

AIAI

Association for the Improvement
of American Infrastructure

A PRACTICAL GUIDE TO BEST PRACTICES
FOR OPERATIONS & MAINTENANCE FOR
PUBLIC-PRIVATE PARTNERSHIPS

Together, we move P3s forward.

INTRODUCTION

A Public Private Partnership, or P3, is a contractual relationship between a private organization and a public-sector entity.

P3s enable a government entity to partner with the private sector's willingness and ability to engage and participate in shared and mutually beneficial outcomes in publicly-owned and operated assets. The partnerships between the public and private sector relate to all types of infrastructure needs, including mass transit, surface and highway transportation, freight rail, air and maritime ports, education facilities, courthouses, hospitals, water and sewer plants, and other government facilities.

Government owners responsible for developing and delivering new infrastructure or rebuilding and restoring existing infrastructure must also plan funding for the long-term operations and maintenance. However, if the expected funding resources are inadequate to address mounting rehabilitation and repair needs, these public assets deteriorate, resulting in an enormous deferred maintenance problem.

This dilemma can be minimized by employing a P3 project delivery method. As operation and maintenance providers, P3s allow the risk of keeping assets in a highly usable condition to be shifted to the

private-sector partner. Also, the expectations of service life of new infrastructure are clearly outlined at the inception of the project, allowing for innovation and creativity in planning, design and construction while optimizing lifecycle costs of the assets.

AIAI's recommended best practices guide for operations and maintenance highlights key issues relevant to anticipating and managing the lifecycle costs of public infrastructure. This includes:

P3s enable a government entity to partner with the private sector's willingness and ability to engage and participate in shared and mutually beneficial outcomes in publicly owned and operated assets.

(1) Technical terms – identifying the performance basis, rather than prescriptive solutions, so that design innovation can enable operating and maintaining the facility in the most efficient way.

(2) Commercial terms – defining the allocation of risk and compensating the service provider.

With P3s, the private organization is given the responsibility to provide a public good—a facility or service that has traditionally been provided by a public entity, such as a state

agency, a local government or a regional authority. The goal of the partnership is to gain more private-sector participation in the financing, transfer of risk, acceptance of responsibilities, and delivery of public services and facilities than can be achieved under traditional procurement practices, thereby providing greater benefit to the public.

CONTENTS

TECHNICAL

1. P3 Operations, Maintenance and Rehabilitation (OMR) Period 4
2. Economic Evaluation and Justification..... 4
3. Condition Assessments and Quality..... 5
4. Performance Requirements..... 5
5. Maintenance Performance Table..... 6
6. Closures (Or Availability) 6
7. Transition Period to Operations 6
8. Historical Data 7
9. Handback Criteria 7
10. Utility Risk Allocation 7
11. Incident Response Requirement..... 8
12. Landscaping Criteria 9
13. Staffing..... 9

COMMERCIAL

1. Performance - Non-Compliance..... 10
2. Damage Relief 10
3. Change In Law/Discriminatory and Non-Discriminatory Maintenance Changes..... 11
4. Force Majeure Events 11
5. Hazardous Material 12
6. Sovereign Immunity..... 12
7. Existing Assets 12
8. Lifecycle Payments 12
9. Inflation Index..... 14
10. Access To Owner's Its System 14

CREDITS

The AIAI O&M Committee is comprised of leaders in operations, maintenance and rehabilitation. Their combined insight and experiences on nationally significant, active P3 projects provides a life cycle view of public infrastructure and best practices for the procurement of the services to deliver those assets. The value proposition of P3s procurement - Design, Build, Finance, Operate, Maintain - is evident throughout the service life of those assets - balancing work efficiencies with replacement and rehabilitation while mitigating reasonable risks.

The Best Practices Guide to Operations and Maintenance was made possible through the contributions of the O & M committee.

On behalf of AIAI, special thanks are offered for the efforts put forth by the following members of the O & M Committee:

- Dex Brown**, Polyize Technologies
- Dan Dennis**, Pillar, Inc
- Ray Hallquist**, Kiewit Development Company
- Jahred Kallop**, Star America Infrastructure Partners
- Sallye Perrin**, WSP | Parsons Brinckerhoff
- Frank Rapoport**, Peckar & Abramson
- Ramon Villaamil**, ACS Infrastructure
- Andrea Warfield**, Fluor



BEST PRACTICES GUIDE TO OPERATIONS & MAINTENANCE

TECHNICAL

The technical terms of a P3 refer to those activities for which there are typically performance standards or outcomes. These activities should be consistent with current **proponent** practices to provide the optimum development strategy of the private sector and on a practical level, to ensure that the outcomes are reasonably obtainable. Higher performance standards or outcomes may increase costs to the owner. Dialogue during the development phase of a P3 is highly encouraged in particular to be sure that industry and the owner have a full understanding of outcomes that may not be achievable or are achievable at a high cost.

