REGIONAL REVIEW NOTIFICATION

ATLANTA REGIONAL COMMISSION

Atlanta Regional Commission • 229 Peachtree Street NE | Suite 100 | Atlanta, Georgia 30303 • ph: 404.463.3100 fax: 404.463.3205 • atlantaregional.org

DATE: October 11, 2024

TO: Mayor Sandra Vincent, City of McDonough
ATTN TO: Mike Clark, Finance Department, City of McDonough
FROM: Mike Alexander, COO, Atlanta Regional Commission

The Atlanta Regional Commission (ARC) has received the following proposal and is initiating a regional review to seek comments from potentially impacted jurisdictions and agencies. The ARC requests your comments related to the proposal not addressed by the Commission's regional plans and policies.

Name of Proposal: 2024 City of McDonough CIE Amendment

Description: A regional review of the draft 2024 City of McDonough CIE Amendment.

Submitting Local Government: City of McDonough
Action Under Consideration: Approval
Date Opened: October 11, 2024
Deadline for Comments: November 1, 2024

THE FOLLOWING LOCAL GOVERNMENTS AND AGENCIES ARE RECEIVING NOTICE OF THIS REVIEW:

ATLANTA REGIONAL COMMISSION
GEORGIA DEPARTMENT OF TRANSPORTATION
GEORGIA ENVIRONMENTAL FINANCE AUTHORITY
CITY OF STOCKBRIDGE
GEORGIA DEPARTMENT OF NATURAL RESOURCE
GEORGIA REGIONAL TRANSPORTATION AUTHORITY
CITY OF HAMPTON
CITY OF LOCUST GROVE
GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS
GEORGIA SOIL AND WATER CONSERVATION COMMISSION
HENRY COUNTY

Review information is attached.

Please submit comments to dshockey@atlantaregional.org For questions, please contact ARC Plan Review Manager Donald Shockey at dshockey@atlantaregional.org or 470-378-1531. If no comments are received by **November 1, 2024**, ARC will assume your agency has no input on the subject plan. The ARC review website is located at https://atlantaregional.org/community-development/comprehensive-planning/plan-reviews/
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CITY OF MCDONOUGH
STATE OF GEORGIA

RESOLUTION 24-10-03.1

A RESOLUTION AUTHORIZING THE TRANSMITTAL OF A DRAFT CAPITAL IMPROVEMENTS ELEMENT AMENDMENT TO THE ATLANTA REGIONAL COMMISSION FOR REGIONAL AND STATE REVIEW

WHEREAS the City of McDonough previously adopted a Capital Improvements Element in 2019; and

WHEREAS, the City of McDonough has drafted a Capital Improvements Element amendment, which incorporates an impact fee financial report for FY 2024 along with an updated Community Work Program; and

WHEREAS the draft Capital Improvements Element amendment was prepared in accordance with the "Development Impact Fee Compliance Requirements" and the "Minimum Planning Standards and Procedures for Local Comprehensive Planning" adopted by the Board of Community Affairs pursuant to the Georgia Planning Act of 1989, and a duly advertised Public Hearing was held on October 3, 2024, at 6:00 p.m. in the City of McDonough City Hall, 136 Keys Ferry Street, McDonough, Georgia;

BE IT HEREBY RESOLVED that the Mayor and Council does authorize the transmittal of the draft Capital Improvements Element amendment to the Atlanta Regional Commission for Regional and State review, as per the requirements of the Development Impact Fee Compliance Requirements adopted pursuant to the Georgia Planning Act of 1989.

ADOPTED this 3rd day of October 2024.

Sandra Vincent

Sandra Vincent, Mayor

ATTEST: Christy L. Taylor

Christy L. Taylor, City Clerk

Impact Fee Capital Improvements Element

City of McDonough Impact Fee Program

Including the following public facility categories:

Fire Protection

Law Enforcement

Parks and Recreation

DRAFT

October 3, 2024

ROSS+associates

urban planning & plan implementation

in association with HatleyPlans LLC

Table of Contents

Introduction

This report focuses on the public facilities that will be needed to meet the service demands of future growth and development while maintaining the City's adopted levels of service enjoyed by residents and businesses in the city today and in the future. The key is that the capital improvement, whether it's land, buildings or long-lived vehicles, must create new capacity within the system to keep pace with the number of future residents and businesses as the city grows. Maintenance and personnel are not eligible for impact fee funding, nor would replacement of deteriorated floor space or a run-down vehicle because, although the replacement is maintaining the level of service, no new capacity is created to serve the needs of new growth.

This report examines several public facility categories: fire protection, law enforcement, and parks & recreation facilities.

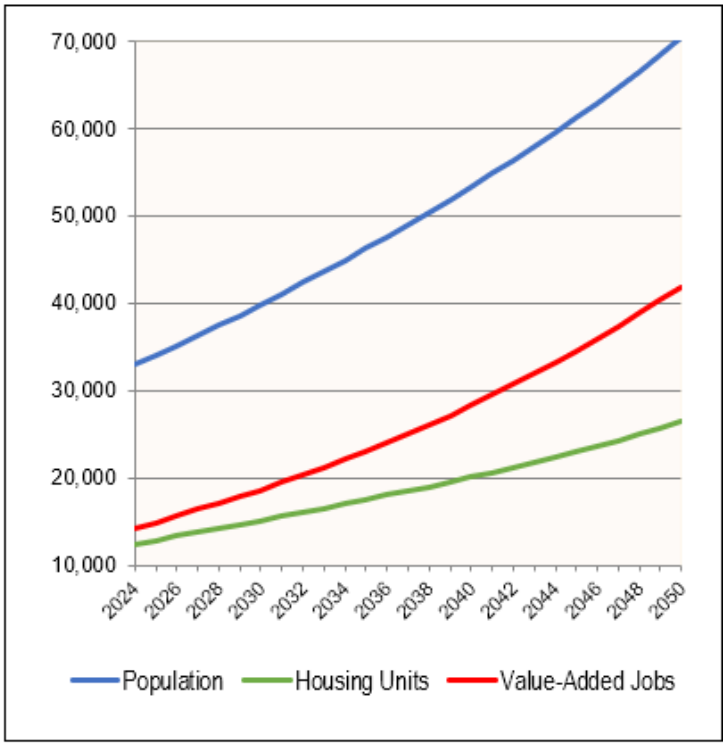
Forecasts

In order to accurately calculate the demand for future facilities and services in McDonough, new growth and development must be quantified in future projections. These projections include forecasts for population, households, housing units, and employment over the next 26 years to 2050. The projections provide the baseline conditions from which the current (2024) Level of Service calculations are produced. Also, projections are combined to produce what is known as the 'day-night population'. This is a method that combines the resident population and employees to produce an accurate picture of the total number of people that rely on certain 24-hour services, both as residents and employees.

The table that follows presents a summary of the forecasts that have been identified as the most likely for McDonough, based on an analysis of past trends. The specific methodologies and breakdowns are detailed in Appendix A attached to this report.

Forecasts of Future City Growth

Year	Population	Housing Units	Value-Added Jobs
2024	33,025	12,448	14,273
2025	34,105	12,906	14,953
2026	35,208	13,376	15,696
2027	36,336	13,805	16,439
2028	37,489	14,243	17,181
2029	38,666	14,691	17,924
2030	39,871	15,148	18,667
2031	41,104	15,617	19,548
2032	42,360	16,094	20,429
2033	43,645	16,582	21,309
2034	44,953	17,079	22,190
2035	46,286	17,585	23,071
2036	47,643	18,101	24,113
2037	49,023	18,551	25,155
2038	50,428	19,083	26,196
2039	51,863	19,625	27,238
2040	53,328	20,180	28,280
2041	54,828	20,666	29,514
2042	56,366	21,245	30,748
2043	57,941	21,840	31,982
2044	59,560	22,450	33,216
2045	61,226	23,077	34,450
2046	62,939	23,724	35,929
2047	64,706	24,389	37,408
2048	66,531	25,077	38,886
2049	68,415	25,787	40,365
2050	70,364	26,522	41,844



	Population	Housing Units	Value-Added Jobs
2024	33,025	12,448	14,273
2050	70,364	26,522	41,844
Increase	37,339	14,074	27,571
Percent	53.1%	53.1%	65.9%

Looking Ahead

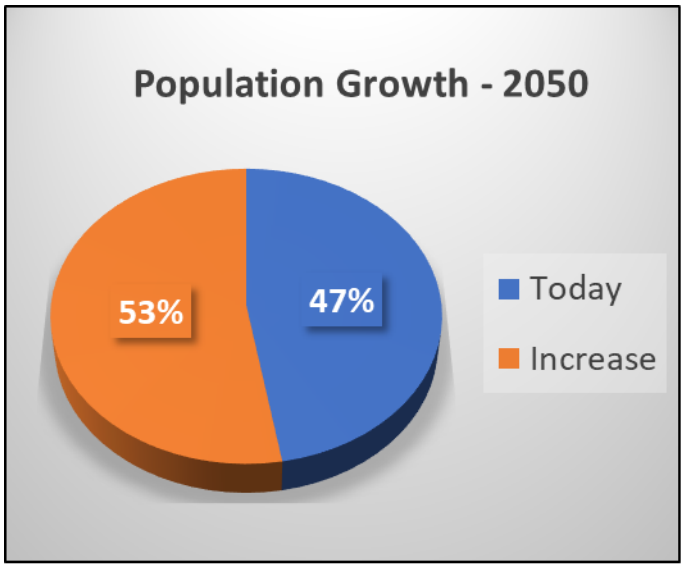
Forecasts indicate continued growth ahead for McDonough as people continue to move into the city, propelled by favorable living conditions and access to jobs and services. Over the next 26 years to 2050, it is expected that well over 37,000 people (a 53% increase) will be living in McDonough then that are not here today.

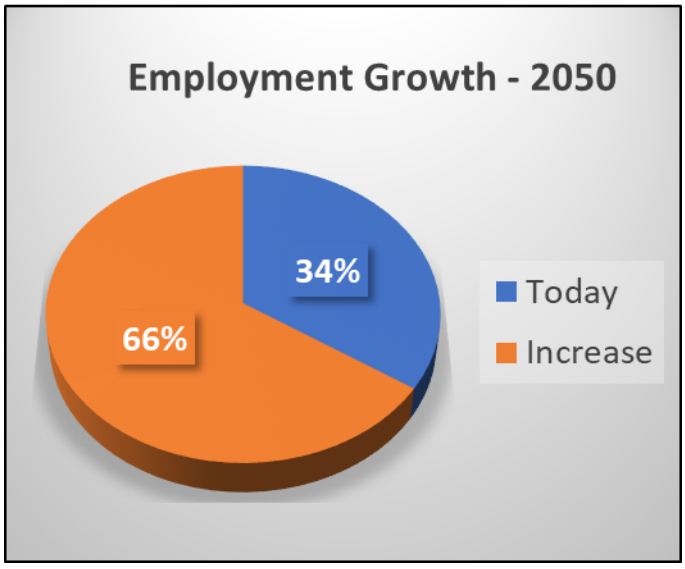
Population Outlook

The future increase in population is not unprecedented. Looking back, since 2000 the city's population grew from 8,710 to 33,025 today—adding more than 24,300 residents to the city, 2.8 times the 2000 population. Importantly, the city did not experience a notable 'slump' in population that other cities and

counties experienced that was brought on by the collapse of the housing market and the on-set of the Great Recession in 2008, although population growth certainly slowed during 2011-2014.

Over the coming 26 years to 2050, the pace of the city's population growth is projected to virtually mirror the pace of 2000-2024 growth by adding another 37,339 people, who will then represent 53% of the 2050 total population.





Increased Job Opportunities

McDonough has long been an ever-growing center for business and employment as the county seat, serving the region as well as the city's residents. Today, there are well over 14,000 people working in 'value-added' jobs[1] which equates to more than 1.15 such jobs in the city for each housing unit.

In the years ahead, the jobs per resident will grow such that, by 2050 the ratio is projected to be almost 1.6 value-added job for every housing unit.

As to the value-added jobs, a net increase of 27,571 new jobs are projected to be added, virtually a two-thirds increase. Of these, more than 63% of the increase is projected to be in four employment categories: Health Care & Social Assistance (5,095 new jobs), followed closely by Accommodation & Food Services (4,519 new jobs) and Administrative Services (4,411 new jobs), with Transportation & Warehousing (3,383 new jobs) rounding out the four. Compared to today's total value-added employment of 13,980, new jobs will have added 27,571 jobs and will comprise 66% of all value-added jobs in the city.

With all this projected population and employment growth by 2050, McDonough will be called upon to increase the capacity of its facilities and infrastructure. This expansion will be necessary to maintain the attractive quality of life and business environment enjoyed today by residents and businesses alike. For

[1] **'Value-added jobs' are those working in businesses that would be subject to impact fees and thus exclude the types of jobs that would not be associated with an impact fee (such as farm workers, itinerant construction workers and governmental employees).**

more information on anticipated growth, detailed growth forecast methodologies are presented in Appendix A, *Future Growth Forecasts*.

Impact Fees Authorized

Impact fees are a form of revenue allowed by the State, and strictly defined and regulated through State law. Impact fees are authorized in Georgia under Code Section 37-71, the *Georgia Development Impact Fee Act* (DIFA), and are administered by the Georgia Department of Community Affairs (DCA) under Chapter 110-12-2, *Development Impact Fee Compliance Requirements*.

Under DIFA, the City can collect money from new development based on that development's proportionate share—the 'fair share'—of the cost to provide the facilities it needs. Ultimately, and importantly, the services provided in the public facility categories for which impact fees are being charged must be the same for both the existing community and future growth.

The provisions of the DIFA are extensive, in order to assure that new development pays no more than its fair share of the costs and that impact fees are not used to solve existing service deficiencies.

Eligible Facilities

The following Overview Table shows the public facility categories that are eligible for impact fee funding (in whole or in part) under Georgia law and that are considered in this report.

Overview of Impact Fee Program - Facilities

	Fire Protection	Law Enforcment	Parks and Recreation
Eligible Facilities	Fire stations and fire apparatus (vehicles)	Occupied facility space, support vehicles, emergency power systems	Park acres, recreation components and trails
Service Area	Citywide	Citywide	Citywide
Level of Service Standard Based on ...	Square footage and number of vehicles per day/night population	Square footage and number of vehicles per day/night population	Number of acres, components and trails per dwelling unit
Historic Funding Source(s)	Impact Fees and General Fund	Impact Fees and General Fund	Impact Fees and General Fund

Terms used in the **Overview Table**:

Eligible Facilities under the State Act are limited to capital items having a life expectancy of at least ten years, such as land, buildings and certain vehicles. Impact fees cannot be used for the maintenance, supplies, personnel salaries, or other operational costs, or for short-term capital items such as computers, furniture or most automobiles. None of these costs are included in the impact fee system.

Service Areas are the geographic areas that the facilities serve, and the areas within which the impact fee can be collected. Monies collected in a service area for a particular category may only be spent for that purpose, and only for projects that serve that service area.

Level of Service Standards are critical to determining new development's fair share of the costs. The same standards must be applied to existing development as well as new to assure that each is paying only for the facilities that serve it. New development cannot be required to pay for facilities at a higher standard than that available to existing residents and businesses, nor to subsidize existing facility deficiencies.

Exemption Policy

Certain office, retail trade, and industrial development projects may provide extraordinary benefit in support of the economic advancement of the city's citizens over and above the access to jobs, goods, and services that such uses offer in general. To encourage such development projects, the City Council may grant a reduction in the impact fee for such a development project upon the determination and relative to the extent that the business or project represents extraordinary economic development and employment growth of public benefit to Covington.

In addition, the City Council recognizes that impact fees, in some circumstances, may negatively affect the affordability of housing, particularly "workforce" housing.

If it wishes to encourage development projects of public benefit to Covington, the City Council shall first adopt exemption criteria to guide the granting of a reduction in the impact fee for:

A business development project that represents extraordinary economic development and employment growth, and/or

A residence or housing project that will increase the supply of housing that would be affordable to disadvantaged individuals or families.

In the absence of adopted applicable exemption criteria for either extraordinary economic development and employment growth or for affordable housing, no applicable exemption shall be approved.

It is recognized by the City Council that the Georgia Development Impact Fee Act (under O.C.G.A. 36-74-4(h)(3)) requires that any amount of money granted as an exemption must be reimbursed by the city into the city's impact fee accounts from revenue sources other than impact fees.

Editorial Conventions

This report observes the following conventions:

The capitalized word 'City' applies to the government of McDonough, the City Council or any of its departments or officials, as appropriate to the context. An example is "the City has adopted an impact fee ordinance".

The lower-case word 'city' refers to the geographical area of McDonough, as in "the population of the city has grown".

The same conventions are applied to the words 'County' and 'county', 'State' and 'state'.

Single quote marks (' and ') are used to highlight a word or phrase that has a particular meaning or refers to a heading in a table.

Double quote marks (" and ") are used to set off a word or phrase that is a direct quote taken from another source, such as a passage or requirement copied directly from a law or report.

Numbers shown on tables are often rounded from the actual calculation of the figures for clarity, but the actual calculated number of decimal points is retained within the table for accuracy and further calculations.

Fire Protection

Introduction

Fire protection is provided by the City of McDonough Fire Department throughout the entire city. The capital value of fire protection is based upon fire stations, administrative office space, and fire apparatus.

Service Area

The Fire Department operates as a coordinated system, with each station backing up the other station in the system. The backing up of another station is not a rare event; it is the essence of good fire protection planning. All stations do not serve the same types of land uses, nor do they all have the same apparatus. It is the strategic placement of personnel and equipment that is the backbone of good fire protection. Any new station would relieve some of the demand on the other stations. Since the stations would continue to operate as 'backups' to the other stations, everyone in the city would benefit by the construction of the new station since it would reduce the 'backup' times the station nearest to them would be less available. For these reasons the entire city is considered a single service area for the provision of fire protection because all residents and employees within this area have equal access to the benefits of the program.

Level of Service

The level of service for fire protection in McDonough is measured in terms of the number of Fire Department vehicles and the number of square feet of fire station/administrative/storage space, per day-night population in the service area. Day-night population is used as a measure in that fire protection is a 24-hour service provided continuously to both residences and businesses in the service area, whether residents are home or not and businesses are open or not.

Table 1: Current Fire Protection System Buildings

Description	Square Feet
Buildings	
Fire Station 51/HQ	9,384
Fire Station 52	7,786
Public Safety Storage Building*	3,066
Total Existing Floor Area	**20,236**

*The storage building (on Lawrenceville St.) is used by the Fire and Police Departments. The square footage shown represents the current portion used by the Fire Department.

Currently, fire protection is provided by facilities with a combined square footage of 20,236. Administrative functions also occupy space within the City's fire stations. Table 1 shows the Department's current inventory of buildings (i.e., 'system improvements' having a useful life of 10 years or more).

In addition to buildings, of course, the department operates through the use of vehicles, such as fire trucks (i.e., fire apparatus) and an additional fleet of vehicles that support fire fighting and administrative functions such as fire safety education, hazardous materials storage and isolation inspections, and command personnel at active fire-fighting locations. The current inventory of all vehicles is shown on the next table, Table 2.

Table 2: Current Fire Department Vehicles

Dept. ID	Type	Year Acquired	Original Cost	Present Value
Fire Apparatus				
HME Silver Fox	Rescue Pumper	2001	$ 218,000.00	$ 350,635.20
Sutphen Quint (Q51)	75' Aerial Platform	2004	$ 550,000.00	$ 831,457.58
Rosenbauer /Spartan	85' Aerial Platform	2009	$ 850,000.00	$ 1,158,849.35
Ford F550 DRW SD (M51)	Brush Truck	2012	$ 86,000.00	$ 110,200.84
Spartan Metro Star-X (E51B)	Rescue Pumper	2013	$ 268,130.00	$ 336,556.50
Spartan Metro Star-X (E52B)	Rescue Pumper	2015	$ 315,574.00	$ 380,072.15
Ford F550 DRW SD (M52)	Brush Truck	2016	$ 107,489.00	$ 126,810.43
Spartan Metro Star-X (E51)	Rescue Pumper	2018	$ 321,928.00	$ 364,419.81
Pierce Saber (E52) equipped	Rescue Pumper	2023	$ 641,480.00	$ 654,872.86
Pierce Ascendannt-equipped	100' Aerial Platform	2024	$ 1,555,640.00	$ 1,555,640.00
		Total Present Value		$ 5,869,514.73
		Number of Vehicles		10
		Average Cost per Vehicle		$ 586,951.47
Support Vehicles				
Ford Expedition (Gray)	SUV	2011	$ 28,000.00	$ 36,628.43
Ford Expedition (White)	Admin - SUV	2011	$ 28,000.00	$ 36,628.43
Chevrolet Tahoe	Command - SUV	2013	$ 38,000.00	$ 47,697.56
Chevrolet Silverado 1500	Admin - Truck	2016	$ 30,140.00	$ 35,557.75
Chevrolet Tahoe	Admin - SUV	2017	$ 45,000.00	$ 52,003.14
Chevrolet Tahoe	Admin - SUV	2020	$ 36,000.00	$ 39,101.91
Chevrolet Tahoe	Command - SUV	2023	$ 47,000.00	$ 47,981.27
Chevrolet Peter-Pirsch	Parade Pumper	1941	$ 3,000.00	$ 16,670.65
Yamaha DR2A18 Golf Cart	FR Mini-Ambulance	2018	$ 12,644.00	$ 14,312.90
Big Tex 6'x14'	Utility Trailer	2021	$ 2,870.00	$ 3,053.54
		Total Present Value		$ 329,635.59
		Number of Vehicles		10
Note: All vehicles have a service life of 10 years or more.		Average Cost per Vehicle		$ 32,963.56

Table 3 presents the calculation of the current Level of Services (LOS) provided by the current fire protection system improvements in the city. The inventory of each category is divided by the current day/night population to obtain the LOS per person enjoyed throughout the city today.

