University Park
Centennial Master Plan

Adopted 2022

Assuring Connectivity

CENTENNIAL MASTER PLAN · EST. 1924 · UP

Theme 2

Assuring Connectivity

University Park, primarily platted before World War II, has a walkable neighborhood pattern and embodies many timeless planning and design principles. In the latter half of the 20th century, many communities in North Texas were built in an auto-centric pattern. However, the last couple of decades has seen a revision towards walkable patterns, sometimes at great expense. This puts University Park at an advantage because as the Theme implies, University Park is not having to create connectivity where it does not exist but rather assure that it continues.

The physical pattern of the City is a primary driver of the robust property values in University Park over the past century. In fact, University Park has the highest population density of any city in Texas with a population of over 20,000 (6,716 people per sq mi.). This efficient pattern allows for a cost-effective approach to achieve many of the goals and action items in this plan, especially in this theme. By having more people and a tax base per acre and per linear foot of infrastructure it allows for higher-quality infrastructure and lower expenses.

By saying "Assuring Connectivity," we are discussing how the residents of University Park will perpetuate their quality of life through quality open spaces, a walkable built environment, and allow the City to be well-positioned to evolve with new technologies that will further unlock an increased quality of life.

Assuring Connectivity: Plan Goals and Action Items

1. Update Traffic Management Techniques to Reduce Congestion

University Park currently has high-quality streets and a good system in place for assessing where the greatest needs are and how to address them. These existing successes can be built upon by improving communication with residents as well as ensuring that when improvements are made, they are done so in a way that is responsive to the latest technology and designed in a way that is pedestrian-friendly. The current system of resurfacing and complete replacement of streets is based on a bi-annual street condition survey. This system is having success, however, there may be ways to coordinate even closer with the Mile-Per-Year utility replacement and layer in pedestrian improvements where needed.

Action Item 1.1 Update traffic management techniques and devices.
Description: This action item is aimed at addressing traffic calming and pedestrian-friendly options in a holistic manner. Also, to maintain the great traffic systems that University Park already possesses.
Background: The Centennial Master Plan Steering Committee and the planning team heard from residents about less than desirable traffic signal timing which is currently designed to maintain flow on main arteries unless traffic approaches from a cross-street. Better timed signals could ensure flow on both the arterials as well as improve stacking on neighborhood streets.
Examples:
- Improving software technology to monitor traffic flow and coordination with signal timing.
- Integrated smartphone app to apprise residents of traffic issues.
- Future street design should consider compatibility with self-driving vehicle technology.
Timeframe (short, medium, long): Medium

Aerial view of roundabout in Carmel, Indiana. Credit: American StructurePoint (see more examples in Appendix V)

Action Item 1.2 Select one to three intersections for a model program to test the viability and effectiveness of roundabouts at appropriate intersections in University Park, with the goal of reducing congestion and improving traffic flow.
Description: Roundabouts are excellent at maintaining traffic flow and although they slow traffic, by design, they do not stop traffic. Therefore, careful consideration needs to be made for pedestrian accommodation. This is done by providing pedestrian refuge at crossing points and/or placing intersections where there isn't the need for pedestrian crossing (or pedestrians crossing have more desirable alternate routes).
Background: Non-conventional roundabouts and neighborhood traffic circles are useful tools to address certain traffic issues. The US Department of Transportation research, as well as the research and experience of cities like University Park, indicate that traffic roundabouts are an ideal method of improving traffic flow. Some other benefits to roundabouts include center island planting and beautification and improved air quality as vehicles are no longer idling and off-gassing waiting at intersections.
**Examples:** Some peer city examples where these intersections have been extensively used is Carmel,

Indiana. The city has been aggressive about using roundabouts on both major streets and smaller, neighborhood streets; and has incorporated roundabouts into its pedestrian and bike planning. Another local example of place-making roundabouts is Addison Circle. The NACTO Urban Street Design Guide is a good resource for detailed intersection design and criteria for selected appropriate intersections.

Timeframe (short, medium, long): Medium

2. Designate More Areas in University Park for Greenspace

University Park is essentially built out as a city and as such the amount of existing open space is what will likely remain in a conventional sense. However, there may be incremental and creative solutions to add to that open space network. The existing street grid of University Park also lends itself to intuitive connections between parks. When the street grid is interrupted, it is often due to a natural feature – Turtle Creek. These variations in the grid have been used for pocket parks and there may be more opportunities for this.
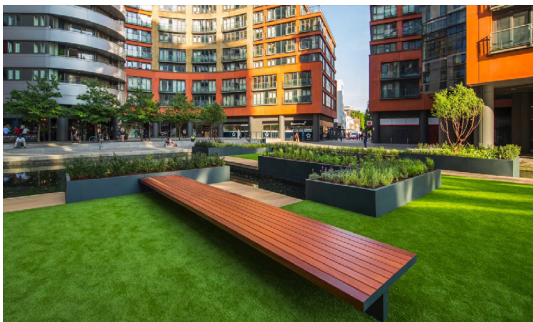
Example of a "pocket park"