1. P3 OPERATIONS, MAINTENANCE, AND REHABILITATION (OMR) PERIOD

DEFINITION

Once construction is complete on one or more parts of an individual project, it shall be turned over to the operations and maintenance team to perform the routine operations and maintenance tasks as well as long-term lifecycle and major maintenance projects, such as rehabilitation.

EXPLANATION

The length of the term for an OMR is usually defined by the length of time needed to make the payment structure fit the project size and availability of funding. Typically, a thirty-year term is standard, but terms as short as fifteen years or as long as ninety-nine have been used. Other issues to be considered include potential traffic growth and changes in development of the project area.

BEST PRACTICE

Specify and demonstrate that the optimization and preservation of assets designed and constructed in a P3 arrangement are warranted for the concession term and at a fixed cost.

Enable an evaluation that includes a disciplined, integrated lifecycle cost approach, utilizing such factors as sound financial review and comparison, user satisfaction, safety, mobility, availability, maintainability, operability and hand-back conditions. Further, demonstrate that the multi-disciplined team approach from design phase through OMR allows for enhanced innovation and ingenuity in solving challenges and arriving at the optimum solution.

2. ECONOMIC EVALUATION AND JUSTIFICATION

DEFINITION

Cost-effectiveness and value of maintenance strategies shall be assessed to provide a clear understanding of the value of promoting and adhering to a maintenance program as part of the larger asset delivery.

EXPLANATION

Utilizing past data and history provides a benchmark for asset maintenance and operations. Consider how the condition may change from past experience by designing new construction for value that considers OMR.

BEST PRACTICE

Perform a thorough analysis of the value of the P3 in advance of any procurement, and obtain a mandate to proceed with the project based on a set of agreed-upon assumptions.

3. CONDITION ASSESSMENTS AND QUALITY

DEFINITION

Prior to hand-over to the OMR team, all new and existing assets shall be evaluated to ensure a quality project.

EXPLANATION

Asset condition assessments from the time of hand-over to the maintenance contractor throughout the life of the maintenance term should be required and performed by at least one of the following: the developer, the owner, the developer and the owner, or a designated third party.

To ensure a quality project, clear expectations must be set for what “high quality” looks like and how it will be tracked and documented. Industry standards should be used as a reference wherever possible. Otherwise, the owner must carefully articulate the desired level of quality for the project and the practices required for delivery.

BEST PRACTICE

Use quality assessment methodology on O&M projects that have been developed and employed by several DOTs and other public owners, based on key performance measurements and standards. Owners can build on these successful practices to ensure that condition scores or ratings have been adequately tested and reflect the desired outcomes for their asset.

4. PERFORMANCE REQUIREMENTS

DEFINITION

The owner shall negotiate the performance requirements with the developer and OMR team prior to signing the long-term contract, in order to ensure a common understanding among the entire term from the inception of the project.

EXPLANATION

Performance requirements are the contractual means by which O&M is performed on the assets and require the developer to perform to certain minimum criteria and to a minimum condition of the asset. The owner retains final quality assurance responsibilities, while the developer provides the necessary quality control measures. In describing the performance standards, or metrics, the owner must choose to be either prescriptive or performance-based in its approach. A prescriptive approach defines the inputs, while a performance-based approach states the specified outcomes.

BEST PRACTICE

Use performance requirements that have been developed by other DOTs. In general, performance standards that have been widely adopted are less likely to have unintended outcomes. Owners should develop performance standards that reflect their current or intended practices for each of the maintenance assets. For example, there

In describing the performance standards, or metrics, the owner must choose to be either prescriptive or performance-based in its approach. A prescriptive approach defines the inputs, while a performance-based approach states the specified outcomes.

are significant differences between Class-1 and Class-3 highways, as well as differences between highways and non-civil projects; those differences result in varying maintenance and operation needs. A one-size-fits-all approach does not work.