Table 3: Current Level of Service Calculations

Facility	Service Population	Level of Service
Existing Square Feet	2024 Day/Night Population	Square Feet per 2024 Day/Night Population
20,236	47,298	0.427841
Existing Fire Apparatus	2024 Day/Night Population	Apparatus per 2024 Day/Night Population
10	47,298	0.000211
Existing Support Vehicles	2024 Day/Night Population	Vehicles per 2024 Day/Night Population
10	47,298	0.000211

These existing service levels and quality of services are adequate to meet the current needs of today's residents and businesses and therefore establish the basis upon which the needs of future growth and development are to be met and to maintain the City's excellent ISO rating.

■ Forecasts for Service Area

Future Demand

The applicable Level of Service standards from Table 3 are inserted into Table 4 since the current level of service is to be addressed throughout the foreseeable future. These level of service numbers are multiplied by the forecasted day/night population increase to produce the expected future demand in 2050. The 'day/night population increase' figures are taken from the forecasts presented in Appendix A.

Table 4: Future Demand Calculation

Level of Service	Future Population	New Growth Demand
Square Feet per 2024 Day/Night Population	Day/Night Population Increase (2024-50)	Net New Square Feet Demanded*
0.427841	64,910	27,771
Apparatus per 2024 Day/Night Population	Day/Night Population Increase (2024-50)	Net New Fire Apparatus Demanded**
0.000211	64,910	13.72
Vehicles per 2024 Day/Night Population	Day/Night Population Increase (2024-50)	Net New Support Vehicles Demanded**
0.000211	64,910	13.72

* Total includes replacement of floor area in current storage facility.
** 13 additional fire apparatus and 13 support vehicles need to be added to the inventory by 2050. All will be 100% impact fee eligible.

A total increase of 27,771 square feet of new space will be needed to provide full service in the city in the future, while maintaining and possibly improving the city's ISO rating for all its residents and businesses now and in the future.

Note that, because only 'whole' vehicles can be purchased, only 13 new fire apparatus and 13 support vehicles are proposed to be added to the inventory over the coming 21 years. Each of the fire apparatus and support vehicles would therefore be 100% eligible for impact fee funding.

Also note that the new vehicles must increase the fleet to fully serve the future residential and nonresidential growth. Thus, any vehicles being replaced on the front line should be held in reserve so that the expansion of the fleet will be realized. If a new vehicle replaces an old vehicle which is retired or otherwise disposed of, there is no expansion of the fleet, and the cost of the new vehicle could not be funded with impact fees.

Future Costs

This Section examines both the total cost of the increased facility floor area and number of fire vehicles needed to provide the proposed fire system of the future.

Table 5: Future System Improvement Costs

Year	Buildings			Fire Apparitus			Support Vehicles		
	Facility	Square Feet	2024 Cost*	Vehicles	Number	2024 Cost**	Vehicles	Number	2024 Cost**
2024									
2025	New Storage Bldg	6,000	$ 138,669				Admin - SUV	1	$ 39,102
2026	New Station 53	7,800	$ 5,499,000	Rescue Pumper	3	$ 1,964,619			
2027				Aerial Platform	1	$ 1,555,640			
2028							Admin - SUV	2	$ 78,204
2029									
2030							Command - SUV	1	$ 47,981
2031	New Station 54	7,800	$ 5,499,000	Rescue Pumper	2	$ 1,309,746			
2032				Aerial Platform	1	$ 1,555,640	Admin - SUV	1	$ 39,102
2033									
2034							Admin - SUV	1	$ 39,102
2035									
2036							Command - SUV	1	$ 47,981
2037	New Station	3,085	$ 2,174,925	Rescue Pumper	2	$ 1,309,746			
2038				Brush/Utility	1	$ 250,000			
2039							Admin - SUV	1	$ 39,102
2040									
2041							Admin - SUV	1	$ 39,102
2042									
2043							Command - SUV	1	$ 47,981
2044	New Station	3,086	$ 2,175,630	Rescue Pumper	2	$ 1,309,746			
2045				Brush/Utility	1	$ 250,000	Admin - SUV	1	$ 39,102
2046									
2047							Admin - SUV	1	$ 39,102
2048									
2049							Admin - SUV	1	$ 39,102
2050									
Totals		27,771	15,487,224		13	$ 9,505,136		13	$ 534,963

Facility cost estimates based on information provided by the City of McDonough Fire Department.
Vehicle costs are estimated using current prevailing rates for similar vehicles equipped to City specifications.

The facility and fire vehicle system improvements on Table 5 are based on the City's desire to increase fire protection services in a balanced way to appropriately serve all residents and businesses in the city in 2050. The proposed system improvements are 'scheduled' for construction or acquisition in the designated years. Construction years in the future may change depending on city growth and funds available.

Proposed square footage is expected to be located in four new stations and construction of a new equipment storage facility (which includes replacement of the space currently occupied in the existing storage building shared between the Fire and Police Departments). Fire apparatus proposed for acquisition

include pumper, ladder, and brush trucks. Fire support vehicles include Rescue ATVs and command and administrative vehicles.

The City of McDonough is included in the Henry County Comprehensive Plan, along with other cities in the county plus the unincorporated area. Because the Comprehensive Plan extend only to 2040, The following table breaks out the City's fire system impact fee eligible improvements between those that amend the Comprehensive Plan CIE and those that extend beyond it.

Table 6: Consistency with Comprehensive Plan: Fire

Facility/Vehicles	2040*	2050
Admin - SUV	1	
New Storage Bldg sq. ft.	6,000	
New Station 53 sq. ft.	7,800	
Rescue Pumper	3	
Aerial Platform	1	
Admin - SUV	2	
Command - SUV	1	
New Station 54 sq. ft.	7,800	
Rescue Pumper	2	
Aerial Platform	1	
Admin - SUV	1	
Admin - SUV	1	
Command - SUV	1	
New Station sq. ft.	3,085	
Rescue Pumper	2	
Brush/Utility	1	
Admin - SUV	1	
Admin - SUV		1
Command - SUV		1
New Station sq. ft.		3,086
Rescue Pumper		2
Brush/Utility		1
Admin - SUV		1
Admin - SUV		1
Admin - SUV		1

* This column is intended to be consistent with the currently adopted *McDonough Comprehensive Plan 2024-2028 5-Year Update*.

Law Enforcement

Introduction

The McDonough Police Department provides primary law enforcement throughout the city. Through a variety of active law enforcement, community outreach and educational programs, the Police Department serves the entire population and all businesses within the city.

Service Area

The city is considered a single service area for the provision of primary law enforcement services because all residents and employees in the city have equal access to the benefits of the program.

Level of Service

The level of service for Law Enforcement services in McDonough is measured in terms of the number of square feet of occupied facility space, the number of emergency power systems that allow law enforcement services to operate at full capacity in the event of a storm or other power disruption, and the number of major vehicles per day-night population in the service area.

These are detailed on Table 7 and Table 8, below.

Table 7: Law Enforcement System Inventory

Description	Quantity
Buildings	
Main Police Deppartment	27,000
Public Safety Storage Building*	4,942
Boots-Welch Precinct	3,192
Total Existing Floor Area	**35,134**
Emergency Power Systems	**2**

* Storage building (on Lawrenceville St.) is used by the Fire and Police Departments. The square footage represents the current portion used by the Police Department.

Acquisition of the departments currently active vehicles goes back as far as 2010, clearly establishing that it has a history of maintaining vehicles for more than 10 years, which establishes their impact fee eligibility.

Table 8: Current Police Department Vehicles

Year/Make/Model	Original Cost	Year	NPV 2024
2020 CHEVY TAHOE	$ 42,120	2020	$ 45,749.24
2015 DODGE CHARGER	$ 28,500	2015	$ 34,324.93
2014 DODGE CHARGER	$ 29,225	2014	$ 35,932.98
2015 DODGE CHARGER	$ 28,500	2015	$ 34,324.93
2018 DODGE CHARGER	$ 33,000	2018	$ 37,355.72
2021 CHEVY TAHOE	$ 47,210	2021	$ 50,229.12
2018 CHEVY TAHOE	$ 41,000	2018	$ 46,411.66
2022 CHEVY TAHOE	$ 47,500	2022	$ 49,504.12
2015 DODGE DURANGO	$ 33,000	2015	$ 39,744.66
2014 DODGE CHARGER	$ 28,182	2014	$ 34,650.58
2019 DODGE CHARGER	$ 28,600	2019	$ 31,712.86
2019 DODGE CHARGER	$ 28,600	2019	$ 31,712.86
2022 CHEVY TAHOE	$ 47,500	2022	$ 49,504.12
2014 DODGE CARAVAN	$ 33,000	2014	$ 40,574.45
2017 CHEVY TAHOE	$ 40,190	2017	$ 46,444.59
2018 DODGE CHARGER	$ 33,000	2018	$ 37,355.72
2021 GMC SIERRA	$ 32,665	2021	$ 34,753.96
2021 CHEVY TAHOE	$ 47,210	2021	$ 50,229.12
2015 DODGE CHARGER	$ 28,500	2015	$ 34,324.93
2016 CHEVY SILVERADO	$ 30,000	2016	$ 35,392.58
2014 CHEVY SILVERADO	$ 23,000	2014	$ 28,279.16
2017 CHEVY TAHOE	$ 40,190	2017	$ 46,444.59
2018 DODGE CHARGER	$ 33,000	2018	$ 37,355.72
2011 FORD EXPEDITION	$ 26,000	2011	$ 34,012.12
2020 CHEVY TAHOE	$ 41,400	2020	$ 44,967.20
2019 DODGE CHARGER	$ 28,600	2019	$ 31,712.86
2010 DODGE CHARGER	$ 20,000	2010	$ 26,709.40
2018 CHEVY TAHOE	$ 41,000	2018	$ 46,411.66
2012 DODGE CHARGER	$ 23,000	2012	$ 29,472.32
2018 DODGE CHARGER	$ 33,000	2018	$ 37,355.72
2018 DODGE CHARGER	$ 33,000	2018	$ 37,355.72
2020 CYRSTLER 300	$ 28,000	2020	$ 30,412.60
2022 CHEVY TAHOE	$ 47,500	2022	$ 49,504.12
2022 CHEVY TAHOE	$ 47,500	2022	$ 49,504.12
2021 CHEVROLET TAHOE	$ 47,210	2021	$ 50,229.12
2021 DODGE CHARGER	$ 34,600	2021	$ 36,812.70
2022 CHEVY TAHOE	$ 47,500	2022	$ 49,504.12
2022 CHEVY TAHOE	$ 47,500	2022	$ 49,504.12

Year/Make/Model	Original Cost	Year	NPV 2024
2017 DODGE CHARGER	$ 32,000	2017	$ 36,980.01
2015 DODGE DURANGO	$ 33,000	2015	$ 39,744.66
2021 CHEVY TAHOE	$ 47,210	2021	$ 50,229.12
2021 CHEVY TAHOE	$ 47,210	2021	$ 50,229.12
2019 DODGE CHARGER	$ 28,600	2019	$ 31,712.86
2018 DODGE CHARGER	$ 33,000	2018	$ 37,355.72
2022 CHEVY TAHOE	$ 47,500	2022	$ 49,504.12
2015 DODGE CHARGER	$ 30,350	2015	$ 36,553.04
2022 CHEVY TAHOE	$ 47,500	2022	$ 49,504.12
2018 DODGE CHARGER	$ 33,000	2018	$ 37,355.72
2019 DODGE CHARGER	$ 28,600	2019	$ 31,712.86
2019 DODGE CHARGER	$ 28,600	2019	$ 31,712.86
2011 FORD EXPEDITION	$ 26,000	2011	$ 34,012.12
2020 CHEVY TAHOE	$ 46,620	2020	$ 50,636.97
2020 CHEVY TAHOE	$ 46,620	2020	$ 50,636.97
2018 HARLEY	$ 28,700	2018	$ 32,488.16
2018 HARLEY	$ 28,700	2018	$ 32,488.16
2017 FORD COMMAND	$ 174,495	2017	$ 201,650.86
2020 CHEVY TAHOE	$ 42,400	2020	$ 46,053.36
2020 CHEVY TAHOE	$ 42,400	2020	$ 46,053.36
2020 CHEVY TAHOE	$ 42,400	2020	$ 46,053.36
2022 GMC TERRAIN	$ 30,500	2022	$ 31,786.86
2020 CHEVY TAHOE	$ 42,400	2020	$ 46,053.36
2020 CHEVY TAHOE	$ 42,400	2020	$ 46,053.36
2020 CHEVY TAHOE	$ 42,400	2020	$ 46,053.36
2015 FORD ESCORT	$ 26,000	2015	$ 31,313.97
2022 GMC TERRAIN	$ 30,500	2022	$ 31,786.86
2024 KIA TELLURIDE	$ 45,200	2024	$ 45,200.00
2024 KIA TELLURIDE	$ 45,200	2024	$ 45,200.00
2016 KING QUAD	$ 4,000	2016	$ 4,719.01
2017 YAMAHA VIKING	$ 13,000	2017	$ 15,023.13

Total Present Value	$ 2,881,637.94
Number of Vehicles	69
Average Cost per Vehicle	$ 41,762.87

Note: All vehicles have a service life of 10 years or more.

Table 9: Level of Service Calculations shows the calculation of the current Level of Service (LOS) standards for law enforcement system improvements in the city. The table presents a current inventory of facility space, emergency power systems, and vehicles. Day-night population is used as a measure in that the Police Department provides its law enforcement services to both residences and businesses in the city on a 24-hour basis.

The inventory of each category is divided by the current day-night population to obtain the LOS per person enjoyed throughout the city today.

Existing service levels and quality of services are adequate to meet current needs and therefore establish the basis upon which the needs of future growth and development are to be met.

Table 9: Level of Service Calculations

Facility	Service Population	Level of Service
Existing Square Feet	2024 Day/Night Population	Square Feet per 2024 Day/Night Population
35,134	46,330	0.758342
Existing Emergency Power Systems	2024 Day/Night Population	Emergency Power Systems per 2024 Day/Night Population
2	46,330	0.000043
Existing Vehicles	2024 Day/Night Population	Vehicles per 2024 Day/Night Population
12	46,330	0.000259

Forecasts for Service Area

For the purposes of impact fee calculations, as noted above the City has determined that a level of service, based on the current LOS, would be appropriate to serve the future service area population.

In Table 10 the facility space, power systems, and vehicle LOS standards from Table 9, are next multiplied by the forecasted citywide day-night population increase to produce the expected demand that will be placed on the city by future growth and development.

Table 10: Future Demand Calculation

Level of Service	Future Population	New Growth Demand
Square Feet per 2024 Day/Night Population	**Day/Night Population Increase (2024-50)**	**Net New Square Feet for New Growth***
0.758342	65,878	49,958
Emergency Power Systems per 2024 Day/Night Population	**Day/Night Population Increase (2024-50)**	**Net New Systems for New Growth****
0.000043	65,878	2.84
Vehicles per 2024 Day/Night Population	**Day/Night Population Increase (2024-50)**	**Net New Vehicles for New Growth*****
0.001489	65,878	98.11

* Total includes the acquisition of floor area currently allocated to the Fire Department in the existing storage facility, leaving a net of 45,523 sf needed in additional floor area to serve new growth.
** 2 emergency power systems will be added at 100% impact fee eligible..
*** 93 vehicles will be added, all of which are 100% eligible for impact fee funding.

The same principle discussed in the Fire Protection chapter applies on Table 10 to Law Enforcement vehicles: because only 'whole' vehicles can be purchased, only 93 new vehicles would need to be added to the inventory (slightly less than the 93.56 that is mathematically demanded by new growth). Thus, since 93 new vehicles need to be acquired to cover expansion of the fleet to meet the needs of future growth and development, all of the vehicles would be 100% impact fee eligible.

Table 11 provides current cost estimates (in 2024 dollars) of new system improvements that are proposed to address future needs. Estimated improvement costs are based on the following:

- For new facility space: Cost estimates are provided by the City of McDonough, with the exception that prevailing construction costs averaging $313.53 and $330.07 per square foot are used for the expansion of Police and Municipal Court space, respectively, in the Law Enforcement Complex.
- For police vehicles: The cost represents the average cost for all vehicles in the City's fleet brought up to 2024 present value, shown on Table 8.
- For emergency power systems: The cost is based on prevailing rates for similar systems that have previously been installed by the City.

Table 11: Future System Improvement Costs

Year	Facility	Buildings		Police Vehicles		Emergency Power Systems	
		Square Feet	2024 Cost*	Number	2024 Cost**	Number	2024 Cost***
2024							
2025	Storage Expansion	8,000	$ 184,892	3	$ 125,289		
2026	Simpson Street Precinct	7,700	$ 582,910	4	$ 167,051		
2027				3	$ 125,289		
2028	Law Enforcement Complex Expansion, Phase I	7,962	$ 2,656,479	4	$ 167,051	1	$ 101,313
2029				4	$ 167,051		
2030				4	$ 167,051		
2031	*Range*	5,000	$ 1,590,909	3	$ 125,289		
2032				4	$ 167,051		
2033	Law Enforcement Complex Expansion, Phase II	5,000	$ 3,225,782	3	$ 125,289		
2034				4	$ 167,051		
2035				3	$ 125,289		
2036				4	$ 167,051		
2037	*2nd Precinct*	5,000	$ 1,590,909	3	$ 125,289	1	$ 101,313
2038				4	$ 167,051		
2039				3	$ 125,289		
2040				4	$ 167,051		
2041				3	$ 125,289		
2042	*3rd Precinct*	4,490	$ 1,428,636	4	$ 167,051	1	$ 101,313
2043				4	$ 167,051		
2044				4	$ 167,051		
2045				3	$ 125,289		
2046				4	$ 167,051	1	$ 101,313
2047	*4th Precinct*	4,489	$ 1,428,318	3	$ 125,289		
2048				4	$ 167,051		
2049				3	$ 125,289		
2050				4	$ 167,051		
	Totals	**47,641**	**$ 12,688,835**	**93**	**$ 3,883,947**	**4**	**$ 405,251**

* Facility cost estimates based on information provided by the City of McDonough, with the exception that Law Enforcement Expansion projects are based on comparable facilities' per square foot costs for site work, construction, design and furnishings. Phase I (expansion of Police Department space) is $313.53 per square foot and Phase II (expansion of Municipal Court space) is $330.07 per square foot. (Source: Green Building Square Foot Costbook, 2018 editions, BNi Publications, Inc.)

** Vehicle costs represent the average 2024 present value cost of vehicles in the city's fleet.

*** Cost estimates based on prevailing rates for similar systems that have been installed by the City.

The City of McDonough is included in the Henry County Comprehensive Plan, along with other cities in the county plus the unincorporated area. Because the Comprehensive Plan extend only to 2040, The following table breaks out the City's fire system impact fee eligible improvements between those that amend the Comprehensive Plan CIE and those that extend beyond it.

Table 12: Consistency with Comprehensive Plan: Police

Facility/Vehicles	2040	2050
Police Vehicles	3	
Storage Expansion	8,000 sf	
Simpson Street Precinct	7,700 sf	
Police Vehicles	4	
Police Vehicles	3	
Law Enforcement Complex Expansion, Phase I	7,962 sf	
Emergency Power System	1	
Police Vehicles	4	
Police Vehicles	4	
Police Vehicles	4	
Range	5,000 sf	
Police Vehicles	4	
Law Enforcement Complex Expansion, Phase II	5,000 sf	
Police Vehicles	3	
Police Vehicles	4	
Police Vehicles	3	
Police Vehicles	4	
2nd Precinct	5,000 sf	
Emergency Power System	1	
Police Vehicles	3	
Police Vehicles	4	
Police Vehicles	3	
Police Vehicles	4	
Police Vehicles		3
Emergency Power System		1
3rd Precinct		4,490 sf
Police Vehicles		4
Police Vehicles		4
Police Vehicles		3
Police Vehicles		4
4th Precinct		4,489 sf
Police Vehicles		3
Police Vehicles		4
Police Vehicles		3
Police Vehicles		4
Admin - SUV		1

* This column is intended to be consistent with the projections contained in the Henry County Comprehensive Plan, which extends to 2040.

Parks and Recreation Services

Introduction

Public recreational opportunities are available in McDonough through a number of parks facilities maintained by the City's Public Works Department. Demand for recreational facilities is almost exclusively related to the city's resident population. Businesses make some incidental use of public parks for office events, company softball leagues, etc., but the use is minimal compared to that of the families and individuals who live in the city. Thus, the parks and recreation impact fee is limited to future residential growth.

Service Area

The parks and recreation facilities maintained by the City are operated as a citywide system. Facilities are provided equally to all residents, and collectively cover a wide range of recreational opportunities, from leisure and picnicking, to organized sports events on baseball fields and tennis courts, to walking or biking on trails. Thus, the entire city is considered a single service area for parks and recreation services provided by the City.

Level of Service

The determination of Level of Service (LOS) standards begins with an inventory of existing City facilities.

Table 13 shows the current inventory of parks and recreation components controlled by the City. The inventory includes 264 acres of parkland and a variety of recreation components used in both passive and active recreation areas.

