

November 30, 2021

OPERATIONS & MAINTENANCE COMMUNITY PARKS

Killeen Parks and Open Space Master Plan

for the

CITY OF KILLEEN, TEXAS

Prepared by

HALFF ASSOCIATES, INC.

Purpose and Introduction

Using Industry Standards, Best Management Practices, existing City of Killeen departmental data and staff interviews, Halff Associates, Inc. developed this memo with the explicit intent of establishing and standardizing levels of service and applying those appropriately to the Community Parks that exist in the City of Killeen's inventory. These parks are Conder Community Park, Killeen Athletic Complex, Lions Club Community Park and Long Branch Community Park. It was also created for the express purpose of assistance with determining the appropriate level of staffing required to maintain these specific City assets. The National Recreation and Park Association's (NRPA) Park Maintenance Standards and "mode system" was used as a guide, but this memo includes elements that are unique to Killeen so that it can specifically address its existing conditions and expected levels of service. This memo has been prepared for public information and to be used as a guide to employees of the Recreation Services Department. This memo will serve as general direction for the area and frequency of maintenance for parks, facilities, and equipment. This memo should be complimented with training to better ensure that maintenance staff is providing safe, clean and aesthetic parks. In addition, as part of the City of Killeen's pursuit of CAPRA Agency Accreditation from the NRPA's Commission for Accreditation of Park and Recreation Agencies (CAPRA), a system-wide document will need to be created that meets the requirements of *Fundamental Standard 7.5 Maintenance and Operations Management Standards*. That standard and several others that can help accreditation efforts are included in the appendix.

Operations & Maintenance of the City of Killeen's Parks and Facilities is primarily the responsibility of the Recreation Services Department, but other departments do provide some limited assistance. Most notable are the Building Department that aids with plumbing and electrical repairs and the Public Works Department that aids with brush pickup and drainage repairs when there are Texas Commission on Environmental Quality (TCEQ) requirements. Outside of these items, Recreation Services staff conduct all of the work that occurs at the City's Community Parks, including litter control, mowing, maintenance of sports fields, playscape inspection and maintenance, tree maintenance, trail maintenance, pool maintenance and miscellaneous cleaning and repair of parks and associated facilities.

The City of Killeen Recreation Services Department had a total operating budget for FY2021 of a little under \$7.5M. It is estimated that approximately 40% of that or \$2.9M is dedicated to maintenance of the City's parks and facilities. Recreation Services currently employs about ninety-five (95) Full- Time Employees (FTE's). Approximately thirty-nine (39) of those are dedicated to Parks Operations and Maintenance. **This plan is specific to the Community Parks and estimates that in order to complete the appropriate levels of operations and maintenance for the just those four parks, there is a need for over 26 (26) FTE's while there are only nineteen (19) FTE's currently dedicated. When factoring Operations & Maintenance of the overall parks system, which was not studied here, it is anticipated that the required number of FTE's will exceed fifty-three (53). This is calculated by assuming that the staffing deficit is the same across the system as it is for the Community Parks.**

Killeen Parks System At-A-Glance

System

The City of Killeen has a total of 508.5 acres of parks, trail corridors and open spaces in its inventory. Of that total, 327.37 acres are considered "maintained". The balance are undeveloped and/or open spaces that remain native in character. Within those 327.37 acres of maintained inventory, the Recreation Services Department is responsible for maintaining twenty-three (23) parks that range from special use parks to linear parks with trails. Amenities include trails, numerous athletic fields and sports courts, three aquatic facilities, playscapes, pavilions and both a wide range

and large number of site amenities (picnic tables, benches, drinking fountains, etc.). The focus of this memo is the four (4) Community Parks but a full park system inventory is found below.

Park #	Park Name	Athletic Fields ¹	Playscapes	Sport Courts ²	Aquatics ³	Walking Paths (Miles)	Open Play Areas	Parking	Pavilions	BBQ Grills	Picnic Units	Benches	Drinking Fountains	Dog Park	Disc Golf Course	Gazebo	ADA Parking	Skatepark	Address	Acreage
Community Parks																				
1	Conder Park	1	1	2	0	1.5	1	120	2	4	11	13	2	0	1	0	18	1	810 Conder Street	31.4
2	Killeen Community Center	9	0	1	0	1.1	1	492	0	0	5	2	2	0	0	1	25	0	2201 E. Veterans Memorial Blvd.	29.1
3	Lions Club Park	14	2	2	1	1.3	1	166	3	0	0	24	5	0	0	0	39	0	1600 E. Stan Schlueter Lp.	67.8
4	Long Branch Park	0	3	6	2	.25	6	229	2	5	0	22	0	0	0	0	16	1	1101 Branch Dr.	78.7
	Total Community Parks	24	6	11	3	4.2	9	1007	7	9	16	61	9	0	1	1	98	2		207.0
Neighborhood Parks																				
5	AA Lane Park	1	1	2	0	0	1	50	1	0	4	2	0	0	0	0	7	0	400 48th Street	7.0
6	Camacho Park	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1706 Walton Walker Dr.	0.2
7	Fowler Park	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	100 W. Fowler Street	0.9
8	Fox Creek Park	0	1	.5	0	0	1	0	0	3	3	0	0	0	0	0	0	0	1909 Grey Fox Trail	0.9
9	Hunt Park	0	1	1	0	0	1	0	0	0	1	4	0	0	0	0	0	0	2301 Hunt Drive	1.1
10	Iduma Park	0	2	1	0	0	1	0	1	0	4	3	0	0	0	0	0	0	4400 Foster Lane	2.4
11	Lions Neighborhood Park	0	1	2	0	.25	1	11	1	0	8	7	0	0	0	0	4	0	1307 Culp Ave.	4.3
12	Marlboro Park	0	2	1	0	0	2	7	1	0	8	3	0	0	0	0	2	0	2902 E. Veterans Memorial Blvd.	6.5
13	Maxdale Park	0	1	1	0	0	1	0	1	0	4	5	0	0	0	0	0	0	2500 Westwood Dr.	4.6
14	Phyllis Park	0	1	1	0	0	1	0	0	0	3	5	0	0	0	0	0	0	405 Phyllis Dr.	2.4
15	Rotary Club Children's Park	0	2	0	0	0	2	54	3	0	9	5	1	0	0	0	8	0	2201 E. Veterans Memorial Blvd.	5.6
16	Santa Rosa Park	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	901 Eva St.	0.4
17	Stewart Park	0	2	0	0	0	3	0	0	0	4	2	0	0	0	0	0	0	1702 24th St.	6.4
18	Timber Ridge Park	0	1	3	0	0	1	58	1	0	4	0	0	0	0	0	0	0	5402 White Rock Dr.	4.6
	Total Neighborhood Parks	1	19	12.5	0	.25	17	180	9	3	55	37	1	0	0	0	19	0		47.3
Special Use Parks																				
19	Mickey's Dog Park	0	0	0	0	0	0	39	0	4	0	4	2	1	0	0	2	0	2201 E. Veterans Memorial Blvd.	4.7
Linear Parks																				
20	Andy K. Wells Trail	0	0	0	0	2.5	0	456	0	0	0	0	0	0	0	0	30	0	2201 E Veterans Memorial Blvd.	28.3
21	Heritage Oaks Trail	0	0	0	0	3.8	0	50	0	0	0	4	0	0	0	0	3	0	8001 Pyrite	123.0
22	Fort Hood Regional Trail	0	0	0	0	1.2	0	0	0	0	0	2	0	0	0	0	0	0	3450 Robinett Road	88.8
23	Lions Club Park Hike and Bike Trail	0	0	0	0	1.4	0	166	0	0	0	14	0	0	0	0	39	0	1600 E. Stan Schlueter Loop	9.5
	Total Linear Parks	0	0	0	0	8.9	0	672	0	0	0	20	0	0	0	0	72	0		249.6
	Total Park System																			508.5

1. Baseball, softball, football, and soccer, 2. Basketball, tennis, volleyball, and pickleball, 3. Swimming pools or splash pads.

Source: National Recreation and Parks Association

In addition to the maintained parks and open space inventory, there are additional properties and sites that are an additional 171.05 acres that the Recreation Services Department either wholly or partially maintains. These include cemeteries, the grounds around various city facilities, right-of-way and vacant lots. While not necessarily a core service of the Recreation Services Department, the maintenance of these properties and sites helps the overall City of Killeen manage all of its responsibilities. The properties and sites and their sizes are shown on this page.

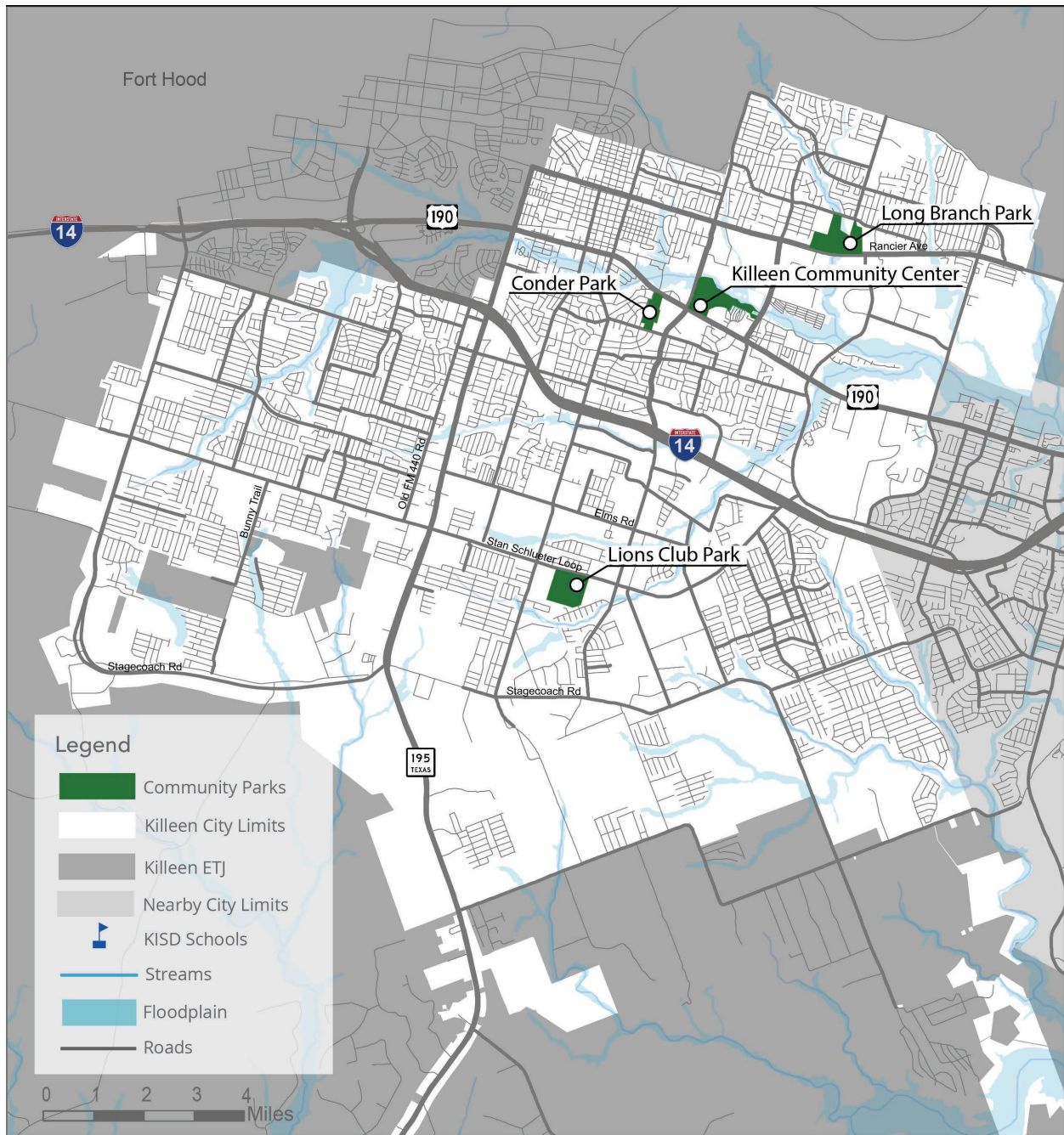
Community Parks

Community Parks are intended to serve a group of neighborhoods or a geographically larger area of a city. Community parks are oftentimes more than 15 acres in size and have a service radius up to two miles. The typical community park should be large enough so it can provide a variety of facilities while still leaving open space for unstructured recreation and natural areas. The park should also have room for expansion so that new facilities can be added to continue to attract new users. Community parks may be comprised of active uses (e.g., multiple sports fields), passive uses (e.g., natural areas with walking trails), or a combination of both.

Killeen's Community Parks range in size from approximately 29 acres to approximately 79 acres. Conder and Killeen are very similar in size at close to 30 acres, while Lions Club and Long Branch are at about 70 and 80 acres respectively. All share the same types of amenities with the biggest difference being that Conder has a Disc Golf Course while the others do not. Geographic distribution has three of the four located on the north side of Interstate Highway 14. Lions Club Community Park is the only one on the south side. The future Heritage Oaks Community Park will help this distribution once it is developed.