It is important for the owner to:

- Define objective and measurable requirements
- Distinguish between “response time” and “cure period,” and define the time frame, from project start to completion
- Make sure that the performance points system is realistic and does not place the developer in undue jeopardy or compromise the owner
- Triggers for increased monitoring or default should be balanced with the points allocated to non-performance events

In addition, remove contract provisions that call for only “DOT-approved materials” to be used in maintenance repairs. This limits the ability of the developer to innovate and subjects the provider to a long approval process for the use of “unapproved” materials. Outcomes-based performance requirements dictate the asset will meet functional standards. Innovative materials or processes that do not function as required will of necessity be removed and replaced by the developer.

5. MAINTENANCE & ASSET MANAGEMENT PERFORMANCE TABLE

DEFINITION

The owner shall prescribe a previously agreed-upon table of measurements that dictates the required service levels for the private partner so as not to incur any unavailability or non-compliance deductions.

EXPLANATION

Performance tables typically include the specific element, the performance requirement, the timeliness of response for both temporary and permanent repairs, the inspection method, the inspection frequency, the measurement record, and the compliance target. Owners are reminded that the lenders see risk in these tables. Overly stringent or unclear performance requirements may not provide value.

BEST PRACTICE

Utilize criteria and thresholds for performance requirements and response times that are consistent with the desired operability and reliability of the system, as well as practices that the owner currently requires or intends to implement from in-house staff. Determine what is required to avert—not eliminate entirely—major disruptions, and build performance criteria around those requirements. Allow the developer to create a successful routine maintenance program with some flexibility to achieve the performance measures safely and in a timely fashion.

6. CLOSURES (OR AVAILABILITY)

DEFINITION

The owner shall provide the developer and OMR teams with the ability to have lane closures in order to perform planned maintenance. These closures typically come with a cost during peak hours and at less or no cost during off-peak hours.

EXPLANATION

The owner has a goal to provide the maximum availability of the assets and associated features to the end-users. In a typical concession project, the owner provides a definition or time of permitted closures/unavailability and assesses payment deductions when non-permitted or excessive closures occur. This encourages maximum availability of the public infrastructure asset and revenue generation where applicable.

Lane closure penalties are increasingly being used in P3 projects. While developers understand the need to minimize and plan for necessary lane closures, some owners are shifting risk and unnecessary costs to the developer for unforeseen or unanticipated events not caused by the developer.

BEST PRACTICE

Achieve better value by providing some flexibility and assessing lower or no penalties associated with unanticipated lane closure events. Planned maintenance requires “free” closure time built into the contract, encouraging systematic and preemptive maintenance and potentially resulting in fewer “unplanned” closures. Major resurfacing projects typically have pre-arranged lane-closure events without penalties.

7. TRANSITION PERIOD TO OPERATIONS

DEFINITION

The developer and OMR team shall provide a smooth and seamless transition from the construction period to the operating period with transparency to the end-users.

EXPLANATION

End-users should not experience a disruption between the end of construction and the beginning of operation. That is why the developer (operator) is involved with the transition planning immediately prior to substantial completion, so that it can be fully capable and positioned to deliver maintenance duties and expectations on day one.

BEST PRACTICE

Particularly on a greenfield project, where construction is still finishing its punch list items, provide flexibility on performance outcomes during the period from substantial completion to final completion. This allows construction to finish its work and test that construction specifications are not in conflict with O&M performance outcomes.

8. HISTORICAL DATA

DEFINITION

Historical data shall be used to allow the developer and OMR team to assess the quality of each asset.

EXPLANATION

Historical data provides the opportunity for a developer to analyze an existing asset, its condition and maintenance history, and usage. The purpose of collecting data is to provide background details captured over periods of time that can be applied in the future to provide a clearer understanding of requirements for proper and effective planning.

Some agencies, however, consider current or historical condition reports of certain assets to be private for reasons of Homeland Security. As it relates to highway bridges, some DOTs are reluctant to supply developers with bridge inspection reports, even though anyone can obtain bridge condition ratings online from the FHWA; there is a bit of conflict in these practices.

BEST PRACTICE

During the bidding phase, whenever possible, provide the developer historical data of current assets for evaluation. Provide empirical or inspection data to allow the developer to ascertain the best plan for the operations and maintenance phase, creating value for the owner through a more accurate lifecycle determination. Historical data

can minimize risk for the developer by removing substantial uncertainty and giving more detailed local characteristics than could possibly be determined by a limited visual assessment alone.

9. HANDBACK CRITERIA

DEFINITION

There shall be a set of criteria that is prescribed for each asset type that the OMR team must meet at the end of the contract term to ensure that the public owner receives a quality project.

EXPLANATION

The owner defines hand-back performance requirements for certain assets that are expected to provide the prescribed service life and condition of the assets at the end of the operating term.

