As of 6/15/2022 the stakeholder input period is ongoing and may affect this draft study.

--Draft: Study of Parkland Dedication Requirements for Commercial Uses--

This study provides an overview of parkland dedication as it pertains to retail, industrial, and office uses, as directed by City Council in Resolution No. 20220407-042, passed April 7th, 2022. This Study, produced by the Parks and Recreation Department, outlines the applicability of creating a new ordinance to require parkland dedication for commuters of commercial developments and outlines the methodology behind said ordinance.

This Study may be used as the basis for creating a parkland dedication commuter commercial ordinance, for review and approval by City Council after a public and stakeholder engagement period.

Purpose

Parkland is an essential city service that affords well documented economic, recreational, physical, and mental health benefits to its users (see research conducted by Rigolon, et al. 2022, who cite Crompton and Nicholls 2019, and Markevych, et al. 2017). The current parkland dedication ordinance is a critical tool that allows the Parks and Recreation Department (PARD) to mitigate the impact of new users on the park level of service for the people of Austin in accordance with goals and mandates set forth in the City Charter, City Council Resolution 20091119-068, Imagine Austin Comprehensive Plan, and the PARD Long Range Plan. Parks provide recreational opportunities, create community, preserve the city's character and natural resources, contribute to economic growth and tourism, increase transportation opportunities, and keep Austin beautiful. Parkland dedication requires new developments to account for their direct impact on the existing park system, thereby addressing several of the Imagine Austin Comprehensive Plan's key goals including : "Expanding Transportation Choices" in Austin. "Tackling the Ethnic Divide", "Prosperity for All", "Protecting Our Natural Resources" and "Preserving Livability" by providing consistent parkland under rapidly changing development conditions.

On February 25, 2020, the Parks and Recreation Board passed Recommendation 20200225-B3, which included the provision that commercial developments be subject to parkland dedication requirements. On March 28, 2022, the Parks and Recreation Board reaffirmed its support to require parkland dedication for office, retail, and industrial developments in Recommendation 20220328-B5. Enacting this provision would better provide parkland to Austin's growing workforce; currently, 58% of the workforce commute from outside the city limits, and as such are not served by the existing parkland dedication ordinance, which only addresses the impact of full-time residential and hotel developments.

Research shows that access to parkland is directly connected to an individual's health, safety and wellness. St. David's 'Healthy Parks Plan for Travis, Bastrop, Caldwell Counties' states that "Local Parks provide enormous community health benefits…. Parks enhance community health by":

1. Improving Mental and Physical Health
2. Increasing Community Cohesion and Combating Isolation
3. Improving Air Quality
4. Reducing Climate Hazards

The study cites several stressors resultant from the rapidly densifying urban environment that is unique to the Austin area. Urban stressors include: increased occurrence of asthma, diabetes, chronic health conditions, high rates of premature mortality, assaults and homicide, environmental stressors related to climate change including extreme heat, extreme floods, drought, clean water availability, and life-threatening pollutants. The study presents research that shows how increased access to parkland is proven to: reduce stress, improve immune system function, increase levels of mutual trust and willingness to help others, reduce effects of urban heat islands through shade trees and green infrastructure that decreases flooding while increasing availability of clean water.[1]

Currently, office, retail, and industrial developments located in park deficient areas, along greenbelts, or adjacent to parks are not subject to the existing parkland dedication ordinance. These types of development have a direct impact on the city's park system, by employing potential park users. Currently, the city is hindered from offering proportionate park services to those employees due to a lack of regulation. Enacting a new parkland dedication ordinance to include office, retail, and industrial developments would account for that direct impact by proportionally expanding park service. In turn, this would allow PARD to close critical gaps and resolve park deficiencies within the park system in an effort to serve park users occupying new commercial developments.. Parkland dedication is paramount to fulfilling City Council Resolution 20091119-068, which establishes the goal that all Austinites be within walking distance of a park. By accounting for the impacts new commercial developments would have on the City's parks system, PARD would be able to better fulfill this goal so that employees and residents alike have access to the parks system.

By addressing the impacts new commercial developments have on Austin's park system, the City would be able to advance its overall mission. Notably, parkland dedication has been proven to address many of the goals outlined in the Imagine Austin Comprehensive Plan adopted by City Council in 2012[2]. Park trails and greenbelts acquired through the parkland dedication ordinance expand multi-modal access to transportation across the city, in accordance with the goal of "Expanding Transportation Choices" in Austin. "Tackling the Ethnic Divide", another goal outlined in Imagine Austin, is addressed through parkland by providing relief from urban life, green space to those

[1] St. David's Foundation. "Healthy Parks Plan for Travis, Bastrop and Caldwell Counties'. 2019, page xii.

[2] AUSTIN, TX., Image Austin Comprehensive Plan. (2012).

who do not have access to a yard, opportunities to gather and recreate, and numerous physical and mental health benefits in historically underserved communities. Over the last 20 years, nearly 80% of PARD's investment through land acquisition and parkland development has been in the Eastern Crescent, a collection of economically and socially underserved neighborhoods along the eastern borders of the city. Furthermore, parkland dedication aids in "Protecting Our Natural Resources". and the numerous services they provide by preserving necessary green spaces, natural habitats, creeks, and other environmental features in perpetuity through State law and City Charter protections. Parkland acquired through parkland dedication promotes "Prosperity for All" by helping to attract high-tech industries, creative professionals, and local entrepreneurs, ensuring Austin continues to experience job growth and economic opportunities for its residents.

The PARD Long Range Plan provides a roadmap for park planning throughout the Austin parks system. The Long Range Plan identified parkland dedication as an essential tool to mitigate the impact of new development on the park system. Community stakeholders identified closing critical gaps in trail and greenbelt infrastructure as a number one priority for park planning and development initiatives. New trail infrastructure and greenbelt acquisition is a major focus of existing Parkland Dedication Ordinance for residential and hotel/motel site development permits. A new ordinance enacting a parkland dedication requirement for office, retail, and industrial developments would address the impact of commercial commuters have on existing infrastructure, and further address these critical gaps in order to complete Austin's trail infrastructure

Applicability

Currently, the parkland dedication ordinance requires dedication or fee-in-lieu for new residential and hotel/motel developments, as parks are necessary for the well-being of the future occupants of the new development. Public parks are also necessary for the well-being of the City's commuting workforce and commerce, and as such, new commercial developments do create a need for additional parkland in order to serve future occupants of the commercial spaces. New commercial developments bring additional commuting employees, clients, and consumers that use the City's parks, thereby establishing an essential nexus[3] between parkland dedication requirements and commercial development. Per the latest Census information, 58 percent of the City's workforce commutes into Austin, adding park users that do not factor into the City of Austin's current parkland dedication requirements[4].

A Core Principle of the Imagine Austin Comprehensive Plan is to "integrate nature into the city", which has "an increased need for parks" as "we grow into a more compact city". One of the growth tenets to accomplishing this is to "provide parks and open space close to where people live, work and play." Currently, Austin's parkland dedication ordinance accounts for where people live, but not where they work and play – the impact of commercial developments. In downtown Austin alone, there are 14,000 residents, but 106,000 employees that enjoy its parks (as of 2021). According to reporting from the

[3] Consistent with U.S. Supreme Court decision Nollan v. California Coastal Commission, 483 U.S. 825

[4] U.S. Census, LEHD OnTheMap 2019

Downtown Austin Alliance, half of all those employees commute in from other jurisdictions and not currently accounted-for in the parkland dedication ordinance.

