



MONTGOMERY COUNTY DEPARTMENT OF PARKS
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB Date: 11/01/2018
Agenda Item # 5

MEMORANDUM

DATE: October 25, 2018

TO: Montgomery County Planning Board

VIA: Michael F. Riley, Director of Parks *MR*
Mitra Pedoeem, Deputy Director of Administration *Mitra Pedoeem*
John Nissel, Deputy Director of Operations
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FROM: Hassan Symes, EAM and GIS Manager, Management Services Division *HS*

SUBJECT: Enterprise Asset Management (EAM) Positions for the FY20 Budget

Staff Recommendation

Staff recommends approval of three new key Enterprise Asset Management (EAM) positions for the FY20 Park Fund operating budget. Approval of these positions, as specified below, is necessary to ensure increased department efficiency, optimize use of resources and meet mission and goals as delineated in the EAM Strategic Plan (see Appendix A).

Background

At the July 19th Planning Board meeting, the Management Services Division (MSD) of the Montgomery Department of Parks presented the EAM Strategic Plan. The EAM Strategic plan provides a four-year roadmap for the Department to better utilize the system for data-driven decision-making and to more accurately measure our performance using analytics.

At the October 18th Planning Board meeting, MSD recommended a Data Analyst position as a Program Enhancement for the FY20 Budget. During the presentation, the Planning Board expressed support for the Data Analyst position and advised MSD to return with a request for the top three positions needed to fully achieve the objectives of the EAM Strategic Plan (Appendix A, Section 7.0 Proposed Organizational Chart). Below are the descriptions for the three positions.

Data Analyst for EAM – \$104,504 including 1 Full-Time Career Position (this position was included in the October 18th presentation)

Appendix A, Section 7.0 Proposed Organizational Chart (Business Analyst)

The Data Analyst position will play a key role in ensuring that the Department is utilizing statistically valid data in decision-making throughout the organization using EAM, GIS, and other relevant information sources. This position will be responsible for: providing department-wide data analysis for high level park plans and studies using a variety of analytic methods and statistical models; succinctly summarizing key trends and results from analysis for both in-house and public consumption; developing data tracking, collection and management procedures; working across the Department on high-level projects, including top Department priorities of Trails, Urban Parks and Athletic Fields; and recommending data-driven approaches to projects and problems.

Northern Parks Division Data Specialist - \$104,504 including 1 Full-Time Career Position

Appendix A, Section 7.0 Proposed Organizational Chart (NPD Data Specialist III)

The Data Specialist position for the Northern Parks Division will be a complement to the existing Data Specialist position in the Southern Parks Division. This position will help streamline everyday operations and routine maintenance processes for park assets such as stormwater management facilities, trails and playgrounds. This position will also ensure data accuracy that will benefit budget decisions, performance measures, and operational efficiencies. Finally, this position will develop and produce analytical reports and assist with implementation of EAM training initiatives for the Northern Parks Division.

GIS/Asset Specialist - \$94,006 including 1 Full-Time Career Position

Appendix A, Section 7.0 Proposed Organizational Chart (Combined Asset Specialist and GIS Specialist)

The GIS/Asset Specialist is essential to ensuring that park assets and associated information will be consistent and accurate across our EAM system, GIS system, and website. This position will enter and manage park asset locations in our EAM and GIS systems. This position will be responsible for creating a workflow with the other Divisions to ensure the information is being updated on a regular cycle. The information collected will help create life-cycle data for our assets and maintain accurate addresses for our parks and buildings.

