	3	2.20	0.26	*571*	1,249
W Wesley Rd	Northside Dr	Peachtree Rd	Coll	1.153	2	2.31	0.00	0.00	0.00	4	1.16	2.30	571	658
W Wieuca Rd	Wieuca Rd	Lake Forrest Dr	Coll	0.834	2	1.67	0.00	0.00	0.00	0	1.67	0.00	962	802
W Wieuca Rd	Lake Forrest Dr	Powers Ferry Rd	Coll	0.600	2	1.20	0.00	0.00	0.00	0	0.60	0.00	*962*	577
Wieuca Rd	City Limit	Phipps Blvd	PA	0.293	4	1.17	0.00	0.00	0.00	11	0.59	0.00	*971*	285
Wieuca Rd	Phipps Blvd	Statewood Rd	PA	0.647	2	1.29	0.00	0.00	0.00	1	0.86	0.98	*1,340*	867
Wieuca Rd	Statewood Rd	W Wieuca Rd	PA	1.055	2	2.11	0.00	0.00	0.00	0	2.12	2.12	1,100	1,161
Total, Northside				99.505		263.40	1.84	2.74	2.03	467	119.91	46.29		115,483
Atlanta Ave	Hank Aaron	Hill St	Coll	0.543	2	1.09	0.00	0.00	0.00	0	1.09	0.00	121	66
Atlanta Ave	Hill St	Cherokee Ave	Coll	0.281	2	0.56	0.00	0.00	0.00	0	0.56	0.00	*719*	202
Atlanta Ave	Cherokee Ave	Boulevard	Coll	0.305	2	0.61	0.00	0.00	0.00	0	0.61	0.00	*719*	219
Auburn Ave	Peachtree St	Piedmont Ave	Coll	0.376	3	1.13	0.00	0.00	0.00	0	0.75	0.38	381	143
Auburn Ave	Piedmont Ave	Randolph St	Coll	0.827	2	1.65	0.00	0.00	0.00	0	1.65	0.00	225	186
Auburn Ave	Randolph St	Lake Ave/Irwin	Coll	0.183	2	0.37	0.00	0.00	0.00	0	0.36	0.00	225	41
Austin Ave	Euclid Ave	Lake Ave	Coll	0.301	2	0.60	0.00	0.02	0.00	1	0.61	0.02	*719*	216
Baker Highland	Central Park Pl	Weldon Pl	Coll	0.251	2	0.50	0.00	0.00	0.00	6	0.50	0.00	*719*	180
Baker St	Marietta St	Cent. Olymp. Prk	MA	0.255	4	1.02	0.00	0.00	0.00	1	0.51	0.00	*1,375*	351
Baker St	Cent. Olymp. Prk	Piedmont Ave	MA	0.572	4	2.29	0.00	0.00	0.00	0	1.15	0.00	*1,375*	787
Bell St	Irwin St	Edgewood Ave	MA	0.217	2	0.43	0.00	0.00	0.00	0	0.22	0.00	*554*	120
Berne St	Boulevard	Moreland Ave	Coll	1.092	2	2.18	0.00	0.00	0.00	0	2.15	0.84	126	138
Boulevard	North Ave	Wabash Ave	PA	0.495	4	1.98	0.00	0.00	0.00	8	0.99	0.00	1,725	854
Boulevard	Wabash Ave	Freedom Pkwy.	PA	0.168	4	0.67	0.00	0.00	0.00	2	0.33	0.00	*1,723*	289
Boulevard	Freedom Pkwy.	Edgewood Ave	PA	0.232	4	0.93	0.00	0.00	0.00	2	0.16	0.00	1,720	399
Boulevard	Edgewood Ave	Gartrell St	PA	0.053	3	0.16	0.00	0.00	0.00	0	0.00	0.00	*1,900*	101
Boulevard	Gartrell St	Decatur St	PA	0.312	2	0.62	0.00	0.00	0.00	0	0.47	0.00	*1,900*	593
Boulevard	Gartrell St	N of Reinhardt St	PA	0.140	2	0.28	0.00	0.00	0.00	2	0.14	0.00	2,080	291
Boulevard	N of Reinhardt St	Reinhardt St	PA	0.089	2	0.18	0.00	0.09	0.00	1	0.18	0.00	*2,170*	193
Boulevard	Reinhardt St	Carroll St	PA	0.168	2	0.34	0.00	0.00	0.00	1	0.34	0.00	2,260	380

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Thru Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 Pk Hr Trips	2015 Pk Hr VMT
Boulevard	Carroll St	Memorial Dr	PA	0.117	4	0.47	0.00	0.00	0.00	22	0.23	0.00	*1,769*	207
Boulevard	Memorial Dr	Woodward Ave	PA	1.981	4	7.92	0.00	0.00	0.00	0	3.97	0.00	1,278	2,532
Browns Mill Rd	Jonesboro Rd	Harper St	Coll	0.464	2	0.93	0.00	0.00	0.00	0	0.93	0.00	*223*	103
Browns Mill Rd	Harper St	McWilliams St	Coll	0.557	2	1.11	0.00	0.00	0.00	0	0.00	0.44	223	124
Browns Mill Rd	McWilliams St	Cleveland Ave	Coll	0.887	2	1.77	0.00	0.00	0.00	0	0.24	0.87	*267*	237
Browns Mill Rd	Cleveland Ave	midblock	Coll	0.320	2	0.64	0.00	0.00	0.00	1	0.00	0.32	*267*	85
Browns Mill Rd	midblock	Ruby Harper Bvd	Coll	0.892	2	1.78	0.00	0.00	0.00	0	0.00	1.40	310	277
Capitol Ave	Fulton St	Clarke St	PA	0.085	4	0.34	0.09	0.00	0.00	2	0.17	0.00	*1,870*	159
Capitol Ave	Clarke St	Memorial Dr	PA	0.264	6	1.58	0.26	0.00	0.00	3	0.54	0.00	1,870	494
Capitol Ave	Memorial Dr	MLK Jr Dr	PA	0.172	4	0.69	0.00	0.00	0.00	5	0.35	0.00	1,330	229
Capitol Sq	Capitol Ave	Washington St	Coll	0.111	6	0.67	0.00	0.00	0.00	2	0.18	0.00	*1,630*	181
Cent'l Olymp Prk	North ave	Ivan Allen Blvd	Coll	0.461	4	1.84	0.00	0.00	0.00	2	0.92	0.00	*1,150*	530
Cent'l Olymp Prk	Ivan Allen Blvd	Baker St	Coll	0.165	5	0.83	0.00	0.00	0.00	0	0.34	0.00	*464*	77
Cent'l Olymp Prk	Baker St	Marietta St	Coll	0.338	3	1.01	0.00	0.00	0.00	4	0.68	0.00	*464*	157
Central Ave	Pryor St	Dodd Ave	PA	0.068	3	0.20	0.00	0.00	0.00	0	0.14	0.00	*1,647*	112
Central Ave	Dodd Ave	Bass St	PA	0.161	2	0.32	0.00	0.00	0.00	0	0.32	0.00	*1,340*	216
Central Ave	Bass St	Glenn St	PA	0.165	3	0.50	0.00	0.00	0.00	0	0.33	0.00	*1,647*	272
Central Ave	Glenn St	Richardson St	PA	0.187	2	0.37	0.00	0.00	0.00	0	0.18	0.00	*1,340*	251
Central Ave	Richardson St	Rawson St	PA	0.127	3	0.38	0.00	0.00	0.00	0	0.25	0.00	*1,647*	209
Central Ave	Rawson St	Memorial Dr	PA	0.311	4	1.24	0.00	0.00	0.00	0	0.31	0.00	*1,687*	525
Cherokee Ave	Memorial Dr	Glenwood Ave	Coll	0.259	2	0.52	0.00	0.00	0.00	1	0.51	0.00	*398*	103
Cherokee Ave	Glenwood Ave	Atlanta Ave	Coll	0.882	2	1.76	0.00	0.00	0.00	0	1.75	0.00	398	351
Claire Dr	Pryor Rd	Lakewood Ave	Coll	0.884	2	1.77	0.00	0.00	0.00	2	1.77	0.00	423	374
Cleveland Ave	City Limit	I-85 NB Ramps	PA	0.246	4	0.98	0.24	0.00	0.00	9	0.49	0.00	1,750	431
Cleveland Ave	I-85 NB Ramps	Steele Ave	PA	0.838	4	3.35	0.84	0.00	0.00	15	1.69	0.00	2,060	1,726
Cleveland Ave	Steele Ave	Old Hapeville Rd	PA	0.150	3	0.45	0.00	0.00	0.00	1	0.30	0.00	*1,530*	230
Cleveland Ave	Old Hapeville Rd	Macon Dr	PA	0.286	3	0.86	0.00	0.00	0.00	0	0.57	0.00	*1,530*	438
Cleveland Ave	Macon Dr	Jonesboro Rd	PA	1.278	2	2.56	0.00	0.00	0.00	4	2.56	0.00	1,000	1,278
Coca-Cola Plz	Jesse Hill Jr	Bell St	MA	0.092	2	0.18	0.00	0.00	0.00	0	0.00	0.00	*554*	51
College Ave	Howard	Sisson	Coll	0.579	2	1.16	0.00	0.00	0.00	0	0.58	0.00	823	477
Confederate Av	Boulevard	Underwood Ave	Coll	1.053	2	2.11	0.00	0.00	0.00	2	2.11	1.15	587	618
Conley Rd	Jonesboro Rd	City Limit	Coll	0.725	2	1.45	0.00	0.00	0.00	0	0.72	0.00	*719*	521
Constitution Rd	Jonesboro Rd	Forest Park Rd	Coll	0.399	2	0.80	0.00	0.00	0.00	0	0.40	0.00	*611*	244
Constitution Rd	Forest Park Rd	Moreland Ave	Coll	0.628	2	1.26	0.00	0.00	0.00	0	0.00	0.00	611	384
Courtland St	North Ave	Edgewood Ave	PA	1.166	5	5.83	0.00	0.00	0.00	30	2.35	0.00	1,130	1,318
Courtland St	Edgewood Ave	Decatur St	PA	0.195	4	0.78	0.00	0.00	0.00	6	0.38	0.00	*1,130*	220
Courtland St	Decatur St	MLK	PA	0.193	4	0.77	0.00	0.00	0.00	2	0.39	0.00	*1,130*	218
Custer Ave	Boulevard	Moreland Ave	Coll	1.123	2	2.25	0.00	0.00	0.00	2	1.80	2.07	641	720
Decatur St	Krog St	Jackson St	PA	0.592	3	1.78	0.22	0.00	0.00	0	0.61	0.00	1,400	829
Decatur St	Jackson St	Hilliard St	PA	0.182	4	0.73	0.00	0.00	0.00	2	0.36	0.00	*1,400*	255
Decatur St	Hilliard St	Bell St	PA	0.167	4	0.67	0.00	0.00	0.00	2	0.33	0.00	*1,400*	234
Decatur St	Bell St	Jesse Hill Jr	PA	0.289	4	1.16	0.00	0.00	0.00	0	0.58	0.00	*1,400*	405
Decatur St	Jesse Hill Jr	Peachtree St	PA	0.409	3	1.23	0.00	0.00	0.17	8	0.83	0.00	*1,400*	573
Dekalb Ave	City Limit	Arizona Ave	PA	0.954	4	3.82	0.00	0.00	0.00	0	0.95	0.00	*1,770*	1,689
Dekalb Ave	Arizona Ave	Oaldale Ave	PA	0.642	3	1.93	0.00	0.00	0.00	0	0.65	0.00	1,770	1,136
Dekalb Ave	Oaldale Ave	Krog St	PA	1.428	2	2.86	0.91	0.00	0.00	12	1.59	0.00	*1,770*	2,528
Dodd Ave	Cooper St	Central Ave	MA	0.207	2	0.41	0.00	0.00	0.00	0	0.41	0.00	*554*	115
E Confederate	Underwood Ave	Moreland Ave	Coll	0.500	2	1.00	0.00	0.00	0.00	1	1.00	0.55	*719*	360
Edgewood Ave	Hurt St	Delta Pl	PA	0.314	2	0.63	0.00	0.00	0.00	0	0.63	0.63	*1,050*	330
Edgewood Ave	Delta Pl	Boulevard	PA	0.768	2	1.54	0.00	0.00	0.06	3	1.50	1.42	*1,050*	806