Action Item 2.1 Investigate areas that could be repurposed into public greenspace.
Description: University Park should explore expanding and linking green spaces from park to park to create a more integrated and connected open space network in the City. This action item should be created in conjunction with pedestrian and bicycle mobility discussed in Goal 3 of Assuring Connectivity.
Background: One way of better connecting existing parks is looking for unconventional ways to add to the parks system. This likely would not take the

form of property acquisition or dedication, as may occur in new cities that are still growing. Rather the opportunity may lie in looking at areas of public ROW that are duplicative or unnecessary to serve a transportation function. For example, where Turtle Creek Boulevard breaks up the grid at Dickens and Hanover, a wonderful triangle pocket green is created. There may be other such opportunities, including along Dublin.
Example: One local example of a total street removal, replaced with a park is the Jefferson-12th Connector Open Space in Oak Cliff.
Timeframe (short, medium, long): Short

Action Item 2.2 Consider strategies to decrease impermeable surfaces and increase on-site water retention.
Description: Focusing on resident stormwater management, the purpose of this action item is to control run-off from residential properties to lessen stormwater surges. This may also involve zoning changes.
Background: If homes are built to existing zoning standards there is not much that can be done to lessen the percentage of impervious cover of the home itself but there are several strategies to mitigate the effects of that impervious cover. These strategies are for illustrative purposes only and have not been vetted for their feasibility in University Park, more analysis needs to occur to determine what strategies fit the feel of the City.

- Rain Gardens. On-site rain gardens are low areas within a yard or landscaping that absorb and filter rainwater runoff that comes from roofs, sidewalks, and driveways. Rain runs off the hard surfaces, collects in the shallow depression, and slowly soaks into the soil. Rain Gardens can be planted with native plants and grasses to be aesthetic features rather than serve a purely utilitarian purpose.
- Trees. Encouraging the use of street trees and yard trees to help in the uptake of rainwater. It may not seem like trees can make a substantial impact with stormwater runoff, but some estimates show that urban trees can reduce runoff up to 7%, not only through the water the trees absorb through

their roots and store within their structures but also through rainwater that is held in the canopy and is slowly released or evaporates (source: Arbor Day foundation 2007).

- Rainwater Harvesting. Residential rain cisterns and below ground storage tanks can be connected to existing or easy to install gutter systems to not only help reduce runoff, especially peak flow, but also serve as an onsite irrigation source to reduce the use of potable water.

If there is an appetite for changing existing zoning standards, here are some examples that would require revising the City's zoning ordinance:

- Limited Impervious Flatwork. Strategies such as prohibiting certain driveway types, such as circular drives, that require more surface area than conventional driveways, especially in cases where sufficient onsite alley driveway parking exists may be a strategy requiring zoning changes. A subset of this strategy may be allowing circular drives but requiring them to be made of permeable pavement, pavers, or similar material.
- Lessen Building Footprint. There are other strategies such as requiring a lower percentage of lot coverage or trading a smaller building footprint for increased

height allowance. There may be less appetite for these types of zoning changes but may be worth exploring this idea again.

Examples: A similarly situated city like Rollingwood, Texas has implemented residential stormwater detention standards which often necessitate on-site mitigation. In addition, the City of Austin has many resources for residential scaled rain gardens and rainwater harvesting systems.

Timeframe (short, medium, long): Medium

3. Promote Pedestrian and Bicycle Mobility Throughout University Park

University Park boasts quality and well-distributed parks. Given the built-out nature of the City, significant new parkland isn't feasible in a conventional sense. However, the existing park system can be better leveraged by creating physical and wayfinding connections between parks, therefore creating a more functional overall system. Good planning practice is to ensure parks or open spaces are within a quarter-mile of any residence. Through previous thoughtful planning and investment, this convention is recognized in University Park. The existing street grid of University Park also lends itself to intuitive connections between parks. Given that the City is fully built out and that right-of-way is already allocated, creating better street connectivity less of a priority than

detecting and filling gaps in the sidewalk network. In areas where there is good sidewalk connectivity, more can be done to make pedestrians feel safer, such as widening sidewalks, providing landscape buffers or slowing down traffic. For biking, this active transportation plan could expand on the system of designated bike routes to provide more signage and protection in the travel lanes, especially at intersections.

Action Item 3.1 Improve wayfinding for University Park's park system.

Description: It is this plan's recommendation to improve the wayfinding of the park system by signage that indicates the nearest other parks, so that visitors would be more aware that any given park is only a piece of a larger system. It would be helpful for visitors to know about all parks in University Park when they are visiting any individual park area. In addition, maps of the overall park system, and perhaps connections to open space outside City limits, may be provided to further enhance the concept of a larger open space network.