BEST PRACTICE

Based on lifecycle curves, industry standards, and historical knowledge, design the assets based on the expectations of service life as defined in the project agreement. Then prepare a renewal plan and schedule for the various assets specifically identified in the hand-back criteria to provide the required service life. The owner needs to carefully consider their requirements to ensure that the transfer of risk and associated costs are balanced against the required residual life, and realistically define the level of service/residual life requirements for the developer for hand-back. Because lenders review and see risk in these requirements, it is even more critical that expectations be clear.

10. UTILITY RISK ALLOCATION

DEFINITION

P3 agreements shall include a previously agreed-upon split of responsibility for assuming risk for utilities. Developers will typically take quantity risk, e.g. energy consumption volume, while public owners will typically take either energy consumption, energy tariff, or both risks.

EXPLANATION

The owner defines responsibilities for energy and water costs during the operating period, whether borne by the owner, the developer, or both (shared allocation). In addition to allocation, the actual projection of energy cost over a long period (25 years) is a risk due to a potential variety of energy impacts.

Passing on the commodity pricing risk to the developer is possible, but not suggested. The disadvantage is that the developer will place a substantial risk premium in its fee. The advantage is that the owner will have a guaranteed, non-fluctuating operating expense / service fee.

BEST PRACTICE

The owner in the first method should have the developer assume the usage risk, which it controls, while the owner assumes the escalation risk. This helps both sides of the partnership. A public owner typically has better utility rates than the developer through either a different rate schedule or through a larger wholesale purchase. Also As an alternative to approach within this method, a menu of indices for annual adjustments for energy, commodities, and labor reduces concessionaire risk.

The second method allows the developer to define the energy consumption target, which it controls as designer and future operator. In order to incentivize efficient design, the cost of energy (target consumption priced at a defined rate) forms part of operation, the owner pays the energy costs, but if actual consumption deviates from the target, the developer shares the surplus or shortfall (actual costs at the actual rates at the time).

11. INCIDENT RESPONSE REQUIREMENT

DEFINITION

There shall be a prescribed response time for all types of OMR tasks to ensure that owners' expectations are being achieved.

EXPLANATION

The owner has a goal to provide maximum availability of the infrastructure project and associated features to the end-users. Incident

response is often, but not always, required of the developer. When the developer is responsible, the intent is to provide traffic control during a lane-closing incident and provide the necessary first responders opportunity to safely render assistance and eventually clear the accident scene. The developer is required to respond to the incident within a prescribed time and be fully capable of accepting the traffic control duties, which may include the need for a temporary detour. Depending upon the DOT, the developer may also be required to provide assistance to disabled motorists along the travel way.

BEST PRACTICE

Clearly define expectations for:

- Reasonable initial response time
- Classification of incident
- Clearing minor incidents
- Support for fire and life safety personnel on major incidents
- Prearranged detours and crisis management support

If the project is located within an urban environment with good coverage by existing wrecker service providers, consider removing the requirement for the developer to provide these services directly. Most areas have functional incident response networks, where the state or local police and fire or first responders directly handle major incidents. Consider limiting involvement of the developer to providing only emergency traffic control, mitigation and repair of damaged assets, and specialty consultant services if required.

Thirty- to 60-minute response times are reasonable during weekday operations, while 60-minute response times apply for weekends, holidays, and times outside normal work hours.

At no time should the developer be required to be responsible for the performance risk of other incident responders, such as police and fire departments.

12. LANDSCAPING CRITERIA

DEFINITION

Landscaping criteria may be prescribed but is typically handled by an owner allowance that gives the owner the flexibility to finalize landscaping.

EXPLANATION

Landscaping criteria are often not well defined in the development agreement, resulting in the use of an allowance. Instead, the developer often completes the design of landscaping during the design period, with input from the owner as well as additional stakeholders (local municipalities and other agencies). This makes forecasting required maintenance and associated costs difficult to project. Written landscape standards are required.

Landscaping criteria are often not well defined in the development agreement, resulting in an allowance being used.

BEST PRACTICE

Clearly define criteria for landscaping instead of setting an allowance.

- Option 1 – transfer long-term maintenance to local municipalities that have an interest in project aesthetics.
- Option 2 –during the bid phase, require the developer to provide landscape plans with acceptable irrigation and planting. Any significant change to those plans is a change to the bid and built into the contract once agreed.
- Option 3 – provide an allowance not only for design and construction but also for O&M as well. This could be included as an annual amount.

