Town of Dundee Transportation Impact Fee Study & Fee Schedule Update Technical Report (Final Draft)

September 2024

Prepared for: Town of Dundee



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TOWN OF DUNDEE TRANSPORTATION IMPACT FEE STUDY & FEE SCHEDULE UPDATE TECHNICAL REPORT

September 2024

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AADT	Annual Average Daily Traffic	
C+E	Existing Plus Committed (it refers to the geometry of a travel-demand m	nodel network)
FDOT	Florida Department of Transportation	
FHWA	Federal Highway Administration	
HCM	Highway Capacity Manual	
ITE	Institute of Transportation Engineers	
LOS	Level of Service	
PTPO	Polk Transportation Planning Organization	
SF	Square Foot / Square Feet	
TAZ	Traffic Analysis Zone	
TIF	Transportation Impact Fee	
TD	Travel-Demand	



1. INTRODUCTION

The prevailing development trend in central Florida leans heavily towards low-density suburban expansion, characterized predominantly by single-family detached housing. While this model is popular among potential and existing residents, its repercussions extend beyond the surface appeal. The region's fixation on sprawling patterns and low-density communities poses significant challenges in terms of delivering efficient services, stimulating economic growth, and cultivating a diverse range of housing options necessary for fostering financial inclusivity within communities.

The consequences of this development pattern are conspicuous in many Central Florida areas where traffic congestion has been exacerbated encroaching upon the region's quality of life. Addressing these issues requires multiple approaches that include, among others, innovative land-use planning and data-driven transportation planning. The main goal behind these approaches is to provide adequate transportation facilities to support the anticipated growth while maintaining adopted level-of-service standards to avoid significant degradation of the transportation system and deterioration of quality of life.

A well maintained, data-driven, Concurrency Management System is a great tool to monitor the existing and anticipated conditions of the transportation network within areas of significant development. The adopted transportation plan(s) can be periodically revised and updated based on the concurrency-management data and the corresponding traffic-impact studies as well as periodical areawide studies. A growing community will likely require significant transportation improvements that increase the capacity of the transportation network (i.e. capacity improvements). These capacity improvements can be funded, partially or completely, with Transportation Impact Fees. This technical report includes relevant and detailed information regarding the Town of Dundee transportation thoroughfare roadway network, the expected growth in population and traffic volumes, the anticipated transportation-improvement needs, and the development of transportation impact fees which reflect the aforementioned growth and improvement needs.

1.1. Town of Dundee

The Town of Dundee is located within the area of influence of the US 27 corridor, which cuts through the town from north to south. The town's incorporated parcels cover an area of approximately 12.2 square miles most of which falls within the boundaries of Lake Wales Ridge, a narrow ridge of ancient sand dunes that runs north to south and extends approximately 115



miles in length and four to ten miles in width through the middle of the Florida peninsula. As a result, a large portion of the Town of Dundee presents a topography characterized by rolling hills that afford scenic views not commonly found in Florida urbanized areas.



Established as a result of the prosperity of Florida's citrus industry, Dundee was first incorporated as a city in 1921 and later reincorporated as a town in 1924. The town's expansion can be traced back to 1911, when the Atlantic Coast Line Railroad's Haines City to Sebring branch and a Dundee railroad station were constructed. This infrastructure attracted potential settlers to experience the scenic beauty of this part of the State. Nowadays, Dundee has transformed into a growing bedroom community for larger nearby cities and also attracts visitors interested in surrounding attractions.

Growth over the past several decades has significantly increased traffic volumes on the Town of Dundee's transportation network, resulting in longer travel times and safety concerns at certain locations. The anticipated near-future development within town limits is substantial. As shown in the Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR), completed in 2023, there are various incoming residential projects at different stages of the permitting process. These projects account for approximately 4,519 single-family units and 121 multifamily units, representing a considerable level of new development for an urban area of Dundee's size.

Even though additional new projects are in the early stages of planning, the incoming development included in the TTA&ADTR is expected to increase the Town's population by a factor of 2.3. The forecasted total population by 2045, represents an increase by a factor of 4.2. When compared to the historic population numbers and year-on-year population changes



(Figures 1 and 2) over the past 22 years, the Town of Dundee's anticipated growth between now and 2045 is very considerable.

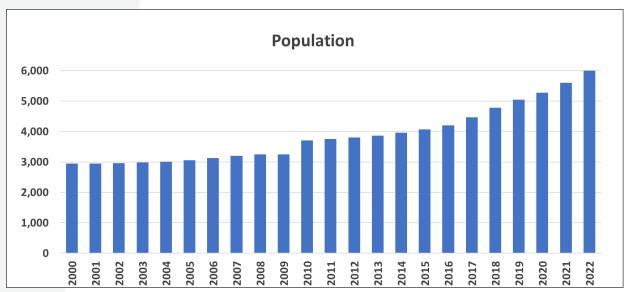


Figure 1 - Town of Dundee's Population By Year

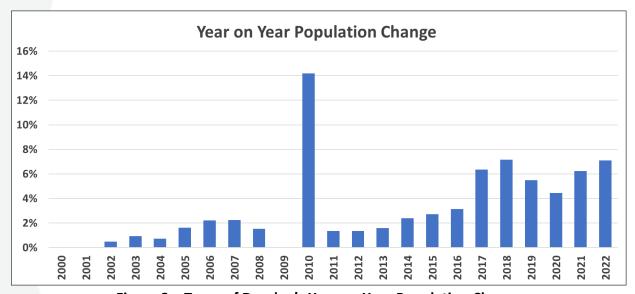


Figure 2 – Town of Dundee's Year on Year Population Change

1.2. Roadway Network

A network of functionally classified main arterials and collectors that serve a jurisdiction is the basis to determine future capacity deficiencies, transportation-improvement needs and the



corresponding cost of implementation of such improvements. The main idea is that the network must operate at certain pre-established level-of-service standards. In order to maintain those standards, improvements to the transportation network may be needed as travel demand grows.

The TTA&ADTR provided a roadway network (Town of Dundee Thoroughfare Network) designed to accommodate Dundee's anticipated growth. As a metropolitan area expands, new connections are developed, and previously overlooked roadway segments gain importance due to increased capacity demands, operational issues, and safety concerns. Figure 3 illustrates the Town of Dundee Thoroughfare Network, which includes existing main arterials and collectors, as well as roadway segments expected to serve as main collectors as the Town grows.

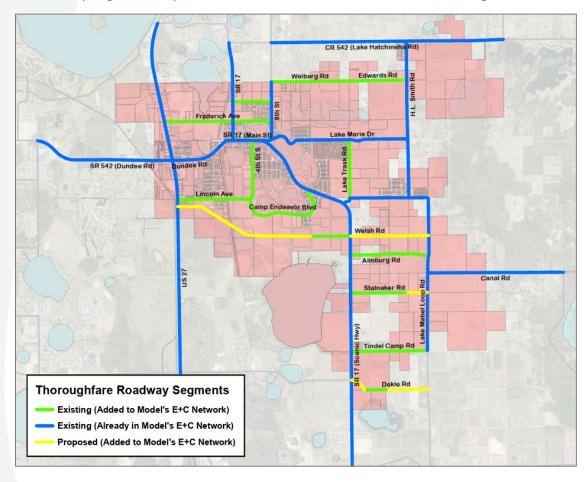


Figure 3 – Town of Dundee Thoroughfare Network

The Polk Transportation Planning Organization (PTPO) 2022 Roadway Network Database which, within Town of Dundee limits matches the Existing plus Committed (E+C) network of the FDOT District One Regional Planning Model (D1RPM) was the starting point. However, a detailed review of existing roadways and the future local development trends showed several additional links that are or will become relevant, in terms of roadway travel, during the next several years. As a



result, those additional links were added to the Town's Thoroughfare Network. Map 02B of the TTA&ADTR (included under Appendix 1) shows Dundee's adopted Thoroughfare Network, which includes several roadway segments not included in the PTPO database, and the corresponding functional classification for each segment of the network. It is important to point out that some of the roads that were added to the Town's network (and the travel-demand model networks used in the analysis) are non-existing segments shown as "proposed roads" in the Town's Comprehensive Plan.

Proximity to urban activity centers, local attractions, and nearby larger metropolitan areas are some of the elements that make The Town of Dundee attractive to future residents. As shown in Map 02B (included in Appendix 1), the Town's Thoroughfare Network includes sections of two north/south State roads, US 27 and SR 17, which carry most of the travel to/from out-of-town destinations. Within Dundee limits, US 27 is a six-lane divided principal arterial and SR 17 is a two-lane undivided urban major collector. Most of the capacity on these roadways, which are owned and maintained by the Florida Department of Transportation (FDOT), will be used by regional trips with origins and destinations outside Town of Dundee limits. As a result, the analysis described in this document does not take into account improvements on these facilities. In other words, the Transportation Impact Fees presented in this technical report are not intended to fund improvements on State owned-and-maintained facilities.

1.3. Transportation Impact Fees vs. Mobility Fees

Growing communities experience increasing demand for city services and transportation infrastructure. Over time, growing traffic volumes result in traffic congestion and longer travel times which diminish quality of life. In the Town of Dundee, when a new development (residential, commercial, institutional, etc.) is built or expanded, a one-time impact fee is assessed and collected. The Town collects impact fees for law enforcement, fire protection, parks, solid waste, general government services, utilities, and transportation. The fees are imposed based upon the amount of new demand attributable to the new development and the cost of providing the additional capital facilities needed to serve it. Impact fees help to ensure that a new development pays a share of the costs incurred by the Town to accommodate its growing population. As a result, impact fees are intended to help fund the necessary improvements to maintain an adequate level-of-service. The transportation impact fee, which is intended to help mitigate the impacts on roadway capacity caused by new development, is one of the Town's primary funding sources for roadway capacity-adding improvements. Capacity-adding roadway projects include new roadway segments, roadway widening, signal improvements, lengthening or addition of auxiliary lanes, modern roundabouts, etc.



In order to be consistent with the Florida Impact Fee Act (F.S. § 163.31801), impact fees cannot be used to pay for maintenance and/or operations (e.g., resurfacing of roads, fixing potholes, operation of transit systems, etc.), they can only be used to fund the needs of growth. In most cases, it is not possible to justify the use of transportation impact fees to fund new sidewalks, bike paths, bike lanes, shared-use paths, expansion of transit systems or other non-automobile infrastructure-related projects.

Mobility fees, in contrast, offer greater flexibility. While traditional (or first-generation) impact fees focused primarily on increasing vehicular travel capacity, modern fees, such as mobility fees, also address retrofitting existing transportation facilities and providing new ones to meet the mobility needs of pedestrians, cyclists, micromobility-device users, and transit users. Consequently, mobility fees can be utilized to implement complete-streets approaches and create a transportation infrastructure funding system that serves all users.

In 2013, the Florida legislature created a mobility-fee funding option designed for communities seeking alternative growth patterns and compatible funding mechanisms for a broader range of transportation solutions. This approach typically relies on a mobility plan and an accompanying mobility-fee schedule, developed to fund the plan. This process allows communities to align their growth and multimodal transportation infrastructure objectives with the financial means to achieve them. The intent of the mobility-fee funding option is to provide a simplified, predictable, and equitable process for mitigating mobility impacts, while offering flexibility to finance multimodal transportation improvements.

Multimodal transportation is a key focus in the Town's Comprehensive Plan. Mobility fees offer a promising alternative to address the future multimodal transportation needs of the Town of Dundee. Therefore, as part of a future fee update, the Town could develop a mobility plan to serve as the basis for replacing the Town's Transportation Impact Fees with Mobility Fees.

2. **DEFINITIONS**

Assisted Living Facility/Nursing Home: This land-use category covers assisted-living facilities and nursing homes. Assisted living complexes offer a residential setting that provides dining and housekeeping services as well as communal transportation, social and physical activities, and medication administration. Typical residents of assisted-living facilities have difficulty managing in an independent living arrangement but do not require nursing-home



care. Usually, each resident has separate living quarters. On the other hand, nursing homes provide care for persons that are not able to care for themselves.

- Fee District: A fee district can be a designated geographic area within which Transportation Impact fees are assessed. It can also be based on a specific type of development pattern (e.g., mixed use). It is common to have several fee districts, and a different impact-fee schedule for each of them, within medium-size and large jurisdictions. However, based on the size of the Town of Dundee, this technical report is proposing only one Townwide fee district. As a result, all development or re-development within Town limits will be assessed according to the same Transportation Impact Fee schedule.
- Capacity: Capacity of a transportation facility can be defined as the maximum number of vehicles or persons per unit of time (typically one hour) that can be expected to traverse a specified section of the facility, or a particular point, at a sustainable flow rate. Capacity varies according to roadway geometry, roadway conditions, environmental factors, traffic control and traffic volumes.
- ☼ Capacity-Adding Improvements: Improvements to transportation facilities that provide additional capacity and, as a result, enhance level of service and safety conditions are called capacity-adding improvements in this document. New transportation facilities fall within this category because they add capacity and improve conditions for the intended users. Capacity-adding improvements can involve widening of roadway segments, signalization of arterial intersections, addition of auxiliary lanes, etc.
- Car Wash/Detail Center: This land-use category includes self-service car-wash facilities as well as automated car-wash facilities and automobile-detail centers.
- Coffee Shop/Fast-Food Restaurant with DTW: This land-use category includes coffee/donut shops with drive-through windows as well as fast-food restaurants with drive-through windows. The coffee/donut shops may or may not have indoor seating. If no indoor seating is provided, customers cannot walk into the shop to purchase items. These establishments typically sell freshly brewed coffee as well as a variety of other food and drink products such as sandwiches, donuts, bagels, cakes, etc. Long hours of operation are common among the establishments included under this land-use category, which typically open early for breakfast.
- ☼ Church: The Church land-use category includes buildings used for public worship services. Churches typically feature an assembly hall or sanctuary and may also include meeting rooms, classrooms, and special-event facilities.



- Complete Streets: Complete Streets is an approach to planning and design of transportation facilities that considers the urban/rural character of an area and the popular modes of travel in that area, thus taking into account the needs of all transportation-infrastructure users. This approach provides adequate and safe conditions for all people including conventional-vehicle operators, pedestrians, bicyclists, transit riders, micromobility users, etc., regardless of their abilities. Complete-streets principles can also be applied to operations and maintenance of transportation facilities in order to ensure the best results.
- Convenience Store/Gas Station: This land-use category is normally used for facilities with a co-located convenience store and gas station. These facilities typically operate on a 24/7 schedule. The Convenience store usually sells groceries and everyday items while the gas station sells fuels like gasoline and diesel.
- ☼ Day Care Center: The Day Care Center land-use category covers facilities that provide care for pre-school age children, typically during daytime hours. Some centers also offer after-school care for school-age children. These facilities usually include playgrounds, classrooms, offices, and eating areas.
- **Drive-in Bank:** The Drive-in Bank land-use category includes financial institutions that provide banking services for motorists through a teller station. These institutions may also serve customers who walk into the building and may or may not have drive-in lanes for automatic teller machines (ATMs).
- Fast-Food Restaurant without DTW: This land-use category includes fast-food restaurants without drive-through windows, which are typically characterized by a large carry-out clientele, no table service, and high turnover rates for eat-in customers. Customers generally order from a menu board and pay before receiving their meals. Long hours of operation are common among the establishments included under this land-use category.
- Golf Course: Golf Courses are large landscaped areas used to practice and play golf. Golf courses may include driving ranges, pro shops, restaurants, clubhouses, lounges, and/or banquet facilities.
- Health/Fitness/Athletic Club: This land-use category includes privately-owned facilities that primarily focus on individual fitness. These facilities typically offer training and fitness classes and may include courts for racquet sports, basketball courts, pools, weightlifting rooms, saunas, spas, and other related amenities.



- Hotel/Lodging: The Hotel/Lodging land-use category includes regular hotels, all-suites hotels, business hotels, motels and resorts. Regular hotels usually include supporting facilities such as meeting rooms, convention facilities, cocktail lounges, and full-service restaurants as well as swimming pools or other recreational facilities. Business hotels typically offer other facilities, such as breakfast-buffet bars and afternoon-beverage bars. Resort hotels cater to the leisure-traveler market and normally provide a wide variety of recreational programs and facilities such as tennis courts, golf courses, beach access, etc., and may not offer convention facilities.
- **ITE:** The institute of Transportation Engineers (ITE) is an international educational and scientific organization that aims to provide knowledge, skills, connections and good practices to the global community of transportation professionals. ITE produces and maintains important publications some of which are used as "trusted sources" for various types of transportation engineering analyses and planning studies.
- ITE Trip Generation Manual: The Trip Generation Manual is a publication of the Institute of Transportation Engineers (ITE) that provides detailed descriptions of a wide range of land uses as well as a significant amount of collected data (sample data) that account for the trips generated by those land uses during different times of the day on different days of the week. The data that make up the Trip Generation Manual are developed using various independent variables. These data are summarized in a number of plots and tables. Trip-generation rates and equations derived from the source data used to produce this manual are widely used as a "trusted source" for traffic studies and planning analyzes.
- Level of Service (LOS): The capacity of transportation facilities is typically evaluated in relation to flow rates that correspond to specific levels of comfort experienced by the users of those facilities. These levels of comfort are evaluated using performance measures such as vehicle speed, density and delay which can be used to determine the level of service (LOS). Therefore, level of service is a quantitative measure that provides an indication of the level of comfort (quality of service) experienced by the users of a transportation facility.
- Manufacturing/Warehouse: The Manufacturing/Warehouse land-use category covers a wide range of industrial facilities which include general light-industrial buildings, industrial parks, manufacturing facilities, warehousing facilities, self-storage facilities, high-cube transload warehouses, short-term storage warehouses, high-cube fulfillment-center warehouses, high-cube parcel-hub warehouses, high-cube cold-storage warehouses, data centers, utilities, and specialty-trade-contractor facilities. This land use category also includes utilities buildings which are free standing buildings that normally house office space, storage



areas, and industrial or electromechanical equipment to support local utility operations like sewage treatment, communications, water supply or control, etc.