Establishing An Essential Nexus and Rough Proportionality

In accordance with U.S. case law, a "city may enact reasonable regulations to promote the health, safety, and general welfare of its people"[5]. In a ruling on a public agency's powers, the U.S. Supreme Court case Berman v. Parker case (1954) established that the concept of public welfare has broad range, which has since generally included the need for parks[6]. Numerous cases in the U.S. have upheld that parkland dedication is a reasonable regulation that is substantially related to the needs of a community. In City of College Station v Turtle Rock Corporation (1984), the Texas Supreme Court found that parkland dedication can fulfill a legitimate goal, namely, so long as it is "substantially related" to the health, safety, or general welfare of the people, and the regulation is reasonable. To demonstrate the reasonableness and substantial relation of the regulation, parkland dedication requirements must establish an "essential nexus" and "rough proportionality", so as to comply with case law in the United States.

The concepts of essential nexus and rough proportionality were established in the Nollan and Dolan decisions, respectively, in which the U.S. Supreme Court held that the regulation of land use does not equate to a taking of property if the regulation substantially advances a legitimate governmental interest and is reasonably related to the need created by the development. The two cases, Nollan v. California Coastal Commission and Dolan v, City of Tigard, established the two-prong 'nexus test' for evaluating land use ordinances requiring any form of fee or land dedication. In Nollan v. California Coastal Commission, the Court held that constitutionality is satisfied through demonstrating a connection between a required dedication – whether imposition of fee or conveyance of property – and a legitimate governmental interest.

From the Court's majority opinion:

> "No precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development"

The following methodology demonstrates a parkland dedication ordinance for office, retail, and industrial developments promotes the health, safety, and general welfare of the community and establishes an essential nexus and a rough proportionality of parkland dedication requirements.

Methodology – Essential Nexus

Austin's quality of life is routinely cited as an economic driver for workforce growth, and parkland plays a pivotal role in creating that high quality of life. A new parkland dedication ordinance for office, retail, and industrial development would account for the impact of Austin's competitive job market, which attracts jobs and employees

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[5] City of College Station v Turtle Rock Corporation, 1984, 666 S.W.2d 318

[6] Berman v Parker, 1954, 348 U.S. 26

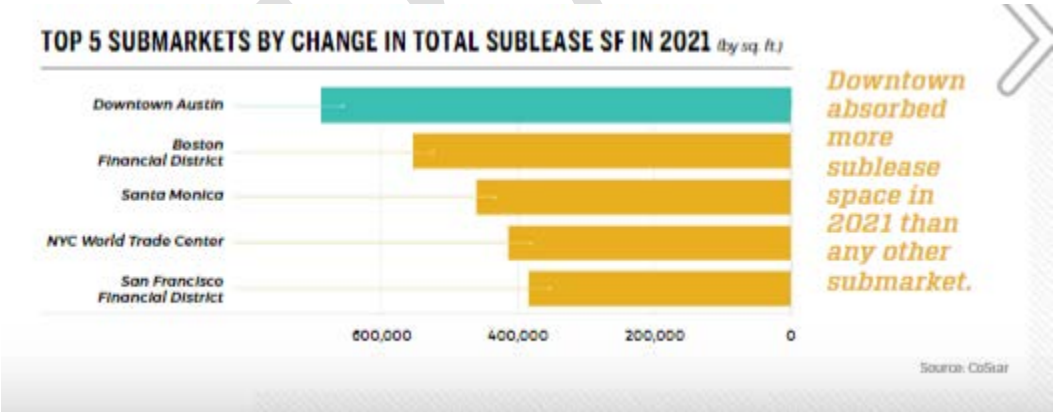
nationwide, on the current level of service of Austin's high-quality parks, trails, natural spaces, and recreational opportunities.

PART 1: Establishing Austin's Unique Rapid Workforce Growth and Contributing Factors

Austin is considered one of the fastest-growing and most attractive U.S. cities for its job market, in great part due to its quality of life (see U.S. News and World Report, Forbes). The Downtown Austin Alliance's (DAA) 'State of Downtown Report 2022' provides insights on the economic and workforce growth that is unique to Austin, Texas. The report emphasizes Austin's unique character, "The city center connects the community providing an atmosphere like no other, featuring high-quality parks, art and public spaces." The report acknowledges the direct connection between growth and the demand on public services, "As the region flourishes, the *demand* for transportation connections and *well-maintained park space* continue to grow." (emphasis added). This is no truer than downtown, the core employment center for the city, where some of the city's foundation parks are located.

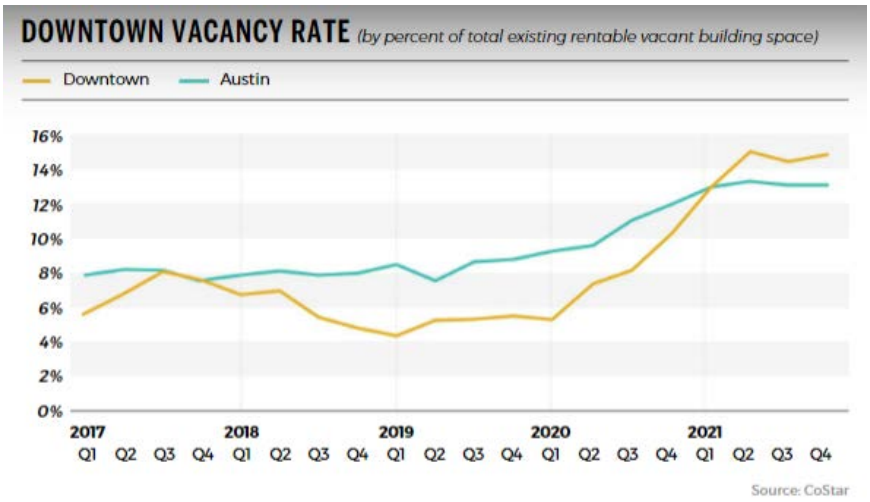
The report further emphasizes the importance of parkland to the overall character of downtown, citing them as a place for community building and entertainment, key factors in what make the urban core so successful, according to the DAA. Republic Square is noted several times as a community hub, 'On a more regular basis, downtown's public markets are a community staple, bringing together local artisans, specialty shops, unique finds and eateries that embody that Austin vibe.'

Rapid job-market growth is unique to Austin. DAA reports that post-pandemic, Austin absorbed more sublease space than any other sub-market, including downtown Boston, Santa Monica, NYC's World Trade Center and San Francisco's Financial District.



Source: Downtown Austin Alliance 'State of Downtown Report 2022'

In fact, according to DAA, 'Total leasing activity downtown has surpassed its 2018-2019 average', revealing that 'Major tech companies continue to see downtown as a place to hire and retain talents in such a highly competitive employment market'. Just under 2 million new square feet of office space were built downtown between 2020 and 2021, 3.3 million square feet are currently in progress, and 6.2 million are in the proposal or planning stage. This indicates that the number of employees commuting in from out of town to work will only grow in the foreseeable future, increasing the demand on parkland.



Source: Downtown Austin Alliance 'State of Downtown Report 2022'

Also unique to Austin is the percentage of employees that commute into town from outside jurisdictions. DAA reports that "Downtown employers draw talent from the entire Central Texas region, where half of the downtown's 106K employees lie outside the city limits."

DAA attributes this rapid job-market growth to the prime location and high quality of life offered to residents and employees alike. Specifically, DAA mentions "Lady Bird Lake and the string of quality parks along its banks serve as downtown's backyard" and downtown's proximity to the airport as major contributors to why Austin is able to "attract and retain a highly educated workforce." There is a clear demand for parks downtown, and throughout the City, for employment centers to offer the kinds of amenities expected from a city like Austin. As the commercial growth indicated by the DAA report continues to put pressure on the city's park system, the City needs tools account for that impact.