If a final landscape plan is not part of the required design, leave the landscape O&M price to be negotiated after financial close.

The owner can encourage low-impact development techniques or provide consideration to proposals that highlight green/LEED-compliant design. Being mindful of the impact of OMR on sustainability is important. For example, heavy irrigation for planted landscaping is not a viable use of resources, given the current reduced rainfall and drought situations common throughout the United States.

13. STAFFING

DEFINITION

A staffing plan shall be developed and adjusted to ensure that the OMR team meets the prescribed service levels.

EXPLANATION

The owner typically defines key personnel for various roles in the design, construction, and operation functions of a project. These personnel bring certain qualifications and experience desired by the owner. The names are often required in the RFQ phase. Owners frequently impose or threaten financial penalties on successful bidders if their respective key personnel are not available for the specified functions without the consent of the owner.

BEST PRACTICE

The construction period on P3 projects is usually four to five years. Requiring names of key O&M staff at bid time is questionable, particularly when accompanied by penalties if those named key staff are replaced without the pre-approval of the owner at the commencement of the O&M period. Instead, offer a demonstration of staff from the developer to ensure qualified personnel are part of the team, and have some approval of the key position(s) at the commencement of O&M if this is important to an owner.



COMMERCIAL

Commercial issues typically involve those conditions that have risk associated with them. The evaluation of the sharing of risk should require questions be asked of cost versus benefit and who is best placed to carry the individual risk. As in the technical, current **proponent** practices should be evaluated recognizing that additional requirements to the private sector are likely to cost additional money.

1. PERFORMANCE - NON-COMPLIANCE

DEFINITION

Performance shall be measured by a combination of asset condition outcomes and timeliness. Failure to meet either criterion results in non-compliance, which can be managed by the imposition of points and/or penalties.

EXPLANATION

Noncompliance points are used to gauge and manage the performance of the developer/operator. Accumulation of defined numbers of points over time (normal targets are one- and three-year running periods) leads either to increased oversight by the owner or, if not corrected, to default.

BEST PRACTICE

Ensure that points/penalties are reasonable and relate to the importance of the performance requirement. The penalty scale should reflect, for instance, the greater importance of safety issues over aesthetics. Penalties are considered liquidated damages and are usually deducted from monthly payments. The triggers for these points need to be well thought-out and balanced, as they are perceived by lenders as critical risks.

2. DAMAGE RELIEF

DEFINITION

A P3 agreement shall generally allow varying levels of relief. There should be clear rights for the developer to insure against potential damage or to seek relief from a relevant third party, such as the owner or a utility.

EXPLANATION

P3 agreements take a disparate approach to the treatment of damage to project assets (insurance regime/third-party recovery/force majeure). This can result in gaps in relief afforded to developers.

Owners selectively procure property insurance for assets under their control, since the volume and value of assets is large, and the risk of a significant claim is relatively low. Requiring a developer to procure large amounts of insurance is inefficient and adds significant cost to P3 projects. Similarly, passing risk to a developer for events outside of the developer's control adds unnecessary contingency costs to P3 projects.

BEST PRACTICE

Use a coordinated approach, recognizing that developers are not insurers and that the owner is the insurer of last resort, regardless of insurance regime. The developer's responsibility for damage to assets should be limited to damage caused by or within the developer's ability to control. Where developers are responsible for third-party damage, they should be given a clear legal right to pursue responsible third parties and relief from uninsured damages.

3. CHANGE IN LAW/ DISCRIMINATORY AND NON-DISCRIMINATORY MAINTENANCE CHANGES

DEFINITION

Maintenance providers shall provide a fixed price, subject to inflation adjustments, so that owners will typically provide relief for legislative or other non-foreseeable changes.

EXPLANATION

OMR providers need as much certainty as possible of performance requirements in order to bid and perform effectively and efficiently. The ongoing expansion of owner rights to change contractual requirements over time without compensation creates considerable uncertainty over decades-long maintenance terms and requires developers to add contingencies to account for this risk.

BEST PRACTICE

Use standardized agreements that emphasize an aggregate cap for such changes to limit uncertainty. Long-term maintenance contracts with large annual deductible caps create the possibility of significant exposure to changes wholly outside the control of maintenance providers.

Changes in laws for increased minimum wage or "living wage" is not foreseeable and subject to the vagaries of changing local political will. Consider a limiting clause, or allow for additional compensation if statutory wage increases exceed the annual escalators being used in the development agreement.

