

Parks and Recreation Impact Fee Study

**Prepared for:
Zebulon, North Carolina**

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EXECUTIVE SUMMARY

The Town of Zebulon retained TischlerBise to prepare a parks and recreation impact fee. Impact fees are collected from new construction and used to construct system improvements needed to accommodate new development. An impact fee represents future development’s proportionate share of capital facility needs.

Impact fees do have limitations and should not be regarded as the total solution for infrastructure funding. Rather, they are one component of a comprehensive funding strategy to ensure provision of adequate public facilities. Impact fees may only be used for capital improvements or debt service for growth-related infrastructure. In contrast to general taxes, impact fees may not be used for operations, maintenance, replacement of infrastructure, or correcting existing deficiencies.

GENERAL LEGAL FRAMEWORK

Both state and federal courts have recognized the imposition of impact fees as a legitimate form of land use regulation, provided the fees meet standards intended to protect against regulatory takings. Land use regulations, development exactions, and impact fees are subject to the Fifth Amendment prohibition on taking of private property for public use without just compensation. To comply with the Fifth Amendment, development regulations must be shown to substantially advance a legitimate governmental interest. In the case of impact fees, that interest is in the protection of public health, safety, and welfare by ensuring development is not detrimental to the quality of essential public services. The means to this end are also important, requiring both procedural and substantive due process. The process followed to receive community input (i.e., stakeholder meetings, work sessions, and public hearings) provides opportunities for comments and refinements to the impact fees.

There is little federal case law specifically dealing with impact fees, although other rulings on other types of exactions (e.g., land dedication requirements) are relevant. In one of the most important exaction cases, the U. S. Supreme Court found that a government agency imposing exactions on development must demonstrate an “essential nexus” between the exaction and the interest being protected (see *Nollan v. California Coastal Commission*, 1987). In a more recent case (*Dolan v. Town of Tigard, OR*, 1994), the Court ruled that an exaction also must be “roughly proportional” to the burden created by development. However, the *Dolan* decision appeared to set a higher standard of review for mandatory dedications of land than for monetary exactions such as impact fees.

There are three reasonable relationship requirements for impact fees that are closely related to “rational nexus” or “reasonable relationship” requirements enunciated by a number of state courts. Although the term “dual rational nexus” is often used to characterize the standard by which courts evaluate the validity of impact fees under the U.S. Constitution, we prefer a more rigorous formulation that recognizes three elements: “need,” “benefit,” and “proportionality.” The dual rational nexus test explicitly addresses only the first two, although proportionality is reasonably implied, and was specifically mentioned by the U.S. Supreme Court in the *Dolan* case. Individual elements of the nexus standard are discussed further in the following paragraphs.

All new development in a community creates additional demands on some, or all, public facilities provided by local government. If the capacity of facilities is not increased to satisfy that additional demand, the

quality or availability of public services for the entire community will deteriorate. Impact fees may be used to recover the cost of development-related facilities, but only to the extent that the need for facilities is a consequence of development that is subject to the fees. The *Nollan* decision reinforced the principle that development exactions may be used only to mitigate conditions created by the developments upon which they are imposed. That principle clearly applies to impact fees. In this study, the impact of development on infrastructure needs is analyzed in terms of quantifiable relationships between various types of development and the demand for specific capital facilities, based on applicable level-of-service standards.

The requirement that exactions be proportional to the impacts of development was clearly stated by the U.S. Supreme Court in the *Dolan* case and is logically necessary to establish a proper nexus. Proportionality is established through the procedures used to identify development-related facility costs, and in the methods used to calculate impact fees for various types of facilities and categories of development. The demand for capital facilities is measured in terms of relevant and measurable attributes of development (e.g., a typical housing unit's average weekday vehicle trips).