City Buildings and Lots	Acreage
195 Welcome to Killeen Sign	1.00
2 Empty lots on Linda Lane	0.39
Animal Services	1.83
Blackburn Cemetery	0.88
Bob Gilmore Center	1.50
City Hall	2.64
Civic and Conference Center /Special Events Center	27.29
Code Enforcement	0.46
Copper Mountain Library	1.39
Downtown Police Station	2.09
Family Recreation/Senior Center	10.00
I-14 Welcome to Killeen Sign	25.00
Information Technology	0.33
Islands on 10th St.	0.38
Jefferies Island	0.02
Killeen Arts and Activities Center	3.90
Killeen City Cemetery	43.55
Killeen Community Center	14.01
KPD Headquarters	16.64
Main Branch Library	1.74
Military Plaza	0.50
Nolan Circle	0.20
O.C.D.	1.26
Old Farmers Market	1.00
Powder River	0.82
Santa Fe Plaza	8.06
Skyline Plaza	0.06
Sunny Lane	1.00
Utility Collections	1.96
Watercrest	1.00
Willow Bend	0.07
Total Acreage	171.05

Map of Killeen Community Parks

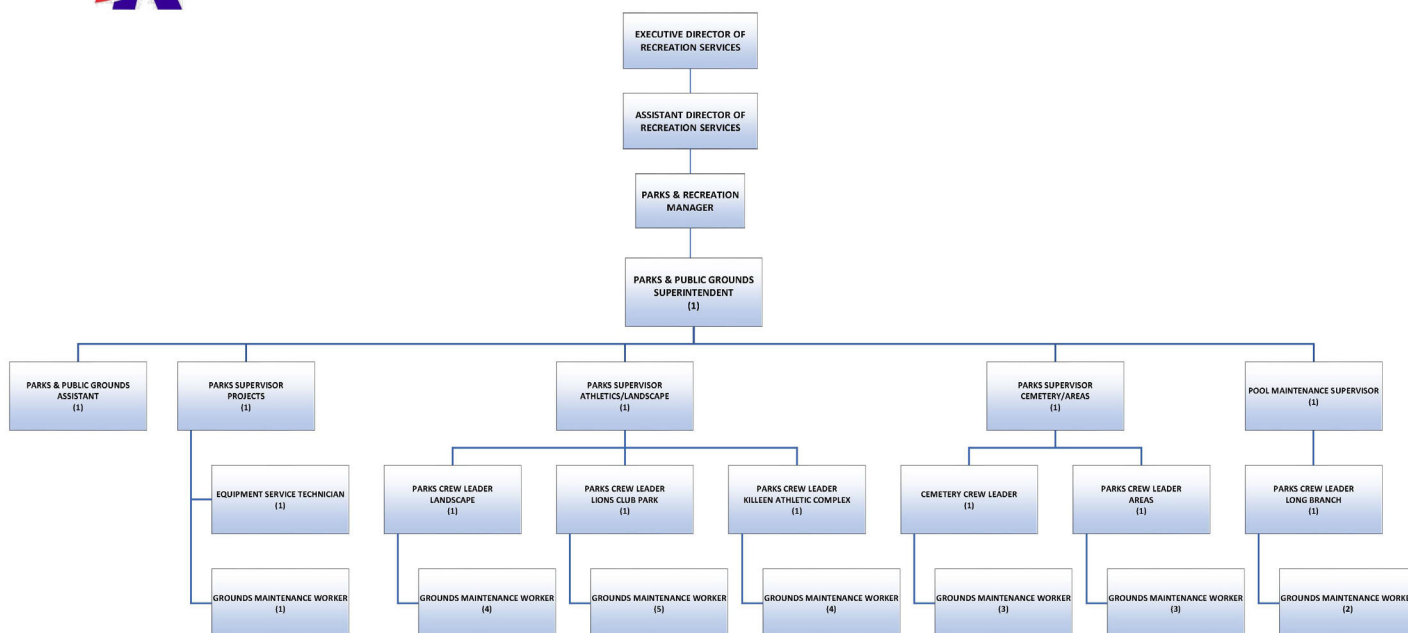


Organizational Structure

The overall Recreation Services Department is organized into divisions and exhibits the typical hierarchy found in municipal Recreation Services and public works departments. The Parks Division, responsible for the majority of the operations and maintenance of the system, is further divided into four subgroups that each provide an emphasis on certain areas and/or types of maintenance. Two of these subgroups are further divided into crews that provide another layer of emphasis mostly by location. The vertical hierarchy as seen in the organizational chart below demonstrates that the division is not only logical but also effectively allows for a proper “span of control” by limiting any level of immediate supervisory oversight of all staff to six (6) employees or less. Six or less is traditionally viewed as ideal and a best management practice for municipal operations.



KILLEEN RECREATION SERVICES Parks Organization Chart



Three of the four Community Parks have at least partially dedicated crews. Conder is the only one without. These three crews have a total of fourteen (14) FTE's. For the sake of this memo, these will be used for all manpower calculations/comparisons of existing vs. needed.

Comparisons to Area and Similar Cities

While no two municipalities are exactly alike and each have their own unique characteristics that will dictate what is necessary and appropriate for operations and maintenance, comparisons amongst area and similar sized organizations can be beneficial. When looking for cities to compare to Killeen, two specific criteria were chosen; population and proximity. While population may be the best for an “apples to apples” comparison, it is important to look at what your area organizations are doing as your residents are more likely to experience the parks, trails and facilities in nearby cities than in those that may be of similar size.

Comparisons to Similar Populations and Area Cities									
City	Population	Maintained Acreage	Maintained Acres per Capita per 1,000	Parks Maintenance Budget	Maintenance Costs per Capita	Cost per Maintained Acre	Maintenance FTE's	Maintenance FTE's per Capita per 1,000	Maintained Acres per FTE
Killeen	158,000↑	499↓	3.16↓	\$2,900,000.00↓	18.35↓	\$5,811.62↑	31↓	0.20↓	16.10↓
Waco	142,000	2500	17.61	\$4,000,000.00	\$28.17	\$1,600.00	74	0.52	33.78
Denton	148,000	895	6.05	\$8,000,000.00	\$54.05	\$8,938.55	54	0.36	16.57
Midland	154,000	1172	7.61	\$8,000,000.00	\$51.95	\$6,825.94	55	0.36	21.31
Mesquite	153,000	1700	11.11	\$4,500,000.00	\$29.41	\$2,647.06	39	0.25	43.59
Frisco	200,000	2500	12.50	\$8,500,000.00	\$42.50	\$3,400.00	62	0.31	40.32
Leander	62,000	430	6.94	\$1,650,000.00	\$26.61	\$3,837.21	18	0.29	23.89
Cedar Park	85,000	655	7.71	\$1,800,000.00	\$21.18	\$2,748.09	24	0.28	27.29
Pflugerville	73,000	1100	15.07	\$1,750,000.00	\$23.97	\$1,590.91	24	0.33	45.83
Georgetown	90,000	1000	11.11	\$3,000,000.00	\$33.33	\$3,000.00	22	0.24	45.45
Round Rock	120,000	1529	12.74	\$5,000,000.00	\$41.67	\$3,270.11	56	0.47	27.30
Average	122,700	1348	11.99	\$1,872,222.22	\$31.63	\$2,787.48	43	0.33	32.53

Not a key indicator

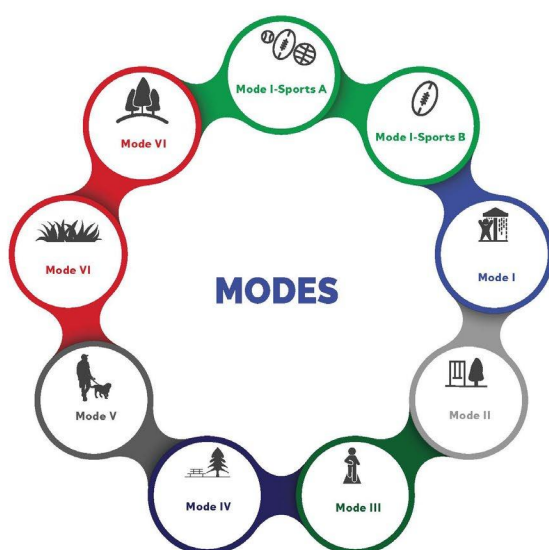
Better than Average

Worse than Average

NRPA Maintenance Modes

Levels of Service for maintaining parks and the frequency of maintenance are differentiated through a “mode system”. Each mode is broken into thirteen elements. All parks or facilities may not contain all elements of each mode. A detailed description of each mode and the thirteen elements can be found in the appendix.

Killeen’s Community Parks all warrant a very high level of service and received one of three modes (Mode I – Sports A, Mode I – Sports B or Mode I). Conder – Mode I Sports B, Killeen Athletic Complex – Mode I Sports A, Lions Club Community – Mode I Sports A and Long Branch Park – Mode I.



Mode I-Sports A – Involves state of the art maintenance applied to a high quality sports field or facility that receives high usage for games and practices.

Mode I-Sports B – Involves state of the art maintenance applied to a high quality sports field or facility that receives high usage for practices.

Mode I – Involves state of the art maintenance applied to a high quality, diverse landscape usually a high traffic urban areas such as public squares, malls and/or high coverage parks.

Mode II – Involves a high level of maintenance associated with well-developed park areas with reasonably high Usage.

Mode III – Involves a moderate level of maintenance associated with moderate or low development of parks with intermediate or low levels of usage.

Mode IV – Involves a low level of maintenance associated with undeveloped or remote parks with low usage.

Mode V – Involves maintenance for natural areas associated with limited opportunities for recreational use.

Mode VI – Grow Zone – Involves a minimum level of maintenance for areas identified as “Grow Zones”.

Mode VI – Involves a minimum level of maintenance for undeveloped properties.

Ideal Maintenance Frequencies

With any effort such as this O&M Memo, it is important to establish a standard that the organization will be held to and measured against. Killeen Recreation Services Department has previously established this for ideal or optimal maintenance frequencies. They are shown in the table below. Unfortunately, at the time of creating this memo, the department did not have a Work Order/Work Tracking System in place to measure the effectiveness of staff in meeting these frequencies. Absent that data, these frequencies will be used to develop manpower estimates to compare to existing and establish necessary staffing levels.

Maintenance Task	Frequency
Basketball Courts	
Sweep/blow as needed	1/week January-November
Pressure Wash	2/year spring and summer
Net Inspection	1/week year-round
Bleacher/player benches	
Pressure wash concrete pads	4/times a year
Pressure wash bleachers/benches	4/times a year
Sweep/blow court	Daily March-November
Inspect	1/week March-November
Drinking Fountains	
Clean/inspect	3/week year-round
Irrigation	
Park turf watering-Up to 1" as needed	April-November
Athletic turf watering-up to 2" as needed	April-November
Non-Park Facilities watering up to 1.5" as needed	April-November
Landscape	
Prune trees and bushes	4/times a year
Inspect for disease/insects	1/month March-November
Flowerbed maintenance	2/month March-November
Mulch	1 application per year
Litter	
Police entire area/collect litter	Daily year-round
Empty trash cans	Daily year-round
Empty trash can sport fields	1/day March-November, December-February
Park benches/Picnic tables	
Inspect	1/week
Pressure Wash	2/ per year
Remove Graffiti	Within 3 days of notification of existence
Playgrounds	
Inspect all playgrounds weekly	Daily year-round
Restrooms	
Clean	Daily year-round
Remove Graffiti	Within 3 days of notification of existence
Trees	
Prune	1/year
Remove stumps	Within 30 days of tree removal
Turf/Grounds	
Aerate	4/year
Fertilize	3/times year
Mow	1/week year-round/sports fields 3 times a week April-November
Weed Control/Chemical Application	
Sports fields/Non-Parks	As needed
Repair Field Skinned Areas	
Sports field repair	1/day during game days/3/week out of season

Community Parks – Existing Conditions

Conder Park



Killeen
Community
Center Complex



Lions Club Park



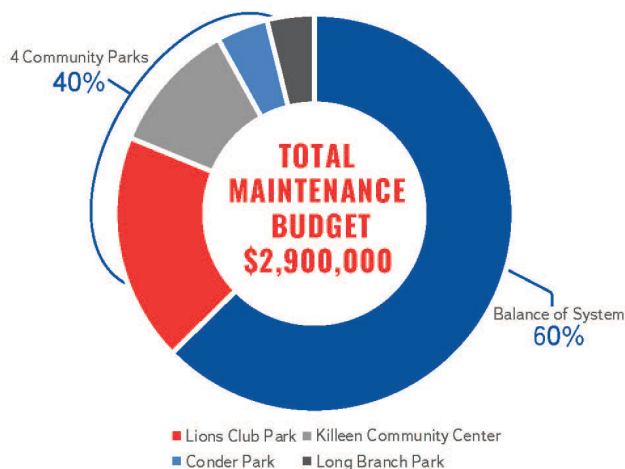
Long Branch Park



Estimated Annual Cost of Maintenance for Community Parks

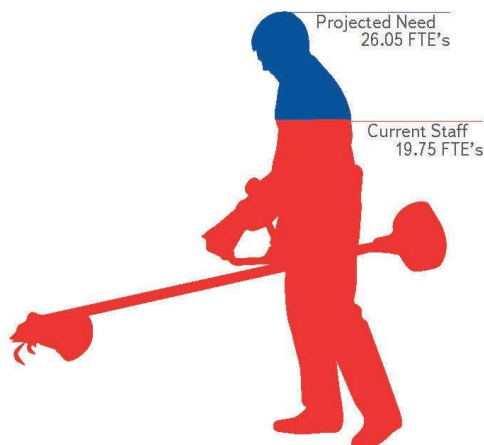
Using ideal maintenance frequencies and other data provided by the Recreation Services Department, the estimated annual cost of maintenance of the community parks is calculated at approximately \$1.15M. This is approximately 39% of the total \$2.9M that is dedicated to operations and maintenance. A detailed estimate can be found in the Attachments section at the end of this memo.

TOTAL MAINTENANCE BUDGET VS COMMUNITY PARKS BUDGET



Using ideal maintenance frequencies and other data provided by the Recreation Services Department, the estimated manpower needed to complete the required tasks for proper Community Park operations and maintenance at the ideal frequencies is approximately twenty-six (26) FTE's. This is a thirty-two percent (32%) increase over the current dedicated staff.

MANPOWER PROJECTION

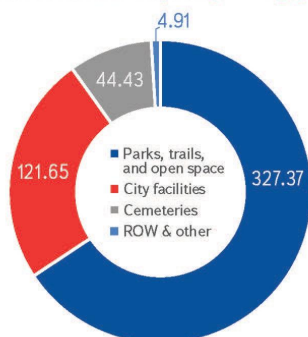


Key Takeaways

Amount of time spent on non-park work

The Recreation Services Department is responsible for the maintenance (primarily landscape) of many properties and sites across the city. While there is nothing wrong with this approach and is quite common amongst municipalities, it does impact the level of service (LOS) that is being provided towards its core mission of Recreation Services facilities. Approximately 34% of the acreage (171 acres of the approximate total of 500 acres) that is maintained by Recreation Services is not related to a park, recreation facility, trail or greenbelt.