The National Recreation and Park Association (NRPA) has documented this relationship, stating that "quality-of-life considerations (including those made possible by high-quality parks and recreation) play a supporting role in site-location decisions. For some companies, high-quality park amenities can be critical in their final location decisions."[7] As such, commercial developments do receive direct benefits in the form of parks for employees, thereby attracting, expanding, and retaining their workforces, all while creating a greater demand for parks with the growth of those workforces. By enacting a new parkland dedication ordinance to create dedication requirements for office, retail, and industrial, developments, the City would be able to continue to provide active and passive recreational opportunities near the places of employment, thereby advancing the health, safety, and general welfare of the workforce.

UT Arlington, sponsored by the Landscape Architecture Foundation further documented this correlation between economic performance and adjacency to parkland in a case study on The Shops at Park Lane in the north Dallas area. The project replaced surface parking with an integrated pedestrian-focused landscape including a central community

[7] NRPA, "Promoting Parks and Recreation's Role in Economic Development, 2018, p ii

park adjacent to a vertical mixed use development housing residential, office and retail space. The study measured the environmental and economic impacts of the park space and determined there is a positive correlation between the park and the economic performance of the commercial space.

(Source: TBG Partners, 2017)

Illustration of the parkland integrated into the commercial development at the Shops at Park Lane.

The economic performance benefits reported by the third-party retailers at this site include:

1. 'Stimulated increase in occupancy rates for retail and multifamily up to 95% and for office up to 100% in its newly added 550,000 sq ft of retail and mixed-use development as well as other adjacent buildings since its inception. According to project client, the office tenants attribute this change to park, on site amenities and restaurants.'[8]
2. 'Contributed to the position of most of the national retailers* in The Shops at Park Lane in the top 10% of their respective chains in sales by increasing customer dwell time and providing additional park-side restaurants.' *retailers included chains like Starbucks[9]
3. 'Contributed to a 1% increase in total market value (or property value) of Park Lane District between 2010 and 2016'

Overall, the park space and park programming positively impacted the economic viability and operations of the shopping center.

[8] Ozdil, T., & Munshi, R., & Pradhan, R. "2017 LAF's SCI Program Performance Series: Shops at Parklane, Dallas Methodology", 2017 p 12

[9] Ozdil, T., & Munshi, R., & Pradhan, R. "2017 LAF's SCI Program Performance Series: Shops at Parklane, Dallas Methodology", 2017 p 13

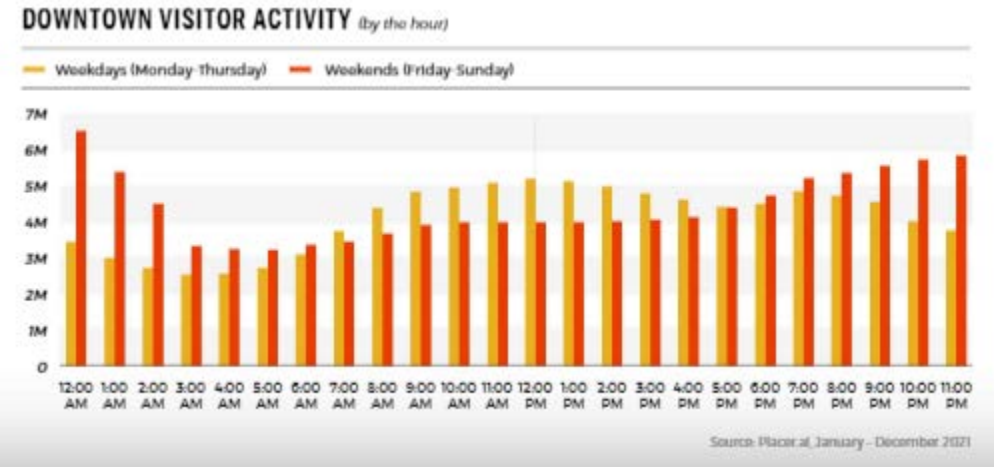
PART 2: Establishing Essential Nexus Between Parkland and Commuting Employees

In order to meet the legal requirements in the United States described in the previous section, an "essential nexus" must exist between a requirement imposed on a development and the stated police power objective of requiring development to meet the needs created by said development. The commuting workforce of office, retail, and industrial developments increase the potential service population of the city's park system, and therefore create a greater demand for the City's parks services. To quote Dr. John Crompton, Texas A&M distinguished professor of parks and recreation:

> "[…] commercial buildings and office spaces attract new businesses and workers to fill new jobs. The new workers need parks, so the commercial buildings contribute to growth and, therefore, should contribute to paying for the needs that growth creates. They are directly linked to creating new employment opportunities and to increasing demand for new or improved park facilities."[10]

Reports from the Downtown Austin Alliance, The Trail Foundation and third party Placer.ai reporting all affirm the correlation between the impact on park use and the work day. During weekdays, there is a consistent spike in park and public space usage during the hours around lunch and the immediately after work.

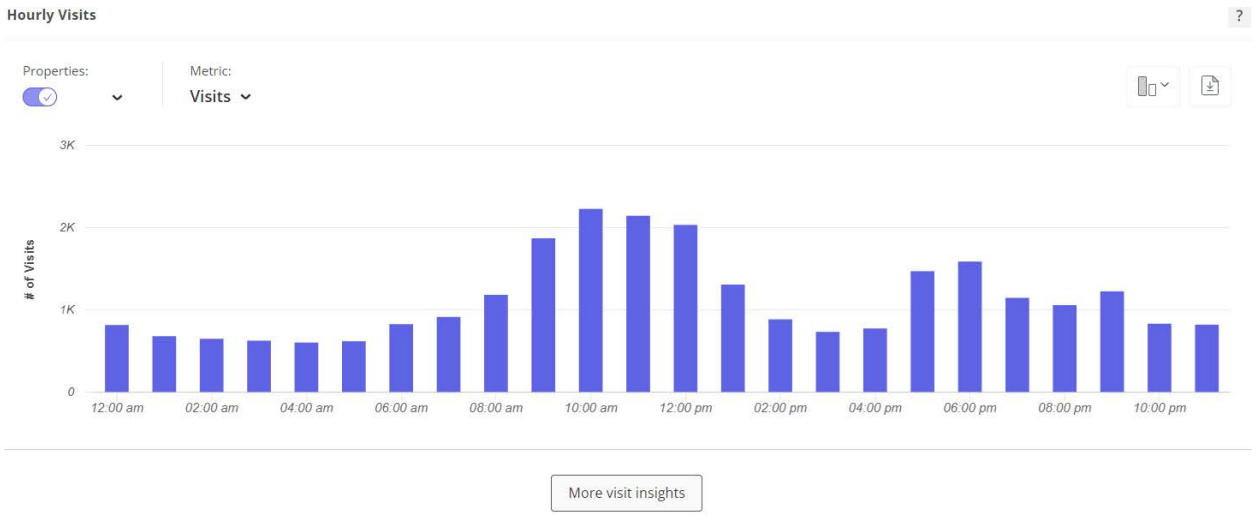
The chart below shows a spike of activity in downtown public spaces during the lunch hour on weekdays specifically. The chart compares weekday and weekend usage and shows that weekday lunch time activity is higher than weekend activity at the same time, indicating a direct correlation between workforce and increased park usage.