- Medical Office: The Medical Office land-use category covers a wide range of health-related office facilities including hospitals, nursing homes, clinics, free-standing emergency rooms, medical-dental office buildings, animal hospitals, veterinary clinics, and general office buildings dedicated to support health-related operations.
- Micromobility: Since the term "Micromobility" is relatively new, there is no universal consensus regarding its definition. In general, Micromobility could be defined as a transportation option that involves the use of one or more micromobility devices. The Federal Highway Administration (FHWA) defines micromobility device as "any small, low-speed, human- or electric-powered transportation device, including bicycles, scooters, electric-assist bicycles, electric scooters (e-scooters), and other small, lightweight, wheeled conveyances". For the purposes of this document, it was assumed that micromobility devices include a number of small, low-speed (20 MPH or less) electricity-powered devices such as scooters, hoverboards, personal transporters ("Segways"), etc., as well as electric bicycles. Conventional bicycles were assumed to fall under a separate transportation mode (cycling).
- Mobile Home Park: This land-use category includes manufactured homes that are sited and installed on permanent foundations. Mobile home parks normally have community amenities such as a recreation room, laundry facilities, swimming pools, etc.
- Mobility: Mobility is the ability to move, or be moved, between places (called origins and destinations). Adequate mobility is vital for the development and vibrancy of a growing community as it provides a way for people to access jobs, education, entertainment, services, opportunities to socialize, opportunities to conduct businesses, etc. Since mobility is about moving people and goods, it involves all modes of transportation (from walking, cycling and conventional motor vehicles to micromobility devices, high-speed rail, aircrafts and other modes of transportation) and the necessary support infrastructure. Even though remote work and online services have reduced the need to travel between certain places (for a significant number of people), the need for adequate mobility has not been eradicated, it has simply changed, and communities are now being challenged to evolve in order to adapt to a new urban landscape, one in which new technologies will play a very important role.
- Mobility Fee: Within several local jurisdictions in Florida, mobility fees have been adopted in order to replace the transportation impact fees. Mobility fees are one-time local-government fees that are assessed and collected when a development is built or expanded in a way that creates additional demands on the mobility system. The fees are imposed based



upon the expected consumption of multimodal capacity, that can be attributed to the new or expanded development, and the cost of providing the multimodal capacity-adding improvements needed to serve it while maintaining adopted/standard levels of service. Mobility fees typically are one of the primary funding sources for capacity-adding multimodal improvements within local jurisdictions that have adopted mobility fees in lieu of transportation impact fees.

- Mode of Transportation: Modes of transportation are ways of moving people or goods from one place to another. Walking, cycling, use of micromobility devices (micromobility), conventional motor vehicles, transit, eVTOLs¹, etc., are modes of transportation. Some of these modes require specific infrastructure (facilities) and/or systems to allow adequate mobility in a safe and efficient manner.
- Multifamily: The Multifamily land-use category includes apartments, townhouses, and condominiums located within buildings that have least four dwelling units. These buildings can have different configurations and numbers of floors (levels). Depending on the number of floors, multifamily units can be classified as Low-Rise (two or three floors), Mid-Rise (between four and ten floors), and High-Rise (more than 10 floors).
- Multimodal: The term "Multimodal" indicates two or more modes of transportation. The term is often used to indicate availability of adequate infrastructure for multiple modes of transportation (multimodal facilities) which address the needs of all users.
- Non-vehicular: The term "Non-Vehicular" refers to modes of transportation that do not involve large motorized vehicles, such as cars, trucks, or motorcycles. Instead, it includes alternative forms of transportation such as bicycling, walking, skateboarding, and other forms of non-motorized transportation. The term also covers micromobility devices such as scooters and hoverboards. In the context of urban planning or transportation policy, this term is normally associated with pedestrian pathways, bike lanes, and other facilities that support these modes of travel.
- Office: The office land-use category covers a wide range of office facilities which include general-office buildings, small-office buildings, corporate-headquarters buildings, single-tenant office buildings, office parks, research and development centers, and business parks. Office parks normally include general-office buildings as well as supporting uses (such as restaurants, service stations, and banks) arranged in a campus-like layout. Business parks

¹ eVTOLs: Electric vertical take-off and landing aircrafts currently used for urban air mobility.



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typically include a group of flex-type buildings with a mix of uses that includes offices, restaurants, retail, warehousing, manufacturing, light industrial, and/or research and development facilities as well as recreational areas.

- Person Miles of Capacity (PMC): PMC is the unit of measure of the quantity of travel that can be served by a facility within a defined length of time and a determined level of comfort or level of service.
- Person Miles of Travel (PMT): PMTs are a measure of the quantity of travel generated by individuals from a development (e.g., a residential area, or work place) or on a particular transportation facility or transportation network. These individuals (persons) may use one or more modes of transportation including walking, cycling, micromobility devices, golf carts, conventional motor vehicles, transit, etc.
- Person Trip: A person trip is defined as a trip performed by one person in any mode of transportation. Modes of transportation include walking, cycling, micromobility devices, golf carts, conventional motor vehicles, transit, etc. One person traveling from home to a store, or place of work, would be considered a person trip.
- ☼ Public School: This land-use category covers public educational institutions, including elementary schools, middle schools/junior high schools, and high schools.
- ☼ Private School: This land-use category covers private educational institutions, including schools that serve students from kindergarten through eighth grade (K-8), kindergarten through twelfth grade (K-12), and high school only. Some students attending these institutions may travel a long distance from their residences to the school location.
- Recreational Community Center: This land-use category includes stand-alone public facilities that provide services similar to those offered by athletic clubs, typically at an affordable membership fee. These facilities often offer classes for both adults and children, and may include amenities such as daycare services, meeting rooms, weightlifting equipment, pools, saunas, sports courts, and outdoor fields. Food services may also be available at these centers.
- Restaurant: The Restaurant land-use category includes fast casual restaurants, fine-dining restaurants and high-turnover (sit-down) restaurants. Fast casual restaurants are sit-down establishments with limited table-service staff that typically serve lunch and dinner. The duration of stay for an eat-in customer at a fast casual restaurant is normally 40 minutes or less. Fine dining establishments are full-service restaurants where the average customer stays



for at least one hour. High-turnover restaurants are also full-service. However, these establishments offer more affordable prices and their average dine-in clients normally stay for less than one hour.

- Retail: The Retail land-use category includes shopping centers, shopping plazas and strip malls (strip retail plazas) which are integrated groups of commercial establishments normally managed as a unit. Shopping centers usually have a total gross leasable area (GLA) of at least 150,000 square feet and one or more anchor stores as well as restaurants, banks, office space, movie theaters, etc. Shopping plazas, which typically have a GLA between 40,000 square feet and 150,000 square feet, usually have a supermarket as its major tenant and also include other types of establishments including, but not limited to, restaurants, banks, offices and movie theaters. Strip malls are normally open-air developments with GLA bellow 40,000 square feet.
- Senior Adult Housing: Senior Units include single-family and multifamily residential units located within independent-living developments, retirement/age-restricted communities, or active adult communities. These communities typically require a minimum of 55 years of age for at least one resident of the household. In these communities, residents are usually considered active and require little to no medical supervision. Amenities can include swimming pools, golf courses, recreational facilities, transportation, and 24-hour security.
- Single Family: The Single-Family land-use category includes single-family detached residential units on individual lots, as well as any single-family residential unit that shares a wall with an adjoining dwelling unit. The shared walls can be part of the living space, storage space or vehicle garage.
- **Standard Capacity:** The maximum flow rate at which a transportation facility operates at the adopted (or standard) level of service.
- Transportation Impact Fee: Transportation impact fees are one-time local-government fees that are assessed and collected when a development is built or expanded. The fees are imposed based upon the amount of expected new roadway traffic (or consumption of roadway capacity) that can be attributed to the new or expanded development and the cost of providing the roadway-capacity improvements needed to serve it while maintaining the adopted/standard level of service. For most local governments in Florida, transportation impact fees are one of the primary funding sources for roadway capacity-adding improvements.



- ☼ Vehicle Miles of Travel (VMT): VMTs represent the combined distance traveled by conventional motor vehicles on a segment of roadway or on a roadway network.
- ★ Vehicle Trip: A vehicle trip is a trip performed by one vehicle, regardless of the number of people in the vehicle. Vehicle trips usually refer to trips on conventional motor vehicles traveling on roadway facilities. However, the concept can be applied to other types of vehicles.

3. DUNDEE'S COMPREHENSIVE PLAN

The current Town of Dundee Comprehensive Plan was initially adopted in October 2010 and has been updated multiple times. The most recent update was completed in June 2022. This plan recognizes Dundee as a growing community and provides guidance on the mechanisms to implement its goals, objectives, and policies. As shown in the introduction, between 2000 and 2022, the Town's population nearly doubled, reaching almost 6,000 residents. However, the anticipated growth suggests that the Town's population will increase by a factor of approximately 4.2 over the next 23 years. Figure 4 illustrates the historical population growth and the anticipated increase through 2045.

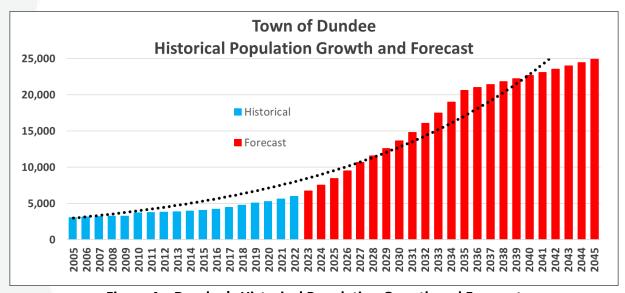


Figure 4 - Dundee's Historical Population Growth and Forecast

There is a considerable amount of undeveloped land within the Town of Dundee which, together with its privileged location, provides the desired conditions for significant growth over the



coming decades. For this reason, adequate planning and monitoring of the transportation infrastructure required to support the anticipated growth is of vital importance.

The Town of Dundee has decided to use Transportation Concurrency as a tool to ensure that the transportation facilities needed to support the Town's expansion are provided and adequately maintained. The Town is in the process of implementing a new Concurrency Management System (CMS), which is defined in the Comprehensive Plan as "an accounting system that maintains a record of the existing levels of service and what impacts, if any, can be expected as a result of proposed developments, facility expansions, and other factors that can affect the adopted level-of-service standards of a community". Under its Transportation Element, the Town of Dundee's Comprehensive Plan provides information on the adopted level-of-service standards for multimodal facilities and roadways. Additional information is provided in the Town's Land Development Code.

The CMS is intended to ensure that necessary transportation facilities are available to support development as soon as its impacts occur. As part of the CMS, the Town should implement a process to verify that the established level-of-service standards will be upheld before issuing a development order or permit. According to the Comprehensive Plan, Dundee applies concurrency requirements to all developments and requires applicants to submit any information the Town deems necessary to accurately evaluate the impacts of proposed developments.

The Transportation Element of the Town of Dundee Comprehensive Plan (hereinafter referred to as the "Transportation Element") has clear goals, objectives, policies, and strategies, some of which are very important in terms of the Town's mobility and connectivity.

The main goal of the Transportation Element is to:

"provide a safe and efficient transportation system for all modes of travel that is financially feasible, consistent with community needs, and environmentally sound."

Some of the relevant objectives and policies that form part of the Transportation Element include the following:

Objective 1 which states that the Town aims to maintain an acceptable level of service (LOS) on all roadways, ensuring roads are safe and efficient. This involves coordinating with regional organizations regarding level-of-service standards and implementation of procedures to avoid level-of-service deterioration below said standards.



Policy 1.1 which states that the Town must "adopt and apply multi-modal levels of service which shall be the minimum acceptable standards for State, County, and local roads within the Town Limits of Dundee".

Policy 1.2 which states that the "minimum level-of-service standard for roadways on the Strategic Intermodal System (SIS) and the Florida Intrastate Highway System (FIHS), shall be in accordance with the Statewide Minimum Level of Service Standards for the State Highway System".

Objective 2 which promotes the preservation of capacity and adequate safety conditions on arterial and collector roads by controlling intersection placement, site access location, and median openings.

Policy 2.1 according to which, the Town shall "enforce transportation improvement standards and Land Development Regulations to control access to arterial and collector roads from adjacent development.

Objective 4 which asserts that the Town of Dundee seeks to align its traffic circulation system with the Future Land Use Element and other regional and State plans. This coordination ensures consistency with long-range plans and helps integrate the transportation system with those of adjacent municipalities.

Objective 5 which states that the Town of Dundee seeks to ensure a safe traffic circulation system that maintains roadway capacity and safety by regulating on-site traffic flow and access locations. This includes protecting residential areas from through-traffic, and enforcing design criteria for safe traffic flow and adequate parking.

Policy 5.3 based on which, the Town of Dundee shall "design and construct the traffic circulation system to slow and limit arterial and cut-through traffic that would damage the character and integrity of residential neighborhoods or significant cultural or historic resources."

Objective 6 which indicates that the Town intends to enhance non-motorized mobility to reduce reliance on motor vehicles. This includes encouraging the use of alternative transportation modes such as walking, bicycling, and small electric vehicles, considering these needs in all road projects, and improving access between residential areas and key destinations like shopping centers, parks, and schools.



Policy 6.2 according to which, the Town of Dundee shall "consider the needs of bicyclists and pedestrians in conjunction with all road construction, reconstruction, or maintenance projects." This policy also mentions specific evaluation criteria recommended by the Polk Transportation Planning Organization (PTPO) which should be used to determine if a project needs to be considered for upgrade to AASHTO bicycle-facility standards.

Policy 6.3 which states that the Town of Dundee shall "evaluate the need for improved bicycle and pedestrian access-ways connecting residential areas and shopping centers, parks, schools, and public buildings."

Objective 7 which asserts that the Town of Dundee intends to enhance access to and usage of the countywide bus system by working with transit providers to place stops near key destinations and employment hubs.

Policy 7.1 which indicates that the Town of Dundee will "promote the development of future major trip generators and employers on transit routes, to decrease the number of vehicle trips within the Town, and to accommodate the transportation disadvantaged".

Policy 7.3 which states that the Town shall "support the Polk County multi-modal transportation system by being designated as a Transit Supportive Development Area (TSDA)".

Policy 7.4 which indicates that the Town of Dundee will "coordinate with the PTPO, FDOT, and transit providers to implement plans for park-and-ride lots, as identified in Transportation Improvement Plans and Long-Range Transportation Plans".

The main goal of the Comprehensive Plan, along with some of the objectives and policies mentioned above, suggests that, at some point, the Town of Dundee will implement a Mobility Fee to replace the Transportation Impact Fee. As explained in Section 1.3., the Town will be able to use this Mobility Fee to fund improvements and new facilities for alternative/non-vehicular modes of transportation.

4. HISTORY AND LEGISLATIVE BACKGROUND

The Florida State Legislature provides guidance for local governments on regulating growth and funding infrastructure improvements to promote orderly and sustainable development. The



1985 Growth Management Act required every jurisdiction in the State of Florida to have a Comprehensive Plan according to the standards identified in the Florida Administrative Code. The Growth Management Act also mandated what is known as "Concurrency". According to Florida Statutes, concurrency means that "public facilities and services needed to support development shall be available concurrent with the impacts of such development".

Concurrency was created to help reduce urban sprawl by only allowing growth if the adopted infrastructure levels of service, or better levels of service, could be achieved after new development or redevelopment took place. Concurrency regulations required developers to analyze the impacts of their projects and, if required, provide off-site improvements to address existing and forecasted infrastructure capacity issues, unless those issues were planned to be addressed by the corresponding jurisdiction with its adopted Capital Improvement Plan (CIP). However, concurrency had unintended consequences. Developers that were first to develop in an area with existing infrastructure capacity had limited additional costs because they were essentially using the existing available capacity. Those developing later within the same area were normally required to provide significant infrastructure improvements because the previous developer(s) had used up all the available capacity. This inequitable situation had the unintended consequence of producing sprawl as developers were choosing their project sites in areas located far from urban centers where roadway capacity was available.

A series of legislative changes over the years attempted to address the issues brought by Concurrency. Transportation Concurrency Exception Areas (TCEAs) as well as Transportation Concurrency Management Areas (TCMAs) were among the first attempts to provide alternative solutions to local governments. TCEAs and TCMAs, which were consistent with urban infill and redevelopment, allowed for new ways/alternatives to provide mobility within urbanized areas. The Florida legislature later provided regulation that made possible for new developments to mitigate their impacts by paying a "proportionate fair share". This new legislation significantly debilitated Concurrency and, in most cases, lowered the probability of achieving it.

The idea of mobility fees, that could replace the transportation impact fees, based on a mobility plan, was initially introduced by the Florida Legislature in 2007. At this time, the Florida Department of Transportation (FDOT) and the Department of Community Affairs (DCA) were tasked with the analysis of these new ideas.

Other legislative attempts to address growth issues and the effects of Concurrency involved Community Redevelopment Areas (CRAs) and Urban Infill and Redevelopment Areas (UIRAs) as well as certain urban areas with population of at least 1,000 residents per square mile, also



known as Dense Urban Land Areas or DULAs. These DULAs were designated as TCEAs by the Florida Legislature in 2009.

Florida House Bill 7207, which redesignated the "Local Government Comprehensive Planning & Land Development Regulation Act" as "Community Planning Act" and is known as the Community Planning Act, was approved by the Florida Legislature in 2011. This important piece of legislation made transportation concurrency optional and gave local governments the ability to decide how to meet their transportation planning needs. Since the approval of House Bill 7207, local governments still have to implement a Comprehensive Plan. However, they now have more latitude in terms of planning and growth management. The changes brought by the Community Planning Act also involved a more restrictive environment in terms of Concurrency and proportionate share. However, a more "relaxed" environment in terms of a development's ability to move forward was created. If a local jurisdiction does not enforce Concurrency, a development can now continue even if the impacted roadway network has existing or anticipated LOS deficiencies, provided that no discretionary approvals such a Comprehensive Plan Amendment (CPA) are required. If there are existing deficiencies and/or deficiencies anticipated due to approved projects that have not been built yet, a jurisdiction cannot stop a development. In this situation, the improvements needed to meet the jurisdiction's level-of-service standards (without the development) should be assumed in place. If the development does not trigger the need for additional improvements, it can just pay the corresponding impact fees and move forward.