CITY OF KILLEEN MAINTAINED ACRES = 498.46



~34% OF TOTAL ACRES MAINTAINED ARE NOT RELATED TO PARKS, TRAILS, AND OPEN SPACE

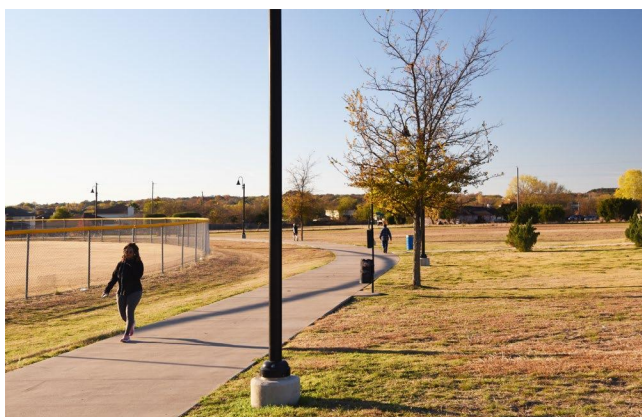
Parks are mown "curb-to-curb"

COST PER MAINTAINED ACRE

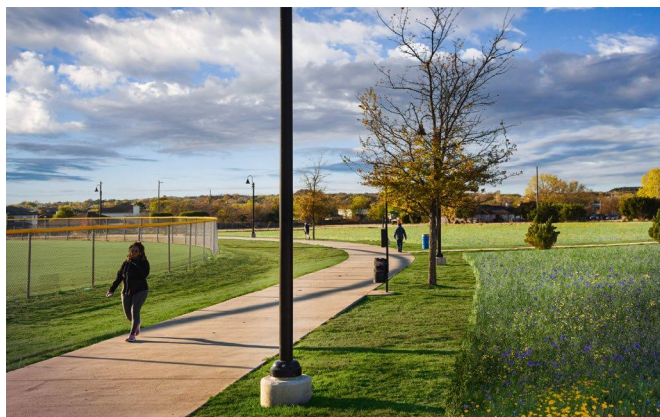


This graphic reflects the city comparisons on page 7.

Current mowing along the trail in Lions Park



Applying "Grow Zones" to the same area



Best Management Practices (BMP's)

Through visits to the community parks, questionnaires and staff interviews it has been determined that there are several Best Management Practices (BMP's) that can be utilized to make the operations and maintenance both more efficient and less costly. Ones that are currently being used:

- “Grow Zones” are currently established at Heritage Oaks Trail and Ft Hood Regional Trail
- There is a Preventative Maintenance Program in place for facilities, playgrounds, turf and vehicles and equipment. This includes various checklists for documentation purposes.
- There is an up-to-date Parks Emergency Action Plan and there are various written Standard Operating Procedures (SOP's) that are up-to-date as well or are currently being updated.

Staff Training and Certifications

Well-trained and competent staff are necessary to effectively and efficiently manage a parks system. While not inexpensive, specialized training and certifications should be considered an important part of staff development and operations. These include Certified Playground Safety Inspector (CPSI), Certified Professional Turf Manager (CPTM), Licensed Irrigator (LI) and Applicator's License from the Texas Department of Agriculture (TDA) for herbicides and pesticides. Killeen Recreation Services currently includes:

10 – Certified Pool Operators (CPO)
3 – Texas Department of Agriculture (TDA) Applicators
1 – Certified Playground Safety Inspectors (CPSI)

Preliminary Recommendations

The following section provides preliminary recommendations to improve the overall efficiency and effectiveness of the operations and maintenance of the Community Parks but can also be used across the entire parks and trails system. The “Goal” and “Benchmark Targets” are the same as the those included in the Parkland Conditions Assessment Memo.

Goal

Strive to establish and maintain a parks and trails system where all facilities and amenities are maintained in a good condition (i.e., 4.0 or better on a park condition reassessment).

Benchmark Targets

- Improve and maintain the condition of all parks and trails to achieve a moderate condition by 2024.
- Improve the condition of at least 50% of the overall parks and trails system to achieve good condition by 2025.
- Improve the condition of at least 75% of the overall parks and trails system to achieve good condition by 2026.
- Improve the condition of all parks to good condition by 2031.
- Reduce the cost of mowing by 5% by 2023.

Recommendations

Some may be the same as other memos and if so, are noted in parenthesis.

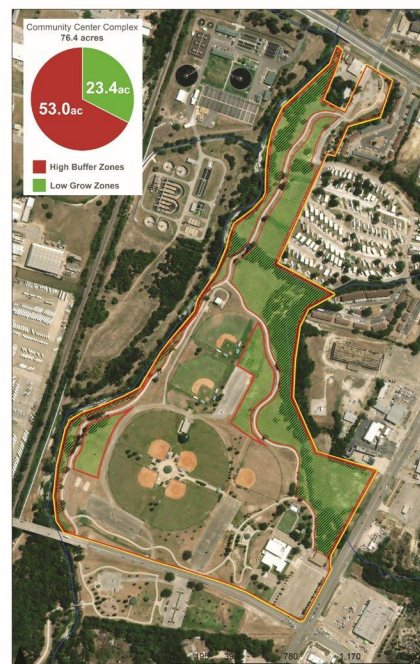
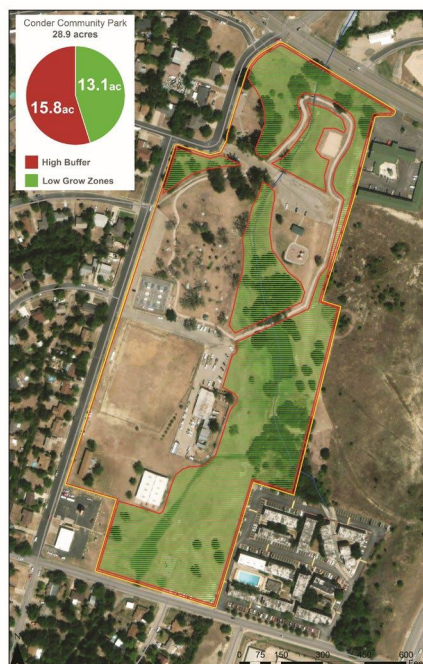
OM1 (PC1): Develop an official Parks to Standards Program to ensure all parks and trails are all consistently maintained across the system.

Parks, trails, and urban greenspaces serve as fundamental building blocks to create healthy, vibrant, and complete communities. In the youth survey, over 60 percent of respondents indicated that they currently use the trails when they visit a park. Unfortunately, inconsistent allocation of resources oftentimes creates inequitable park systems, where some parks are maintained in high conditions, and in other parts of town, other parks exist in various states of

disrepair. Ideally, the city should consider the development of a *Parks to Standards Program*, which would establish minimum levels of park quality/condition applied equitably across every park in the park system. Establishment would require the creation of minimum park design guidelines, development of operations and maintenance plans, and adequate staffing and funding. The identified benchmark targets define measurable progress towards achieving a consistent high-quality standard across all the parks in the parks system, thus improving equitable outcomes for all Killeen residents.

OM2. Continue to identify opportunities to add “Grow Zones” across the parks system.

Mowing is a major cost driver for the operations and maintenance of not only the community parks but the entire park system. There are portions of parks and other properties that can be left unmown for most of the year, thus reducing the manpower required to maintain those properties. These areas are ones that are not used for any type of park programming due to character of the land (steep slopes, uneven grades, tree cover) or location (far from access points or inaccessible for other reasons). These can be converted to “Grow Zones”, which are areas where the existing turfgrasses and weeds are replaced with native prairie grasses and wildflowers. Once the native prairie grass and wildflowers are seeded, the frequency of mowing is reduced to once or twice per year. The native prairie grass and wildflowers do take some time and expense to get established but are necessary to prevent these areas from simply becoming nuisance “weedy and overgrown areas”. While it takes potentially two growing seasons to become a truly aesthetic feature of the parks, the reduction in mowing frequency translates to an immediate cost reduction for mowing. For the community parks alone, approximately 100.9 acres were identified as potential “Grow Zones”. Using a conservative productivity factor of 3 acres per hour for a zero-turn mower, the average loaded rate of \$24.18 for manpower and reducing the mowing frequency from 52 times per year down to two, it is quite possible to immediately reduce the annual labor costs for mowing for the community parks by approximately \$40k. This estimate is just the actual time that staff would be mowing. It does not include travel time to/from, equipment repair expenses or fuel expenses. The over 1,600 manhours would be better spent repairing park amenities, doing preventive maintenance and other more important activities than mowing. Below are maps of the potential “Grow Zones” in the community parks. Larger versions are found in the Attachments section.





OM3 (PC4): Develop a formalized playground risk management inspection schedule and replacement plan.

The City should consider implementing a playground risk management inspection program to conduct routine maintenance, identify and schedule repairs, and address safety issues. To ensure the safety of Killeen's youth, all new or replacement playground equipment should meet the U.S. Consumer Products Safety Commission (CPSC) standards and/or the National Program and Playground Safety guidelines. Routine playground upgrades should include replacing any units or features that do not comply with current guidelines and/or are damaged or have otherwise exceeded their useful lives with ones which have reduced likelihood of injuring children and maintenance costs.

OM3 (PC5): Identify best management practices and target necessary funding to improve litter control and management within the parks and trails system.

Due to the identified concern regarding the presence of trash within the parks and trails system, the city should research best management practices regarding litter control and management. This should include identifying appropriate trash receptacle design and target locations to maximize usage. This should be followed with a comprehensive update to the trash receptables across the parks and trails system, combined with a public awareness and outreach campaign. It could also include the consideration of using smart city technologies (e.g., a Bigbelly smart waste & recycling solution) to minimize staff pick up efforts.

OM4 (PC6): Identify and prioritize funding to proactively and comprehensively improve the general site conditions of parks categorized as poor condition by 2024.

As a means to achieve the identified benchmark of improving and maintaining the condition of all parks and trails to achieve a moderate condition by 2024, this requires the identification and prioritization of funding to proactively and comprehensively improve the general site conditions of parks categorized as poor condition. This includes placing a priority on improving the conditions of AA Lane, Conder, Fowler, Fox Creek, Hunt, Maxdale, Phylis, Santa Rosa, and Stewart Parks. Specific condition improvements are identified in the Park Conditions Memo and the Park-by-Park Improvements Memo.

OM5 (PC7): Identify and prioritize funding to proactively improve the general site conditions to good by 2025 for at least 50% of parks currently categorized as moderate condition.

As a means to achieve the identified benchmark of improving and maintaining the condition of at least 50% of the overall parks and trails system to achieve a good condition by 2025, this requires identification and prioritization of funding to proactively and comprehensively improve the condition of several parks currently classified as moderate condition. This could include less major condition improvements to some of the parks that scored higher in the moderate category (e.g., Phyllis, Marlboro, Long Branch, etc.) or more major improvements in others which scored lower (e.g., AA Lane, Stewart, etc.). Alternatively, this could include a priority focus on improving the lower scoring elements (e.g., improving additional site amenities, public gathering spaces, general site facilities, etc.) across all parks in the moderate category. Specific condition improvements are identified in the Park Conditions Assessment Memo and the Park-by-Park Improvements Memo.

OM6: Pursue CAPRA Certification.

Identify and take steps to achieve National Recreation and Parks Association (NRPA) accreditation from the Commission for Accreditation of Park and Recreation Agencies (CAPRA) in conjunction with the Performance Excellence Department. According to their website, the Commission for Accreditation of Park and Recreation Agencies (CAPRA) provides “quality assurance and quality improvement of accredited park and recreation agencies throughout the United States by providing agencies with a management system of best practices.” They are the only national accreditation group for park and recreation agencies and provide a valuable measure of an agency’s overall quality of operation, management, and service to the community. Having a parks master plan is one of the required elements of the accreditation process and plans must include the following items:

- Agency mission and objectives
- Recreation and leisure trends analysis
- Needs assessment
- Community inventory
- Level of service standards

Achieving CAPRA accreditation is the best way to demonstrate that it is a new day in Killeen for a commitment to an ongoing quality level of service. Currently, there are only two departments in Central Texas that are CAPRA accredited: Austin and Round Rock. Setting the goal of becoming an accredited parks department will benefit the City by achieving this standard of excellence and potentially improving the department’s chance of receiving grants.

OM7: Prioritize budget and resources to continue to develop and digitize park infrastructure and assets into the Cityworks AMS asset management system.

Building upon the Cityworks AMS asset management pilot program (on Lions Club Neighborhood Park and Heritage Oaks Regional Trail), the city needs to prioritize additional and ongoing budget resources to expand the asset management system to the entire citywide parks and trails system. This understanding of the city’s existing assets will allow PARD to efficiently manage all assets in one database, be proactive with ongoing and annual maintenance and inspections, and eventually be able to do predictive analysis as to when facilities and infrastructure will need to be maintained or replaced. This also allows the City to better understand annual budgeting and long-term capital improvement planning for the parks and trails system.

OM8: Continue to enter parks system and operations data into NRPA’s Park Metrics system.

NRPA Park Metrics is the most comprehensive source of data standards and insights for park and recreation agencies. It was launched in 2009 and provides a platform for park agencies from across the country to enter their system data into a consolidated tracking and benchmarking system. This allows park and recreation professionals to help make informed decisions about how their system compares to other similar systems as it relates to the effective

management and planning of their operating resources and capital facilities. A suite of tools allows park and recreation agencies to build customized reports that allow for comparisons with peer agencies. Over time, park and recreation professionals can use this benchmark data to gain more funding support, improve operations and better serve their communities. Killeen's data was entered into the Park Metrics system as part of this master planning process. To keep it current, and an effective tool for informed decision-making, the City should continue to update its records in the Annual Performance Survey on an annual basis.

OM9. Replace or renovate the Conder Park maintenance facility.

