
RFI Response

MDOT Congestion Relief Improvements

I-495/I-95 (Capital Beltway) from the American Legion Bridge to the Woodrow Wilson Bridge

I-270 from I-495 to I-70

Submitted to:

Jeffrey T. Folden, P.E., DBIA
Chief, Innovative Contracting
MDOT State Highway Administration
I495_I270_P3@sha.state.md.usy

December 20, 2017

Respondent:

Plenary Group USA

Plenary Group USA Ltd. ("Plenary", "we" or "us") is pleased to submit a response to the Maryland Department of Transportation ("MDOT" or the "Department") Request for Information ("RFI") regarding Congestion Relief Improvements for the I-495/I-95 and the I-270 (the "Project").

Contact Person:	Sia Kusha, Group Head, Project Development & Partnering
Address:	Plenary Group USA 10100 Santa Monica Blvd., Suite 410 Los Angeles, CA 90067
Telephone Number:	Office: (813) 387-3877 Mobile: (813) 557-4669
E-mail Address:	sia.kusha@plenarygroup.com

a. General

- 1. Please describe your firm, its experience in relation to P3 projects, and its potential interest in relation to these potential congestion relief improvements.*

Plenary Overview. Plenary is a leading international infrastructure developer with large, experienced management teams located in the Americas and the Asia Pacific region. Plenary is active in the Design, Build, Finance, Operate, and Maintain ("DBFOM") procurement model also known as the Public Private Partnership ("P3") model for essential government infrastructure assets. Our business approach is to maintain long-term involvement and oversight of our assets during the development phase, into construction and operations and throughout the entire term of the agreement. We are therefore the accountable entity for the duration of the DBFOM for the client.

With a staff approaching 100 people across five offices in North America, including US headquarters in Los Angeles and offices in Denver and Tampa, we are one of the largest dedicated, on the ground P3 developers in North America. By actively managing both the project pursuit as well as the performance phases of its projects with an uncompromising focus on whole-of-lifecycle performance and reduced cost of ownership and operations, governments and public sector agencies look to Plenary as a trusted and authoritative voice for the best way to deliver public infrastructure that meets the needs and aspirations of a community.

With an established track record and a portfolio of projects valued at more than \$24 billion worldwide, we have extensive experience in these roles. Our firm has 29 projects in the construction or operations and maintenance ("O&M") phase across North America alone (43 including Asia/Pacific), with still more currently shortlisted in procurement. The Plenary model is to understand the assets in which it invests from a technical standpoint by ensuring it has in-

house personnel with both design/build and O&M expertise to actively manage every aspect of the project, in addition to the financial structuring of the deal. These personnel will be accountable for the Project for the long-term and will bring together teams that represent both the best local and national talent, allowing us to deliver infrastructure that realizes the vision of our public sector partners. We take a hands-on approach to delivering infrastructure projects and find innovative ways to overcome traditional obstacles.

As a testament to Plenary's continuing position as a leader in the P3 market, we have been recently recognized with several significant awards, including:

- Global Developer of the Year – Infrastructure Investor, 2015
- Global Deal of the Year – Infrastructure Investor, 2015
- P3 Deal of the Year (North American) – Infrastructure Investor, 2016
- North America Developer of the Year – Infrastructure Investor, 2016
- Sponsor / Developer of the Year, PPP Awards, 2017
- North American Sponsor / Developer of the Year, P3 Awards, 2017
- Sponsor / Developer of the Year, Partnership Awards, 2017

Plenary's Project Portfolio. One of Plenary's most recent successful US transport bids, PA Bridges, reached Financial Close in March 2015. Plenary (lead developer/equity investor – 80%), along with Walsh Investors (developer and equity investor – 20%) and Walsh (lead contractor), was selected as successful proposer for the P3 project, which includes the replacement of 558 structurally deficient bridges across Pennsylvania. The project was the first truly "multi-asset" P3 to be undertaken in the US, allowing the Commonwealth to replace a significant number of their structurally deficient bridges in a more economic and efficient way. The consortium was able to use efficiencies in the redundancy of design and construction as well as life-cycle innovations that saved the Commonwealth an average of approximately \$400,000 per bridge.

