



STRATEGIC ASSET MANAGEMENT PLAN



Public Works Department



strategic asset management plan

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PUBLIC WORKS DEPARTMENT

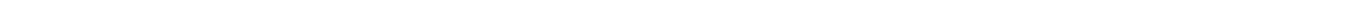


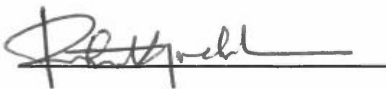
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OVERVIEW, POLICY PRINCIPLES & OBJECTIVES Reviewed and Approved:

May 2017

Recommended for approval:



Public Works Director

Approved:



Town Manager

strategic asset management plan

ACTION PLAN Reviewed and Approved: May 2017

Approved:

A handwritten signature in black ink, appearing to read "R. Smith", written over a horizontal line.

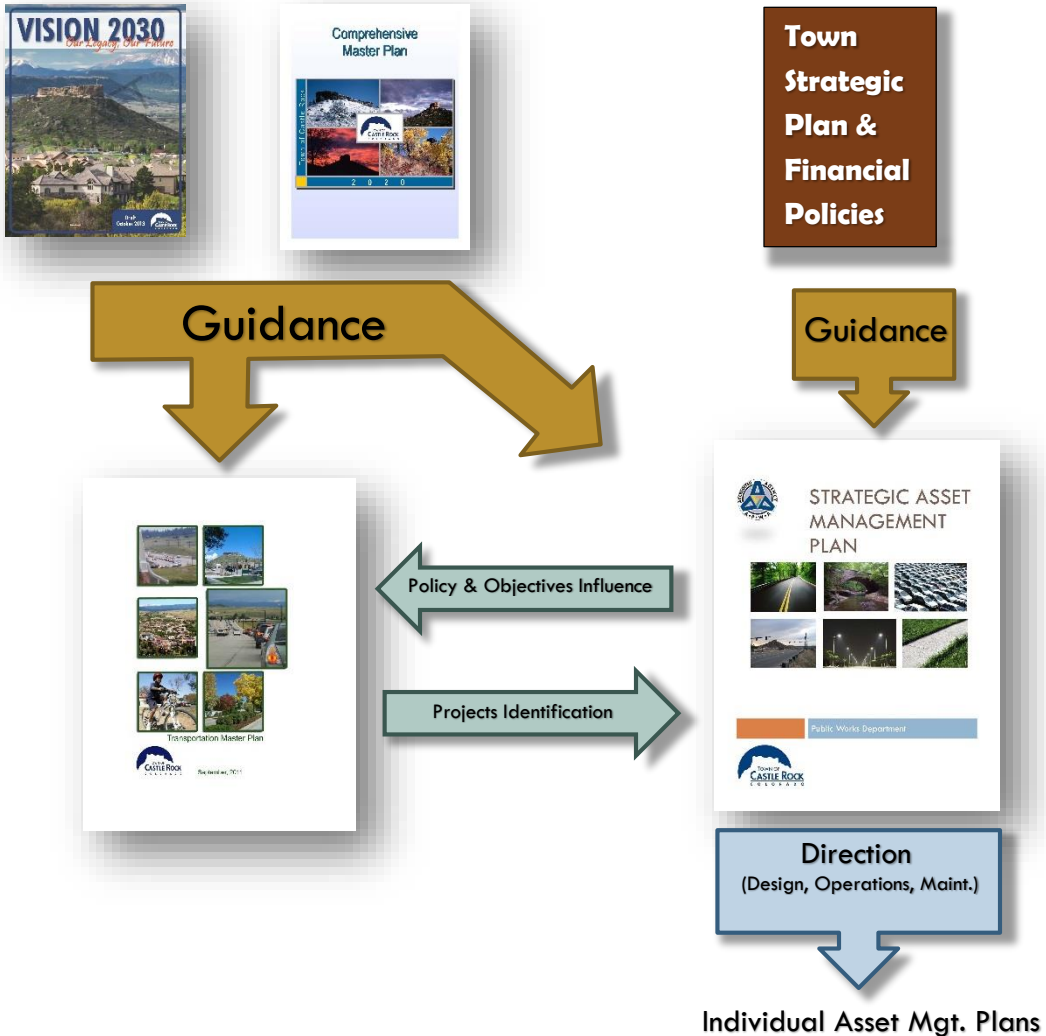
Public Works Director

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OVERVIEW

In the general sense assets are anything that provide value, or potential value. In this regard, assets can be tangible and intangible. For purposes of developing the Department’s formal asset management system, the assets referred to in this plan are the physical infrastructure, vehicles, and equipment that the Department is charged with managing. The Department’s asset management system is the formalized activities of the Department associated with managing these assets. This Strategic Asset Management Plan (SAMP) is one of the foundational components of this system.

Effective asset management begins in the early stages of asset development. In addition, asset management is shaped by other organizational influences, such as financial policies. The following shows the various relationships that primarily influence the development of this SAMP:



The Department's **vision** with developing this SAMP is to unify the formal activities of the Department associated with asset management. This maximizes the value received from these assets for our stakeholders within the constraints of the available resources allocated to the various funds the Department manages: Transportation Fund, Transportation Capital Fund, and the Fleet Fund.

Since the Department's asset management system is designed to maximize value from these assets for our stakeholders, it's important that we have a common understanding of what this value is that we're trying to maximize. Since value can be subjective in certain areas, and recognizing that opinions on value can vary, the Department is interested in focusing on value received by the majority of stakeholders. Through existing financial policies and historical discussions with various stakeholders including: Town Council meetings, biennial formal surveys, public open houses, project meetings, social media, and other forums, the following are the primary areas of value this SAMP will focus on striving to maximize:

Value applicable to all asset classes:

- ⊕ Lowest total lifecycle cost (total cost)
- ⊕ Reliability
- ⊕ Low downtime
- ⊕ High safety value
- ⊕ Low environmental impacts

Additional value applicable to Roadway Pavements asset class:

- ⊕ Minimize hazardous conditions (snow, ice, potholes)
- ⊕ Kept clean of debris

Additional value applicable to Traffic Signals asset class:

- ⊕ Minimize delays for vehicular traffic
- ⊕ Safe and efficient integration of bike and pedestrians

Additional value applicable to Traffic Control (pavement markings, signs) asset class:

- ⊕ High visibility
- ⊕ Safe and efficient integration of multi-modal traffic

Additional value applicable to road verge (pervious Right-of-Ways) asset class:

- ⊕ Kept clean of debris
- ⊕ Visually appealing (vegetation and weed control)
- ⊕ Maximized recovery zone safety

Additional value applicable to Fleet & Equipment asset class:

- ⊕ Right sized for routine uses (including snow removal)

The primary **goals** of this SAMP are to:

- ❖ Establish common policy principles and objectives that are relevant to all assets such that expectations related to the management of these assets are consistent, and understood between the Town Manager and Department staff.
- ❖ Establish a time based action plan outlining activities associated with implementation of the Department's asset management system. This plan will be dynamic and will be reviewed and updated on a regular basis.

DEPARTMENT POLICY PRINCIPLES & OBJECTIVES

In order to meet the goals of this SAMP, and maximize the value that our stakeholders achieve through the management of the Town's transportation assets, a unifying set of policy principles and objectives is essential. The following policy principles and objectives are meant to assist staff with developing individual asset management plans that share a common alignment.

General

- **Policy Principle:** A regular performance report shall be provided to the Town Manager providing an overview of the current state of physical assets.
 - **Objective:** A summary report will be provided to the Town Manager every two years that provides an aggregate rating for all assets, and individual ratings for asset classes. This overview will relate the SAMP's stated values to the current maintenance resources.
- **Policy Principle:** Management of physical assets shall be conducted in a sustainable manner.
 - **Objective#1:** Funding levels necessary to maintain established asset life cycles should be conducted annually as part of the budget process.
 - **Objective #2:** Environmental goals should be established for all physical asset classes.
- **Policy Principle:** Individual Asset Management Plans will be established for each physical asset class that provide comprehensive direction as to how each asset class is to be efficiently managed in alignment with this SAMP.