4. FORCE MAJEURE EVENTS

DEFINITION

Owners shall provide certain protections for force majeure events to ensure efficient pricing from developer and OMR teams that minimizes reliance on contingencies.

EXPLANATION

Events beyond the control of developers and maintenance providers should be afforded standardized relief. Owners have begun the practice of distinguishing between types and severity of storms, hurricanes, and tornados, not recognizing that the level of damage should be the controlling factor. In addition to storms, acts of terror, sinkholes, earthquakes, war, hazardous waste spills, and other force majeure events all can result in severe damages and costly repairs.

BEST PRACTICE

Allow for and clearly define relief for all force majeure events that impact the project. These are, by definition, events outside of the control of developers and are not due to any act, omission, negligence, recklessness, intentional misconduct, breach of contract, or illegality. In addition, any such event that is declared a disaster by state or federal authorities is afforded relief. Provisions for relief are included in the OMR agreement.

5. HAZARDOUS MATERIAL

DEFINITION

P3 agreements shall prescribe who is responsible for the treatment of hazardous materials. Typically, owners will protect developers from previous hazardous materials releases.

EXPLANATION

Defining how hazardous materials will be dealt with over the term of the P3 project and especially designating which party will be the hazardous materials generator are critical elements of risk allocation in a P3 agreement.

BEST PRACTICE

Consider the owner to be the generator for all non-developer releases of hazardous materials. The developer has no control over other entities or releases and, as such, does not bear the risk of such events that are typically managed by a government entity elsewhere. The developer is responsible only for developer-related releases of hazardous materials and is afforded relief for all other such releases.

Uncapped hazardous materials risk is typically a no-bid decision by many developers. Cleanup costs for incident-related spills, where the generator/transporter is unwilling or unable to initiate and pay for cleanup, can be unlimited. It is best for owners to assume liability for these unknown costs after all reasonable legal avenues are exhausted.

6. SOVEREIGN IMMUNITY

DEFINITION

Owners typically have sovereign immunity and shall consider, where legally permissible, allowing the developer to benefit from this structural feature.

EXPLANATION

Most owners in P3 projects benefit from sovereign immunity with respect to their acts or omissions. This may take the form of strict sovereign immunity or a cap on such exposure. Since the developer's maintenance performance is a direct substitution for the performance of the owner, the cost of P3 projects is significantly reduced when developers have the benefit of this immunity.

BEST PRACTICE

Where permitted by law, allow the owner to extend the benefit of sovereign immunity to the developer for work traditionally performed by the owner. Where not permitted by law, the owner should consider the benefit of enacting a change to such laws or of indemnifying the developer under strict conditions that the developer fulfills its obligations under the contract.

7. EXISTING ASSETS

DEFINITION

Many projects include pre-existing assets. The owner shall provide access to sufficient data on these assets so the developer and the OMR team can properly develop an efficient asset management plan.

EXPLANATION

Many projects are not "pure greenfield" (i.e., they have some component of existing assets that will remain as part of the overall project) and require the developer to maintain existing owner assets for an extended period of time.

BEST PRACTICE

Clearly outline the historical performance and current condition of existing assets, and weigh long-term maintenance requirements (especially hand-back) and where this work should reside (developer, owner, or a third party).