Table 13: Current Inventory of Parks and Recreation Components

Park Facility	Acreage
Alexander Park (East & West)	147
Avalon Park	40
Big Springs Park	3
Hope Park	4
Rufus Stewart Park	3
Richard Craig Park	26
Gerenium Park	13
111 Jonesboro Road Skate Park	2
Jonesboro Road Park	23
117 Jonesboro Road Park	3
Total Park Acres	**264**

Recreation Component	Current Inventory
Baseball/softball Fields	12
Batting Cage	6
Football Field	3
Multi-Purpose Field	2
Tennis Court	16
Pickleball Court	6
Basketball Court(Full Court)	4
Basketball Court(Half Court)	1
Playground	9
Pavilion	7
Restroom Building	3
Concession Stand	1
Restroom/Concessions	4
Storage Building	1
Band Shell/Amphitheater	2
Splash Pad	1
In-Line Hockey Rink	1
Walking Trail(Miles)	1.73
Benches	20
Parking Spaces	1,995
Dog Park	1

Table 14 provides the current Level of Service in recreation land and facilities per population, converts this to the Level of Service per the number of housing units occupied by that population, and then expresses the Level of Service per housing unit (since impact fees are assessed per housing unit when building permits are issued, not population). Existing service levels and quality of services are adequate to meet current needs and therefore establish the basis upon which the needs of future growth and development are to be met.

The current Level of Service standards are expressed in terms of the number of people each recreation component serves. To determine the LOS, the number of people served by each component is calculated using the current inventory for the component divided into the current population. Two exceptions are pickleball courts and disc golf courses, which the City intends to add to its inventory of recreation facilities in the future. In these instances, the current LOS is based on the total number of pickleball courts and disc golf courses anticipated to serve local needs through 2040, which equates to 1 pickleball court per 8,400 residents and 1 disc golf course per 25,200 residents. A third exception is band shells/amphitheaters. The City has determined that 3 of these components in total (1 currently exists) will serve local needs through 2050, which equates to 1 band shell/amphitheater per 16,800 residents.

These LOS 'per population' standards are then re-calculated as the number of housing units served by each component based on the city's number of people living in an average household (the average household size). Since impact fees are assessed at the time a building permit is issued (and the impact fee will be applied only to residential uses), the LOS then must be converted to a 'per housing unit' basis.

Table 14: Current Level of Service Calculations

Component Type	Current Level of Service*				Level of Service per "X" Housing Units**				Level of Service per Each Housing Unit***	
Park Acres	1 per	125	Population =		1 per	47.15	Housing Units =		0.021208	for each Housing Unit
Baseball/softball Fields	1 per	2,752	Population =		1 per	1,037.33	Housing Units =		0.000964	for each Housing Unit
Batting Cage	1 per	5,504	Population =		1 per	2,074.67	Housing Units =		0.000482	for each Housing Unit
Football Field	1 per	11,008	Population =		1 per	4,149.33	Housing Units =		0.000241	for each Housing Unit
Multi-Purpose Field	1 per	16,513	Population =		1 per	6,224.00	Housing Units =		0.000161	for each Housing Unit
Tennis Court	1 per	2,064	Population =		1 per	778.00	Housing Units =		0.001285	for each Housing Unit
Pickleball Court	1 per	5,504	Population =		1 per	2,074.66	Housing Units =		0.000482	for each Housing Unit
Basketball Court(Full Court)	1 per	8,256	Population =		1 per	3,112.00	Housing Units =		0.000321	for each Housing Unit
Basketball Court(Half Court)	1 per	33,025	Population =		1 per	12,448.00	Housing Units =		0.000080	for each Housing Unit
Playground	1 per	3,669	Population =		1 per	1,383.11	Housing Units =		0.000723	for each Housing Unit
Pavilion	1 per	4,718	Population =		1 per	1,778.29	Housing Units =		0.000562	for each Housing Unit
Restroom Building	1 per	11,008	Population =		1 per	4,149.33	Housing Units =		0.000241	for each Housing Unit
Concession Stand	1 per	33,025	Population =		1 per	12,448.00	Housing Units =		0.000080	for each Housing Unit
Restroom/Concessions	1 per	8,256	Population =		1 per	3,112.00	Housing Units =		0.000321	for each Housing Unit
Storage Building	1 per	33,025	Population =		1 per	12,448.00	Housing Units =		0.000080	for each Housing Unit
Band Shell/Amphitheater	1 per	23,450	Population =		1 per	8,838.91	Housing Units =		0.000113	for each Housing Unit
Splash Pad	1 per	33,025	Population =		1 per	12,448.00	Housing Units =		0.000080	for each Housing Unit
In-Line Hockey Rink	1 per	35,200	Population =		1 per	13,267.78	Housing Units =		0.000075	for each Housing Unit
Walking Trail(Miles)	1 per	19,090	Population =		1 per	7,195.38	Housing Units =		0.000139	for each Housing Unit
Benches	1 per	1,651	Population =		1 per	622.40	Housing Units =		0.001607	for each Housing Unit
Parking Spaces	1 per	17	Population =		1 per	6.24	Housing Units =		0.160267	for each Housing Unit
Dog Park	1 per	33,025	Population =		2 per	12,448.00	Housing Units =		0.000080	for each Housing Unit

* LOS is based on the current inventory divided by the current population, with the exception that the level of service for pickleball courts, disc golf courses, and band shell/amphitheaters is based on the number of each that are anticipated to serve local needs through 2040.
** Converted using average population per housing unit in 2018, with the exception that average population per housing unit in 2040 is used for pickleball court, disc golf course, and band shell/amphitheater calculations.
*** "1" divided by the number of housing units for each component under 'Level of Service per "X" Housing Units' column.

Table 14 shows how the current level of service for each recreation component is converted to a 'per housing unit' basis. To do this, the current LOS shown in the middle columns of 1 per a 'certain number of' housing units for each component is converted to the LOS per housing unit by dividing the number into '1', which produces the number of components serving each housing unit'.

By way of example, the current LOS for playgrounds is 1 playground per 3,669 people. That number—3,669—is divided by the 2024 average household size to convert 'people' into 'housing units'. The result is the converted standard of 1 playground per 1,383.11 housing units. By dividing the component (1) by the number of housing units it serves results in the portion of a playground that serves 1 housing unit (0.000723).

Forecasts for Service Area

Future Demand

Table 15 applies the Level of Service calculations from Table 14 to determine the facilities needed to meet the demand created by the existing residents of the city as well as the future demand for park lands and recreation components that will be generated by new growth and development.

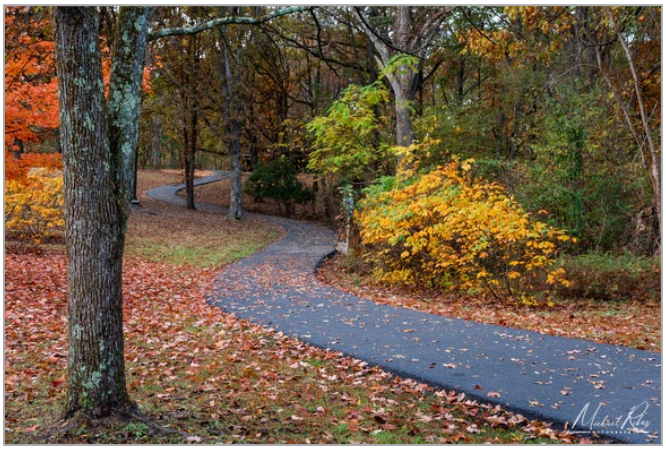


Table 15: Existing and Future Demand

Component Type	LOS Per Housing Unit	Existing Demand (2024)*	New Growth Demand (2024-2050)**
Park Acres	0.021208	264.00	298.48
Baseball/Softball Field	0.000964	12.00	13.57
Batting Cage	0.000482	6.00	6.78
Football Field	0.000241	3.00	3.39
Multi-Purpose Field	0.000161	2.00	2.26
Tennis Court	0.001285	16.00	18.09
Pickleball Court	0.000482	6.00	6.78
Basketball Court (Full Court)	0.000321	4.00	4.52
Basketball Court (Half Court)	0.000080	1.00	1.13
Playground	0.000723	9.00	10.18
Pavilion	0.000562	7.00	7.91
Restroom Building	0.000241	3.00	3.39
Concessions Stand	0.000080	1.00	1.13
Restroom/Concessions/Storage	0.000321	4.00	4.52
Storage Building	0.000080	1.00	1.13
Band Shell/Amphitheater	0.000113	1.41	1.59
Splash Pad	0.000080	1.00	1.13
Disc Golf Course	0.000075	0.94	1.06
Walking Trail (miles)	0.000139	1.73	1.96
Bench	0.001607	20.00	22.61
Parking Space	0.160267	1,995.00	2,255.59
Dog Park	0.000080	1.00	1.13

* 2024 Housing Units = 12,448
** New Units (2024-2050) = 14,074

Impact Fee Eligibility

New recreation components are eligible for impact fee funding only to the extent that the improvements are needed to specifically serve new growth and development, and only at the level of service applicable citywide. Table 16 shows the number of new recreation components that are needed to satisfy both current and future needs of the city's residents, and the extent to which fulfillment of those needs will serve future growth demand.

The table begins with the current inventory of recreation components, and the 'existing' demand for those components to meet the needs of the current (2024) population based on the current level of

service standards (shown on Table 16). The 'excess or (shortfall)' column compares the existing demand to the current inventory for each recreation component. As noted above, 'existing demand' is the same as the 'current inventory' in all but three cases (pickleball courts, disc golf courses, and band shells/amphitheaters).

Table 16: Future Park Facility Impact Fee Eligibility

Component Type	Current Inventory	Existing Demand	Excess or (Shortfall)	New Growth Demand	Net Total Needed	Total Needed*	% Impact Fee Eligible
Park Acres	264	264.00	0	298.48	298.48	298.48	100.00%
Baseball/Softball Field	12	12.00	0	13.57	13.57	13	100.00%
Batting Cage	6	6.00	0	6.78	6.78	6	100.00%
Football Field	3	3.00	0	3.39	3.39	3	100.00%
Multi-Purpose Field	2	2.00	0	2.26	2.26	2	100.00%
Tennis Court	16	16.00	0	18.09	18.09	18	100.00%
Pickleball Court	6	6.00	0	6.78	6.78	6	100.00%
Basketball Court (Full Court)	4	4.00	0	4.52	4.52	4	100.00%
Basketball Court (Half Court)	1	1.00	0	1.13	1.13	1	100.00%
Playground	9	9.00	0	10.18	10.18	10	100.00%
Pavilion	7	7.00	0	7.91	7.91	7	100.00%
Restroom Building	3	3.00	0	3.39	3.39	3	100.00%
Concessions Stand	1	1.00	0	1.13	1.13	1	100.00%
Restroom/Concessions/Storage	4	4.00	0	4.52	4.52	4	100.00%
Storage Building	1	1.00	0	1.13	1.13	1	100.00%
Band Shell/Amphitheater	2	1.408	0.592	1.592	1.001	2	100.00%
Splash Pad	1	1.00	0	1.13	1.13	1	100.00%
Disc Golf Course	1	0.938	0.062	1.061	0.999	0	100.00%
Walking Trail (miles)	1.73	1.73	0	1.96	1.96	1.96	100.00%
Bench	20	20.00	0	22.61	22.61	22	100.00%
Parking Space	1,995	1,995.00	0	2,255.59	2,255.59	2,255	100.00%
Dog Park	1	1.00	0	1.13	1.13	1	100.00%

* For recreation components that can only be built in whole numbers: 'Total Needed' rounded down to nearest whole number. For park acres and walking trails, actual number shown.

Since an 'excess' exists in two component types, that means that more components (or portions of components) exist than are needed to meet the demands of the current population, and those 'excesses' would create capacity to meet the recreational needs of future growth. This is the case in McDonough.

The column labeled 'new growth demand', shows the total demand for recreation components specifically to meet future growth needs (from Table 15), and the 'net total needed' shows all existing and future needs combined. The current 'excess' in the disk golf course and band shells/amphitheater components is incorporated in meeting new growth's needs with facilities to bring the current population up to the current level of service required to be available to all—both current and future residents.

For all components except for trail miles and park acreage, the 'total needed' column is rounded up to the nearest whole numbers. This is simply because the City cannot build a portion of a facility, it must build entire facilities. As a result, the '% impact fee eligible' column may reflect a percentage less than 100%.

Because the City of McDonough is included in the Henry County Comprehensive Plan, which extends only to 2040, the following table breaks out the City's eligible parks & recreation improvements between those that amend the Comprehensive Plan CIE and those that extend beyond it.

Table 17: Consistency with Comprehensive Plan: Parks & Recreation

Component Type	Total Future Demand	Comp Plan Term to 2040*	Remaining to 2050
Park Acreages	6.00	4.56	1.44
Recreation Components			
Baseball/Softball Field	12	9	3
Batting Cage	6	5	1
Football Field	3	2	1
Multi-Purpose Field	2	2	0
Tennis Court	16	12	4
Pickleball Court	6	5	1
Basketball Court (Full Court)	4	3	1
Basketball Court (Half Court)	1	1	0
Playground	9	7	2
Pavilion	7	5	2
Restroom Building	3	2	1
Concessions Stand	1	1	0
Restroom/Concessions/Storage	4	3	1
Storage Building	1	1	0
Band Shell/Amphitheater	2	2	0
Splash Pad	1	1	0
Disc Golf Course	1	1	0
Walking Trail (miles)	2	1	1
Bench	20	15	5
Parking Spaces	1,995	1516	479
Dog Park	1	1	0

* This column is intended to be consistent with the currently adopted *McDonough Comprehensive Plan 2024-2028 5-Year Update*.

Community Work Program

Category	Action/Item	2025	2026	2027	2028	2029	Responsible Party	Cost Estimate*	Funding Source**
Fire Protection	Admin - SUV	✓					Fire Department	$ 39,102	100% Impact Fees
Fire Protection	New Storage Building	✓					Fire Department	$ 138,669	100% Impact Fees
Fire Protection	New Station 53		✓				Fire Department	$ 5,499,000	100% Impact Fees
Fire Protection	Rescue Pumper		✓				Fire Department	$ 1,964,619	100% Impact Fees
Fire Protection	Aerial Platform			✓			Fire Department	$ 1,555,640	100% Impact Fees
Fire Protection	Admin - SUV (2)				✓		Fire Department	$ 78,204	100% Impact Fees
Law Enforcement	Storage Expansion	✓					Police Department	$ 184,892	100% Impact Fees
Law Enforcement	3 Police Vehicles	✓					Police Department	$ 125,289	100% Impact Fees
Law Enforcement	Simpson Street Precinct		✓				Police Department	$ 582,910	100% Impact Fees
Law Enforcement	4 Police Vehicles		✓				Police Department	$ 167,051	100% Impact Fees
Law Enforcement	3 Police Vehicles			✓			Police Department	$ 125,289	100% Impact Fees

Category	Action/Item	2025	2026	2027	2028	2029	Responsible Party	Cost Estimate*	Funding Source**
Law Enforcement	Law Enforcement Complex Expansion, Phase I				✓		Police Department	$ 2,656,479	100% Impact Fees
Law Enforcement	4 Police Vehicles				✓		Police Department	$ 167,051	100% Impact Fees
Law Enforcement	Emergency Power System				✓		Police Department	$ 101,313	100% Impact Fees
Law Enforcement	4 Police Vehicles					✓	Police Department	$ 167,051	100% Impact Fees
Parks & Recreation	Construct 6 Pickleball Courts		✓				Public Works Department	$ 31,247	100% Impact Fees
Parks & Recreation	Construct 4 Pickleball Courts			✓			Public Works Department	$ 20,831	100% Impact Fees
Parks & Recreation	Construct a Pavilion	✓					Public Works Department	$ 81,431	100% Impact Fees
Parks & Recreation	Construct 2 Pavilions		✓				Public Works Department	$ 162,863	100% Impact Fees
Parks & Recreation	Construct a Pavilion				✓		Public Works Department	$ 81,431	100% Impact Fees
Parks & Recreation	Construct a Pavilion					✓	Public Works Department	$ 81,431	100% Impact Fees
Parks & Recreation	Construct 2 Restroom Buildings	✓	✓				Public Works Department	$ 143,540	100% Impact Fees

Category	Action/Item	2025	2026	2027	2028	2029	Responsible Party	Cost Estimate*	Funding Source**
Parks & Recreation	Walking Trails		✓	✓			Public Works Department	$ 257,130	100% Impact Fees
Parks & Recreation	Construct Disc Golf Course			✓			Public Works Department	$ 62,109	100% Impact Fees
Parks & Recreation	Provide 9 Benches		✓				Public Works Department	$ 14,904	100% Impact Fees
Parks & Recreation	Provide 6 Benches			✓			Public Works Department	$ 9,936	100% Impact Fees
Parks & Recreation	Add 150 Parking Spaces	✓					Public Works Department	$ 393,355	100% Impact Fees
Parks & Recreation	Add 30 Parking Spaces		✓				Public Works Department	$ 78,671	100% Impact Fees
Parks & Recreation	Add 55 Parking Spaces			✓			Public Works Department	$ 144,230	100% Impact Fees
Parks & Recreation	Dog Park					✓	Public Works Department	$ 110,416	100% Impact Fees

*All costs shown in 2024 dollars.
**Although all project improvements are 100% eligible for impact fee funding, alternate or supplemental funding may be utilized temporarily when impact fee funds on hand are less than a project will cost. In such cases, alternate or supplemental funding may be utilized, which would be reimbursable from impact fee collections as such fees are collected.

Appendix A – Future Growth

In order to accurately calculate the demand for future services for McDonough (and thus the public facilities needed to provide those services), new growth and development must be quantified in future projections. These projections include forecasts for population, households, housing units, and employment to the year 2050. These projections provide the base-line conditions from which the current (2024)[2] or future (2050) Level of Service calculations are produced.

Types of Projections

Accurate projections of population, households, housing units, and employment are important in that:

- Population data and forecasts are used to establish current and future demand for services where the Level of Service (LOS) standards are per capita based.
- Household data and forecasts are used to forecast future growth in the number of housing units.
- Housing unit data and forecasts relate to certain service demands that are household based, such as parks. The number of households—defined as *occupied* housing units—is always smaller than the total number of housing units, which include vacant units. Over time, however, each housing unit is expected to become occupied by a household, even though the unit may become vacant during future re-sales or turnovers.
- Employment forecasts are refined to reflect 'value-added' employment figures. This reflects an exclusion of jobs considered to be transitory or non-site specific in nature, and thus not requiring building permits to operate (i.e., are not assessed impact fees), as well as governmental uses that are not subject to impact fees.
- 'Value-added' employment data is combined with population data to produce what is known as the 'day-night population.' These figures represent the total number of persons receiving services, both in their homes and in their businesses, to produce an accurate picture of the total number of persons that rely on certain 24-hour services, such as fire and police protection.
- The projections used for the parks & recreation and public safety (fire and police) categories are citywide forecasts because these public facility categories are delivered by the City throughout the city.

Note that, for the road improvements public facility category, vehicle trip data is used as the basis for impact fee calculations (presented in Appendix C), although some socioeconomic data from this Appendix are used in those calculations as well.

[2] All data in this Appendix are technically as of July 1 of each year shown, consistent with data reported by the Census Bureau.

Population Forecasts

Historic Population Growth

Every year, the US Census Bureau estimates the population in McDonough between decennial censuses (e.g., 2010 and 2020). After a decennial census, the Bureau revises the preceding annual estimates based on the actual Census count. Unlike the decennial censuses, which are 'as of' April 1, the annual estimates are 'as of' July 1 of each year. Those annual estimates are shown in Table A-1, adjusted to the 2020 estimated population (as most recently revised in 2024 by the Census Bureau).

Table A-1: Annual Census Population Estimates

	Population Estimate (as of July 1)										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010*
McDonough	**8,710**	**10,117**	**11,682**	**13,136**	**14,638**	**16,072**	**17,841**	**19,154**	**20,371**	**21,348**	**22,166**
Hampton	3,970	4,306	4,656	5,028	5,357	5,710	6,095	6,407	6,632	6,824	7,011
Locust Grove	2,596	2,903	3,218	3,552	3,855	4,177	4,519	4,813	5,036	5,237	5,821
Stockbridge	11,839	13,329	14,907	16,507	18,012	19,574	21,272	22,706	23,823	24,817	26,597
Balance of County	94,659	100,345	106,284	112,705	118,109	124,074	130,577	135,656	138,796	141,396	143,444
Henry County Total	121,774	131,000	140,747	150,928	159,971	169,607	180,304	188,736	194,658	199,622	205,039

	Population Estimate (as of July 1)												
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
McDonough	**22,419**	**22,432**	**22,679**	**22,889**	**23,272**	**23,839**	**24,700**	**25,744**	**26,763**	**29,327**	**29,913**	**30,346**	**32,138**
Hampton	7,091	7,128	7,177	7,373	7,443	7,607	7,721	7,913	8,091	8,410	8,379	8,290	9,162
Locust Grove	5,867	6,056	6,098	6,145	6,225	6,402	6,675	7,181	8,247	9,160	9,759	10,730	11,199
Stockbridge	33,056	33,225	33,546	34,034	34,601	35,303	35,891	36,440	36,832	35,756	35,894	35,657	35,452
Balance of County	138,481	139,167	140,515	142,520	144,877	147,749	150,199	152,454	154,632	159,199	161,140	163,449	166,662
Henry County Total	206,914	208,008	210,015	212,961	216,418	220,900	225,186	229,732	234,565	241,852	245,085	248,472	254,613

* 2010 estimate revised by Census Bureau in 2023.
Note: All data as of July 1 of each year. 2000 and 2010 differ from Decennial Census counts, which were as of April 1.
Sources: For 2000 to 2009: *Intercensal Estimates 2000-2010*, US Bureau of the Census. For 2011 to 2019: *Census Annual Estimates Program*, US Bureau of the Census. For 2020 to 2022, Census Bureau estimates revised original 2020 estimate, plus 2021 & 2022.

It should be noted that visitors to the city are not counted as part of the population forecasts, since they are either not staying in the city as residents or are possibly staying in hotels. On the other hand, their visits to the city on a daily basis are captured somewhat in the employment forecasts which address both employees, deliveries and customers as part of the calculations.