One of the first steps in creating a Complete Parks system is to ensure the Recreation Services Division (PARD) has adequate facilities for equipment and materials. Currently, the City's existing maintenance facility (located in Conder Park) is over 45 years old, is not weatherproof, and does not have adequate storage capacity. Consequently, much of the City's equipment is stored outside unprotected, materials (e.g., gravel) are sometimes stored in parking lots out in the park or in other unsecured areas, and chemicals are not adequately protected.

Moving forward, the City should consider establishing an updated or new park maintenance facility at Condor Park. The new facility should include adequate office, staff training, equipment, and material storage spaces to meet the needs of the system at build-out, or at least allow for future facility expansion as the City grows over time. Expensive capital equipment (e.g., trucks and tractors) should be covered, chemicals secured, and outdoor storage areas screened from public view. The sizing of the facility should take into consideration the need for smaller satellite maintenance facilities in other areas of need (see OM10, below).

OM10. Evaluate the need to add satellite park maintenance facilities concurrent with growth to maximize staff resource proximity to different parks and trails in the City.

As new parks and trails are acquired and/or developed across the City, it may necessitate adding additional satellite park maintenance facilities with better proximity. Currently, all park maintenance and operations are run out of the single maintenance facility at Condor Park. This maximized staff resources in the area of the City which traditionally had the largest number of parks. As the city continues to grow to the south and west over time, more and more parks and trails will be located in these areas. This means that more staff time will be spent driving across the city than on park maintenance and improvement. The City should consider developing satellite park maintenance facilities in areas of need and concurrent with growth. This will allow park staff to minimize driving time and maximize their efforts on maintenance and improvement projects. Based on current and projected needs and growth patterns, the preliminary recommendation is to look at satellites in the following order of priority:

1. Lions Community Park
2. Long Branch Park
3. West Side Regional Park

OM11. Consider the establishment of a tree nursey on City park property so there is a cost-effective resource for near- and longer-term tree saplings.

One of the most important needs in the Killeen parks and trail system is the establishment of shade. This will primarily be accomplished through the installation of trees throughout park properties and along trails. Due to the significant amount of tree plantings anticipated, it is suggested the City consider the establishment of a tree nursery on unused park property. Over time, this could provide the City with a cost-effective ongoing resource for continual tree planting and replacement. The City could consider pursuing a grant opportunity to develop the initial tree nursery program.

OM12. Evaluate strategies to improve the safety of users while visiting City parks.

Ensuring the safety of visitors is an essential element of operating a park and recreation system. While there is no guarantee that issues will not arise, or problems will not occur, the City still needs to do everything it possibly can to improve overall safety, and the perception of safety, for its park users. As such, the City should evaluate the following strategies as part of the development of an overall park safety program:

- Install lights in high traffic areas, particularly for areas that may get used closer to or after dark (e.g., parking lots, trails, trailheads, restrooms, basketball courts, etc.).
- Increase evening programming of the parks to bring greater human presence into the parks after dark.
- Establish a volunteer park watch program in coordination with a “friends of” group or nearby neighborhood watch program.
- Establish a Park Ambassador program to monitor the enforcement of rules during large community gatherings or special events.
- Coordinate with the Killeen police department patrols of park parking lots as part of their daily patrols.
- Establish regular bike patrols on Citywide trails.
- Develop and disseminate safety awareness literature (in cooperation with the Killeen Police Department).
- Install surveillance and recording cameras in areas of greater concern.
- Install clearly marked signage providing contact information to report problems, requests for maintenance, or for information.
- Install emergency call boxes in remote park and trail areas.
- Immediately mitigate impacts of vandalism and otherwise ensure the timely cleanliness of park properties.
- Evaluate the design of park facilities using Crime Prevention Through Environmental Design (CPTED) techniques and make changes as appropriate (see also Action PI4 in the Park Improvement Memo).

OM13. Implement additional Best Management Practices (BMP’s) in order to increase efficiency and reduce costs.

While the Recreation Services Department currently utilizes several BMP’s, there are some additional ones that can have a great impact on the efficiency and costs of operations and maintenance. These additional BMP’s have been found to be highly effective for other like organizations and do not come at a significant cost:

Work Order and Work Tracking Software

While the Recreation Services Division has begun to utilize Cityworks AMS asset management system to track and understand assets and the maintenance and replacement of such, this system or many like it should be implemented in order to track and schedule maintenance activities. Cityworks or others will allow the division to track the work completed and generate specific work orders for park system properties, facilities and other assets. The work tracking allows for a much more accurate accounting of maintenance costs and analysis of where time is spent. The work order functions allow for better scheduling and accountability for completion of identified tasks and work requests.

Centralized Irrigation Control

Killeen is geographically large enough and has the number of irrigated facilities that would make a Centralized Irrigation Control System a valuable tool. These systems can conserve water by effectively reducing water use to only the amount needed by the turf, shutdown systems due to leaks and notify staff immediately and by maximizing the available “water windows” that are best for turf and the water system operator. They also can significantly reduce staff time for completing simple tasks like changing the time on controller clocks, updating schedules and shutting systems

off prior to freezes by allowing one staff member do such from a single location rather than driving around to all of the sites to complete manually.

Integrated Access Controls

Much like a Centralized Irrigation, Integrated Access Controls can be a valuable tool. Time Locks for restrooms and card readers for controlling access to facilities allow the operator to not have to worry about unauthorized access and vandalism when no one should be there. Instead of a staff person going to each restroom facility and manually locking the doors, time locks can automatically do so based on a previously established schedule. When integrated into an access control system, a staff person with proper permissions/authority can schedule open and close times, limit and allow access for specific users and groups and monitor who is using the facilities and when all from a central location.

Energy Conservation

LED lighting should be used on all new fixtures and older technologies (incandescent, fluorescent and HID) should be replaced when and where appropriate. When and where possible, things like occupancy sensors in restrooms, timers on tennis court lights and lights under pavilions can greatly reduce the amount of energy expended when there are no users present.

ATTACHMENT OM.1

The following forms and other information were used in the creation of this memo.

OM. A1 - Park Operations & Mowing Plan Questionnaire/Answers

General/Current Practices/Existing Conditions

1. What type of O&M are you doing?

- Sports field/facility preparations and repairs:
 - Litter abatement, herbicide/fertilization applications, sod cutting, ballfield and turf amendments (dragging, lining, and painting of sports fields), reel mowing at 5/8" cutting height, zero turn finishing, zero turn bagging for clipping removal, push mowing, weed eating, edging, irrigation (installation, maintenance, and repairs), pavilion rentals and maintenance, solid tine aeration, verticutting, flowerbed maintenance, facility (cleaning, plumbing repairs, lighting, and electrical repairs), fence repairs, amenity installations and repairs, tree and shrub trimming and planting, signage replacements and installations, hardscaping and softscaping, painting, tournament staffing
- Public facility grounds maintenance and repairs:
 - Litter abatement, herbicide/fertilization applications, zero turn finishing mowing, push mowing, weed eating, edging, irrigation (installation, maintenance, and repairs), solid tine aeration, verticutting, flowerbed maintenance, facility (cleaning, plumbing repairs, lighting and electrical repairs), fence repairs, amenity installations and repairs, tree and shrub trimming and planting, signage replacements and installations, hardscaping and softscaping, painting, playground (maintenance, repairs, and engineered wood fiber resurfacing)
- Cemetery operation grounds maintenance and repairs:
 - Plot sales, living tree program, funeral services (cremation opening and closing of adults/infants, infant disinterment's, chair setup under pavilion or at gravesite), post funeral grave sinking, plot soil releveling, plot marker installations, monument repairs, litter abatement, herbicide applications, zero turn finishing mowing, push mowing, weed eating, irrigation (installation, maintenance, and repairs), fence repairs, flowerbed maintenance, facility (cleaning, plumbing, lighting, and electrical repairs), amenity installations and repairs, tree and shrub trimming and planting, signage replacements and installations, hardscaping and softscaping, painting
- Parkland grounds maintenance and repairs:
 - Litter abatement, herbicide applications, zero turn finishing mowing, weed eating, irrigation (installation, maintenance, and repairs), flowerbed maintenance, playground (maintenance, repairs, and engineered wood fiber resurfacing), basketball court and rim maintenance and repairs, tennis court and net maintenance and repairs, volleyball court and net maintenance and repairs, pet waste removal, trail maintenance (mowing, weed eating, lighting repairs), aeration, restroom cleaning and repairs, pavilion rentals and maintenance, skate park repairs and lighting maintenance, facility (cleaning, plumbing, lighting, and electrical repairs), fence repairs, amenity installations and repairs, tree and shrub trimming and planting, signage replacements and installations, hardscaping and softscaping, painting, graffiti removal
- Aquatic facility pool/grounds maintenance and repairs:
 - Litter abatement, herbicide/fertilization applications, zero turn finishing mowing, push mowing, weed eating, edging, irrigation (installation, maintenance, and repairs), solid tine aeration, flowerbed maintenance, aquatic elements maintenance and repairs, pool (servicing, maintenance, chemical controls, plumbing repairs, and electrical repairs), fence repairs, aeration, restroom cleaning and repairs, pavilion rentals and maintenance, facility (cleaning, plumbing, lighting, and electrical repairs), amenity installations and repairs, tree and shrub trimming and planting, signage replacements and installations, hardscaping and softscaping, painting
- City owned lots grounds maintenance:
 - Litter abatement, herbicide applications, rough cut mowing at 3" cutting height, weed eating, tree and shrub trimming and planting

- Graffiti removal services:
 - For all parks and facilities to include the graffiti removal program through the City of Killeen Code Enforcement. Graffiti removal program includes removal of graffiti at privately/commercially owned businesses
 - Departmental support of events:
 - Events such as, Barktoberfest, Fall Festival, Christmas Parade, Veterans Day Parade, Memorial Day, Holiday Under the Stars, Centex 5K race series, Christmas Tree Recycling, Splash Bash, Easter, Celebrate Killeen, Movies in Your Park Series
 - Services to include, staffing, setup and teardown, litter abatement, facility cleaning, installation of holiday lighting and décor
 - Park and facility projects:
 - New construction installations, foundation repairs, drainage repairs, facility lighting, playground installations/repairs, amenity installations and repairs, facility painting, welding services, irrigation installation and repairs, fencing repairs, all maintenance and repairs to (heavy equipment, small equipment, and vehicles) **Department picked up another Division in 2019 (Animal Services)
2. What portion of your operating budget is dedicated to O&M?

Parks Division	\$2,320,665
Lions Club Rec	\$342,273
Athletics	\$700.00
Aquatics	\$75,457
Recreation	\$15,585
Seniors	\$57,173
Animal Services	\$84,473
Admin	\$0
TOTAL	\$2,896,326

- How many FTE's are Budgeted?

POSITION TITLE	ACTUAL
Superintendent	1
Parks and Public Grounds Assistant	1
Supervisor (Parks)	3
Pool Maintenance Supervisor	1
Crew Leader (Parks)	5
Crew Leader (Cemetery)	1
Equipment Services Technician	1
Grounds Maintenance Worker	22
Seasonal-Grounds Maintenance Worker	1.59
Custodians	2
TOTAL FTE's	38.59

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3. What is your organizational structure (Org Chart)?
- See attached Exhibit A
4. Do you utilize and contract maintenance (mowing, repairs, etc.)? If so, what services and what are the budgets?
- Currently there are no contracted maintenance services
 - Proposing to in the FY22 budget process (Hard scape and facility maintenance outside)
5. Do other City Departments provide assistance (concrete, tree work, drainage, etc.)? If so, what types?
- Building Services assist with electrical and plumbing repairs that require licensed professionals
 - Public Works assist with brush pickup and drainage repairs requiring TCEQ guidelines to be strictly followed
6. How many acres of your total park system do you classify as "Maintained"?
- Total acreage of all park's areas = 509.90

- Acreage classified as maintained = 327.37

7. Are you currently responsible for areas that are not parks (City facilities, ROW's, drainage channels, etc.)?

City Facilities and Lots	Acreage
195 Welcome to Killeen Sign	1.00
2 Empty lots on Linda Lane	0.39
Animal Services	1.83
Blackburn Cemetery	0.88
Bob Gilmore Center	1.50
City Hall	2.64
Civic and Conference Center/Special Events Center	27.29
Code Enforcement	0.46
Copper Mountain Library	1.39
Downtown Police Station	2.09
Family Aquatics Center	10.00
Family Rec./Senior Center	25.00
114 Welcome to Killeen Sign	0.33
Information Technology	0.38
Islands on 10 th St.	0.02
Jefferies Island	0.08
Killeen Arts and Activities Center	3.90
Killeen City Cemetery	43.55
Killeen Community Center	14.01
KPD Headquarters	16.64
Main Branch Library	1.74
Military Plaza	0.50
Nolan Circle	0.20
O.C.D.	1.26
Old Farmers Market	1.00
Powder River	0.82
Santa Fe Plaza	8.06
Sunny Lane	1.00
Utility Collections	1.96
Watercrest	1.00
Willow Bend	0.07
TOTAL ACREAGE	171.05

8. Do you currently have maintenance standards and/or levels or service established? If so, what are those?

- Yes, while we have maintenance standards it is important to note that all maintenance standards are optimal, and assuming all needed resources and manpower are available. Actual maintenance levels may be lower than listed and may fluctuate due to availability of resources.