Plenary's project portfolio includes two "completed" highway infrastructure P3 projects that have reached construction completion and are in the operations phase – the US 36 Managed Lanes Project ("US 36") in Colorado and the Disraeli Bridges project in Winnipeg, Manitoba.

US 36 was an existing four-lane state highway which connects the Denver metropolitan area with Boulder that was completely reconstructed to 6 lanes with a single managed lane in each direction, thus leaving two free general purpose lanes in each direction. This complex managed lane project was procured in two phases. Phase 1 was procured as a design-build contract, which began initial construction work along the corridor. Phase 2 was procured as a P3, with Plenary selected as concessionaire to cover the design, construction, and finance of the Phase 2 construction work. Plenary assumed traffic and revenue risk on the managed lanes revenue and is responsible for "fence-to-fence", including snow/ice removal for O&M work on both Phase 1 (which it assumed at Financial Close) and Phase 2 (which it assumed when Phase 2 completed in Q1 2016). Plenary has a 50-year operating and maintenance term that commenced on substantial completion (March 2016).

The Disraeli Bridges project, which reached substantial completion in 2012, included the rejuvenation of structures linking the north and south portions of Winnipeg across the Red River, upgrades to approach roads and a new four-lane river crossing with expansion capacity.

Plenary has also added relevant civil projects to our portfolio that are still in the construction phase, including the State Street Redevelopment project in Indiana and the Waterloo Light Rapid Transit project in Ontario. The State Street Redevelopment project will reconstruct numerous roadways through the Purdue University campus, including the main thoroughfare in State Street, as well as construction new roadways on the perimeter of the campus. This will downplay the corridor's historical use as a highway through-route and help establish the corridor as a destination for residents, students, and visitors. Completion is planned for December 2018. The Waterloo Light Rapid Transit project is the first stage of a light rail rapid transit system that will service residents in Kitchener, Waterloo, and eventually Cambridge in Ontario. Stage 1 of the system consists of a new 19km light rail line and associated infrastructure, including 16 stops. The route will utilize a mixture of on-street running and existing railway corridors, and generally uses a twin track cross section (one track in each direction). The project is scheduled for completion this summer.

Plenary's Interest in the Project. As noted above, Plenary is active in the P3 space across the US, and is keen to work with MDOT to accomplish its objective of sourcing innovative financing methods and developing innovative solutions for addressing congestion on the Capital Beltway in Montgomery and Prince George's Counties and on the I-270 in Frederick and Montgomery Counties.

2. *What would be the benefits and risks to MDOT entering a P3 agreement for congestion relief improvements? What risks do you believe would best be retained by MDOT and what risks would be best transferred to the private sector? Please explain your reasoning.*

Benefits and Risks

There are numerous benefits to entering a P3 agreement, and when well structure, risks are well understood and can be managed appropriately by the assigned parties. While there are several viable delivery methods available for the Project, Plenary believes that the availability payment DBFOM model is most appropriate. This business model is a proven model globally that has considerable successful precedent transactions in the US in the past several years alone. As described below, an availability payment model, or DBFOM can provide numerous benefits vs. other project delivery types, organized here into (i) risk transfer, (ii) innovation, (iii) whole-of-life costing, and (iv) availability payment benefits.