Ultimately, residential impact fees are based on the number of housing units in the city. It makes no difference in the impact fee calculations whether the unit is occupied by a permanent resident, a family that only comes to stay during a particular season, or the use of the unit for visitors staying only a week or so (like an Air B&B). The demand for public services, such as fire and police protection, does not vary by occupancy characteristics such as rental vs. ownership and full-time versus part-time residency.

A close look at the city's population growth reveals an interesting trend over the past two decades.

As the following Table A-2 indicates, McDonough posted a percentage increase in population between 2000 and 2022 overall of more than 71%; however, growth from 2000 to 2010 registered a much higher growth increase for just those 10 years (154%) while the more recent 2010-2022 period more clearly reflects a slump with growth of only 36%+. This "slump" affected all of the cities in the county, as well as the county itself. During this period, McDonnough registered a greater population increse numerically greater than any of the other cities, while only Locust Grove increased by a greater percentage (83.78%) than McDonough. Clearly the Great Recession, which began in mid-2008, had an impact on the housing industry and then the economy in general, affecting the city as well. However, as Table A-1 showed, every year, the city continued to grow, although at a somewhat slower pace in the past decade.

Table A-2: Comparison of Population Growth Rates - 2000-2023

Service Area	2000-2010 Increase	Percent	2010-2023 Increase	Percent	2000-2023 Increase	Percent
McDonough	**13,456**	**154.49%**	**9,972**	**44.48%**	**23,428**	**77.20%**
Hampton	3,041	76.60%	2,151	30.33%	5,192	62.63%
Locust Grove	3,225	124.23%	5,378	91.67%	8,603	80.18%
Stockbridge	14,758	124.66%	8,855	26.79%	23,613	66.22%
Balance of County	48,785	51.54%	23,218	16.77%	72,003	44.05%
Henry County Total	83,265	68.38%	49,574	23.96%	132,839	53.46%

Population Forecasts

Two forecast methods were used to project the city's past population growth forward to 2050, one using a 'linear trend' (straight line) forecast algorithm and the other a 'growth trend' (curved line) forecast algorithm. Table A-3 shows the results based on the Census estimates for the city since 2000. The graph accompanying the table shows the 2000-2022 Census estimates and the results of the two projections.

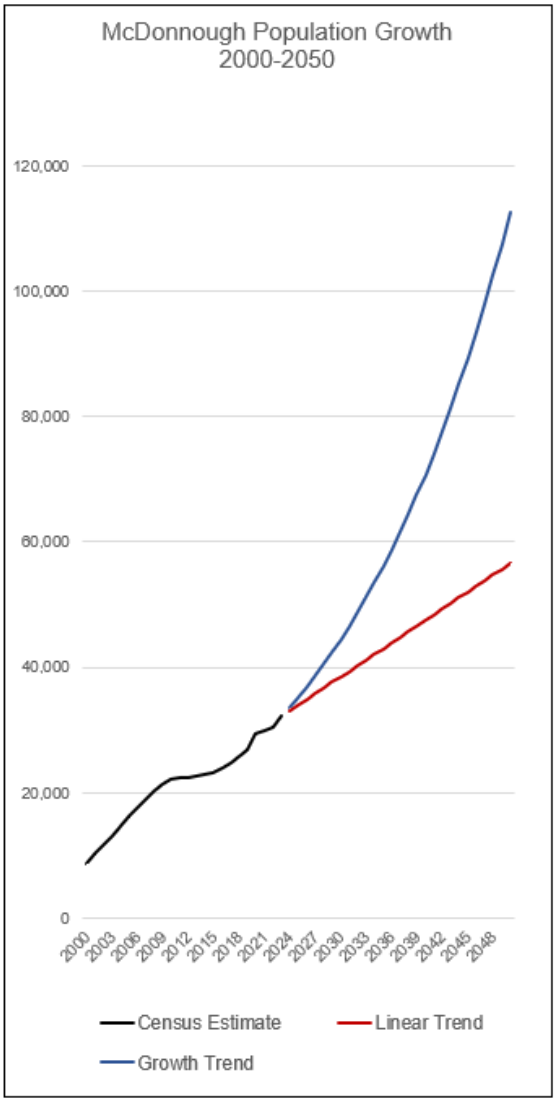
The forecast algorithms 'fit' the data points to a smooth straight or curved line. 'Fitting' the projections to a specific trend also changes the census data points for each year between 2000 and 2022. The projections, therefore, must be 'rectified' to the actual census data for those years to produce the final projections.

The raw numbers of each projection method are shown in the left column for each forecast method (linear and growth). The two projections, as rectified to the actual census figures for 2000-2022, are shown in the right-hand columns under each forecast method.

The graph next to Table A-3 compares the two projections, each of which assume that the past trend will be continued into the future.

Table A-3: McDonough Forecast based on 2000-2023 Growth

	Census Estimate	Linear Trend Raw	Growth Trend Raw	Linear Trend Adjusted	Growth Trend Adjusted
2000	8,710	11,120	11,867	8,710	8,710
2001	10,117	12,007	12,431	10,117	10,117
2002	11,682	12,894	13,021	11,682	11,682
2003	13,136	13,781	13,639	13,136	13,136
2004	14,638	14,668	14,287	14,638	14,638
2005	16,072	15,555	14,965	16,072	16,072
2006	17,841	16,442	15,675	17,841	17,841
2007	19,154	17,329	16,420	19,154	19,154
2008	20,371	18,216	17,199	20,371	20,371
2009	21,348	19,103	18,016	21,348	21,348
2010	22,166	19,990	18,871	22,166	22,166
2011	22,419	20,877	19,767	22,419	22,419
2012	22,432	21,764	20,706	22,432	22,432
2013	22,679	22,651	21,689	22,679	22,679
2014	22,889	23,538	22,718	22,889	22,889
2015	23,272	24,425	23,797	23,272	23,272
2016	23,839	25,312	24,927	23,839	23,839
2017	24,700	26,199	26,110	24,700	24,700
2018	25,744	27,086	27,350	25,744	25,744
2019	26,763	27,973	28,648	26,763	26,763
2020	29,327	28,860	30,009	29,327	29,327
2021	29,913	29,747	31,433	29,913	29,913
2022	30,346	30,634	32,926	30,346	30,346
2023	32,138	31,521	34,489	32,138	32,138
2024		32,408	36,127	33,042	33,664
2025		33,295	37,842	33,947	35,262
2026		34,182	39,638	34,851	36,936
2027		35,069	41,520	35,755	38,690
2028		35,956	43,492	36,660	40,527
2029		36,843	45,557	37,564	42,451
2030		37,730	47,720	38,468	44,467
2031		38,617	49,985	39,373	46,578
2032		39,504	52,358	40,277	48,789
2033		40,391	54,844	41,182	51,106
2034		41,278	57,448	42,086	53,532
2035		42,165	60,176	42,990	56,074
2036		43,052	63,033	43,895	58,736
2037		43,939	66,025	44,799	61,525
2038		44,826	69,160	45,703	64,446
2039		45,713	72,444	46,608	67,505
2040		46,600	75,883	47,512	70,710
2041		47,487	79,486	48,416	74,068
2042		48,374	83,260	49,321	77,584
2043		49,261	87,213	50,225	81,268
2044		50,148	91,354	51,129	85,126
2045		51,035	95,691	52,034	89,168
2046		51,922	100,234	52,938	93,401
2047		52,809	104,993	53,842	97,836
2048		53,696	109,978	54,747	102,481
2049		54,583	115,199	55,651	107,346
2050		55,470	120,669	56,555	112,443
Adjustment to 2023		31,521	34,489	101.957%	93.183%

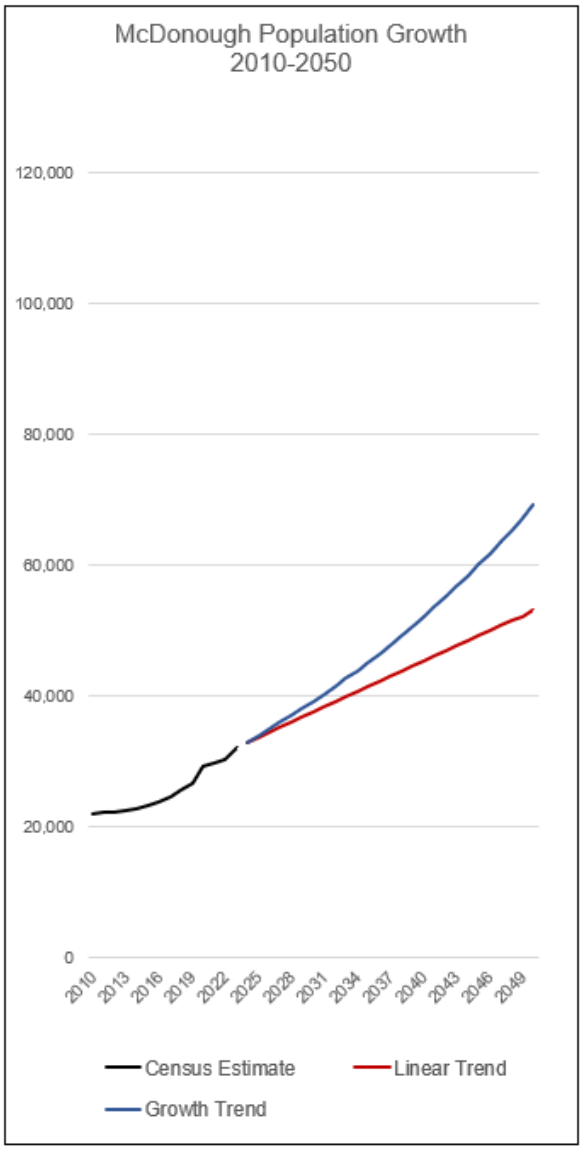


For comparison, a more restricted look at the future growth of the city is shown on Table A-4. As noted above, the city's growth during the most recent decade (actually 2010 to 2022) was notably lower than the preceding decade (2000-2010). In fact, the Census Bureaus population estimates for the most recent years (2020-2022) indicate a 'slowing' in the annual population increases compared to the preceding years since 2010.

Table A-4 shows the resulting population forecast to 2050 assuming that the past decade sets the stage for future population growth. The same algorithms described above related to Table A-3 were applied to the census estimates beginning in 2010. The results are shown below.

Table A-4: McDonough Forecast based on 2010-2023 Growth

	Census Estimate	Linear Trend Raw	Growth Trend Raw	Linear Trend Adjusted	Growth Trend Adjusted
2010	22,166	20,812	21,089	22,166	22,166
2011	22,423	21,543	21,698	22,423	22,423
2012	22,436	22,274	22,324	22,436	22,436
2013	22,683	23,005	22,968	22,683	22,683
2014	22,893	23,736	23,630	22,893	22,893
2015	23,276	24,467	24,312	23,276	23,276
2016	23,843	25,198	25,014	23,843	23,843
2017	24,704	25,929	25,735	24,704	24,704
2018	25,748	26,660	26,478	25,748	25,748
2019	26,768	27,392	27,242	26,768	26,768
2020	29,332	28,123	28,027	29,332	29,332
2021	29,917	28,854	28,836	29,917	29,917
2022	30,340	29,585	29,668	30,340	30,340
2023	32,138	30,316	30,524	32,138	32,138
2024		31,047	31,404	32,913	33,065
2025		31,778	32,310	33,688	34,019
2026		32,509	33,243	34,463	35,001
2027		33,240	34,202	35,238	36,010
2028		33,971	35,188	36,013	37,049
2029		34,703	36,204	36,788	38,118
2030		35,434	37,248	37,563	39,218
2031		36,165	38,323	38,338	40,349
2032		36,896	39,428	39,113	41,513
2033		37,627	40,566	39,888	42,711
2034		38,358	41,736	40,663	43,943
2035		39,089	42,940	41,439	45,211
2036		39,820	44,179	42,214	46,515
2037		40,551	45,454	42,989	47,857
2038		41,282	46,765	43,764	49,238
2039		42,014	48,114	44,539	50,658
2040		42,745	49,502	45,314	52,120
2041		43,476	50,930	46,089	53,624
2042		44,207	52,400	46,864	55,171
2043		44,938	53,911	47,639	56,762
2044		45,669	55,467	48,414	58,400
2045		46,400	57,067	49,189	60,085
2046		47,131	58,713	49,964	61,818
2047		47,862	60,407	50,739	63,602
2048		48,594	62,150	51,514	65,437
2049		49,325	63,943	52,289	67,324
2050		50,056	65,788	53,064	69,267
Adjustment to 2023		30,316	30,524	106.010%	105.288%



Note that the graph accompanying Table A-4 is the same size and covers the same vertical scale (up to 120,000) so that the two forecast periods can be directly compared.

While mathematically correct, neither the forecasts on Table A-3 or Table A-4 are convincing. In both cases, the growth trend forecasts trace a curve that appears inconsistent with the actual census figures of the past, shooting off into the future at a high rate of increase. Conversely, the linear trend forecasts trace a level of future growth that appears to be lower than the past annual population figures from the Census Bureau would suggest.

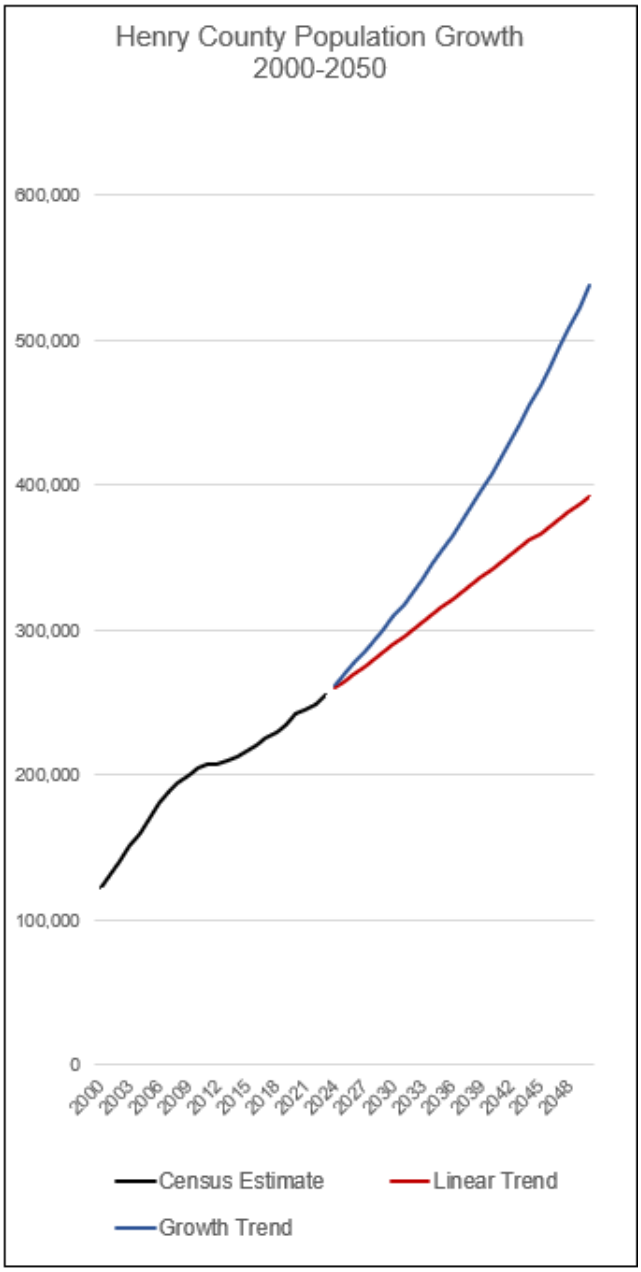
Comparison to County Growth

Given the clear disparity between the two forecast periods presented above for the city, a comparison to projected population growth countywide was conducted.

Table A-5 shows the population projections for the county (including all cities) using the same methodology as was used for McDonnough (shown on Table A-3). That is, using the annual census population estimates beginning in 2000 and projecting them into the future using the linear trend and growth trend algorithms.

Table A-5: Henry County Forecast based on 2000-2023 Growth

	Census Estimate	Linear Trend Raw	Growth Trend Raw	Linear Trend Adjusted	Growth Trend Adjusted
2000	121,774	140,034	142,636	121,774	121,774
2001	131,000	145,238	146,638	131,000	131,000
2002	140,747	150,442	150,753	140,747	140,747
2003	150,928	155,646	154,983	150,928	150,928
2004	159,971	160,850	159,332	159,971	159,971
2005	169,607	166,054	163,803	169,607	169,607
2006	180,304	171,258	168,400	180,304	180,304
2007	188,736	176,462	173,125	188,736	188,736
2008	194,658	181,666	177,983	194,658	194,658
2009	199,622	186,870	182,977	199,622	199,622
2010	205,039	192,074	188,112	205,039	205,039
2011	206,914	197,277	193,390	206,914	206,914
2012	208,008	202,481	198,817	208,008	208,008
2013	210,015	207,685	204,396	210,015	210,015
2014	212,961	212,889	210,131	212,961	212,961
2015	216,418	218,093	216,028	216,418	216,418
2016	220,900	223,297	222,090	220,900	220,900
2017	225,186	228,501	228,322	225,186	225,186
2018	229,732	233,705	234,729	229,732	229,732
2019	234,565	238,909	241,315	234,565	234,565
2020	241,852	244,113	248,087	241,852	241,852
2021	245,085	249,317	255,048	245,085	245,085
2022	248,472	254,521	262,205	248,472	248,472
2023	254,613	259,725	269,563	254,613	254,613
2024		264,929	277,127	259,715	261,758
2025		270,133	284,903	264,816	269,103
2026		275,337	292,898	269,918	276,654
2027		280,541	301,116	275,019	284,417
2028		285,745	309,566	280,121	292,398
2029		290,949	318,253	285,222	300,603
2030		296,153	327,183	290,324	309,038
2031		301,357	336,364	295,425	317,710
2032		306,560	345,803	300,527	326,625
2033		311,764	355,506	305,628	335,790
2034		316,968	365,482	310,730	345,213
2035		322,172	375,737	315,831	354,900
2036		327,376	386,281	320,933	364,858
2037		332,580	397,120	326,034	375,096
2038		337,784	408,264	331,136	385,622
2039		342,988	419,720	336,237	396,443
2040		348,192	431,497	341,339	407,567
2041		353,396	443,605	346,440	419,004
2042		358,600	456,053	351,542	430,761
2043		363,804	468,850	356,644	442,849
2044		369,008	482,007	361,745	455,275
2045		374,212	495,532	366,847	468,051
2046		379,416	509,437	371,948	481,184
2047		384,620	523,732	377,050	494,687
2048		389,824	538,429	382,151	508,568
2049		395,028	553,537	387,253	522,839
2050		400,232	569,070	392,354	537,510
Adjustment to 2023		259,725	269,563	98.032%	94.454%



As the next step, the forecasts calculated for Table A-5 have been compared to countywide forecasts prepared by other entities. These include Woods & Poole Economics (a highly regarded national consulting firm), the Governor's Office of Planning & Budget (Georgia's official source for State projects), and the Atlanta Regional Commission's latest forecasts. These forecasts are shown on Table A-6.

Table A-6: Countywide Forecasts Compared to Forecasts of Others

	Countywide Forecasts		Forecasts of Others*			Variance: Linear Trend			Variance: Growth Trend		
	Linear Trend	Growth Trend	Woods & Poole	OPB	ARC	Woods & Poole	OPB	ARC	Woods & Poole	OPB	ARC
2023	254,613	254,613	253,959	252,875	250,477	-654	-1,738	-4,136	-654	-1,738	-4,136
2024	259,715	261,758	259,648	257,455	254,256	-67	-2,260	-5,459	-2,110	-4,303	-7,502
2025	264,816	269,103	265,430	262,029	258,036	614	-2,787	-6,781	-3,673	-7,074	-11,068
2026	269,918	276,654	271,296	266,218	261,815	1,378	-3,700	-8,103	-5,358	-10,436	-14,839
2027	275,019	284,417	277,244	270,385	265,594	2,225	-4,634	-9,425	-7,173	-14,032	-18,823
2028	280,121	292,398	283,269	274,572	269,373	3,148	-5,549	-10,748	-9,129	-17,826	-23,025
2029	285,222	300,603	289,377	278,739	273,153	4,155	-6,483	-12,069	-11,226	-21,864	-27,450
2030	290,324	309,038	295,570	282,928	278,505	5,246	-7,396	-11,819	-13,468	-26,110	-30,533
2031	295,425	317,710	301,848	287,034	281,914	6,423	-8,391	-13,511	-15,862	-30,676	-35,796
2032	300,527	326,625	308,201	291,155	285,323	7,674	-9,372	-15,204	-18,424	-35,470	-41,302
2033	305,628	335,790	314,634	295,263	288,731	9,006	-10,365	-16,897	-21,156	-40,527	-47,059
2034	310,730	345,213	321,140	299,384	292,140	10,410	-11,346	-18,590	-24,073	-45,829	-53,073
2035	315,831	354,900	327,716	303,490	295,549	11,885	-12,341	-20,282	-27,184	-51,410	-59,351
2036	320,933	364,858	334,355	307,534	298,958	13,422	-13,399	-21,975	-30,503	-57,324	-65,900
2037	326,034	375,096	341,057	311,575	302,367	15,023	-14,459	-23,667	-34,039	-63,521	-72,729
2038	331,136	385,622	347,833	315,613	305,775	16,697	-15,523	-25,361	-37,789	-70,009	-79,847
2039	336,237	396,443	354,686	319,654	309,184	18,449	-16,583	-27,053	-41,757	-76,789	-87,259
2040	341,339	407,567	361,629	323,698	312,593	20,290	-17,641	-28,746	-45,938	-83,869	-94,974
2041	346,440	419,004	368,669	327,538	315,973	22,229	-18,902	-30,467	-50,335	-91,466	-103,031
2042	351,542	430,761	375,810	331,385	319,353	24,268	-20,157	-32,189	-54,951	-99,376	-111,408
2043	356,644	442,849	383,061	335,231	322,733	26,417	-21,413	-33,911	-59,788	-107,618	-120,116
2044	361,745	455,275	390,432	339,078	326,113	28,687	-22,667	-35,632	-64,843	-116,197	-129,162
2045	366,847	468,051	397,931	342,918	329,493	31,084	-23,929	-37,355	-70,120	-125,133	-138,559
2046	371,948	481,184	405,564	346,629	332,872	33,616	-25,319	-39,076	-75,620	-134,555	-148,312
2047	377,050	494,687	413,342	350,340	336,252	36,292	-26,710	-40,798	-81,345	-144,347	-158,435
2048	382,151	508,568	421,275	354,055	339,632	39,124	-28,096	-42,519	-87,293	-154,513	-168,936
2049	387,253	522,839	429,373	357,766	343,012	42,120	-29,487	-44,241	-93,466	-165,073	-179,827
2050	392,354	537,510	437,641	361,477	346,392	45,287	-30,877	-45,962	-99,869	-176,033	-191,118

* Woods & Poole Economics; Governors Office of Planning and Budget; Atlanta Regional Commission.