Maintenance Task	Frequency
Basketball Courts	
Sweep/blow as needed	1/week January-November
Pressure Wash	2/year spring and summer
Net Inspection	1/week year-round
Bleacher/player benches	
Pressure wash concrete pads	4/times a year
Pressure wash bleachers/benches	4/times a year
Sweep/blow court	Daily March-November
Inspect	1/week March-November
Drinking Fountains	
Clean/inspect	3/week year-round
Irrigation	
Park turf watering-Up to 1" as needed	April-November
Athletic turf watering-up to 2" as needed	April-November
Non-Park Facilities watering up to 1.5" as needed	April-November
Landscape	

Prune trees and bushes	4/times a year
Inspect for disease/insects	1/month March-November
Flowerbed maintenance	2/month March-November
Mulch	1 application per year
Litter	
Police entire area/collect litter	Daily year-round
Empty trash cans	Daily year-round
Empty trash can sport fields	1/day March-November, December-February
Park benches/Picnic tables	
Inspect	1/week
Pressure Wash	2/ per year
Remove Graffiti	Within 3 days of notification of existence
Playgrounds	
Inspect all playgrounds weekly	Daily year-round
Restrooms	
Clean	Daily year-round
Remove Graffiti	Within 3 days of notification of existence
Trees	
Prune	1/year
Remove stumps	Within 30 days of tree removal
Turf/Grounds	
Aerate	4/year
Fertilize	3/times year
Mow	1/week year-round/sports fields 3 times a week April-November
Weed Control/Chemical Application	
Sports fields/Non-Parks	As needed
Repair Field Skinned Areas	
Sports field repair	1/day during game days/3/week out of season

10. Are you familiar with the NRPA Maintenance Modes?

- We are somewhat familiar with the NRPA and have visited their website for knowledge of how using metrics from our peers can be helpful.

Best Management Practices (BMP's)

1. Are parks maintained from "curb to curb"?
 - Yes, Parks and non-park facilities are maintained from "curb to curb". Trail use zones within Heritage Oaks Trail and Killeen/Ft Hood Regional Trail have designated mowing and maintenance zones of 10' on both sides of the concrete walking trails and 12' from the property lines. All other areas within these trails are designated as natural grow zones.
 - Identifying additional natural grow zones within the Parks system is being assessed
2. Do you have any Preventative Maintenance (PM) program or schedule?
 - Yes, we perform preventive maintenance and preventative measures daily, weekly, and monthly to circumvent maintenance issues that could become a hazard to park users, equipment/amenities, facilities, vehicles, heavy equipment, small engine equipment, and turf resulting in unnecessary additional costs. These items include but are not limited to:
 - Facility, playground, amenities, and infrastructure inspections and repairs
 - Soil amendments, herbicide applications, tree trimming
 - Winterizing restroom, facilities, water fountains, faucets, and irrigation systems
 - Equipment Service Technician performs inspections and maintenance services on all Park's vehicles, equipment, and leased equipment following manufacturer guidelines and Fleet Services maintenance scheduling
 - Every crew leader is expected to fill out a daily checklist form for their areas of responsibility which covers preventative measures such as checking restrooms/facilities, playground inspections, equipment/amenities inspections, overall site cleanliness, and hazardous materials
3. Any checklists for PM items (vehicle checks, park inspections, playground inspections, etc.)?

- We have PM checklists for all Park vehicles, equipment, playgrounds, irrigation, aquatic facilities, and sports equipment
- 4. Do you currently have any SOP's re: specific critical items (safety, graffiti removal, etc.)?
 - Parks Emergency Action Plan is currently Up-To-Date to include SDS forms and plans of action
 - We are currently re-drafting our SOP's as it relates to chainsaw safety, heavy equipment operations, small equipment operations, herbicide applications, chemical handling, and graffiti services, irrigation maintenance
- 5. Do any of your parks receive a regular regimen to address weeds and pests and/or fertilizer?
 - Sports and public facilities receive seasonal based applications of herbicides, fertilizations, and pest management practices, depending on the usage, additional applications may be necessary. Applications would also include the use of a solid tine aerator, broadcast spreaders, backpack sprayers, programable rate spray rig, verticutter, and a sod cutter for turf replacements. Parks and trails receive herbicide and pest management practices on an as needed basis with backpack sprayers and broadcast spreaders. All herbicides used are safe for reentry upon drying and are nontoxic to animals. Fertilizers and special use chemicals follow EPA regulations, and in most cases, these areas are available for reentry within a 24-hour period.
- 6. Do you have a Central Irrigation System? If so what type and who manages?
 - We do not have a central irrigation system to govern our entire Parks operation as a whole.
 - We currently use and maintain 36 separate irrigation systems. Parks staff are trained on repairing and programming these systems.
- 7. Do you have a replacement plan for major assets (playgrounds, site amenities, etc.)?
 - Currently there is not a replacement plan

Manpower/Capabilities

1. Any CPSI's, Licensed Irrigators, TDA Applicators, Certified Pool Operators or other trained/certified staff?
 - We currently have 4 CPO's on staff and 6 new CPO's for a total of 10 current certification holders
 - We currently have 1 licenced TDA applicator with an additional 2 to be acquired in 2021. 3 additional TDA applicator licenses to be acquired in 2022 for a total of 6.
 - We currently have 1 CPSI with an additional to hopefully be acquired in 2022
 - 1 Licensed irrigator will be acquired in 2021
2. Arborist or anyone that has received arboriculture training?
 - We currently do not have an arborist and have only received arboriculture training through ONCOR

Work Requests/Work Tracking

1. Do you currently use a Work Order/Work Tracking program? If so, Which one?
 - We do not use a program for work order/work tracking. We have initiated a policy for Park lighting and infrastructure repairs that includes reporting and tracking sheets.
2. Does your staff have the capabilities to use a system (technical knowledge, smart devices, computer access)?
 - Our staff have the capabilities to use a system and learn. Computer access for staff members is limited in that, at our maintenance facility we have a total of 4 accessible computers. 3 of these computers are assigned to the Supervisors and 1 is assigned to the Superintendent. Access for the additional 29 staff members for training, researching, and documenting of work duties requires requests for availability.
3. If you do not have a software program but still track work, how is it tracked?
 - Daily/Weekly maintenance sheets for each crew to be submitted and logged each week and a final log to be completed and submitted for each month
 - Vehicle and equipment maintenance logs to be tracked by Equipment Service Technician and Fleet Services
 - Park lighting and infrastructure repairs to be tracked via logs maintained by Parks and Public Grounds Assistant
 - Cemetery operations to be tracked via logs and mapping maintained by Parks and Public Grounds Assistant

4. Any inventory management system in place?
 - Current inventory is managed by daily sign out sheets of cleaning supplies, chemicals, and small equipment and tools
 - An overall inventory sheet of Parks inventory New/Old is done onsite and updated when new inventory is received and when assets are deleted.
 - Vehicles and heavy equipment are inventoried by Fleet Services and maintained by Parks to remain current
5. How are request for service managed?
 - Request for services that Parks has the capabilities of providing are completed in-house on a priority of needs and timeline basis.
 - All outside services related to Fleet Management and Building Services are on a work order basis through the division directly. Scheduling and repairs are completed based on their timelines

Specialized Maintenance/Facilities

1. Do you maintain sports fields?
 - Yes, we maintain 8 softball fields, 6 baseball fields, and 6 multipurpose fields on a daily basis with increased maintenance during seasonal athletic scheduling. In our area of responsibilities, we also have 1 softball and 2 multipurpose fields that can be used as practice fields open to the public. We provide grounds maintenance services by amending the soils, dragging/leveling the infields, replacing/repairing bases and soccer goals, striping, chalk lining, field layout and designs, turf management practices, lighting maintenance and repairs, irrigation management, facility maintenance and repairs. We provide additional staffing support during athletic tournaments and games for field prepping and facility cleaning.
2. Do you have any sports field lighting?
 - Yes, At Lions Club Park (4 baseball fields LED, 4 softball fields LED, and 6 multipurpose fields HID) have lighting installed by MUSCO. At the Killeen Athletic Complex there are 4 softball and 2 baseball fields that also have HID lighting. The lights are managed by the Parks and Athletics Divisions. The lights at Lions Club Park can be controlled remotely by a touch screen phone, laptop, or computer.
 - Long Branch Skate Park also has MUSCO HID lighting with remote capabilities
3. Do you currently use time locks on any facilities?
 - In 2012, the new restroom facility that was constructed in Conder Park had the addition of magnetic locking mechanisms on the doors. Being that these had only one contact connection point located at the top of these doors when they were magnetized, users would be able to pry the doors open due to the state of the doors seeming to be just “stuck” and not realizing that they were actually locked.

OM. A2 - Estimated Annual Cost of Maintenance for Community Parks

Using ideal maintenance frequencies and other data provided by the Recreation Services Department, the estimated annual cost of maintenance of the community parks is calculated at approximately \$1.1M. More detail can be seen in the table below:

Estimated Annual Cost of Maintenance					
Activity	Conder	Killeen Athletic	Lions Club	Long Branch	
Mowing (Non-Sports Fields)					
Labor	\$15,089.71	\$25,149.52	\$60,358.85	\$30,179.42	
Materials	\$2,500.00	\$500.00	\$500.00	\$500.00	
subtotal	\$17,589.71	\$25,649.52	\$60,858.85	\$30,679.42	
Mowing (Sports Fields Only)					
Labor	\$3,482.24	\$52,233.62	\$83,573.79	\$0.00	
Materials	\$500.00	\$2,500.00	\$2,500.00	\$0.00	
subtotal	\$3,982.24	\$54,733.62	\$86,073.79	\$0.00	
Aeration (Sports Fields Only)					
Labor	\$193.46	\$2,901.87	\$4,642.99	\$0.00	
Materials	\$50.00	\$250.00	\$250.00	\$0.00	
subtotal	\$243.46	\$3,151.87	\$4,892.99	\$0.00	
Fertilization & Weed Control (Sports Fields Only)					
Labor	\$145.09	\$2,176.40	\$3,482.24	\$0.00	
Materials	\$750.00	\$4,000.00	\$5,000.00	\$0.00	
subtotal	\$895.09	\$6,176.40	\$8,482.24	\$0.00	
Overseeding (Sports Fields Only)					
Labor	\$48.36	\$725.47	\$1,160.75	\$0.00	
Materials	\$300.00	\$2,000.00	\$2,500.00	\$0.00	
subtotal	\$348.36	\$2,725.47	\$3,660.75	\$0.00	
Topdressing (Sports Fields Only)					
Labor	\$290.19	\$2,901.87	\$5,223.36	\$0.00	
Materials	\$500.00	\$2,500.00	\$2,500.00	\$0.00	
subtotal	\$790.19	\$5,401.87	\$7,723.36	\$0.00	
Infield Maintenance					
Labor	\$0.00	\$13,058.40	\$20,893.45	\$0.00	
Materials	\$0.00	\$1,000.00	\$1,250.00	\$0.00	
subtotal	\$0.00	\$14,058.40	\$22,143.45	\$0.00	
Field Striping					
Labor	\$0.00	\$8,705.60	\$15,670.09	\$0.00	
Materials	\$0.00	\$1,500.00	\$1,750.00	\$0.00	
subtotal	\$0.00	\$10,205.60	\$17,420.09	\$0.00	
Litter Control					
Labor	\$26,479.54	\$88,265.14	\$105,918.17	\$26,479.54	
Materials	\$1,000.00	\$1,500.00	\$1,750.00	\$1,000.00	
subtotal	\$27,479.54	\$89,765.14	\$107,668.17	\$27,479.54	
Swimming Pool/Splash Pad Maintenance					
Labor	\$8,826.51	\$0.00	\$17,653.03	\$0.00	
Materials	\$5,000.00	\$0.00	\$7,500.00	\$0.00	
subtotal	\$13,826.51	\$0.00	\$25,153.03	\$0.00	
Restrooms					
Labor	\$8,826.51	\$8,826.51	\$17,653.03	\$8,826.51	
Materials	\$500.00	\$500.00	\$500.00	\$500.00	
subtotal	\$9,326.51	\$9,326.51	\$18,153.03	\$9,326.51	
Tree Pruning					
Labor	\$1,160.75	\$1,934.58	\$3,482.24	\$1,741.12	
Materials	\$250.00	\$250.00	\$250.00	\$250.00	
subtotal	\$1,410.75	\$2,184.58	\$3,732.24	\$1,991.12	
General Maint & Repairs					
Labor	\$22,634.57	\$50,299.04	\$120,717.69	\$22,634.57	
Materials	\$1,500.00	\$2,500.00	\$5,000.00	\$1,500.00	
subtotal	\$24,134.57	\$52,799.04	\$125,717.69	\$24,134.57	
Utilities					
Water	\$0.00	\$0.00	\$0.00	\$0.00	
\$1.85 per 1000 gallons - .00185					
Electricity	\$5,000.00	\$10,000.00	\$12,500.00	\$2,000.00	
paid by Leagues	\$0.00	\$0.00	\$0.00	\$0.00	
subtotal	\$5,000.00	\$10,000.00	\$12,500.00	\$2,000.00	
Totals	\$105,026.94	\$286,178.02	\$504,179.66	\$95,611.17	
Admin Supervision % per location	0.05	0.10	0.15	0.05	
Supervision Amount	22,500.00	45,000.00	67,500.00	22,500.00	
Supt Supervision % per location	0.15	0.20	0.25	0.10	
Supervision Amount	22,500.00	30,000.00	37,500.00	15,000.00	
Totals	\$127,526.94	\$331,178.02	\$571,679.66	\$118,111.17	\$1,148,495.78

OM. A3 - Manpower Estimate

Using ideal maintenance frequencies and other data provided by the Recreation Services Department, the estimated annual cost of maintenance of the community parks is calculated at approximately \$1.1M. More detail can be seen in the table below:

Manpower & Maintenance Cost Estimates						
Employee Name	Hourly Pay Rate	Annual Hours	Annual Salary	Annual Salary w/Benefits	Avg Loaded Rate	
Average Park Employee	\$17.69	2080	\$36,795.20	\$50,299.04	\$24.18	
Mowing (Non-Sports Fields)						
Conder Staff	Hrs	Rate	Freq	Cost	Hours	
	3	4	\$24.18	52	\$15,089.71	624
Killeen Athletic Staff	Hrs	Rate	Freq	Cost		
	5	4	\$24.18	52	\$25,149.52	1040
Lions Club Staff	Hrs	Rate	Freq	Cost		
	6	8	\$24.18	52	\$60,358.85	2496
Long Branch Staff	Hrs	Rate	Freq	Cost		
	3	8	\$24.18	52	\$30,179.42	1248
			Total		\$130,777.50	5408
Mowing (Sports Fields Only)						
Conder Staff	Hrs	Rate	Freq	Cost	Hours	
	1	2	\$24.18	72	\$3,482.24	144
Killeen Athletic Staff	Hrs	Rate	Freq	Cost		
	5	6	\$24.18	72	\$52,233.62	2160
Lions Club Staff	Hrs	Rate	Freq	Cost		
	6	8	\$24.18	72	\$83,573.79	3456
Long Branch Staff	Hrs	Rate	Freq	Cost		
	3	0	\$24.18	72	\$0.00	0
			Total		\$139,289.64	5760
Aeration (Sports Fields Only)						
Conder Staff	Hrs	Rate	Freq	Total		
	1	2	\$24.18	4	\$193.46	8
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	5	6	\$24.18	4	\$2,901.87	120
Lions Club Staff	Hrs	Rate	Freq	Total		
	6	8	\$24.18	4	\$4,642.99	192
Long Branch Staff	Hrs	Rate	Freq	Total		
	3	0	\$24.18	4	\$0.00	0
			Total		\$7,738.31	320
Fertilization & Weed Control (Sports Fields Only)						
Conder Staff	Hrs	Rate	Freq	Total		
	1	2	\$24.18	3	\$145.09	6
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	5	6	\$24.18	3	\$2,176.40	90
Lions Club Staff	Hrs	Rate	Freq	Total		
	6	8	\$24.18	3	\$3,482.24	144
Long Branch Staff	Hrs	Rate	Freq	Total		
	3	0	\$24.18	3	\$0.00	0
			Total		\$5,803.74	240
Overseeding (Sports Fields Only)						
Conder Staff	Hrs	Rate	Freq	Total		
	1	2	\$24.18	1	\$48.36	2
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	5	6	\$24.18	1	\$725.47	30
Lions Club Staff	Hrs	Rate	Freq	Total		
	6	8	\$24.18	1	\$1,160.75	48
Long Branch Staff	Hrs	Rate	Freq	Total		
	3	0	\$24.18	1	\$0.00	0
			Total		\$1,934.58	80
Topdressing (Sports Fields Only)						
Conder Staff	Hrs	Rate	Freq	Total		
	1	4	\$24.18	3	\$290.19	12
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	5	8	\$24.18	3	\$2,901.87	120
Lions Club Staff	Hrs	Rate	Freq	Total		
	6	12	\$24.18	3	\$5,223.36	216
Long Branch Staff	Hrs	Rate	Freq	Total		
	3	0	\$24.18	3	\$0.00	0
			Total		\$8,415.42	348

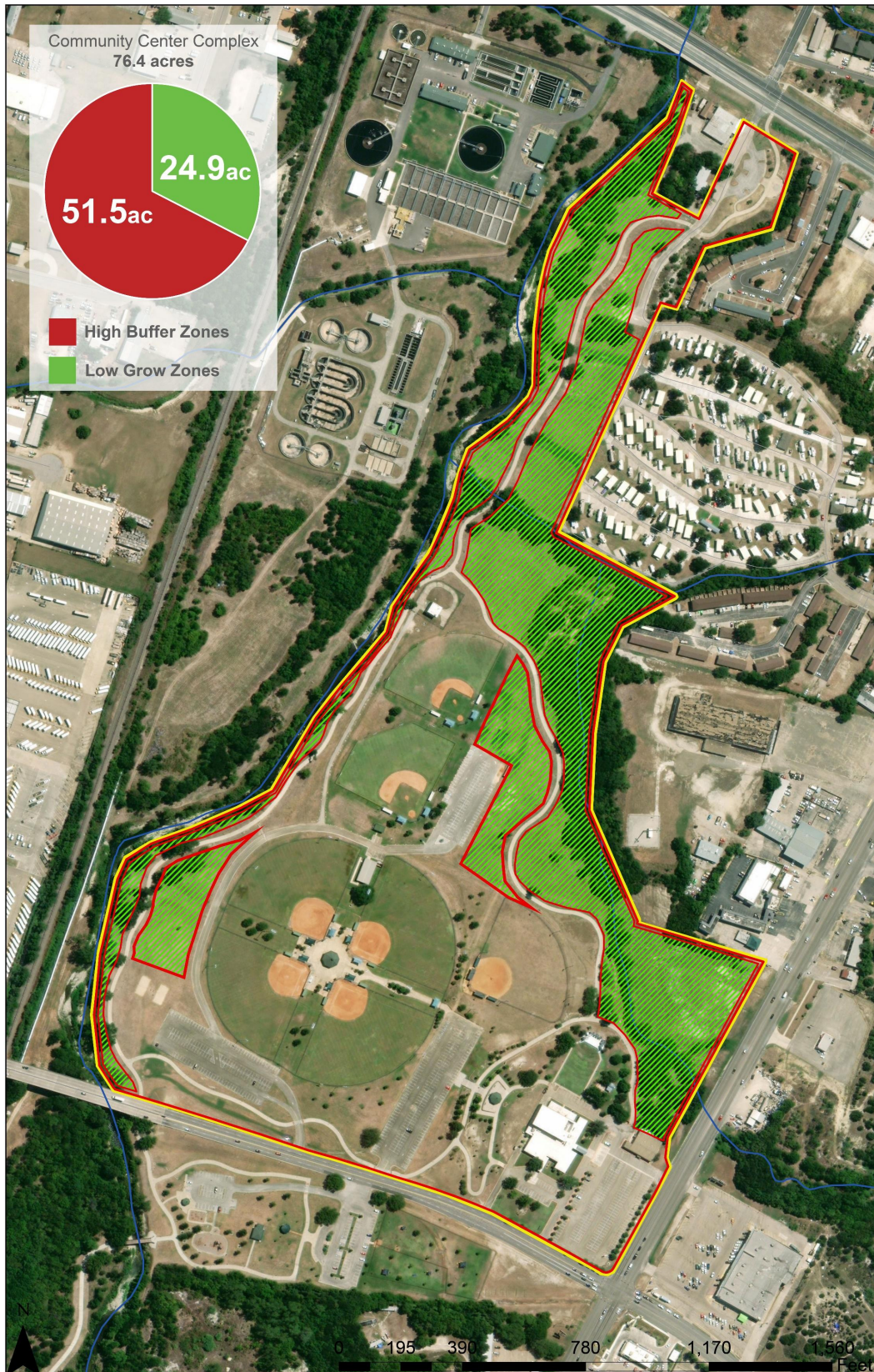
Infield Maintenance						
Conder Staff	Hrs	Rate	Freq	Total		
	1	0	\$24.18	36	\$0.00	0
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	5	3	\$24.18	36	\$13,058.40	540
Lions Club Staff	Hrs	Rate	Freq	Total		
	6	4	\$24.18	36	\$20,893.45	864
Long Branch Staff	Hrs	Rate	Freq	Total		
	3	0	\$24.18	36	\$0.00	0
			Total		\$33,951.85	1404
Field Striping						
Conder Staff	Hrs	Rate	Freq	Total		
	1	0	\$24.18	36	\$0.00	0
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	5	2	\$24.18	36	\$8,705.60	360
Lions Club Staff	Hrs	Rate	Freq	Total		
	6	3	\$24.18	36	\$15,670.09	648
Long Branch Staff	Hrs	Rate	Freq	Total		
	3	0	\$24.18	36	\$0.00	0
			Total		\$24,375.69	1008
Litter Control						
Conder Staff	Hrs	Rate	Freq	Total		
	3	1	\$24.18	365	\$26,479.54	1095
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	5	2	\$24.18	365	\$88,265.14	3650
Lions Club Staff	Hrs	Rate	Freq	Total		
	6	2	\$24.18	365	\$105,918.17	4380
Long Branch Staff	Hrs	Rate	Freq	Total		
	3	1	\$24.18	365	\$26,479.54	1095
			Total		\$247,142.39	10220
Swimming Pool/Splash Pad Maintenance						
Lions Club Staff	Hrs	Rate	Freq	Total		
	1	1	\$24.18	365	\$8,826.51	365
Long Branch Staff	Hrs	Rate	Freq	Total		
	1	2	\$24.18	365	\$17,653.03	730
			Total		\$26,479.54	1095
Restrooms						
Conder Staff	Hrs	Rate	Freq	Total		
	1	1	\$24.18	365	\$8,826.51	365
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	1	1	\$24.18	365	\$8,826.51	365
Lions Club Staff	Hrs	Rate	Freq	Total		
	1	2	\$24.18	365	\$17,653.03	730
Long Branch Staff	Hrs	Rate	Freq	Total		
	1	1	\$24.18	365	\$8,826.51	365
			Total		\$44,132.57	1825
Tree Pruning						
Conder Staff	Hrs	Rate	Freq	Total		
	3	16	\$24.18	1	\$1,160.75	48
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	5	16	\$24.18	1	\$1,934.58	80
Lions Club Staff	Hrs	Rate	Freq	Total		
	6	24	\$24.18	1	\$3,482.24	144
Long Branch Staff	Hrs	Rate	Freq	Total		
	3	24	\$24.18	1	\$1,741.12	72
			Total		\$8,318.69	344
General Maint & Repairs						
Conder Staff	Hrs	Rate	Freq	Total		
	3	6	\$24.18	52	\$22,634.57	936
Killeen Athletic Staff	Hrs	Rate	Freq	Total		
	5	8	\$24.18	52	\$50,299.04	2080
Lions Club Staff	Hrs	Rate	Freq	Total		
	6	16	\$24.18	52	\$120,717.69	4992
Long Branch Staff	Hrs	Rate	Freq	Total		
	3	6	\$24.18	52	\$22,634.57	936
			Total		\$216,285.87	8944
Manpower Cost Total					\$711,417.02	36,996

Full-Time Hours	Staff Training	Travel to/from Work Site	Misc*	Vacation	Sick Leave	Holidays	Personal Holiday	Actual Working Hours	Total Man Hours	Working Hours	Estimated # of Employees To Complete Work
2080	24	260	144	80	40	88	24	1420	36,996	1420	26.05
* employee functions, staff events, staff meetings, City Hall/HR Visits, etc											

OM. A4.1 – Conder Community Park “Grow Zones”



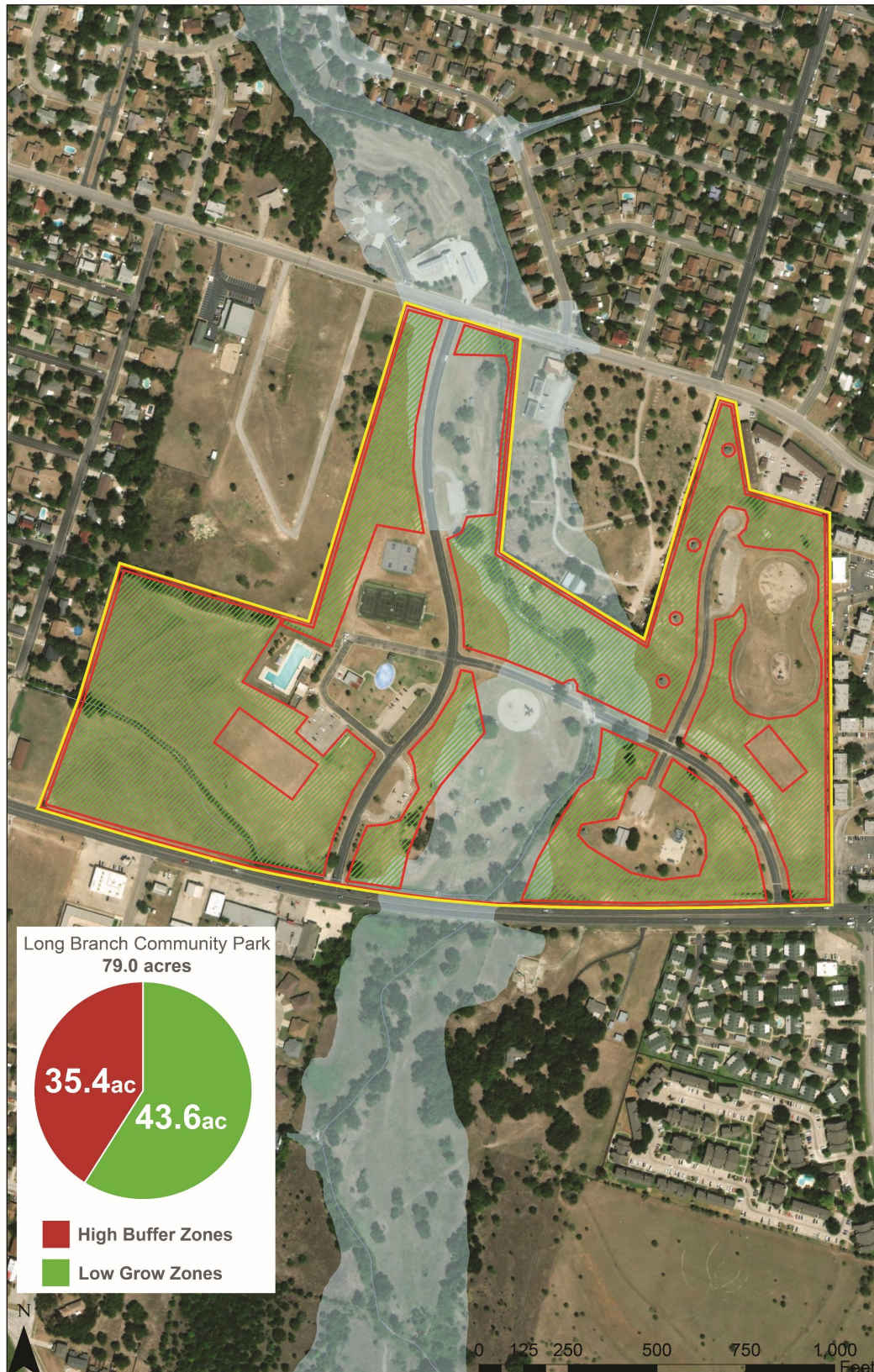
OM. A4.2 – Killeen Athletic Complex “Grow Zones”



OM. A4.3 – Lions Community Park “Grow Zones”



OM. A4.4 – Long Branch Community Park “Grow Zones”



OM. A5 – Detailed Explanation of Maintenance Modes

Mode I – Sports A

State of the art maintenance applied to a high quality sports field or facility that receives high usage for games and practices.