Risk Transfer. A critical component of any successful P3 is the transfer of key risks from the public sector to a private sector sponsor or consortium that can price and manage such risks more efficiently than the public sector, such as long-term life-cycle risks. In order to effectively accomplish this risk transfer, the public sector must ensure that the procurement model

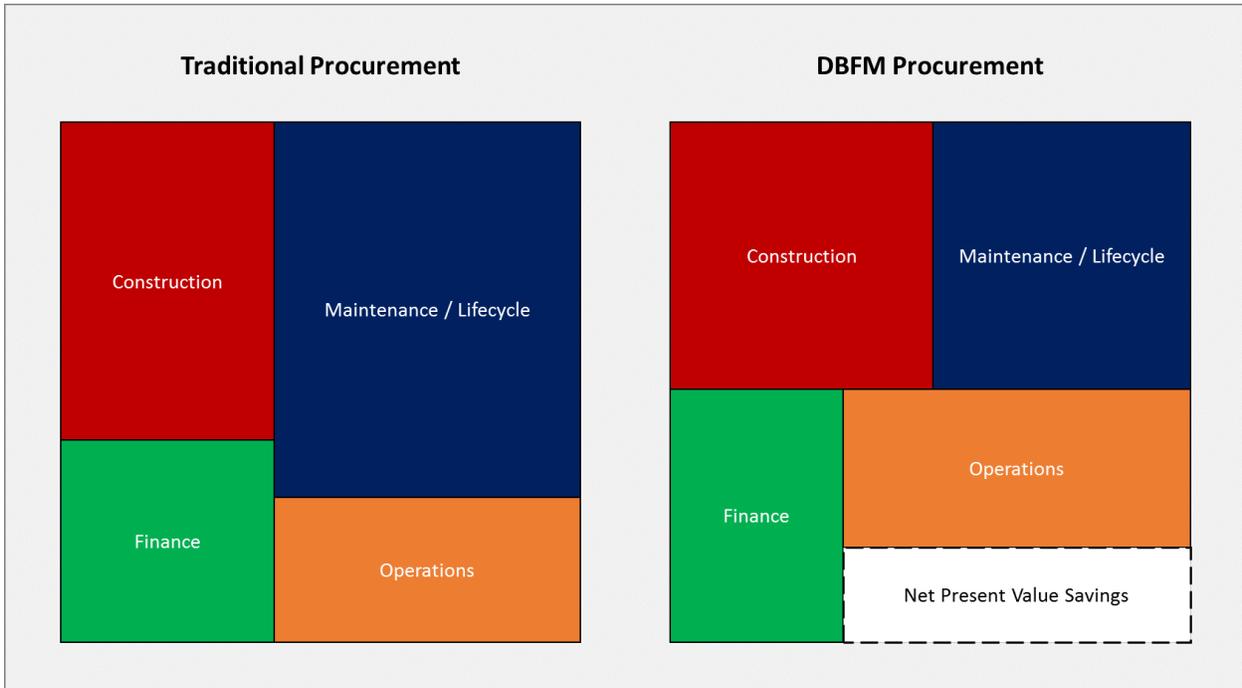
properly incentivizes the developer to be held accountable for such risks for the duration of the term of the contract. While other project delivery methods, such as a design-build or a design-build-maintain project, offer some level of risk transfer relating to interface gaps between design, construction, and operations, it is finance that provides a catalyst to ensure complete alignment between MDOT's life-cycle and performance based risk transfer objectives and developer accountability. To the extent risks are transferred to the developer, private financing holds the developer fully accountable for poor performance or delivery delays, as failing to satisfy the public sector's performance criteria or other contractual responsibilities would result in a loss of capital for investors. As such, equity investors are heavily incentivized to ensure that the obligations of the developer under the contract with MDOT are met. To provide comfort to lenders, for example, the contractor and operator are required to provide security that is available to be drawn in the event that the developer does not meet its obligations under the contract documents, along with stringent regular reporting on compliance with performance obligations. This risk transfer will also put all bidders on an equal footing – as contrasted to design-build approaches that are focused on lowest first cost, resulting in the undesirable circumstance wherein the public assumes all long-term deferred maintenance risk.

As discussed throughout this RFI, we believe the predevelopment services should be procured separately, remain separate, and be treated as an advisory role to MDOT.