Background: The nature of the streets that connect the parks should act as extensions of the parks themselves, especially the direct connections between parks. Fortunately, most of the streets in University Park are streets with quality sidewalks and street trees. However, when improvements are planned for these park connector streets special attention should be given to the street trees and landscaping in the ROW. Planning and thought should be given to opportunities to enhance the sidewalks and wayfinding of these streets. The concept of streets connecting open space, being sized appropriate to the context, and making streets pedestrian-scaled is known as complete streets.

Timeframe (short, medium, long): Medium

Action Item 3.2 Implement an active transportation plan to explore ways to increase the walk score and bike score of University Park.

Description: The focus of this active transportation plan would be on walking and biking, but improvements benefit users of all types including people using strollers, runners, children, people in wheelchairs, and even drivers, as slowing down

traffic on neighborhood streets makes for a safer and more pleasant environment for everyone.

Background: Walk Score/Bike Score are two metrics that quantify how easy and pleasant it is to move around an area as a pedestrian, and if there are amenities within walking or biking distance. University Park has historically been a safe space for pedestrians and bicyclists compaired to cities in the region. According to the University Park Police Department, it has responded to 112 bike/pedestrian accidents over the last decade. In comparison to the rest of Dallas County, University Park ranks above average in safety, according to North Central Texas Council of Governments (NCTCOG), with the highest concentration of bike/ped accidents being 11 crashes per mile between 2016 and 2020. Central Dallas has a rate of more than 150 bike/ped crashes per square mile in some places over the same time period. Walk and bike scores are important because as infrastructure is put in place more residents may choose bike and pedestrian modes of travel. The Walk Score overall for University Park is 61 and the Bike Score is 59 (on a scale of 0-100). The score is calculated using

it is important to look at street design, congestion, traffic management, walkability, and how they impact the need and accessibility of parking spaces in commerical and residential areas. Through the theme of Assuring Connectivity, the plan addresses many avenues that will have a positive impact on parking but in this goal the plan specifically calls on the City to address parking. Because of the many factors that impact parking it is difficult to address in a high-level comprehensive plan and needs more detailed attention to design and awareness of University Park context to be effective. To fully address the needs of the community a more in-depth study is necessary to understand what parking solutions work best for University Park.

Action Item 4.1 Research and implement a multi-faceted approach to addressing residential and commercial parking using future-focused technology and methodologies.

Description: This action item approaches all parking concerns in residential and commercial spaces. Parking issues are multifaceted and should be addressed with a holistic strategy. Multiple forms of technology can be integrated together to leverage the overall convenience for users and provide valuable insights into parking trends and patterns. All strategies should investigate parking requirements, analyze the future need for more parking, and explore innovative parking technology.

Examples: The following examples are ideas that can be vetted further for use in University Park, but are best practices that can be used to mitigate parking issues in the City.

Commerical examples:

- Curb Management/Smart Zones. With the proliferation of ride-hailing and delivery services, curb space has become an increasingly valuable asset for cities. Smart zones are designated areas along the curb that are set aside for commercial loading and unloading. Some can be reserved in advance through the use of an app for the precise amount of time that is required. These designated drop-off zones help cut down on traffic congestion that results when delivery or service drivers are unable to find curb space and are forced to stop

several inputs including connectivity, topography, distance to retail, restaurants, and daily needs. The areas of the City with the highest score are near SMU and the retail areas on Lovers near the Dallas North Tollway.

Examples: Many cities have implemented active transportation plans that outline steps that often can be combined with other infrastructure work, to make incremental improvements to the overall network. A local example of this is the City of Fort Worth which has an Active Transportation Plan that analyzes how the city could add more pedestrians and cyclists. This plan builds on other transportation plans in the city.

Timeframe (short, medium, long): Medium

4. Use Innovative Strategies to Improve Parking in Residential and Commercial Areas

Commerical and residential parking issues have consistently been a major discussion point for residents through the public engagement and plan development period. To address parking holistically,

in the street. Smart zones are also able to provide a steady source of data and revenue for the use of the curb. An example of this is Omaha, Nebraska, which partnered with curb management platform Coord to create a series of smart zones in the downtown area.

- Parking Guidance Systems. Parking Guidance Systems utilize different types of sensor-based technology to count and display the number of spaces that are open or occupied. Systems can use cameras or ultrasonic images to sense if a car is sitting in a parking space. Color-coded lights mounted above the spots indicate availability status and parking type. This information is then used to determine the number of open spaces by row or floor in real-time, which can be displayed on signage. These systems allow for a more convenient experience for drivers. A local example of this technology in place is DFW International Airport, where parking guidance systems are fully integrated in Terminals A and D.