A sufficient benefit relationship requires that impact fee revenues be segregated from other funds and expended only on the facilities for which the fees were charged. Impact fees must be expended in a timely manner and the facilities funded by the fees must serve the development paying the fees. However, nothing in the U.S. Constitution or the state enabling legislation requires that facilities funded with fee revenues be available *exclusively* to development paying the fees. In other words, benefit may extend to a general area including multiple real estate developments. Procedures for the earmarking and expenditure of fee revenues are discussed near the end of this study. All of these procedural as well as substantive issues are intended to ensure that new development benefits from the impact fees they are required to pay. The authority and procedures to implement impact fees is separate from and complementary to the authority to require improvements as part of subdivision or zoning review.

As documented in this report, the Town of Zebulon has complied with applicable legal precedents. Impact fees are proportionate and reasonably related to the capital improvement demands of new development. Specific costs have been identified using local data and current dollars. With input from Town staff, TischlerBise identified demand indicators for each type of infrastructure and calculated proportionate share factors to allocate costs by type of development. This report documents the formulas and input variables used to calculate the impact fees for each type of public facility. Impact fee methodologies also identify the extent to which new development is entitled to various types of credits to avoid potential double payment of growth-related capital costs.

CONCEPTUAL IMPACT FEE CALCULATION

In contrast to project-level improvements, impact fees fund growth-related infrastructure that will benefit multiple development projects, or the entire service area (usually referred to as system improvements). The first step is to determine an appropriate demand indicator for the particular type of infrastructure. The demand indicator measures the number of service units for each unit of development. For example, an appropriate indicator of the demand for parks is population growth and the increase in population can be estimated from the average number of persons per housing unit. The second step in the impact fee

formula is to determine infrastructure improvement units per service unit, typically called level-of-service (LOS) standards. In keeping with the park example, a common LOS standard is improved park acres per thousand people. The third step in the impact fee formula is the cost of various infrastructure units. To complete the park example, this part of the formula would establish a cost per acre for land acquisition and/or park improvements.

EVALUATION OF CREDITS

Regardless of the methodology, a consideration of credits is integral to the development of a legally defensible impact fee. There are two types of credits that should be addressed in impact fee studies and ordinances. The first is a revenue credit due to possible double payment situations, which could occur when other revenues may contribute to the capital costs of infrastructure covered by the impact fee. This type of credit is integrated into the fee calculation, thus reducing the fee amount. The second is a site-specific credit or developer reimbursement for dedication of land or construction of system improvements. This type of credit is addressed in the administration and implementation of the impact fee program. For ease of administration, TischlerBise normally recommends developer reimbursements for system improvements.

GENERAL METHODOLOGIES

Impact fees for the capital improvements made necessary by new development must be based on the same level of service (LOS) provided to existing development in the service area. There are three basic methodologies used to calculate impact fees. They examine the past, present, and future status of infrastructure. The objective of evaluating these different methodologies is to determine the best measure of the demand created by new development for additional infrastructure capacity. Each methodology has advantages and disadvantages in a particular situation and can be used simultaneously for different cost components.

Reduced to its simplest terms, the process of calculating impact fees involves two main steps: (1) determining the cost of development-related capital improvements and (2) allocating those costs equitably to various types of development. In practice, though, the calculation of impact fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities within the designated service area. The following paragraphs discuss basic methodologies for calculating impact fees and how those methodologies can be applied.

- **Cost Recovery** (past improvements) - The rationale for recoupment, often called cost recovery, is that new development is paying for its share of the useful life and remaining capacity of facilities already built, or land already purchased, from which new growth will benefit. This methodology is often used for utility systems that must provide adequate capacity before new development can take place.
- **Incremental Expansion** (concurrent improvements) - The incremental expansion methodology documents current LOS standards for each type of public facility, using both quantitative and qualitative measures. This approach assumes there are no existing infrastructure deficiencies or surplus capacity. New development is only paying its proportionate share for growth-related infrastructure. Revenue will be used to expand or provide additional facilities, as needed, to

accommodate new development. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments to keep pace with development.