- **Objective #1:** Asset Management Plans (AMPs) will be created for each of the following asset classes:
 - Roadway pavements
 - Sidewalk, ADA Ramps, curb&gutter
 - Traffic Signals
 - Street Lights (Town owned)
 - Traffic Control (pavement markings, signs, beacons)
 - ROW (verge areas)
 - Fleet & Equipment
 - Structures (Bridges, guardrail, retaining walls)
- **Objective #2:** Individual AMPs will include quantitative Levels of Service (LOS).

Design Phase

- **Policy Principle:** The total life cycle cost of physical assets shall be understood and managed in a manner to minimize this cost.
 - **Objective #1:** During the design/specification phase of a project, or program service area, life cycle cost estimates will be completed on alternatives for all new, replacement, or reconstructed assets per the following schedule:
 - CIP, and PMP Contract/Project: Alternatives with a project value equal to or greater than: \$250,000
 - Service Contract Project: Alternatives with a project value equal to or greater than: \$50,000
 - Fleet Vehicle or Equipment: Alternatives with a unit value equal to or greater than: \$25,000
 - **Objective #2:** During the design/specification phase of a project/purchase, the lowest life cycle alternative shall be selected unless approval by the Department Director is given to utilize a higher life cycle cost alternative. Available budget for initial cost is one consideration in this regard. Financial and community impacts to operations & maintenance and replacement activities is another consideration. The project file should list reasons identified for utilizing a higher life cycle cost alternative.
- **Policy Principle:** Life spans of physical assets shall be established.
 - **Objective #1:** During the design/specification phase of a project/purchase, life cycle “curves” shall be provided for selected materials, equipment, and vehicles with maintenance intervals identified.
 - **Objective #2:** All life cycle curves shall be input, and updated, into the Department’s infrastructure maintenance software prior to project construction or equipment/vehicle delivery (e.g. FASTER, CarteGraph).

Construction Phase

- **Policy Principle:** Disruptions to transportation stakeholder's typical use of transportation assets should be limited during construction/reconstruction activities.
 - **Objective #1:** Total construction/reconstruction timeframes affecting existing assets should be limited to the shortest duration options.
 - **Objective #2:** Construction/reconstruction activities should occur during non-peak usage periods when practical and not in conflict with objective #1.

Inventory

- **Policy Principle:** All physical assets shall be inventoried.
 - **Objective #1:** Attribute and location data will be established in the Department's infrastructure maintenance software within a six month timeframe from construction acceptance, installation, or vehicle/equipment receipt.
 - **Objective #2:** Attribute data must include regulatory requirements as a minimum (GASB 34).

Condition Rating

- **Policy Principle:** All assets shall have their physical condition assessed at appropriate intervals.
 - **Objective:** An evaluation cycle and rating system for each asset class shall be established such that remaining lifespan can be determined.

Operations & Maintenance

- **Policy Principle:** Safety/hazard assessments should be regularly conducted.
 - **Objective:** Established safety inspection schedules shall be identified for physical assets, and correctional factors based on a diagnostic review to effectively allocate resources toward.
- **Policy Principle:** Assets should be kept in good physical appearance.
 - **Objective:** Cleaning/sweeping/mowing and other protocols shall be established for all assets.

Reconstruction/Replacement

- **Policy Principle:** Replacement of assets should be based on a life cycle analysis with primary decisions for replacement based on total lifecycle cost, remaining useful life, and operational/safety, or regulatory requirements.
 - **Objective #1:** As part of life cycle assessments, remaining useful life attribute data will be provided for all asset classes, and maintained in the Department's infrastructure maintenance software (CarteGraph, FASTER).
 - **Objective #2:** Reconstruction/replacement schedules should be established such that assets are replaced on or before end of useful life timespans.
 - **Objective #3:** Any replacement/reconstruction decision that is based on anything besides lowest total lifecycle cost must have approval of corresponding asset owner Department Director, or their designee.

ACTION PLAN

The following tables outline the time based targets for implementation of this SAMP.