Source: Downtown Austin Alliance 'State of Downtown Report 2022

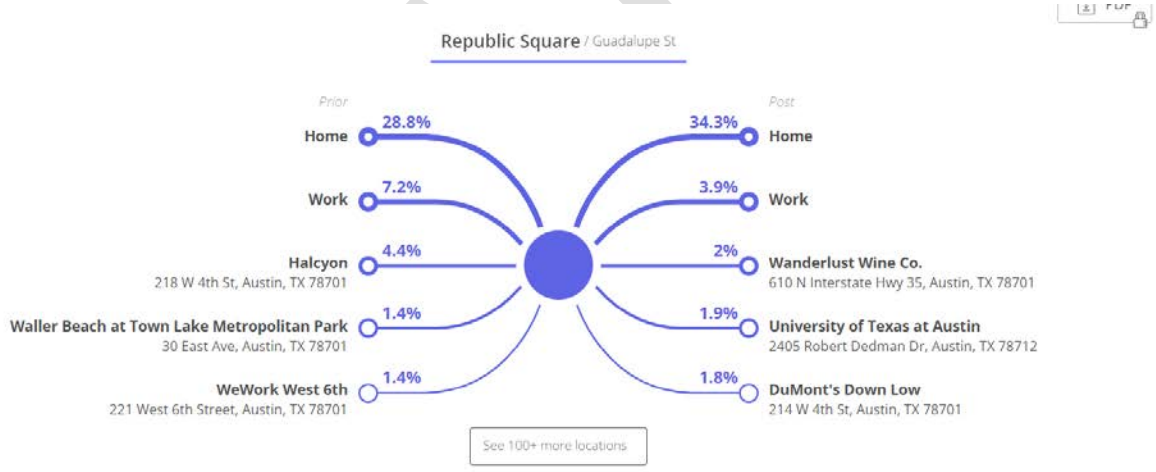
Placer.ai is a population count tool that utilizes cell phone location data to provide detailed user analytics. Republic Square Park in the downtown commercial center receives most of its visitors during the hours around lunch and immediately after work:

[10] Crompton, "Parkland Dedication: Optimizing an Underutilized Resource", 2022 p. 51



Source: placer.ai June, 2022

8.6% of all Republic Square visitors, or 645 people, go to the park regularly on their way from work (work and WeWork totals combined) , 3.9% of Republic Square visitors go to the park on their way to work.

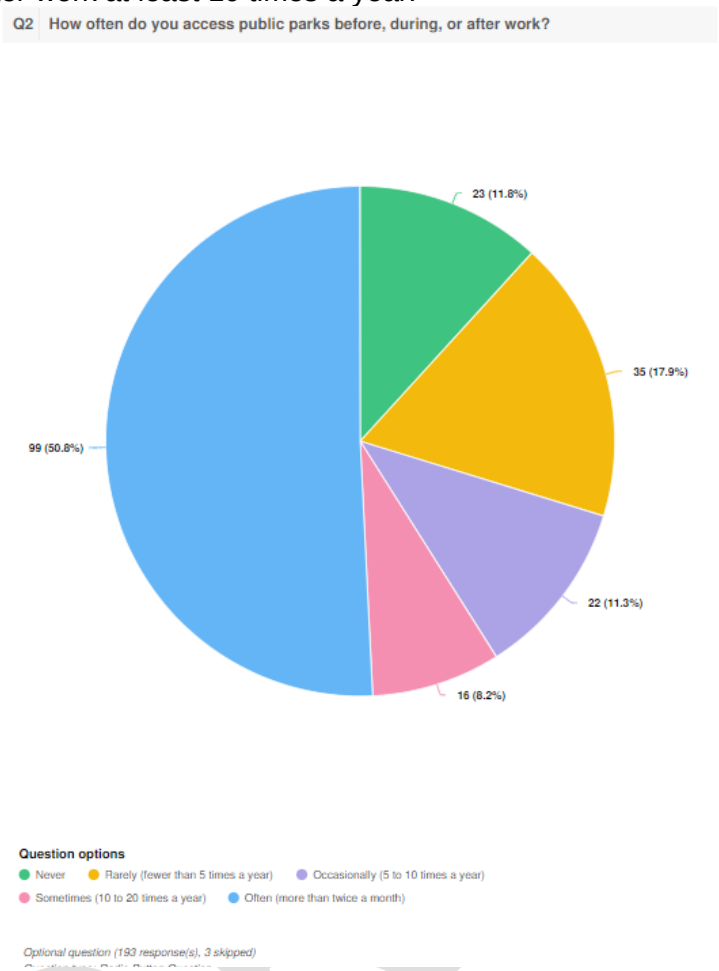


The Trail Foundation trail counts show park usage on weekdays compared to weekends broken down throughout the day:

[Waiting on Trail Foundation trail count data]

> In a survey conducted by PARD which was made available to the public, over 50% of the survey takers indicated that they used a park before, during or after work more than twice a month. Another 19.5% visited a park before during or

after work at least 10 times a year.



Source: Public opinion survey conducted by PARD May and June 2022

Many companies utilize parkland during or after work for corporate intramural teams. The Austin Sports and Social Club (Austin SSC) reserves time at parks throughout Austin to host corporate intramural games such as sand volleyball, kickball and flag football. Austin SSC advertises: “Include team sports in your wellness program and get coworkers communicating, building bonds, and strategizing for success!”[11] Parks are booked most weeknights for intramural games throughout the year according to the Austin SSC Schedule.

The Waterloo Greenway Conservancy also partners with Ascension Seaton to provide active recreational programming in Waterloo Park on weekdays at 6pm to accommodate the availability of employees after work.

In sum, there is an established relationship between parkland and commercial uses. Commercial uses benefit directly from parkland by appealing to their growing workforce through the improved quality of life, and by employing externalities of being near

[11] Austin Sports and Social Club. https://austinssc.com/corporate?utm_source=header&utm_medium=website&utm_campaign=menu&utm_content=Company. 2022. ‘Corporate Culture’.

parkland to drive consumer demand. In turn, the growth in commercial development resulting from a robust park system further increases impact on said park system, thereby requiring that the park system grow proportionate to the impact

Methodology – Rough Proportionality

The existing parkland dedication ordinance for residential developments requires 9.4 acres of parkland per 1,000 new residents or hotel occupants, roughly proportional[12] to maintaining Austin's current level of park service. However, parkland is utilized by more than just residents and hotel occupants, with commuting workforces adding to the demand for park services. According to census data, 58% of Austin's workforce, approximately 450,000 employees, travel in from cities and areas outside of the City's planning jurisdiction and are not subject to the City's current parkland dedication ordinance through residential development requirements. Employees commuting into Austin have an impact on parkland that is proportionate to their relative opportunity to use park spaces and amenities. A new parkland dedication requirement should extend to office, retail, and industrial developments based on the impact of the commuting workforce, the number of people occupying commercial spaces, and amount of time the commercial spaces are occupied to proportionately address the impact of the workforce users on the city's park system.

Estimates from the U.S. Green Building Council (USGBC) of the employees per square foot of commercial space provide a basis for establishing the impact that new office, retail, and industrial developments have on the demand for nearby parkland. It is assumed that commuter employees do not have the same opportunity to access parkland as full-time residents and requirements will need to be roughly proportional to the relative demand created by commuting employees. To adjust for this relative impact, a functional population equation is applied to the total employee population. The "Functional Population" approach is a commonly used methodology for "estimating the current and future demand for facilities" and helps to address the "need to rationalize differences in facility demand by land-use category" by "properly weigh[ing] population and employment figures to create a common unit of measure."[13] For the purpose of this requirement, the functional population formula is a combination of factors that account for the time commercial development is occupied and impacting the park system. The resulting figure is representative of the "full-time equivalent" population of any given commercial development, considering the relative opportunity of employees to access parkland. Factors include Business Operation Hours, City-wide occupancy/vacancy rate of commercial spaces, percent of employees commuting from beyond Austin's city limits, and employee density. This rough proportionality and equation for accounting impact to the parks system—including assumptions and parks level of service—is further expanded in the worksheet at the end of this Study.