- **Plan-Based** (future improvements) - The plan-based methodology allocates costs for a specified set of improvements to a specified amount of development. Improvements are typically identified in a long-range facility plan and development potential is identified by a land use plan. There are two basic options for determining the cost per demand unit: (1) total cost of a public facility can be divided by total demand units (average cost), or (2) the growth-share of the public facility cost can be divided by the net increase in demand units over the planning timeframe (marginal cost).

PROPOSED IMPACT FEE METHODOLOGIES

Figure 1 summarizes the methods and cost components used for each component of the parks and recreation impact fee study.

Figure 1: Proposed Impact Fee Service Areas, Methodologies, and Cost Components

Necessary Public Service	Service Area	Cost Recovery	Incremental Expansion	Plan-Based	Cost Allocation
Parks and Recreation	Zebulon	N/A	Park Land, Park Improvements, Buildings Space	N/A	Population

PROPOSED PARKS AND RECREATION IMPACT FEE

The proposed parks and recreation impact fees are shown in Figure 2, by type of housing unit. TischlerBise does not recommend that parks and recreation impact fees be assessed on nonresidential development.

Fees shown below represent the maximum allowable fees. The Town of Zebulon may adopt fees that are less than the amounts shown; however, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital improvements and/or a decrease in the Town’s level-of-service standards. All costs are in current dollars with no assumed inflation rate over time. If cost estimates change significantly over time, impact fees should be recalibrated.

The Town’s currently adopted fee is \$2,500 per single family unit and \$2,500 per multifamily unit. This analysis reports a maximum allowable fee of \$5,194 per single family unit and \$4,576 per multifamily unit. Figure 2 below demonstrates the difference between the current and proposed impact fees.

Figure 2: Proposed Parks and Recreation Impact Fee

Development Type	Fees per Unit			
	Persons per Housing Unit ¹	Proposed Fees	Current Fees	Difference
Single Family	2.69	\$5,194	\$2,500	\$2,694
Multi-Family	2.37	\$4,576	\$2,500	\$2,076

1. See Land Use Assumptions

LAND USE ASSUMPTIONS

The Town of Zebulon retained TischlerBise to prepare this study to analyze the impacts of development on the Town’s parks and recreation capital facilities and to calculate impact fees based on that analysis. The population and housing unit projections contained in this document provide the foundation for the impact fee study. To evaluate the demand for growth-related infrastructure from various types of development, TischlerBise prepared documentation on demand indicators by type of housing unit. These metrics are the service units and demand indicators used in the impact fee study.

Impact fees are based on the need for growth-related improvements, and they must be proportionate by type of land use. The demographic data and development projections are used to demonstrate proportionality and anticipate the need for future infrastructure. Impact fee studies typically look out five to ten years, with the expectation that fees will be updated every three to five years. The estimates and projections of residential in this Land Use Assumptions document are for areas within the boundaries of Zebulon, North Carolina.

SUMMARY OF GROWTH INDICATORS

Key development projections for the Zebulon impact fee study include population and housing units. TischlerBise estimates population and housing units using data published by the U.S. Census Bureau and Town population estimates. The projections contained in this document provide the foundation for the Impact Fee Study.

These projections are used to estimate impact fee revenue and to indicate the anticipated need for growth-related infrastructure. The goal is to have reasonable projections without being overly concerned with precision. This is because impact fee methods are designed to reduce sensitivity to development projections in the determination of the proportionate-share fee amounts, if actual development is slower than projected, fee revenue will decline, but so will the need for growth-related infrastructure. In contrast, if development is faster than anticipated, Zebulon will receive more fee revenue, but will also need to accelerate infrastructure improvements to keep pace with the actual rate of development.

Persons Per Housing Unit

According to the U.S. Census Bureau, a household is a housing unit occupied by year-round residents. Impact fees often use per capita standards and persons per housing unit (PPHU) or persons per household (PPH) to derive proportionate share fee amounts. When PPHU is used in the fee calculations, infrastructure standards are derived using year-round population. When PPH is used in the fee calculations, the impact fee methodology assumes a higher percentage of housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. TischlerBise recommends that Zebulon impose impact fees for residential development according to the number of persons per housing unit.