Florida House Bill 7207 also provided specific advice to local governments encouraging them to develop strategies and tools to complement the application of transportation concurrency. The recommendations of this bill are provided under F.S. § 163.3180(5)(f) and include:

- " 1. Adoption of long-term strategies to facilitate development patterns that support multimodal solutions, including urban design, and appropriate land use mixes, including intensity and density.
 - 2. Adoption of an areawide level of service not dependent on any single road segment function.
 - 3. Exempting or discounting impacts of locally desired development, such as development in urban areas, redevelopment, job creation, and mixed use on the transportation system.
 - 4. Assigning secondary priority to vehicle mobility and primary priority to ensuring a safe, comfortable, and attractive



- pedestrian environment, with convenient interconnection to transit.
- 5. Establishing multimodal level of service standards that rely primarily on nonvehicular modes of transportation where existing or planned community design will provide adequate level of mobility.
- 6. Reducing impact fees or local access fees to promote development within urban areas, multimodal transportation districts, and a balance of mixed-use development in certain areas or districts, or for affordable or workforce housing."

5. LEGAL FRAME

Under Title XI, Chapter 163, Section 31801 of the Florida Statues, the Florida Legislature provides the text of what is known as the Florida Impact Fee Act. The main purpose of this section of the Florida Statues is to provide general regulation and criteria which applies to Florida local jurisdictions that have adopted an impact-fee funding system. The initial adoption of the Florida Impact Fee Act took place in 2006. However, over the years, several changes have been made through approval of additional bills. Some of the main changes implemented with these bills are mentioned below.

House Bill 7103 and House Bill 207 which added regulation about impact-fee credits, administrative cost, and the collection and expenditure of impact fees (among others), were approved in 2019. Senate Bill 1066 which indicated that new/updated impact fees cannot be assessed on a permit that was approved before the fees were updated and also made impact-fee credits assignable and transferable, was approved in 2020. House Bill 337 and Senate Bill 750, which were adopted in 2021, provided new limitations in connection with impact fee increases. Now, impact fees cannot be increased more often than once every four years and an impact-fee increase may not exceed 50% of the current impact-fee rate. Additionally, impact-fee increases equivalent to 25% or less of the current rate must be implemented in two equal annual increments. Similarly, impact-fee increases above 25% (and not greater than 50%) of the current rate must be implemented in four equal annual increments. A local government may be able to increase one or more impact fees beyond the limitations described above by providing a study to justify the need for a larger increase in addition to holding two public workshops and obtaining approval with at least two-thirds of the votes.



The current text of the Florida Impact Fee Act, available under F.S. § 163.31801 is provided below:

- (1) This section may be cited as the "Florida Impact Fee Act."
- (2) The Legislature finds that impact fees are an important source of revenue for a local government to use in funding the infrastructure necessitated by new growth. The Legislature further finds that impact fees are an outgrowth of the home rule power of a local government to provide certain services within its jurisdiction. Due to the growth of impact fee collections and local governments' reliance on impact fees, it is the intent of the Legislature to ensure that, when a county or municipality adopts an impact fee by ordinance or a special district adopts an impact fee by resolution, the governing authority complies with this section.
- (3) For purposes of this section, the term:
 - (a) "Infrastructure" means a fixed capital expenditure or fixed capital outlay, excluding the cost of repairs or maintenance, associated with the construction, reconstruction, or improvement of public facilities that have a life expectancy of at least 5 years; related land acquisition, land improvement, design, engineering, and permitting costs; and other related construction costs required to bring the public facility into service. The term also includes a fire department vehicle, an emergency medical service vehicle, a sheriff's office vehicle, a police department vehicle, a school bus as defined in s. 1006.25, and the equipment necessary to outfit the vehicle or bus for its official use. For independent special fire control districts, the term includes new facilities as defined in s. 191.009(4).
 - (b) "Public facilities" has the same meaning as in s. 163.3164 and includes emergency medical, fire, and law enforcement facilities.
- (4) At a minimum, each local government that adopts and collects an impact fee by ordinance and each special district that adopts, collects, and administers an impact fee by resolution must:
 - (a) Ensure that the calculation of the impact fee is based on a study using the most recent and localized data available within 4 years of the current impact fee update. The new



- study must be adopted by the local government within 12 months of the initiation of the new impact fee study if the local government increases the impact fee.
- (b) Provide for accounting and reporting of impact fee collections and expenditures and account for the revenues and expenditures of such impact fee in a separate accounting fund.
- (c) Limit administrative charges for the collection of impact fees to actual costs.
- (d) Provide notice at least 90 days before the effective date of an ordinance or resolution imposing a new or increased impact fee. A local government is not required to wait 90 days to decrease, suspend, or eliminate an impact fee. Unless the result is to reduce the total mitigation costs or impact fees imposed on an applicant, new or increased impact fees may not apply to current or pending permit applications submitted before the effective date of a new or increased impact fee.
- (e) Ensure that collection of the impact fee may not be required to occur earlier than the date of issuance of the building permit for the property that is subject to the fee.
- (f) Ensure that the impact fee is proportional and reasonably connected to, or has a rational nexus with, the need for additional capital facilities and the increased impact generated by the new residential or commercial construction.
- (g) Ensure that the impact fee is proportional and reasonably connected to, or has a rational nexus with, the expenditures of the funds collected and the benefits accruing to the new residential or nonresidential construction.
- (h) Specifically earmark funds collected under the impact fee for use in acquiring, constructing, or improving capital facilities to benefit new users.
- (i) Ensure that revenues generated by the impact fee are not used, in whole or in part, to pay existing debt or for previously approved projects unless the expenditure is reasonably connected to, or has a rational nexus with, the increased impact generated by the new residential or nonresidential construction.

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(a) Notwithstanding any charter provision, comprehensive plan policy, ordinance, development order, development permit, or resolution, the local government or



special district that requires any improvement or contribution must credit against the collection of the impact fee any contribution, whether identified in a development order, proportionate share agreement, or any form of exaction related to public facilities or infrastructure, including monetary contributions, land dedication, site planning and design, or construction. Any contribution must be applied on a dollar-for-dollar basis at fair market value to reduce any impact fee collected for the general category or class of public facilities or infrastructure for which the contribution was made.

- (b) If a local government or special district does not charge and collect an impact fee for the general category or class of public facilities or infrastructure contributed, a credit may not be applied under paragraph (a).
- (6) A local government, school district, or special district may increase an impact fee only as provided in this subsection.
 - (a) An impact fee may be increased only pursuant to a plan for the imposition, collection, and use of the increased impact fees which complies with this section.
 - (b) An increase to a current impact fee rate of not more than 25 percent of the current rate must be implemented in two equal annual increments beginning with the date on which the increased fee is adopted.
 - (c) An increase to a current impact fee rate which exceeds 25 percent but is not more than 50 percent of the current rate must be implemented in four equal installments beginning with the date the increased fee is adopted.
 - (d) An impact fee increase may not exceed 50 percent of the current impact fee rate.
 - (e) An impact fee may not be increased more than once every 4 years.
 - (f) An impact fee may not be increased retroactively for a previous or current fiscal or calendar year.
 - (g) A local government, school district, or special district may increase an impact fee rate beyond the phase-in limitations established under paragraph (b), paragraph (c), paragraph (d), or paragraph (e) by establishing the need for such increase in full



compliance with the requirements of subsection (4), provided the following criteria are met:

- 1. A demonstrated-need study justifying any increase in excess of those authorized in paragraph (b), paragraph (c), paragraph (d), or paragraph (e) has been completed within the 12 months before the adoption of the impact fee increase and expressly demonstrates the extraordinary circumstances necessitating the need to exceed the phase-in limitations.
- 2. The local government jurisdiction has held not less than two publicly noticed workshops dedicated to the extraordinary circumstances necessitating the need to exceed the phase-in limitations set forth in paragraph (b), paragraph (c), paragraph (d), or paragraph (e).
- 3. The impact fee increase ordinance is approved by at least a two-thirds vote of the governing body.
- (h) This subsection operates retroactively to January 1, 2021.
- (7) If an impact fee is increased, the holder of any impact fee credits, whether such credits are granted under s. 163.3180, s. 380.06, or otherwise, which were in existence before the increase, is entitled to the full benefit of the intensity or density prepaid by the credit balance as of the date it was first established. If a local government adopts an alternative transportation system pursuant to s. 163.3180(5)(i), the holder of any transportation or road impact fee credits granted under s. 163.3180 or s. 380.06 or otherwise that were in existence before the adoption of the alternative transportation system is entitled to the full benefit of the intensity and density prepaid by the credit balance as of the date the alternative transportation system was first established.
- (8) A local government, school district, or special district must submit with its annual financial report required under s. 218.32 or its financial audit report required under s. 218.39 a separate affidavit signed by its chief financial officer or, if there is no chief financial officer, its executive officer attesting, to the best of his or her knowledge, that all impact fees were collected and expended by the local government, school district, or special district, or were collected and expended on its behalf, in full compliance with the spending period provision



- in the local ordinance or resolution, and that funds expended from each impact fee account were used only to acquire, construct, or improve specific infrastructure needs.
- (9) In any action challenging an impact fee or the government's failure to provide required dollar-for-dollar credits for the payment of impact fees as provided in s. 163.3180(6)(h)2.b., the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee or credit meets the requirements of state legal precedent and this section. The court may not use a deferential standard for the benefit of the government.
- (10) Impact fee credits are assignable and transferable at any time after establishment from one development or parcel to any other that is within the same impact fee zone or impact fee district or that is within an adjoining impact fee zone or impact fee district within the same local government jurisdiction and which receives benefits from the improvement or contribution that generated the credits. This subsection applies to all impact fee credits regardless of whether the credits were established before or after June 4, 2021.
- (11) A county, municipality, or special district may provide an exception or waiver for an impact fee for the development or construction of housing that is affordable, as defined in s. 420.9071. If a county, municipality, or special district provides such an exception or waiver, it is not required to use any revenues to offset the impact."

According to F.S. § 163.31801(4)(f) and F.S. § 163.31801(4)(g), as shown above, Florida local governments must ensure that the impact fees are proportional and reasonably connected to:

- 1) The need for improvements that have been triggered by the impacts caused by new the development.
- 2) The benefits that the new development receives after the collected fees are used to pay for the needed improvements.

In other words, the impact fees should have a rational nexus with the infrastructure needs and the benefits received by those who pay to address such needs. This is called the *dual rational nexus test*.

Another relevant test is the *rough proportionality test*, which, in the context of this document, requires local governments to ensure that the impact fees paid by a new development are related



both in nature and extent to the impact caused by that development. In other words, the collected fees must roughly correspond to the burden placed on the government.

The methodology used to develop the Transportation Impact Fees for the Town of Dundee is consistent with the rational nexus and rough proportionality concepts described above. As a result, the proposed Transportation Impact Fees meet the requirements of both the dual rational nexus test and the rough proportionality test. It is important to note that adjustments were made to the initially calculated fees to account for fee credits (or deductions) related to additional funding as well as existing trips on substandard roadway segments for which no capacity was assumed in the calculations. The sections that follow provide detailed information on the data, assumptions, and methodology used to develop the proposed Transportation Impact Fee schedule.

6. ANTICIPATED GROWTH

Between 2000 and 2020, the Town of Dundee experienced population growth at a significantly faster pace than Polk County as a whole (approximately 30% faster) and the unincorporated areas of Polk County (approximately 33% faster).

	Total Po	pulation (in Year)	Change in	Poulation		intywide inge	Growt	h Rate
Jurisdiction	2000	2010	2020	2000-2010	2010-2020	2000-2010	2010-2020	2000-2010	2010-2020
Town of Dundee	2,912	3,717	5,235	805	1,518	0.68%	1.23%	27.64%	40.84%
Haines City	13,174	20,535	26,669	7,361	6,134	6.23%	4.99%	55.88%	29.87%
Lakeland	78,452	97,422	112,641	18,970	15,219	16.05%	12.38%	24.18%	15.62%
Winter Haven	26,487	33,874	49,219	7,387	15,345	6.25%	12.48%	27.89%	45.30%
Unincorporated Polk County	302,797	375,647	444,898	72,850	69,251	61.65%	56.32%	24.06%	18.44%
Polk County (Countywide)	483,924	602,095	725,046	118,171	122,951	100.00%	100.00%	24.42%	20.42%
Based on U.S. Census Bureau Decen	nial Census,	: Florida Pop	ulation Stu	dies, Bureau d	of Economic (and Business	Research (Bl	EBR)	

Table 1 – Population Summary (Polk County and Municipalities)

From 2000 to 2010, most of Polk County's growth occurred within unincorporated areas. During this period, the Town's population increased by approximately 27.64%, representing less than one percent of the County's total population growth. However, from 2010 to 2020, population growth in the unincorporated areas slowed, while Dundee's growth rate increased to 40.84%.



Table 1 provides a summary of population data and statistics, based on decennial census data, including several Polk County municipalities and the unincorporated areas.

One of the fundamental considerations in the process of creating a Transportation Impact-fee funding system, that meets the dual rational nexus test, is estimating future growth. The population forecast used for the analysis presented here, detailed in the Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR), was based on a thorough analysis of the Florida Department of Transportation District One Regional Planning Model (D1RPM)'s 2045 socioeconomic data, the Polk County Property Appraiser building data, as well as incoming-development data provided by the Town of Dundee. It is anticipated that Dundee's population will increase to approximately 20,600 by 2035 and 24,900 by 2045. Figure 5 illustrates the Town's population forecast.

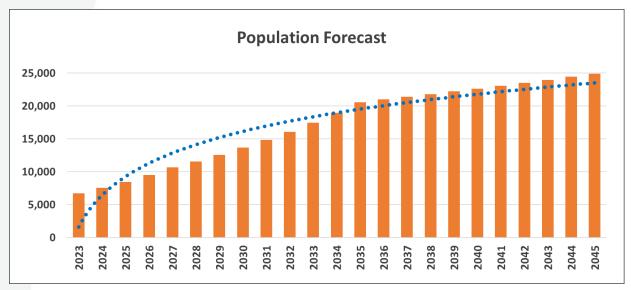


Figure 5 – Town of Dundee's Population Forecast

Most of the anticipated growth within the Town of Dundee will be driven by the incoming development projects mentioned above. Since the land uses of some projects, especially large multi-phase developments, can change based on market conditions and demand, periodic updates to the townwide traffic analysis and this technical report will be necessary. These updates will help adjust expected levels of service and transportation impact fees (or future mobility fees) to reflect updated population forecasts. Other reasons for potential fee adjustments may include the implementation of special fee districts or incentives (e.g., lower fees) to promote activity centers or special areas where development is desired. The frequency of these updates will depend on the level of development activity and the Town's goals; however, biennial updates are desirable.

Figure 6 illustrates the cumulative population increase by year, relative to 2022, and the corresponding estimated population from incoming developments. As shown in the figure, most



of the forecasted growth within the Town of Dundee is tied to actual projects currently at various stages of the permitting process. Consequently, the substantial population increase discussed above is likely and will significantly impact the Town's transportation network. From a fiscal perspective, this could result in insufficient future revenue to meet the additional capacity needs of the transportation network. Additional factors, such as homestead exemptions and decreasing fuel-tax revenues, could further exacerbate funding challenges. As a result, local governments in Florida have increasingly relied on transportation impact fees to fund the capacity improvements required by new development.

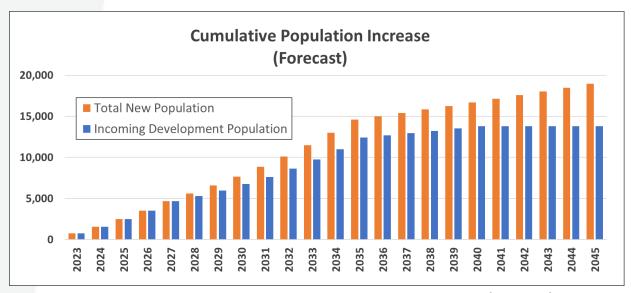


Figure 6 – Town of Dundee's Cumulative Population Increase (Forecast)

The socioeconomic data produced as part of the Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR) were used to develop estimates of the Town's future growth in terms of land use and population. Table 2 provides a summary of some of the data resulting from this analysis. As shown in Table 2, by 2045, the Town's population is expected to be approximately 4.76 times the 2020 population figure from the U.S. Census Bureau. By 2035, Dundee's number of residential units is projected to reach approximately 6,075 (5,027 single-family units and 1,048 multifamily units), representing a 199% increase from 2022. By 2045, Dundee's number of residential units is expected to reach approximately 8,882 (7,157 single-family units and 1,725 multifamily units), which would represent a 46% increase from 2035.



	Total Resid	ential Units	Tota	tage	Estimated	
Year	SF	MF	Industrial	Commercial	Services	Population
		2020 pc	pulation fror	n U.S. Census	Bureau data:	5,235
2022	1,919	113	1,666	822	893	5,983
2035	5,027	1,048	1,990	1,257	1,600	17,178
2045	7,157	1,725	2,238	1,592	2,143	24,921

Estimates based on Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR), completed by ESRP Corporation in June 2023.

Table 2 – Land Use and Population Forecast (Town of Dundee)

Traffic volumes from the TTA&ADTR and the geometry of the Town's Thoroughfare Network were used to estimate the change in vehicle miles of travel during the 24-year period between 2022 and 2045. Table 3 summarizes the results of this analysis.

Year	Town + County Arterials & Collectors	State Arterials & Collectors	Total
2022 TIP* Base Year	67,625	253,457	321,082
2045 Model and TIP Future Year	234,197	459,464	693,662
2022 to 2045 VMT Increase	166,573	206,007	372,579

Source: Projected growth in vehicle miles of travel (VMT) prepared by ESRP Corporation. The FDOT District One Regional Planning Model (D1RPM) was used to calculate 2045 VMT. Polk County Property Appraiser data were used to refine the model's socioeconomic data. For the Transportation Improvement Plan (TIP) base year, 2022, traffic counts were collected and used together with other available data to estimate peak season weekday average daily traffic (PSWADT), as well as average annual daily traffic (AADT) and VMT.

*TIP: Transportation Improvement Plan

Table 3 – Increase in Vehicle Miles Traveled (VMT)



7. EXISTING CONDITIONS

In order to understand the existing mobility conditions within the Town of Dundee, ESRP conducted a capacity analysis of the Town's Thoroughfare Network. This analysis was part of the Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR). Existing traffic volumes were determined based on current counts, traffic data from the Polk TPO 2022 Roadway Network Database, and FDOT AADT data. The 2022 Directional Design Hour Volumes (DDHV) shown on Map 08 of the TTA&ADTR were used to perform PM peak-hour roadway-segment capacity analyses for the segments included in the study area. Standard levels of service were based on Section 6.01.06 of the Town of Dundee Land Development Code. Standard peak-hour capacities for each roadway segment were determined using the FDOT 2020 Quality/Level of Service Handbook and the specific characteristics of each segment. A table summarizing the results of this capacity analysis is provided in Appendix 2.