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Thru Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 Pk Hr Trips	2015 Pk Hr VMT
Edgewood Ave	Boulevard	Jackson St	PA	0.129	2	0.26	0.13	0.00	0.00	2	0.26	0.26	*1,050*	135
Edgewood Ave	Jackson St	Fort St	PA	0.211	2	0.42	0.00	0.00	0.00	2	0.42	0.27	*1,050*	222
Edgewood Ave	Fort St	Jesse Hill Jr Dr	PA	0.129	2	0.26	0.00	0.05	0.02	4	0.26	0.13	1,050	135
Edgewood Ave	Jesse Hill Jr Dr	Piedmont Ave	PA	0.116	2	0.23	0.00	0.00	0.00	1	0.24	0.11	*981*	114
Edgewood Ave	Piedmont Ave	Peachtree Ctr	PA	0.238	2	0.48	0.00	0.00	0.03	3	0.47	0.24	*981*	233
Edgewood Ave	Peachtree Ctr	Peachtree St	PA	0.184	2	0.37	0.00	0.00	0.00	3	0.37	0.13	912	168
Empire Blvd	Browns Mill Rd	Mt Zion Rd	Coll	1.161	2	2.32	0.00	0.00	0.00	0	0.43	0.00	*719*	835
Euclid Ave	Edgewood Ave	Moreland Ave	Coll	0.937	2	1.87	0.00	0.04	0.00	1	1.88	0.00	201	188
Flat Shoals Ave	Glenwood Ave	May Ave	Coll	0.111	2	0.22	0.00	0.00	0.00	0	0.22	0.11	*608*	67
Flat Shoals Ave	May Ave	Bouldercrest Rd	Coll	0.730	2	1.46	0.00	0.00	0.00	0	1.44	0.00	608	444
Forrest Park Rd	Thomasville Dr	Constitution Rd	Coll	0.393	2	0.79	0.00	0.00	0.00	0	0.39	0.00	282	111
Forrest Park Rd	Constitution Rd	Natham Dr	Coll	0.133	2	0.27	0.00	0.00	0.00	0	0.13	0.27	*213*	28
Forrest Park Rd	Natham Dr	S River Ind Blvd	Coll	0.693	2	1.39	0.00	0.00	0.00	0	0.00	1.39	*213*	148
Forrest Park Rd	S River Ind Blvd	Conley Rd	Coll	2.372	2	4.74	0.00	0.00	0.00	0	0.00	0.00	143	339
Forsyth St	Garnett St	Marietta St	Coll	0.509	4	2.04	0.00	0.00	0.00	0	1.02	0.00	*1,288*	656
Forsyth St	Marietta St	Poplar St	Coll	0.099	3	0.30	0.00	0.00	0.00	0	0.19	0.00	*1,161*	115
Forsyth St	Poplar St	Peachtree St	Coll	0.151	3	0.45	0.00	0.00	0.00	4	0.30	0.00	*1,161*	175
Fulton St	Humphries st	McDaniel St	Coll	0.154	2	0.31	0.00	0.00	0.00	0	0.31	0.00	*893*	138
Fulton St	McDaniel St	Whitehall Terr	Coll	0.069	2	0.14	0.00	0.00	0.00	2	0.14	0.00	*893*	62
Fulton St	Whitehall Terr	Pryor St	Coll	0.425	4	1.70	0.00	0.00	0.00	1	0.85	0.00	893	380
Fulton St	Pryor St	I-75/85 ramps	Coll	0.193	4	0.77	0.00	0.00	0.00	4	0.38	0.00	*893*	172
Fulton St	I-75/85 ramps	Martin St	Coll	0.412	5	2.06	0.00	0.00	0.00	2	0.83	0.00	*893*	368
Fulton St	Martin St	Glenwood Ave	Coll	0.147	4	0.59	0.00	0.00	0.00	0	0.29	0.00	*893*	131
Georgia Ave	Hank Aaron	Martin St	Coll	0.216	5	1.08	0.00	0.00	0.00	1	0.43	0.00	*315*	68
Georgia Ave	Martin St	Hills St	Coll	0.329	3	0.99	0.00	0.00	0.00	0	0.66	0.00	315	104
Georgia Ave	Hills St	Cherokee Ave	Coll	0.275	4	1.10	0.00	0.00	0.00	2	0.55	0.00	*315*	87
Gilbert Rd	Southside Ind	Conley Rd	Coll	0.273	2	0.55	0.00	0.00	0.00	0	0.00	0.00	*719*	196
Glen Iris Dr	Freedom Pkwy	Ponce De Leon	Coll	0.912	2	1.82	0.00	0.00	0.00	3	1.76	0.00	986	899
Glenn St	Metro. Pkwy	McDaniel St	Coll	0.379	2	0.76	0.00	0.00	0.00	0	0.76	0.00	704	267
Glenn St	McDaniel St	Central Ave	Coll	0.474	2	0.95	0.00	0.00	0.00	0	0.95	0.00	704	334
Glenwood Ave	Boulevard	Cherokee Ave	MA	0.307	2	0.61	0.00	0.00	0.00	0	0.31	0.00	*719*	221
Hank Aaron Dr	McDonough Bvd	Little St	PA	0.779	4	3.12	0.00	0.00	0.00	0	1.54	0.00	690	538
Hank Aaron Dr	Little St	George St	PA	0.269	5	1.35	0.00	0.00	0.00	0	0.53	0.00	*915*	246
Hank Aaron Dr	George St	Fulton St	PA	0.347	4	1.39	0.35	0.00	0.00	1	0.69	0.00	1,140	396
Hapeville Rd	Cleveland Ave	Mt Zion Rd	Coll	0.570	2	1.14	0.00	0.00	0.00	0	0.57	0.00	295	168
Harris St	Cent'l Olym. Prk	Piedmont Rd	Coll	0.570	3	1.71	0.00	0.00	0.00	0	1.13	0.00	478	272
Hill St	Milton St	Ormond st	MA	0.973	2	1.95	0.00	0.00	0.00	1	1.95	0.00	205	199
Hosea L Wms. Dr	Howard St	Candler Rd	Coll	1.836	2	3.67	0.00	0.00	0.00	2	3.65	2.60	*719*	1,320
Howard St	College St	Dunwoody St	Coll	0.490	2	0.98	0.00	0.00	0.00	0	0.98	0.00	369	181
Howard St	Dunwoody St	Hosea L Wms	Coll	0.087	2	0.17	0.00	0.00	0.00	0	0.17	0.00	*369*	32
Howell St	Decatur St	Auburn Ave	Coll	0.251	2	0.50	0.00	0.00	0.00	0	0.50	0.00	*719*	180
Howell St	Auburn Ave	Irwin Sr	Coll	0.149	2	0.30	0.00	0.00	0.00	0	0.29	0.00	*719*	107
Hutchens Rd	Jonesboro Rd	Forest Park Rd	Coll	1.158	2	2.32	0.00	0.00	0.00	0	0.00	0.00	234	271
International Blv	Piedmont	Peachtree Ctr Av	PA	0.223	2	0.45	0.00	0.00	0.00	1	0.44	0.00	*1,340*	299
International Blv	Peachtree Ctr Av	Williams St	PA	0.259	1	0.26	0.00	0.00	0.00	4	0.52	0.00	*1,340*	347
International Blv	Williams St	Cent. Olym Prk	PA	0.087	2	0.17	0.00	0.00	0.00	0	0.17	0.00	*1,340*	117
Irwin St	Auburn/Lake Av	Fort St	Coll	0.848	4	3.39	0.00	0.00	0.00	1	1.69	0.00	731	620
Jackson St	Freedom Pkwy.	Edgewood Ave	Coll	0.365	2	0.73	0.37	0.00	0.00	7	0.72	0.72	625	228
Jackson St	Edgewood Ave	Decatur St	Coll	0.257	2	0.51	0.00	0.00	0.00	0	0.51	0.51	*625*	161
John W. Dobbs	Fort St	Jesse Hill Jr Dr	Coll	0.136	4	0.54	0.00	0.00	0.00	0	0.27	0.00	795	108

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Thru Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 Pk Hr Trips	2015 Pk Hr VMT
John W. Dobbs	Jesse Hill Jr Dr	Piedmont Ave	Coll	0.116	4	0.46	0.00	0.00	0.00	2	0.23	0.00	*795*	92
John W. Dobbs	Piedmont Ave	Peachtree St	Coll	0.330	4	1.32	0.00	0.00	0.00	0	0.65	0.00	*795*	262
Krog St	Decatur St	Irwin St	MA	0.282	2	0.56	0.00	0.00	0.00	0	0.57	0.00	*554*	156
Lake Ave	Irwin St	Austin Ave	Coll	0.419	2	0.84	0.00	0.00	0.00	0	0.84	0.00	598	251
Lakewood Ave	Jonesboro Rd	Pecan St	Coll	1.129	5	5.65	0.21	0.00	0.00	6	2.26	0.00	1,120	1,264
Lakewood Ave	Pecan St	Nelms St	Coll	0.371	2	0.74	0.00	0.00	0.00	0	0.33	0.00	*719*	267
Langston Ave	Sylvan Rd	Murphy Ave	Coll	0.967	2	1.93	0.00	0.00	0.00	0	0.96	0.00	171	165
Lee St	W Whitehall St	RDA Blvd	PA	0.465	5	2.33	0.00	0.00	0.00	0	0.93	0.00	*1,346*	626
Linden Ave	Spring St	Piedmont Ave	MA	0.400	2	0.80	0.00	0.00	0.00	12	0.80	0.00	*554*	222
Luckie St	Peachtree St	Cent. Olym Prk	Coll	0.294	2	0.59	0.00	0.00	0.00	0	0.58	0.00	*719*	211
Macon Dr	Cleveland Ave	Peter Rock Rd	MA	1.201	2	2.40	0.00	0.07	0.00	0	0.40	0.00	382	459
Macon Dr	Peter Rock Rd	Lakewood Way	MA	0.361	4	1.44	0.00	0.18	0.00	1	0.19	0.00	*382*	138
Marietta St	Forsyth St	Cent. Olym Prk	Coll	0.222	4	0.89	0.00	0.15	0.00	3	0.45	0.00	*1,508*	335
Marietta St	Cent. Olym Prk	Howell Mill	Coll	1.804	4	7.22	0.00	0.09	0.00	2	3.61	0.00	1,415	2,553
MLK, Jr. Dr	Oakland Ave	Hilliard St	PA	0.086	2	0.17	0.00	0.00	0.00	0	0.17	0.00	*692*	60
MLK, Jr. Dr	Hilliard St	Bell St	PA	0.460	4	1.84	0.00	0.00	0.00	2	0.92	0.00	*692*	318
MLK, Jr. Dr	Bell St	King St	PA	0.270	5	1.35	0.00	0.00	0.00	8	0.54	0.00	*692*	187
MLK, Jr. Dr	King St	Jesse Hill Jr Dr	PA	0.090	5	0.45	0.00	0.00	0.00	1	0.18	0.00	*692*	62
MLK, Jr. Dr	Jesse Hill Jr Dr	Washington St	PA	0.260	5	1.30	0.00	0.00	0.00	4	0.52	0.00	*692*	180
Maynard Ter	Van Epps Ave	Memorial Dr	Coll	0.738	2	1.48	0.00	0.00	0.00	0	0.00	0.00	*719*	531
McDaniel St	Whitehall St	Fulton St	Coll	0.149	4	0.60	0.00	0.00	0.00	3	0.30	0.00	*704*	105
McDaniel St	Fulton St	Glenn St	Coll	0.249	3	0.75	0.00	0.00	0.00	3	0.50	0.50	704	175
McDaniel St	Glenn St	University Ave	Coll	1.103	2	2.21	0.00	0.00	0.00	0	2.22	0.15	704	777
McLendon Ave	City Limit	Claire Ave	Coll	0.492	2	0.98	0.00	0.00	0.00	0	0.98	0.15	*781*	384
McLendon Ave	Claire Ave	Candler Park Dr	Coll	0.815	2	1.63	0.00	0.00	0.00	0	1.63	0.19	781	637
McLendon Ave	Candler Park Dr	Moreland Ave	Coll	0.563	2	1.13	0.00	0.00	0.57	0	1.13	0.00	*781*	440
McWilliams Rd	Browns Mill Rd	Jonesboro Rd	Coll	0.571	2	1.14	0.00	0.00	0.00	0	1.14	0.00	*719*	411
Mitchell St	Washington St	Spring St	MA	0.436	2	0.87	0.00	0.00	0.00	1	0.86	0.00	*554*	242
Mt Zion Rd	Browns Mill Rd	Macon Dr	Coll	0.341	2	0.68	0.00	0.00	0.00	0	0.33	0.00	*254*	87
Mt Zion Rd	Macon Dr	Waters Rd	Coll	0.398	2	0.80	0.00	0.00	0.00	0	0.41	0.00	254	101
Mt Zion Rd	Waters RD	Comm. Way SE	Coll	0.149	4	0.60	0.00	0.00	0.00	0	0.30	0.00	*254*	38
Murphy Ave	Whitehall St	Brookline Rd	MA	0.946	2	1.89	0.00	0.00	0.00	7	0.94	0.00	*307*	290
Murphy Ave	Brookline Rd	Sylvan Rd	MA	0.175	2	0.35	0.00	0.00	0.00	1	0.18	0.00	307	54
Murphy Ave	Sylvan Rd	Dill Ave	MA	0.681	2	1.36	0.00	0.00	0.00	0	1.36	0.00	*307*	209
Murphy Ave	Dill Ave	Arden Ave	MA	0.080	2	0.16	0.00	0.00	0.00	0	0.16	0.00	*307*	25
Murphy Ave	Arden Ave	Dead End	MA	0.363	2	0.73	0.00	0.00	0.00	0	0.37	0.00	*307*	111
N Highland Ave	Freedom Pkwy	S of Cleburen	Coll	0.182	3	0.55	0.00	0.00	0.00	5	0.37	0.00	*1,076*	196
N Highland Ave	S of Cleburen	Washita Ave NE	Coll	0.141	2	0.28	0.00	0.00	0.00	0	0.28	0.00	*1,076*	152
N Highland Ave	Washita Ave NE	Alaska Ave	Coll	0.545	2	1.09	0.00	0.00	0.00	0	1.08	0.00	*1,076*	586
N Highland Ave	Alaska Ave	MacKenzie Dr	Coll	0.447	2	0.89	0.00	0.00	0.00	3	0.90	0.00	762	341
N Highland Ave	MacKenzie Dr	Parkway Dr	Coll	0.216	2	0.43	0.00	0.00	0.00	3	0.43	0.00	*762*	165
N Highland Ave	Parkway Dr	Central Park Pl	Coll	0.209	2	0.42	0.00	0.00	0.00	7	0.42	0.00	*762*	159
North Ave	N Angier St	Bonaventure Ave	Coll	0.227	4	0.91	0.00	0.00	0.00	5	0.46	0.00	*1,530*	347
North Ave	Bonaventure Av	Freedom Pkwy	Coll	0.085	3	0.26	0.00	0.00	0.00	1	0.17	0.00	1,450	123
North Ave	Freedom Pkwy	Moreland Ave	Coll	0.607	2	1.21	0.62	0.00	0.00	28	1.22	0.00	*1,450*	880
Oakdale Rd	North Ave	DeKalb Ave	Coll	0.651	2	1.30	0.00	0.00	0.00	1	1.32	0.00	*719*	468
Old Hapeville Rd	Cleveland Ave	Macon Dr	Coll	0.593	2	1.19	0.00	0.00	0.00	0	0.97	0.00	*719*	426
Ormond St	Washington St	Hill St	Coll	0.716	2	1.43	0.00	0.00	0.00	0	0.00	0.00	107	77
Ormond St	Hill St	Cherokee Ave	Coll	0.280	2	0.56	0.00	0.00	0.00	0	0.56	0.00	*107*	30
Park Ave	Glenwood Ave	Berne St	Coll	0.393	2	0.79	0.00	0.00	0.00	0	0.79	0.00	*719*	283