Occupancy calculations require data on population and the types of units by structure. The 2010 census did not obtain detailed information using a “long-form” questionnaire. Instead, the U.S. Census Bureau switched to a continuous monthly mailing of surveys, known as the American Community Survey (ACS), which has limitations due to sample-size constraints. For example, data on detached housing units are now combined with attached single units (commonly known as townhouses, which share a common

sidewall, but are constructed on an individual parcel of land). For impact fees in Zebulon, detached stick-built units, attached units, and mobile home units are included in the “Single-Family” category. The second residential category includes duplexes and all other structures with two or more units on an individual parcel of land. This is referred to as “Multi-Family” category. (Note: housing unit estimates from ACS will not equal decennial census counts of units. These data are used only to derive the custom PPHU factors for each type of unit).

Figure 3 below shows the ACS 2019 5-Year Estimates for Zebulon, and population estimates provided by the town. Single-family units averaged 2.69 persons per housing unit (5,033 persons / 1,874 housing units) and multi-family units had an average of 2.37 persons per housing unit (613 persons / 259 housing units). In 2019 total housing units in Zebulon averaged 2.65 persons per housing unit.

Figure 3: Persons per Housing Unit by Type of Housing

Housing Type	Persons ³	Households	Persons per Household	Housing Units	Persons per Housing Unit	Housing Mix
Single-Family Units ¹	5,033	1,653	3.05	1,874	2.69	87.9%
Multi-Family Units ²	613	231	2.65	259	2.37	12.1%
Total	5,646	1,884	3.00	2,133	2.65	100.0%

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates, Tables B25024, B25032, B25033.

1. Includes detached, attached (i.e. townhouses), and mobile homes.
2. Includes dwellings in structures with two or more units.
3. Population estimates provided by the Town of Zebulon

Residential Estimates

To estimate the base year population and housing characteristics, TischlerBise has utilized the Town’s population estimates and ACS 5-year estimates. The Town of Zebulon projects their population in the year 2030 to be 16,790 persons. The American Community Survey 2015-2019 5-Year Estimates show a 2019 estimated population of 5,291 persons and 1,999 housing units, the Town of Zebulon prefers their population estimate of 5,646 in 2019, and applying the ACS PPHU factors yields a housing unit estimate of 2,133. Thus, the total increase in population from 2019-2030 is expected to be 11,144 persons. Dividing the total increase by the number of years in the projection period (11), yields an average annual increase of 1,013 persons per year.

To estimate the base year (2021) housing and population characteristics the average annual increase in population (1,013) is added to the 2019 ACS population estimate two times. This yields a base year population estimate of 7,672. Applying the previously discussed persons per housing unit factors to the population estimates yields a 2021 base year housing unit estimate of 2,898 housing units.

Residential Projections

As discussed previously, TischlerBise utilizes the Town’s population projections for the year 2030. Dividing the increase in persons over the projection period yields an estimated additional 1,013 persons per year in the Town of Zebulon. Applying the PPHU factors to the population projections yields housing unit

estimates for both single family and multi-family units. Figure 4 below shows the projected population and housing unit characteristics for the Town over the next ten years, and the total increase in population and housing units by type of unit. The Town is projected to grow by 10,131 persons and 3,827 housing units to the year 2031. This represents a 132 percent increase in population and housing units.

Figure 4: Residential Development Projections

Zebulon, NC	2021	2022	2023	2024	2025	2026	2031	10-Year Increase
	Base Yr	1	2	3	4	5	10	
<u>Population¹</u>								
Single Family Units	6,840	7,743	8,646	9,549	10,452	11,355	15,871	9,031
Multi-Family Units	833	943	1,053	1,163	1,273	1,383	1,933	1,100
Total	7,672	8,686	9,699	10,712	11,725	12,738	17,803	10,131
<u>Housing Units²</u>								
Single Family Units	2,546	2,883	3,219	3,555	3,891	4,228	5,909	3,362
Multi-Family Units	352	398	445	491	538	584	817	465
Total	2,898	3,281	3,664	4,047	4,429	4,812	6,725	3,827

1. Population projections based on the Town's 2030 (shaded yellow) population estimate and then dividing the increase over the projection period equally.
 2. Housing unit projections based on 2015-2019 Amercian Community Survey population and housing unit estimates and Town population projections.