Innovation. In a typical DBFOM P3, bidders can propose alternative technical concepts during procurement, incentivizing the private sector to bring forward any and all innovative concepts that could lower the net present value (“NPV”) of the Project. Further, a typical DBFOM provides sufficient flexibility in scope, in which all aspects of the Project (schedule, technology, construction methodology, maintenance, operations, financing, etc.) can be considered and the best value combination selected through a well-coordinated program to provide the best whole-of-life cost of the Project. Our experience on the PA Bridges project demonstrates that there can be significant value-for-money opportunity through innovative materials and design for delivering large transport projects. Because it was structured as a DBFOM P3, the PA Bridges project was able to make use of an innovative polyester polymer concrete overlay that protects bridge decks from the infiltration of deicing salts and reduces long-term maintenance costs. This material has a much higher upfront cost, but significantly reduces the lifecycle costs of each bridge over the 25-year duration of the agreement due to its longer life-span than typical epoxy sealers. This use of innovative materials would not have been able to be implemented under a more traditional project delivery model because of the higher upfront cost and misalignment of long-term objectives.

Whole-of-Life Costing. Cost efficiencies of a DBFOM delivery model are driven by competitive tension and team integration to focus on minimizing whole-of-life costs over the time horizon provided by MDOT. The following figure demonstrates the concept of how an integrated, competitive team drives value. Using this graphic, consider the size of the box to be the NPV of the Project, with the sections expressing the NPV of one aspect of the Project. This is the basis on which teams compete for the Project. It becomes clear that a lower capital cost in and of

itself may not provide the optimum solution. Because a significant portion of the scoring on a DBFOM procurement is typically based on NPV, teams will work tirelessly to reduce the size of this "box," knowing well that other teams are doing the same (e.g., competitive tension) and making informed, collective cost decisions that reduce not only capital cost, but the cost of the



project over the entire term of the contract (e.g., team integration).

Availability Payment Benefits. There are also numerous benefits in using an availability payment structure vs. toll revenue as the payment mechanism. Typically, in an availability payment P3, gearing ratios range from 5% to 10% during construction. Under a traffic risk approach this gearing ratio is increased due to restrictions from lenders because of cash flow uncertainty. This increase in equity (typically 25% to 50%) substantially drives up the cost of financing the Project. Also, under an availability payment any upside revenues of tolled portions of the Project (if tolling systems are included in the Project scope) go to the Department. The Department always remains in complete control of pricing any tolls that may be included in the Project. Finally, an availability payment structure ensures that the developer is focused on meeting a specified standard of service (with consequences) and draws the focus away from making sure that toll revenue is enough to perform O&M and make debt payments. While we firmly believe these benefits frequently justify an Availability Payment structure, they must ultimately be considered in the context of MDOT's own constraints and objectives and what is best for the project overall. Plenary's preference is for this payment model, but it remains open to developing the project under whatever parameters best suit MDOT and the project, as evidenced by Plenary's various approaches and solutions to the P3s it has delivered across North America (including the US36 project, which includes toll revenue risk, and for which Plenary has won several awards,

most notably Project of the Year from the American Road & Transportation Builders Association, 2016).

Risk Allocation

In terms of allocating risks, a common maxim in the P3 world is to allocate risk to the party best suited to managing it. Said another way, risks ought not to be assigned to parties unable to manage them, in particular because for the private sector, unmanageable risks are priced inefficiently, typically resulting in poor value for money to the client. This means that, while the private sector can effectively manage a large amount of project-specific risk (including cost and schedule overruns, completion risk and financing risk), there are some risks which the private sector cannot manage or price as efficiently as the public sector (such as ROW acquisition, utility relocation and the risk associated with unforeseen conditions). These can vary from project to project, however there are some market standard allocations.

Commercial and Contract Risks

We would recommend that the documents governing the delivery of the project components include customary contractual risk-transfer mechanisms and responsibility allocation that is in line with recent P3 transactions. Two key areas of focus for P3 developers are:

- Relief events, and
- Compensation on termination.