According to Florida Statutes, new developments should not be charged to mitigate existing deficiencies in the transportation system. To ensure this, a more general townwide analysis was conducted to evaluate the capacity of the Town's Thoroughfare Network (including all main arterials and collectors). This analysis involved calculating the townwide vehicle miles of travel (VMT), the townwide vehicle miles of capacity (VMC), and the corresponding VMT/VMC ratios, which indicate the overall congestion level of the roadway network. Table 4 summarizes the results of this analysis.

Type of Facility (Within Town of Dundee Limits)	Town + County Arterials & Collectors	State Arterials & Collectors	Combined (All Roadways)
Scenario (Base Year)	Existing (2022)	Existing (2022)	Existing (2022)
Vehicle Miles of Travel (VMT)	67,625	253,457	321,082
Vehicle Miles of Capacity (VMC)	331,951	482,812	814,764
VMT/VMC	0.20	0.52	0.39

VMT estimated based on existing counts, K factors, the Polk TPO 2022 Roadway Network Database and FDOT AADT data. VMC calculated based on actual geometry and adopted capacities.

Table 4 – Townwide Existing Conditions

The VMT/VMC ratio is a simple measure of the overall capacity utilized in the Town's transportation network. A lower VMT/VMC ratio indicates that less capacity is being used and congestion levels are generally lower, while a higher VMT/VMC ratio suggests more congestion and potential capacity issues. As shown in Table 4, the VMT/VMC ratios within Dundee are low.



For all Town and County arterials and collectors, the existing VMT/VMC ratio is 0.20, indicating that most of the Town's Thoroughfare Network currently experiences low congestion levels. Similarly, all State roads within Town limits have an existing VMT/VMC ratio of 0.52, which, although higher, still reflects low congestion. The overall (systemwide) VMT/VMC ratio is 0.39.

FUTURE CONDITIONS

As the Town grows, travel demand increases, leading to a decrease in the available capacity of transportation facilities. A solid understanding of the future operating conditions of the transportation system is essential for identifying the best solutions (such as improvements and strategies) that will maintain the adopted levels of service and, in turn, enhance mobility, connectivity, and quality of life.

As part of the Town of Dundee's Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR), ESRP conducted analyses to estimate the future (2045) traffic volumes on the Town's roadway network. The travel-demand model (D1RPM) was set up based on a detailed analysis of socioeconomic data from various sources, the geometry of the Town's Thoroughfare Network, and the locations of all incoming development projects. The model output was then used to calculate the 2045 Directional Design Hour Volumes (DDHV).

The 2045 Directional Design Hour Volumes (DDHV) shown on Map 11 of the TTA&ADTR were used to perform PM peak-hour roadway-segment capacity analyses for the segments included in the study area. The standard levels of service were based on Section 6.01.06 of the Town of Dundee Land Development Code. Standard peak-hour capacities for each roadway segment were determined using the FDOT 2020 Quality/Level of Service Handbook and considering the specific characteristics of all roadway-network segments. A table summarizing the results of this capacity analysis is provided in Appendix 3.

As shown in Appendix 3, several roadway segments will not be able to meet level-of-service standards under 2045 traffic conditions. As part of the TTA&ADTR, ESRP conducted a detailed analysis for each of these segments to identify the most reasonable mitigation approaches to achieve the adopted levels of service under future conditions. Recommended improvements were proposed on a case-by-case basis.



8. PROPOSED IMPROVEMENTS

The proposed Town of Dundee Transportation Impact Fees are based on improvements outlined in the Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR) prepared by ESRP. However, not all the improvements identified in the TTA&ADTR were used for impact-fee calculation purposes. Maintenance improvements, such as resurfacing or restriping, cannot be funded with TIF funds and were therefore excluded from the calculations. Additionally, the proposed impact fees are not intended to fund improvements on State-owned or State-maintained facilities. Consequently, improvements on State roadways were also excluded from the calculations. A table detailing the improvements included in the TIF calculations, along with the estimated cost of each improvement, is provided in Appendix 4.

The improvements listed in Appendix 4 are capacity-addition projects with estimated costs adapted from FDOT data. These improvements include roadway widening, the addition of auxiliary lanes at major intersections, upgrades to paved and unpaved segments of substandard roads, and the construction of new roads. Table 5 provides a summary of the proposed improvements, categorized by type, along with the corresponding total lengths in miles and the lane miles of roadway that will be added or improved.

Type of Improvement	Total Length (Miles)	Lane Miles of Roadway ¹
Widen from 2 lanes to 4 lanes (undivided) with LT lanes at main int.	0.87	1.74
Widen from 2 lanes to 4 lanes (undivided)	2.39	4.78
Add right-turn lanes at main intersections	0.63	n/a
Add right-turn lanes at main intersections - Transitioning Areas	0.50	n/a
Improve existing unpaved substandard road to 2-lane road (undivided)	0.26	0.51
Construct new two-lane road	4.34	8.68
Construct new two-lane road - Transitioning Areas	1.05	2.10
Improve existing 12%-paved / 82%-unpaved substandard road (2-lane undiv.)	0.94	1.89
Improve existing 49%-paved / 51%-unpaved substandard road (2-lane undiv.)	1.01	2.03
Improve existing 65%-paved / 35%-unpaved substandard road (2-lane undiv.)	0.95	1.90
		23.63

Table 5 – Proposed Transportation Improvements

Based on the assumptions and results of the Townwide Traffic Analysis, the improvements listed in Table 6 will be sufficient to ensure that the standard level of service is maintained on all Town



¹Lane miles of roadway only include through lanes.

and County roads within Dundee's Thoroughfare Network. It is assumed that FDOT will fund the necessary improvements on State-owned or State-maintained facilities.

9. ROADWAY CAPACITY

As discussed in the Anticipated Growth section of this document, travel demand within the Town of Dundee is expected to increase significantly over the next couple of decades. Implementing the proposed improvements discussed in the previous section will enable the Town to maintain adequate levels of service on Town and County roadways within Dundee's limits. These improvements will add a significant amount of person-miles of capacity (PMC), distributed among various roadway facilities located in different areas of the Town. Table 6 shows the roadway capacities used for each type of improvement. These capacities are based on the functional classification of the roadway facilities, their geometry, and the FDOT 2020 Quality/Level of Service Handbook. For substandard roads that include both paved and unpaved sections, special capacities were calculated based on the lengths of the paved and unpaved segments. A similar approach was used to determine an estimated unit cost for these facilities.

	Roadway Capacity*		
Type of Improvement	(Persons/Day)	(Veh/Day)	
Widen from 2 lanes to 4 lanes (undivided) with LT lanes at main int.	25,319	17,460	
Widen from 2 lanes to 4 lanes (undivided)	15,516	10,700	
Add right-turn lanes at main intersections	1,283	885	
Add right-turn lanes at main intersections - Transitioning Areas	1,175	810	
Improve existing unpaved substandard road to 2-lane road (undivided)	19,258	13,280	
Construct new two-lane road	19,258	13,280	
Construct new two-lane road - Transitioning Areas	17,619	12,150	
Improve existing 12%-paved / 82%-unpaved substandard road (2-lane undiv.)	16,947	11,686	
Improve existing 49%-paved / 51%-unpaved substandard road (2-lane undiv.)	9,821	6,773	
Improve existing 65%-paved / 35%-unpaved substandard road (2-lane undiv.)	6,740	4,648	

Sources: FDOT Quality/Level of Service Handbook; FHWA 2022 National Household Travel Survey.

An average vehicle occupancy factor of 1.45 was used for TIF analysis purposes.

Table 6 – Capacity of Roadway Improvements

The capacities in Table 6 were estimated based on the specific characteristics of each type of improvement, with engineering judgment also applied. These capacities were then used to



^{*} Capacity values do not include bicycle lanes or sidewalks.

determine the increase in person-miles of capacity (PMC) that the proposed improvements can provide, as detailed in Table 7

Type of Improvement	Added Capacity (PMC)	Estimated Cost (\$)
Widen from 2 lanes to 4 lanes (undivided) with LT lanes at main int.	22,040	14,613,643
Widen from 2 lanes to 4 lanes (undivided)	37,093	34,897,794
Add right-turn lanes at main intersections	806	1,834,711
Add right-turn lanes at main intersections - Transitioning Areas	591	1,068,698
Improve existing unpaved substandard road to 2-lane road (undivided)	4,917	2,894,227
Construct new two-lane road	83,595	52,967,225
Construct new two-lane road - Transitioning Areas	18,519	7,923,526
Improve existing 12%-paved / 82%-unpaved substandard road (2-lane undiv.)	15,985	9,987,507
Improve existing 49%-paved / 51%-unpaved substandard road (2-lane undiv.)	9,959	8,404,239
Improve existing 65%-paved / 35%-unpaved substandard road (2-lane undiv.)	6,400	6,924,656
Total PMC Increase:	199,906	141,516,226

Sources: Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR), 2023; FHWA 2022 National Household Travel Survey; FDOT Cost Per Mile Models for Long Range Estimating; FDOT project cost data.

Table 7 – PMC Increase and Estimated Cost of Improvements

Some of the PMC increase values recorded in Table 9 were obtained by using the combined capacity of two types of improvements. For example, the total increase in capacity on substandard roads with both paved and unpaved sections was calculated as a weighted average, based on section length, of improving a paved substandard road and constructing a new road, as no capacity was assumed for substandard unpaved segments.

An analysis of anticipated future (2045) townwide conditions after the implementation of the capacity improvements discussed above was conducted. For this analysis, it was assumed that the State-road improvements identified in the TTA&ADTR would also be provided by FDOT to maintain level-of-service standards on State-owned and maintained facilities. The results of this analysis indicated that, with the proposed improvements, the Town will be able to maintain a relatively low overall VMT/VMC ratio for all its main arterials and collectors. Table 8 summarizes these results.

As shown in Table 8, the future VMT/VMC ratio for Town and County arterials and collectors is expected to be 0.5. Although this is significantly higher than the existing VMT/VMC ratio, it is still low and indicates overall adequate capacity and level of service on these facilities. The future VMT/VMC ratio on state-road segments, assuming that the state-road improvements identified in the TTA&ADTR are in place by 2045, is anticipated to be 0.75, which suggests that congestion on these segments will also increase significantly during the study period. With the proposed improvements, the state-road segments are expected to meet level-of-service standards under



future (2045) conditions. However, by that time, these segments will be nearing standard capacity. The estimated systemwide future (2045) VMT/VMC ratio is 0.64, which can be considered relatively low.

Type of Facility (Within Town of Dundee Limits)	Town + County Arterials & Collectors	State Arterials & Collectors*	Combined (All Roadways)
Scenario (Year)	Future (2045)	Future (2045)	Future (2045)
Vehicle Miles of Travel (VMT)	234,197	459,464	693,662
Vehicle Miles of Capacity (VMC)	469,227	609,593	1,078,820
VMT/VMC	0.50	0.75	0.64

VMT estimated based on incoming development, anticipated population growth, and travel-demand model (D1RPM) output. VMC calculated based on anticipated future geometry and adopted capacities.

Table 8 - Townwide Future Conditions

10. PERSON CAPACITY AND DEMAND

10.1. Capacity Addition Ratio

The capacity addition ratio (CAR) expresses the relationship between the future increase in person-miles of transportation-system capacity and the expected growth in travel demand during a defined period of time. It provides an indication of the quality of service that is being sought, or that can be achieved, under specific conditions. Exhibit 1 shows the formula used to calculate the capacity addition ratio.

```
CAR = (PMCa / PMTa)

Where:

CAR = Capacity Addition Ratio

PMCa = Added Miles of Capacity

PMTa = Additional Person Miles of Travel
```

Exhibit 1 – Capacity Addition Ratio

Knowing the expected future increase in travel demand, the type of improvements and/or strategies in a transportation improvement plan can be adjusted to obtain a desired quality of



^{*} The State VMC value assumes that the recommended state-road improvements shown in the 2023 Town of Dundee
Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR) are in place by 2045. The
transportation impact fees provided in this document are not intended to provide funding for improvements on state roads.

service. As a result, the capacity addition ratio can be below or above 1.00. However, setting it at a rate that is too high could result in undesirably high Transportation Impact fees, which would charge new developments beyond their impact on the transportation system's quality of service.

The 2022 vehicle miles of travel (VMT) from Table 3 and the 2045 vehicle miles of travel (VMT) from Table 8 were used to calculate the additional person miles of travel (PMTa), based on an average vehicle-occupancy rate of 1.45. This rate is derived from Florida data in the Federal Highway Administration's 2022 National Household Travel Survey (NHTS). A summary of the NHTS data used in the analysis is provided in Appendix 5. The added miles of capacity (PMCa) are equivalent to the total PMC increase from Table 7. The capacity addition ratio was calculated by dividing PMCa by PMTa. Table 9 summarizes the CAR calculations.

Year	VMT	PMT	РМТа	PMCa
2022	321,082	465,608	540,285	199,906
2045	693,662	1,005,893	540,265	199,900
Capa	city Addition	Ratio (CAR):	0.3	700

Table 9 – Capacity Addition Ratio (CAR)

10.2. Person Miles of Capacity Rate

The person-miles of capacity rate (PMCr) represents the cost associated with providing one person-mile of transportation-system capacity. Exhibit 2 shows the variables and formulas involved in the PMCr calculations.

```
BACtp = (GCtp x CCaf)

RCtp = (BACtp x CAR)

PMCr = (RCtp / PMCa)

Where:

GCtp = Gross Cost of Transportation Plan

CCaf = Current Conditions Analysis Factor (1.00)

BACtp = Backlog Adjusted Cost of Transportation Plan

CAR = Capacity Addition Ratio

RCtp = Relative Cost of Transportation Plan improvements

PMCa = Added Miles of Capacity

PMCr = Person Miles of Capacity Rate
```

Exhibit 2 – Person Miles of Capacity Rate



This rate is obtained by dividing the relative cost of the transportation improvement plan (RCtp) by the person-miles of capacity increase provided in Table 7. To calculate the RCtp, the gross cost of the transportation improvement plan (GCtp), which represents the total cost of the improvements funded by Transportation Impact Fees, is multiplied by a current conditions analysis factor (CCaf). This calculation results in an adjusted cost for the transportation improvement plan that accounts for existing transportation-system deficiencies (BACtp). The RCtp is then derived by multiplying the BACtp by the capacity addition ratio (CAR). The primary purpose of the CCaf is to ensure that new development does not pay to mitigate existing deficiencies in transportation infrastructure that operates below the desired quality of service or the adopted standard of service. Most of the Town of Dundee's Thoroughfare Network currently experiences low congestion levels, and it is reasonable to assume that new growth will not be funding transportation-infrastructure improvements at a rate that addresses existing capacity deficiencies. Consequently, a 1.0 CCaf was used for the analysis. Table 12 summarizes the PMCr calculations.

GCtp	CAR	RCtp	PMCa
141,516,226	0.37	52,361,052	199,906
Person Miles of Capacity Rate (PMCr):		261.93	

Table 10 – Person Miles of Capacity Rate (PMCr)

10.3. Person Travel Demand per Use

The person-travel demand per use (PTDu) values reflect the amount of travel that can be generated by different land uses. These values are indicators of the level of impact that each type of land use can have on the Town's transportation system and are, therefore, a crucial part of the Transportation Impact Fee calculations. The PTDu values ensure proportionality between the impacts of new development and the costs associated with the solutions needed to mitigate them. In other words, PTDu values are essential to meeting the Rough Proportionality Test. Exhibit 3 shows the various variables and formulas involved in the PTDu calculations.

Since US 27 and State Road 17 are transportation facilities owned and maintained by the Florida Department of Transportation, traffic volumes on the Town's Thoroughfare Network should be adjusted to exclude travel on these facilities for certain Transportation Impact Fee calculations. This adjustment is achieved using a state-facility travel factor (SFTf), which, in this case, was calculated based on estimates of the trips generated by seven incoming developments. The trip distribution and traffic assignment for these seven developments were modeled using the D1RPM with revised socioeconomic data. The model output was used to estimate vehicle-miles



of travel on the Town and County arterials and collectors, as well as on State roads within the Town of Dundee limits (INCvmt and EXCLvmt). Exhibit 3 includes the formulas used for SFTf calculations, and Table 11 summarizes the corresponding results. A summary of the trip data used for SFTf calculations is provided in Appendix 6.

```
TOTvmt = (\sum INCvmt + \sum EXCLvmt)
SFTf = 1 - (\sum EXCLvmt / TOTvmt)
PTDu = ((((TG \times \%NEW) \times PTf) \times (PTIen \times SFTf)) \times ODf)
   Where:
 TOTvmt
                 Total Future New VMT on Study Area Arterials and Collectors
 INCvmt =
                Future New VMT on Town and County Arterials and Collectors
                Future New VMT on State Arterials and Collectors
EXCLvmt =
                State Facility Travel Factor
    SFTf
    PTDu
                Person Travel Demand Per Use
      TG
            = Trip Generation
  %NEW
           = Percent of Trips that are Primary Trips
           = Person Trip Factor by Trip Purpose
     PTf
   PTlen
                Person Trip Length by Trip Purpose
                Origin-Destination factor to avoid double-counting of trips (0.50)
     ODf
```

Exhibit 3 – Person Travel Demand per Use

INCvmt	EXCLvmt	TOTvmt	SFTf			
19,181	13,745	0.5826				
Source: 2045 VMT estimated by ESRP Corporation based on seven (7) proposed						
developments located within Dundee boundaries. The D1RPM was used for this purpose.						

Table 11 – State Facility Travel Factor (SFTf)

The number of trips that a particular land use can generate is a key factor in PTDu calculations. Trip-generation rates were estimated for each of the 25 different land-use categories included in the proposed Transportation Impact Fee schedule. Descriptions of each land-use category are provided in the Definitions section of this document. Relevant data and average trip-generation rates, provided in the 11th edition of the ITE Trip Generation Manual, were used to develop "customized" trip-generation rates consistent with the ITE land-use codes (LUCs) included in each of the fee-schedule land-use categories. A summary table that includes the resulting Transportation Impact Fee rates, as well as additional relevant data, is included in Appendix 7.