PARKS AND RECREATION IMPACT FEES

METHODOLOGY

Parks and Recreation impact fees include components for park land, park improvements, and buildings space. The *incremental expansion* methodology is used for all three fee components and allocates capital costs to new development based on population. This methodology allows Zebulon to maintain the current LOS standard as growth occurs. Impact fee revenue collected using this methodology may not be used to replace or rehabilitate existing improvements.

SERVICE AREA

The Town of Zebulon provides park and recreation services townwide; therefore, there is a single service area for the Parks and Recreation impact fees.

PROPORTIONATE SHARE

Impact fees should not exceed a proportionate share of the capital cost needed to provide capital facilities to the development. Parks and Recreation impact fees allocate 100 percent of the cost of capital facilities to residential development, based on number persons by type of housing unit.

IMPACT FEE COMPONENTS

Park Land – Incremental Expansion

The Town of Zebulon plans to expand its current inventory of park land to serve future development and maintain current levels of service. The Town currently has four community parks consisting of 76.24 total acres. The Town estimates cost to purchase park land at \$60,000.

To estimate the current level of service (LOS), total park land is divided by population, to yield 0.0099 acres of park land per person. Applying the cost factors (\$60,000 per acre) to the existing LOS results in a cost per person of \$596.21 per person for park land. Figure 5 details the current inventory of park land, developed park land, and existing level of service calculation.

Figure 5: Level of Service and Cost Allocation

Description	Total Acres
Zebulon Community Park	47.58
Whitley Park	3.70
Gill St Park	1.60
Little River Park	23.36
Total	76.24

Cost Factors	
Cost per Acre - Land Acquisition	\$60,000
Cost per Acre - Total	\$60,000

Level-of-Service (LOS) Standards	
Existing Acres	76.24
2021 Population	7,672
Acres per Person	0.0099
Cost per Person	\$596.21

Source: Play Zebulon Parks & Recreation Master Plan (2020)

Developed Park Land – Incremental Expansion

As discussed above, the Town has 76.24 acres of park land. However, only 35.30 acres of that land is developed as active park land. As the Town uses impact fees to purchase additional park land, there will be a need to develop this raw land. Developed in this context aligns with the Town’s definition of “developed” as stated in their 2020 Play Zebulon Parks and Recreation Master Plan. The Town’s estimated cost to develop a single acre of park land is \$100,000, as stated in Appendix B.

To estimate the current level of service, total developed park land is divided by population, to yield 0.0046 acres of developed park land per person. Applying the cost factor (\$100,000 per acre) to the existing LOS results in a cost per person of \$460.09 per person for developed park land. Figure 6 details the current inventory of developed park land, and existing level of service calculation.

Figure 6: Level of Service and Cost Allocation

Description	Total Acres	Developed Acres*
Zebulon Community Park	47.58	25.00
Whitley Park	3.70	3.70
Gill St Park	1.60	1.60
Little River Park	23.36	5.00
Total	76.24	35.30

*Developed acres provided by Withers Ravenel

Cost Factors	
Cost per Acre - Site Development	\$100,000
Cost per Acre - Total	\$100,000

Level-of-Service (LOS) Standards	
Existing Developed Acres	35.30
2021 Population	7,672
Developed Acres per Person	0.0046
Cost per Person	\$460.09

Source: Play Zebulon Parks & Recreation Master Plan (2020)

Park Improvements – Incremental Expansion

In order to meet the demands of new residential development, the Town plans to expand its current inventory of park improvements to maintain the current level of service as new development occurs. Appendix B contains detailed cost assumptions, provided by the Town of Zebulon, for parks and recreation improvements. Figure 5 (next page) contains information on the Town’s current inventory of park improvements by type, and their cost factors. The current inventory includes 27 improvements, with an estimated replacement cost of \$2,510,500. This yields a weighted average cost per improvement of \$92,981.

