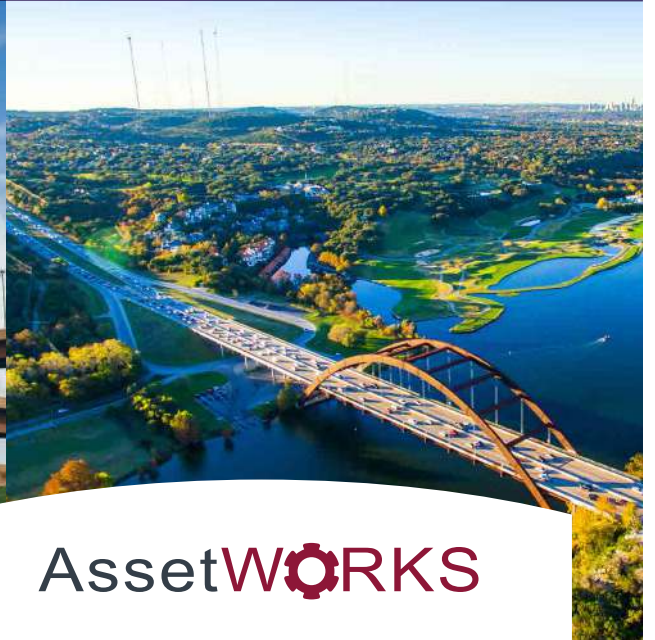


Asset Management For Dummies

A Step-by-Step Guide to Asset Management



AssetWORKS

Do you have assets that need to be managed, but you have no clue where to start?

You've come to the right place. At AssetWorks, we have over 15 years of experience in enterprise asset management, and we want to help you construct your asset management plan.

Bridges, roads, parks and even sewage and garbage management are things we all take for granted but will notice immediately if they aren't working to the levels we've come to expect. These infrastructure assets affect our quality of life regardless of whether those assets are managed at the municipal, county, state or federal levels.

Keep in mind: There is no one-size-fits-all approach for organizations determining how to best manage their assets. Asset management maturity level, funding, resources and user demands on infrastructure vary from organization to organization.

In this guide, you'll find a broad overview of asset management for local, state and federal organizations. You'll learn the basics, like what asset management is and why we need it, best practices for building your own asset management plan and a list of resources to help you continue learning.

What is asset management, anyway?

Asset management can be defined in multiple ways, but at its core it is a business plan for the services that city, county, state and federal organizations provide to their communities.

In other words, we need to know what we've got, how much it costs to run it (and at what standard of service), and how to we repair and maintain it in a cost-effective manner for future generations. Asset management provides the methodologies and tools to answer those questions and much more.



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Why we need asset management

Picture your community. What do you see? Maybe you see kids playing tag in a park, or cars zipping down your town's main street, or even a dad teaching his children how to fish off of a local bridge.

Now look closer.

Infrastructure assets, like roads, bridges, parks and water and sewer systems, are everywhere in your community; however, due to tight budgets, recessions and other priorities, asset management professionals like you face significant challenges due to aging infrastructure and lacking funds.

In the United States, legislation like the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation Act (FAST Act) provide funding for infrastructure for the next few years.

With the national spotlight on infrastructure and asset management, it's more important than ever for asset management professionals to construct asset management plans for their organizations.

Constructing your asset management plan

Before you begin your journey into the world of asset management, you need a game plan. Asset management planning provides your organization with best practices for the operation and maintenance of your assets so money can be used wisely well into the future.

A solid asset management plan sets out what you've got, what goals you want achieved, what your future options are and answers the scary, but vital question: how much is this going to cost?

A word to the wise: Don't get too tangled up in the small details of your asset management plan. Getting too technical and detailed in your plan can derail your objectives. Instead, focus on a high level analysis that answers the following questions:

- Where are you now?
- What are your options for the future?
- What do you ultimately want your plan to achieve?



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The Internal Infrastructure Management Manual's Seven Key Components of Asset Management:

In the following sections, you'll learn the step-by-step guide to constructing an asset management plan. Remember that every organization is unique, so no asset management plan looks exactly the same across organizations. Keep your own organization and structure in mind before constructing your plan.

Step 1: Completing an Asset Inventory

On your mark, get set, go!

Think of your asset inventory as your starting line.

Before you do anything, you need to know: what assets you have, where they are, what their value is, when they were built and how long their predicted lifespan is. Once you complete the inventory, it will be the foundation for your entire asset management plan.