The information provided in Appendix 7 also includes the percentage of new trips (%NEW), which represents the portion of generated trips that are not pass-by or diverted trips. The main reason for using this factor in PTDu calculations is to avoid accounting for trips that are already on the road for a different purpose but are attracted to a specific development that is "conveniently located" on or near their path. Although pass-by and diverted trips add turning-movement volumes at certain driveways and intersections, their additional impact on systemwide capacity is negligible.

Data from the FHWA's 2022 National Household Travel Survey (NHTS), a summary of which is included in Appendix 6, was used to estimate person-trip factors (PTf) for all the land-use categories in the Transportation Impact Fee schedule. The PTf values represent average vehicle occupancy; in other words, they can be used to convert vehicle trips into person trips. Vehicle occupancy values estimated for each land-use category, based on NHTS Florida data, are also provided in Appendix 7.

Data from the Florida 2022 National Household Travel Survey (NHTS), along with data from other Florida studies, were used to determine the person-trip lengths (PTlen) associated with each land-use category. The aforementioned data were analyzed to estimate reasonable trip lengths based on the characteristics of each proposed land-use category and its corresponding ITE land-use codes. The table in Appendix 7 also includes the estimated PTlen values.

The final factor included in the PTDu calculations is the origin-destination adjustment factor (ODf). Trips are typically generated by a specific land use within a development and are attracted to one or more land uses in a different development. Since any trip can be assumed to originate from one land use and have a destination at another, it is reasonable to consider all trips as "outbound trips" for one land use and "inbound trips" for another. To avoid double-counting, an ODf of 0.5 is applied.

All the variables and factors described above were used to calculate PTDu values for each of the 25 proposed TIF-schedule land-use categories, as outlined in Exhibit 3. A summary of the resulting PTDu values is provided in the "Calculated Person Travel Demand Per Use" table included in Appendix 8.



11. TRANSPORTATION IMPACT FEES (TIF)

Transportation Impact Fees before credits were calculated for each of the 25 land-use categories mentioned in the previous section of this document using the Transportation Impact Fee formula provided in Exhibit 4.



Exhibit 4 – Transportation Impact Fee Before Credits

The PTDu values, provided in Appendix 8, were multiplied by the PMCr value from Table 10 to obtain the Transportation Impact Fee values before credits (TIFbc) for each land-use category. PTDu values indicate the level of impact that a particular land-use unit of new development (e.g., dwelling unit; 1,000 square feet of gross leasable area; etc.) or redevelopment would have on the Town's transportation system. As mentioned earlier, the PMCr represents the cost associated with providing a unit of system capacity. Consequently, the Transportation Impact Fees charged to a new development (or redevelopment) will be equivalent to the cost of the improvements needed to mitigate its impact on the mobility system. Therefore, the Transportation Impact Fees presented here satisfy the first condition of the dual rational nexus test (the "need" part) as well as the rough proportionality test.

To meet the second condition of the dual rational nexus test (the "benefits" part), Transportation Impact Fees charged to new developments or redevelopments must be used in ways that benefit those specific developments or redevelopments. One effective approach is to establish districts and ensure that fees collected within a district are spent within that same district. However, it's important to recognize that not all travel is contained within a single district; some trips originating in one part of the Town may have destinations in other parts that fall outside the same district. To address this, some jurisdictions allow a degree of flexibility, permitting funds collected in one district to be used in adjacent districts, provided that the spending benefits the travel originating from the district where the funds were collected. Given the current size of the Town, establishing multiple districts is not recommended at this time. However, this may change in the future, and if so, the flexible approach described above might become suitable for the Town.



11.1. Fee Credits

Fee credits are adjustments to calculated impact fees, based on various factors, intended to ensure that new developments are not overcharged for infrastructure improvements. Various types of credits can be applied to transportation impact fees, including, but not limited to, revenue credits and debt credits. Revenue credits account for the use of other funding sources, such as local, state, or federal funds, for capacity-expanding improvements, while debt credits are applied when existing facilities, funded by outstanding debt, contribute to the current level of service (LOS). New developments should not be charged for both their own consumption of capacity and for retiring existing debt; therefore, impact fees are reduced to reflect future debt payments. Other credits are used to prevent new development from paying for infrastructure intended to provide a higher level of service than what is provided to existing development. The Transportation Impact Fees before credits (TIFbc) presented at the beginning of this section were adjusted by applying three different fee credits as follows:

11.1.1. Non-TIF Funding Credit

Polk County plans to invest about \$200 million over the next five years in expanding the capacity of its thoroughfares, as detailed in the County's adopted Community Investment Program. This funding, averaging around \$40 million annually, will be drawn from non-impact fee revenue sources, including gasoline and property taxes, as well as grants. The allocated funds are intended to support the expansion of the county's roadway network.

To account for the aforementioned funding, a gasoline-tax credit formula was adapted to calculate the applicable non-TIF funding credit (Fcred) for each land-use category. Exhibit 5 details the variables used in these calculations.

```
Fcred = NPV[((TG x PTlencr x %NEW x EDY x GTD)/(MPG x 2))]
   Where:
   Fcred
                Polk County Non-TIF Funding Credit
    NPV
                Net Present Value
                Trip Generation Rate
      TG
 PTlencr
                Trip Length for Credit Calculation
  %NEW
                Percent of Trips that are Primary Trips
     EDY
                Equivalent Days per Year
    GDT
                Equivalent Gas Tax Dollars per Gallon
                Vehicle Miles per Gallon
    MPG
```

Exhibit 5 – Polk County Non-TIF Funding Credit



As shown in Exhibit 5, Fcred was calculated based on an equivalent value of gasoline tax dollars per gallon (GDT), which was derived from the anticipated annual funding per VMT² and several assumptions for an average vehicle. These assumptions included 12,000 miles driven per year, 300 miles per gas tank, and 13.5 gallons per tank. GDT was then multiplied by the trip generation rate (TG), the trip length for credit calculation (PTlencr), the percentage of new trips (%NEW), and the equivalent days corresponding to the average fuel consumption per year. This product was divided by the vehicle miles per gallon (MPG) multiplied by two. The net present value of the resulting figure was obtained by assuming a 25-year period and a discount rate of 3.60%, reflecting the average national yield on AAA 30-year municipal bonds as of January 29, 2024. The trip length for credit calculation (PTlencr) was determined by adding 0.5 miles to the average trip length estimated for each land-use category. This adjustment accounts for the fact that vehicles consume fuel on minor local roads not included in the Town's Thoroughfare Network. The non-TIF funding credits calculated for each land-use category are provided in Appendix 9.

11.1.2. Substandard Road Credit

Some links in the Town of Dundee Thoroughfare Network are substandard, unpaved segments that will require substantial improvements (often near full new construction) to meet the Town's transportation standards. Therefore, segments with these characteristics were assumed to have zero existing capacity for impact fee calculation purposes. Since existing counts show some travel occurring on these segments, it is necessary to adjust the Transportation Impact Fees to account for the capacity used by existing traffic on these specific substandard segments. This adjustment is needed because the fee calculations reflect the full improved capacity, but a small portion of that capacity, which is currently used, cannot be charged to new development.

Since Dundee is implementing Substandard Road regulations that will allow the Town to request additional funding for the accelerated improvement of substandard roads significantly impacted by certain developments, the Transportation Impact Fees (or future Mobility Fees) should be updated periodically. This ensures necessary reductions are made to account for additional non-TIF funding associated with substandard facilities.

The substandard road credit (SRcred) for each land-use category was calculated as shown in Exhibit 6. The combined existing VMT on zero-capacity substandard roads (ZCSRvmt) was divided by the added miles of capacity (PCMa), and the resulting value was multiplied by the difference

² The annual funding per VMT was calculated using the existing countywide VMT of 5,054,887 provided in the Polk County 2023 Transportation Impact Fee Update.



between the TIF before credit and the non-TIF funding credit. The substandard road credits calculated for each land-use category are provided in Appendix 9.

```
SRcred = (TIFbc - Fcred) x (∑ ZCSRvmt / PMCa)

Where:

SRcred = Substandard Road Credit

TIFbc = Transportation Impact Fee Before Credits

Fcred = Polk County Non-TIF Funding Credit

ZCSRvmt = Zero-Capacity Substandard-Road VMT

PMCa = Added Miles of Capacity
```

Exhibit 6 - Substandard Road Credit

11.1.3. County TIF Credit

Like the Town of Dundee, Polk County also charges new development for capacity-expanding improvements on the County's transportation network. New development within Dundee limits must pay both Town impact fees and County impact fees. Dundee's Thoroughfare Network includes several County roads, and the Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR) identified future capacity-addition needs on those roads. Since development within the Town must pay County Impact Fees, the cost of these capacity-addition improvements will be funded with County revenue. As a result, a fee credit should be applied to the Town's Transportation Impact Fee. This credit (County TIF credit) represents the portion of Dundee's Transportation Impact Fee that corresponds to the proportional cost of capacity-addition improvements on County facilities within the Town's network. Exhibit 7 provides the formula and corresponding variables for the calculation of the County TIF credit.

```
TIFcred = (TIFbc - Fcred - SRcred) x NOMpr

TIFcred <= Corresponding Polk County TIF

Where:

TIFcred = Polk County TIF Credit

TIFcred <= Corresponding Polk County TIF for Specific Land Use

TIFbc = Transportation Impact Fee Before Credits

Fcred = Polk County Non-TIF Funding Credit

SRcred = Substandard Road Credit

NOMpr = Portion Transportation Plan Cost Corresponding to Improvements on Not-Owned/Maintained Facilities (County Facilities).
```

Exhibit 7 – Polk County TIF Credit



As shown in Exhibit 7, the County TIF credit (TIFcred) is calculated by subtracting the non-TIF funding credit (Fcred) and the substandard road credit (SRcred) from the TIF before credit (TIFbc) and multiplying the result by the portion of transportation-plan costs corresponding to improvements on facilities not owned or maintained by the Town (NOMpr), which in this case are County roads. The County TIF credits calculated for each land-use category are also provided in Appendix 9.

The final Transportation Impact Fees are calculated by subtracting all the fee credits described above from the TIF before credit (TIFbc), as shown in Exhibit 8.

```
TIF = TIFbc - Fcred - Srcred - TIFcred

Where:

TIF = Transportation Impact Fee

TIFbc = Transportation Impact Fee Before Credits

Fcred = Polk County Non-TIF Funding Credit

SRcred = Substandard Road Credit

TIFcred = Polk County TIF Credit
```

Exhibit 8 – Transportation Impact Fee

The resulting Transportation Impact Fees for each of the 25 land-use categories discussed above are included in the Transportation Impact Fee schedule provided in the following section of this document.

12. PROPOSED TIF SCHEDULE

The Transportation Impact Fees provided in Table 12 below were developed as described in the previous section of this report. In this case, both "Calculated" and "Suggested" fees are the same because no additional fee reductions are recommended due to the capacity-expansion needs anticipated from the substantial future growth within the Town of Dundee.

A comparative analysis of the fees from Table 12 and the current Town of Dundee Transportation Impact Fees was conducted. Since the existing TIF schedule used by the Town has 33 land-use categories, while the proposed TIF schedule has only 25, a side-by-side comparison was not feasible. However, current TIF-schedule land-use categories that matched (to the extent possible) the proposed TIF-schedule land-use categories were used for the comparison. A table showing the details of this comparison, including the selected land-use categories from the



current TIF schedule, the corresponding Impact Fees, and the calculated percentages of fee increase or decrease, is provided in Appendix 10.

		Transportation Impact Fees		
Land Use	Demand Unit	Calculated	Suggested	
Residential				
Single Family	Dwelling Unit	\$6,093.12	\$6,093.12	
Multifamily	Dwelling Unit	\$4,234.65	\$4,234.65	
Mobile Home Park	Dwelling Unit	\$3,382.68	\$3,382.68	
Senior Adult Housing	Dwelling Unit	\$2,654.95	\$2,654.95	
Non-Residential			•	
Retail (>150k SF)	1,000 SF	\$10,283.37	\$10,283.37	
Retail (40-150k SF)	1,000 SF	\$18,551.52	\$18,551.52	
Retail (<40k SF)	1,000 SF	\$9,571.48	\$9,571.48	
Restaurant	1,000 SF	\$28,612.04	\$28,612.04	
Coffee Shop/Fast-Food Restaurant with DTW	1,000 SF	\$44,028.75	\$44,028.75	
Fast-Food Restaurant without DTW	1,000 SF	\$76,509.40	\$76,509.40	
Convenience Store/Gas Station	1,000 SF	\$66,859.74	\$66,859.74	
Car Wash / Detail Center	Wash Stalls	\$23,161.34	\$23,161.34	
Hotel/Lodging	Room	\$1,853.77	\$1,853.77	
Office	1,000 SF	\$5,212.85	\$5,212.85	
Medical Office	1,000 SF	\$8,753.55	\$8,753.55	
Drive-in Bank	1,000 SF	\$33,274.17	\$33,274.17	
Manufacturing/Warehouse	1,000 SF	\$1,655.37	\$1,655.37	
Church	1,000 SF	\$4,167.54	\$4,167.54	
Public School	Students	\$1,082.58	\$1,082.58	
Private School	Students	\$1,366.37	\$1,366.37	
Day Care Center	1,000 SF	\$29,994.53	\$29,994.53	
Assisted Living Facility / Nursing Home	1,000 SF	\$1,922.92	\$1,922.92	
Golf Course	Acre	\$2,459.72	\$2,459.72	
Health/Fitness/Athletic Club	1,000 SF	\$31,361.13	\$31,361.13	
Recreational Community Center	1,000 SF	\$19,901.76	\$19,901.76	

Table 12 - Calculated and Suggested TIF

As shown in Appendix 10, the proposed Transportation Impact Fees are, in most cases, higher than the current Transportation Impact Fees. Only six land-use categories have proposed TIFs that are lower than the current TIFs: Retail (> 150k SF), Retail (< 40k SF), Coffee Shop/Fast-Food Restaurant with DTW, Hotel/Lodging, Drive-in Bank, and Manufacturing/Warehouse. Three land-use categories have a proposed TIF percentage increase of more than 50% but less than 100%, including Single Family, Multifamily, and Mobile Home Park. Additionally, three land-use categories have a proposed TIF percentage increase of more than 100%, including Senior Adult Housing, Day Care Center, and Assisted Living Facility/Nursing Home.



The proposed Transportation Impact Fees discussed above are based on an extensive analysis of the best available data, as well as existing and anticipated traffic conditions within the Town of Dundee. These fees are expected to generate sufficient revenue to finance a significant portion of the capacity-adding improvements required to maintain the adopted levels of service on all Town and County segments of the Town's Thoroughfare Network. These fees constitute the proposed **Town of Dundee Transportation Impact-Fee Schedule**, which is provided as Exhibit 9 below.

Town of Dundee Transportation Impact Fee Schedule August 2024					
		Transportation			
Land Has Catagonia	11:4	Impact Fee			
Land Use Category	Unit	(Town Portion)			
Residential					
Single Family	Dwelling Unit	\$6,093			
Multifamily	Dwelling Unit	\$4,235			
Mobile Home Park	Dwelling Unit	\$3,383			
Senior Adult Housing	Dwelling Unit	\$2,655			
Non-Residential					
Retail (>150k SF)	1,000 SF	\$10,283			
Retail (40-150k SF)	1,000 SF	\$18,552			
Retail (<40k SF)	1,000 SF	\$9,571			
Restaurant	1,000 SF	\$28,612			
Coffee Shop/Fast-Food Restaurant with DTW	1,000 SF	\$44,029			
Fast-Food Restaurant without DTW	1,000 SF	\$76,509			
Convenience Store/Gas Station	1,000 SF	\$66,860			
Car Wash / Detail Center	Wash Stalls	\$23,161			
Hotel/Lodging	Room	\$1,854			
Office	1,000 SF	\$5,213			
Medical Office	1,000 SF	\$8,754			
Drive-in Bank	1,000 SF	\$33,274			
Manufacturing/Warehouse	1,000 SF	\$1,655			
Church	1,000 SF	\$4,168			
Public School	Students	\$1,083			
Private School	Students	\$1,366			
Day Care Center	1,000 SF	\$29,995			
Assisted Living Facility / Nursing Home	1,000 SF	\$1,923			
Golf Course	Acre	\$2,460			
Health/Fitness/Athletic Club	1,000 SF	\$31,361			
Recreational Community Center	1,000 SF	\$19,902			
The transportation impact fees included in this schedule are in	-				
For land uses not included in this schedule, the Town will dete	ermine the land-use o	category to be used.			

Exhibit 9 – Proposed TIF Schedule



Based on current State law, impact fees cannot be increased more often than once every four years, and an impact-fee increase may not exceed 50% of the current impact-fee rate. It is important to note that, according to F.S. § 163.31801, impact-fee increases of 25% or less must be implemented in two equal annual increments. Similarly, increases above 25% but not exceeding 50% must be implemented in four equal annual increments.

Nevertheless, a local government may increase one or more impact fees beyond these limitations by providing a study to justify the need for a larger increase, holding two public workshops, and obtaining approval with at least two-thirds of the votes. Since six of the proposed TIFs are more than 50% higher than the corresponding current TIFs, the aforementioned study and workshops will be required to adopt the proposed TIF schedule. The results of the recently completed Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR) justify the need for additional thoroughfare-network capacity to maintain standard levels of service within the Town. Therefore, the TTA&ADTR, together with this technical report, will satisfy the study requirement.

13. CONCLUSIONS & RECOMMENDATIONS

The proposed Town of Dundee Transportation Impact Fees and the corresponding Transportation Impact-Fee Schedule were developed according to the methodology, data, and analysis described in this document. They are generally based on the anticipated growth the Town is expected to experience over the coming decades, the corresponding increase in travel demand, and the transportation improvements recommended in the 2023 Town of Dundee Townwide Traffic Analysis and Adequacy Determination Technical Report (TTA&ADTR).

The methodology used to develop the Town of Dundee Transportation Impact Fees ensures that the fees charged to a new development (or redevelopment) are proportional to the cost of the improvements and/or solutions needed to mitigate its impact on the transportation system. As a result, the Transportation Impact Fees presented here meet the first condition of the dual rational nexus test (the "need" part) as well as the rough proportionality test.

Implementing a strategy to meet the "benefits" criterion of the dual nexus rational test is highly recommended. As discussed in Section 11, this may involve establishing districts to ensure Transportation Impact Fees are spent within the district where they are collected. Additionally, allowing flexibility to spend a portion of the fees on adjacent districts is advisable, provided it



benefits travel originating from the district where the fees were collected. Given the current size of the Town of Dundee, establishing multiple districts is not recommended at this time. However, as the Town grows, this approach may become more appropriate.