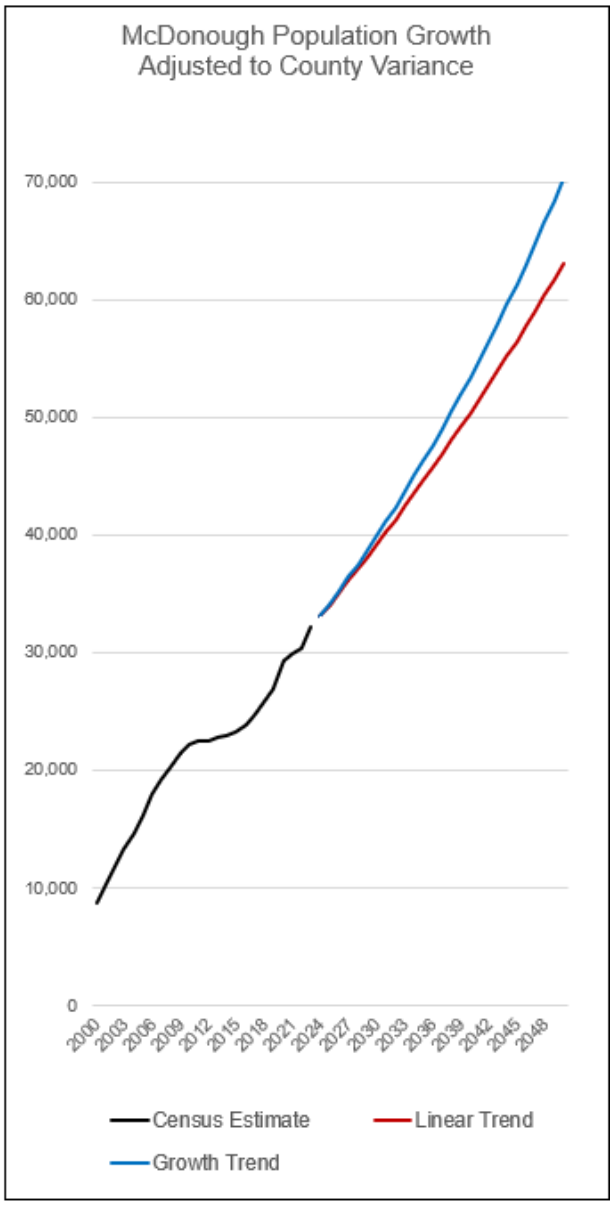
As can be seen on Table A-6, only Woods & Poole reported a 2050 population for the county that exceeded the census-based forecast from Table A-5 relative to the linear trend forecast.

Table A-7 compares the countywide linear trend forecast from Table A-5 to the forecast published by Woods & Poole (shown on Table A-6). By dividing the Woods & Poole linear trend figures by the forecasted county figures, the variance is expressed as a percentage of the Woods & Poole numbers over the countywide forecasts for each year. This percentage each year is multiplied times the linear trend figures for the city (from Table A-3) for each year in order to adjust the city's linear trend figures accordingly. The same percentages are also applied to the city's growth trend forecast.

Table A-7: McDonough Forecast Adjusted to County Growth Rate

	Countywide Forecasts			McDonough Adjusted	
	Linear Trend	Woods & Poole*	W&P Variance	Linear Trend	Growth Trend
2022	248,472	248,364	99.96%	30,333	30,320
2023	254,613	253,959	99.74%	32,055	31,973
2024	259,715	259,648	99.97%	33,033	33,025
2025	264,816	265,430	100.23%	34,026	34,105
2026	269,918	271,296	100.51%	35,029	35,208
2027	275,019	277,244	100.81%	36,044	36,336
2028	280,121	283,269	101.12%	37,072	37,489
2029	285,222	289,377	101.46%	38,111	38,666
2030	290,324	295,570	101.81%	39,163	39,871
2031	295,425	301,848	102.17%	40,229	41,104
2032	300,527	308,201	102.55%	41,305	42,360
2033	305,628	314,634	102.95%	42,396	43,645
2034	310,730	321,140	103.35%	43,496	44,953
2035	315,831	327,716	103.76%	44,608	46,286
2036	320,933	334,355	104.18%	45,731	47,643
2037	326,034	341,057	104.61%	46,863	49,023
2038	331,136	347,833	105.04%	48,008	50,428
2039	336,237	354,686	105.49%	49,165	51,863
2040	341,339	361,629	105.94%	50,336	53,328
2041	346,440	368,669	106.42%	51,523	54,828
2042	351,542	375,810	106.90%	52,726	56,366
2043	356,644	383,061	107.41%	53,945	57,941
2044	361,745	390,432	107.93%	55,184	59,560
2045	366,847	397,931	108.47%	56,443	61,226
2046	371,948	405,564	109.04%	57,722	62,939
2047	377,050	413,342	109.63%	59,024	64,706
2048	382,151	421,275	110.24%	60,352	66,531
2049	387,253	429,373	110.88%	61,704	68,415
2050	392,354	437,641	111.54%	63,083	70,364
		Increase 2024-2050		**30,049**	**37,339**

*Woods & Poole Economics, Inc., 2023 Georgia Data Book, Henry County



A closer examination of the line describing the 2000-2022 Census estimates suggests that the city's population growth has proceeded more along a slightly increasing curved line (the growth trend) than a static linear rate of expansion. It is therefore determined that the 'growth trend' algorithm more realistically describes future population growth as a continuation of the trend established by the past Census population estimates. In other words, instead of a static rate of future growth heavily influenced by the aftermath of the Great Recession, increasing growth is anticipated (though not at the same rate of the 2000's before the housing market was hard hit and inflation soared around 2010-2012).

Housing Unit Forecasts

Projecting new growth and development in terms of housing units is important because residential impact fees are assessed when building permits are issued for new units. Thus, the housing unit is used as the basis for assessing impact fees rather than the number of residents that may occupy the housing unit. Since the number of people residing in a particular housing unit will most likely vary — both at the time of initial occupancy and in the years ahead as resident's lifestyles and family characteristics change, families grow, children grow up, occupants age, or the unit becomes occupied by a different household as the previous occupants move out— using average occupancies based on the size of the unit as the basis will vary widely as the years go by. In addition, for instance, many services by the Fire Department are not related to the size of one's house—kitchen fires occur in all sizes of houses with the same frequency, as well as medical emergencies. Basing impact fees on the number of residents living in a dwelling would result in a constant reassessment of the impact fees due because the demand for services would vary as the number of residents in the unit varies. Instead, using an average fee per housing unit based on average household sizes results in 'averaging' the demand for services which would otherwise vary as the population in the unit changes over the coming 20 years.

The future increase in the number of housing units in the city is based on the population forecasts for the growth trend algorithm presented in the previous section. The table on the next page shows how the housing projections were calculated. The approach is to determine the number of households each year (which equates to the number of occupied housing units) and then to expand that to the total number of housing units by adding in vacant units. As noted above regarding the population forecasts, the housing unit forms the basis for many of the impact fee calculations. The type of occupancy is not relevant, whether the housing unit is one's personal home, used by the owner seasonally, or available as a vacation rental or Air B&B, the demand for such City services as public safety remain essentially the same.

Household Projections

First, future population numbers for the growth trend projection from Table A-7 are converted into the number of households expected in future years. The results are shown on Table A-8, on the next page.

Table A-8: Housing Unit Forecasts: 2024-2050

	Henry County (Woods & Poole)*						McDonough					
	Total Population	Group Quarters	Population in Households	House-holds	Avg Pop per HH	Percent of 2020	Total Population	Group Quarters	Population in Households	Avg Pop per HH	House-holds	Housing Units**
2020	241,848	905	240,943	93,752	2.570004	100.0000%	29,332	522	28,810	2.785301	10,531	11,083
2021	245,023	914	244,109	95,355	2.560002	99.6108%	29,917	538	29,379	2.774461	10,589	11,144
2022	248,364	583	247,781	97,169	2.550001	99.2217%	30,340	545	29,795	2.763621	10,781	11,346
2023	253,959	492	253,467	99,790	2.540004	98.8327%	31,973	575	31,398	2.752788	11,406	12,004
2024	259,648	639	259,009	102,375	2.530002	98.4435%	33,025	593	32,432	2.741948	11,828	12,448
2025	265,430	996	264,434	104,934	2.520003	98.0544%	34,105	613	33,492	2.731111	12,263	12,906
2026	271,296	1,534	269,762	107,475	2.509998	97.6651%	35,208	633	34,575	2.720267	12,710	13,376
2027	277,244	1,124	276,120	110,008	2.509999	97.6652%	36,336	653	35,683	2.720269	13,117	13,805
2028	283,269	811	282,458	112,533	2.510002	97.6653%	37,489	674	36,815	2.720272	13,534	14,243
2029	289,377	632	288,745	115,038	2.509997	97.6651%	38,666	695	37,971	2.720266	13,959	14,691
2030	295,570	562	295,008	117,533	2.510001	97.6653%	39,871	716	39,155	2.720272	14,394	15,148
2031	301,848	583	301,265	120,026	2.509998	97.6651%	41,104	739	40,365	2.720268	14,839	15,617
2032	308,201	691	307,510	122,514	2.509999	97.6652%	42,360	761	41,599	2.720269	15,292	16,094
2033	314,634	874	313,760	125,004	2.510000	97.6652%	43,645	784	42,861	2.720270	15,756	16,582
2034	321,140	1,102	320,038	127,505	2.510004	97.6654%	44,953	808	44,145	2.720274	16,228	17,079
2035	327,716	1,378	326,338	130,015	2.510003	97.6653%	46,286	832	45,454	2.720273	16,709	17,585
2036	334,355	1,680	332,675	132,540	2.509997	97.6651%	47,643	856	46,787	2.720267	17,199	18,101
2037	341,057	643	340,414	135,085	2.519999	98.0543%	49,023	881	48,142	2.731106	17,627	18,551
2038	347,833	965	346,868	137,646	2.520001	98.0544%	50,428	906	49,522	2.731108	18,133	19,083
2039	354,686	1,329	353,357	140,221	2.520001	98.0544%	51,863	932	50,931	2.731108	18,648	19,625
2040	361,629	1,705	359,924	142,827	2.520000	98.0543%	53,328	958	52,370	2.731107	19,175	20,180
2041	368,669	587	368,082	145,487	2.529999	98.4434%	54,828	985	53,843	2.741945	19,637	20,666
2042	375,810	816	374,994	148,219	2.530000	98.4434%	56,366	1,013	55,353	2.741945	20,187	21,245
2043	383,061	983	382,078	151,019	2.530000	98.4434%	57,941	1,041	56,900	2.741945	20,752	21,840
2044	390,432	1,105	389,327	153,884	2.530003	98.4436%	59,560	1,070	58,490	2.741949	21,332	22,450
2045	397,931	1,235	396,696	156,797	2.529997	98.4433%	61,226	1,100	60,126	2.741943	21,928	23,077
2046	405,564	1,351	404,213	159,768	2.530000	98.4434%	62,939	1,131	61,808	2.741945	22,542	23,724
2047	413,342	1,415	411,927	162,817	2.530000	98.4434%	64,706	1,163	63,543	2.741945	23,174	24,389
2048	421,275	1,394	419,881	165,961	2.529998	98.4434%	66,531	1,195	65,336	2.741943	23,828	25,077
2049	429,373	1,287	428,086	169,204	2.529999	98.4434%	68,415	1,229	67,186	2.741945	24,503	25,787
2050	437,641	1,120	436,521	172,538	2.529999	98.4434%	70,364	1,264	69,100	2.741945	25,201	26,522
2024-2050			37,339	671	36,668						13,373	14,074

*Source: Woods & Poole Economics, Inc., 2023 Georgia Data Book, Henry County. **Number of Housing units based on 2020 Census ratio of total units to households: 1.05242

The left-hand section of the table shows the Woods & Poole[3] forecasts for population, group quarters and households for the entire county. These figures are used only to allow a calculation of the average number of people per household countywide, and to reveal how W&P projects those averages to change in the future. Given the tightly knit sociometric model that W&P uses, the relationship between population and households relative to average ratios between them is considered viable as guides to such ratios for McDonough.

Table A-8 shows the average population per household, countywide, based on the population

[3] Woods & Poole Economics is a nationally recognized source of annual economic and demographic projections for the country as a whole, individual states, regions and counties. See Appendix B for a description of their model categories and projection techniques.

living in households and the total number of households projected by Woods & Poole.

Setting the 2020 countywide average population per household at 100%, the percentage of the average population per household in each subsequent year is calculated as a percentage of the 2020 figure. In 2021, for instance, the average is 99.6108% of the figure in 2020, while by 2050, the average is 98.4434% of the 2020 figure.

The assumption is that the average household population-per-household sizes in McDonough will 'track' proportionally the trend projected by Woods & Poole countywide. For 2020, Woods & Poole figures show the average population per household in Henry County to be a little more than 2.57 (based on dividing the household population by the number of households). These Woods & Poole population figures ('household population', which is the total population less group quarters population) and household figures for each subsequent year also produce the average annual population per household out to 2050. These countywide annual average population per household figures are then shown as percentages of the 2020 average figure to show the extent to which these ratios vary over time.

For McDonough, the figures under 'total population' are taken from Table A-7 for the growth algorithm, beginning with the annual census estimates for 2020-2022. In 2020, the population in group quarters was calculated to be 1.7968% of the total population, leaving 28,810 of the population living in households. Applying the same percentage in group quarters resulted in both the increase in group quarters population and the number of people living in households.

In order to relate the future changes in household composition in the city to the county as a whole, the average population in each household each year is calculated by multiplying the countywide percent shown in the 'percent of 2020' column, times the city's average population per household reported by the Census Bureau in 2020. Dividing the city's population in households by the average population per household for each year produced the number of households projected for each year.

Housing Units

Finally, the number of housing units (i.e., the number of households plus vacant units) is calculated.

The 2020 Census reported a total of 11,083 housing units in the city, of which 10,531 were occupied and 552 were vacant. Thus, the vacancy rate indicated by the Census figures was around 5%. In order to convert the number of households into the number of housing units, however, each household total must be multiplied by 1.155049 (which is derived by dividing 11,083 housing units in 2020 by 10,531 households). In other words, dividing the number of housing units in 2020 by the number of households (i.e., occupied housing units) resulted in a ratio of 1.052417 total units to total households.

Lastly, the number of housing units forecast to be located in the city each year is produced by multiplying the number of households times the ratio of total units to households as reported in the 2020 Census (1.052417). In essence this retains a common vacancy rate year to year even though some years will

have more vacant units than others. Over the coming years to 2050, however, use of the annual average is sound.

Over the forecast period, a net total of 13,606 new housing units are projected to be added to the city, more than doubling today's housing stock by producing almost 53% of the total housing stock in 2045.

It is worth noting that more than the 13,606 units will most likely be constructed. However, replacing a housing unit with a new housing unit is not impact fee eligible because there is no net increase in the demand for public services. Thus, the net total increase will produce increased demands for public services and will therefore be eligible for impact fee assessments.

Employment Forecasts

For the employment projections, we looked first to the forecasts prepared by Woods & Poole Economics for Henry County.

Woods & Poole Economics has proven to be a valuable resource for employment data at the county level, both in terms of the wide range of types of jobs and its long-range annual projections. Importantly, while the Census Bureau counts the number of employed people, Woods & Poole counts jobs, which captures people holding two or more jobs, self-employed sole proprietors and part-time workers, as well as available but vacant jobs. This gives a more complete picture than Census figures as to the employment vitality and economic base of a community.

Lacking other definitive data regarding jobs in McDonough, the 'employment share' approach is used. This relates population growth in the city to population growth countywide (as forecast by Woods & Poole), with the assumption that the city's employment growth will occur apace with the county as a whole.

For every year from 2024 to 2050, the city's population forecast (from Table A-7 for the Growth Trend) is calculated as a percentage of the county's population as a whole (per Woods & Poole as shown on Table A-6). Over time, the city's population is projected to grow somewhat faster than that of the county as a whole, from 12.46% in 2024 to 15.64% by 2050. The percentage each year is calculated, including the key years of 2024, 2025, 2030, 2035, 2040, 2045, and 2050.

These percentages are applied to the Woods & Poole countywide projections for each employment category. The results are shown on Table A-9.

It is recognized that this approach results in employment estimates for specific types of employment that may vary within the context of the city itself. It maintains the pace of growth in jobs consistent with countywide growth though the city may attract certain jobs to a greater or lesser extent than the county as a whole. At the impact fee level, however, it is less important that any two employment categories –

retail trade versus real estate for instance – be in lock step with one another than that the total of all jobs by broad category (value-added jobs, for instance) be realistic.

For the purposes of assessing impact fees, the value-added employment categories are the only types of jobs that would create demands on public facilities and thus be assessed impact fees.

Table A-9: McDonough Employment Forecast (Jobs)

	2024	2025	2030	2035	2040	2045	2050	2024-2050 Change	
								Number	Percent
Total Employment	**16,339**	**17,054**	**20,938**	**25,518**	**30,905**	**37,266**	**44,866**	**28,527**	**63.6%**
Farm Employment	35	35	35	36	37	37	37	2	5.4%
Forestry, Fishing	9	10	10	11	12	13	14	5	35.7%
Mining	17	17	19	20	22	23	24	7	29.2%
Construction	626	631	655	675	693	710	726	100	13.8%
Total Not Building Related	**687**	**693**	**719**	**742**	**764**	**783**	**801**	**114**	**14.2%**
Federal Civilian	130	132	139	147	156	165	175	45	25.7%
Federal Military	81	81	85	88	92	97	102	21	20.6%
State & Local Government	1,169	1,194	1,327	1,466	1,613	1,770	1,942	773	39.8%
Total Government	**1,380**	**1,407**	**1,551**	**1,701**	**1,861**	**2,032**	**2,219**	**839**	**37.8%**
Utilities	71	72	77	83	87	91	95	24	25.3%
Manufacturing	484	491	522	553	585	618	653	169	25.9%
Wholesale Trade	405	416	469	521	575	629	685	280	40.9%
Retail Trade	1,868	1,930	2,241	2,572	2,934	3,327	3,763	1,895	50.4%
Transportation & Warehousing	1,655	1,739	2,209	2,764	3,410	4,161	5,038	3,383	67.1%
Information	337	348	404	468	539	620	713	376	52.7%
Finance & Insurance	512	534	640	736	826	910	992	480	48.4%
Real Estate	782	820	977	1,145	1,325	1,516	1,723	941	54.6%
Professional & Technical Services	769	809	1,030	1,293	1,604	1,974	2,422	1,653	68.2%
Management of Companies	94	99	128	165	211	269	340	246	72.4%
Administrative & Waste Services	1,957	2,059	2,633	3,326	4,158	5,158	6,368	4,411	69.3%
Educational Services	342	365	499	667	877	1,138	1,464	1,122	76.6%
Health Care & Social Assistance	1,702	1,805	2,409	3,179	4,140	5,325	6,797	5,095	75.0%
Arts, Entertainment & Recreation	356	371	452	544	648	767	904	548	60.6%
Accommodation & Food Services	1,649	1,745	2,294	2,979	3,824	4,869	6,168	4,519	73.3%
Other Private Services	1,290	1,350	1,683	2,076	2,537	3,078	3,719	2,429	65.3%
Total Value-Added	**14,273**	**14,953**	**18,667**	**23,071**	**28,280**	**34,450**	**41,844**	**27,571**	**65.9%**

Source: Woods & Poole Economics, Inc., 2023 Georgia Data Book, Henry County, as adjusted to McDonough population versus countywide.

As can be seen on the table, notable changes are forecast for the non-building types of employment between 2024 and 2050. Construction jobs comprise the vast majority of all 'non-building' types of jobs (over 96%) and will drop the smallest percentage by 2050 compared to the other non-building types.

Government jobs are expected to increase by only 5% overall, with gains at the state and local level tempered by a reduction in federal civilian jobs.

The greatest employment growth by 2050 is projected in the 'value-added' grouping—an increase of an additional 25.5% over the total number of such jobs today. The jobs in this category are grouped under two sub-categories: 'industrial' types of companies (most notably including manufacturing and transportation & warehousing in terms of total employment), and 'commercial and services' types of companies.

Overall, jobs in the 'value-added' category will gain in prominence countywide and are projected to increase from 84.6% of all jobs in the county today to 87.7% of all jobs by 2050. Those 'value added' employment categories are projected to add almost 55,000 net new jobs to the county's employment base.

Of the additional 45,262 jobs generated by 2045, two-thirds of all new jobs are projected to be created in only four business categories: Administrative Services (20% of total value-added jobs), followed closely by Accommodation & Food Services (18%), Transportation & Warehousing (16%), and finally Health Care and Social Assistance (12%).

Overall, the jobs in these four categories in 2045 will represent 25.6% of all value-added jobs in 2045 and an increase of 34.3% over 2022.