This asset inventory can be kept in a document as simple as a Microsoft Excel spreadsheet or within an asset management software system.

TIP: Consider breaking down your asset inventory into segments and components for easier management in the future. These segments should group portions of an asset that would be replaced at the same time, like block-by-block for roads or manhole-to-manhole for a sewer.

For example, a road might be separated into one block segments. Within that segment, there could be different components like road surface, curb, gutter and sidewalk. **Because a road surface and a sidewalk have different lifespans, it's helpful to consider them as separate components when planning renewal and repair operations for the future.**

1. Life Cycle Approach
2. Cost-Effective Management Strategies
3. Defined Level of Service
4. Demand Management
5. Risk Management
6. Sustainable Use of Physical; Resources
7. Continuous Support

Step 2: Understanding Capital Costs vs. Life Cycle Costs

In simplest terms, the capital cost of an asset is how much it cost to build or purchase said asset. The life cycle costs refer to how much the asset costs over its entire lifespan (from initial costs to maintenance and operating costs to final disposal costs).

Now, let's dive a little deeper.

As previously stated, the capital cost of an asset is how much it cost to purchase or build it. In the past, the capital cost of an item may have been the only cost reflected in your budget; however, this initial cost only makes up around 20% of its full life cycle costs. The remaining 80% comprised of maintenance, operating and disposal costs.

[Chart]

Using a life cycle cost approach in your asset management plan lets you see the whole picture of an asset—not just the initial capital cost. This will give you a significantly different (and much more accurate!) budget than just considering the capital costs.

For example, think of the long-term costs of a bridge that allows commuters to cross from one side of a river to the other.

You need to consider things like:

- How often is the bridge going to need to be inspected for safety?
- How often will it need preventive maintenance and at what intervals?
- Will it need to be expanded in the future due to increased traffic from projected population growth?

TIP: When calculating life cycle costs, make sure to think about the following possible costs for each asset:

- Planning and design costs
- Capital costs
- Operating and maintenance costs
- Rehabilitation and renewal costs
- Disposal costs
- Financial management costs
- Condition and performance modeling costs
- Audit costs
- Review costs

Step 3: Setting Levels of Service

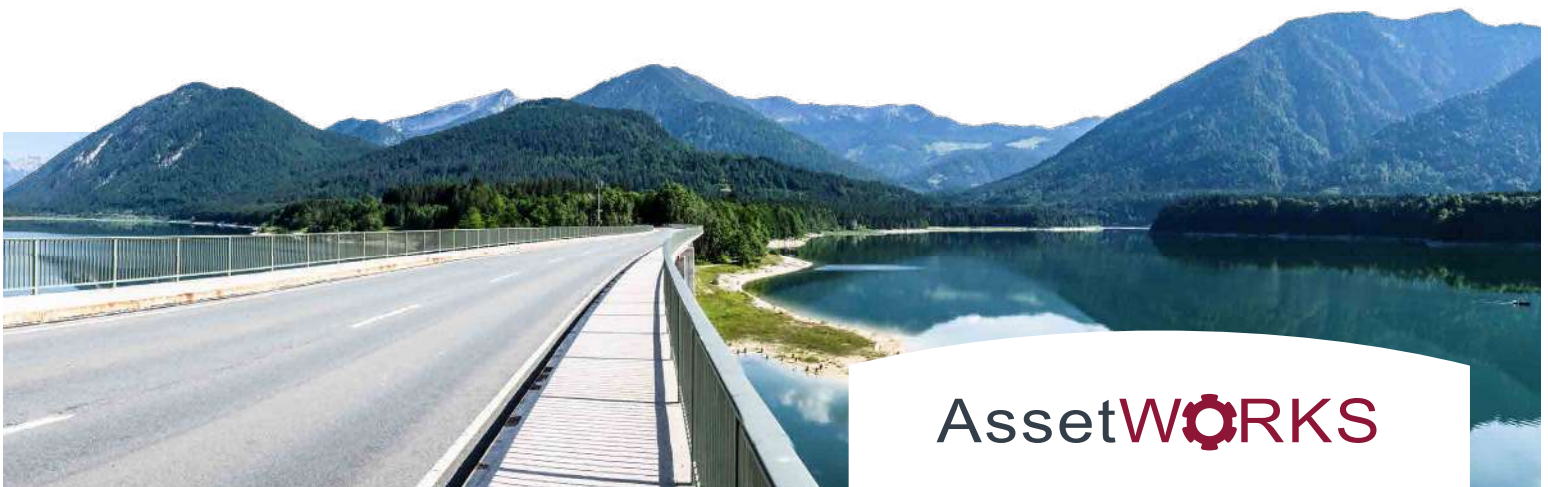
Think of the assets you manage now. Are they helping or hindering your users or community?