To estimate the increased demand from new development on park improvements, TischlerBise has established the existing level of service for the Town of Zebulon. The existing level of service is 0.0035 park improvements per person, given the base year population of 7,672 and 27 current park improvements. Utilizing a weighted average cost of \$92,981 per improvement, the park improvement cost is \$327.21 per person.

Figure 7: Level of Service and Cost Allocation

Description	Improvements	Unit Cost	Total Cost
Concessions	1	\$315,000	\$315,000
Disc Golf	1	\$6,500	\$6,500
Tennis Courts	2	\$35,000	\$70,000
Basketball Courts	2	\$25,000	\$50,000
Baseball/Softball Fields	2	\$150,000	\$300,000
Parking Lots	8	\$25,000	\$200,000
Picnic Shelter	2	\$9,500	\$19,000
Playground	3	\$200,000	\$600,000
Restrooms	2	\$375,000	\$750,000
Open Space	4	\$50,000	\$200,000
Total	27	\$92,981	\$2,510,500

Cost Factors	
Weighted Average per Improvement	\$92,981

Level-of-Service (LOS) Standards	
Existing Improvements	27.0
2021 Population	7,672
Improvements per Person	0.0035
Cost per Person	\$327.21

Source: Play Zebulon Parks & Recreation Master Plan (2020)

Recreation Building Space – Incremental Expansion

The Town currently owns 14,000 square feet of recreation building space, which is planned to be expanded as a result of increased demand from new development. The current inventory has a total replacement cost of \$4,200,000 and has an estimated average cost per square foot of \$300. Appendix B contains detailed cost assumptions for parks and recreation buildings space.

In order to estimate the current level of service, TischlerBise divides the total buildings space by the base year population to result in Zebulon’s existing level of service of 1.82 square feet per person. Utilizing an average cost of \$291 per square foot, the parks and recreation building space cost is \$547.41 per person.

Figure 8: Level of Service and Cost Allocation

Description	Square Feet	Cost Per Sq. Ft.	Replacement Cost
Zebulon Community Center	14,000	\$300	\$4,200,000

Cost Factors	
Cost per Square Foot	\$300

Level-of-Service (LOS) Standards	
Existing Square Feet	14,000
2021 Population	7,672
Square Feet per Person	1.82
Cost per Person	\$547.41

Source: Play Zebulon Parks & Recreation Master Plan (2020)

PROJECTED DEMAND

Park Land

To project demand for future park land and developed park land, TischlerBise applies the level of service factors from Figure 5 to the development projections shown in the Land Use Assumptions. Over the next 10 years, the population of Zebulon is expected to increase by a total of 10,131 persons. This increase, at the current level of service (0.099 acres of park land and 0.0046 acres of developed park land per person) is associated with an increase of 100.7 acres of park land and 46.6 acres of developed park land. Using the cost factors outlined by the 2020 Play Zebulon Parks and Recreation Master Plan, projected expenditure equals \$6,039,968 and \$4,660,959 for park land and developed park land, respectively.

Figure 9: Projected Demand for Park Land

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Park Land	0.0046 Acres	per Person	\$100,000
	0.0099 Acres	per Person	\$60,000

Demand for Park Land			
Year	Population	Acres	
		Developed	Undeveloped
2021	7,672	35.3	76.2
2022	8,686	40.0	86.3
2023	9,699	44.6	96.4
2024	10,712	49.3	106.4
2025	11,725	53.9	116.5
2026	12,738	58.6	126.6
2027	13,751	63.3	136.6
2028	14,764	67.9	146.7
2029	15,777	72.6	156.8
2030	16,790	77.2	166.8
2031	17,803	81.9	176.9
10-Yr Increase	10,131	46.6	100.7

Growth-Related Expenditures	\$4,660,959	\$6,039,968
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Park Improvements

Based on a projected population increase of 10,131 persons over the next 10 years, future residential development demands an additional 35.7 units of park improvements at 0.0035 improvements per person. Using the weighted average cost from Figure 5, the increased demand from new development (35.7 units of parks improvements) equates to a projected total growth-related expenditure of \$3,314,826.