Various individual employment categories are grouped together in Table A-10 to better understand broad types of employment in the city and to facilitate identification of those types of businesses that would come under an impact fee program.

- The first grouping is referred to as 'not-building' related jobs. These types of jobs are those that do not normally require issuance of a building permit, and thus would not be assessed an impact fee. Such jobs include any employment that is considered to be transitory in nature, such as those working on construction sites, or are strictly land-based such as farming and other agricultural workers.
- The table also shows the number of workers employed by governmental entities (county, state and federal) based on the countywide estimates by Woods & Poole for each year. Governments are exempt from impact fees, whether a building is to be constructed or not.
- The last grouping on the table shows what is called 'value-added' employment. This category encompasses private sector jobs, including nonprofits and institutions. Businesses employing these 'private sector' workers are the ones that would be most likely to be assessed an impact fee.

Table A-10: Summary - McDonough Job Growth

	Total Jobs	Not Building Related	Government	Value-Added Jobs
2024	16,339	687	1,380	14,273
2025	17,054	693	1,407	14,953
2026	17,831	698	1,436	15,696
2027	18,608	703	1,465	16,439
2028	19,384	709	1,493	17,181
2029	20,161	714	1,522	17,924
2030	20,938	719	1,551	18,667
2031	21,854	724	1,581	19,548
2032	22,770	728	1,611	20,429
2033	23,686	733	1,641	21,309
2034	24,602	737	1,671	22,190
2035	25,518	742	1,701	23,071
2036	26,595	746	1,733	24,113
2037	27,673	751	1,765	25,155
2038	28,750	755	1,797	26,196
2039	29,828	760	1,829	27,238
2040	30,905	764	1,861	28,280
2041	32,177	768	1,895	29,514
2042	33,449	772	1,929	30,748
2043	34,722	775	1,964	31,982
2044	35,994	779	1,998	33,216
2045	37,266	783	2,032	34,450
2046	38,786	787	2,069	35,929
2047	40,306	790	2,107	37,408
2048	41,826	794	2,144	38,886
2049	43,346	797	2,182	40,365
2050	44,866	801	2,219	41,844
Increase 2024-50	28,527	114	839	27,571
Percent of 2050	63.583%	14.232%	37.810%	65.890%

Note that, for the road improvements public facility category, vehicle trip data is used as the basis for impact fee calculations (presented in Appendix C), although some socioeconomic data from this Appendix are used in those calculations as well.

Appendix B: Cost Adjustments and Credits

Cost Adjustments

Calculations related to impact fees are made in terms of the 'present value' of past and future amounts of money, including project cost expenditures and credits for future revenue.

The Georgia Development Impact Fee Act defines 'present value' as "the current value of past, present, or future payments, contributions or dedications of goods, services, materials, construction, or money". This section describes the methodologies used to make appropriate adjustments to project cost figures, both past and future, to convert these costs into current dollars when such an adjustment is appropriate.

Calculations for present value (PV) differ when considering past expenditures versus future costs. In both cases, however, the concept is the same—the 'actual' expenditure made or to be made is adjusted to the current year using appropriate rates (an inflation rate for past expenditures and a deflator for future costs). In essence, the present value is considered in light of the value of money as it changes over time as the result of inflation.

Past Expenditures

Past expenditures are considered in impact fee calculations only for projects that created excess capacity for new development and are being recouped. An expenditure that was made in the past is converted to PV using the inflation rate of money—in this case the Consumer Price Index (CPI). Although this approach ignores the value of technological innovation (i.e., better computers are available today for the same or lower historic prices) and evolving land prices (often accelerated beyond inflation by market pressures), the approach best captures the value of the money actually spent. For instance, it is not important that you can buy a better computer today for the same price that was paid 5 years ago; what is important is the money was spent 5 years ago and what that money would be worth today had it been saved instead of spent.

Future Project Costs

In order to determine the present value of a project expenditure that will be made in the future, the Net Present Value (NPV) of the expenditure is determined. To calculate the NPV of any project cost, two figures are needed—the future cost of the project anticipated in the year the expenditure will be made, and the Net Discount Rate. Given the current cost of a project, that cost is first inflated into the future to the target expenditure year to establish the estimated future cost. The future cost is then deflated to the present using the Net Discount Rate, which establishes the NPV for the project in current dollars. These two formulas are:

$$\text{Future Cost} = \text{Current Cost} \times (1 + \text{Inflation Rate})^{\text{Year of Expenditure} - \text{Current Year}}$$

$$\text{Net Present Value} = \text{Future Cost} \times (1 + \text{Net Discount Rate})^{\text{Current Year} - \text{Year of Expenditure}}$$

In this section, two important adjustments are discussed that are required to convert current costs into future cost figures, and then back into current dollars. First, an appropriate cost inflator is identified. This adjustment factor is important in determining the future cost of a project, based on current cost estimates. The cost inflator may be based on anticipated inflation in construction or building costs, or on anticipated inflation in the value of money (for capital projects that do not include a construction component). In essence, costs increase over time. By identifying the appropriate inflation rate that is related to the type of project (building construction, project construction or non-construction), current 2024 estimates can be used to predict future costs in the year they are expected to occur.

The second cost adjustment is a deflator—the Net Discount Rate. In essence, the Net Discount Rate is the interest rate that accrues to monies being held in escrow. That is, as impact fees are collected and 'saved up' over the years for future expenditure, they increase at the rate that the account is accruing interest. Having determined the inflated cost of a project at some future date, the cost in today's dollars can be reduced to the extent that interest will increase the funds on hand. In essence, the calculation determines how much money needs to be added to the account so that, with interest, it will grow to the amount needed for that future expenditure at that time. This is the Net Present Value of that future expenditure.

Cost Inflators

Three different cost inflators are used in the impact fee calculations, based on the type of project being considered. For infrastructure projects, such as roads or ball fields, a 'construction cost inflator' is used. For projects that require construction of a structure (such as a fire station), a 'building cost inflator' is used as the appropriate inflation rate. For all non-construction types of projects (such as a fire truck or park land), an inflation rate is used that is based on the Consumer Price Index. These different types of inflators are discussed below.

Engineering News Record's Cost Indexes

ENR publishes both a Construction Cost Index (CCI) and a Building Cost Index (BCI) that are widely used in the construction industry. The indexes are based on annual cost increases of various construction materials and applicable labor rates and calibrated regionally. For calculation of the CCI and the BCI, costs in 1913 are set at 100.

Construction Cost Inflator

Table B-1 uses the example of a calculation of the annual average rate of increase reflected in construction costs. For this analysis, the 2013-2023 ten-year period is used as a base time period for an estimate of future construction cost increases due to inflation in labor and materials costs.

Table B-1 shows a construction project that cost $100,000 in 2013, and how much the same project would cost in each subsequent year using the Construction Cost Index published by Engineering News Record for the Atlanta area. Setting the 2013 Construction Cost Index (CCI) at '1.0', the increase in the CCI as a multiple of 2013 is also shown on the table. The equivalent cost of the same project in each subsequent year is calculated by multiplying the CCI multiplier times $100,000. When the total for all such projects is summed for the 2013-2023 period, the equivalent average annual rate of increase is calculated as the percentage that would produce the same total. This percentage is used in the text of this report as the applicable inflator for construction projects that will begin in future years.

Table B-1: Construction Cost Inflator - CCI

Year	Amount	CCI*			Effect of Inflation	
		1913=100	2013=1.0		CCI	Avg. Rate =
						2.61719235%
2013	$ 100,000.00	5,983.23	1.000000		$ 100,000.00	$ 100,000.00
2014		6,147.52	1.027458		102,745.84	$ 102,617.19
2015		6,245.74	1.043874		104,387.39	$ 105,302.88
2016		6,277.14	1.049121		104,912.13	$ 108,058.86
2017		6,433.18	1.075202		107,520.24	$ 110,886.97
2018		6,592.98	1.101909		110,190.94	$ 113,789.09
2019		6,681.50	1.116704		111,670.35	$ 116,767.17
2020		6,750.41	1.128221		112,822.14	$ 119,823.20
2021		7,414.97	1.239291		123,929.14	$ 122,959.20
2022		8,361.71	1.397525		139,752.49	$ 126,177.28
2023		8,252.72	1.379308		137,930.76	$ 129,479.58
					$ 1,255,861.42	$1,255,861.42

* Construction Cost Index, Atlanta Region.
Source: *Engineering News Record*, Annual Average Indices.

Building Cost Inflator

The inflator for future construction costs for buildings is based on ENR's Building Cost Index for each year from 2013 through 2023 and is calculated in the same manner as described above for the Construction Cost Inflator. Table B-2 shows the results.

Table B-2: Building Cost Inflator - BCI

Year	Amount	BCI*		Effect of Inflation	
		1913=100	2013=1.0	BCI	Avg. Rate =
					3.2241982%
2013	$ 100,000.00	4,022.11	1.000000	$ 100,000.00	$ 100,000.00
2014		4,076.81	1.013600	$ 101,360.02	$ 103,224.20
2015		4,108.05	1.021366	$ 102,136.63	$ 106,552.35
2016		4,126.72	1.026009	$ 102,600.92	$ 109,987.81
2017		4,278.39	1.063719	$ 106,371.91	$ 113,534.03
2018		4,408.94	1.096176	$ 109,617.61	$ 117,194.60
2019		4,523.59	1.124681	$ 112,468.15	$ 120,973.18
2020		4,615.43	1.147515	$ 114,751.49	$ 124,873.60
2021		5,335.09	1.326440	$ 132,644.01	$ 128,899.77
2022		6,314.94	1.570058	$ 157,005.78	$ 133,055.75
2023		6,302.02	1.566845	$ 156,684.51	$ 137,345.74
				$ 1,295,641.03	$ 1,295,641.03

* Building Cost Index, Atlanta Region.
Source: *Engineering News Record*, Annual Average Indices.

CPI Inflator

For projects that do not involve construction, only the future value of money needs to be considered (without regard to inflation in labor or materials costs). For this calculation, the Consumer Price Index (CPI) is used, assuming past experience will continue into the foreseeable future. The following table shows the CPI figures for every year since 1982, with the 1982-84 index being 100. By 2023 the CPI had risen considerably over the 1982 CPI. The first column under the 'CPI' heading on the table shows the average annual CPI figures. Using 2023 as the base (2023=1.0), the second column under 'CPI' on the table shows the multipliers that would convert an amount of money spent in each year into current present value dollars.

Table B-3: Non-Construction Cost Inflator - CPI

Year	Amount	CPI* 1982-84=100	CPI* 2023=1.0	Present Value: CPI	Long Term Inflator = 2.75077628%	10-Year Inflator =
1982	$ 10,000	96.50	3.17076	$ 31,707.56	$ 30,422.13	
1983	$ 10,000	99.60	3.07207	$ 30,720.68	$ 29,607.69	
1984	$ 10,000	103.90	2.94493	$ 29,449.28	$ 28,815.05	
1985	$ 10,000	107.60	2.84366	$ 28,436.62	$ 28,043.63	
1986	$ 10,000	109.60	2.79177	$ 27,917.70	$ 27,292.87	
1987	$ 10,000	113.60	2.69347	$ 26,934.68	$ 26,562.20	
1988	$ 10,000	118.30	2.58646	$ 25,864.58	$ 25,851.09	
1989	$ 10,000	124.00	2.46756	$ 24,675.65	$ 25,159.02	
1990	$ 10,000	130.70	2.34107	$ 23,410.71	$ 24,485.48	
1991	$ 10,000	136.20	2.24653	$ 22,465.35	$ 23,829.97	
1992	$ 10,000	140.30	2.18088	$ 21,808.84	$ 23,192.01	
1993	$ 10,000	144.50	2.11749	$ 21,174.95	$ 22,571.13	
1994	$ 10,000	148.20	2.06463	$ 20,646.29	$ 21,966.87	
1995	$ 10,000	152.40	2.00773	$ 20,077.30	$ 21,378.79	
1996	$ 10,000	156.90	1.95015	$ 19,501.47	$ 20,806.45	
1997	$ 10,000	160.50	1.90640	$ 19,064.05	$ 20,249.43	
1998	$ 10,000	163.00	1.87717	$ 18,771.66	$ 19,707.33	
1999	$ 10,000	166.60	1.83660	$ 18,366.03	$ 19,179.74	
2000	$ 10,000	172.20	1.77688	$ 17,768.76	$ 18,666.27	
2001	$ 10,000	177.10	1.72771	$ 17,277.13	$ 18,166.55	
2002	$ 10,000	179.90	1.70082	$ 17,008.23	$ 17,680.21	
2003	$ 10,000	184.00	1.66292	$ 16,629.24	$ 17,206.88	
2004	$ 10,000	188.90	1.61979	$ 16,197.88	$ 16,746.23	
2005	$ 10,000	195.30	1.56671	$ 15,667.08	$ 16,297.91	
2006	$ 10,000	201.60	1.51775	$ 15,177.48	$ 15,861.60	
2007	$ 10,000	207.34	1.47572	$ 14,757.16	$ 15,436.96	
2008	$ 10,000	215.30	1.42115	$ 14,211.51	$ 15,023.69	
2009	$ 10,000	214.54	1.42622	$ 14,262.25	$ 14,621.49	
2010	$ 10,000	218.06	1.40321	$ 14,032.08	$ 14,230.05	
2011	$ 10,000	224.94	1.36027	$ 13,602.71	$ 13,849.09	
2012	$ 10,000	229.59	1.33269	$ 13,326.92	$ 13,478.33	3.770128%
2013	$ 10,000	232.96	1.31345	$ 13,134.53	$ 13,117.50	
2014	$ 10,000	236.74	1.29249	$ 12,924.86	$ 12,766.33	$ 13,952.47
2015	$ 10,000	237.02	1.29095	$ 12,909.54	$ 12,424.56	$ 13,445.56
2016	$ 10,000	240.01	1.27487	$ 12,748.70	$ 12,091.93	$ 12,957.06
2017	$ 10,000	245.12	1.24828	$ 12,482.78	$ 11,768.22	$ 12,486.31
2018	$ 10,000	251.11	1.21852	$ 12,185.17	$ 11,453.17	$ 12,032.66
2019	$ 10,000	255.66	1.19683	$ 11,968.32	$ 11,146.55	$ 11,595.50
2020	$ 10,000	258.81	1.18224	$ 11,822.44	$ 10,848.14	$ 11,174.22
2021	$ 10,000	270.97	1.12920	$ 11,291.96	$ 10,557.72	$ 10,768.24
2022	$ 10,000	292.65	1.04552	$ 10,455.25	$ 10,275.08	$ 10,377.01
2023	$ 10,000	305.98	1.00000	$ 10,000.00	$ 10,000.00	$ 10,000.00
1982-23	$ 420,000			$ 762,835.36	$ 762,835.36	
2014-23	$ 100,000			$ 118,789.03		$ 118,789.03

*Consumer Price Index data is from the U. S. Department of Labor, Bureau of Labor Statistics.

Using an annual expenditure of $10,000 as an example, the multipliers on the CPI table yield the figures shown on the table under the 'present value' heading. Cumulatively, the $420,000 spent over the 1982-2023 period would have a total present value of $762,835.36 in today's dollars.

Considering the present value figures for the $10,000 annual expenditures, an average annual inflation rate of 2.75% yields the same total amount over the 1982-2023 period.

The 41-year average of annual CPI change (the period of 1982-2023) shown on the CPI table would be useful in estimating the present value (PV) of past expenditures but would not be the best indicator of future change because of the long timeframe covered.

Looking only at the change in CPI for the 10 years from 2014 to 2023, an average annual inflation rate of a little more than 3.77% best captures the change over that period. This higher inflation rate (compared to the 1982-2023 period) is assumed to be experienced 'on average' in future years and is used for inflator calculations for future non-construction expenditures. This is well above recent pronouncements by the FED that an annual inflation rate of 2% would be considered normal and desirable for the national economy. (It is noted that this may be a target but has yet to be achieved and many economists do not believe it can be achieved as long as employment continues to exceed all expectations.)

Discount Rate

As discussed at the beginning of this Appendix, the Net Discount Rate is applied in net present value calculations to account for interest that may accrue to monies being held in escrow for future expenditure. That is, as impact fees are collected and 'saved up' over the years for future expenditure, they increase at the rate that the account is accruing interest. Having determined the inflated cost of a project at some future date, the cost in today's dollars can be reduced to the extent that interest will increase the funds on hand.

Table B-4: Discount Rate

GEORGIA 1 FUND INTEREST		
Month Paid	**2022**	**2023**
January	0.06	4.20
February	0.09	4.49
March	0.17	4.58
April	0.34	4.75
May	0.68	5.00
June	1.08	5.12
July	1.56	5.21
August	2.13	5.36
September	2.37	5.37
October	2.87	5.38
November	3.58	5.40
December	3.92	5.39
1-Year Average	1.57	5.02
2-Year Average	3.30	

Discount Rate

1-Year Average	2.510417
2-Year Average	1.647917

Note: Recent and continuing efforts by the Federal Reserve to rein in inflation at 2% suggests that the 2-year average is the most appropriate discount rate.

The State Impact Fee Law requires that impact fee collections on hand be deposited into an interest-bearing account. That may be at a local bank (which may charge fees to maintain such an account or 'discount' the returns accordingly).

Table B-4 uses the Georgia 1 Fund (maintained by the State) as an example of calculating an appropriate discount rate. The table shows the actual interest rate returned each month over the past two full years. (Banks normally pay a set rate over time while the Georgia 1 account calculates its rate on a monthly basis, reflecting the return on its own investments.)

Clearly returns proceeded from bad to much better month to month, with 2023 far outpacing 2022. Considering the recent run of inflation and future ups-and-downs, the 2-year average is used in this report for net present value calculations, which balances the return against the growth in funds on hand.

The effective discount rate used for fee calculations is one-half of the overall rate. This recognizes that impact fee funds will be saved each year, slowly growing to the amount needed by the year of expenditure. This 'compounds' the interest gained each year on the cumulative total in the account.

Calculating Net Present Value

Determining the NPV of future project expenditures depends on the type of 'project' being funded.

For a building construction project (such as a fire station), the current cost estimate for the project is inflated into the future using the average Building Cost Inflator (from Table B-2) applied to the number of years until the year planned for its construction. This future cost is then deflated back to the present using the Net Discount Rate (shown above) since this reflects the present value of a future amount of money.

For other construction projects (such as recreation facilities), the current cost estimate for the project is inflated into the future using the average Construction Cost Inflator (from Table B-1) applied to the number of years until the year planned for its construction. Like building construction projects, this future cost is then deflated back to the present using the Net Discount Rate.

For non-construction capital projects (such as fire truck purchases or land acquisition), the 10-year average CPI inflator (from Table B-3) is used to estimate the project expenditure in future dollars while the Net Discount Rate is applied to deflate that future cost to present value.

■ Property Tax Credits

An important restriction on an impact fee program is that new growth and development cannot be charged more in impact fees than their 'fair share' of the cost of funding the public facilities needed to serve just that new growth. The calculation of that 'fair share' is intrinsic to the impact fee calculations carried out in the chapters addressing each public facility category in this report. There is a situation, however, that could arise in which new development will be paying property taxes for the same projects for which impact fees are being assessed. This situation relates to the portion of impact fee projects that are not eligible for impact fee funding (such as a project that is only 90% impact fee eligible leaves 10% to be funded by existing development). If fees are set at the 100% eligibility level, of course, there are no tax credits because there are no portions of the project that must be funded from alternate sources.

Per-Project Funding Shortfall Credit

As noted, some capital projects in the impact fee program may have portions that are not 100% impact fee eligible. More likely in McDonnough, the fees could potentially be set at less than 100% of the amount that is impact fee eligible. These are situations in which a project serves both a future (impact fee eligible) need *and* a need to provide service to the current residents and businesses at the same level of service as new growth, or alternately, the fees are reduced by some percentage, across the board leaving the unfunded portion to receive additional tax funding. In the first instance, funding for the non-eligible portions are the responsibility of the current residents and businesses, not new growth. In the other instance, the portion that was impact fee eligible but excluded from the reduced adopted fee must be calculated as a credit for new development for the taxes that new development will pay for the otherwise impact fee-eligible project costs not included in the impact fees being assessed.

To the extent that new growth would be contributing property taxes for non-eligible portions of impact fee projects (for which they are not financially responsible), a credit must be applied reflecting these tax collections in order to avoid new growth paying more than their 'fair share' of total costs. In the second instance, the tax generated for costs that are actually impact fee eligible must also be considered as a credit. In this latter case, new developments total fee would consist of the actual payment assessed at the time of building permit issuance plus the amount that new growth's taxes would generate payment for the excluded but eligible portion of the total fee calculated in this Methodology Report.

For individual projects that are only partially eligible for impact fee funding as well as the portion that was eligible but not included in the impact fee payment, it is assumed for calculation purposes that the non-eligible and/or the eligible-but-excluded portions will be covered by General Fund revenue.

To the extent that credits are due, they are subtracted from the impact fee project costs as part of the calculation of maximum impact fees allowed within each of the public facility chapters to which they apply.

The following sections explain how these credits are calculated.

Current Property Tax Base

Table B-5 summarizes the most recent property tax base for McDonough as reported by the Henry County Tax Assessors Office for the city. All properties in the city are assessed at the rate of 40% of their actual value. The abbreviation 'M&O' means Maintenance and Operations, which is the historical term for the General Fund tax levy or millage rate.

This table and the projections that follow, form the basis leading up to the '% New Growth' columns on subsequent tables. It is the percentages in the '% New Growth' columns that are applied as a credit against any portion of an impact fee project that is not impact fee eligible or for otherwise impact fee-eligible costs that will not be recovered from the actual impact fees charged.