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Thru Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 Pk Hr Trips	2015 Pk Hr VMT
Parkway Dr	Highland ave	Freedom Pkwy	Coll	0.122	2	0.24	0.00	0.00	0.00	0	0.24	0.00	*377*	46
Parkway Dr	Freedom Pkwy	Ponce De Leon	Coll	0.819	4	3.28	0.00	0.00	0.00	2	1.65	0.00	377	309
Peachtree Ctr	Decatur St	Baker St	Coll	0.657	3	1.97	0.00	0.00	0.00	10	1.33	0.00	*1,161*	763
Peachtree Ctr	Baker St	Peachtree St	Coll	0.143	4	0.57	0.00	0.00	0.00	1	0.29	0.00	*1,288*	184
Piedmont Ave	MLK	Edgewood Ave	PA	0.453	4	1.81	0.00	0.00	0.00	1	0.90	0.00	759	344
Piedmont Ave	Edgewood Ave	Auburn Ave	PA	0.077	3	0.23	0.00	0.00	0.00	0	0.15	0.00	1,040	80
Piedmont Ave	Auburn Ave	And. Young Int'l	PA	0.284	4	1.14	0.00	0.00	0.00	0	0.58	0.00	*1,020*	290
Piedmont Ave	And. Young Int'l	Ponce De Leon	PA	0.885	4	3.54	0.00	0.00	0.00	7	1.77	0.00	1,000	885
Pryor Rd	Lakewood Way	Fair Dr	PA	0.152	4	0.61	0.00	0.00	0.00	0	0.16	0.00	*1,090*	166
Pryor Rd	Fair Dr	Pryor Cir	PA	0.178	4	0.71	0.00	0.00	0.00	0	0.22	0.00	*1,090*	194
Pryor Rd	Pryor Cir	Claire Dr	PA	0.459	2	0.92	0.00	0.00	0.00	0	0.93	0.00	*1,090*	500
Pryor Rd	Claire Dr	University	PA	0.845	4	3.38	0.00	0.00	0.00	3	1.68	0.00	1,090	921
Pryor Rd	University Ave	Hendrix Ave	PA	0.736	4	2.94	0.00	0.00	0.00	8	1.10	0.00	825	607
Pryor St	Decatur St	Memorial Dr	PA	0.571	4	2.28	0.00	0.00	0.00	0	1.15	0.00	427	244
Pryor St	Memorial Dr	Bass St	PA	0.780	4	3.12	0.00	0.00	0.00	0	0.79	0.00	*325*	254
Pryor St	Bass St	Hendrix Ave	PA	0.238	3	0.71	0.00	0.00	0.00	0	0.24	0.00	222	53
Pulliam St	Central Ave	I-75/85 S ramps	MA	0.530	4	2.12	0.00	0.00	0.00	0	0.13	0.00	*1,375*	729
Pulliam St	I-75/85 S ramps	Dodd Ave	MA	0.289	2	0.58	0.00	0.00	0.00	0	0.00	0.00	*554*	160
Ralph D. Abrnthy	Capitol Ave	I-75/85 ramps	Coll	0.193	4	0.77	0.00	0.00	0.00	2	0.39	0.00	*876*	169
Ralph D. Abrnthy	I-75/85 ramps	Pulliam St	Coll	0.101	4	0.40	0.00	0.00	0.00	2	0.20	0.00	876	88
Ralph D. Abrnthy	Pulliam St	McDaniel St	Coll	0.522	4	2.09	0.00	0.53	0.00	18	1.04	1.03	*904*	472
Ralph D. Abrnthy	McDaniel St	Metro. Pkwy	Coll	0.418	4	1.67	0.00	0.00	0.42	0	0.85	0.80	931	389
Ralph D. Abrnthy	Courtland St	GA Power	Coll	0.146	4	0.58	0.00	0.00	0.00	0	0.29	0.00	*1,288*	188
Ralph Mcgill Blv	GA Power	Central Park Pl	Coll	0.209	5	1.05	0.00	0.00	0.00	0	0.42	0.00	*778*	163
Ralph Mcgill Blv	Central Park Pl	Boulevard	Coll	0.346	4	1.38	0.00	0.00	0.00	0	0.69	0.00	778	269
Ridge Ave	Capitol Ave	Pryor St	MA	0.483	2	0.97	0.00	0.00	0.00	3	0.90	0.00	267	129
Ruby Harper Bvd	Browns Mill Rd	Conley Rd	Coll	0.882	2	1.76	0.00	0.00	0.00	0	0.19	0.00	*719*	634
Sside Ind'l Pky	Browns Mill Rd	Jonesboro Rd	Coll	1.645	4	6.58	0.00	0.00	0.00	0	3.29	0.00	355	584
Sydney St	Fulton St	Cherokee Ave	Coll	0.582	1	0.58	0.00	0.00	0.00	1	1.15	0.00	74	43
Sylvan Rd	Langford Pkwy	Harte Dr	Coll	0.821	3	2.46	0.00	0.00	0.00	36	1.65	0.00	1,400	1,149
Sylvan Rd	Harte Dr	Dill Ave	Coll	0.629	2	1.26	0.00	0.00	0.00	10	1.26	0.00	508	320
Sylvan Rd	Dill Ave	Warner St	Coll	0.423	2	0.85	0.00	0.00	0.00	5	0.86	0.00	*508*	215
Sylvan Rd	Warner St	Murphy Ave	Coll	0.128	2	0.26	0.00	0.00	0.00	1	0.26	0.00	*508*	65
W Peachtree St	Baker St	Pine St	PA	0.351	1	0.35	0.00	0.00	0.00	0	0.70	0.00	*1,340*	470
W Peachtree St	Pine St	5th St	PA	0.620	4	2.48	0.00	0.00	0.00	5	1.24	0.00	3,440	2,133
Washington St	MLK	Alice St	MA	0.583	4	2.33	0.00	0.00	0.00	1	0.51	0.00	1,470	857
Wells St	RDA Blvd	Metrop. Pkwy	Coll	0.138	2	0.28	0.00	0.00	0.00	0	0.27	0.00	1,110	153
Wells St	Metrop. Pkwy	Humphries St	Coll	0.190	2	0.38	0.00	0.00	0.00	0	0.38	0.00	*1,110*	211
Whitefoord Ave	Memorial Dr	DeKalb Ave	Coll	0.979	2	1.96	0.00	0.00	0.00	2	1.95	0.00	898	879
Williams St	Spring St	And. Young Int'l	PA	0.398	3	1.19	0.00	0.00	0.00	7	0.40	0.00	*1,647*	656
Williams St	And. Young Int'l	Peachtree St	PA	0.246	4	0.98	0.00	0.00	0.00	5	0.25	0.00	*1,687*	415
Windsor St	Whitehall St	I-20 Ramps	PA	0.272	4	1.09	0.00	0.00	0.15	0	0.55	0.00	*2,140*	582
Windsor St	I-20 Ramps	Fulton St	PA	0.154	4	0.62	0.00	0.00	0.15	6	0.31	0.00	*2,140*	330
Windsor St	Fulton St	Doane St	PA	0.856	2	1.71	0.00	0.00	0.00	0	1.71	0.00	2,140	1,832
Total Southside				98.24		271.86	4.24	1.22	1.57	464	155.15	19.65		81,800
Avon Ave	Lee st/SR 139	Westmont Rd	Coll	0.841	2	1.68	0.00	0.00	0.00	0	1.69	0.56	187	157
Avon Ave	Westmont Rd	Cascade Ave	Coll	0.745	2	1.49	0.00	0.00	0.00	0	0.76	0.76	187	139
Baker Rd	Ham'n E Holmes	Eliz. Pl	Coll	1.359	2	2.72	0.00	0.00	0.00	0	0.00	0.00	218	296
Bakers Ferry Rd	MLK	Midblock	Coll	1.636	2	3.27	0.00	0.00	0.00	19	1.74	0.00	*719*	1,176