**A Strategic Plan for the Montgomery Parks'
Enterprise Asset Management (EAM) System**

June 2018

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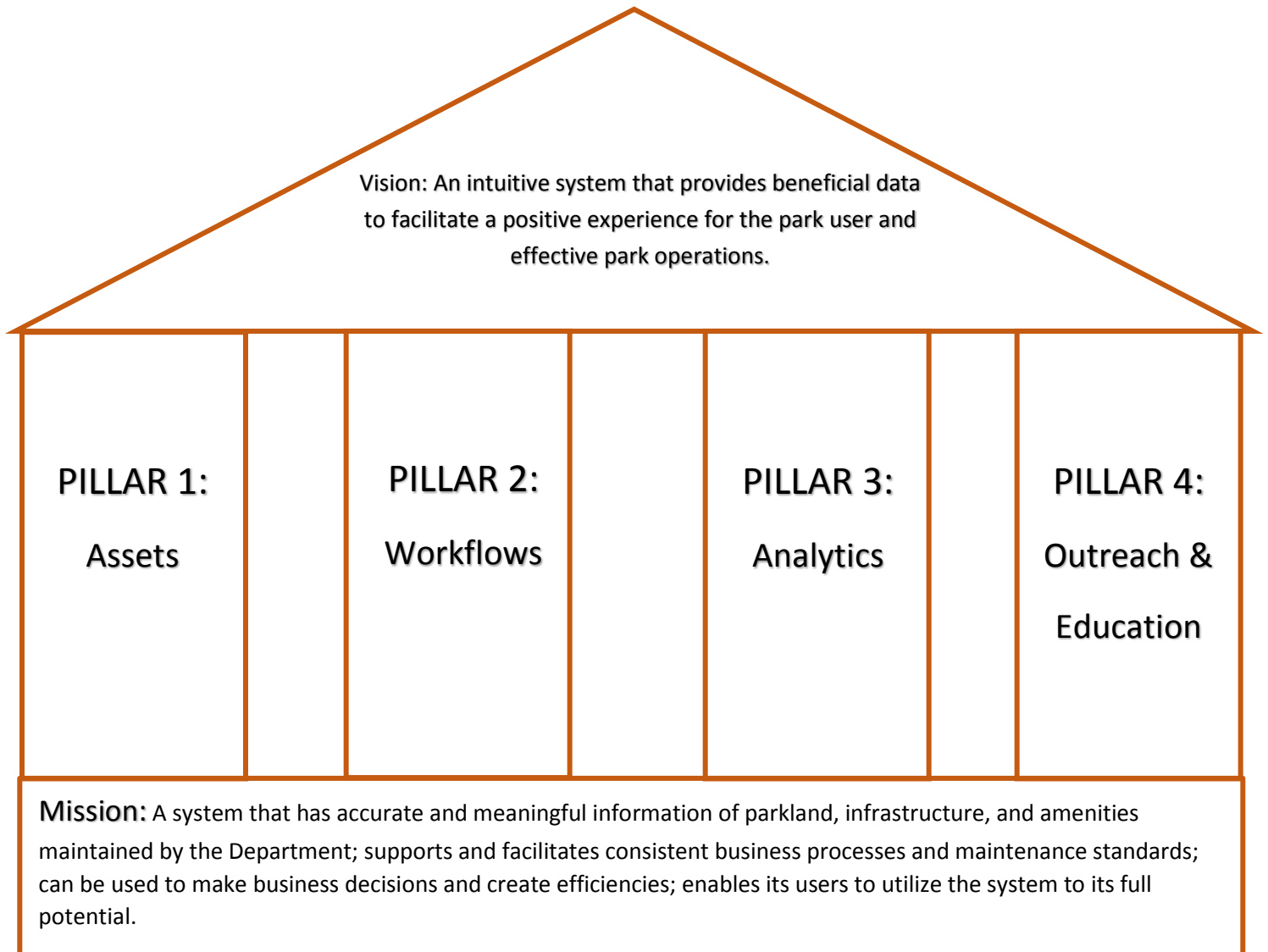
1.0 Introduction

In 2004, the Montgomery County Department of Parks saw the value in a system that could manage park assets and work orders for maintenance operations and purchased an Enterprise Asset Management (EAM) System developed by *Maximus* to accomplish this initiative. The system was dubbed SmartParks. SmartParks allowed operations staff to track work orders for routine and non-routine maintenance tasks, but there were system limitations with asset management and reporting. Around the time the system was approaching the end of its life cycle, the Prince George's County Department of Parks and Recreation became interested in deploying an EAM system. Consequently, a bi-county effort was initiated to procure a shared EAM system and in November 2014, INFOR EAM was launched in both Departments.