- Mobile payments. Mobile payment platforms allow visitors to pay for their parking spots using their mobile devices. Mobile payment options have a range of benefits such as making payment more convenient, encouraging compliance with existing parking policy, and reducing costs on physical equipment. Mobile platforms can also be used to locate and reserve available spots in advance or integrate payment for multiple forms of transportation. This system has been implemented in Dallas, who selected Park Mobile as their mobile payment provider for the city. Customers can use the mobile app, internet, or a toll-free number to pay for parking at approximately 4,500 street spaces throughout Dallas.

- Demand-based pricing. Demand-based pricing, also known as performance-based pricing, increases the price for parking when the demand is high and decreases price when demand is low. Other criteria include the day, time, and location. Parking rates should result in 85% spot occupancy, or one to two spaces to be available per block. Demand-based parking can help reduce traffic congestion from vehicles circling in search of a spot and increase turnover in areas with high demand, allowing businesses to handle more guests. Data collection technology can display trends and patterns to inform the strategy moving forward. Demand-based pricing was used to address the parking problems along West 7th Street; the City of Fort Worth installed new parking meters with varying fees based on the time of day.

Resident parking example:

- Residential Parking Permits. Residential Parking Permits are designed to protect neighborhood parking by limiting its use to residents in a certain area. Permits can be implemented by limiting the amount of permits per household or restricting what types of households can apply for permits. University Park already uses permits for specific areas such as the high school, SMU, and the YMCA. This specific use of permits can be expanded to meet the needs of other areas around the City and help improve residential parking issues.

- Off-Street Parking Requirements. Off-street parking requirements set a minimum standard of parking spaces to be created before any new certificate of occupancy or building permit can be issued. Off-street parking refers to creating the minimum standard of parking spaces anywhere but on a street. Minimum standards of off-street parking are usually determined by intensity use, meaning multi-family housing would likely have a higher off-street parking standard than single-family housing. This requirement can help University Park decrease the amount of street parking and could also decrease traffic congestion in residential areas.

Timeframe (short, medium, long): Long

5. Prioritize Maintenance of University Park's Utility Network

One of the more popular City initiatives that we heard from residents was the Mile-Per-Year utility replacement program. Typically, there isn't excitement about utility replacements but the systematic way that the City has inspected, mapped, and prioritized replacement of the sanitary sewer system has shown success. There is an opportunity to tightly coordinate street and alley improvements with this utility work.

Action Item 5.1 Maintain maintenance of water and sewer systems through continuing existing programs.

Description: The continued replacement of aging infrastructure through the Mile-Per-Year program should continue to be a City funding priority.

Background: Just as with street reconstruction work, there is the opportunity to enhance communication with residents on where and when improvements are to be made. An app could be used to convey this information as well as more conventional means such as on the City website with maps showing replacements made and the upcoming replacement schedule.

Timeframe (short, medium, long): Short

6. Use Regional, State, and Federal Programs to Increase Funding for Transportation Issues

In order to meet the future demand of traffic issues in University Park and the surrounding region, the City should use all funding sources available to address its needs. The City should be consistently looking for funding that can be used to complete some of the transportation issues raised in this plan and other projects that address transportation.

Action Item 6.1 Consider any major project for submission for funding by county, regional, state, and federal entities.

Description: Consider major projects that could be eligible for funding throughout Dallas County; also regional, state, and national entities that fund transportation projects for cities such as University Park can benefit from funding made available through the county as a way to mitigate costs for major projects.

Examples: Dallas County allocates a portion of the property taxes it collects each year to a program to fund capital projects based on submissions by various governmental agencies in the County. Highland Park received $2,751,000 for the reconstruction of Preston Road from Armstrong Parkway to Mockingbird Lane. The project was selected in 2014 and funds were disbursed from 2018 to 2020. The City of Dallas was awarded $2,300,000 to connect the Northaven Trail to the White Rock Creek Trail.

Timeframe (short, medium, long): Long

Action Item 6.2 Apply for funding to improve/ replace non-ADA-accessible sidewalk ramps.

Description: Accessibility should be placed at the forefront of design considerations, since pedestrians of all ages and abilities benefit from safe, accommodating infrastructure.

Background: The current University Park improvement/replacement process is timed by other projects; an estimated 15-20% of intersections do not have ramps, and the new federal requirement to develop a plan to complete. Under Title III of the ADA, government entities employing more than 50 people are required to complete an ADA self-evaluation and develop a transition plan to schedule the removal of the barriers uncovered by the self-evaluation process. The transition plan will become a working document until all barriers have been addressed.

Examples: Dallas Area Rapid Transit (DART) has programs for funding traffic signal and sidewalk replacement that University Park can apply to for funding.

Timeframe (short, medium, long): Medium