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Thru Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 Pk Hr Trips	2015 Pk Hr VMT
Bakers Ferry Rd	Midblock	MLK	Coll	0.706	2	1.41	0.00	0.00	0.00	0	0.00	0.00	*719*	508
Barge Rd	Fairburn Rd	Campbelton Rd	Coll	0.640	2	1.28	0.00	0.00	0.00	0	0.38	0.00	344	220
Barge Rd	Campbelton Rd	Valeland Ave	Coll	0.186	2	0.37	0.00	0.00	0.00	2	0.37	0.00	497	92
Barge Rd	Valeland Ave	Stone Rd	Coll	0.617	2	1.23	0.00	0.00	0.00	0	0.00	0.00	650	401
Beecher Rd	Cascade Rd	Benj. E Mays Rd	Coll	0.032	2	0.06	0.00	0.00	0.00	0	0.06	0.00	*358*	11
Beecher Rd	Benj. E Mays Rd	Church Parking	Coll	0.177	2	0.35	0.00	0.00	0.00	1	0.35	0.00	*358*	63
Beecher Rd	Church Parking	Shirley St (west)	Coll	0.960	2	1.92	0.00	0.00	0.00	0	0.31	0.00	358	344
Beecher St	Shirley (west)	S Gordon St	Coll	0.325	2	0.65	0.00	0.00	0.00	0	0.32	0.00	*358*	116
Beecher St	S Gordon St	Waters St	Coll	0.211	2	0.42	0.00	0.00	0.00	0	0.00	0.00	*358*	76
Beecher St	Waters St	Donnelly Ave	Coll	0.954	2	1.91	0.00	0.00	0.00	0	1.69	0.00	*358*	342
Ben Hill Rd	Grass Valley Rd	City Limit	Coll	0.173	2	0.35	0.00	0.00	0.00	1	0.17	0.35	*719*	124
Benj. E Mays Dr	Cascade Rd	Lynfield Dr	Coll	2.365	2	4.73	0.00	0.00	0.00	1	2.79	0.62	343	811
Bolton Rd	MLK	Collier Rd	Coll	0.333	2	0.67	0.00	0.00	0.00	0	0.67	0.00	*331*	110
Bolton Rd	Collier Rd	Don L. Hollowell	Coll	1.587	2	3.17	0.00	0.00	0.00	1	1.61	0.00	209	332
Bolton Rd	Don L Hollowell	Fulton Ind'l Blvd	Coll	0.331	2	0.66	0.00	0.00	0.00	0	0.66	0.00	115	38
Boulder Park Dr	Bakers Ferry Rd	MLK	Coll	2.947	2	5.89	0.00	0.00	0.00	2	0.64	0.00	275	810
Butner Rd	Campbellton Rd	Tell Rd	Coll	1.418	2	2.84	0.00	0.00	0.00	0	0.00	0.00	304	431
Campbellton Rd	Lee St	Oakland Dr	PA	0.138	4	0.55	0.14	0.00	0.00	2	0.28	0.00	*853*	118
Campbellton Rd	Oakland Dr	Venitian Dr	PA	0.442	4	1.77	0.00	0.00	0.00	2	0.90	0.00	853	377
Campbellton Rd	Venitian Dr	Stanton Rd	PA	0.587	2	1.17	0.00	0.00	0.00	0	0.67	0.00	*882*	518
Campbellton Rd	Stanton Rd	Fort Valley Dr	PA	0.448	2	0.90	0.00	0.00	0.00	2	0.91	0.00	911	408
Campbellton Rd	Fort Valley Dr	Willis Mill Rd	PA	0.867	4	3.47	0.86	0.00	0.00	6	1.75	0.00	*930*	806
Campbellton Rd	Willis Mill Rd	Wells Dr	PA	0.259	3	0.78	0.00	0.00	0.00	2	0.52	0.00	948	246
Campbellton Rd	Wells Dr	Dodson Dr	PA	0.436	2	0.87	0.00	0.00	0.00	1	0.19	0.00	*903*	394
Campbellton Rd	Dodson Dr	Star Mist	PA	0.952	4	3.81	0.75	0.00	0.00	7	1.91	0.00	858	817
Campbellton Rd	Star Mist	Greenbriar Pkwy	PA	0.128	3	0.38	0.00	0.00	0.00	3	0.26	0.00	*1,259*	161
Campbellton Rd	Greenbriar Pkwy	SR 154	PA	0.160	2	0.32	0.00	0.00	0.00	3	0.17	0.00	1,660	266
Cascade Ave	RDA	Fontaine Ave	PA	2.316	3	6.95	0.00	0.00	0.00	2	4.03	0.81	1,270	2,941
Cascade Rd	Fontaine Ave	Blvd Granada	PA	0.091	2	0.18	0.00	0.00	0.00	6	0.17	0.00	*1,030*	94
Cascade Rd	Blvd Granada	Willis Mill Rd	PA	0.307	2	0.61	0.00	0.00	0.00	0	0.62	0.00	1,030	316
Cascade Rd	Willis Mill Rd	Lynhurst Rd	PA	1.101	2	2.20	0.00	0.00	0.00	2	0.68	2.22	1,150	1,266
Cascade Rd	Lynhurst Rd	City Limit	PA	0.466	2	0.93	0.00	0.00	0.00	2	0.19	0.82	*1,150*	536
Centra Villa	Cascade Rd	Campbelton Rd	Coll	1.055	2	2.11	0.00	0.00	0.00	0	0.58	0.00	464	490
Chappell Rd	MLK	Don L Hollowell	Coll	1.245	2	2.49	0.00	0.00	0.00	0	2.49	0.00	1,034	1,287
Childress Dr	Grass valley Dr	Campbelton Rd	Coll	0.226	2	0.45	0.00	0.00	0.00	0	0.00	0.00	*410*	93
Childress Dr	Campbelton rd	Panther Trl	Coll	0.152	2	0.30	0.00	0.00	0.00	1	0.30	0.00	*410*	62
Childress Dr	Panther Trl	Cascade Rd	Coll	1.570	2	3.14	0.00	0.00	0.00	0	1.57	0.00	410	644
Cont'l Colony Py	Hogan Rd	Greenbriar Pkwy	Coll	0.639	4	2.56	0.00	0.00	0.00	0	1.28	0.00	614	392
Delowe Dr	Cascade Rd	Campbelton Rd	Coll	1.323	2	2.65	0.00	0.00	0.00	1	0.19	2.64	*1,230*	1,627
Delowe Dr	Campbelton Rd	SR 166	Coll	0.497	2	0.99	0.00	0.00	0.00	7	0.88	0.50	1,230	611
Dodson Dr	Cascade Rd	Langford Pkwy	Coll	1.685	2	3.37	0.00	0.00	0.00	0	0.00	0.00	101	170
Donnelly Ave	Cascade	Lee St	Coll	1.266	2	2.53	0.00	0.00	0.00	0	2.52	0.00	442	560
Elizabeth Place	Baker St	Don L Hollowell	Coll	0.281	2	0.56	0.00	0.00	0.00	0	0.00	0.00	*719*	202
Fair St	Jos. E.Lowery	Webster St	Coll	0.132	2	0.26	0.00	0.00	0.00	0	0.00	0.00	*422*	56
Fair St	Webster St	Walker St	Coll	0.742	2	1.48	0.00	0.00	0.00	0	0.00	0.00	422	313
Fairburn Rd	Ginnis Rd	Boulder Park Rd	Coll	1.254	2	2.51	0.00	0.00	0.00	0	1.41	0.31	796	998
Fairburn Rd	Boulder Park Rd	Bakers Ferry Rd	Coll	0.758	2	1.52	0.00	0.00	0.00	0	0.75	0.00	*566*	429
Fairburn Rd	Bakers Ferry Rd	MLK	Coll	0.026	2	0.05	0.00	0.00	0.00	1	0.03	0.00	*566*	15
Fairburn Rd	MLK	Collier Dr	Coll	0.750	2	1.50	0.00	0.00	0.02	16	0.92	0.00	*566*	425
Fairburn Rd	Collier Dr	Midblock	Coll	0.204	2	0.41	0.00	0.00	0.00	0	0.37	0.00	*566*	115

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Thru Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 Pk Hr Trips	2015 Pk Hr VMT
Fairburn Rd	Midblock	Bolton Rd	Coll	0.468	2	0.94	0.00	0.00	0.00	2	0.47	0.00	335	157
Fairburn Rd	Sommerset Trl	Redwine Pkwy	Coll	0.783	2	1.57	0.00	0.00	0.00	0	0.31	0.00	*182*	143
Fairburn Rd	Redwine Pkwy	N Camp Creek	Coll	0.541	2	1.08	0.00	0.05	0.00	0	0.39	0.00	*182*	98
Fairburn Rd	N Camp Creek	Arlington School	Coll	0.847	2	1.69	0.00	0.00	0.00	1	0.00	0.00	182	154
Fairburn Rd	Arlington School	Stone Rd	Coll	0.187	2	0.37	0.00	0.00	0.00	0	0.37	0.37	182	34
Fairburn Rd	Stone Rd	Campbelton Rd	Coll	0.294	2	0.59	0.00	0.00	0.00	2	0.59	0.00	*434*	128
Fairburn Rd	Campbelton Rd	Hill Acres Rd	Coll	0.750	2	1.50	0.00	0.00	0.00	2	0.75	0.00	*686*	515
Fairburn Rd	Hill Acres Rd	Garrison Dr	Coll	0.916	2	1.83	0.00	0.00	0.00	0	0.93	0.00	1,190	1,090
Forsyth St	Whitehall St	Brotherton St	Coll	0.114	3	0.34	0.00	0.00	0.00	0	0.23	0.00	*1,161*	132
Forsyth St	Brotherton St	Garnett St	Coll	0.085	4	0.34	0.00	0.00	0.00	0	0.17	0.00	*1,288*	109
Greenbriar Pky	Cont'l Colony	Barge Rd	Coll	0.964	4	3.86	0.00	0.00	0.00	0	0.96	0.00	695	670
Greenbriar Pky	Campbellton Rd	SR 154/166	Coll	0.091	6	0.55	0.00	0.00	0.00	0	0.18	0.00	*2,410*	219
Greenbriar Pky	SR 154/166	Cont'l Colony	Coll	0.401	5	2.01	0.00	0.00	0.00	5	0.68	0.00	2,410	966
Harbin Rd	Campbellton Rd	Cascade Rd	Coll	1.350	2	2.70	0.00	0.00	0.00	0	0.00	0.00	*719*	971
Harwell Rd	Don L Hollowell	Skipper Pl	Coll	0.295	2	0.59	0.00	0.00	0.00	2	0.59	0.30	*221*	65
Harwell Rd	Skipper Pl	Collier Dr	Coll	1.054	2	2.11	0.00	0.00	0.00	0	1.20	1.06	221	233
Hightower Rd	Jms Jackson Py	Hollywood	Coll	1.203	2	2.41	0.00	0.00	0.00	0	1.23	0.00	255	307
Hogan Rd	Cont'l Colony	City Limit	Coll	0.499	2	1.00	0.00	0.00	0.00	0	0.00	0.00	206	103
Hogan Rd	Fairburn Rd	N Camp Crk Py	Coll	0.309	2	0.62	0.00	0.00	0.00	0	0.31	0.00	*719*	222
Hogan Rd	N Camp Crk Py	Stone Rd	Coll	0.327	2	0.65	0.00	0.00	0.00	0	0.00	0.00	*719*	235
Hollywood Rd	Don L Hollowell	Hightower Rd	Coll	1.680	4	6.72	0.00	0.00	0.00	6	2.04	0.00	277	465
Johnson Rd NW	Marietta Rd	Hollywood Rd	Coll	1.353	2	2.71	0.00	0.00	0.00	4	1.36	1.28	230	311
Jos. E Lowery	RDA Blvd	Oak St	Coll	0.186	4	0.74	0.00	0.00	0.00	1	0.37	0.00	1,440	268
Jos. E Lowery	Oak St	Washington St	Coll	0.895	4	3.58	0.00	0.00	0.00	2	1.79	0.00	1,760	1,575
Jos. E Lowery	Washington St	MLK	Coll	0.079	4	0.32	0.00	0.00	0.00	2	0.15	0.00	*1,495*	118
Jos. E Lowery	MLK	Don L Hollowell	Coll	1.262	4	5.05	0.00	0.00	0.00	4	2.53	0.00	1,230	1,552
Jos. E Lowery	Don L Hollowell	Railroad	Coll	0.177	2	0.35	0.00	0.00	0.00	3	0.35	0.00	*961*	170
Jos. E Lowery	Railroad	W Marietta St	Coll	0.493	3	1.48	0.00	0.00	0.00	0	0.99	0.00	692	341
Kimberly Rd	Campbellton Rd	Kimberly Way	Coll	1.611	2	3.22	0.00	0.00	0.00	0	0.00	0.00	*719*	1,158
Kimberly Rd	Kimberly Way	City Limit	Coll	0.317	2	0.63	0.00	0.00	0.00	0	0.32	0.00	*719*	228
Lee St	RDA Blvd	Westview Dr	PA	0.424	4	1.70	0.00	0.00	0.00	0	0.84	0.00	*1,687*	715
Lynhurst Dr	Cascade Rd	Mid block	Coll	0.745	2	1.49	0.00	0.00	0.00	0	0.91	0.00	*485*	361
Lynhurst Dr	Mid block	Benj. E Mays	Coll	0.176	2	0.35	0.00	0.00	0.00	0	0.18	0.00	*485*	85
Lynhurst Dr	Benj. E Mays	MLK	Coll	1.341	2	2.68	0.00	0.00	0.00	0	2.44	0.00	485	650
Marietta Blvd	Huff Rd	W Marietta St	PA	0.153	3	0.46	0.00	0.00	0.00	3	0.15	0.00	*1,290*	197
Marietta Blvd	W Marietta St	Don L Hollowell	PA	1.087	5	5.44	0.00	0.00	0.00	3	0.00	0.00	*1,290*	1,402
Marietta Rd	W Marietta St	N of W Marietta	Coll	0.437	2	0.87	0.00	0.00	0.00	0	0.88	0.00	*719*	314
Marietta Rd	N of W Marietta	Thomas St	Coll	0.563	2	1.13	0.00	0.00	0.00	0	0.00	0.00	*719*	405
MLK, Jr. Dr	Washington St	Spring St	PA	0.091	5	0.46	0.00	0.00	0.00	0	0.18	0.00	692	63
MLK, Jr. Dr	Spring St	Cent. Olym Prk	PA	0.234	4	0.94	0.00	0.00	0.00	1	0.46	0.00	1,070	250
MLK, Jr. Dr	Cent. Olym Prk	Northside	PA	0.243	0	0.00	0.00	0.00	0.00	0	0.16	0.00	*1,070*	260
MLK, Jr. Dr	Northside	Walnut St	PA	0.212	5	1.06	0.00	0.00	0.21	2	0.43	0.00	*1,070*	227
MLK, Jr. Dr	Walnut St	Jos Lowery Blvd	PA	0.639	4	2.56	0.00	0.00	0.00	3	1.28	0.00	*1,070*	684
MLK, Jr. Dr	Jos Lowery Blvd	Booker St	PA	0.133	3	0.40	0.00	0.00	0.00	2	0.27	0.00	*1,070*	142
MLK, Jr. Dr	Booker St	RDA Blvd	PA	1.548	4	6.19	0.00	0.00	0.00	3	3.00	0.00	*1,070*	1,656
Mayson Turner	MLK	Simpson Rd	Coll	0.831	2	1.66	0.00	0.00	0.00	0	1.66	0.00	180	150
McDaniel St	Northside Dr	Whitehall St	Coll	0.242	2	0.48	0.00	0.00	0.00	3	0.48	0.00	*704*	170
Mitchell St	Spring St	Northside Dr	MA	0.445	2	0.89	0.00	0.03	0.00	7	0.89	0.16	*554*	247
Mt Gilead Rd	Fairburn Rd	Briar Glenn Ln	Coll	0.453	2	0.91	0.00	0.00	0.00	0	0.00	0.00	*353*	160
Mt Gilead Rd	Briar Glenn Ln	Panther Trl	Coll	0.389	2	0.78	0.00	0.00	0.00	0	0.40	0.00	353	137