Figure 10: Projected Demand for Park Improvements

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Park Improvements	0.0035 Improvements	per Person	\$92,981

Demand for Park Improvements		
Year	Population	Improvements
		Residential
2021	7,672	27.0
2022	8,686	30.6
2023	9,699	34.1
2024	10,712	37.7
2025	11,725	41.3
2026	12,738	44.8
2027	13,751	48.4
2028	14,764	52.0
2029	15,777	55.5
2030	16,790	59.1
2031	17,803	62.7
10-Yr Increase	10,131	35.7

Growth-Related Expenditures	\$3,314,826
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Recreation Building Space

In order to estimate the Town’s future expenditure on recreation building space, the Town’s current level of service is applied to the projected population increase of 10,131 persons over the next 10 years. This calculation yields future development’s estimated demand of an additional 18,485 square feet of buildings space. Total growth-related expenditures on recreation building space equals \$5,545,616 (18,485 square feet X \$300 per square foot).

Figure 11: Projected Demand for Recreation Building Space

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq. Ft.
Buildings Space	1.82 Square Feet	per Person	\$300

Demand for Community Center Space			
	Year	Population	Sq. Ft
			Residential
Base	2021	7,672	14,000
Year 1	2022	8,686	15,849
Year 2	2023	9,699	17,697
Year 3	2024	10,712	19,546
Year 4	2025	11,725	21,394
Year 5	2026	12,738	23,243
Year 6	2027	13,751	25,091
Year 7	2028	14,764	26,940
Year 8	2029	15,777	28,788
Year 9	2030	16,790	30,637
Year 10	2031	17,803	32,485
10-Yr Increase		10,131	18,485

Growth-Related Expenditures \$5,545,616

PROPOSED PARKS AND RECREATION IMPACT FEES

Infrastructure components and cost factors for Parks and Recreation impact fees are summarized in the upper portion of Figure 12. For Parks and Recreation impact fees, the capital cost is \$2,283.81 per person.

Parks and Recreation impact fees for residential development are assessed according to the number of persons per housing unit. The single-family fee of \$6,143 is calculated using a cost of \$2,283.81 per person multiplied by a demand unit of 2.69 persons per housing unit.

The Town of Zebulon will not assess Parks and Recreation impact fees on nonresidential development.

Figure 12: Proposed Parks and Recreation Impact Fees

Fee Component	Cost per Person
Park Land Acquisition	\$596.21
Park Land Development	\$460.09
Park Improvements	\$327.21
Buildings Space	\$547.41
Total	\$1,930.92

Development Type	Persons per Housing Unit ¹	Fees per Unit		
		Proposed Fees	Current Fees	Difference
Single Family	2.69	\$5,194	\$2,500	\$2,694
Multi-Family	2.37	\$4,576	\$2,500	\$2,076

1. See Land Use Assumptions

PROJECTED PARKS AND RECREATION IMPACT FEE REVENUE

Projected fee revenue shown below is based on the development projections, shown in Appendix A, and the proposed Parks and Recreation impact fees shown in Figure 12. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and impact fee revenue will increase at a corresponding rate. If development occurs at a slower rate than is projected, the demand for infrastructure will also decrease, along with impact fee revenue. Projected impact fee revenue equals \$19.59 million and projected expenditures equal \$19.56 million.