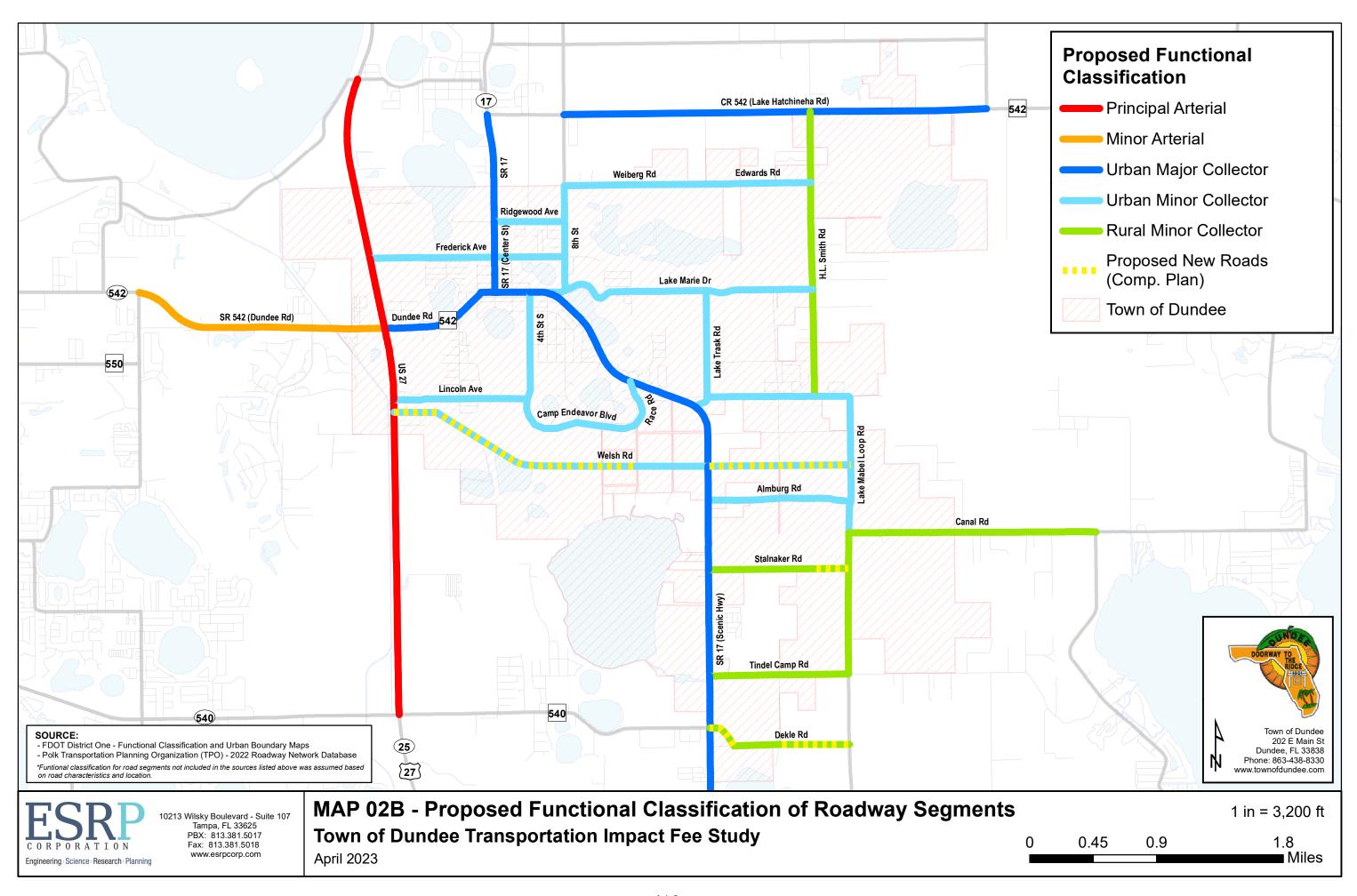
After the proposed Transportation Impact Fees are adopted, periodic updates of the Townwide Traffic Analysis and the Transportation Impact Fee schedule will be necessary to account for potential changes in fee rates, which can fluctuate based on various factors influencing TIF calculations. Updates every two years are generally recommended. However, due to upcoming changes in State law from Florida Senate Bill 688 and House Bill 479, which will regulate the implementation of Alternative Mobility Funding Systems and Impact Fees, the next update should be conducted within the next 12 months. Currently, TIF increases should occur no more frequently than every four years, but TIFs can be decreased at any time. Fee increases can be associated with the effects of inflation and/or changing market conditions. Fee reductions are often used to accelerate development in specific areas or to promote specific land uses.

In the future, the Town of Dundee may decide to transition from a roadway-infrastructure funding system, based on Transportation Impact Fees, to a mobility-infrastructure funding system based on Mobility Fees. A townwide Mobility Plan will provide a solid foundation to support this transition.

The Town, at its discretion, may consider amending the Transportation Impact Fee ordinance to establish exemptions that support specific goals. Examples of such exemptions include those for mixed-use developments, affordable housing projects, and similar initiatives.



APPENDIX 1 – Map 02B of the TTA&ADTR



APPENDIX 2 – 2022 Traff	fic Volumes and Levels of Service

2022 Traffic Volumes and Levels of Service

						2022	2022			
_		_	Std	Std	2022	Dir.	Peak	_ K	2022	2022
From		То	LOS	Capacity	AADT	Factor	Dir.	Factor	DDHV	LOS
	40 (Cypress G. Blvd)	Lincoln Ave	С	2,940	34,760	0.52	N	0.09	1,619	C
	In Ave	SR 542 (Dundee Rd)	С	2,940	35,290	0.50	N	0.09	1,601	С
	42 (Dundee Rd)	Frederick Ave	С	2,940	31,320	0.54	S	0.09	1,524	C
	erick Ave	W Main St (Lake Hamilton)	С	2,940	31,480	0.56	S	0.09	1,575	С
• • • • • • • • • • • • • • • • • • • •	7A (Masterpiece Rd)	Waverly Rd	D	1,200	11,360	0.50	N	0.09	512	В
**	erly Rd	Tindel Camp Rd	D	1,200	11,360	0.50	N	0.09	512	В
**	el Camp Rd	Stalnaker Rd	D	1,200	9,380	0.53	S	0.09	448	В
*/	aker Rd	Almburg Rd	D	1,200	9,380	0.53	S	0.09	448	В
**	urg Rd	Welsh Rd	D	1,200	9,380	0.53	S	0.09	448	В
nic Hwy) Welsh		Lake Trask Rd	D	1,200	8,680	0.53	S	0.09	418	В
*/	Trask Rd	Race Rd	D	880	8,680	0.53	S	0.09	418	C
nic Hwy) Race		Lake Marie Dr	D	880	10,220	0.54	S	0.09	501	
· ·	Marie Dr	4th St S	D	880	10,220	0.54	E	0.09	501	C
St) 4th St		Center St	D	750	11,440	0.57	E	0.09	585	D
ter St) Main		Frederick Ave	D	750	9,870	0.50	N	0.09	445	D
, , , , , , , , , , , , , , , , , , ,	erick Ave	Ridgewood Ave	D	1,200	9,870	0.50	N	0.09	445	В
	ewood Ave	CR 542 (Lake Hatchineha Rd)	D	1,200	10,170	0.51	N	0.09	464	В
, l	look Dr	US 27	D	2,000	18,980	0.50	W	0.09	857	С
US 27		Main St	D	675	12,610	0.56	E	0.09	635	D
	lee Rd	SR 17 (Center St)	D	638	11,860	0.58	E	0.09	617	D
ke Hatchineha Rd) 8th St		H.L. Smith Rd	D	1,200	7,300	0.51	W	0.09	335	В
′	Smith Rd	Tyner Rd	D	1,200	7,300	0.51	W	0.09	335	В
re US 27		SR 17 (Center St)	D	525	3,660	0.54	E	0.09	179	С
	7 (Center St)	8th St	D	525	1,210	0.53	E	0.09	58	С
	Marie Dr	Frederick Ave	D	525	3,520	0.50	S	0.09	160	С
	erick Ave	Ridgewood Ave	D	525	3,400	0.51	N	0.09	156	С
	ewood Ave	Weiberg Rd	D	525	3,400	0.51	N	0.09	156	С
8th St		Alford Rd	D	525	490	0.55	Е	0.09	24	С
Alford		H.L. Smith Rd	D	616	160	0.64	E	0.09	9	С
	7 (Scenic Hwy)	8th St	D	616	5,500	0.51	W	0.09	252	С
Or 8th St		Lake Trask Rd	D	616	2,080	0.58	W	0.09	109	С
	Trask Rd	H.L. Smith Rd	D	616	1,470	0.61	E	0.09	81	С
	7 (Scenic Hwy)	Lake Mabel Loop Rd	D	638	4,100	0.51	N	0.09	188	С
	Mabel Loop Rd	Lake Marie Dr	D	638	2,210	0.65	N	0.09	130	С
	Mabel Loop Rd	Lake Marie Dr	D	560	2,400	0.57	N	0.09	123	С
	Marie Dr	Edwards Rd	D	560	3,400	0.56	N	0.09	172	С
	ards Rd	CR 542 (Lake Hatchineha Rd)	D	560	3,340	0.57	N	0.09	171	С
	Trask Rd	H.L. Smith Rd	D	1,200	3,230	0.65	E	0.09	188	В
	Smith Rd	Welsh Rd	D	1,200	1,960	0.64	N	0.09	113	В
Loop Rd Welsh		Almburg Rd	D	1,200	1,960	0.64	N	0.09	113	В
· .	urg Rd	Canal Rd	D	1,200	1,840	0.63	S	0.09	105	В
Loop Rd Canal		Stalnaker Rd	D	1,160	1,800	0.51	S	0.09	83	В
	aker Rd	Tindel Camp Rd	D	1,160	1,800	0.51	S	0.09	83	В
	` ,,									С
		•							110	В
				,					110	В
	, ,,								144	В
	, ,			525					24	С
	7	Camp Endeavor Blvd		525	1,140	0.51		0.09	53	С
	In Ave	Dr Welch Rd	D	525	10	1.00	Е	0.09	1	С
	In Ave	Florida Ave	D	525	110	0.60	N	0.09	6	С
	da Ave	SR 17 (Main St)	D	525	600	0.57	S	0.09	31	С
	elch Rd	SR 17 (Scenic Hwy)	D	525	970	0.59	S	0.09	51	С
US 27	7	Dr Welch Rd	D	616		F	Proposed	new roa	ıd	
Dr We	elch Rd	SR 17 (Scenic Hwy)	D	748	No significant existing traffic					
SR 17	7 (Scenic Hwy)	Lake Mabel Loop Rd	D	616		F	Proposed	d new roa	ıd	
SR 17	7 (Scenic Hwy)	Lake Mabel Loop Rd	D	525	No signi	ficant traff	ic / incl. µ	proposed	new road s	egment
SR 17	7 (Scenic Hwy)	Dekle Rd	D	680		F	Proposed	d new roa	ıd	
Wave	erly Rd	Lake Mabel Loop Rd	D	560	No signi	ficant traff	ic / incl. ¡	proposed	new road s	egment
SR 17 Lake Town I Rd SR 17 Ave SR 17 US 27 Avor Blvd Lincol Florid Dr We US 27 Dr We SR 17 SR 17	7 (Scenic Hwy) Mabel Loop Rd 1 Boundary Line 7 (Scenic Hwy) 7 (Center St) 7 In Ave In Ave Ida Ave Idelch Rd 7 (Scenic Hwy)	Lake Mabel Loop Rd Town Boundary Line Timberlane Road Lake Mabel Loop Rd 8th St Camp Endeavor Blvd Dr Welch Rd Florida Ave SR 17 (Main St) SR 17 (Scenic Hwy) Dr Welch Rd SR 17 (Scenic Hwy) Lake Mabel Loop Rd Lake Mabel Loop Rd Dekle Rd	D D D D D D D D D D D D D D D D D D D	525 1,160 1,160 1,160 525 525 525 525 525 525 616 748 616 525 680	20 2,400 2,400 2,710 500 1,140 10 110 600 970	1.00 0.51 0.51 0.59 0.53 0.51 1.00 0.60 0.57 0.59 F No s F	E W W E E N S S Proposec ignifican Proposec ic / incl. µ	0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09	111 14 2 5 ad traffic ad new ro	2 10 10 44 24 53 1 6 31 51

⁻ Standard capacity is based on Florida Department of Transportation (FDOT) - 2020 Quality / Level of Service Handbook.

5/7/2023

⁻ Directional Factors are based on existing traffic counts and the Polk Transportation Planning Organization (TPO) 2022 Roadway Network Database.

APPENDIX 3 – 2045 Traffic Volumes and Levels of Service	•

2045 Traffic Volumes and Levels of Service

						2045	2045			
			Std	Std	2045	Dir.	Peak	K	2045	2045
Road Name	From	То	LOS	Capacity	AADT	Factor	Dir.	Factor	DDHV	LOS
US 27	SR 540 (Cypress G. Blvd)	Lincoln Ave	С	2,940	60,430	0.61	N	0.09	3,300	F
US 27	Lincoln Ave	SR 542 (Dundee Rd)	C	2,940	63,130	0.55	N	0.09	3,136	F
US 27	SR 542 (Dundee Rd)	Frederick Ave	С	2,940	61,480	0.61	N	0.09	3,366	F
US 27	Frederick Ave	W Main St (Lake Hamilton)	С	2,940	61,920	0.60	N	0.09	3,365	F
SR 17 (Scenic Hwy)	CR 17A (Masterpiece Rd)	Waverly Rd	D	1,200	16,210	0.56	N	0.09	821	С
SR 17 (Scenic Hwy)	Waverly Rd	Tindel Camp Rd	D	1,200	18,620	0.57	N	0.09	948	D
SR 17 (Scenic Hwy)	Tindel Camp Rd	Stalnaker Rd	D	1,200	17,100	0.53	N	0.09	823	С
SR 17 (Scenic Hwy)	Stalnaker Rd	Almburg Rd	D	1,200	15,270	0.51	N	0.09	703	C
SR 17 (Scenic Hwy)	Almburg Rd	Welsh Rd	D	1,200	18,710	0.51	S	0.09	855	С
SR 17 (Scenic Hwy)	Welsh Rd	Lake Trask Rd	D	1,200	11,310	0.56	N	0.09	569	В
SR 17 (Scenic Hwy)	Lake Trask Rd	Race Rd	D	880	8,190	0.61	S	0.09	450	C
SR 17 (Scenic Hwy)	Race Rd	Lake Marie Dr	D	880	4,530	0.53	N	0.09	217	C
SR 17 (Main St)	Lake Marie Dr	4th St S	D	880	13,210	0.59	E	0.09	700	С
SR 17 (Main St)	4th St S	Center St	D	750	10,130	0.57	E	0.09	516	D
SR 17 (Center St)	Main St	Frederick Ave	D	750	13,170	0.53	N	0.09	627	D
SR 17 (Center St)	Frederick Ave	Ridgewood Ave	D	1,200	18,630	0.56	N	0.09	943	D
SR 17	Ridgewood Ave	CR 542 (Lake Hatchineha Rd)	D	1,200	9,560	0.60	N	0.09	512	В
SR 542 (Dundee Rd)	Overlook Dr	US 27	D	2,000	52,700	0.57	Е	0.09	2,704	F
Dundee Rd	US 27	Main St	D	675	17,580	0.55	Е	0.09	865	F
Main St	Dundee Rd	SR 17 (Center St)	D	638	17,370	0.56	Е	0.09	881	F
CR 542 (Lake Hatchineha Rd)	8th St	H.L. Smith Rd	D	1,200	12,050	0.51	W	0.09	552	В
CR 542 (Lake Hatchineha Rd)	H.L. Smith Rd	Tyner Rd	D	1,200	7,870	0.70	Е	0.09	495	В
Frederick Ave	US 27	SR 17 (Center St)	D	525	16,940	0.57	Е	0.09	865	F
Frederick Ave	SR 17 (Center St)	8th St	D	525	9,980	0.57	E	0.09	511	D
8th St	Lake Marie Dr	Frederick Ave	D	525	9,570	0.51	N	0.09	440	D
8th St	Frederick Ave	Ridgewood Ave	D	525	13,190	0.56	N	0.09	667	F
8th St	Ridgewood Ave	Weiberg Rd	D	525	19,630	0.55	N	0.09	974	F
Weiberg Rd	8th St	Alford Rd	D	525	19,080	0.54	Е	0.09	936	F
Edwards Rd	Alford Rd	H.L. Smith Rd	D	616	12,110	0.55	Е	0.09	597	D
Main St	SR 17 (Scenic Hwy)	8th St	D	616	11,360	0.62	Е	0.09	635	F
Lake Marie Dr	8th St	Lake Trask Rd	D	616	11,270	0.61	E	0.09	614	D
Lake Marie Dr	Lake Trask Rd	H.L. Smith Rd	D	616	6,330	0.67	E	0.09	380	C
Lake Trask Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	D	638	7,430	0.68	N	0.09	454	D
Lake Trask Rd	Lake Mabel Loop Rd	Lake Marie Dr	D	638	5,480	0.70	N	0.09	347	D
H.L. Smith Rd	Lake Mabel Loop Rd	Lake Marie Dr	D	560	2,830	0.61	N	0.09	155	C
H.L. Smith Rd	Lake Marie Dr	Edwards Rd	D	560	7,500	0.70	N	0.09	474	C
H.L. Smith Rd	Edwards Rd	CR 542 (Lake Hatchineha Rd)	D	560	8,550	0.74	N	0.09	569	F
Lake Mabel Loop Rd	Lake Trask Rd	H.L. Smith Rd	D	1,200	1,050	0.55	W	0.09	52	В
Lake Mabel Loop Rd	H.L. Smith Rd	Welsh Rd	D	1,200	6,290	0.65	N	0.09	370	В
Lake Mabel Loop Rd	Welsh Rd	Almburg Rd	D	1,200	4,180	0.60	N	0.09	227	В
Lake Mabel Loop Rd	Almburg Rd	Canal Rd	D	1,200	5,480	0.50	N	0.09	247	В
Lake Mabel Loop Rd	Canal Rd	Stalnaker Rd	D	1,160	4,290	0.71	N	0.09	273	В
Lake Mabel Loop Rd	Stalnaker Rd	Tindel Camp Rd	D	1,160	2,580	0.80	N	0.09	186	В
Almburg Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	D	525	5,350	0.56	E	0.09	269	D
Canal Rd	Lake Mabel Loop Rd	Town Boundary Line	D	1,160	7,950	0.62	E	0.09	443	В
Canal Rd	Town Boundary Line	Timberlane Road	D	1,160	6,560	0.69	E	0.09	409	В
Tindel Camp Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	D	1,160	4,420	0.62	E	0.09	247	В
Ridgewood Ave	SR 17 (Center St)	8th St	D	525	10,770	0.54	Е	0.09	526	Е
Lincoln Ave	US 27	Camp Endeavor Blvd	D	525	7,300	0.69	Е	0.09	455	D
Camp Endeavor Blvd	Lincoln Ave	Dr Welch Rd	D	525	5,320	0.73	E	0.09	351	D
Camp Endeavor Blvd	Lincoln Ave	Florida Ave	D	525	5,270	0.59	N	0.09	279	D
4th St S	Florida Ave	SR 17 (Main St)	D	525	5,060	0.59	N	0.09	267	D
Race Rd	Dr Welch Rd	SR 17 (Scenic Hwy)	D	525	3,690	0.80	N	0.09	267	D
Welsh Rd	US 27	Dr Welch Rd	D	616	9,480	0.63	E	0.09	537	С
Welsh Rd	Dr Welch Rd	SR 17 (Scenic Hwy)	D	748	11,570	0.63	E	0.09	658	C
Welsh Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	D	616	5,580	0.65	E	0.09	327	C
Stalnaker Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	D	525	7,440	0.52	E	0.09	349	D
Waverly Rd	SR 17 (Scenic Hwy)	Dekle Rd	D	680	1,530	0.52	E	0.09	79	C
Dekle Rd	Waverly Rd	Lake Mabel Loop Rd	D	560	1,660	0.58	E	0.09	86	C
		w the standard level of service (Std. LO				0.00		0.00	- 00	

⁻ Highlighted rows depict roadway segments expected to operate below the standard level of service (Std. LOS) with the existing geometry.