[12] Consistent with U.S. Supreme Court decision Dolan v. City of Tigard, 512 U.S. 374

[13] Nelson, Arthur; Nicholas, James. "Estimating Functional Population for Facility Planning." Journal of Urban Planning and Development, Vol. 118, Issue 2. (1992)

Comparison Cities

Fewer cities currently have an established parkland dedication requirement for commercial development, compared to those cities with a residential requirement. This Study explores the U.S. landscape for commercial parkland dedication requirements with specific metropolitan examples.

Texas

In Texas, Hutto accounts for the impact of non-residential developments on parkland by assessing a parkland development fee at a rate of $800/acre for developments consisting of 3 or more acres[14]. El Paso requires non-residential developments to meet parkland dedication requirements through payment of a fee-in-lieu, on-site land dedication, or purchase of park facilities for existing or proposed park space at the subdivision phase[15]. For fees, El Paso uses a rate of $1,000 per acre of the non-residential subdivision. In the case of land dedication, park space must meet the criteria outlined in the City of El Paso's Open Space Master Plan and have a value equivalent to the fee amount required for the subdivision. The El Paso ordinance also expands on the use of any funds collected through parkland dedication for non-residential subdivisions. The ordinance stipulates that all funds must be used on the acquisition or the development of both public parkland and other recreational facilities, but not for any ongoing maintenance. Additionally, funds must be spent on a neighborhood park within the applicable park planning zone or on a community or regional park within an adjacent park zone. El Paso is in the process of updating their parkland dedication ordinance fee schedule, which has not been updated since it was passed in 2008[16]. Colleyville, within the Dallas-Fort Worth Metropolitan Statistical Area, established a parkland dedication requirement of 1 acre of parkland for every 56 gross acres of non-residential development[17]. Colleyville argues that parkland dedication helps to address the negative environmental and societal impacts of commercial developments. Similar to the El Paso ordinance, developers have the option to satisfy parkland dedication requirements through payment of fee-in-lieu, improvement to existing facilities, or through on-site land dedication.

Overall, the rough proportionality for these Texas cities may be based on the acreage of their parklands, rated against the percentage of the cities' gross acreage devoted to commercial/non-residential use. This Study focuses more on the actual impact on levels of service, like the Impact Fees observed in California, Denver, and Atlanta, and described in more detail below.

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[14] HUTTO, TX., City Fee Schedule, Sec. A1.005(a), Updated 9, 20, 21

[15] EL PASO, TX., Code of Ordinances, Chapter 19.20.110(A)2.b,

[16] Communication with Park Planner in El Paso

[17] COLLEYVILLE, TX., Land Development Code, Chapter 11.5.B.2.b, 2000

California

In California, several cities charge impact fees for parks, using an established level of service from which a fee is derived. **Impact fees are based on a different legal framework than existing parkland dedication ordinances in Texas and are not allowed in the State. While the proposed commercial parkland dedication ordinance is not an impact fee, the methods used in development of the fee schedule do help to inform assumptions used in crafting a roughly proportional commercial parkland dedication ordinance.** In Sacramento, the park impact fees are derived from a maximum justifiable rate associated with the planned expansion of the city's parks system and established level of service[18]. Similarly, Palo Alto updated its fee schedule for fiscal year 2021 with a rate of $5,564 per 1,000 sf of new commercial or industrial development based on an established level of service[19]. Belmont, CA, a mid-sized city in the Bay Area, formulated their current park service level and apportions park impact fees to commercial developments based on a service population factor[20]. As described in their nexus report, the demand from employees must be 'informed by assumptions about the hours of availability of park facilities and an employee's relative opportunity to access the City's park facilities'. Below are the steps outlined in the service population factor calculation:

> Service Population Factor = ((% Employees Live in the City x Park Impact Weight) + (% Employees Live Outside the City * Park Impact Weight)) / ((% Residents Not in Labor Force * Park Impact Weight) + (% Residents Employed in the City x Park Impact Weight) + (% Residents Employed Outside the City x Park Impact Weight))
>
> % Employees and Residents commuting based on U.S. Census Bureau ACS estimates and the U.S. Census On the Map Tool
> Park Impact Weight based on assumptions of relative opportunity of cohorts to use park facilities

The overall service population is then calculated by adding the total residents in the city to the employees in the city multiplied by the service population factor. Each commercial use is assigned a service population per square foot using an assumed employee density and the service population factor. Employee densities are researched estimates based on industry standards and informed by Institute of Transportation Engineers reports. A current cost per service population is calculated by an estimated cost for new park facilities based on historical acquisition and construction costs in the city. The resulting impact fees for commercial development range from $1.27 per square foot for industrial space to $3.16 per square foot of office space. While impact fees for parks is not allowed in Texas, cities like Sacramento, Palo Alto, and Belmont do offer a framework for measuring commercial development's impact on parkland in order to assess proportional requirements.

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[18] SACRAMENTO, CA., Chapter 18.56.220

[19] Palo Alto, CA. "Adopted Municipal Fee Schedule," (2022)

[20] CITY OF BELMONT, CA, Economic & Planning Systems, Inc., "Park Improvement Impact Fee Nexus Study", (2020).

Denver, Colorado

Denver, Colorado imposes development impact fees for new residential and non-residential development in the Gateway District of the city[21]. As stated in the ordinance, these fees are intended to counteract new development's 'new, increased and excessive demands on city public facilities and services, including, without limitation, fire protection, roads, drainage and parks and recreation.' Subdivision regulations for the District require a 2% parkland dedication for commercial development in the area or a fee-in-lieu of dedication. The regulations, passed in 2000, established a fee-in-lieu rate of $403 per acre for non-residential buildings with a 5% increase recalculated every three years. The fee rate is based on a rough proportionality between the cost of facilities that are attributable to new development and the overall public costs of the provision of such facilities, shifting the responsibility for financing new public facilities to entities and property owners creating the increased demand for them. Planners in Denver indicated they are currently exploring an update to their current parkland requirements, as well as applying a parkland dedication requirement city-wide[22].

Atlanta, Georgia

Atlanta Georgia introduced a commercial parks impact fee in 1993[23] and updated it with a fee impact study in 2021 and 3-phase implementation plan between 2021 to 2025[24]. The impact fee reflects the current level of park service (LOS) across three service areas in the city. The LOS considers both land acquisition and park improvements in order to accurately assess the costs associated with maintaining and expanding a park system. The final impact fees were derived by multiplying the functional population for each land use by the net cost per functional population. The land use is broken down into residential uses at different densities (such as multifamily, single family, hotel/motel) and commercial uses broken into several categories including shopping/commercial, warehouse, public/institutional, office, industrial, warehouse and mini warehouse.

The functional population of each use was determined by a calculation that considers employees/people per unit, visitors per unit, number of hours per day of occupancy, and average daily trips (ADT) derived from various national standards including the U.S. Department of Transportation, *National Household Travel Survey*, 2009, ITE, *Trip Generation*, 10th ed., 2017 and U.S. Department of Energy, *Commercial Buildings Energy Consumption Survey*, 2012. The following formula is used to calculate the functional population for non-residential land uses:

> Functional population/unit = (employee hours/1000 sf + visitor hours/1000 sf) ÷ 24 hours/day
> Functional population/employee = functional population/unit ÷ employee/unit
>
> Where: Employee hours = employees x 8 hours/day
> Visitor hours/1000 sf = visitors/1000 sf x 1 hour/visit

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[21] DENVER, CO., Gateway Subdivision Rules and Regulations, (2020)

[22] Communication with Denver Planners

[23] ATLANTA, GA., Ordinance 92-O-1817, (1993)

[24] ATLANTA, GA., Ordinance 21-O-0096, (2021)

Visitors/1000 sf = weekday ADT/1000 sf x avg. vehicle occupancy – employees/1000 sf
Weekday ADT/1000 sf = one way average daily trips (total trip ends ÷ 2)

The resulting fee ranges from $53/1000 sq ft for mini-warehouses to $1,202/1000 sq feet for shopping centers/commercial uses.