Generally, any risks that are external to the developer's performance under the contract documents, such as an uninsurable force majeure risk, should be the public sector's responsibility. As such, the developer would be expected to be granted performance, time, and compensation relief for such an event. Any undue, off-market risk placed on the developer would likely have a considerable impact on MDOT's value-for-money. This is because developers are unable to control or manage these risks. If bearing them in a contract, developers can only assign contingency funding to cover cost impacts of a risk event being realized.

Similarly, where the project is terminated early, P3 developers (and lenders) will expect the authority to make a termination payment to the P3 entity to fairly compensate the P3 entity for work performed up to the date of termination. The amount of the termination payment will depend on the cause of the termination. If the termination is due to a voluntary action or default by the public authority, the termination payment will include full compensation to the P3 entity. Where, however, the termination is due to the default of the P3 entity or due to a force majeure event, the termination payment will be less.

Financial Risks

One key financial risk on which developers focus is benchmark interest rate risk sharing during the period from bid date up to financial close – developers expect the public sector to take full benchmark interest rate risk during this period. As noted above, another risk on which lenders

will focus in particular is termination compensation in the event of a Project Company default – lenders typically expect to recoup a majority of their outstanding principal (e.g., at least 80%).

Design and Construction Risks

The design and construction risks which impact a project can vary widely, and are closely aligned to the project’s scope. For this Project, several risks that must be discussed and evaluated during the development of the Project Agreement include the following:

- *Local Approvals and Associated Fees.* The local approvals for completing construction activity must be known at the time of bid. Changes to these that cannot be predicted in the bid should be shared risks between the developer and MDOT.
- *Permitting.* It is critical that the environmental process be complete before a Final RFP is issued in order to provide bidders certainty to the timeline of the Project; official, MDOT support or acceptance of the Project; and a developed understanding of the project scope. It is not customary to ask the private sector to spend substantial time and costs on a project pursuit with the project retaining material permitting risks, and thus most procurements seek to complete the as much of the permitting process by the end of the RFQ period; i.e., before substantial time and costs are incurred. While we understand that MDOT may wish to delay the completion of the environmental documentation process to allow Alternative Technical Concepts from the preferred proponent to be incorporated in the approvals process, it is important to note that this may introduce certain risks in the project schedule and bidders resulting strategies for mitigating this risk.
- *Right of Way.* From our direct experience of having taken right of way acquisition risk on previous DBFOM projects, using this method would inject greater unknowns and contingencies into the process, and hence “worse-case” scenario pricing in a cost-certain contracting environment. Largely, these reasons are due to:
 - Private sector lack of control over whether an individual landowner will accept a fair market value proposed, negotiate, or push to litigation;
 - Private sector lack of control over what a court may decide as to final value;
 - Public sector has much more experience with condemnation rates and court decisions; and,
 - Public sector has much more public interest in condemnation rates overall and public opinion on values and concerns over condemnation authority abuse.

This project’s circumstances with the adjoining Greenbelt Part (a National Park) is of particular concern, as contractors are not likely to be comfortable with potential complications regarding Section 4(f) as it pertains to ROW acquisition, which could add further to concerns over schedule risk and accompanying contingencies.

- *Utilities.* Utility coordination, costing, and construction must be well coordinated between all three parties – MDOT, the private partner, and the impacted utility provider. The risk of additional utility expense or time delay must be well articulated in the Project Agreement. We recommend a shared approach to utility management, where the developer is responsible for coordination and construction (if allowed by

utility) and MDOT is responsible for cost. We have used a variety of utility risk-sharing structures on P3 deals and are flexible, but most important is a clear description of the requirements and expectations in the Project Agreement.

- *Unforeseen Conditions.* Unforeseen site conditions, including geotechnical, asset condition, or otherwise, should include risk sharing provision in the Project Agreement.