1. *Turf care*--Grass height maintained at 1.5" to 2" depending on sport and variety of turf. Mowed at least twice per week, including the "off-season" as there will be overseeding to ensure that there is year round turf. Aeration is required on a monthly basis. Reseeding or sodding as needed. Weed control should be practiced using pre and post emergent herbicides so that no more than five percent of the surface has weeds present.
2. *Fertilizer* -- Adequate fertilization applied at least quarterly to plant species according to their optimum requirements. Application rates and times should ensure an even supply of nutrients for the entire year. Nitrogen, phosphorus and potassium percentages should follow local recommendations from your County Extension Service. Trees, shrubs and flowers should be fertilized according to their individual requirements of nutrients for optimum growth. Unusually long or short growing seasons may modify the requirement slightly.
3. *Irrigation* – Automatic irrigation system used. Frequency and duration depends on rainfall, temperature, season and demands of plant material. Irrigation tests conducted at least once per week and full irrigation audits conducted twice per year.
4. *Litter control*--Minimum of once per day, 7 days per week. Extremely high visitation may increase the frequency. Receptacles should be plentiful enough to hold all trash generated between servicing without normally overflowing.
5. *Pruning*-- Frequency dictated primarily by species and variety of trees and shrubs. Length of growing season and design concept also a controlling factor as are clipped hedges versus natural style. Timing usually scheduled to coincide with low demand periods or to take advantage of special growing characteristics such as pruning after flowering.
6. *Disease and/insect Control* - Control program may use any of three philosophies: 1.) Preventative; a scheduled chemical or cultural program designed to prevent significant damage. 2.) Corrective; application of chemical or mechanical controls designed to eliminate observed problems. 3.) Integrated pest management; withholding any controls until such time as pests demonstrate damage to plant materials or become a demonstrated irritant in the case of flies, mosquitoes, gnats, etc. At this maintenance level the controlling objective is to not have the public notice any problems. It is anticipated at Mode I – Sports A that problems will either be prevented or observed at a very early stage and corrected immediately.
7. *Lighting* - Light tests on sports lights conducted once per month. Any outage not detected by system to be reported immediately to the Parks Operations Supervisor and the vendor. Maintenance should preserve the original design. Damaged systems should be repaired as quickly as they are discovered. Bulb replacement should be done during the first working day after the outage is reported.
8. *Surfaces*--Sweeping, cleaning and washing of surfaces needs to be done so that at no time does an accumulation of sand, dirt and leaves distract from the looks or safety of the area. Repainting or restaining of structures should occur when weather or wear deteriorate the appearance of the covering. Stains to surfaces should be taken off within five working days. Graffiti should be washed off or painted over the next working day after application.
9. *Repairs* - Repairs to all elements of the design should be done immediately upon discovery provided replacement parts and technicians are available to accomplish the job. When disruption to the public might be major and the repair not critical, repairs may be postponed to a time period which is least disruptive.
10. *Inspection* of this area should be done daily by a member of staff.
11. *Floral plantings* - Normally extensive or unusual floral plantings are part of the design. These may include ground level beds, planters or hanging baskets. Often multiple plantings are scheduled, usually at least two blooming cycles per year. Some designs may call for a more frequent rotation of bloom. Maximum care of watering, fertilizing, disease control, disbudding and weeding is necessary. Weeding flowers and shrubs is done a minimum of once per week. The desired standard is essentially weed free.

12. *Restrooms*—At least once per day servicing. Especially high traffic areas may require multiple servicings or a person assigned as an attendant.

13. *Special features*-- Features such as fountains, drinking fountains, sculpture, speaker systems, structural art, flag poles or parking and crowd control devices may be part of the integral design. Maintenance requirements can vary drastically but for this mode it should be of the highest possible order.

Mode I – Sports B

State of the art maintenance applied to a high quality sports field or facility that receives high usage for practices.

1. *Turf care*--Grass height maintained at less than 2". Mowed at least once per week, including the "off-season" as there will be overseeding to ensure that there is year round turf. Aeration is required on a quarterly basis. Reseeding or sodding as needed. Weed control should be practiced using pre and post emergent herbicides so that no more than five percent of the surface has weeds present.

2. *Fertilizer* -- Adequate fertilization applied to plant species according to their optimum requirements. Application rates and times should ensure an even supply of nutrients for the entire year. Nitrogen, phosphorus and potassium percentages should follow local recommendations from your County Extension Service. Trees, shrubs and flowers should be fertilized according to their individual requirements of nutrients for optimum growth. Unusually long or short growing seasons may modify the requirement slightly.

3. *Irrigation* – Automatic irrigation system used. Frequency and duration depends on rainfall, temperature, season and demands of plant material. Irrigation tests conducted at least once per week and full irrigation audits conducted twice per year.

4. *Litter control*--Minimum of once per day, 7 days per week. Extremely high visitation may increase the frequency. Receptacles should be plentiful enough to hold all trash generated between servicing without normally overflowing.

5. *Pruning*-- Frequency dictated primarily by species and variety of trees and shrubs. Length of growing season and design concept also a controlling factor as are clipped hedges versus natural style. Timing usually scheduled to coincide with low demand periods or to take advantage of special growing characteristics such as pruning after flowering.

6. *Disease and/insect Control* - Control program may use any of three philosophies: 1.) Preventative; a scheduled chemical or cultural program designed to prevent significant damage. 2.) Corrective; application of chemical or mechanical controls designed to eliminate observed problems. 3.) Integrated pest management; withholding any controls until such time as pests demonstrate damage to plant materials or become a demonstrated irritant in the case of flies, mosquitoes, gnats, etc. At this maintenance level the controlling objective is to not have the public notice any problems. It is anticipated at Mode I – Sports B that problems will either be prevented or observed at a very early stage and corrected immediately.

7. *Lighting* - Light tests on any sports lights conducted once per month. Any outage not detected by system to be reported immediately to the Parks Operations Supervisor and the vendor. Maintenance should preserve the original design. Damaged systems should be repaired as quickly as they are discovered. Bulb replacement should be done during the first working day after the outage is reported.

8. *Surfaces*--Sweeping, cleaning and washing of surfaces needs to be done so that at no time does an accumulation of sand, dirt and leaves distract from the looks or safety of the area. Repainting or restaining of structures should occur when weather or wear deteriorate the appearance of the covering. Stains to surfaces should be taken off within five working days. Graffiti should be washed off or painted over the next working day after application.

9. *Repairs* - Repairs to all elements of the design should be done immediately upon discovery provided replacement parts and technicians are available to accomplish the job. When disruption to the public might be major and the repair not critical, repairs may be postponed to a time period which is least disruptive.

10. *Inspection* of this area should be done daily by a member of staff.

11. *Floral plantings* - Normally extensive or unusual floral plantings are part of the design. These may include ground level beds, planters or hanging baskets. Often multiple plantings are scheduled, usually at least two blooming cycles per year. Some designs may call for a more frequent rotation of bloom. Maximum care of watering, fertilizing, disease

control, disbudding and weeding is necessary. Weeding flowers and shrubs is done a minimum of once per week. The desired standard is essentially weed free.

12. *Restrooms*—At least once per day servicing. Especially high traffic areas may require multiple servicings or a person assigned as an attendant.

13. *Special features*-- Features such as fountains, drinking fountains, sculpture, speaker systems, structural art, flag poles or parking and crowd control devices may be part of the integral design. Maintenance requirements can vary drastically but for this mode it should be of the highest possible order.

Mode I

State of the art maintenance applied to a high quality diverse landscape. Usually associated with high traffic urban areas such as public squares, malls, governmental grounds or high visitation parks.

1. *Turf care*--Grass height maintained according to species and variety of grass. Mowed at least once per week during the growing season. Aeration as required, not less than twice per year. Reseeding or sodding as needed. Weed control should be practiced so that no more than five percent of the surface has weeds present.

2. *Fertilizer* -- Adequate fertilization applied to plant species according to their optimum requirements. Application rates and times should ensure an even supply of nutrients for the entire year. Nitrogen, phosphorus and potassium percentages should follow local recommendations from your County Extension Service. Trees, shrubs and flowers should be fertilized according to their individual requirements of nutrients for optimum growth. Unusually long or short growing seasons may modify the requirement slightly.

3. *Irrigation* – Automatic irrigation commonly used. Frequency and duration depends on rainfall, temperature, season and demands of plant material.

4. *Litter control*--Minimum of once per day, 7 days per week. Extremely high visitation may increase the frequency. Receptacles should be plentiful enough to hold all trash generated between servicing without normally overflowing.

5. *Pruning*-- Frequency dictated primarily by species and variety of trees and shrubs. Length of growing season and design concept also a controlling factor as are clipped hedges versus natural style. Timing usually scheduled to coincide with low demand periods or to take advantage of special growing characteristics such as pruning after flowering.

6. *Disease and/insect Control* - Control program may use any of three philosophies: 1.) Preventative; a scheduled chemical or cultural program designed to prevent significant damage. 2.) Corrective; application of chemical or mechanical controls designed to eliminate observed problems. 3.) Integrated pest management; withholding any controls until such time as pests demonstrate damage to plant materials or become a demonstrated irritant in the case of flies, mosquitoes, gnats, etc. At this maintenance level the controlling objective is to not have the public notice any problems. It is anticipated at Mode I that problems will either be prevented or observed at a very early stage and corrected immediately.

7. *Lighting* - Maintenance should preserve the original design. Damaged systems should be repaired as quickly as they are discovered. Bulb replacement should be done during the first working day after the outage is reported.

8. *Surfaces*--Sweeping, cleaning and washing of surfaces needs to be done so that at no time does an accumulation of sand, dirt and leaves distract from the looks or safety of the area. Repainting or restaining of structures should occur when weather or wear deteriorate the appearance of the covering. Stains to surfaces should be taken off within five working days. Graffiti should be washed off or painted over the next working day after application.

9. *Repairs* - Repairs to all elements of the design should be done immediately upon discovery provided replacement parts and technicians are available to accomplish the job. When disruption to the public might be major and the repair not critical, repairs may be postponed to a time period which is least disruptive.

10. *Inspection* of this area should be done daily by a member of staff.

11. *Floral plantings* - Normally extensive or unusual floral plantings are part of the design. These may include ground level beds, planters or hanging baskets. Often multiple plantings are scheduled, usually at least two blooming cycles per year. Some designs may call for a more frequent rotation of bloom. Maximum care of watering, fertilizing, disease

control, disbudding and weeding is necessary. Weeding flowers and shrubs is done a minimum of once per week. The desired standard is essentially weed free.

12. *Restrooms*--Not always a part of the design but where required will normally receive no less than once per day servicing. Especially high traffic areas may require multiple servicing or a person assigned as attendant.

13. *Special features*-- Features such as fountains, drinking fountains, sculpture, speaker systems, structural art, flag poles or parking and crowd control devices may be part of the integral design. Maintenance requirements can vary drastically but for this mode it should be of the highest possible order.

Mode II

High level maintenance--associated with well developed park areas with reasonably high visitation.

1. *Turf care*--Grass cut once per ten (10) day period during the growing season. Aeration as required but not less than once per year. Reseeding or sodding when bare spots are present. Weed control practiced when weeds present visible problem. Some pre-emergent products may be utilized at this level.

2. *Fertilizer*--Adequate fertilizer level to ensure that all plant materials are healthy and growing vigorously. Amounts depend on species, length of growing season, soils and rainfall. Distribution should ensure an even supply of nutrients for the entire year. Nitrogen, phosphorus and potassium percentage should follow local recommendations from the County Extension Service. Trees, shrubs and flowers should receive fertilizer levels to ensure optimum growth.

3. *Irrigation*--Some type of irrigation system available. Frequency of use follows rainfall, temperature, seasonal length, and demands of plant material.

4. *Litter control*--Minimum of once per day, two days a week. Off-site movement of trash dependent on size of containers and use by the public. Containers are serviced.

5. *Pruning*-- Usually done at least once per season for training and/or clearance unless species planted dictate more frequent attention. Sculptured hedges or high growth species may dictate a more frequent requirement than most trees and shrubs in natural growth style plantings.

6. *Diseases and disease control*--Usually done when disease or insects are inflicting noticeable damage, reducing vigor of plant materials or could be considered a bother to the public. Some preventative measures may be utilized such as systemic chemical treatments. Cultural prevention of disease problems can reduce time spent in this category. Some minor problems may be tolerated at this level.

7. *Lighting* -- Replacement or repair of fixtures when observed or reported as not working.

8. *Surfaces* -- Should be cleaned, repaired, repainted or replaced when appearance has noticeably deteriorated.

9. *Repairs*--Should be done whenever safety, function, or bad appearance is in question.

10. *Inspection* - Inspection twice per week when regular staff is scheduled.

11. *Floral planting*--Some sort of floral plantings present. Normally no more complex than two rotations of bloom per year. Care cycle usually at least once per week except watering may be more frequent. Health and vigor dictate cycle of fertilization and disease control. Beds essentially kept weed free.

12. *Restrooms* - When present should be maintained at least twice per week as long as they are open to public use. High use may dictate more. Servicing period should ensure an adequate supply of paper and that restrooms are reasonably clean and free from bad odors.

13. *Special features*--Should be maintained for safety, function and high quality appearance as per established design.

Mode III

Moderate level maintenance associated with moderately developed parks with intermediate to low levels of usage.