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Table 76. Major Street Inventory (continued)

Street	From	To	Func. Class	Miles	Thru Lns	Ln-Mi.	Median Type: TW LTL (mi.)	Median Type: Land-Scape (mi.)	Median Type: Conc-rete (mi.)	Turn Lns	Side Wlk (mi.)	Bike Ln (mi.)	2015 Pk Hr Trips	2015 Pk Hr VMT
Mt Gilead Rd	Panther Trl	Campbellton Rd	Coll	0.443	2	0.89	0.00	0.00	0.00	0	0.00	0.00	378	167
N Camp Crk Pky	Fairburn Rd	Hogan Rd	Coll	0.371	4	1.48	0.00	0.00	0.00	0	0.36	0.00	*1,288*	478
New Hope Rd	Danforth Rd	Heatherland Dr	Coll	0.335	2	0.67	0.00	0.00	0.00	0	0.33	0.00	525	176
Niskey Lake Rd	Butner Rd	Campbelton Rd	Coll	0.474	2	0.95	0.00	0.00	0.00	0	0.00	0.00	*719*	341
Niskey Lake Rd	Campbelton Rd	Brooks Dr	Coll	0.467	2	0.93	0.00	0.00	0.00	0	0.47	0.00	*719*	336
Niskey Lake Rd	Brooks Dr	Lyon Blvd	Coll	0.212	2	0.42	0.00	0.00	0.00	0	0.43	0.00	*719*	152
Niskey Lake Rd	Lyon Blvd	County Line Rd	Coll	0.516	2	1.03	0.00	0.00	0.00	0	0.79	0.00	*719*	371
North Ave	Jos. E.Lowery	Northside Dr	Coll	0.737	2	1.47	0.00	0.00	0.00	0	0.76	0.00	*719*	530
Northwest Dr	Hightower Rd	Jms Jackson Pky	MA	0.263	2	0.53	0.00	0.00	0.00	0	0.00	0.00	*575*	151
Northwest Dr	Jms Jackson Pky	Bolton Rd	MA	1.228	2	2.46	0.00	0.00	0.00	0	1.41	0.00	139	171
Oakland Dr	Van Buren St	Donnelly Ave	Coll	1.069	2	2.14	0.00	0.00	0.00	0	2.12	0.00	233	249
Old Fairburn Rd	Camp Crk Pkwy	Sommerset Trl	Coll	0.271	2	0.54	0.00	0.00	0.00	0	0.00	0.00	*719*	195
Old Gordon Rd	M.L.K.Jr. Dr	N of Collier Dr	MA	0.196	2	0.39	0.00	0.00	0.00	0	0.20	0.00	*208*	41
Old Gordon Rd	N of Collier Dr	Fulton Ind. Blvd	MA	0.219	2	0.44	0.22	0.00	0.00	0	0.44	0.00	208	46
Perry Blvd	Hollywood Rd	Marietta Rd	Coll	2.430	2	4.86	0.00	0.21	0.00	3	2.65	1.44	506	1,230
Peyton Rd	Midblock	H.E. Holmes	Coll	1.609	2	3.22	0.00	0.00	0.00	0	1.62	0.00	*719*	1,157
Peyton Rd	Benjamin E Mays	midblock	Coll	0.656	3	1.97	0.00	0.00	0.00	4	0.66	0.00	*1,161*	762
S Gordon St	RDA Blvd	Beecher ST	Coll	1.121	2	2.24	0.00	0.00	0.00	0	2.24	1.12	*719*	806
Sandtown Rd	Cascade Rd	Venetian Dr	Coll	1.074	2	2.15	0.00	0.00	0.00	0	0.00	0.00	132	142
Spring St	10th St	Windsor St	PA	2.716	4	10.86	0.00	0.00	0.03	6	5.28	0.00	1,085	2,947
Stone Rd	Fairburn Rd	N Camp Crk Pwy	Coll	1.170	2	2.34	0.00	0.00	0.00	0	0.00	0.00	95	111
Tatnal St	MLK	Mitchell St	Coll	0.081	3	0.24	0.00	0.00	0.00	2	0.16	0.00	875	71
Van Buren St	Campbelton Rd	Lee St	Coll	0.249	2	0.50	0.00	0.00	0.00	0	0.50	0.00	*719*	179
Venetian Dr	Cascade Rd	Fontaine Ave	Coll	0.301	2	0.60	0.00	0.00	0.00	0	0.53	0.00	*719*	216
Venetian Dr	Fontaine Ave	Central Villa Dr	Coll	0.692	2	1.38	0.00	0.00	0.00	0	0.00	0.00	*719*	498
Venetian Dr	Centra Villa	Willow Trl	Coll	0.789	2	1.58	0.00	0.00	0.00	0	0.31	0.00	*719*	567
Venetian Dr	Willow Trl	Campbellton Rd	Coll	0.327	2	0.65	0.00	0.00	0.00	0	0.66	0.00	*719*	235
W Lake Ave	RDA Blvd	Don L Hollowell	Coll	1.655	2	3.31	0.00	0.00	0.00	0	3.10	0.01	890	1,473
W Marietta St	Howell Mill Rd	Longley Ave	Coll	0.990	4	3.96	0.00	0.00	0.00	0	1.97	0.00	1,620	1,604
W Marietta St	Longley Ave	Marietta Blvd	Coll	0.781	4	3.12	0.00	0.00	0.00	0	0.00	0.00	1,430	1,117
Walker St	Nelson St	Peters St	MA	0.427	2	0.85	0.00	0.00	0.00	0	0.87	0.00	*554*	237
Welcome All Rd	Fairburn Rd	City Limit	Coll	0.497	2	0.99	0.00	0.00	0.00	0	0.00	0.00	223	111
Westmont Rd	Cascade Rd	Venetian Dr	Coll	1.298	2	2.60	0.00	0.00	0.00	0	0.00	0.00	*719*	933
White St	RDA/Langhorn	Jos Lowery Bvd	Coll	1.042	2	2.08	0.00	0.00	0.00	0	2.08	1.05	217	226
White St	Jos Lowery Bvd	Lee St	Coll	0.129	4	0.52	0.00	0.00	0.00	0	0.26	0.00	*1,288*	166
Whitehall St	Murphy Av/I-20	Memorial Dr	PA	0.936	4	3.74	0.00	0.00	0.00	0	1.86	0.01	971	909
Willis Mill Rd	Campbellton Rd	Cascade Rd	Coll	1.326	2	2.65	0.00	0.00	0.00	0	0.00	0.00	*719*	953
Willis Mill Rd	Cascade Rd	Benj. E Mays	Coll	0.407	2	0.81	0.00	0.00	0.00	0	0.00	0.00	*719*	293
Total, Westside				100.47		244.40	1.97	0.29	0.26	171	106.68	16.39		65,709
City-Wide Total				298.21		779.66	8.05	4.25	3.86	1,102	381.74	82.33		262,992

Notes: "Func Class" is functional classification (Coll = collector, MA = minor arterial, PA = principal arterial); "Miles" is segment length; "Thru Lns" is number of through travel lanes; "TWLTL" is two-way left turn lane; "Landscape" is landscaped median; "Turn Lns" is number of turn lanes; "Side Wlk" is sidewalk; "Bike Ln" is bike lane; "Pk Hr" is evening peak hour; "VMT" is vehicle-miles of travel.

Source: Duncan Associates, based on data provided by Kimley Horn, peak hour trips are estimates based on 10% of annual average daily trips (italicized counts are estimates based on adjacent segments with counts or on the average count for segments with counts of the same functional classification and number of lanes); VMT is product of segment length and peak hour trips.

APPENDIX E: OUTSTANDING DEBT

Proceeds from debt issues are one of the primary sources of funding for City capital projects. The City can issue $8 million in general obligation (GO) bonds annually without a referendum; these GO bond issues are referred to as the Annual Bond. The voters through bond referendum are responsible for approving any additional GO bonds beyond the statutory limits. Other types of debt instruments used by the City include Park Improvement Bonds, Public Safety Revenue Bonds, and capital leases. As part of this update, the consultant worked with the City of Atlanta Finance Department to identify outstanding debt issues and determine how the funds from each outstanding issue were distributed among the impact fee-related capital facilities. A summary of this analysis is presented in the following table.

Table 77. Outstanding Debt Summary

Year	Transportation	Parks	Fire	Police	Other	Total
2009 Refunding	$17,489,393	$0	$0	$0	$16,040,607	$33,530,000
2014 Refunding	$54,830,343	$81,854	$431,763	$46,040	$0	$55,390,000
2014AB Park Improvement Refunding	$0	$63,950,000	$0	$0	$0	$63,950,000
2015 Infrastructure Bond	$160,921,046	$0	$0	$0	$91,078,954	$252,000,000
2016 APSJFA Revenue Refunding	$0	$0	$5,430,000	$21,720,000	$0	$27,150,000
Motorola Capital Lease	$0	$0	$0	$14,808,615	$0	$14,808,615
1998 COPS Installment Sale	$0	$0	$0	$20,385,000	$0	$20,385,000
Total	$233,240,782	$64,031,854	$5,861,763	$56,959,655	$107,119,561	$467,213,615

Source: City of Atlanta Finance Department, February 20, 2017.