Operations and Maintenance Risks

Similar to design and construction, O&M risks can vary widely between projects and are closely aligned to a project's scope. Although the O&M scope is not full developed, we have included a few risks that we anticipate on the project, but need to be reviewed once the final O&M scope is set:

- *CPI Indexation.* Aligning a portion of the availability payment to CPI will allow the developer to reduce contingency for the risk of increasing operational cost (e.g. labor, materials, etc. over the operating period will increase in cost and this cost must be accounted for via the availability payment or contingency).
- *Non-Compliance Regime.* The service level for the operating period must be realistic, with a fair and enforceable non-compliance regime that aligns performance expectations without being overly punitive.
- *Insurance.* It is important that the insurance provisions are tailored appropriately to exposure of the Project and that premium inflation is shared between MDOT and the developer. We believe 10% premium fluctuation year-over-year is the appropriate level for the developer to hold, with MDOT sharing in fluctuations above 10%.
- *Handback.* A clear methodology and asset condition requirements outlined to achieve handback of the assets.

3. What, if any, advantages will MDOT potentially gain by entering an agreement in which operations and maintenance and lifecycle responsibility and/or traffic and revenue risk are transferred to the private sector? How do you assess the likely magnitude of such advantages? What are the potential offsetting disadvantages?

As noted above, the financing premium for transferring traffic and revenue risk typically increases the cost of procurement relative to an availability payment model. The premium here varies depending on a variety of factors which are difficult to quantify at this stage, but are worthy of investigation by MDOT should they wish to explore a revenue risk model. Typically, in an availability payment P3, gearing ratios range from 5% to 10% during construction. Under a traffic risk approach this gearing ratio is increased due to restrictions from lenders because of cash flow uncertainty. This increase in equity (typically 25% to 50%) substantially drives up the cost of financing the Project.

As for O&M and lifecycle responsibility, we feel it is crucial to transfer these risks to the private sector in order to align incentives; a private partner not responsible for O&M or lifecycle will not approach technical challenges with the necessary long-term perspective. As a result, solutions which are in the best interest of MDOT but have higher associated upfront design and

construction costs are forgone in favor of cheaper solutions which merely transfer deferred maintenance risks to the public ledger. Please see our response to the previous question, in particular with respect to whole-of-life costing, for more detail.

4. Would it be advantageous for MDOT to transfer the operations and maintenance and lifecycle responsibility for the entire freeway or just the added congestion relief improvements? What would be the advantages and disadvantages of transferring the operations and maintenance and lifecycle responsibility for the entire freeway?

Although certain synergies (combined subcontracts, sequencing benefits where staggered work is required to minimize traffic disruption, reduced overhead and management costs) may be captured through the transfer of O&M and lifecycle for the existing freeway, the types of risks transferred can often be inefficiently priced due to the challenge of providing bidders with the level of information necessary to fully assess the condition of the existing roadway during the bid phase. While some scope, such as snow removal and painting, can be added without significant technical investigation of the asset condition, other aspects of maintenance, and in particular lifecycle, are difficult to price without extensive data regarding the initial construction and ongoing and preventive maintenance performed on the existing freeway. Even when such data exists, it is often incomplete or not stored or recorded in a way that allows for diligent analysis in the timeframe required by a competitive tender. Moreover, bidders will require reliance on any data provided to be able to confidently take on risks associated with future maintenance and lifecycle works. Structures, underlying civil works, and potential geotechnical risks complicate matters further still; these are the types of risks which can be managed efficiently in the greenfield component of a DBFOM given the proponents' responsibility for design and construction, and their engaged participation in mitigating and managing these risks through strategic technical solutions and preventive maintenance planning.

There is also an opportunity to structure the O&M and lifecycle similar to our US36 project in that the risk for O&M and lifecycle is given to the developer for the new construction, while only O&M risk is given to the developer for the existing assets. This would address and include the operational efficiencies of having one party perform O&M on the entire highway, but not give inappropriate lifecycle risk on existing assets, on which the private sector would likely place excessive contingencies.