Table B-5: McDonough 2023 Tax Digest

Category	Total Assessed Value (@40%)	Total Tax Valuation (100% value)
Residential	$ 1,122,592,963	$ 2,806,482,408
Agricultural	621,560	1,553,900
Conservation Use	1,087,560	2,718,900
Historic	96,000	240,000
Commercial	603,810,141	1,509,525,353
Industrial	195,554,535	488,886,338
Utility	12,568,725	31,421,813
Motor Vehicle	4,194,730	10,486,825
Mobile Home	2,948	7,370
Heavy Equipment	30,051	75,128
Gross Digest	**$ 1,940,559,213**	**$ 4,851,315,535**
Exempt	$ 94,106,720	$ 235,266,800
Total Tax Base M&O	**$ 1,846,452,493**	**$ 4,616,131,233**
Net Residential	$ 1,028,486,243	2,571,215,608

Source: Henry County Tax Commissioner's Office.

Tax Base Projections

In the following table, the total value added to the tax base by new growth and development throughout the city is calculated. The value added is expressed in *assessed* value terms; this is 40% of the market or appraised value. Millage rates are applied to assessed value, rather than appraised.

New single-family houses constructed in the city in 2023 and 2024 were actually sold at an overall average sales price of $453,083. Actual prices ranged from a low of $271,000 to a high of $725,000. Fourteen townhouses were also sold, at an average sales price of $313,578. All together, these 89 dwelling units sold for an average $431,139, which would be an average assessed value (at 40%) of $172,455.60. When the average homeowner's exemptions are considered, these units added an average of $158,004 to the city's tax base.

Citywide nonresidential value added is calculated as the assessed value of all commercial, industrial and utility property in the city divided by the number of 'value-added' jobs in the city in 2023, resulting in a figure of $59,196 in assessed value per employee in 2023.

Using these average tax base contribution figures, Table B-6 calculates the contributions that new growth will generate each year out to 2050.[4]

Table B-6: Tax Base Increases from New Growth

Year	Residential			Non-Residential			Total Annual Added Assessed Value
	Total Housing Units	New Housing Units	Added Assessed Value*	Value-Added Employees	New Employees	Added Assessed Value**	
2023	12,004	0		14,002	0		
2024	12,448	444	$ 70,153,696	14,273	271	$ 15,714,477	$ 85,868,173
2025	12,906	458	$ 72,365,750	14,953	680	$ 39,431,160	$ 111,796,910
2026	13,376	470	$ 74,261,796	15,696	743	$ 43,084,341	$ 117,346,137
2027	13,805	429	$ 67,783,639	16,439	743	$ 43,084,341	$ 110,867,980
2028	14,243	438	$ 69,205,673	17,181	742	$ 43,026,354	$ 112,232,027
2029	14,691	448	$ 70,785,712	17,924	743	$ 43,084,341	$ 113,870,053
2030	15,148	457	$ 72,207,746	18,667	743	$ 43,084,341	$ 115,292,087
2031	15,617	469	$ 74,103,792	19,548	881	$ 51,086,547	$ 125,190,339
2032	16,094	477	$ 75,367,822	20,429	881	$ 51,086,547	$ 126,454,369
2033	16,582	488	$ 77,105,865	21,309	880	$ 51,028,560	$ 128,134,425
2034	17,079	497	$ 78,527,899	22,190	881	$ 51,086,547	$ 129,614,446
2035	17,585	506	$ 79,949,933	23,071	881	$ 51,086,547	$ 131,036,480
2036	18,101	516	$ 81,529,971	24,113	1,042	$ 60,422,454	$ 141,952,425
2037	18,551	450	$ 71,101,719	25,155	1,042	$ 60,422,454	$ 131,524,173
2038	19,083	532	$ 84,058,033	26,196	1,041	$ 60,364,467	$ 144,422,500
2039	19,625	542	$ 85,638,071	27,238	1,042	$ 60,422,454	$ 146,060,525
2040	20,180	555	$ 87,692,120	28,280	1,042	$ 60,422,454	$ 148,114,574
2041	20,666	486	$ 76,789,857	29,514	1,234	$ 71,555,958	$ 148,345,815
2042	21,245	579	$ 91,484,212	30,748	1,234	$ 71,555,958	$ 163,040,170
2043	21,840	595	$ 94,012,273	31,982	1,234	$ 71,555,958	$ 165,568,231
2044	22,450	610	$ 96,382,331	33,216	1,234	$ 71,555,958	$ 167,938,289
2045	23,077	627	$ 99,068,396	34,450	1,234	$ 71,555,958	$ 170,624,354
2046	23,724	647	$102,228,472	35,929	1,479	$ 85,762,773	$ 187,991,245
2047	24,389	665	$105,072,541	37,408	1,479	$ 85,762,773	$ 190,835,314
2048	25,077	688	$108,706,629	38,886	1,478	$ 85,704,786	$ 194,411,415
2049	25,787	710	$112,182,713	40,365	1,479	$ 85,762,773	$ 197,945,486
2050	26,522	735	$116,132,808	41,844	1,479	$ 85,762,773	$ 201,895,581

*New housing unit value is estimated at the average assessed value per housing unit of:	$ 172,456
Net housing unit value is median value minus the average residential exemption:	$ 158,004
**Nonresidential value is estimated at an assessed value per 'value-added' employee of:	$ 57,987

[4] Note that the assessed value figure and the value per employee on Table B-6 are not inflated into the future because, whether inflated or not, the percentages (the ratios between the tax base increases and the projected growth figures shown on subsequent tables below) would be the same).

The annual tax contributions added from new growth on Table B-6 are then transferred to the following Table B-7 under the columns 'all development' and 'residential only'. These annual figures are accumulated under the relevant columns shown for the total tax base that is generated from all new value-added development and for residential development only. For the parks & recreation public facility category, impact fees will only be assessed against residential growth. For police and fire facilities, the tax contributions from all new growth in the city would apply, since all land use types of new development are assessed for those improvements.

Table B-7: Total Tax Base 2023-2050

Year	All Development		Residential Only	
	Added Assessed Value	Total Tax Base	Added Assessed Value	Total Net Residential Tax Base
2023	$ -	$1,846,452,493	$ -	$1,028,486,243
2024	$ 85,868,173	$1,932,320,666	$ 70,153,696	$1,098,639,939
2025	$111,796,910	$2,044,117,576	$ 72,365,750	$1,171,005,689
2026	$117,346,137	$2,161,463,713	$ 74,261,796	$1,245,267,485
2027	$110,867,980	$2,272,331,693	$ 67,783,639	$1,313,051,124
2028	$112,232,027	$2,384,563,721	$ 69,205,673	$1,382,256,798
2029	$113,870,053	$2,498,433,773	$ 70,785,712	$1,453,042,509
2030	$115,292,087	$2,613,725,860	$ 72,207,746	$1,525,250,255
2031	$125,190,339	$2,738,916,199	$ 74,103,792	$1,599,354,047
2032	$126,454,369	$2,865,370,569	$ 75,367,822	$1,674,721,870
2033	$128,134,425	$2,993,504,993	$ 77,105,865	$1,751,827,734
2034	$129,614,446	$3,123,119,439	$ 78,527,899	$1,830,355,633
2035	$131,036,480	$3,254,155,919	$ 79,949,933	$1,910,305,566
2036	$141,952,425	$3,396,108,345	$ 81,529,971	$1,991,835,538
2037	$131,524,173	$3,527,632,518	$ 71,101,719	$2,062,937,257
2038	$144,422,500	$3,672,055,018	$ 84,058,033	$2,146,995,290
2039	$146,060,525	$3,818,115,543	$ 85,638,071	$2,232,633,361
2040	$148,114,574	$3,966,230,117	$ 87,692,120	$2,320,325,481
2041	$148,345,815	$4,114,575,932	$ 76,789,857	$2,397,115,338
2042	$163,040,170	$4,277,616,102	$ 91,484,212	$2,488,599,550
2043	$165,568,231	$4,443,184,334	$ 94,012,273	$2,582,611,824
2044	$167,938,289	$4,611,122,622	$ 96,382,331	$2,678,994,154
2045	$170,624,354	$4,781,746,976	$ 99,068,396	$2,778,062,550
2046	$187,991,245	$4,969,738,221	$ 102,228,472	$2,880,291,022
2047	$190,835,314	$5,160,573,535	$ 105,072,541	$2,985,363,563
2048	$194,411,415	$5,354,984,949	$ 108,706,629	$3,094,070,191
2049	$197,945,486	$5,552,930,435	$ 112,182,713	$3,206,252,904
2050	$201,895,581	$5,754,826,016	$ 116,132,808	$3,322,385,712

Notes: All figures are assessed value (at 40%).
Residential values are net of average M&O exemptions.

By dividing the total property tax bases each year by the cumulative amounts, the percentage of the total tax base amounts generated by new growth and development is calculated for each year.

These '% new growth' figures, shown on Table B-8, are used to determine the extent to which the ineligible portion of an impact fee project paid from the General Fund would represent a contribution from new growth for which it is not responsible (since the impact fees that new growth generated covered its funding responsibility). In addition, if the City adopts the new impact fees at a level less than the maximum allowed, these percentages would also apply to taxes paid by new growth and development to cover the impact fee eligible costs that will not be recovered from the impact fees that are actually assessed.

Table B-8: Share of Tax Base Generated by New Growth

Year	Fees based on Day-Night Populaton			Fees based on Housing Units		
	Total Property Tax Base	Tax Base Added by All New Growth	% New Growth	Total Net Residential Tax Base*	Net Tax Base Added by New Residential*	% New Growth
2023	$ 1,846,452,493	$ -	0.00%	$ 1,028,486,243	$ -	0.00%
2024	$ 1,932,320,666	$ 85,868,173	4.44%	$ 1,098,639,939	$ 70,153,696	6.39%
2025	$ 2,044,117,576	$ 197,665,083	9.67%	$ 1,171,005,689	$ 142,519,446	12.17%
2026	$ 2,161,463,713	$ 315,011,220	14.57%	$ 1,245,267,485	$ 216,781,242	17.41%
2027	$ 2,272,331,693	$ 425,879,200	18.74%	$ 1,313,051,124	$ 284,564,881	21.67%
2028	$ 2,384,563,721	$ 538,111,228	22.57%	$ 1,382,256,798	$ 353,770,555	25.59%
2029	$ 2,498,433,773	$ 651,981,280	26.10%	$ 1,453,042,509	$ 424,556,266	29.22%
2030	$ 2,613,725,860	$ 767,273,367	29.36%	$ 1,525,250,255	$ 496,764,012	32.57%
2031	$ 2,738,916,199	$ 892,463,706	32.58%	$ 1,599,354,047	$ 570,867,804	35.69%
2032	$ 2,865,370,569	$ 1,018,918,076	35.56%	$ 1,674,721,870	$ 646,235,627	38.59%
2033	$ 2,993,504,993	$ 1,147,052,500	38.32%	$ 1,751,827,734	$ 723,341,491	41.29%
2034	$ 3,123,119,439	$ 1,276,666,946	40.88%	$ 1,830,355,633	$ 801,869,390	43.81%
2035	$ 3,254,155,919	$ 1,407,703,426	43.26%	$ 1,910,305,566	$ 881,819,323	46.16%
2036	$ 3,396,108,345	$ 1,549,655,852	45.63%	$ 1,991,835,538	$ 963,349,295	48.36%
2037	$ 3,527,632,518	$ 1,681,180,025	47.66%	$ 2,062,937,257	$ 1,034,451,014	50.14%
2038	$ 3,672,055,018	$ 1,825,602,525	49.72%	$ 2,146,995,290	$ 1,118,509,047	52.10%
2039	$ 3,818,115,543	$ 1,971,663,050	51.64%	$ 2,232,633,361	$ 1,204,147,118	53.93%
2040	$ 3,966,230,117	$ 2,119,777,624	53.45%	$ 2,320,325,481	$ 1,291,839,238	55.67%
2041	$ 4,114,575,932	$ 2,268,123,439	55.12%	$ 2,397,115,338	$ 1,368,629,095	57.09%
2042	$ 4,277,616,102	$ 2,431,163,609	56.83%	$ 2,488,599,550	$ 1,460,113,307	58.67%
2043	$ 4,443,184,334	$ 2,596,731,841	58.44%	$ 2,582,611,824	$ 1,554,125,581	60.18%
2044	$ 4,611,122,622	$ 2,764,670,129	59.96%	$ 2,678,994,154	$ 1,650,507,911	61.61%
2045	$ 4,781,746,976	$ 2,935,294,483	61.39%	$ 2,778,062,550	$ 1,749,576,307	62.98%
2046	$ 4,969,738,221	$ 3,123,285,728	62.85%	$ 2,880,291,022	$ 1,851,804,779	64.29%
2047	$ 5,160,573,535	$ 3,314,121,042	64.22%	$ 2,985,363,563	$ 1,956,877,320	65.55%
2048	$ 5,354,984,949	$ 3,508,532,456	65.52%	$ 3,094,070,191	$ 2,065,583,948	66.76%
2049	$ 5,552,930,435	$ 3,706,477,942	66.75%	$ 3,206,252,904	$ 2,177,766,661	67.92%
2050	$ 5,754,826,016	$ 3,908,373,523	67.91%	$ 3,322,385,712	$ 2,293,899,469	69.04%

Notes: All figures are assessed value (at 40%).
Residential values are net of M&O exemptions.

* Annual figures reflect an average M&O exemption of ... 8.38%

Application of Tax Credits Against Impact Fees

As discussed in this Appendix, as the city grows, new development will add to the property tax base every year and will thus represent an ever-increasing proportion of the total taxable values.

Table B-9 summarizes the percentage increase in taxable value created each year from residential development (new housing units) and from all new residential and value-added nonresidential development together (the 'day-night population'). The figures were calculated on Table B-8 and shown on Table B-9 for simplicity.

Table B-9: Credit Percentages

Year	For Fees Based on:	
	Day- Night Population	Housing Units
2023	0.00%	0.00%
2024	4.44%	6.39%
2025	9.67%	12.17%
2026	14.57%	17.41%
2027	18.74%	21.67%
2028	22.57%	25.59%
2029	26.10%	29.22%
2030	29.36%	32.57%
2031	32.58%	35.69%
2032	35.56%	38.59%
2033	38.32%	41.29%
2034	40.88%	43.81%
2035	43.26%	46.16%
2036	45.63%	48.36%
2037	47.66%	50.14%
2038	49.72%	52.10%
2039	51.64%	53.93%
2040	53.45%	55.67%
2041	55.12%	57.09%
2042	56.83%	58.67%
2043	58.44%	60.18%
2044	59.96%	61.61%
2045	61.39%	62.98%
2046	62.85%	64.29%
2047	64.22%	65.55%
2048	65.52%	66.76%
2049	66.75%	67.92%
2050	67.91%	69.04%

Funds on Hand

The City has impact fee monies from previous collections in its various impact fee accounts. To the extent that the funds have not been earmarked for previous impact fee projects, the amounts will be applied to new impact fee costs as a credit. The most recently reported fund balances are shown on Table B-10 per the Annual CIE Update Report of March 6, 2024.

Table B-10: Impact Fee Fund Balances

Fire Department	Police Department	Parks & Recreation	Total
$ 1,055,165.19	$ 908,476.78	$ 1,102,263.49	$ 3,065,905.46

Fund Balances as of June 30, 2023

Glossary

The following terms used in this Report are based on those in the Georgia Development Impact Fee Act. Additional definitions of residential and nonresidential uses follow, based on the *Trip Generation Manual*, Institute of Transportation Engineers, 11th Edition (ITE).[5]

Capital improvement: an improvement with a useful life of ten years or more, by new construction or other action, which increases the service capacity of a public facility.

Capital improvements element: a component of a comprehensive plan adopted pursuant to Chapter 70 of the Development Impact Fee Act which sets out projected needs for system improvements during a planning horizon established in the comprehensive plan, a schedule of capital improvements that will meet the anticipated need for system improvements, and a description of anticipated funding sources for each required improvement.

Development: any construction or expansion of a building, structure, or use, any change in use of a building or structure, or any change in the use of land, any of which creates additional demand and need for public facilities.

Development impact fee: a payment of money imposed upon development as a condition of development approval to pay for a proportionate share of the cost of system improvements needed to serve new growth and development.

Eligible facilities: capital improvements in the following categories (McDonough in bold):

(A) Water supply production, treatment, and distribution facilities;

(B) Waste-water collection, treatment, and disposal facilities;

(C) Roads, streets, and bridges, including rights of way, traffic signals, landscaping, and any local components of state or federal highways;

(D) Storm-water collection, retention, detention, treatment, and disposal facilities, flood control facilities, and bank and shore protection and enhancement improvements;

(E) Parks, open space, and recreation areas and related facilities;

(F) Public safety facilities, including police, fire, emergency medical, and rescue facilities; and

(G) Libraries and related facilities.

Impact Cost: the proportionate share of capital improvements costs to provide service to new growth, less any applicable credits.

[5] **Where uncertainty exists or interpretation is needed, reference to the definitions in the City's Zoning Ordinance, or a source document such as the *North American Industrial Classification System* (from the U.S. Office of Management and Budget available on the U.S. Census Bureau website), or a comprehensive dictionary (such as the *New Oxford American Dictionary* or Webster's *American Dictionary of the English Language*) may be helpful as an objective means of distinguishing among the types of land uses set out in the schedules.**

Impact Fee: the impact cost plus surcharges for program administration and recoupment of the cost to prepare the Capital Improvements Element.

Level of service: a measure of the relationship between service capacity and service demand for public facilities in terms of demand to capacity ratios or the comfort and convenience of use or service of public facilities or both.

Project improvements: site improvements and facilities that are planned and designed to provide service for a particular development project and that are necessary for the use and convenience of the occupants or users of the project and are not system improvements. The character of the improvement shall control a determination of whether an improvement is a project improvement or system improvement and the physical location of the improvement on site or off site shall not be considered determinative of whether an improvement is a project improvement or a system improvement. If an improvement or facility provides or will provide more than incidental service or facilities capacity to persons other than users or occupants of a particular project, the improvement or facility is a system improvement and shall not be considered a project improvement. No improvement or facility included in a plan for public facilities approved by the governing body of the municipality or county shall be considered a project improvement.

Proportionate share: means that portion of the cost of system improvements which is reasonably related to the service demands and needs of the project.

Rational Nexus: the clear and fair relationship between fees charged and services provided.

Service area: 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.

System improvement costs: costs incurred to provide additional public facilities capacity needed to serve new growth and development for planning, design and engineering related thereto, including the cost of constructing or reconstructing system improvements or facility expansions, including but not limited to the construction contract price, surveying and engineering fees, related land acquisition costs (including land purchases, court awards and costs, attorneys' fees, and expert witness fees), and expenses incurred for qualified staff or any qualified engineer, planner, architect, landscape architect, or financial consultant for preparing or updating the capital improvement element, and administrative costs, provided that such administrative costs shall not exceed 3 percent of the total amount of the costs. Projected interest charges and other finance costs may be included if the impact fees are to be used for the payment of principal and interest on bonds, notes, or other financial obligations issued by or on behalf of the municipality or county to finance the capital improvements element but such costs do not include routine and periodic maintenance expenditures, personnel training, and other operating costs.

System improvements: capital improvements that are public facilities and are designed to provide service to the community at large, in contrast to 'project improvements'.

Residential Land Use Definitions

Land Use Category	ITE Code	Description
Single-Family Detached Housing	210	A single-family detached housing site includes any single-family detached home on an individual lot.
Single-Family Attached Housing (aka duplex or triplex)	215	Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.
Multi-Family Housing (Low-Rise)	220	Low-rise multi-family housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwellings and that have two or three floors (levels).
Multi-Family Housing (Mid-Rise)	221	Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, lobby, elevator, and a set of hallways.
Multi-Family Housing (High-Rise)	222	High-rise multifamily housing includes apartments, townhouses, and condominiums. Each building has more than 10 floors of living space. Access to individual dwelling units is through an outside building entrance, lobby, elevator, and a set of hallways.
Affordable Housing	223	Affordable housing includes all multifamily housing that is rented at below market rate to households that include at least one employed member. Eligibility to live in affordable housing can be a function of limited household income and resident age.
Off-Campus Student Apartment (Low-Rise)	225	An off-campus student apartment (low-rise) houses college or university students in structures with two or three floors of living space. The apartments are typically rented by the bedroom and most contain a common area or shared living space (living room, kitchen, dining area). Each bedroom typically has a private bath. These apartments are sometimes called independent bedroom apartments.
Off-Campus Student Apartment (Mid-Rise)	226	An off-campus student apartment (mid-rise) complex houses college or university students in structures with between four and 10 floors of living space. The apartments are typically rented by the bedroom and most contain a common area or shared living space (living room, kitchen, dining area). Each bedroom typically has a private bath. These apartments are sometimes called independent bedroom apartments.
Low-Rise Residential with Ground-Floor Commercial	230	This is a mixed-use multifamily housing building with two or three floors of residential living space and commercial space open to the public on the ground level. These facilities are typically found in dense multi-use urban and city center core settings.
Mid-Rise Residential with Ground-Floor Commercial	231	This is a mixed-use multifamily housing building with between four and 10 floors of residential space and commercial space open to the public on the ground level. These facilities are typically found in dense multi-use urban and city center core settings.