Summary

Parkland dedication is meant to address the impact growth has on the City of Austin's parks system. Despite increasing the demand on park facilities, commuters of commercial development are not presently included in that impact. As Austin continues to grow, so does its need for parks where people live, work and play. By including commuting occupants of commercial spaces, Austin's parkland dedication requirement will fully account for new developments' impact on the City's parks system, and better serve the Austin community consistent with the Imagine Austin Comprehensive Plan. Parkland dedication would directly benefit commerce through improved physical and mental health; increased productivity from nature and physical exercise; greater innovation through community spaces; and expanded multi-modal transportation options to and from commercial spaces. This Study provides the basis for an essential nexus and rough proportionality that meet standards established in U.S. case law regarding such regulations. Requiring new commercial developments to meet the needs for parkland based on the economic and workforce growth ultimately advances a legitimate public interest and promotes the health, safety, and general welfare of the people of Austin.

Supplemental Worksheet for Commercial Parkland Dedication Requirements

The below worksheet describes the methodology for determining the annual fee schedule. Variables included reflect the time of publishing and, if indicted, will be updated annually.

Commercial development is broken up into three distinct categories to more finely capture the impact of each use. The categories are:

- **Office:** Includes but not limited to general office use, coworking spaces, and medical offices.
- **Retail:** Includes but not limited to restaurants, retail spaces, gyms, coffee shops, bars, food service spaces, supermarket, grocery store, hardware store, bank, entertainment venues, print and copy services.
- **Industrial** Includes but not limited to industrial buildings, manufacturing warehouse, storage facilities.

Assumptions

Variables	Calculation Factor	Description
Fee In-Lieu of Land		
Parkland Level of Service	96.70 people per 1 acre	City Population/Park Acres
Park Acres	10,086.32 acres	Park Acres to be Updated Annually (excludes Metro and District Parks)
City Population	975,321 (2021 Population)	Current City Population (Provided by City Demographer)
Parkland Cost Factor	$365,653.44 per acre	Average land cost of acres purchased over the last five years excluding Metro and District Parks
Park Development		
Facilities Level of Service	4,046.98 people per park	City Population / Number of Developed Parks
Number of Developed Parks	241	Count of all developed parks to be updated annually
Park Development Cost Factor	$1,423,928.42	Average cost of development the last five Neighborhood Parks to be updated annually

A. Level of Parkland Service:

The park level of service is 9.4 acres as established under Ord. No. 20160128-086, Pt. 2, 2-8-16 .

B. Fee In-lieu of Land Formula

The fee-in-lieu per person is $3,781.32 per person. To be updated annually based on the following formula**:**

Parkland Cost Factor/Parkland Level of Service = Land Cost Per Person
$365,653.28 per acre / 96.70 persons per acre = $3,781.32 per person

C. Park Development Fee Formula

The park development fee is $351.85 per person. To be updated annually based on the following formula**:**

Park Development Cost Factor/Facilities Level of Service = Development Cost Per Person
$1,423,928.42 park development cost factor / 4,046.98 people per developed park = $351.85 per person

Parkland Cost Factor

The parkland cost factor is $365,653.28 per acre to be updated annually based on the average cost per acre of parkland in the previous five years.

2017			
Country Club Creek	2/2/2017	1.148	$57,999.00
Tahoe Trail	9/27/2017	0.308	$13,022.68
2018			
Southern Walnut Creek addition*	9/7/2018		
Scenic Brook*	9/25/2018		
North Star*	9/20/2018		
2019			
Little Walnut Creek Greenbelt	4/16/2019	0.222	$185,000.00
Brook Crest	6/12/2019	9.04	$279,626.60
2020			
Country Club Creek Addition	4/24/2020	3.695	$251,483.00
Georgian Pocket Park	8/19/2020	0.7	$226,948.00
Georgian Pocket Park	8/21/2020	0.2571	$360,902.00
Theckla Pocket Park	12/28/2020	0.192	$106,000.00
Upper Little Walnut Creet	10/23/2020	7.2581	$1,485,500.00

Williamson Creek Greenbelt East	6/19/2020	6.51	$183,195.00
Williamson Creek Greenbelt West	9/28/2020	2.66	$1,286,353.00
Wood Street Settlement Pocket Park	12/7/2020	0.2146	$1,166,686.00
2021			
Clawson Neighborhood Park	4/7/2021	3.0154	$2,301,605.50
College Row Pocket Park	1/29/2021	0.6303	$2,211,501.00
Cooper Neighborhood Park	2/5/2021	4.957	$2,326,971.49
Hill County View Neighborhood Park	1/22/2021	3.2889	$431,223.80
Jamestown Neighborhood Park	11/19/2021	2.8485	$3,234,668.60
Mocassin Neighborhood Park	12/20/2021	5.376	$838,796.10
Poquito Creek Greenbelt	4/26/2021	0.1779	$449,351.64
Texas Oaks Neighborhood Park	9/17/2021	4.2	$4,223,484.60
Upper Bull Creek Greenbelt	7/27/2021	10	$2,768,327.50
TOTAL		**66.6988**	**$24,388,645.51**
AVERAGE ACRE COST			**$365,653.44**

*Acquired through Parkland Dedication or Donation

Park Development Cost Factor

The park development cost factor is $1,423,928.42 to be updated annually based on the average cost of development of the previous five neighborhood parks.

Park	Cost	Acres
Del Curto	$970,179.00	2.0840
Copperfield	$1,010,262.00	4.6200
Little Stacy	$1,206,416.91	6.7793
Georgian Acres	$944,952.85	4.9970
Duncan Neighborhood Park	-	5.9100
Highland	$1,580,705.00	5.2983

Brownie	$1,699,941.00	7.4157
Oertli	$1,687,626.32	6.0000
Little Stacy to Oertli (Last 5)	$7,119,642.08	-
Average cost of last 5 Developed Parks	**$1,423,928.42**	**-**

Functional Population Formula

The "Functional Population" approach is a commonly used methodology for "estimating the current and future demand for facilities" and helps to address the "need to rationalize differences in facility demand by land-use category" by "properly weigh[ing] population and employment figures to create a common unit of measure."[25] For the propose of this requirement, the functional population formula is a combination of factors that account for the time commercial development is occupied and impacting the park system. The resulting figure is representative of the "full-time equivalent" population of any given commercial development, considering the relative opportunity of employees to access parkland. Factors include Business Operation Hours, City-wide occupancy/vacancy rate of commercial spaces, percent of employees commuting from beyond Austin's city limits, and employee density.

Employees Density

The number of square feet devoted to each employee, or employee density, is used to determine the population of a new commercial development. Conservative estimates from the U.S. Green Building Council put the square feet per person in commercial spaces at the following:

- Office: 300 sq ft / person
- Retail 550 sq ft/ person
- Industrial: 2,500 sq ft / person

Percent Commuter

Commercial development attracts employees from beyond Austin's city limits, thereby creating an increased demand for park services that is unaccounted for under current parkland dedication requirements imposed on new residential development. Census Longitudinal Employer-Household Dynamics (LEHD) data provides an estimation of the overall percentage of employees within Austin that commute to work from beyond the City Limits. At the time of publication, according to LEHD data, 58% of employees within the City of Austin commute from other jurisdictions[26].