INVENTORY: Complete remaining inventory of assets for all identified asset classes.		
Lead Division(s): Streets, Engineering, Fleet, Traffic & Transportation Planning		
Support Division: Administration (GIS)		
Activities	Target Date	Completed? (Y or N)
<ul style="list-style-type: none"> All aspects of asset classes inventoried Any existing asset attributes that are not necessary for analysis or regulatory reporting are eliminated from asset management software 	<ul style="list-style-type: none"> Dec 1, 2019 Dec 1, 2019 	
REMAINING LIFESPAN: Establish remaining lifespan attributes for all assets.		
Lead Division(s): Streets, Engineering, Fleet, Traffic & Transportation Planning		
Support Division: Administration (GIS)		
Activities	Target Date	Completed? (Y or N)
<ul style="list-style-type: none"> Create “remaining lifespan” attribute within Department’s asset management software and populate field for each asset 	<ul style="list-style-type: none"> Mar 1, 2020 	
G.A.S.B. 34: Confirm asset attributes conform to G.A.S.B 34 reporting requirements.		
Lead Division(s): Administration (GIS)		
Support Division(s): Finance Department (Accounting)		
Activities	Target Date	Completed? (Y or N)
<ul style="list-style-type: none"> Obtain required reporting attribute information from Finance Department Create any needed attributes within Department’s asset management software and populate fields for each asset 	<ul style="list-style-type: none"> Jul 1, 2017 Mar 1, 2019 	<ul style="list-style-type: none"> Yes N/A

COMPLETE

A.M.P. DEVELOPMENT: Document Asset Management Plans for each asset class.		
Lead Division(s): Streets, Engineering, Fleet, Traffic & Transportation Planning		
Support Division: Administration (GIS, Assistant Director)		
Activities	Target Date	Completed? (Y or N)
<ul style="list-style-type: none"> • Develop quantified service levels (LOS) for each asset class that relates to identified stakeholder values being maximized • Establish evaluation cycle and rating system for each asset class • Establish safety inspection schedules for each relevant asset class • Identify reconstruction/replacement schedule for each asset and populate attributes within Department’s asset management software • Establish life cycle curve for each asset class with identified maintenance intervals • Establish life cycle costs (total cost) for each asset and populate attribute within Department’s asset management software • Complete documented AMP for each asset class 	<ul style="list-style-type: none"> • Mar 1, 2018 • Mar 1, 2019 • Mar 1, 2019 • Mar 1, 2020 • Mar 1, 2019 • Mar 1, 2020 • Oct 1, 2021 	
TOWN MANAGER REPORT: Develop cyclical asset summary report.		
Lead Division(s): Administration (Director)		
Support Division(s): All Department divisions		
Activities	Target Date	Completed? (Y or N)
<ul style="list-style-type: none"> • Complete draft structure for Town Manager review • Complete full report for Town Manager review 	<ul style="list-style-type: none"> • Sep 1, 2017 • Jul 1, 2018 	<ul style="list-style-type: none"> • Yes

DEFINITIONS

Asset: Anything that provides value, or potential value (*the assets referred to in this plan are the physical infrastructure, vehicles, and equipment that the Department is charged with managing*).

Asset Management: Activities associated with maximizing the value of an asset. In the case of the Town's asset management associated with physical infrastructure, these are the activities (formal and informal) associated with maximizing the value from physical infrastructure for the Town's stakeholders.

Asset Management Objectives: This is the refinement of Asset Management Policy that applies to all assets, and clearly provides specific direction.

Asset Management Plan: Specific physical infrastructure (or infrastructure class) set of instructions that further refines the implementation of Asset Management Objectives.

Asset Management Policy: This is the high level direction of the Town that applies to how all assets (physical infrastructure in this case) should be managed.

Asset Management System: The formalized activities (policies, processes, procedures, etc.) associated with maximizing the value of an asset. The difference between this, and Asset Management, is the subtle recognition that there are some activities that cannot be formalized that have an impact on the value obtained from assets.

Strategic Asset Management Plan: A broad plan with a specific time horizon associated with implementing Asset Management Policy and Objectives.