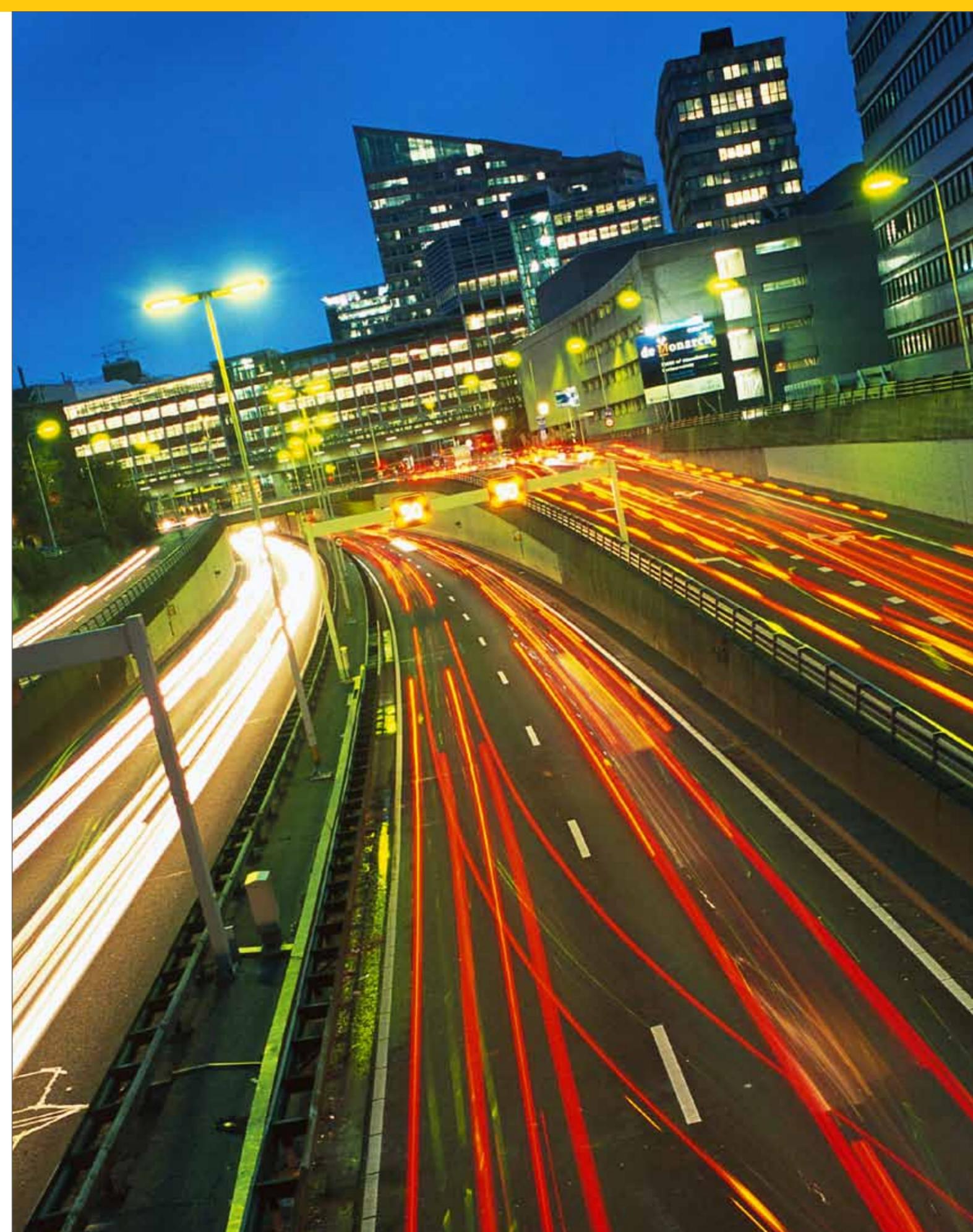
8. LIFECYCLE PAYMENTS

DEFINITION

The development agreement shall detail how payment for long term O&M will be managed.

EXPLANATION

There are pros and cons to both smooth payment profiles (pre-paying) and "lumpy" payment profiles (paying as work is completed). The owner understands the risks and benefits of either approach.



BEST PRACTICE

Because owner practices vary and payment processes need to be within the legal or legislated framework under which the owner operates, develop a payment schedule jointly (owner and OMR operator). Benchmark other owners' means of dealing with payments, so that all parties are agreeable to the outcome.

9. INFLATION INDEX

DEFINITION

The owner, developer and OMR team shall select the appropriate inflation index to allow for payment to the OMR team and a portion of the revenue to be linked to a similar inflation index.

EXPLANATION

In order to protect developer from unpredictable increases in costs over time, owners typically utilize one or more inflation indices to be applied to the bid prices.

BEST PRACTICE

Use a readily accepted and widely published inflation index. A set of indices that address the various components of the project—labor, consumables, healthcare, energy, and construction materials—is usually made available. Different indices may be utilized for routine maintenance as opposed to lifecycle maintenance.

10. ACCESS TO OWNER'S ITS SYSTEM

DEFINITION

The owner shall grant access to the Intelligent Traffic System (ITS) to provide the developer and OMR team with substantial efficiencies for response time and insurance recoveries, therefore lowering the cost to the owner.

EXPLANATION

If the developer has incident response requirements and is responsible for damage to assets from the actions of third parties, access to the owner's ITS system of cameras will significantly reduce the uncertainty of responsibility and the risk of collection.

BEST PRACTICE

Allow the developer to access the owner's ITS system, including video and photos, to pursue insurance recovery.