[25] Nelson, Arthur; Nicholas, James. "Estimating Functional Population for Facility Planning." Journal of Urban Planning and Development, Vol. 118, Issue 2. (1992)

[26] ACS 5-Year Estimates. Estimate of Total Jobs and place of work and place of residence from U.S. Census LEHD OnTheMap, (2019)

Business and Parkland Operation Hours:
The impact of commercial development is temporary in nature and the requirements must reflect the relative opportunity of employees to access parkland near their place of employment. Assumed business operation hours indicate when employees are able to access parkland near their place of employment, thereby increasing the demand on the park system.

Commercial Operation Hours vary by use:

> Office use occurs 5 out of 7 days of the week, and 8 hours a day, 23.8 percent (40 hours out of 168 hours a week) operation occupancy.
>
> Retail use occurs 7 days of the week, and an average of 9 hours a day for operation. This is equal to 37.5 percent (63 hours out of 168 hours a week) operation occupancy.
>
> Industrial use occurs 24 hours every day of the week, equal to 100 percent, in part due to the Just-in-Time delivery models that has overtaken this sector. Generally, park space is open for use by the public from 5am to 10 pm, and so the operations hours are capped at 70.8 percent.

Occupancy Rates
Occupancy rates for each use category are factored into the functional population to account for changes in the impact of commercial development on the park system as space sits vacant. Vacant commercial space would not be occupied by employees and thus not impact the park system. Occupancy rates derived from industry standard sources are to be updated annually, thus reacting to changes in impact on the park system. Occupancy by use below:

- Office: 92%[27]
- Retail 95%[28]
- Industrial: 94% [27]

[27] Austin area occupancy rates for office and warehouse/industrial derived from the Chamber of Commerce 'Austin Area Profile' reflecting occupancy by use in Q2 2021
[28] Retail occupancy based on NAI Partners report published in Q2 2021

Formulas By Use

The parkland requirements for office, retail, and industrial can be calculated with the following formulas:

General Formula:
Functional Population -

Functional Population = (A / B) x C x D x E
A = Sq feet of development
B = Employee Density for Use Class
C = Occupancy of Use Class
D = Assumed Operation Hours of Use Class
E = Percent Commuters

Fees -

Fee-In-Lieu = Functional Population x $3,781.32
Development Fee = Functional Population x $351.85

Land -

Land Owed (Acres) = (Functional Population/1000) x 9.4 acres

Office:
Sq feet of office/300 sq ft/person X 0.92 occupancy X 0.238 operations hours X .58 commuters = Functional Population
Functional Population x ($3,781.32FIL + $351.85 DEV) = Parkland dedication fees

Retail:
Sq feet of retail/550 sq ft/person X .95 occupancy X 0.375 operations hours X .58 commuters = Functional Population
People x ($3,781.32 FIL + $351.85 DEV) = Parkland dedication fees

Industrial:
Sq feet of warehouse/2,500 sq ft/person X 0.94 occupancy X .708 operation hours X .58 commuters= # of people
People x ($3,781.32 FIL + $351.85 DEV) = Parkland dedication fees

Several of the variables in the formula are static from year to year, including the (B) square feet per person and the (D) operations hours. Some of the variables will be reevaluated each year based on publicly available data, such as the (C) occupancy rate and the (E) percent commuter workforce, as well as the fees-in-lieu of parkland land dedication and park development. The only variable in the above formula that is unique to the new development is the (A) total square feet of the development.

Fee per Square Foot
The below table summarizes the current fee schedule for commercial development using the methodology described above.

Fee In Lieu of Land					
$365,653.44	Acre Value				**2022 Fees**
96.70	persons per acre				
$3,781.32	per service pop				
	Sq Ft Per Employee	**Occupancy Rate**	**Operational Hours**	**% Commuter**	**Fee per Square Foot**
Industrial	2500	0.94	0.708	0.58	$0.5838
Retail	550	0.95	0.375	0.58	$1.4206
Office	300	0.92	0.238	0.58	$1.6007
Park Development Fee					
$1,423,928.42	Neighborhood Park Cost				
4046.98	people per developed park				
$351.85	per service pop				
	Sq Ft Per Employee	**Occupancy Rate**	**Operational Hours**	**% Commuter**	**Fee per Square Foot**
Industrial	2500	0.94	0.708	0.58	$0.0543
Retail	550	0.95	0.375	0.58	$0.1322
Office	300	0.92	0.238	0.58	$0.1489

Functional Population Factor by Use

Overall, the City's parkland dedication requirements will be applied to seven distinct land uses. The table below demonstrates the relative weight given to occupants of each land use category and the derived functional population per unit or 1,000 SF of development. Currently, the functional population per units or 1,000 SF range from 2.80 per low density residential unit to 0.15 per 1,000 sf of industrial space.

	People Per Unit or Employee Per 1,000 SF	**Occupancy Rate**	**Operational Hours**	**Percent Commuter**	**Functional Population Factor**	**Functional Population Per Unit or 1,000 SF**
Residential Low Density	2.8	-	-	-	**1.00**	**2.80**
Residential Medium Density	2.2	-	-	-	**1.00**	**2.20**
Residential High Density	1.7	-	-	-	**1.00**	**1.70**
Hotel	1.7	62%	-	-	**0.62**	**1.05**
Industrial	0.4	94%	0.708	0.58	**0.39**	**0.15**
Retail	1.82	95%	0.375	0.58	**0.21**	**0.38**
Office	3.33	92%	0.238	0.58	**0.13**	**0.42**

Current Fee Rate and Comparison Cities

As a point of comparison, the below table displays the calculated fee schedule for Austin relative to established rates in Belmont, California and Atlanta, Georgia. The variation in the price of parkland across the different municipalities may be a contributing factor to the differences in fee cost per square foot.

City	Office fee cost	Retail fee cost	Industrial/Warehouse fee cost
Belmont, California*	$3.16 per SF	$1.90 per SF	$1.27 per SF
Atlanta, Georgia*	$1.20 per SF	$0.54 per SF	$0.23 per SF
Austin, Texas	**$1.7497 per SF**	**$1.5528 per SF**	**$0.6382 per SF**

Example Office:

Step 1: Calculate Total Employees

Total SF	SF/Employee	Total Employees
325,000	300	1,083

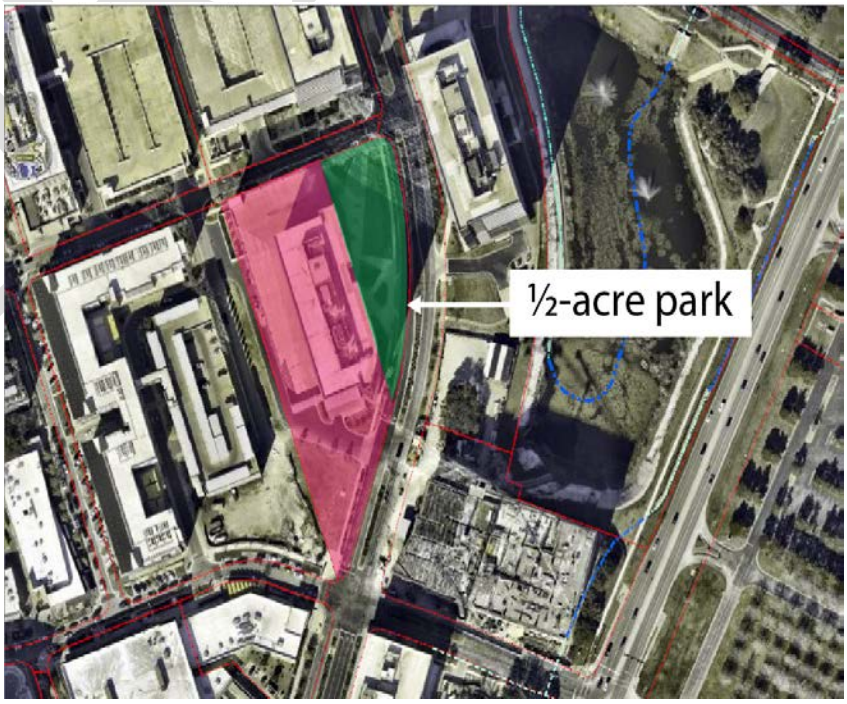
Step 2: Derive Functional Population

Total Employees	Occupancy	Operation Hours	Percent Commuter	Functional Population
1,083	92%	23.8%	58%	137.58
A	B	C	D	Formula = A * B * C * D