Do commuters complain about consistently heavy traffic across a bridge during rush hour, or are they content with the traffic flow? How long does a pothole typically take to get fixed, and is your community happy with that speed?

Your assets work at different levels of service, and it's important for user or community satisfaction (and safety!) to ensure that your assets are operating at optimal levels of service. But the best level of service might not fit in your budget. So how do you find a happy medium that's effective, safe and budget-friendly?

Determining a level of service for an asset is always a balancing act between the benefits that a higher level of services would provide and what that higher level of service costs vs. what an acceptable lower level of service would cost. In simpler terms, what are you prepared to pay for the service?

You can use levels of service to outline the overall quality, function, capacity and safety of the service being provided. The technical requirements of maintaining that service will really dictate the operating, maintenance and renewal activities moving forward.



TIP: In order to assess levels of service, consider:

- The level of service you're currently providing
- The annual cost of that service
- If the current level of service is expected to change
- If there is funding available to support changes in expected level of service
- If the current level of service is meeting the expectations of your users or community

Important to note: Risk management and levels of service

The safety of your users and community must always be in the forefront of your mind when thinking about levels of service.

The level of service for one asset should be completely different from another asset, especially after considering risk management.

Imagine that there is an older, gravel road in your community. The only people who really drive down this road either live there or are a little lost. You could determine that this road receives a lower level of service, so you can save some money until an issue, like an occasional pothole, develops. This risk might be deemed more acceptable.

Conversely, imagine that there is a bridge in your community that thousands of drivers cross every day. This asset should receive a higher level of service because a lower level of service could result in catastrophe, like a bridge collapse. In this situation, a higher level of service is likely the more cost effective alternative when compared against the enormous costs, both in terms of money and human life, generated when bridge infrastructure fails.

Keeping risk management in mind when determining levels of service for different assets in your community can help provide clear priorities when an organization is trying to decide its budget and future spending.

Step 4: Applying cost-effective management strategies

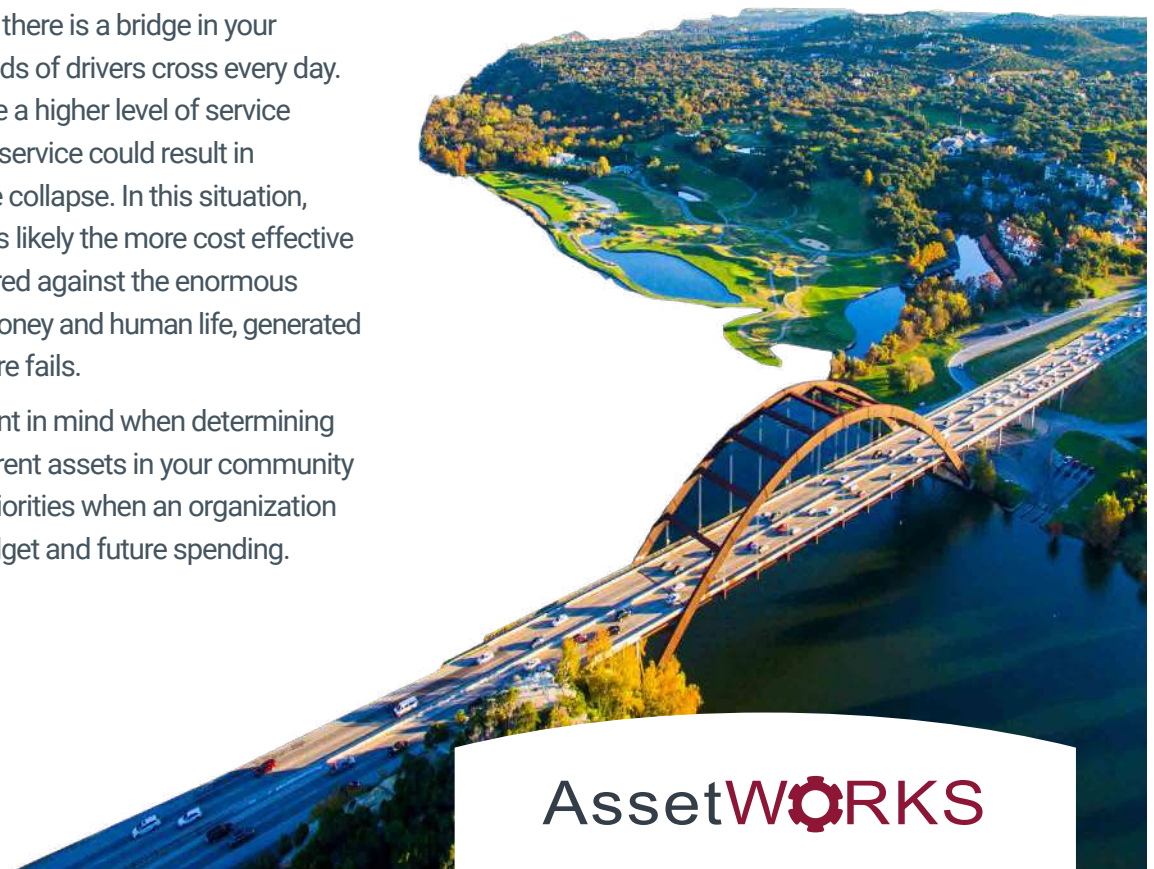
There are two main strategies when dealing with maintenance, renewal and replacement efforts: Reactive and Proactive.