5/7/2023

[·] Standard capacity is based on Florida Department of Transportation (FDOT) - 2020 Quality / Level of Service Handbook.

⁻ Directional Factors are based on peak-period traffic assignment of the Florida Department of Transportation (FDOT) - District 1 Regional Planning Model.



Town of Dundee 2024 Transportation Impact Fee Update Capacity Improvements and Cost Estimate

				Ó	wner / Maint	ainir	ng Agency
Roadway	From	То	Type of Improvement	Pol	k County	To	wn of Dundee
Dundee Rd	US 27	Main St	Widen from 2 lanes to 4 lanes (undivided). If possible, provide left-turn lanes at main intersections	\$	-	\$	12,978,499
Main St	Dundee Rd	SR 17 (Center St)	Widen from 2 lanes to 4 lanes (undivided). If possible, provide left-turn lanes at main intersections	\$	-	\$	1,635,144
Frederick Ave	US 27	SR 17 (Center St)	Widen from 2 lanes to 4 lanes (undivided)	\$	-	\$	12,919,195
8th St	Frederick Ave	Ridgewood Ave	Widen from 2 lanes to 4 lanes (undivided)	\$	-	\$	3,634,788
8th St	Ridgewood Ave	Weiberg Rd	Widen from 2 lanes to 4 lanes (undivided)	\$	-	\$	3,702,161
Weiberg Rd	8th St	Alford Rd	Widen from 2 lanes to 4 lanes (undivided)	\$	14,641,649	\$	-
Main St	SR 17 (Scenic Hwy)	8th St	Provide right-turn lanes at main intersections	\$	-	\$	375,964
H.L. Smith Rd	Edwards Rd	CR 542 (Lake Hatchineha Rd)	Provide right-turn lanes at main intersections	\$	1,068,698	\$	-
Almburg Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	Improve existing substandard road (2-lane undivided)	\$	-	\$	8,404,239
Ridgewood Ave	SR 17 (Center St)	8th St	Provide right-turn lanes at main intersections	\$	-	\$	1,458,747
Lincoln Ave	US 27	Camp Endeavor Blvd	Improve existing substandard road (2-lane undivided)	\$	-	\$	6,924,656
Camp Endeavor Blvd	Lincoln Ave	Dr Welch Rd	Improve existing substandard road (2-lane undivided)	\$	-	\$	9,987,507
Camp Endeavor Blvd	Lincoln Ave	Florida Ave	Improve existing substandard road (2-lane undivided)	\$	-	\$	2,894,227
Welsh Rd	US 27	Dr Welch Rd	Construct new two-lane road	\$	-	\$	22,266,893
Welsh Rd	Dr Welch Rd	SR 17 (Scenic Hwy)	Construct new two-lane road	\$	-	\$	6,201,201
Welsh Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	Construct new two-lane road	\$	-	\$	12,368,377
Stalnaker Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	Construct new two-lane road	\$	-	\$	12,130,754
Waverly Rd	SR 17 (Scenic Hwy)	Dekle Rd	Construct new two-lane road	\$	-	\$	1,740,871
Dekle Rd	Waverly Rd	Lake Mabel Loop Rd	Construct new two-lane road	\$	-	\$	6,182,655
		Es	stimated Total Cost per Jurisdiction: Estimated Total Cost:		15,710,347	\$	125,805,879 141,516,226

Estimated Average Cost Per Year: \$ 6,738,868

APPENDIX 5 – National Household Travel Survey (NHTS) 2022 Data

2022 NATIONAL HOUSEHOLD TRAVEL SURVEY DATA URBAN AREA SIZE: 50,000 to 199,999 Average Person Trip Length

					Average	Person Tri	p Length				
Trp Purpose	Less than 0.5 miles	1 mile	2 miles	3 miles	4 miles	5 miles	6 - 10 miles	11 - 15 miles	16 - 20 miles	21 - 30 miles	31 miles or more
Attend childcare or adult care	0.0000	1.2156	0.0000	2.7930	4.1716	0.0000	5.6066	0.0000	0.0000	0.0000	0.0000
Attend school as a student	0.1709	0.8848	2.0763	3.0272	3.9315	4.9490	7.9909	12.9771	18.2784	23.9029	45.4788
Buy meals	0.3175	1.0663	2.1545	3.0441	3.8939	4.9350	6.7052	12.1615	16.7669	22.2422	86.5905
Change type of transportation	0.0000	1.1032	0.0000	3.0659	0.0000	0.0000	8.1181	0.0000	20.0895	0.0000	161.5418
Drop off/pick up someone (personal)	0.1700	1.1446	1.9931	3.1043	3.9220	5.0088	7.2041	11.7288	19.2596	25.3989	65.7995
Exercise	0.2277	1.0398	2.3174	3.1066	3.9937	4.5084	7.1756	12.6591	17.7526	21.8142	0.0000
Health care visit	0.2374	1.2895	1.8503	2.9229	3.6871	4.9621	7.2773	10.6932	17.2275	0.0000	58.7254
Other family/personal errands	0.1722	0.9359	2.0975	3.1631	3.9117	5.2195	7.3651	12.8799	17.3319	0.0000	47.5354
Other work-related activities	0.2964	0.9014	1.9113	2.9778	4.2149	4.7682	6.8037	13.7082	17.3076	26.0408	50.0849
Recreational activities	0.3620	1.0919	1.9460	3.0057	4.1287	5.1367	7.4067	12.4066	15.8873	22.5250	46.1931
Regular activities at home	0.2502	1.0560	2.0647	2.9857	3.9470	4.8686	7.3002	12.7990	18.0579	24.7976	87.2167
Religious or other community activities	0.4161	0.9820	2.1192	2.9587	3.9154	4.8066	8.7533	13.2728	0.0000	25.5544	32.2107
Rest or relaxation/vacation	0.0000	0.6153	2.0155	3.2380	3.6638	0.0000	0.0000	0.0000	0.0000	25.7558	114.5905
Shop/buy/pick-up or return goods	0.3065	0.9154	2.0116	2.9582	4.0095	4.9257	7.2576	13.1931	18.8722	26.8005	38.6016
Something else (specify)	0.1019	0.0000	1.9049	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Visit friends or relatives	0.2157	1.1365	2.0252	3.0492	3.8422	4.8508	7.8204	13.9152	16.4369	26.2042	102.2621
Volunteer activities (not paid)	0.0000	1.1273	1.9099	0.0000	4.0280	0.0000	6.2428	13.8098	0.0000	0.0000	61.5444
Work activity to drop-off/pickup someone/something	0.3749	1.0947	2.4473	2.9630	4.4288	0.0000	7.4675	13.2634	0.0000	26.5685	147.4311
Work at a non-home location	0.2115	1.0950	1.9356	2.9942	3.9581	5.0307	7.4032	12.5706	17.7032	24.9800	52.8066
Work from home (paid)	0.0000	0.9579	1.9129	3.2050	3.7397	4.5668	8.1180	12.0081	0.0000	0.0000	579.9279

2022 NATIONAL HOUSEHOLD TRAVEL SURVEY DATA URBAN AREA SIZE: 50,000 to 199,999 Average Person Trip Length

				Sam	ple Size (A	verage Pers	on Trip Len	igth)			
Trp Purpose	Less than 0.5 miles	1 mile	2 miles	3 miles	4 miles	5 miles	6 - 10 miles	11 - 15 miles	16 - 20 miles	21 - 30 miles	31 miles or more
Attend childcare or adult care	0	3	0	1	2	0	2	0	0	0	0
Attend school as a student	2	22	29	15	12	7	6	4	3	3	3
Buy meals	22	46	33	37	23	12	26	11	6	4	14
Change type of transportation	0	1	0	2	0	0	1	0	2	0	5
Drop off/pick up someone (personal)	7	32	29	20	22	5	29	4	3	8	8
Exercise	17	38	21	17	12	1	10	5	1	1	0
Health care visit	1	4	11	4	2	5	12	2	1	0	6
Other family/personal errands	14	46	20	18	13	6	15	4	1	0	3
Other work-related activities	2	9	5	4	3	1	10	3	1	2	5
Recreational activities	2	11	8	8	7	8	16	6	2	9	12
Regular activities at home	54	186	190	169	105	77	184	54	37	38	85
Religious or other community activities	5	3	13	16	11	6	14	1	0	2	5
Rest or relaxation/vacation	0	1	1	4	2	0	0	0	0	1	3
Shop/buy/pick-up or return goods	42	87	73	48	24	29	45	13	9	4	8
Something else (specify)	1	0	1	0	0	0	0	0	0	0	0
Visit friends or relatives	8	8	11	14	9	8	27	3	4	7	14
Volunteer activities (not paid)	0	3	1	0	1	0	4	2	0	0	2
Work activity to drop-off/pickup someone/something	2	5	3	6	1	0	4	5	0	5	6
Work at a non-home location	3	39	32	41	16	19	48	24	25	15	28
Work from home (paid)	0	13	8	2	2	1	15	1	0	0	1

2022 NATIONAL HOUSEHOLD TRAVEL SURVEY DATA URBAN AREA SIZE: 50,000 to 199,999 Average Vehicle Occupancy

					Average	Vehicle Oc	cupancy				
Trp Purpose	Less than 0.5 miles	1 mile	2 miles	3 miles	4 miles	5 miles	6 - 10 miles	11 - 15 miles	16 - 20 miles	21 - 30 miles	31 miles or more
Attend childcare or adult care	0.0000	3.0000	0.0000	0.0000	4.0000	0.0000	2.5000	0.0000	0.0000	0.0000	0.0000
Attend school as a student	0.0000	1.1455	1.0000	1.0000	1.0000	1.0000	2.0000	1.0000	1.7812	2.0000	1.0000
Buy meals	1.6100	1.6577	1.2872	1.9667	1.8465	1.3492	1.6894	1.7395	1.1041	2.6537	3.3380
Change type of transportation	0.0000	0.0000	0.0000	2.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	1.0000
Drop off/pick up someone (personal)	2.3254	1.9701	1.4746	1.3467	2.0152	1.3721	1.7142	2.0161	1.2702	2.1621	1.4059
Exercise	1.0000	1.4352	1.6322	1.0363	1.1262	1.0000	1.0000	1.1434	0.0000	1.0000	0.0000
Health care visit	0.0000	2.0000	1.0225	1.0000	1.0000	1.5416	1.1851	1.0000	1.0000	0.0000	2.0882
Other family/personal errands	1.2158	1.4809	1.2811	1.4176	1.6007	1.0458	1.0308	1.7484	1.0000	0.0000	1.5019
Other work-related activities	0.0000	1.0000	1.0663	1.0000	1.2949	0.0000	1.0799	1.0000	1.0000	1.0000	1.0000
Recreational activities	2.0000	1.6284	2.0000	1.2736	3.8702	1.4603	1.9430	2.9091	1.0000	1.8241	1.7862
Regular activities at home	1.4164	1.4034	1.3877	1.2409	1.6215	1.4920	1.3515	1.2490	1.5050	1.1506	1.8121
Religious or other community activities	1.5139	1.0000	1.7360	2.3745	1.6231	1.1460	1.2744	2.0000	0.0000	1.0000	5.0000
Rest or relaxation/vacation	0.0000	2.0000	2.0000	1.8512	1.8873	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000
Shop/buy/pick-up or return goods	1.4624	1.2514	1.3028	1.4258	1.1474	1.5700	1.5901	1.4061	1.3514	1.5080	1.8827
Something else (specify)	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Visit friends or relatives	1.0000	1.7527	1.0000	1.4859	1.0877	1.4474	1.5364	1.0000	5.0000	1.2406	2.3763
Volunteer activities (not paid)	0.0000	1.5530	1.0000	0.0000	1.0000	0.0000	1.0000	4.0000	0.0000	0.0000	1.0000
Work activity to drop-off/pickup someone/something	1.0000	1.0000	1.0000	1.0000	2.0000	0.0000	1.1530	1.0000	0.0000	1.2685	1.0000
Work at a non-home location	1.0000	1.0587	1.0201	1.0303	1.0000	1.1438	1.0089	1.1422	1.0647	1.0000	1.0369
Work from home (paid)	0.0000	1.2575	1.0000	1.6345	1.6733	1.0000	1.0619	1.0000	0.0000	0.0000	0.0000

2022 NATIONAL HOUSEHOLD TRAVEL SURVEY DATA URBAN AREA SIZE: 50,000 to 199,999 Average Vehicle Occupancy

				Sam	ple Size (A	verage Veh	icle Occupa	ncy)			
Trp Purpose	Less than 0.5 miles	1 mile	2 miles	3 miles	4 miles	5 miles	6 - 10 miles	11 - 15 miles	16 - 20 miles	21 - 30 miles	31 miles or more
Attend childcare or adult care	0	1	0	0	1	0	2	0	0	0	0
Attend school as a student	0	3	4	1	1	1	1	2	2	1	1
Buy meals	13	28	24	23	16	10	19	6	3	3	5
Change type of transportation	0	0	0	1	0	0	1	0	0	0	2
Drop off/pick up someone (personal)	6	28	22	20	18	3	24	4	3	6	6
Exercise	1	13	11	9	9	1	6	5	0	1	0
Health care visit	0	2	9	4	2	4	10	1	1	0	4
Other family/personal errands	6	25	12	14	7	6	13	3	1	0	3
Other work-related activities	0	4	5	4	3	0	7	3	1	2	5
Recreational activities	1	4	3	4	4	3	8	3	2	4	6
Regular activities at home	18	113	125	125	74	55	129	40	29	27	54
Religious or other community activities	3	3	10	10	5	3	8	1	0	1	1
Rest or relaxation/vacation	0	1	1	2	2	0	0	0	0	1	0
Shop/buy/pick-up or return goods	27	63	59	38	18	20	34	10	6	3	5
Something else (specify)	0	0	1	0	0	0	0	0	0	0	0
Visit friends or relatives	1	5	7	8	6	4	20	3	1	4	6
Volunteer activities (not paid)	0	2	1	0	1	0	4	1	0	0	2
Work activity to drop-off/pickup someone/something	2	5	3	6	1	0	4	4	0	5	4
Work at a non-home location	3	34	29	34	16	18	44	22	25	15	25
Work from home (paid)	0	11	8	2	2	1	13	1	0	0	0

APPENDIX	6 – Summary of F	Project Trip Data	a (Used for SFTf)