Step 3: Calculate Requirements

Land Owed	Fee-In-Lieu	Development Fee
1.29 acres	$520,228	$48,392.50
Formula = (Functional Population/1000) x 9.4 acres	Formula = SF of Development x $1.6007	Formula = SF of Development x $0.1489

Park space would serve the future occupants of the office, supporting mental and physical well-being, and act as a refuge for employees as well as an invitation to the community. This amenity would help to attract tenants and major employers because of their employee's ability to access park amenities at the front door of the office.



Example Retail:

Step 1: Calculate Total Employees

Total SF	SF/Employee	Total Employees
50,000	550	91

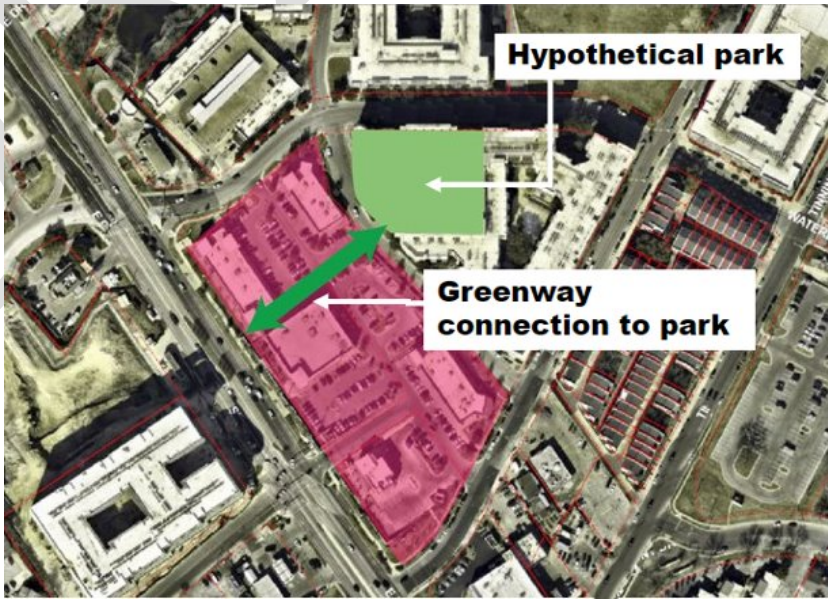
Step 2: Derive Functional Population

Total Employees	Occupancy	Operation Hours	Percent Commuter	Functional Population
91	95%	37.5%	58%	18.78
A	B	C	D	Formula = A*B*C*D

Step 3: Calculate Requirements

Land Owed	Fee-In-Lieu	Development Fee
0.18 acres	$71,030	$6,610.00
Formula = (Functional Population/1000) x 9.4 acres	Formula = SF of Development x $1.4206	Formula = SF of Development x $0.1322

Dedicated parkland could allow for a connection to a hypothetical existing park, ensuring the future occupants of the development, as well as the wider community, maintain access to parklands. The new park space would enable retail workers to walk to park amenities on breaks or before and after their shifts.



Example Industrial

Step 1: Calculate Total Employees

Total SF	SF/Employee	Total Employees
200,000	2,500	80

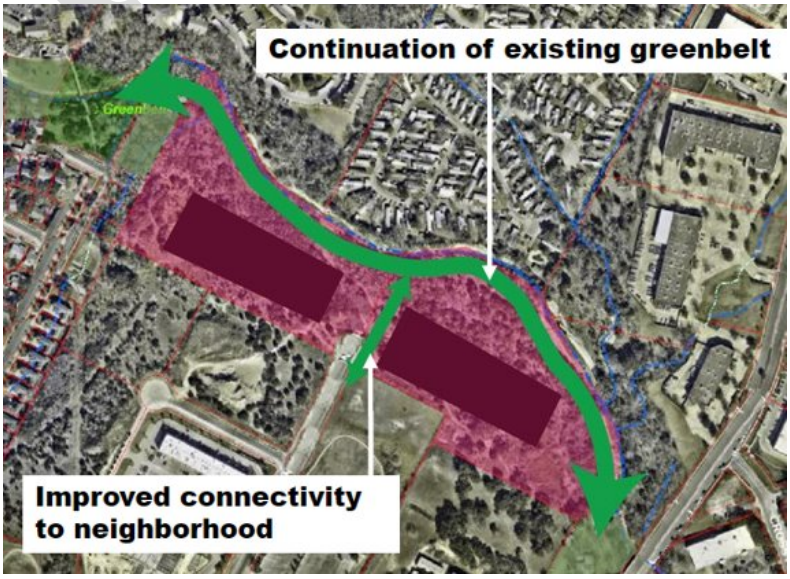
Step 2: Derive Functional Population

Total Employees	Occupancy	Operation Hours	Commuter Percent	Functional Population
80	94%	70.8%	58%	30.97
A	B	C	D	Formula = A*B*C*D

Step 3: Calculate Requirements

Land Owed	Fee-In-Lieu	Development Fee
0.29 acres	$116,760	$10,860.00
Formula = (Functional Population/1000) x 9.4 acres	Formula = SF of Development x $0.5838	Formula = SF of Development x $0.0543

In a suburban warehouse, requirements would allow for the continuation of a greenbelt on land that would otherwise sit unutilized by the development. This greenbelt could serve as an alternative transportation method for the future workers of the development and as a recreational amenity available to them before or after their shift.



Example Mixed-Use

Commercial Step 1: Calculate Estimated Employees in Commercial Space

Total SF	SF/Employee	Total Employees
136,000	300	453

Commercial Step 2: Derive Functional Population of Commercial Space

Total Employees	Occupancy	Operation Hours	Percent Commuter	Functional Population
453	92%	23.8%	58%	57.57
A	B	C	D	Formula = A * B * C * D

Commercial Step 3: Calculate Commercial Requirements

Commercial Land Owed	Commercial Fee-In-Lieu	Commercial Development Fee
0.54 acres	$217,695	$20,250.40
Formula = (Functional Population/1000) x 9.4 acres	Formula = SF of Development x $1.6007	Formula = SF of Development x $0.1489

Residential Step 1: Calculate Residential Population

Total Units	SMART Units	Resident Population
309	0	525

Residential Step 2: Calculate Residential Requirements

Residential Land Owed	Residential Fee-In-Lieu	Residential Development Fee
4.94 acres	$899,681	$162,685
Formula = (Total Units x 1.7 / 1,000)*9.4	Formula = People x $2,912.17	Formula = People x $526.49

The commercial uses would follow the commercial PLD requirements while the residential portion would follow the existing residential parkland dedication requirements. The greenbelt

connection would serve as a recreational amenity for both the residents and office employees at the new development.