




## MEMORANDUM

**TO:** Mayor and City Council Members

**FROM:** Kimberly McNeeley, M.Ed., CPRP, Director  
Austin Parks and Recreation Department 

**THROUGH:** Stephanie Hayden-Howard, Assistant City Manager

**DATE:** December 19, 2022

**SUBJECT:** Staff Update on Park System Shade Structure Analysis (Ordinance No. 20220817-004)

---

This memo serves as an update on the Parks and Recreation Department's (Department) progress in response to [Ordinance No. 20220817-004](#), [CM Vela - Budget Rider 1 \(Park Shading\)](#) which directed the City Manager to prioritize infrastructure to provide necessary shade, including planting trees, for community activity spaces including playscapes, splash pads, basketball courts, and skating spaces. The City Manager was also directed to

- provide a report listing park locations where shade structures and natural shade already exist;
- identify where shade structures are missing and needed;
- identify a prioritization strategy, and;
- provide a timeline to implement the shading needs at those parks along with required funding and funding sources.

The Department has completed the preliminary analysis and is intends to provide additional information related to installation recommendations on or before February 1, 2023. Below outlines the work completed to date.

### **Identification of Level of Shade at Existing Facilities**

In a geographic information system (GIS), the Department coded existing playscapes, splash pads, pavilions, picnic grounds, picnic shelters, gazebos, rest areas, and hard surface courts in its inventory for the level of shade available. Using aerial imagery, tree canopy data, and asset descriptions, the Department identified and coded 602 facilities at 153 locations within the categories of:

- No Shade
  - Natural Partial – partial tree cover
-

- Natural Full – full tree cover
- Structure Partial – a fabric or roof providing partial cover
- Structure Full – a fabric or roof providing full cover



*No Shade – Agave Neighborhood Park (D1)*

*Full Natural Shade – Tarrytown Neighborhood Park (D10)*



*Partial Natural Shade - Beverly Sheffield Northwest District Park (D7)*





Full Structured Shade - Stoney Ridge Neighborhood Park (D2)



Partial Structured Shade – Alderbrook Pocket Park (D7)

### Identification of Locations with Highest Need

The Department utilized [The Trust for Public Land’s 2020 Urban Heat Island Severity](#) dataset to identify areas that have the greatest impact of the urban heat island effect and, consequently, would have a high need for shade. The dataset uses satellite ground-level thermal sensing to measure the difference between the city’s average summer temperature and that of each 30 by 30-meter area from a one (mild – slightly above average) to five (severe - significantly above average) scale. A null value indicates that the specific location is either at or below the city’s average summer temperature.

**Table 1: Austin Parks with Moderate-High to Severe Urban Heat Island Severity**

Park Name	District
St. John Pocket Park	4
City of Austin/YMCA North Austin Community Recreation Center	4
Gustavo "Gus" L. Garcia District Park	4
Jamestown Neighborhood Park	4
Wooten Neighborhood Park	7
Kennemer Pool	4
Onion Creek Metro Park (Nuckols Crossing section)	2
T.A. Brown Neighborhood Park	4

### Equity of Park Service

The Department considered the population served within each park’s walkshed (per the City’s park service goals) in prioritizing shade needs. The index evaluates each location by the percentage of people of color served, the distance from developed parks, population density, the percentage of the

population below Austin’s median income, the percentage of the population aged 18 or below, health outcomes, urban heat island effect, and linguistic isolation.

**Table 2: Top Ten Parks by Equity Index**

Park Name	District
City of Austin/YMCA North Austin Community Recreation Center	4
Gustavo "Gus" L. Garcia District Park	4
North Acres Greenbelt	4
Upper Little Walnut Creek Greenbelt	4
Heron Hollow Pocket Park	4
Brownie Neighborhood Park	4
Houston School Park	2
Ponciana Neighborhood Park	2
Walnut Creek Sports Park	1
Buttermilk Neighborhood Park	4

**Highest Potential Shade Need**

Combining the urban heat island and equity index, the Department arrived at a ranked list of potential high need parks. The top ten on that list are presented below.

**Table 3: Top Ten Parks with Potential Shade Need**

Park Name	District
St. John Pocket Park	4
City of Austin/YMCA North Austin Community Recreation Center	4
Gustavo "Gus" L. Garcia District Park	4
Jamestown Neighborhood Park	4
Wooten Neighborhood Park	7
Kennemer Pool	4
Onion Creek Metro Park (Nuckols Crossing section)	2
T.A. Brown Neighborhood Park	4
Houston School Park	2
Ponciana Neighborhood Park	2

## Importance of Shade by Site Amenity

Given the volume of potential installations, the Department chose to prioritize access to shade by site amenity. At minimum, park locations should have a shaded picnic or gathering space to support passive recreation. This requirement could be met by a structure like a picnic shelter, pavilion, or gazebo, or by locating picnic tables under shade trees. Next, the Department considered active recreation elements. Playgrounds and splashpads primarily serve children and have daytime usage that would benefit from shade. Last, we evaluated the availability of shade for hard surface sport courts (basketball, tennis, pickleball, and multi-use). Concrete and asphalt surfaces have higher surface temperatures than natural surfaces, but their size makes them costly to shade. Court lighting to allow for use after dark may be a more economical option.

With the prioritized potential shade need list, the Department is evaluating the presence or absence of shade for each amenity type in each park.

**Table 4: Sample Shade Survey**

Park	Shaded Picnic/ Gathering Area	Shaded Play/ Splashpad	Shaded Courts
St. John Pocket Park	Structure Full	Natural Partial	N/A
Gustavo "Gus" L. Garcia District Park	Structure Full	Structure Partial	None
Jamestown Neighborhood Park	Undeveloped		

## Site Visits

The Department is now in the process of performing site visits at parks lacking shaded amenities with a high demonstrated need. As part of next steps, the Department plans to identify the appropriate treatments and estimated cost of projects in its next update to this CIUR.

Should you have any questions, please contact Steven Linett, Capital Improvement Program Manager, at [Steven.Linett@austintexas.gov](mailto:Steven.Linett@austintexas.gov), or Assistant Director Liana Kallivoka at [Liana.Kallivoka@austintexas.gov](mailto:Liana.Kallivoka@austintexas.gov).

cc: Spencer Cronk, City Manager

## Attachments:

Listing of Park Amenities and Shade Status (by Council District and Park Name)