Land Use Category	ITE Code	Description
Mobile Home Park	240	A mobile home park generally consists of manufactured homes that are sited and installed on permanent foundations. The mobile home park typically includes community facilities such as a recreation room, swimming pool, and laundry facilities.
Senior Adult Housing—Single-Family	251	These are independent living developments that are called various names including retirement communities, age-restricted housing, and active adult communities. The development has a specific age restriction for its residents, typically a minimum of 55 years of age for at least one resident of the household. Residents in these communities are typically considered active and requiring little to no medical supervision. The dwelling units can be either detached or attached, and may include amenities such as a golf course, swimming pool, 24-hour security, transportation, and common recreation facilities.
Senior Adult Housing—Multi-Family	252	These are independent living developments that are called various names including retirement communities, age-restricted housing, and active adult communities. The development has a specific age restriction for its residents, typically a minimum of 55 years of age for at least one resident of the household. Residents in these communities are typically considered active and requiring little to no medical supervision. The dwelling units share both floors and walls with other units in the residential building.
Congregate Care Facility	253	This is an independent living development that provides centralized amenities such as dining, housekeeping, communal transportation, and organized social/recreational activities. Each individual dwelling unit often has a kitchenette. Assistance is typically available for housekeeping or minor household maintenance. Limited medical services (such as nursing and dental) may or may not be provided. The resident may contract additional medical services or personal assistance.
Assisted Living	254	An assisted living complex is a residential setting that provides either routine general protective oversight or assistance with activities necessary for independent living to persons with mental or physical limitations. The typical resident has difficulty managing in an independent living arrangement but does not require nursing home care. Its centralized services typically include dining, housekeeping, social and physical activities, medication administration, and communal transportation. The complex commonly provides separate living quarters for each resident. Alzheimer's and ALS care are commonly offered at an assisted living facility; living quarter for these patients may be located separately from the other residents. Assisted care commonly bridges the gap between independent living and a nursing home. (See ITE 620 under nonresidential uses.) This use is sometimes known as personal care, residential care, or domiciliary care.
Continuing Care Retirement Community (CCRC)	255	This land use provides multiple elements of senior adult living. A CCRC enables a resident to transition in place from independent living to increased care as the medical needs of the resident change. Housing options may include various combinations of senior adult housing (both

Land Use Category	ITE Code	Description
		single-family and multi-family), congregate care, assisted living, and nursing homes. The community may also contain special services such as medical, dining, recreational, communal transportation, and some limited supporting retail facilities. A CCRC is usually a self-contained village.
Recreational Homes	260	This is either (1) a second home used by its owner periodically for recreation or (2) a home rented by its owner to others on a short-term or seasonal basis. Some sites are located within a resort that contains local services and complete recreational facilities. Recreational homes are distinguished from timeshares (ITE 265).
Timeshare	265	A timeshare is a development where multiple purchasers buy interests in the same property and each purchaser receives the right to use the facility for a period of time each year. The shared property is commonly a vacation or recreational condominium
Residential Planned Unit Development	270	A residential planned unit development (PUD) is defined as containing any combination of residential land uses. These uses might also contain supporting services such as limited retail and recreational facilities.

Nonresidential Land Use Definitions

Land Use Category	ITE Code	Description
All Suites Hotel	311	Places of lodging for travelers and tourists that provide sleeping accommodations, a small restaurant and lounge, and a small amount of meeting space. Each suite includes a sitting room and separate bedroom. An in-room kitchen is often provided. *In contrast, see Hotel or Conference Hotel (ITE 310) and Motel (ITE 320).*
Amusement Park	480	An outdoor facility that contains rides, entertainment, refreshment stands, and picnic areas.
Auto Parts Store	843	Retail store specializing in the sale of automobile parts for maintenance and repair. The facilities within this land use are not typically equipped for on-site vehicle repair. *In contrast, see Automobile Parts and Service (ITE 943) and Tire Store (ITE 848).*
Automobile Parts and Service	943	Facilities specializing in the sale of automobile parts for do-it-yourself maintenance and repair including tires, batteries, oil, and spark plugs. A full array of on-site services for motor vehicles is also available. An automotive parts and service center may also sell automobile parts to retailers and repair facilities. *In contrast, see Auto Parts Store (ITE 843) and Tire Store (ITE 848).*
Automobile Sales (New)	840	Dealerships offering new cars for sale or lease. Automobile services, parts sales, and used car sales may also be available. Some dealerships also provide truck sales and servicing. *In contrast, see Automobile Sales, Used (ITE 841) and Recreational Vehicle Sales (ITE 842).*
Automobile Sales (Used)	841	Dealerships offering used cars for sale or lease. Automobile services, parts sales may also be available. Some dealerships also provide truck sales and servicing. *In contrast, see Automobile Sales, New (ITE 840) and Recreational Vehicle Sales (ITE 842).*
Building Materials and Lumber Store	812	A free-standing building that sells hardware, building materials and lumber. The lumber may be stored in the main building or in a yard or storage sheds. *In contrast, see Hardware/Paint Store (ITE 816).*
Business Park	770	A group of flex-type or incubator one- or two-story buildings served by a common roadway system. The tenant space is flexible and lends itself to a variety of uses, although a greater percentage of uses is typically industrial/warehousing. The rear side of the building is often served by a garage door. Tenants may be start-up companies or small mature companies that require a variety of space. The space may include offices, retail and wholesale stores, restaurants, recreational areas and warehousing, manufacturing, light industrial, or scientific research functions. *In contrast, see Office Park (ITE 750) and Research and Development Center (ITE 760).*

Land Use Category	ITE Code	Description
Car Wash & Detail Center	949	A facility that provides for the manual cleaning of the exterior of vehicles as well as interior car-detailing services. *In contrast, see Self-Service Car Wash (ITE 945).*
Cemetery	566	A place for burying the deceased, possibly including buildings used for funeral services, a mausoleum, and a crematorium.
Church/Place of Worship	560	A building in which public worship services are held. A church, synagogue or any other religious facility generally houses an assembly hall or sanctuary and may also house meeting rooms, classrooms, and, occasionally, dining, catering, or event facilities. Some may offer day care or extended care programs during the week.
Clinic	630	A facility that provides limited diagnostic and outpatient care but is unable to provide prolonged in-house medical and surgical care. A clinic may have a lab facility and supporting pharmacy. *In contrast, see Hospital (ITE 610) and Medical-Dental Office Building (ITE 720).*
Convenience Store with Gas	945	A facility with a co-located convenience store and gas station. The convenience store sells groceries and other everyday items that a person may need or want as a matter of convenience. Some stores offer limited seating. The gas station sells automotive fuels such as gasoline and diesel. Extended hours of operation (with many open 24 hours, 7 days a week) are common at these facilities. The sites in this land use include both self-pump and attendant-pumped fueling positions and both pre-pay and post-pay operations. *In contrast, see Gasoline/Service Station (944) and Truck Stop (ITE 950).*
Corporate Headquarters Building	714	A single tenant office building that houses the corporate headquarters of a company or organization, which generally consists of offices, meeting rooms, space for file storage and data processing, an employee restaurant or cafeteria, and other service functions. This category includes a regional headquarters building of a state-wide or national company. *In contrast, see General Office Building (ITE 710) and Single-Tenant Office Building (ITE 715).*
Daycare Center	565	A facility that cares for preschool age children, normally during the daytime hours. The facility generally includes classrooms, offices, eating areas, and a playground. After-school care for school age children may also be provided.
Discount Club	857	A discount store or warehouse where shoppers pay a membership fee in order to take advantage of discounted prices on a wide variety of items such as food, clothing, household items, tires and appliances; many items are sold in large quantities or bulk.
Drive-in Bank	912	Contains banking facilities for both the motorist while in a vehicle, and someone who walks into the building. The drive-in lanes may or may not provide an automatic teller machine (ATM).

Land Use Category	ITE Code	Description
Fast Casual Restaurant	930	A sit-down restaurant with no (or very limited) wait staff or table service. A customer typically orders off a menu board, pays for food before the food is prepared, and seats themselves. The menu generally contains higher-quality, made-to-order food items with fewer frozen or processed ingredients than at a fast-food restaurant. Most patrons eat their meal within the restaurant, but a significant proportion of the restaurant sales can be carry-out orders. *In contrast, see Fast Food Restaurant (ITE 934), Fine Dining Restaurant (ITE 931), and High-Turnover (Sit Down) Restaurant (ITE 932).*
Fast Food Restaurant	934	Any fast-food restaurant with a drive-through window. This type of restaurant is characterized by a large drive-through and large carry-out clientele, long hours of service and high turnover rates for eat-in customers. The restaurant does not provide table service. A patron generally orders from a menu board and pays before receiving the meal. *In contrast, see Fast Casual Restaurant, (ITE 930), Fine Dining Restaurant (931) and High-Turnover (Sit Down) Restaurant (ITE 932).*
Fine-Dining Restaurant	931	A full-service eating establishment with a typical duration of stay of at least 1 hour. A fine dining restaurant generally does not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires a reservation and is generally not part of a chain. A patron commonly waits to be seated, is served by wait staff, orders from a menu and pays after the meal. Some sites have lounge or bar facilities (serving alcoholic beverages), but meal service is the primary draw to the restaurant. *In contrast, see Fast Casual Restaurant (930), Fast Food Restaurant (ITE 934), and High-Turnover (Sit Down) Restaurant (ITE 932).*
Free-Standing Discount Store	815	A retail store that generally offers centralized cashiering and sells products that are advertised at discount prices. Discount stores offer a variety of customer services and typically maintain long store hours 7 days a week. The stores included in this land use are often the only ones on the site but they can also be found in mutual operation with a related or unrelated garden center and/or service station. A free-standing discount store can also be found on a separate parcel within a retail complex. *In contrast, see Variety Store (ITE 814).*
Furniture Store	890	A full-service retail facility that specializes in the sale of furniture and often carpeting. A furniture store is generally large and may include storage areas. Both traditional retail furniture stores and warehouse stores with showrooms are included in this category. Although some home accessories may be sold, a furniture store primarily focuses on the sale of pre-assembled furniture. A majority of items sold at these facilities are ordered for delivery.

Land Use Category	ITE Code	Description
Gasoline/Service Station	944	A gasoline/service station where the primary business is the fueling of motor vehicles. The sites included generally have a small building (less than 2,000 gross square feet) that houses a cashier and limited space for motor vehicle maintenance supplies and general convenience products. Service stations may also have ancillary facilities for servicing and repairing motor vehicles, as well as a car wash. *In contrast, see Convenience Store with Gas (ITE 945) and Truck Stop (ITE 950).*
General Light Industrial	110	A free-standing facility with minimal office space devoted to a single industrial use, but having an emphasis on activities other than manufacturing. Typical light industrial activities include printing, material testing, and assembly of data processing equipment. *In contrast, see Manufacturing (ITE 140).*
General Office Building	710	Office building greater than 10,000 square feet and where affairs of a business, commercial or industrial organization, professional person or firm are conducted. The building is designed to contain multiple tenants that can include, as examples, professional services, insurance companies, investment brokers, a banking institution, a restaurant, or other service retailers. *In contrast, see Business Park and Corporate Headquarters Building, above, and Medical-Dental Office Building, Office Park, Research and Development Center, and Single-Tenant Office Building)*
Hardware/Paint Store	816	A free-standing building that sells hardware and paint supplies. *(In contrast, see Building Materials and Lumber Store, above.)*
High Cube Warehouse		A high-cube warehouse (HCW) is a building used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. The warehouse typically has a ceiling height of 24 feet or more and has a high level of on-site automation and logistics management. The warehouse can be free-standing or located in an industrial park. The amount of office/employee welfare space is typically an insignificant portion of the overall building square footage
High Cube Parcel Hub Warehouse	156	A high-cube warehouse (HCW) that serves as a regional and local freight-forwarder facility for time sensitive shipments via airfreight and ground carriers. A site can also include truck maintenance, wash, or fueling facilities. Some limited assembly and repackaging may occur within the facility. *In contrast, see High-Cube Warehouse, Fulfillment (ITE 155), High-Cube Warehouse, Short-Term (ITE 154) and Warehousing (150).*
High-Cube Warehouse, Fulfillment	155	A high-cube warehouse (HCW; see footnote) with either a sort or non-sort facility. A sort facility is a fulfillment center that ships out smaller items, requiring extensive sorting, typically by manual means. A non-sort facility is a fulfillment center that ships large box items that are processed primarily with automation rather than through manual means. Some limited assembly and repackaging may occur within the facility. *In contrast, see High-Cube Parcel Hub Warehouse (ITE 156), High-Cube Warehouse, Short-Term (ITE 154) and Warehousing (ITE 150).*

Land Use Category	ITE Code	Description
High-Cube Warehouse, Short-Term	154	A high-cube warehouse (HCW; see footnote) that is a distribution facility for the movement of large volumes of freight with only short-term storage of products. Some limited assembly and repackaging may occur within the facility. *In contrast, see High-Cube Parcel Hub Warehouse (ITE 156), High-Cube Warehouse, Fulfillment (ITE 155) and Warehousing (ITE 150).*
High-Turnover (Sit-Down) Restaurant	932	Sit-down, full-service eating establishments with a typical duration of stay of 60 minutes or less. This type of restaurant is usually moderately priced, frequently belongs to a restaurant chain, and is commonly referred to as casual dining. Generally, these restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours a day. These restaurants typically do not accept reservations. A patron commonly waits to be seated, is served by wait staff, orders from a menu, and pays after the meal. Some facilities offer carry-out for a small proportion of its customers. Some facilities may also contain a bar area for serving food and alcoholic drinks. *In contrast, see Fast Casual Restaurant (ITE 930), Fast Food Restaurant (934), and Fine Dining Restaurant (ITE 931).*
Hospital	610	Any institution where medical or surgical care and overnight accommodation is given to nonambulatory and ambulatory patients. *In contrast, see Clinic (ITE 630) and Medical-Dental Office Building (ITE 720).*
Hotel or Conference Hotel	310	A place of lodging for travelers and tourists that provides sleeping accommodations and supporting facilities such as a full-service restaurant, shops, cocktail lounge, meeting rooms, banquet room, and convention facilities. A swimming pool or another recreational facility such as a fitness room is also typically provided. *In contrast, see All-Suites Hotel (ITE 311) and Motel (ITE 320).*
Manufacturing	140	Facility where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to actual production of goods, a manufacturing facility typically has an office and may provide space for warehouse, research, and associated functions. *In contrast, see General Light Industrial (ITE 110).*
Medical-Dental Office Building	720	A facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical or surgical care. One or more private physicians or dentists generally operate this type of facility. *In contrast, see Clinic (ITE 630) and General Office Building (ITE 710).*
Motel	320	A place of lodging for travelers and tourists that provides sleeping accommodations and provides little or no meeting space and few supporting facilities. Exterior corridors accessing rooms (immediately adjacent to a parking lot) is common for a motel. *In contrast, see All Suites Hotel (ITE 311) and Hotel or Conference Hotel (ITE 310).*
Movie Theater	445	A building where movies are screened for public entertainment. A theater includes a lobby, refreshment area, and audience seating for each movie screen.

Land Use Category	ITE Code	Description
Nursery (Garden Center)	817	A free-standing building with an outside storage area for planting or landscape stock that primarily serves the general public. Some have large greenhouses and offer landscaping services. Most have office, storage, and shipping facilities. *In contrast, see Nursery (Wholesale), ITE 818.*
Nursery (Wholesale)	818	A free-standing building with an outside storage area for planting or landscape stock that primarily serves contractors and suppliers. Some have large greenhouses and offer landscaping services. Most have office, storage, and shipping facilities. *In contrast, see Nursery (Garden Center), ITE 817.*
Nursing Home	620	A facility whose primary function is to provide 24-hour per day care for persons unable to care for themselves. The term is applicable not only to rest homes, but also to chronic care and convalescent homes. Assisted living and continuing care retirement communities can be included in this category.
Office Park	750	General office buildings and support services, such as banks, restaurants, and service stations, arranged in a park- or campus-like atmosphere. *In contrast, see Business Park (ITE 770) and Research and Development Center (760).*
Pharmacy/Drugstore – no drive through	880	A retail facility that primarily sells prescription and non-prescription drugs. A pharmacy/drugstore also typically sells cosmetics, toiletries, medications, stationery, personal care products, limited food products, and general merchandise.
Pharmacy/Drugstore – with drive through	881	A pharmacy/drugstore (see above) with a drive-through window.
Private Elementary School	520	A privately owned, state accredited school that serves students attending kindergarten through fifth or sixth grade.
Private High School	534	A privately owned, state accredited school that serves students who have completed middle school / junior high school.
Private Middle School (Junior High)	522	A privately owned, state accredited school that serves students who have completed elementary school and have not yet entered high school.
Quick Lubrication Vehicle Shop	941	A business where the primary activity is to perform oil change services for vehicles. Other ancillary services may include preventive maintenance, such as fluid and filter changes. Automobile repair service is generally not provided. *In contrast, see Automobile Parts & Service (ITE 943).*
Racquet/Tennis Club	491	A membership-based indoor or outdoor facility that primarily caters to racquet sports (tennis, racquetball, pickle ball, handball, squash), and may include ancillary facilities such as whirlpools, saunas, weight rooms, snack bars, small retail stores, and daycare.

Land Use Category	ITE Code	Description
Recreational Community Center	495	A stand-alone facility similar to and including YMCAs. These facilities often include classes and clubs for adults and children, a day care or nursery school, meeting rooms and other social facilities, swimming pools and whirlpools, saunas, tennis, racquetball, handball, pickle ball, basketball and volleyball courts; outdoor athletic fields/courts, exercise classes, weightlifting and gymnastics equipment, locker rooms, and a restaurant or snack bar. Public access is typically allowed and a membership fee may be charged.
Recreational Vehicle (RV) Sales	842	A free-standing facility that specializes in the sales of new RVs. Recreational vehicle services, parts and accessories sales, and substantial used RV sales may also be available. Some RV dealerships may also include boat sales and servicing. *In contrast, see Automobile Sales, New (ITE 840) and Automobile Sales, Used (ITE 841).*
Research & Development Center	760	A facility or group of facilities devoted almost exclusively to research and development activities. While they may also contain offices and some light fabrication areas, the primary function is that of scientific research and product or business development. *In contrast, see Office Park (ITE 750) and Business Park (ITE 770).*
Self-Service Car Wash	945	Facility that allows for the manual cleaning of vehicles by providing stalls for the driver to park and wash the vehicle*. In contrast, see Car Wash & Detail Center (ITE 949).*
Shopping Center	820	An integrated group of commercial establishments that is planned, developed, owned and managed as a unit and often has more than one anchor store. It is related to its market area in terms of size, location, and type of store. *Individual stores, recreational facilities, movie theaters, office space, eating establishments and other uses located within a shopping center building are each charged the shopping center impact fee rate* because the rate already assumes a wide variety of uses that are commonly found in shopping centers. *In contrast, see Strip Retail Plaza (ITE 822).*
Single-Tenant Office Building	715	A free-standing building exclusively occupied by a single business or company and generally contains its offices, meeting rooms, space for file storage and data processing, and possibly other service functions including an employee restaurant or cafeteria. *In contrast, see General Office Building (ITE 710), Corporate Headquarters Building (ITE 714), and Small Office Building (ITE 172).*
Small Office Building	712	A smaller-scale office building (generally, 10,000 square feet of gross floor area or less) that typically houses a single tenant. It is a location where affairs of a business, commercial or industrial organization, or professional person or firm are conducted. *In contrast, see General Office Building (ITE 710), Corporate Headquarters Building (ITE 714), and Single-Tenant Office Building (ITE 715).*

Land Use Category	ITE Code	Description
Specialty Trade Contractor	180	A business primarily involved in providing contract repairs and services to meet industrial or residential needs. This land use includes businesses that provide the following services: plumbing, heating and cooling, machine repair, electrical and mechanical repair, industrial supply, roofing, locksmith, weed and pest control, and cleaning.
Sporting Goods Superstore	861	A free-standing facility that specializes in the sale of athletic and outdoor-oriented merchandise. It typically offers a variety of customer services and centralized cashiering and maintains long store hours 7 days a week. Examples of items sold in these stores include outdoor/athletic clothing, sports equipment, shoes, and hunting/boating/fishing gear. Some may also carry automotive supplies.
Strip Retail Plaza	822	An integrated, open-air group of commercial establishments that is planned, developed, owned, and managed as a unit. Strip retail plazas are smaller than shopping centers and do not contain a supermarket or other major tenant "anchor". *Individual establishments located within a strip retail plaza building are each charged the strip retail plaza impact fee rate* because the rate already assumes a wide variety of uses that are commonly found in shopping centers. *In contrast, see Shopping Center (ITE 820).*
Supermarket	850	A free-standing retail store that sells a complete assortment of food, beverage, food preparation materials, and household products. A supermarket may also provide additional products and services such as a bakery, dry cleaning, floral arrangements, greeting cards, a limited-service bank, and a pharmacy. This category includes both traditional supermarkets and discount supermarkets.
Tire Store	848	Primary business is the sales and marketing of tires for automotive vehicles. Services offered by these stores usually include tire installation and repair, as well as other limited automotive maintenance or repair services as an accessory use. These stores generally do not contain large storage or warehouse areas. *In contrast, see Auto Parts Store (ITE 843) and Automotive Parts & Service (ITE 943).*
Truck Stop	950	A facility located adjacent to an interstate highway interchange that provides commercial vehicle fueling, space and supplies for self-service vehicle maintenance, and other services specific to the needs of truckers (e.g., showers, on-site truck parking area). The facility typically contains a convenience store, restroom facilities, and one or more restaurants (either fast-food or high-turnover sit-down). *In contrast, see Convenience Store with Gas (ITE 945) and Gasoline/Service Station (ITE 944).*
University		A 4-year university or college that may or may not offer graduate programs.

Land Use Category	ITE Code	Description
Variety Store	814	A retail store that sells a broad range of inexpensive items often at a uniform price. A variety store is commonly referred to as a "dollar store." Items typically sold at a variety store include kitchen supplies, cleaning products, home office supplies, food products, household goods, decorations, and toys. *In contrast, see Free-Standing Discount Store (ITE 815).*
Veterinary Clinic	640	A facility that specializes in the medical care and treatment of animals. Includes the term "Animal Hospital."
Warehousing	150	A facility that is primarily devoted to the storage of materials, but it may also include office and maintenance areas. *In contrast, see High-Cube Warehouse classifications (ITE 156,155 and 154).*