APPENDIX F: PARK INVENTORY

Table 78. Park Inventory

Park Name	Acres	Service Area	Type	Playground	Picnic Shelter	Basketball Court	Tennis Court	Baseball Field	Soccerl Field	Pavilion/Gazebo (sf)	Trail, Hard (Mi.)	Trail, Natural (Mi.)
17th Street Park	2.30	N	N	0	0	0	0	0	0	0	0.00	0.00
25th Street Beauty Spot	0.11	N	G	0	0	0	0	0	0	0	0.00	0.00
3162 Lenox Rd	2.40	N	G	0	0	0	0	0	0	0	0.00	0.00
Alexander Park	11.60	N	V	0	0	0	0	0	0	0	0.00	0.25
Ansley Park	6.11	N	N	0	0	0	0	0	0	0	0.00	0.00
Ardmore Park	1.74	N	B	1	0	0	0	0	0	0	0.00	0.00
Atlanta Memorial Park	49.87	N	R	1	0	0	23	0	0	144	0.00	1.00
Avery-E. Park Lane Triangle	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Barclay Median	0.32	N	G	0	0	0	0	0	0	0	0.00	0.00
Beaverbrook Park	6.80	N	N	1	0	0	0	0	0	0	0.00	0.00
Beech Valley Triangle	0.36	N	G	0	0	0	0	0	0	0	0.00	0.00
Benton Place Garden	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Beverly-Avery Circle	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Beverly-Avery Triangle	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Beverly-Montgomery Ferry Triangle	0.02	N	G	0	0	0	0	0	0	0	0.00	0.00
Beverly-Polo Triangle	0.02	N	G	0	0	0	0	0	0	0	0.00	0.00
Birchwood-Arlene Triangle	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Blue Heron Nature Preserve	11.03	N	P	0	0	0	0	0	0	0	0.00	2.75
Broadland and West Conway Park	0.09	N	G	0	0	0	0	0	0	0	0.00	0.00
Castlewood Triangle	0.41	N	G	0	0	0	0	0	0	0	0.00	0.00
Channing Valley Park	0.58	N	B	1	0	0	0	0	0	0	0.00	0.00
Charles Allen Median	0.33	N	G	0	0	0	0	0	0	0	0.00	0.00
Charlie Loudermilk Park	0.52	N	G	0	0	0	0	0	0	0	0.00	0.00
Chastain Memorial Park	268.00	N	R	1	0	0	9	6	0	6,217	2.86	0.00
Chattahoochee Park	3.21	N	N	0	0	1	0	0	0	0	0.00	0.00
Chattahoochee Trail	49.19	N	V	0	0	0	0	0	0	0	0.00	0.00
Club Drive Park	0.08	N	G	0	0	0	0	0	0	0	0.00	0.00
Daniel Johnson Nature Preserve	8.00	N	P	0	0	0	0	0	0	0	0.00	0.25
Darlington Circle Park	0.06	N	G	0	0	0	0	0	0	0	0.00	0.00
Davidson and Lakehaven Park	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Dellwood Park	1.36	N	N	0	0	0	0	0	0	0	0.00	0.00
E. Club and Lakehaven Park	0.01	N	G	0	0	0	0	0	0	0	0.00	0.00
E. Pine Valley and W. Pine Valley Park	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
E. Rock Springs Triangle	0.13	N	G	0	0	0	0	0	0	0	0.00	0.00
East Andrews and Roswell Park	0.01	N	G	0	0	0	0	0	0	0	0.00	0.00
East Brookhaven and Lakehaven Park	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Ellsworth Park	1.27	N	B	1	0	0	0	0	0	0	0.00	0.00
Emma Lane	8.80	N	V	0	0	0	0	0	0	0	0.00	0.00
Eubanks (The Prado) Park	1.37	N	B	0	0	0	0	0	0	0	0.00	0.00
Fort Peachtree Landings	15.00	N	P	0	1	0	0	0	0	1,120	0.00	0.25
Frankie Allen Park	21.63	N	C	1	0	0	4	1	0	462	0.00	0.00

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Table 78. Park Inventory (continued)

Park Name	Acres	Service Area	Type	Playground	Picnic Shelter	Basketball Court	Tennis Court	Baseball Field	Soccerl Field	Pavilion/Gazebo (sf)	Trail, Hard (Mi.)	Trail, Natural (Mi.)
Garden Hills Park	3.60	N	N	1	0	0	0	0	0	0	0.00	0.00
Greenwood-Charles Allen Triangle	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Haynes Manor Park	2.98	N	N	0	0	0	0	0	0	0	0.25	0.00
Helen Drive Park	0.02	N	G	0	0	0	0	0	0	0	0.00	0.00
Herbert Taylor Park	26.00	N	N	0	0	0	0	0	0	0	0.00	2.25
Hickory Grove Park	0.41	N	G	0	0	0	0	0	0	0	0.00	0.00
Hillside at Northside Drive Park	0.38	N	G	0	0	0	0	0	0	0	0.00	0.00
Home Park	1.80	N	B	1	0	0	0	0	0	0	0.00	0.00
Homestead Park	0.15	N	G	0	0	0	0	0	0	0	0.00	0.00
Howell Mill at Beaverbrook Park	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Howell Mill at Glenbrook Park	0.02	N	G	0	0	0	0	0	0	0	0.00	0.00
Inman Circle at 17th St Park	0.03	N	G	0	0	0	0	0	0	0	0.00	0.00
J. Allen Couch Park	6.41	N	N	0	0	0	0	0	0	0	0.00	0.00
John Howell Memorial Park	2.80	N	N	2	0	0	0	0	0	0	0.00	0.00
Lafayette-15th Street Triangle	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Lanier Boulevard Parkway	2.10	N	G	0	0	0	0	0	0	0	0.00	0.00
Lenox and Johnson Road Park	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Lenox Beauty Spot	0.08	N	G	0	0	0	0	0	0	0	0.00	0.00
Lenox-Wildwood Park	8.47	N	N	1	0	0	2	0	0	0	0.00	0.30
Little Nancy Creek Park	4.96	N	P	1	0	0	0	0	0	0	0.00	1.20
Loridans	1.00	N	C	0	0	0	0	0	0	0	1.00	0.00
Loring Heights Park	1.90	N	B	1	0	0	0	0	0	0	0.00	0.00
Louise G. Howard Park	5.52	N	N	0	0	0	0	0	0	200	0.20	0.00
Maddox-Avery Triangle	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Mantissa Road	1.87	N	B	0	0	0	0	0	0	0	0.00	0.00
Mayson Park	3.10	N	V	0	0	0	0	0	0	0	0.00	0.00
Mayson Ravine	2.70	N	V	0	0	0	0	0	0	0	0.00	0.00
McClatchey Park	5.00	N	N	1	0	0	3	0	0	509	0.00	0.00
McKinley-Wilson Circle	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Montgomery Ferry/Golf Cir. Triangle	0.03	N	G	0	0	0	0	0	0	0	0.00	0.00
Moores Mill-Northside Pkwy Triangle	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Morningside Nature Preserve	36.04	N	P	1	0	0	0	0	0	0	0.00	2.00
Mornington Circle	0.16	N	G	0	0	0	0	0	0	0	0.00	0.00
Mountain Way Commons	11.50	N	C	0	0	0	0	0	0	0	0.00	0.33
Mt. Paran and Northside Park	0.22	N	G	0	0	0	0	0	0	0	0.00	0.00
Mt. Paran Rd. at Cave Rd. Triangle	0.23	N	G	0	0	0	0	0	0	0	0.00	0.00
Noble Park	0.41	N	B	1	0	0	0	0	0	0	0.00	0.00
North Buckhead Park	0.13	N	G	0	0	0	0	0	0	0	0.00	0.00
North Highland Terrace Park	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Northcliffe and Brookview Park	0.02	N	G	0	0	0	0	0	0	0	0.00	0.00
Oak Grove Park	3.43	N	N	0	0	0	0	0	0	0	0.45	0.00
Old Ivy Road Park	0.66	N	N	0	0	0	0	0	0	0	0.00	0.00

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Table 78. Park Inventory (continued)

Park Name	Acres	Service Area	Type	Playground	Picnic Shelter	Basketball Court	Tennis Court	Baseball Field	Soccerl Field	Pavilion/Gazebo (sf)	Trail, Hard (Mi.)	Trail, Natural (Mi.)
Orme Park	6.60	N	N	1	0	0	0	0	0	0	0.00	0.10
Orme Triangle	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Peachtree at 15th St. Park	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Peachtree Battle Parkway	4.22	N	G	0	0	0	0	0	0	0	0.00	0.00
Peachtree Cir. at 15th St. Triangle	0.11	N	G	0	0	0	0	0	0	0	0.00	0.00
Peachtree Hills Park	7.20	N	C	1	1	0	3	1	0	875	0.00	0.18
Pelham Road Park	0.09	N	G	0	0	0	0	0	0	0	0.00	0.00
Pershing Point Park	0.33	N	G	0	0	0	0	0	0	0	0.00	0.00
Pharr Circle Park	0.28	N	G	0	0	0	0	0	0	0	0.00	0.00
Piedmont Heights Park	0.03	N	G	0	0	0	0	0	0	0	0.00	0.00
Piedmont Park	193.40	N	R	2	0	0	12	4	2	5,733	4.50	1.50
Piedmont Road Triangle	0.01	N	G	0	0	0	0	0	0	0	0.00	0.00
Piedmont-Avery Triangle	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Pinetree and Brentwood Park	0.08	N	G	0	0	0	0	0	0	0	0.00	0.00
Prado at 17th St Triangle	0.13	N	G	0	0	0	0	0	0	0	0.00	0.00
Prado at Inman Circle Park	0.40	N	G	0	0	0	0	0	0	0	0.00	0.00
Prado-Maddox Triangle	0.13	N	G	0	0	0	0	0	0	0	0.00	0.00
Prado-Peachtree Circle Triangle	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Prado-Piedmont Beauty Spot	0.12	N	G	0	0	0	0	0	0	0	0.00	0.00
Prado-South Prado Circle	0.03	N	G	0	0	0	0	0	0	0	0.00	0.00
Prado-Westminster Triangle	0.07	N	G	0	0	0	0	0	0	0	0.00	0.00
Ranier Circle	0.01	N	G	0	0	0	0	0	0	0	0.00	0.00
Ray Kluka Memorial Park	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Riverside	6.85	N	P	0	0	0	0	0	0	0	0.00	0.00
Robin Lane Park	0.02	N	G	0	0	0	0	0	0	0	0.00	0.00
Rumson and Pinetree Park	0.01	N	G	0	0	0	0	0	0	0	0.00	0.00
Rumson Road Circle	0.03	N	G	0	0	0	0	0	0	0	0.00	0.00
Sara J. Gonzalez Park	1.41	N	B	1	0	0	0	0	0	0	0.00	0.00
Shady Valley Park	11.08	N	C	1	0	1	3	1	0	0	0.00	0.00
Shadyside Park	4.08	N	N	0	0	0	0	0	0	0	0.00	0.00
Sibley Park	1.60	N	V	0	0	0	0	0	0	0	0.00	0.00
Sidney Marcus Park	2.69	N	N	1	0	0	0	0	0	0	0.00	0.00
Smith Park	0.41	N	G	0	0	0	0	0	0	0	0.00	0.00
Spink-Collins Park	25.49	N	N	1	0	0	0	0	0	0	0.00	1.00
Spring Valley Jewish Corner	0.07	N	G	0	0	0	0	0	0	0	0.00	0.00
Spring Valley Park	3.55	N	V	0	0	0	0	0	0	0	0.00	0.00
Springdale Park	5.25	N	N	1	0	0	0	0	0	0	0.00	0.00
Springlake Park	5.20	N	V	0	0	0	0	0	0	0	0.00	0.00
Sunken Garden Park	0.92	N	B	1	0	0	0	0	0	0	0.00	0.00
Sunnybrook Park	2.40	N	N	0	0	0	0	0	0	0	0.00	0.00
Tanyard Creek Park	14.50	N	N	1	0	0	0	0	0	0	0.90	0.00
Tanyard Creek Urban Forest	6.29	N	P	0	0	0	0	0	0	0	0.00	0.00
Tennyson Circle	0.03	N	G	0	0	0	0	0	0	0	0.00	0.00

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Table 78. Park Inventory (continued)

