

# Eliminating Deferred Maintenance



## Utilizing Public-Private Partnerships (P3) to Maintain America's Infrastructure

Billions of dollars are wasted annually because maintenance on America's infrastructure is delayed, resulting in more expensive repairs and the premature need for asset replacement. This waste can be avoided by entering in to Public-Private Partnerships with the private sector that include maintenance as part of those risk-shifting agreements.

### Objectives of this communication:

1. *Explain the severity of the problems that arise from deferred maintenance.*
2. *Provide an overview for how a P3 structure addresses deferred maintenance issues.*
3. *Inform those unfamiliar with the effect of O&M in P3s that incorporating such provisions in the agreement avoids problems with deferred maintenance.*

### What is deferred maintenance?

Public agencies tend to delay or not perform preventive and predictive maintenance. Lack of preventive maintenance of assets of any type leads to deterioration that only accelerates as the maintenance is put off.

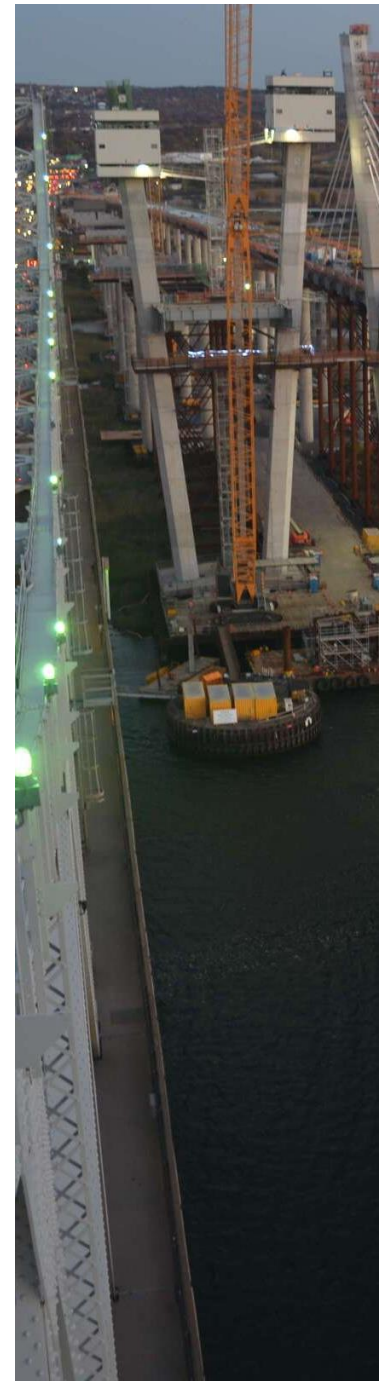
### Why does deferred maintenance occur?

Public agencies focus on the initial construction of infrastructure projects. Ongoing maintenance is considered later, typically by a separate group, and subject to unidentified or inadequate funding. This practice leads to pushing necessary work into future periods, only to be delayed time after time until the asset falls into disrepair; a life shortened asset, necessitating replacement before its intended service life, and negative impact on public service.

### What is the remedy?

The purpose of a P3 is for a private company to perform maintenance activities to sustain assets for their full service life. During the procurement of the project, the public owner and private partner will determine the appropriate service levels and performance standards for the full duration of the operation and maintenance period to ensure that all interests are aligned from the beginning of a project, including building ongoing maintenance and operation by the private partner into the initial asset design.

This will be finalized before signing the contract to ensure there are no surprises.



## P3 Effectiveness in Maintenance

The P3 model avoids deferred maintenance by addressing key differences in traditional infrastructure management methodologies.

### 1. *Annual vs. lifecycle budgets*

- Public agencies generally budget on an annual cycle. This can be problematic in maintenance when a single, well done long term repair or replacement could put the entire *annual* budget in jeopardy; to meet the annual budget, the maintenance work is deferred resulting in multiple short term repairs but ultimately higher overall costs.
- A private company utilizes longer-term budgets and can justify costs for more expensive repairs that offset reduced costs in later years.
- A private company can “roll over” cost savings into later years. Snow removal is a good example. Savings in a “light” year will be sequestered and used in later years during an inevitable “heavy” year.
- Government budgeting generally means that savings is “lost” in that year and the money is used for other priorities that may not be related to the subject asset. Likewise, if the “heavy” year causes the budget to be expended, other repairs will likely be deferred resulting in an asset in poor condition and likely higher repair cost later as the asset continues to deteriorate.

### 2. *Resource leveling*

- Aside from a basic level of manpower and equipment for day-to-day tasks such as litter removal and incident management, many specialist tasks will be outsourced.
- Typically, government agencies will procure equipment and sometimes manpower that only has limited usage, for example tractors for mowing or bucket trucks for lighting repairs and their associated crews. The equipment is expensive but may only be used a few times per year. An outsourced contractor will perform the work on the project, then move on to other unrelated projects. So the asset only pays for what is used at the time and avoids expensive capital expenditures for equipment that sits idle.

### 3. *Rapid procurement*

- A private company can secure materials and vendors much more rapidly than the public sector. This applies for planned work, but is especially valuable when unplanned events arise, which they always do.

### 4. *Availability Payments*

- The Agreement may be written so the O&M provider is only paid when the asset is available for use. This ensures that there is an alignment of interest for the provider to make timely repairs and minimize inconvenience to the public by scheduling the work at off-peak times.

## 5. *Hand-back requirements*

- To avoid having to rebuild or replace an asset prematurely (or at all), preventive maintenance is performed at optimum intervals to ensure the structure or facility meets or exceeds its expected service life. The cost to clean, paint or repair assets periodically is far less than replacement cost if the asset doesn't last as long as planned.

## 6. *Materials Savings*

- An much the same way as outsourcing to specialty vendors, the project can save budget by not stockpiling materials and inventory for future use. The vendor will use their inventory on multiple projects and will absorb the inventory carrying cost and storage needs.

## 7. *Financing ensures budget availability*

- Developers will seek 3<sup>rd</sup> party capital for a specific project financing, so there will be up front diligence on the entire lifecycle plan to ensure that it is sufficient.
- In addition, private financiers typically having a multi-year look forward and requiring a reserve account for upcoming expenditures. Specifically, a 3-year look forward reserve account will typically require 100% of the expenditures in the upcoming year, 66% of the expenditures in the following year, and 33% of the expenditures in the third year. This is monitored on an ongoing basis by an independent technical advisor to ensure there is sufficient capital.

## Conclusion

Deferred maintenance results in shorter service life of assets, increased cost to repair and replace over the entire lifecycle, and likely substandard service to the public. By allowing a private company to construct, service and maintain the asset, the P3 model allows for government agencies to save money through private company efficiencies, risk and responsibility allocation, and a firm budget. The payment incentive for private companies to maintain assets up to the government agencies standards ensures they will be inspected, maintained, repaired, or replaced in a timely and cost effective manner. The private debt financing will also provide additional oversight on an ongoing basis with their independent technical advisor to ensure that the project has sufficient capital to meet all of the project requirements.

A P3 is a beneficial investment and cost saving mechanism to solve the problem of deferred maintenance and ensure the safety and efficiency of infrastructure. In doing this, the result will be a better-maintained asset, ensuring taxpayer value and an enabled a higher quality taxpayer experience.