SUMMARY

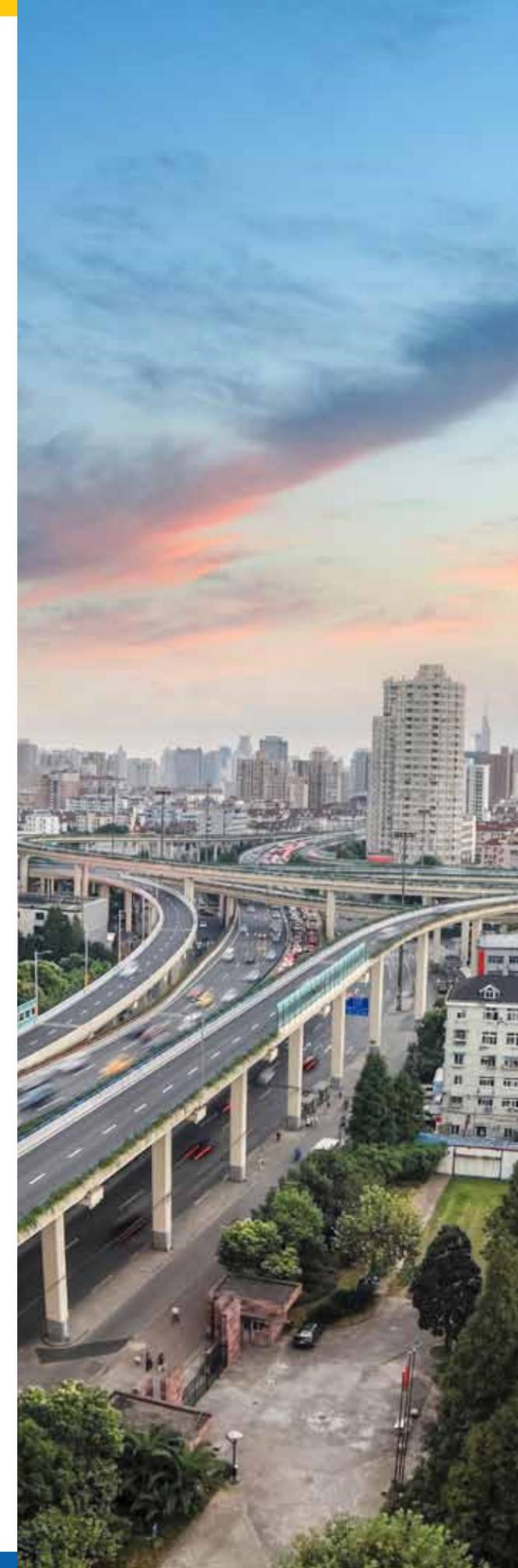
Public Private Partnerships are contractual agreements formed between a public agency and a private sector entity. P3s provide for shared skills, assets, resources, risks, and rewards by both private and public sectors for the delivery of a service or to create a facility to address needs for public use. The benefits of P3s include job creation, design innovation, efficiencies in project finance, transfer of risk, optimization of resources and capabilities, as well as the timely delivery, operations and long-term maintenance of public infrastructure. This procurement method has demonstrated that these assets are delivered on-time and under budget, utilizing innovative ideas and products to create long-term, life-cycle operational and maintenance efficiencies.

Best practices contained in this document are drawn from around the country and across the globe. They highlight a number of key ingredients for the O & M stage contributing to successful P3s. Intrinsically O & M adds value to the P3 procurement and delivery model. The life-cycle responsibility and relationship brings even greater importance to the design and construction phase. By introducing the longer terms of P3s to the O & M period and shifting the extended responsibility for the delivery of quality, well-maintained and functional assets to the developer ensures that the necessary ingredients to adhere to these contracts are included from the very beginning of the process.

Understanding the roles of the parties in these contracts and creating a transparent environment with clear objectives and desired outcomes, allows for the best possible results, benefiting the public end users. Additionally, setting realistic goals from the outset creates the opportunity for meaningful dialogue and appropriate measures being implemented in order to meet and often exceed expectations. Working together, the client and developer determine and implement best practices to provide for a strong contractual relationship.

The very nature of the P3 model lends itself to partnership, and through this partnership both the client and the private sector can deliver on-time, budget certain, quality public infrastructure assets.

Additional information is available to AIAI Members, as well as to the general public; and can be found on-line at: www.AIAI-Infra.org.



AIAI

Association for the Improvement
of American Infrastructure

165 Roslyn Rd, Roslyn Heights, NY 11577

T. 516.277.2950 | www.aiai-infra.org | readytowork@aiai-infra.org



cintra

FLUOR

GRANITE

John laing
making infrastructure happen



SKANSKA

STAR AMERICA

WSP | PARSONS
BRINCKERHOFF