1. *Turf care* -- Cut once every two weeks. Normally not aerated unless turf quality indicates a need or in anticipation of an application of fertilizer. Reseeding or resodding done only when major bare spots appear. Weed control practiced when weeds present a visible problem.
2. *Fertilizer* Applied only when turf vigor seems to be low. Low level application done on a once per year basis. Rate suggested is one-half the level recommended for species and variety.
3. *Irrigation*—Irrigation not typical. If present, frequency and duration depend on rainfall, temperature, season and demands of plant material.
4. *Litter control*-- Minimum service of two times per week. High use may dictate higher levels during warm season.
5. *Pruning* -- When required for health, clearance or reasonable appearance. With most tree and shrub species this is every one to three years.
6. *Disease and Insect Control*--Done only on epidemic or serious complaint basis. Control measures may be put into effect when the health or survival of the plant material is threatened or where there may be a public nuisance.
7. *Lighting* -- Replacement or repair of fixtures when report filed or when noticed by employees.
8. *Surfaces* -- Cleaned, repaired, repainted or replaced when appearance has noticeably deteriorated.
9. *Repairs*--Should be done whenever safety or function is in question.
10. *Inspections*--Once per week.
11. *Floral planting*--Only perennials or flowering trees or shrubs
12. *Rest rooms* -- When present, serviced a minimum of twice per week. High use may dictate higher levels during warm season.
13. *Special features* -- Maintained as needed for function and safety.

Mode IV

Low level of maintenance associated with undeveloped or remote parks with low level of usage.

1. *Turf care* - Low frequency mowing schedule based on species. Low growing grasses may not be mowed. High grasses may receive periodic mowing to aid public use or reduce fire danger. Weed control limited to legal requirements of noxious weeds.
2. *Fertilizer*--Not fertilized.
3. *Irrigation*--No irrigation.
4. *Litter control* -- Once per week or less. Complaint may increase level above one servicing.
5. *Pruning*-- No regular trimming. Safety or damage from weather may dictate actual work schedule.
6. *Disease and Insect Control*--None except where epidemic and epidemic condition threatens resource or public.
7. *Lighting*-- Replacement on complaint or employee discovery.
8. *Surfaces* -- Replaced or repaired when safety is a concern and when budget is available.
9. *Repairs* - Should be done when safety or function is in question.
10. *Inspections* -- Once per week.
11. *Floral plantings* -- None, may have wildflowers, perennials, flowering trees or shrubs in place.
12. *Restrooms*--When present, twice per week.

13. *Special features*-- Minimum maintenance to allow safe use.

Mode V

Low level of maintenance for natural areas associated with limited opportunities for recreational use.

1. *Turf care* -- Normally not mowed but grassed parking lots, approaches to buildings or road shoulders, may be cut to reduce fire danger. Weed control on noxious weeds.

2. *Fertilizer*--None.

3. *Irrigation*--None.

4. *Litter control* -- Based on visitation, may be more than once per day if crowds dictate that level.

5. *Pruning*--Only done for safety.

6. *Insect and Disease Control*--Done only to ensure safety or when problem seriously discourages public use.

7. *Lighting*-- Replaced on complaint or when noticed by employees.

8. *Surfaces*--Cleaned on complaint. Repaired or replaced when budget will permit.

9. *Repairs* -- Done when safety or function impaired. Should have same year service on poor appearance.

10. *Inspection* -- Once per day when staff is available.

11. *Floral planting* - None introduced except at special locations such as interpretive buildings, headquarters, etc. Once per week service on these designs. Flowering trees and shrubs, wildflowers, present but demand no regular maintenance.

12. *Restrooms*-- Frequency geared to visitor level. Twice per week is the common routine but for some locations and reasons frequency may be more often.

13. *Special features*--Repaired whenever safety or function is a concern. Appearance corrected in the current budget year.

Mode VI – Grow Zone

Minimum level of maintenance for areas identified as “Grow Zones”.

1. *Turf areas*—Mowed at least once per month one mower’s width along any trail, sidewalk or street. Mowed at least once per month two mower’s width along the fences and/or property lines of adjacent properties. The remaining area to be mowed no more than twice per year and done so only after wildflowers and native plants have gone to seed. Wildflower and native grass seed applied at an appropriate rate to get areas established. Weed control only if legal requirements demand it.

2. *Fertilizer*--Not fertilized.

3. *Irrigation*--No irrigation.

4. *Litter control*-- On demand or complaint basis.

5. *Pruning* -- No pruning unless safety is involved.

6. *Disease insect control* - No control except in epidemic or safety situations.

7. *Lighting* -- Replacement on complaint basis.

8. *Surfaces* -- Serviced when safety is consideration

9. *Repairs* -- Should be done when safety or function is in question.

10. *Inspection* - Once per week.

11. *Floral plantings*--None.

12. *Restrooms* - Service based on need.

13. *Special features* - Service based on lowest acceptable frequency for feature. Safety and function interruption a concern when either seem significant.

Mode VI

Minimum level of maintenance for undeveloped properties.

1. *Turf areas*--Not mowed. Weed control only if legal requirements demand it.

2. *Fertilizer*--Not fertilized.

3. *Irrigation*--No irrigation.

4. *Litter control*-- On demand or complaint basis.

5. *Pruning* -- No pruning unless safety is involved.

6. *Disease insect control* - No control except in epidemic or safety situations.

7. *Lighting* -- Replacement on complaint basis.

8. *Surfaces* -- Serviced when safety is consideration

9. *Repairs* -- Should be done when safety or function is in question.

10. *Inspection* - Once per week.

11. *Floral plantings*--None.

12. *Rest rooms* - Service based on need.

13. *Special features* - Service based on lowest acceptable frequency for feature. Safety and function interruption a concern when either seem significant.

COMMISSION FOR ACCREDITATION OF PARK AND RECREATION AGENCIES



THE NATIONAL ACCREDITATION STANDARDS

- Sixth Edition -
2019



COMMISSION FOR ACCREDITATION OF PARK AND RECREATION AGENCIES THE NATIONAL ACCREDITATION STANDARDS

Accreditation Process

Accreditation is based on an agency's compliance with the 154 standards for national accreditation. To achieve accreditation, an agency must comply with all 36 Fundamental Standards, which are indicated by the ★ icon in this publication, and 106 of the 118 Non-Fundamental Standards upon initial accreditation and 112 of the 118 Non-Fundamental Standards upon reaccreditation.

List of Fundamental Standards

- 1.1 Source of Authority
- 1.4 Mission
 - 1.4.1 Agency Goals and Objectives
- 1.5 Vision
 - 1.6.1 Administrative Policies and Procedures
- 1.7 Agency Relationships
- 2.2 Involvement in Local Planning
 - 2.4 Park and Recreation System Master Plan
 - 2.5 Strategic Plan
- 2.9 Community Involvement
- 3.1 Organizational Structure
 - 3.3 Internal Communication
 - 3.4 Public Information Policy and Procedure
 - 3.5.1 Management Information Systems
- 4.1 Personnel Policies and Procedures Manual
 - 4.1.1 Code of Ethics
 - 4.1.3 Equal Opportunity Employment and Workforce Diversity
 - 4.1.5 Background Investigation
- 4.2 Staff Qualifications
- 4.3 Job Analyses for Job Descriptions
- 5.1 Fiscal Policy
 - 5.1.1 Comprehensive Revenue Policy
- 5.2 Fiscal Management Procedures
 - 5.2.2 Purchasing Procedures
- 5.3 Accounting System
 - 5.3.4 Independent Audit
- 5.4 Annual or Biennial Budget
- 6.1 Recreation Programming Plan

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6.2 Program Objectives

6.3.1 Outreach to Diverse Underserved Populations

7.5 Maintenance and Operations Management Standards

8.1 Codes, Laws, and Ordinance

8.2 Authority to Enforce Laws by Law Enforcement Officers

8.5 General Security Plan

9.1.1 Risk Management Plan and Procedures

10.1 Systematic Evaluation Processes

CAPRA accreditation is a five-year cycle that includes three phases, development of the agency self-assessment report, the onsite visitation, and the Commission's review and decision. The onsite visitation follows the agency's development of its self-assessment report. If accreditation is granted by the Commission at its meeting following the onsite visit, the agency will develop a new self-assessment report and be revisited every five years. Within each of the four years between onsite visits, the agency will submit an annual report that addresses its continued compliance with the accreditation standards. The complementary publication, CAPRA Accreditation Handbook, sets forth in detail the accreditation process and procedures and can be found online at <http://www.nrpa.org/CAPRA>.

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7.5 – Maintenance and Operations Management Standards ★

Standard: The agency shall have established maintenance and operations standards that are reviewed periodically for management of all park and recreation areas and facilities, including specialty facilities such as marinas, ice rinks, golf courses, zoological facilities, equestrian facilities, aquatic or athletic facilities, nature centers, where applicable. Parks, facilities and other recreational elements should be identified according to the intended use of the area, ranging from heavily used and high developed areas to those that are lightly used and less developed via a park classification or maintenance classification system. Each of these areas should be assigned an appropriate set of maintenance standards including both recommended frequency and acceptable quality.

Suggested Evidence of Compliance: Provide the maintenance standards for all parks, facilities and specialty areas, including evidence of park maintenance classification according to the intended use of the area, ranging from heavily used and high developed areas to those that are lightly used and less developed. Provide the most recent review or update.

Informational reference in the *Management of Park and Recreation Agencies*, (2016), 4th Ed., Chapter 9 - Environmental Resource Management, pp. 242-251; Chapter 10 - Managing Maintenance Operations, pp. 264-271.

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7.5.2 – Preventative Maintenance Plan

Standard: There shall be a comprehensive preventative maintenance plan to provide periodic, scheduled inspections, assessment and repair, and replacement of infrastructure, systems and assets. This includes certifying, checking or testing for optimum operation based on applicable industry standards, local guidelines, city requirements and/or manufacturer's recommendation for maintenance and replacement of parks, with the intent to ensure that park assets are maintained for optimum use and safety and have the ability to reach or extend its full life cycle and expected return on investment.

Suggested Evidence of Compliance: Provide the preventative maintenance plan and examples of detailed preventative maintenance programs for identified parks, recreation areas and facilities with special attention given to playground equipment, aquatic facilities, pedestrian pathways, building infrastructure and other high impact assets, along with copies of completed, recent inspections and safety checks for a sampling of facilities/areas.

Informational reference in the *Management of Park and Recreation Agencies*, (2016), 4th Ed., Chapter 10 - Managing Maintenance Operations, pp. 272-273.

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7.6 – Fleet Management Plan

Standard: The agency shall have an established fleet management plan comprised of an inventory of all vehicles, rolling stock and other major equipment and inspection and replacement schedules.

Suggested Evidence of Compliance: Provide the fleet management plan.

Informational reference in the *Management of Park and Recreation Agencies*, (2016), 4th Ed., Chapter 10 - Managing Maintenance Operations, pp. 289.

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7.7 – Agency-Owned Equipment, Materials, Tools, and Supplies Policies and Procedures

Standard: There shall be policies and procedures for the management of and accountability for agency-owned equipment, materials, tools, and supplies, including procedures for purchase and distribution to authorized persons, proper training of appropriate personnel in use of equipment, safe and secure storage of equipment, and maintenance of all equipment in operational readiness and working order. Such property includes supplies, materials, tools, expendable items, vehicles, installed and mobile equipment, and personal wear items used by agency personnel.

Suggested Evidence of Compliance: Provide policy and procedures regarding agency-owned equipment and property.

Informational reference in the *Management of Park and Recreation Agencies*, (2016), 4th Ed., Chapter 10 - Managing Maintenance Operations, pp. 289.

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7.7.1 – Building Plans and Specifications

Standard: The agency shall have on file floor plans, specifications, and/or as-built drawings for major facilities constructed since 1965. These records contain information necessary for efficient programming, quality facility maintenance and effective capital project programming. Projects funded with funds from governmental grant programs such as LAWCON and UPARR place restrictions on use and disposition.

Suggested Evidence of Compliance: Provide evidence that plans and specifications for facilities with greater than 10,000 square feet of indoor space constructed since 1965 are on file.

Informational reference in the *Management of Park and Recreation Agencies*, (2016), 4th Ed., Chapter 8 - Physical Resource Planning, pp. 222-223.

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7.9 – Natural Resource Management Plans and Procedures

Standard: There shall be natural resource management plans for environmentally unique or sensitive areas such as valuable wetlands, riverbanks and woodlands and there shall be environmental protection procedures, such as for erosion control, conduct of nature studies, wildlife and habitat preservation, and protection of water supply reservoirs and water recharge areas. Even if the agency does not own or control the natural resource, there shall be procedures to encourage and ensure environmental stewardship through volunteer steward programs and/or interpretive education and other learning opportunities. The agency should work with other agencies to meet and promote environmentally sound maintenance and land management standards.

Suggested Evidence of Compliance: Provide the natural resource management plan(s) and procedures and examples of outreach and education.

Informational reference in the *Management of Park and Recreation Agencies*, (2016), 4th Ed., Chapter 8 - Physical Resource Planning, pp. 220-224.

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7.10 – Maintenance Personnel Assignment Procedures

Standard: The agency shall have procedures for the assignment of competent personnel with clearly defined duties for routine maintenance, repairs, and improvement of areas, facilities, and equipment, including responsibility for general cleanliness and overall attractiveness. Effective maintenance of grounds and facilities requires the selection, training, and supervision of workers in a wide variety of tasks ranging from seasonal laborers to skilled trades. Supervisory staff must be able to focus on maintenance management, such as workload control, as well as supervise the technical details of maintenance work.

Suggested Evidence of Compliance: Provide examples of methods used by the agency to assign staff.

Informational reference in the *Management of Park and Recreation Agencies*, (2016), 4th Ed., Chapter 10 - Managing Maintenance Operations, pp. 271-273.

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7.11 – Capital Asset Depreciation and Replacement Schedule

Standard: The agency shall have an established depreciation and replacement schedule for all park and recreation capital assets including buildings, facilities, and equipment that have predictable life cycles. Schedules should identify the useful life of each element and the associated costs of replacement. Capital asset depreciation and replacement schedules, including projected costs of replacement, should be reflected in the agency's financial plan.

Suggested Evidence of Compliance: Provide the capital asset depreciation and replacement schedule.

Informational reference in the *Management of Park and Recreation Agencies*, (2016), 4th Ed., Chapter 10 - Managing Maintenance Operations, pp. 290-291.