INFOR EAM is a comprehensive, web-based and mobile system that tracks the cost of maintenance, development, operations, and capital projects across all park properties. This information is used to create reports, graphs, and alerts to ensure we are meeting our performance standards and objectives. While a lot of work has been done since the launch of INFOR EAM, there is a lot of work left to do. The goal of the EAM Strategic Plan is to provide strategic direction and vision in creating a system that allows us to effectively manage our operations to provide the optimal experience for our park users. Below is a list of the major system enhancements that have been completed since the system's launch in 2014.

Project Name	Purpose	Impacted Divisions
ADA Barrier Tracking	Tracks removal of physical ADA barriers in our park system	North/South/Facilities Management/PDD
Pesticide Application Tracking	Tracks and reports pesticide applications per the County regulations	HFEE/North/South
CIP and Major Maintenance Project Request	All requests are now visible to improve coordination and reduce duplication	All Divisions
Natural Surface Trail Configuration	Segmented natural surface trails in the EAM system and in GIS to increase the efficiency of maintenance and provide users with accurate information	All Divisions
Migration of Legacy Data	Transfer of 200+ Preventative Maintenance Schedule Work Orders from old system to the new EAM system. Comprehensive categorization of assets to create robust reports.	All Divisions
Integration of GIS	GIS enabled assets can be easily located for inspection, maintenance, and spatial analysis	All Divisions
Court Inspection Checklist	All hard surface court inspections are now automated for improved scheduling, tracking, and budgeting for major renovations	PDD
Parking Lot and Road Inspections	All parking lot and road inspections are now automated for improved scheduling, tracking, and budgeting for major renovations	PDD/Facilities Management
Requests for Land Surveys	Tracks all the survey requests and stores completed land surveys	PDD
Accessible Golf Cart Request	Tracks usage of the accessible golf cart	Enterprise/North/ South
Tree Crew Safety Checklist	Tracks and reports tree crew is following the state safety regulation	HFEE
Lock and Key Management	Improves security and safety by having an automated inventory of the locks and keys for buildings and gates	Facilities Management
Field Staff Uniform Request	All uniform requests are now automated to keep a record of requests to help comply with the collective bargaining agreement	Facilities Management
Construction Inspection Report	Tracks observation of construction sites on a regular basis	PDD
Pope Farm Tree Inventory	Provides direct access to an updated list of high-quality, native trees for various projects	HFEE/North/South/PDD

2.0 Vision and Goals



3.0 Pillar 1: Assets

Goal: A system that has accurate and meaningful information of parkland, infrastructure, and amenities maintained by the Department.

1.1 Objective: Develop and implement a comprehensive inventory of park assets

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Field collection of assets in the park system with GIS coordinates	x				STAFFED	FUNDED
2	Create a spreadsheet of inventoried assets with GIS information	x				STAFFED	FUNDED
3	Upload assets to EAM and connect them to GIS	x	x			STAFFED	FUNDED
4	Review collection of assets with Operations' Divisions to verify collection	x	x			STAFFED	FUNDED
5	Setup workflows to ensure the assets collected are continually updated		x	x		STAFFED	FUNDED
6	Create GIS points for Storm Water Management (SWM) facilities and match them to SWM assets in EAM	x	x			STAFFED	FUNDED
7	Configure hard surface trails in the system and connect it with GIS	x	x			STAFFED	FUNDED
8	Upload utility meter assets to the system with GIS coordinates	x	x			STAFFED	PARTIALLY FUNDED
9	Connect GIS bridge layer with the system's bridge assets	x	x			STAFFED	FUNDED
10	Connect Upload Ballfield Collector application assets to the update the field assets in the system	x	x			STAFFED	FUNDED
11	Upload field staff uniform inventory into the system	x	x			STAFFED	FUNDED

KEY: "X" indicates In Progress/Completed.