Park Name	Acres	Service Area	Type	Playground	Picnic Shelter	Basketball Court	Tennis Court	Baseball Field	Soccerl Field	Pavilion/Gazebo (sf)	Trail, Hard (Mi.)	Trail, Natural (Mi.)
Todd Street Triangle	0.02	N	G	0	0	0	0	0	0	0	0.00	0.00
Underwood Hills Park	10.70	N	N	2	1	1	2	1	0	392	0.00	0.00
Valley Road and Habersham Park	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Vedado-Greenwood Triangle	0.08	N	G	0	0	0	0	0	0	0	0.00	0.00
Vermont Road Park	2.00	N	N	0	0	0	0	0	0	0	0.00	0.00
Virgilee Park	3.50	N	N	0	0	0	0	0	0	0	0.25	0.00
Virginia Highland Triangle	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
West Wesley Park	1.13	N	V	0	0	0	0	0	0	0	0.00	0.00
Westminster Park	0.01	N	G	0	0	0	0	0	0	0	0.00	0.00
Whetstone Creek Park	2.33	N	P	0	0	0	0	0	0	0	0.20	0.00
Whittier Mills Park	22.00	N	N	1	0	0	0	0	0	0	0.00	0.25
Wildwood Gardens Park	1.56	N	B	0	0	0	0	0	0	0	0.00	0.00
Wildwood Place	0.05	N	G	0	0	0	0	0	0	0	0.00	0.00
Wilson Park Triangle	0.12	N	G	0	0	0	0	0	0	0	0.00	0.00
Winn Park	10.30	N	N	1	0	0	0	0	0	0	0.00	0.00
Yonah Park	1.90	N	B	0	0	0	0	0	0	0	0.00	0.00
Zimmer Drive Circle	0.04	N	G	0	0	0	0	0	0	0	0.00	0.00
Total, Northside Service Area	968.77			32	3	3	61	14	2	15,652	10.61	13.61
Adair Park I	6.39	S	N	1	0	1	0	1	0	88	0.00	0.00
Adair Park II	10.60	S	N	1	0	1	2	1	0	36	0.00	0.00
Arbor Park	0.36	S	G	0	0	0	0	0	0	0	0.00	0.00
Arthur Langford Jr Park	9.90	S	C	1	0	2	2	1	0	0	0.00	0.35
Avery Park-Gilbert House	11.03	S	S	0	0	0	0	0	0	0	0.00	0.00
Bass Recreation Center	1.00	S	S	0	0	0	0	0	0	0	0.00	0.00
Benoit	1.09	S	B	0	0	0	0	0	0	0	0.00	0.00
Benteen Park	9.81	S	N	1	0	0	0	1	1	0	0.00	0.00
Bessie Branham Park	6.58	S	C	1	0	1	2	1	0	225	0.00	0.00
Billings Circle	0.03	S	G	0	0	0	0	0	0	0	0.00	0.00
Bonnie Brae Park	0.19	S	B	1	0	0	0	0	0	0	0.00	0.00
Boulevard Crossing	21.79	S	N	0	0	0	0	0	0	0	0.00	0.00
Boulevard-Angier Park	0.18	S	G	0	0	0	0	0	0	0	0.00	0.00
Brookline Park	0.06	S	G	0	0	0	0	0	0	0	0.00	0.00
Browns Mill/McWilliams Park	0.04	S	G	0	0	0	0	0	0	0	0.00	0.00
Brownwood Park	12.33	S	C	1	0	1	3	0	0	1,760	0.00	0.00
Cabbagetown Park	3.66	S	N	1	0	0	0	0	0	0	0.00	0.00
Candler Park	55.30	S	C	1	0	1	4	1	1	640	1.00	0.00
Central Park	17.37	S	C	1	0	2	4	2	0	0	0.00	0.00
Chosewood Park	15.32	S	N	1	0	0	1	1	0	0	0.00	0.25
Cleveland Avenue Park	5.86	S	N	1	0	1	1	1	0	0	0.00	0.00
Coan Park	13.26	S	C	1	0	2	4	1	0	309	0.40	0.00
D.H. Stanton Park	8.32	S	N	2	1	0	0	1	0	2,000	0.00	0.00

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Table 78. Park Inventory (continued)

Park Name	Acres	Service Area	Type	Playground	Picnic Shelter	Basketball Court	Tennis Court	Baseball Field	Soccerl Field	Pavilion/Gazebo (sf)	Trail, Hard (Mi.)	Trail, Natural (Mi.)
Delta Park	0.22	S	G	0	0	0	0	0	0	0	0.00	0.00
Dill Avenue Park	0.09	S	G	0	0	0	0	0	0	0	0.00	0.00
East Lake Park	10.30	S	C	1	4	1	2	1	0	877	0.00	0.00
Eastwood/Emerson Triangle	0.03	S	G	0	0	0	0	0	0	0	0.00	0.00
Emma Millican Park	12.48	S	N	1	1	0	0	0	0	960	0.00	0.00
Empire Park	11.80	S	N	1	0	1	2	1	0	0	0.00	0.00
Esther Peachey Lefever	0.70	S	B	1	0	0	0	0	0	0	0.00	0.00
Findley Plaza	0.11	S	B	0	0	0	0	0	0	0	0.00	0.00
Folk Art (Courtland) Park	0.50	S	G	0	0	0	0	0	0	0	0.00	0.00
Folk Art (Piedmont) Park	0.50	S	G	0	0	0	0	0	0	0	0.00	0.00
Four Corners Park	4.80	S	N	1	0	0	0	0	0	330	0.00	0.00
Freedom Park	188.59	S	R	2	0	0	0	0	0	0	5.35	0.00
Fulton-Pryor Island	0.12	S	G	0	0	0	0	0	0	0	0.00	0.00
Gilliam Park	2.60	S	N	0	0	0	0	0	0	0	0.20	0.10
Glenwood Triangle	0.05	S	G	0	0	0	0	0	0	0	0.00	0.00
Goldsboro Park	2.50	S	N	0	0	1	2	0	0	0	0.00	0.00
Grant Park	131.50	S	R	2	2	1	4	2	1	5,658	2.00	0.00
Hardy Ivy Park	0.56	S	G	0	0	0	0	0	0	0	0.00	0.00
Harold Avenue Place	0.52	S	G	0	0	0	0	0	0	0	0.00	0.00
Harper Park	13.57	S	N	1	1	2	2	1	0	200	0.00	0.00
Heritage (Founder's) Park	0.67	S	G	0	0	0	0	0	0	0	0.00	0.00
Historic Fourth Ward Park	18.20	S	N	2	0	0	0	0	0	0	0.00	0.00
Hurt Park	1.87	S	B	0	0	0	0	0	0	0	0.00	0.00
Inman Park	0.28	S	G	0	0	0	0	0	0	0	0.00	0.00
Iverson Park	2.01	S	N	1	0	0	0	1	1	0	0.00	0.00
J.D. Sims Recreation Center	0.85	S	C	1	0	1	0	0	0	0	0.00	0.00
Jacci Fuller Woodland Garden Park	0.64	S	B	1	0	0	0	0	0	0	0.00	0.00
John C. Burdine Center	4.27	S	CC	0	0	0	0	0	0	0	0.00	0.00
John Calhoun Park	0.28	S	B	0	0	0	0	0	0	0	0.00	0.00
John Wesley Dobbs Park	1.30	S	N	0	0	0	0	0	0	0	0.00	0.00
Jonesboro Triangle	0.17	S	G	0	0	0	0	0	0	0	0.00	0.00
Kimpson Park	0.38	S	B	0	0	0	0	0	0	0	0.00	0.00
Kirkwood Urban Forest	6.64	S	V	0	0	0	0	0	0	0	0.00	0.60
Lake Claire Park	5.40	S	N	1	1	0	1	1	0	260	0.00	0.00
Lakewood Fairgrounds & HiFi Buys Amp	113.30	S	S	0	0	0	0	0	0	0	0.00	0.00
Lang-Carson Park	3.24	S	C	1	1	1	0	0	0	400	0.00	0.00
M.L.K. Center	5.20	S	C	1	0	0	0	0	0	0	0.00	0.00
Macon Drive Park	1.00	S	N	0	0	0	0	0	0	0	0.00	0.00
Manigault Street Playlot	0.22	S	B	0	0	0	0	0	0	0	0.00	0.00
Margaret Mitchell Square	0.04	S	G	0	0	0	0	0	0	0	0.00	0.00
Marietta Street Island	0.17	S	G	0	0	0	0	0	0	0	0.00	0.00

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Table 78. Park Inventory (continued)

Park Name	Acres	Service Area	Type	Playground	Picnic Shelter	Basketball Court	Tennis Court	Baseball Field	Soccerl Field	Pavilion/Gazebo (sf)	Trail, Hard (Mi.)	Trail, Natural (Mi.)
Mayor's #1 Park	0.22	S	G	0	0	0	0	0	0	0	0.00	0.00
McKay Circle	0.04	S	G	0	0	0	0	0	0	0	0.00	0.00
Memorial Drive Greenway	1.66	S	G	0	0	0	0	0	0	0	0.00	0.00
Monument Beauty Spot	0.03	S	G	0	0	0	0	0	0	0	0.00	0.00
Moreland Avenue Planters	0.06	S	G	0	0	0	0	0	0	0	0.00	0.00
Morgan-Boulevard Park	0.39	S	B	1	0	1	0	0	0	0	0.00	0.00
Oak Knoll I Park	1.07	S	G	0	0	0	0	0	0	0	0.00	0.00
Oak Knoll II Park	0.56	S	G	0	0	0	0	0	0	0	0.00	0.00
Oakland Cemetery	47.70	S	C	0	0	0	0	0	0	0	0.00	0.00
Oakview I Park	0.45	S	G	0	0	0	0	0	0	0	0.00	0.00
Oakview II Park	0.61	S	G	0	0	0	0	0	0	0	0.00	0.00
Ormond-Grant Park	1.30	S	B	1	0	0	0	0	0	0	0.00	0.00
Parkway-Angier Park	0.50	S	B	0	0	1	0	0	0	0	0.00	0.00
Parkway-Merritts Park	0.68	S	B	0	0	1	0	0	0	0	0.00	0.00
Parkway-Wabash Park	0.60	S	B	1	0	1	0	0	0	0	0.00	0.00
Perkerson Park	49.90	S	C	1	1	2	6	3	0	3,392	0.00	0.75
Phoenix II Park	7.30	S	N	1	0	2	2	1	0	600	0.00	0.00
Phoenix III Park	4.00	S	N	1	0	0	0	0	0	0	0.00	0.00
Pittman Park	14.10	S	C	1	1	2	3	2	0	422	0.00	0.00
Pryor-Tucker Playlot	0.19	S	B	1	0	0	0	0	0	0	0.00	0.00
Ralph David Abernathy Median	0.29	S	G	0	0	0	0	0	0	0	0.00	0.00
Ralph David Abernathy Plaza	0.33	S	G	0	0	0	0	0	0	0	0.00	0.00
Rawson-Washington Park	4.49	S	N	1	0	1	2	0	0	0	0.00	0.00
Rebel Valley Playlot	1.37	S	B	1	1	1	0	0	0	110	0.00	0.00
Renaissance Park	5.40	S	N	0	0	0	0	0	0	0	0.00	0.00
Robert W. Woodruff Park	3.30	S	C	1	0	0	0	0	0	452	0.00	0.00
Rosa L. Burney Park (Dunbar Pool)	13.73	S	C	2	0	0	2	1	0	625	0.00	0.00
Rosel Fann Park	20.08	S	C	1	0	0	0	1	0	1,335	1.00	0.00
Roseland Cemetery	0.22	S	S	0	0	0	0	0	0	0	0.00	0.00
Selena S. Butler Park (MLK Jr Recreatio	5.14	S	N	1	0	1	2	0	0	0	0.00	0.00
South Atlanta Park	11.05	S	N	1	0	1	3	1	0	631	0.00	0.25
South Bend Park	76.60	S	C	1	1	2	2	3	1	6,043	0.52	0.00
Southside Park	211.44	S	R	0	0	0	0	0	0	0	0.00	0.00
Springvale Park	4.60	S	N	1	0	0	0	0	0	0	0.20	0.20
Stoney Point Park	0.19	S	G	0	0	0	0	0	0	0	0.00	0.00
Summerhill Triangle	0.27	S	G	0	0	0	0	0	0	0	0.00	0.00
Swann Preserve	34.28	S	P	0	0	0	0	0	0	0	0.96	0.00
Sylvan Circle Playlot	0.51	S	B	1	0	0	0	0	0	0	0.00	0.00
Thomasville Park	44.09	S	C	1	1	1	1	1	0	18,438	0.00	0.00
Tullwater Park	5.37	S	N	1	0	0	0	0	0	0	0.00	0.00
Walker Park	7.02	S	N	1	0	0	0	1	1	0	0.00	0.00
Walton Spring Park	0.18	S	G	0	0	0	0	0	0	0	0.00	0.00
Welch Street Park	0.18	S	G	0	0	0	0	0	0	0	0.00	0.00

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Table 78. Park Inventory (continued)