A reactive strategy means waiting until something is broken to fix it. This is a common approach to asset management particularly when budgets and tight funding is difficult to get; however, taking this approach may actually leads to more costs when all is said and done.

A proactive strategy focuses on the asset's entire life cycle, so you can fix the right asset at the right time, instead of waiting around for it to fail or break.

For example, it costs twice as much to fix a 30-year old road that requires a full overlay than it costs to apply two surface treatments to the same road at the right intervals over its lifetime.

Both approaches result in the same end—an older road that is still safe and useable—but the proactive approach represents a much better use of funds.



Step 5: Executing Long-Term Financial Planning

As you continue building out your asset management plan, it will naturally translate into long-term financial planning. Long-term financial planning helps identify:

- What your priorities are
- What you can or cannot afford
- Any challenges or obstacles that you need to surmount in order to realize your desired levels of service

Since your plan already includes the full cost of your assets over their lifetimes, taking this approach to financial planning can, to some extent, remove the annual budgeting process and replace it with a long-term management plan. This gives organizations a tool to ensure that their goals can be met and that they themselves can remain viable and sustainable for the long-term good of the community.

But what about tight budgets? Since your budgetary constraints won't go away anytime soon, a long-term financial plan will help to determine which of your objectives are feasible, which are the most important and if you're able to maintain your priority assets over the long term.

Moving forward with asset management

Once you have a complete asset management plan, it will become your primary decision-making tool. One day, you'll look back on your old way of doing things and wonder how you ever survived without an asset management plan.

Asset management can be a daunting (but necessary) process to undertake. Asset managers face pressure from legislation like MAP-21 and the FAST Act, a lack of funding and resources and, perhaps most importantly, risks generated by old and failing infrastructure every day. The best way to tackle and resolve these challenges is to apply these asset management principles.

Enterprise Asset Management (EAM) Solution

As organizations like yours begin moving towards an asset management approach, they need tools to help them store, measure, manage and interpret assets and their data. AssetWorks EAM solution is a powerful Asset Management system that will help you achieve the objectives determined in your asset management plan.

AssetWorks EAM handles day-to-day tasks like work order management and real-time labor tracking for preventive maintenance of assets. The system can also manage inspection recording and future planning—such as complete lifecycle analysis and capital budgeting. Assets can be viewed on a real-time map and information is processed and analyzed using a combination of dashboards and powerful reports. AssetWorks EAM offers robust functionality to help agencies perform Asset Management work in the most efficient and cost-effective way possible.

For more information on how AssetWorks EAM Solution can help you improve asset management, [click here](#).

AssetWORKS

For over 35 years, AssetWorks has provided software solutions that manage complex assets and infrastructure. Its mission is simple: to provide innovative and practical solutions to help organizations and the people they serve.

AssetWorks Enterprise Asset Management (EAM) software solution handles the day-to-day tasks of modern asset intensive organizations, like work order management and real-time labor tracking for preventive maintenance. EAM can also manage inspection recording and future planning, like complete life-cycle cost analyses and capital budgeting.

The EAM software solution offers robust functionality to help agencies perform asset management work in the most efficient and cost-effective manner possible.

[To learn more about AssetWorks EAM, click here.](#)

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