1.2 Objective: Identify information that needs to be collected for each asset group

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Create groups of Subject-Matter Experts (SMEs) to identify important and relevant attribute information	x	x			STAFFED	FUNDED
2	Create criteria to help determine relevant attribute information	x	x			STAFFED	FUNDED
3	Identify owners of asset and attribute data			x	x	ASSET SPECIALIST	UNFUNDED
4	Create and upload addresses for all buildings in the system		x	x		ASSET SPECIALIST	UNFUNDED
5	Upload meter asset attributes to the system per the Energy Audit recommendation		x	x		ASSET SPECIALIST	UNFUNDED
6	Enter and manage attribute data into EAM for assets			x	x	ASSET SPECIALIST	UNFUNDED

KEY: "X" indicates In Progress/Completed.

1.3 Objective: Ensure park assets and attributes are continuously being updated by the data owners

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Create a workflow to update assets in EAM with CIP projects	x	x			STAFFED	FUNDED
2	Create a workflow to update Assets in EAM with non-CIP projects		x	x		STAFFED	FUNDED

KEY: "X" indicates In Progress/Completed.

4.0 Pillar 2: Workflows

Goal: Supports and facilitates consistent business process and maintenance standards

2.1 Objective: Identify business processes that will benefit from the system

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Develop criteria on when a business process should be incorporated into EAM and other systems	x	x			STAFFED	FUNDED
2	Create a list of business processes and identify the prioritization for integration	x	x			STAFFED	FUNDED

KEY: "X" indicates In Progress/Completed.

2.2 Objective: Identify and Implement business systems integrated and enhancements

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Reconcile data in the Park Information System (a legacy system with asset and acquisition information) with data in the EAM; retire PIS system	x				STAFFED	FUNDED
2	Purchase and implement the EAM Document Management Module to allow easier access to park asset documents (RFI, As-Builts, Maintenance Manuals)		x	x		STAFFED	PARTIALLY FUNDED
3	Connect Microsoft Dynamics (CRM system) to the system's work orders to streamline the workflow	x	x			STAFFED	PARTIALLY FUNDED
4	Connect all PDD Division Projects to the system		x	x		STAFFED	FUNDED
5	Integrate the approval process of the requested CIP/Major Maintenance projects			x	x	STAFFED	FUNDED
6	Connect amenity information from the system to the Montgomery Park's' website to ensure accurate information		x	x		STAFFED	PARTIALLY FUNDED
7	Park Rx application is feed from the system to showcase the amenities in our park systems to Park Rx users	x				STAFFED	FUNDED
8	Configure EAM Transit Mobile application to existing work orders for a better user experience	x				STAFFED	FUNDED
9	Integrate field staff uniform purchasing process into the system		x	x		STAFFED	PARTIALLY FUNDED
10	Integrate Davey TreeKeeper application (urban forestry management software) with the system to share work orders and asset information	x	x			STAFFED	PARTIALLY FUNDED
11	Integrate EnergyCAP (utility billing management software) with the system per the energy audit committee recommendation		x	x		STAFFED	PARTIALLY FUNDED
12	Create a Bridge Inspection checklist workflow for pedestrian bridges inspections	x	x			STAFFED	FUNDED

KEY: "X" indicates In Progress/Completed.

2.3 Objective: Develop a business plan for the identified business processes to be implement into the system

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Define an EAM project and establish concrete project milestones	x	x			STAFFED	FUNDED
2	Create a business plan template that includes the purpose, timeline, efficiencies, tools and stakeholders for each EAM project	x	x			STAFFED	FUNDED

KEY: "X" indicates In Progress/Completed.