Figure 13: Projected Parks and Recreation Impact Fee Revenue

Fee Component	Total
Park Land Acquisition	\$6,039,968
Park Land Development	\$4,660,959
Park Improvements	\$3,314,826
Buildings Space	\$5,545,616
Total	\$19,561,370

		Single Family \$5,194 per unit	Multi-Family \$4,576 per unit
Year		Hsg Unit	Hsg Unit
Base	2021	2,546	352
Year 1	2022	2,883	398
Year 2	2023	3,219	445
Year 3	2024	3,555	491
Year 4	2025	3,891	538
Year 5	2026	4,228	584
Year 6	2027	4,564	631
Year 7	2028	4,900	677
Year 8	2029	5,236	724
Year 9	2030	5,573	770
Year 10	2031	5,909	817
10-Year Increase		3,362	465
Projected Revenue		\$17,463,837	\$2,126,444

Projected Fee Revenue	\$19,590,281
Total Expenditures	\$19,561,370

APPENDIX A: LAND USE DEFINITIONS

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Zebulon will collect impact fees from all new residential units. One-time impact fees are determined by site capacity (i.e., number of residential units).

Single-Family:

1. Single-family detached is a one-unit structure detached from any other house, that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached as long as the building has open space on all four sides.
2. Single-family attached (townhouse) is a one-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.
3. Mobile home includes both occupied and vacant mobile homes, to which no permanent rooms have been added. Mobile homes used only for business purposes or for extra sleeping space and mobile homes for sale on a dealer's lot, at the factory, or in storage are not counted in the housing inventory.

Multi-Family:

1. 2+ units (duplexes and apartments) are units in structures containing two or more housing units, further categorized as units in structures with “2, 3 or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more apartments.”
2. Boat, RV, Van, Etc. includes any living quarters occupied as a housing unit that does not fit the other categories (e.g., houseboats, railroad cars, campers, and vans). Recreational vehicles, boats, vans, railroad cars, and the like are included only if they are occupied as a current place of residence.

APPENDIX B: PARKS AND RECREATION COST ASSUMPTIONS

PARKS AND RECREATION COST ASSUMPTIONS

Below is a table identifying the cost assumptions used in the impact fee study. The table is sourced from the Play Zebulon Parks and Recreation Master Plan (2020).

Figure AC 1: Detailed Cost Assumptions

Play Zebulon Master Plan - Baseline Cost Estimates

Order of Magnitude Estimate of Probable Capital Improvement Costs (February 2020)

		Unit	Quantity (Typ.)	Unit Cost
Typical Amenities				
A. Indoor Facilities & Buildings				
1	Community Center (Total Building)	square foot	20,000	\$300.00
2	Concession Building	square foot	1,800	\$175.00
3	Activity Room	square foot	3,000	\$250.00
4	Art Room	square foot	2,000	\$275.00
5	Classroom	square foot	2,000	\$250.00
6	Warming Kitchen	square foot	1,200	\$350.00
7	Fitness Room	square foot	1,500	\$325.00
8	Gymnasium	square foot	15,000	\$350.00
B. Park Elements				
1	Baseball/Softball Fields	each	1	\$150,000.00
2	Basketball Courts	each	1	\$25,000.00
3	Disc golf Course	each	1	\$6,500.00
4	Soccer Field	each	1	\$80,000.00
5	Tennis Courts	each	1	\$35,000.00
6	Football Field	each	1	\$100,000.00
7	Parking Lots	square yard	1,000	\$25.00
8	Large Picnic Shelter	each	1	\$6,500.00
9	Small Picnic Shelter	each	1	\$12,500.00
10	Volleyball Court	each	1	\$12,500.00
11	Small Playground (including surfacing)	each	1	\$250,000.00
12	Large Playground (including surfacing)	each	1	\$150,000.00
13	Open Space Development	acre	2	\$25,000.00
C. Trails (does not include acquisition)				
1	Paved Trail	linear foot	5,280	\$40
2	Unpaved Trail	linear foot	5,280	\$15
3	Sidewalk	square foot	15,000	\$10
4	Bridge	linear foot	200	\$450
D. Parkland				
1	Acquisition	acre	1	\$60,000.00
2	Development (Including all sitework and minimum amenities - assuming "blank slate scenario")	acre	1	\$100,000.00
F. Landscape				
1	Canopy Tree	each	1	\$350.00
2	Ornamental Tree	each	1	\$300.00
3	Shrubs	each	1	\$33.00
4	Grasses	each	1	\$18.00