Park Name	Acres	Service Area	Type	Playground	Picnic Shelter	Basketball Court	Tennis Court	Baseball Field	Soccerl Field	Pavilion/Gazebo (sf)	Trail, Hard (Mi.)	Trail, Natural (Mi.)
Windsor Street Park	1.09	S	B	1	0	1	0	0	0	0	0.00	0.00
Total, Southside Service Area	1,340.72			56	16	38	59	33	6	45,791	11.63	2.50
A.D. Williams Park	11.00	W	C	1	0	1	0	2	0	0	0.00	0.00
Abner Place Park	0.37	W	G	1	0	0	0	0	0	0	0.00	0.00
Adams Park	158.44	W	R	1	4	0	4	0	0	2,312	0.00	0.00
Adamsville Park (Old)	1.43	W	S	0	0	0	0	0	0	0	0.00	0.00
Adamsville Recrecreation Center	11.00	W	R	1	0	0	0	0	0	0	0.00	0.00
Adamsville Triangle	0.05	W	G	0	0	0	0	0	0	0	0.00	0.00
Anderson Park	56.70	W	C	1	0	0	3	2	0	1,088	0.50	0.25
Arlington Circle Beauty Spot	0.86	W	G	1	0	0	0	0	0	0	0.00	0.00
Arlington Circle Playlot	0.49	W	B	1	0	0	0	0	0	0	0.00	0.00
Ashby Circle Playlot	0.87	W	B	1	0	0	0	0	0	0	0.00	0.00
Ashview Triangle	0.11	W	G	0	0	0	0	0	0	0	0.00	0.00
Atwood Street Park	0.05	W	G	0	0	0	0	0	0	0	0.00	0.00
Barbara A. McCoy Park	8.50	W	N	1	0	0	0	0	0	166	0.00	0.00
Beecher Park	5.80	W	V	1	0	0	0	0	0	0	0.00	0.00
Beecher Triangle	0.02	W	G	0	0	0	0	0	0	0	0.00	0.00
Ben Hill Park	21.97	W	C	1	1	1	2	3	0	660	0.00	0.00
Boone and West Lake	1.24	W	N	0	0	0	0	0	0	0	0.00	0.00
Campbellton Road Park	10.20	W	C	0	0	0	0	0	0	0	0.00	0.00
Carver Circle	0.02	W	G	0	0	0	0	0	0	0	0.00	0.00
Cascade Springs Nature Preserve	120.00	W	P	0	0	0	0	0	0	0	0.00	1.90
Cativo and Dogwood Beauty Spot	0.03	W	G	0	0	0	0	0	0	0	0.00	0.00
Cativo Circle	0.03	W	G	0	0	0	0	0	0	0	0.00	0.00
Center Hill Park	46.00	W	C	1	1	2	1	1	0	6,088	0.00	0.00
Charles L. Harper Memorial Park	1.10	W	G	0	0	0	0	0	0	0	0.00	0.00
Chatham and Avon Park	0.05	W	G	0	0	0	0	0	0	0	0.00	0.00
Cleopas R. Johnson Park	4.30	W	N	1	0	1	2	0	0	0	1.00	0.00
Collier Park	16.17	W	C	2	1	1	2	1	0	368	0.00	0.00
Collum Circle Beauty Spot	0.05	W	G	0	0	0	0	0	0	0	0.00	0.00
Coventry Station CE	28.32	W	P	0	0	0	0	0	0	0	0.00	0.00
Cumberlander	8.67	W	V	0	0	0	0	0	0	0	0.00	0.00
Dale Creek Park	3.20	W	V	0	0	0	0	0	0	0	0.00	0.00
Dean Rusk Park	6.00	W	N	2	0	0	0	1	0	0	0.30	0.00
Deerwood Park	17.40	W	N	2	2	1	2	1	0	1,200	0.00	0.00
Doctors Park	0.08	W	C	0	0	0	0	0	0	0	0.00	0.00
Dollar Mill Median	0.24	W	G	0	0	0	0	0	0	0	0.00	0.00
Edgewater Circle	0.03	W	G	0	0	0	0	0	0	0	0.00	0.00
Edwin Place Park	4.29	W	N	0	0	0	0	0	0	0	0.00	0.00
Elinor Place Park	0.61	W	G	0	0	0	0	0	0	0	0.00	0.00
Ella Mae Wade Brayboy Memorial Park	2.33	W	C	0	0	0	0	0	0	0	0.25	0.00

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Table 78. Park Inventory (continued)

Park Name	Acres	Service Area	Type	Playground	Picnic Shelter	Basketball Court	Tennis Court	Baseball Field	Soccerl Field	Pavilion/Gazebo (sf)	Trail, Hard (Mi.)	Trail, Natural (Mi.)
English Park	9.50	W	N	2	0	1	1	1	0	646	0.00	0.00
Enota Place Park	2.90	W	B	1	0	0	0	0	0	0	0.00	0.00
Falling Water	25.84	W	V	0	0	0	0	0	0	0	0.00	0.00
Fire Station #5 Park	0.08	W	G	0	0	0	0	0	0	0	0.00	0.00
Fountain Drive #1	0.01	W	G	0	0	0	0	0	0	0	0.00	0.00
Fountain Drive #2	0.02	W	G	0	0	0	0	0	0	0	0.00	0.00
Fountainebleau Beauty Spot	0.05	W	G	0	0	0	0	0	0	0	0.00	0.00
Gertrude Place	1.13	W	G	0	0	0	0	0	0	88	0.00	0.00
Gordon-White Park	1.70	W	G	0	0	0	0	0	0	0	0.23	0.00
Green Leaf Circle	0.99	W	G	0	0	0	0	0	0	0	0.00	0.00
Greenbriar	7.05	W	V	0	0	0	0	0	0	0	0.00	0.00
Grove Park	17.35	W	C	1	2	0	2	1	0	1,560	0.00	0.00
Gun Club Park	28.93	W	V	0	0	0	0	0	0	0	0.00	0.00
Havilon Triangle	0.27	W	G	0	0	0	0	0	0	0	0.00	0.00
Herbert Greene	56.44	W	P	0	0	0	0	0	0	0	0.00	0.00
Holderness/Lucile Park	0.18	W	G	0	0	0	0	0	0	0	0.00	0.00
Howell Park	2.10	W	N	1	0	1	0	0	0	585	0.00	0.00
Isabel Gates Webster Park	15.69	W	N	1	2	0	2	1	0	368	0.00	0.25
J.F. Kennedy Park	4.80	W	C	1	1	0	0	1	0	400	0.00	0.00
Jennie Drake Park	5.27	W	G	0	0	0	0	0	0	0	0.00	0.00
John A. White Park	112.00	W	R	1	6	0	8	1	1	2,220	0.00	0.00
Knight Park	2.69	W	N	1	0	1	1	0	0	0	0.00	0.00
Larchmont Circle	0.02	W	G	0	0	0	0	0	0	0	0.00	0.00
Leathers Circle	0.06	W	G	0	0	0	0	0	0	0	0.00	0.00
Lillian Cooper Shepherd Park	2.30	W	N	2	0	1	0	0	0	0	0.00	0.25
Lindsay Street Park	1.20	W	B	1	0	0	0	0	0	0	0.00	0.00
Lionel Hampton	48.44	W	P	1	0	0	0	0	0	0	0.70	0.00
Maddox Park	51.50	W	C	1	0	2	1	1	0	900	0.00	0.00
Magnum and Lynhurst Park	0.10	W	G	0	0	0	0	0	0	0	0.00	0.00
Mary Shy Scott	23.40	W	C	1	0	1	3	1	0	422	0.00	0.00
Matilda Place Park	1.27	W	G	0	0	0	0	0	0	0	0.00	0.00
Mayflower Beauty Spot	0.25	W	G	0	0	0	0	0	0	0	0.00	0.00
Melvin Drive Park	48.90	W	C	0	1	1	2	1	0	260	0.00	0.00
Mitchell-Haynes Park	0.08	W	G	0	0	0	0	0	0	0	0.00	0.00
Mozley Park (Powell Pool)	28.15	W	C	1	0	1	2	2	2	2,852	1.10	0.20
North Camp Creek Parkway NP	66.30	W	P	0	0	0	0	0	0	0	0.50	0.00
North Evelyn Place Park	0.87	W	G	0	0	0	0	0	0	0	0.00	0.00
Ontario Park	0.07	W	G	0	0	0	0	0	0	0	0.00	0.00
Oriole Park	0.10	W	G	0	0	0	0	0	0	0	0.00	0.00
Outdoor Activity Center	21.76	W	P	0	0	0	0	0	0	144	0.00	0.75
Pollard and Albany Beauty Spot	0.09	W	G	0	0	0	0	0	0	0	0.00	0.00
Prairie View Beauty Spot	0.03	W	G	0	0	0	0	0	0	0	0.00	0.00
Proctor Village Park	2.50	W	C	0	0	0	0	0	0	0	0.00	0.00

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Table 78. Park Inventory (continued)

Park Name	Acres	Service Area	Type	Playground	Picnic Shelter	Basketball Court	Tennis Court	Baseball Field	Soccerl Field	Pavilion/Gazebo (sf)	Trail, Hard (Mi.)	Trail, Natural (Mi.)
Queen and White Beauty Spot	0.04	W	G	0	0	0	0	0	0	0	0.00	0.00
Rev. James Orange Park at Oakland City	15.40	W	C	1	1	0	2	1	0	3,725	0.00	0.00
Rockdale Park	63.00	W	P	0	0	0	0	0	0	0	0.00	0.00
Rodney Cook Sr. Park in Historic Vine C	14.00	W	C	0	0	0	0	0	0	0	0.00	0.00
Rose Circle Park	2.70	W	N	1	1	1	0	0	0	509	0.22	0.00
Rose Circle Triangle	0.21	W	G	0	0	0	0	0	0	0	0.00	0.00
Sandpiper Circle	0.06	W	G	0	0	0	0	0	0	0	0.00	0.00
Sandtown Triangle	0.14	W	G	0	0	0	0	0	0	0	0.00	0.00
Shirley Place Park	5.66	W	G	0	0	0	0	0	0	0	0.00	0.00
South Evelyn Place Park	1.01	W	G	0	0	0	0	0	0	0	0.00	0.00
South Gordon Triangle	0.01	W	G	0	0	0	0	0	0	0	0.00	0.00
Spellman-Morehouse Beauty Spot	0.04	W	G	0	0	0	0	0	0	0	0.00	0.00
Stafford Circle Park	0.04	W	G	0	0	0	0	0	0	0	0.00	0.00
Stafford Street Park	0.12	W	G	0	0	0	0	0	0	0	0.00	0.00
Stephanie Drive Park	0.37	W	G	0	0	0	0	0	0	0	0.00	0.00
Stone Hogan Park	10.50	W	N	1	0	1	0	0	0	1,420	0.00	0.00
Torrence Circle	0.05	W	G	0	0	0	0	0	0	0	0.00	0.00
Tremont Playlot	0.18	W	B	1	0	0	0	0	0	0	0.00	0.00
Tucson Trail Park	2.77	W	N	1	0	0	0	1	0	238	0.00	0.00
Veltre Circle	0.18	W	G	0	0	0	0	0	0	0	0.00	0.00
Verbena Street Playlot	0.69	W	B	1	0	0	0	0	0	0	0.00	0.00
Vine City Park	1.44	W	B	1	0	0	0	0	0	0	0.00	0.00
Washington Park	20.43	W	C	2	0	0	8	2	0	4,040	1.00	0.00
Watkins Park	0.80	W	N	0	0	0	0	0	0	0	0.00	0.00
West End Park	6.37	W	N	1	0	1	2	1	0	0	0.00	0.00
West Manor Park	11.20	W	C	1	1	0	2	1	0	304	0.00	0.00
Westside Park	10.41	W	R	0	0	0	0	0	0	0	0.00	0.00
Willard and Gordon Park	0.07	W	G	0	0	0	0	0	0	0	0.00	0.00
Wilson Mill Park	35.50	W	C	2	1	1	2	3	0	88	0.00	0.00
Total, Westside Service Area	1,343.79			48	25	20	54	30	3	32,651	5.80	3.60

Notes: For service area, N = Northside, S = Southside, W = Westside; for park type, B = Block, C = Community, CC = Community Center, G = Garden, N = Neighborhood, P = Nature Preserve, R = Regional, S = Special, V = Conservation
Source: City of Atlanta Department of Parks and Recreation, January 27, 2017.