2.4 Objective: Ensure Commission staff have the tools to get their work done in EAM

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	EAM staff will shadow maintenance staff to understand end-user experience and challenges	x	x			STAFFED	FUNDED
2	Create a decision-making document that will identify appropriate hardware and software needed for each end-user group		x			STAFFED	FUNDED

KEY: "X" indicates In Progress/Completed.

5.0 Pillar 3: Analytics

Goal: Used to make business decisions and create efficiencies.

3.1 Determine EAM data that can inform Department-wide performance measures

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Identify performance measures that utilize EAM data and review them on an annual basis for changes in performance measures	x				STAFFED	FUNDED
2	Create KPIs, dashboards, and reports for the performance measures in EAM	x				STAFFED	FUNDED
3	Review, consolidate, and standardize Preventative Maintenance schedules	x	x			STAFFED	FUNDED

KEY: "X" indicates In Progress/Completed.

3.2 Use system data to inform Department-wide plans (Functional Plans, Maintenance Plans, Strategic Plans, Park Master Plans, PROS)

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Review current plans and meet with stakeholders to see how EAM data could support their objectives		x	x	x	DATA ANALYST	UNFUNDED
2	Create a plan to ensure EAM is a resource when new plans are created		x	x	x	DATA ANALYST	UNFUNDED
3	Create KPIs, dashboards, and or reports that track progress of plan goals		x	x	x	DATA ANALYST	UNFUNDED

KEY: "X" indicates In Progress/Completed.

6.0 Pillar 4: Outreach and Education

Goal: Enables users to utilize the system to its full potential.

4.1 Objective: Identify EAM training needs for the Department

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Create a questionnaire to determine our EAM needs		x			STAFFED	FUNDED
2	Create a report that identifies the training/education deficiencies and identifies improvements for more effective training		x	x		TRAINER	UNFUNDED
3	Create a comprehensive training plan and provide reoccurring trainings based on process, level of expertise, and hardware		x	x		TRAINER	UNFUNDED