					Project	Number (I	Map ID)*			Total
Road Name	From	То	4	7	8	9 `	11	12	17	Trips
US 27	SR 540 (Cypress G. Blvd)	Lincoln Ave	122	26	84	195	158	112	111	808
US 27	Lincoln Ave	SR 542 (Dundee Rd)	32	5	89	0	296	372	437	1,231
US 27	SR 542 (Dundee Rd)	Frederick Ave	154	33	99	0	69	153	189	697
US 27	Frederick Ave	W Main St (Lake Hamilton)	210	38	87	585	115	135	168	1,338
SR 17 (Scenic Hwy)	CR 17A (Masterpiece Rd)	Waverly Rd	65	51	0	574	10	62	264	1,026
SR 17 (Scenic Hwy)	Waverly Rd	Tindel Camp Rd	72	56	1	623	14	71	365	1,202
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Tindel Camp Rd	Stalnaker Rd	72	56	3	648	17	77	365	1,202
SR 17 (Scenic Hwy)	·									
SR 17 (Scenic Hwy)	Stalnaker Rd	Almburg Rd	72	56	9	743	32	96	365	1,373
SR 17 (Scenic Hwy)	Almburg Rd	Welsh Rd	72	56	14	815	40	111	0	1,108
SR 17 (Scenic Hwy)	Welsh Rd	Lake Trask Rd	87	75	14	1,003	49	119	180	1,527
SR 17 (Scenic Hwy)	Lake Trask Rd	Race Rd	0	15	16	100	59	188	171	549
SR 17 (Scenic Hwy)	Race Rd	Lake Marie Dr	1	1	18	2	1	79	118	220
SR 17 (Main St)	Lake Marie Dr	4th St S	125	37	35	1,045	112	0	60	1,414
SR 17 (Main St)	4th St S	Center St	0	25	41	900	129	52	52	1,199
SR 17 (Center St)	Main St	Frederick Ave	291	75	54	0	124	44	42	630
SR 17 (Center St)	Frederick Ave	Ridgewood Ave	319	85	50	88	58	39	37	676
SR 17	Ridgewood Ave	CR 542 (Lake Hatchineha Rd)	0	0	32	155	48	30	34	299
SR 542 (Dundee Rd)	Overlook Dr	US 27	325	105	131	732	195	189	217	1,894
Dundee Rd	US 27	Main St	276	96	176	879	0	0	0	1,427
Main St	Dundee Rd	SR 17 (Center St)	291	100	95	900	7	9	12	1,414
CR 542 (Lake Hatchineha Rd)	8th St	H.L. Smith Rd	46	166	5	73	12	11	22	335
CR 542 (Lake Hatchineha Rd)	H.L. Smith Rd	Tyner Rd	72	107	0	99	4	9	21	312
Frederick Ave	US 27	SR 17 (Center St)	419	90	0	696	60	2	2	1,269
Frederick Ave		8th St	415	89	5	820		0	0	
	SR 17 (Center St)						0		_	1,329
8th St	Lake Marie Dr	Frederick Ave	161	0	0	1,177	63	58	52	1,511
8th St	Frederick Ave	Ridgewood Ave	584	94	5	354	63	58	52	1,210
8th St	Ridgewood Ave	Weiberg Rd	944	190	16	191	57	47	31	1,476
Weiberg Rd	8th St	Alford Rd	1,339	238	9	0	7	5	10	1,608
Edwards Rd	Alford Rd	H.L. Smith Rd	493	240	5	149	2	0	65	954
Main St	SR 17 (Scenic Hwy)	8th St	144	40	12	1,066	105	76	52	1,495
Lake Marie Dr	8th St	Lake Trask Rd	14	39	11	2,246	38	16	0	2,364
Lake Marie Dr	Lake Trask Rd	H.L. Smith Rd	110	149	0	130	12	30	0	431
Lake Trask Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	87	91	3	1,103	12	67	9	1,372
Lake Trask Rd	Lake Mabel Loop Rd	Lake Marie Dr	95	98	0	1,131	0	42	9	1,375
H.L. Smith Rd	Lake Mabel Loop Rd	Lake Marie Dr	115	51	0	0	0	0	135	301
H.L. Smith Rd	Lake Marie Dr	Edwards Rd	245	208	0	521	11	30	130	1,145
H.L. Smith Rd	Edwards Rd	CR 542 (Lake Hatchineha Rd)	168	449	0	249	11	29	65	971
Lake Mabel Loop Rd	Lake Trask Rd	H.L. Smith Rd	0	0	3	0	12	23	0	38
Lake Mabel Loop Rd	H.L. Smith Rd	Welsh Rd	115	51	1	0	6	12	172	357
Lake Mabel Loop Rd	Welsh Rd	Almburg Rd	112	49	0	0	0	0	107	268
Lake Mabel Loop Rd	Almburg Rd	Canal Rd	43	17	0	67	8	14	107	256
Lake Mabel Loop Rd	Canal Rd	Stalnaker Rd	19	10	0	0	0	0	51	80
Lake Mabel Loop Rd	Stalnaker Rd	Tindel Camp Rd	19	10	0	1	0	1	51	85
Almburg Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	35	16	0	67	8	14	182	322
		·	24	7	0	67	8	14	56	176
Canal Rd	Lake Mabel Loop Rd	Town Boundary Line								
Canal Rd	Town Boundary Line	Timberlane Road	9	0	0	26	0	6	30	71
Tindel Camp Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	0	0	0	25	1	5	0	31
Ridgewood Ave	SR 17 (Center St)	8th St	354	94	12	136	3	4	13	616
Lincoln Ave	US 27	Camp Endeavor Blvd	89	24	0	208	461	493	15	1,290
Camp Endeavor Blvd	Lincoln Ave	Dr Welch Rd	19	14	2	94	77	539	32	777
Camp Endeavor Blvd	Lincoln Ave	Florida Ave	124	12	3	128	558	57	0	882
4th St S	Florida Ave	SR 17 (Main St)	125	12	3	131	246	56	0	573
Race Rd	Dr Welch Rd	SR 17 (Scenic Hwy)	0	14	0	97	63	281	32	487
Welsh Rd	US 27	Dr Welch Rd	0	0	1	0	0	0	438	439
Welsh Rd	Dr Welch Rd	SR 17 (Scenic Hwy)	15	19	1	141	0	0	495	671
Welsh Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	0	0	1	27	3	4	675	710
Stalnaker Rd	SR 17 (Scenic Hwy)	Lake Mabel Loop Rd	0	0	2	48	8	9	0	67
Waverly Rd	SR 17 (Scenic Hwy)	Dekle Rd	0	0	0	13	0	3	0	16
Dekle Rd	Waverly Rd	Lake Mabel Loop Rd	1	0	0	13	0	3	4	21
* Project Number corresponds to the	·	· ·	<u> </u>			10				

^{*} Project Number corresponds to the "Map ID" values from Table 12, Map 03A and Map 03B of the TTA&ADTR.

8/10/2024

⁻ Project trips were estimated based on D1RPM's select-zone analyses and trip-generation estimates using ITE rates and equations.

⁻ Most of the roadway segments above are represented by several segments in the travel-demand model (D1RPM) network. Project trips are average 2-way peak-hour volumes.

⁻ In close proximity of a project access point, the actual distribution of project trips may change based on the access configuration and the number of access points.

⁻ Detailed traffic studies are recommended to conduct traffic-operations and safety analyzes within the study area of each proposed project.



Trip Characteristics by Land Use Category Town of Dundee Transportation Impact Fee Update August 2024

			% New			Average	Trip Leng	gth	Vehicle	
Land Use	Demand Unit	Trip Rate 1	Trips	% NT Source	NHTS ²	FL Studies ³	Used	Source	Occupancy ²	ITE Land Use Codes ⁴
Residential										
Single Family	Dwelling Unit	9.18	100%		7.13		7.13	NHTS	1.40	210, 215
Multifamily	Dwelling Unit	6.38	100%		7.13		7.13	NHTS	1.40	220, 223
Mobile Home Park	Dwelling Unit	7.12	100%		7.13	4.60	5.11	NHTS + FL Studies	1.40	240
Senior Adult Housing	Dwelling Unit	4.00	100%		7.13		7.13	NHTS	1.40	251, 252
Non-Residential										
Retail (>150k SF)	1,000 SF	37.01	74%	FL Studies	7.28	3.19	4.01	NHTS + FL Studies	1.41	820
Retail (40-150k SF)	1,000 SF	86.62	62%	FL Studies	7.28	2.79	3.69	NHTS + FL Studies	1.41	821 ⁵
Retail (<40k SF)	1,000 SF	54.45	56%	FL Studies	7.28	2.37	3.35	NHTS + FL Studies	1.41	822
Restaurant	1,000 SF	103.21	68%	ITE	6.76	3.16	3.88	NHTS + FL Studies	1.58	930, 931, 932
Coffee Shop/Fast-Food Restaurant with DTW	1,000 SF	444.99	31%	ITE	6.76	2.05	2.99	NHTS + FL Studies	1.58	934, 937, 938
Fast-Food Restaurant without DTW	1,000 SF	450.49	51%	ITE	6.76	2.05	2.99	NHTS + FL Studies	1.58	933
Convenience Store/Gas Station	1,000 SF	739.46	36%	ITE	6.85	1.90	2.89	NHTS + FL Studies	1.25	945 ⁶
Car Wash / Detail Center	Wash Stalls	132.10	68%	FL Studies	6.85	2.18	3.11	NHTS + FL Studies	1.25	947, 949
Hotel/Lodging	Room	4.69	66%	FL Studies	7.13	6.26	6.43	NHTS + FL Studies	1.40	310, 311, 312, 320, 330
Office	1,000 SF	11.62	92%	FL Studies	6.46		6.46	NHTS	1.14	710, 712, 714, 715, 750, 760, 770
Medical Office	1,000 SF	18.74	89%	FL Studies	6.83		6.83	NHTS	1.16	610, 630, 640, 650, 710, 720
Drive-in Bank	1,000 SF	100.35	68%	ITE	6.46		6.46	NHTS	1.14	912
Manufacturing/Warehouse	1,000 SF	3.69	92%	Same as Office	6.46		6.46	NHTS	1.14	110, 130, 140, 150, 151, 154, 155, 156, 157, 160, 170, 180
Church	1,000 SF	7.60	92%	Same as Office	5.70		5.70	NHTS	1.57	560
Public School	Students	2.06	83%	90% of Office	7.59		7.59	NHTS	1.26	520, 522, 525
Private School	Students	2.60	83%	90% of Office	7.59		7.59	NHTS	1.26	530, 532, 534
Day Care Center	1,000 SF	47.62	73%	FL Studies	3.88		3.88	NHTS	3.04	565
Assisted Living Facility / Nursing Home	1,000 SF	5.96	89%	FL Studies	7.13	3.09	3.90	NHTS + FL Studies	1.40	254, 620
Golf Course	Acre	3.74	92%	Same as Office	6.97		6.97	NHTS	1.54	430
Health/Fitness/Athletic Club	1,000 SF	46.67	94%	FL Studies	6.97		6.97	NHTS	1.54	492, 493
Recreational Community Center	1,000 SF	28.82	90%	Same as Office	6.97		6.97	NHTS	1.54	495

¹ Trip generation rates are based on Institute of Transportation Engineers (ITE) weekday rates. Trip generation rates for land uses that include more than one ITE land-use code were calculated as a weighted average based on the number of studies used to develop each ITE rate.

² Data from the 2022 National Household Travel Survey (NHTS) was used to develop the trip lengths and vehicle occupancy values used in this study.

Trip-length data from previous Florida studies, included in a 2020 Hillsborough County Mobility Fee Update Study, was used to develop some of the trip length values used in this study.

⁴ The ITE land-use codes are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition.

⁵ The ITE Trip Generation Manual includes rates for retail centers with and without grocery stores under Land-Use Code 821. Data from both cases were used to develop the Retail (40-150k SF) trip-generation rate for this study.

The ITE Trip Generation Manual includes three different rates for convenience stores with gas pumps (based on the number of fueling positions) under Land-Use Code 945. Data for these three cases were used to develop the Convenience Store/Gas Station trip-generation rate for this study.

APPENDIX 8 – Calculated Person Travel Demand Per Use	

Calculated Person Travel Demand Per Use Town of Dundee Transportation Impact Fee Update August 2024

Land Use	Demand Unit	PTDu
Residential		
Single Family	Dwelling Unit	26.69
Multifamily	Dwelling Unit	18.55
Mobile Home Park	Dwelling Unit	14.83
Senior Adult Housing	Dwelling Unit	11.63
Non-Residential		
Retail (>150k SF)	1,000 SF	45.08
Retail (40-150k SF)	1,000 SF	81.34
Retail (<40k SF)	1,000 SF	41.98
Restaurant	1,000 SF	125.19
Coffee Shop/Fast-Food Restaurant with DTW	1,000 SF	189.95
Fast-Food Restaurant without DTW	1,000 SF	316.36
Convenience Store/Gas Station	1,000 SF	280.11
Car Wash / Detail Center	Wash Stalls	101.85
Hotel/Lodging	Room	8.12
Office	1,000 SF	22.93
Medical Office	1,000 SF	38.49
Drive-in Bank	1,000 SF	146.38
Manufacturing/Warehouse	1,000 SF	7.28
Church	1,000 SF	18.23
Public School	Students	4.75
Private School	Students	6.00
Day Care Center	1,000 SF	119.43
Assisted Living Facility / Nursing Home	1,000 SF	8.43
Golf Course	Acre	10.76
Health/Fitness/Athletic Club	1,000 SF	137.16
Recreational Community Center	1,000 SF	81.10
Based on methodology discussed in Section 10.3 of the 2024 Town of L	Dundee Transportation I	mpact Fee

Based on methodology discussed in Section 10.3 of the 2024 Town of Dundee Transportation Impact Fee Study & Fee Schedule Update Technical Report by ESRP Corporation.



Town of Dundee Transportation Impact Fee Schedule and Fee Credits August 2024

			Revenue	e Credits	Other Credits		
Land Use Category	Unit	Proposed TIF* (After Credits)	Non-TIF Funding ¹	Polk County TIF ²	Substandard Roads ³		
Residential							
Single Family	Dwelling Unit	\$6,093	\$123	\$761	\$15		
Multifamily	Dwelling Unit	\$4,235	\$85	\$529	\$10		
Mobile Home Park	Dwelling Unit	\$3,383	\$70	\$422	\$8		
Senior Adult Housing	Dwelling Unit	\$2,655	\$53	\$332	\$6		
Non-Residential							
Retail (>150k SF)	1,000 SF	\$10,283	\$216	\$1,284	\$25		
Retail (40-150k SF)	1,000 SF	\$18,552	\$394	\$2,317	\$45		
Retail (<40k SF)	1,000 SF	\$9,571	\$205	\$1,195	\$23		
Restaurant	1,000 SF	\$28,612	\$538	\$3,573	\$69		
Coffee Shop/Fast-Food Restaurant with DTW	1,000 SF	\$44,029	\$842	\$4,778	\$105		
Fast-Food Restaurant without DTW	1,000 SF	\$76,509	\$1,403	\$4,778	\$174		
Convenience Store/Gas Station	1,000 SF	\$66,860	\$1,579	\$4,778	\$153		
Car Wash / Detail Center	Wash Stalls	\$23,161	\$567	\$2,892	\$56		
Hotel/Lodging	Room	\$1,854	\$38	\$231	\$4		
Office	1,000 SF	\$5,213	\$130	\$651	\$13		
Medical Office	1,000 SF	\$8,754	\$214	\$1,093	\$21		
Drive-in Bank	1,000 SF	\$33,274	\$831	\$4,155	\$80		
Manufacturing/Warehouse	1,000 SF	\$1,655	\$41	\$207	\$4		
Church	1,000 SF	\$4,168	\$76	\$520	\$10		
Public School	Students	\$1,083	\$24	\$135	\$3		
Private School	Students	\$1,366	\$30	\$171	\$3		
Day Care Center	1,000 SF	\$29,995	\$266	\$956	\$66		
Assisted Living Facility / Nursing Home	1,000 SF	\$1,923	\$41	\$240	\$5		
Golf Course	Acre	\$2,460	\$45	\$307	\$6		
Health/Fitness/Athletic Club	1,000 SF	\$31,361	\$573	\$3,916	\$76		
Recreational Community Center	1,000 SF	\$19,902	\$339	\$956	\$45		

^{*} The transportation impact fees included in this schedule are intended for townwide use.

For land uses not included in this schedule, the Town will determine the land-use category to be used.

The Non-TIF Funding credit is related to a Community Investment Program adopted by Polk County that will invest approximately 200 million dollars over five years.

For most land-use categories, the Polk County TIF credit is capped at the corresponding July 1, 2025, rate for Transportation Zone A, as shown in the current Polk County Impact Fees Rate Schedules.

The Substandard Road credit takes into account existing travel on substandard facilities for which no existing capacity was assumed for TIF calculation purposes.

APPENDIX 10 - Proposed TIF vs Current TIF (Comparison)

Town of Dundee

Proposed vs Current Transportation Impact Fee Comparison

August 2024

Land Use	Demand Unit	Transportation Impact Fee (TIF)		Current TOD Transportation Impact Fees (Adapted based on existing TIF schedule)			Change
		Pr	oposed Fee	E	quiv. Fee	Impact-fee LU Category ¹	Aprox. %
Residential							
Single Family	Dwelling Unit	\$	6,093	\$	3,491	Single Family Detached	74.54%
Multifamily	Dwelling Unit	\$	4,235	\$	2,451	Multi Family	72.77%
Mobile Home Park	Dwelling Unit	\$	3,383	\$	1,820	Mobile Home Park	85.86%
Senior Adult Housing	Dwelling Unit	\$	2,655	\$	1,025	Retirement Housing	159.02%
Non-Residential	_						
Retail (>150k SF)	1,000 SF	\$	10,283	\$	12,347	Retail 100K SF or More (Average)	-16.71%
Retail (40-150k SF)	1,000 SF	\$	18,552	\$	16,673	Retail 50K to 100K SF (Average)	11.26%
Retail (<40k SF)	1,000 SF	\$	9,571	\$	23,702	Retail 50K SF or Less (Average)	-59.62%
Restaurant	1,000 SF	\$	28,612	\$	22,408	Restaurant Quality/High-Turnover (Avg)	27.69%
Coffee Shop/Fast-Food Restaurant with DTW	1,000 SF	\$	44,029	\$	57,916	Restaurant, Fast Food	-23.98%
Fast-Food Restaurant without DTW	1,000 SF	\$	76,509	\$	57,916	Restaurant, Fast Food	32.10%
Convenience Store/Gas Station	1,000 SF	\$	66,860	(other unit	Gas Station with Conv. Market (Pumps)	
Car Wash / Detail Center	Wash Stalls	\$	23,161	\$	22,851	Car Wash	1.36%
Hotel/Lodging	Room	\$	1,854	\$	3,254	Hotel / Motel (Rooms)	-43.03%
Office	1,000 SF	\$	5,213	\$	4,017	Office	29.77%
Medical Office	1,000 SF	\$	8,754	\$	13,180	Medical/Dental Office	-33.58%
Drive-in Bank	1,000 SF	\$	33,274	\$	47,658	Bank w/ Drive Through Lanes	-30.18%
Manufacturing/Warehouse	1,000 SF	\$	1,655	\$	1,755	Light Ind. / Manufct. / Warehousing (Avg)	-5.66%
Church	1,000 SF	\$	4,168	\$	3,323	Church	25.42%
Public School	Students	\$	1,083		n/a		
Private School	Students	\$	1,366		n/a		
Day Care Center	1,000 SF	\$	29,995	\$	7,807	Day Care Center	284.20%
Assisted Living Facility / Nursing Home	1,000 SF	\$	1,923	\$	865	Nursing Home	122.30%
Golf Course	Acre	\$	2,460	(other unit	Golf Course	
Health/Fitness/Athletic Club	1,000 SF	\$	31,361		n/a		
Recreational Community Center	1,000 SF	\$	19,902		n/a		

The current Town of Dundee Impact-Fee Schedule has 33 land-use categories, while the proposed (updated) Impact-Fee Schedule provided above only has 25 land-use categories. As a result, an exact side-by-side comparison is not feasible.