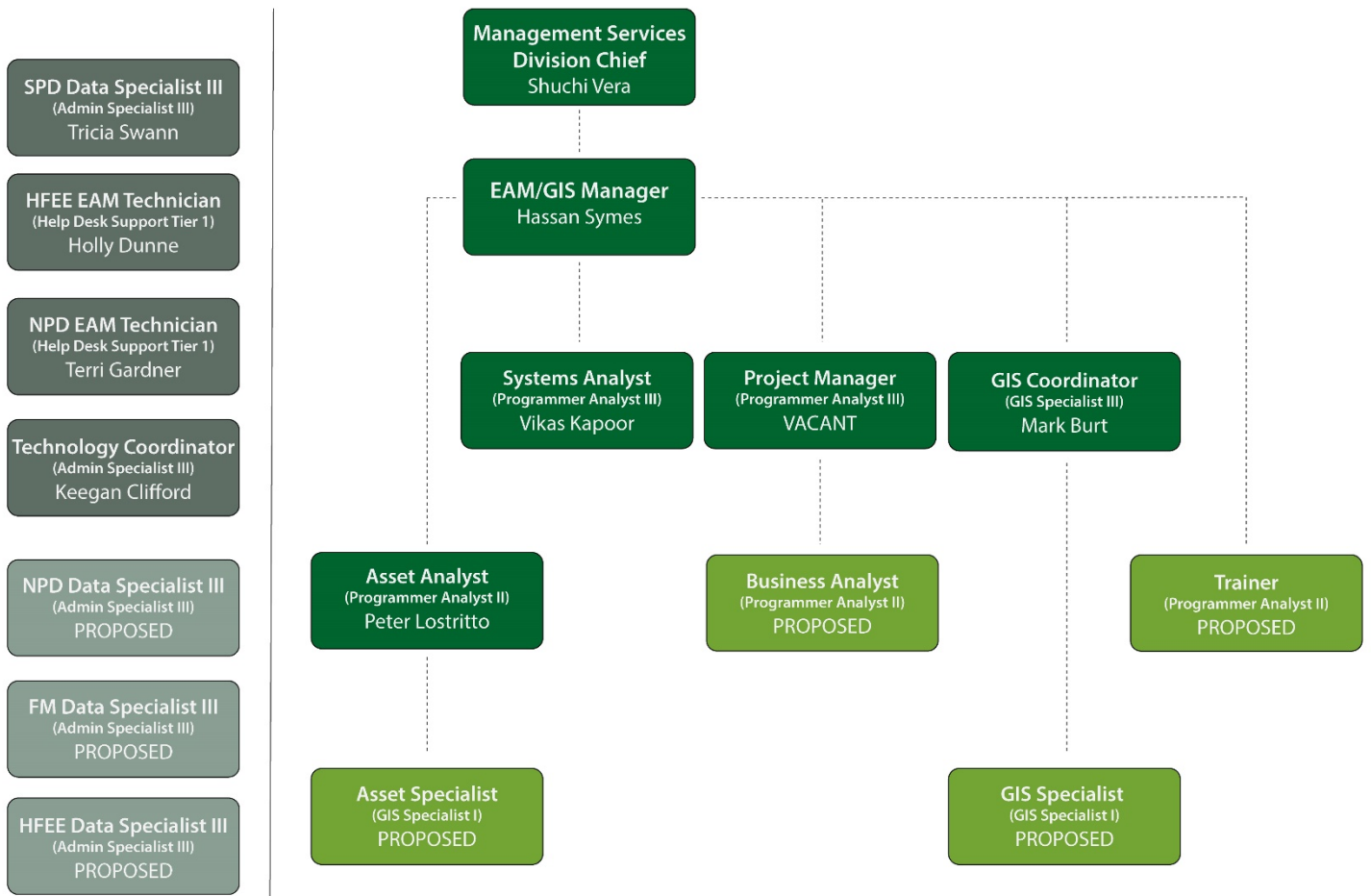
KEY: "X" indicates In Progress/Completed.

4.2 Objective: A comprehensive outreach program

ACTION#	DESCRIPTION	FY18	FY19	FY20	FY21	STAFF RESOURCES	FUND
1	Create an EAM Governance Model that can be updated on an as-needed basis	x				STAFFED	FUNDED
2	Create a communication plan to educate staff on EAM information		x			STAFFED	FUNDED
3	Create and implement a formal and reliable EAM helpdesk function		x	x		TRAINER	UNFUNDED
4	Create Annual Project list that includes schedule, milestones, and project scope	x	x			STAFFED	FUNDED

KEY: "X" indicates In Progress/Completed.

7.0 Proposed Organizational Chart



8.0 Glossary

Asset – The infrastructure and amenities within the parks system that requires maintenance.

Amenity – Any asset that provides comfort, convenience, or pleasure, and creates a reason for someone to visit a park. (e.g. Playground, Soccer Field, Trail)

Attribute – a piece of information about an asset. (e.g Year Built, ADA Compliant, Historic)

Infrastructure – Assets that are the underlying foundation or basic framework of our park system (e.g Road, Lights, Irrigation System)

KPI – Key Performance Indicator: a measurable value that demonstrates how effective a person or group is at achieving a specific goal in a graphical format.

Park Rx – database software for doctors to prescribe patients physical activities to the amenities within parks across the country.

SME – Subject Matter Expert: The person who is the authority in a discipline or field of work.

Davey Tree Keeper - Urban forestry management software that allows clients to efficiently manage their urban forest inventory.

EnergyCAP – A cloud-based utility management software that allows the client to maximize the value of the energy usage data.