5. Would it be feasible to have a single solicitation for both corridors? If not, would you recommend any specific phasing for the solicitations including the corridor(s) and limits and why? What would your recommendation be for staggering multiple solicitations and why?

MDOT could consider a single solicitation for both corridors if the size of the projects can be accommodated by the contractors drawn to the procurement. A project of this size can be often be challenging for one consortium to deliver due to strains on labor and bonding capacity, and the cost of bidding for such a large project can limit the appetite of smaller contractors to participate, despite possibly having the experience and capability to deliver on a smaller

contract or a portion thereof. MDOT may also wish to create opportunities for a larger group of companies to participate in the bidding for the project based on strategic objectives (e.g. participation of local firms), which is sometimes made easier when they can select one corridor to focus on instead of possibly being shut out of both due to the deal size.

If a split solicitation is pursued, MDOT must carefully consider its own capacity to procure and support the delivery of two separate projects, given that the administrative, legal, management, technical, and financial oversight costs may all increase significantly with the need to interface with twice the number of external parties. Staggering the RFQ and RFP phases will likely be necessary to allow those consortia capable of pursuing both projects the flexibility to meet procurement obligations for each. We have seen different approaches from different clients, but typically at least 6 months of staggering is required to enable one consortium or firm to practically participate in both work streams, and we would expect up to a year of staggering given the size and complexity expected for the two corridors under consideration.

b. Project Development

- 1. Do you believe your firm would be interested in submitting a detailed proposal for the development of any of the congestion relief improvements? Are there any particular concerns that may prevent your firm from getting engaged in the project development? How might these concerns be resolved?*

Plenary is keen to participate in the procurement for the project(s) under consideration, and looks forward to the opportunity to submit a detailed proposal for the development of the congestion relief improvements. Although we have noted a variety of important facets to consider when designing the procurement and selecting the appropriate model for delivery, Plenary does not have any particular concerns which would prevent it from engaging in project development.

- 2. At what stage of the NEPA and project development process would it be most beneficial to issue a RFQ: after establishment of the purpose and need, after determination of alternatives retained for detailed study, after selection of an MDOT preferred alternative, or after approval of the environmental document? At what stage would it be most beneficial to issue a RFP? Please discuss your reasoning.*

We recommend releasing an RFQ only after the first three steps above have been completed, with approval of the environmental document ideally taking place prior to the RFP phase. Without a clear sense of the project scope and the preferred alternative, it is difficult for teams to form which are properly suited to the set of associated technical challenges. Some US procurements have struggled to attract and retain industry-leading private sector participants due to procurement delays, most often the result of approval delays or political indecision. The further the project has advanced through these stages, the greater engagement MDOT is likely

to receive from the private sector, and the more confidently they will be do deploy and commit resources to the procurement.

Environmental approvals have recently caused substantial delays to multiple US P3 projects during the RFP phase, resulting in stalled procurements, increased bid and procurement costs, and damaged reputations for the owners involved (potentially affecting firms' future appetite for the client's subsequent projects). To avoid these negative outcomes, we recommend MDOT secure all necessary environmental approvals prior to the issuance of the RFP documents.

3. What are the critical path items for the solicitation for these improvements and why?

We suggest that the following key efforts are within the critical path for the procurement of congestion relief improvements, as further discussed elsewhere in this response:

- Preliminary engineering, including:
 - Geotechnical reports on the corridor
 - Preliminary utility location (and re-location) efforts underway
 - Preliminary design works, including early scope definition and ROW selection
- Utility coordination underway and associated agreements signed, if possible
- ROW acquisition process commenced, with a particular focus on challenging parcels

4. What is the minimum amount of time that your firm would require to develop and submit a response after the issuance of a potential RFQ?

See below.

5. What is the minimum amount of time that your firm would require to develop and submit a detailed proposal after the issuance of a potential RFP?

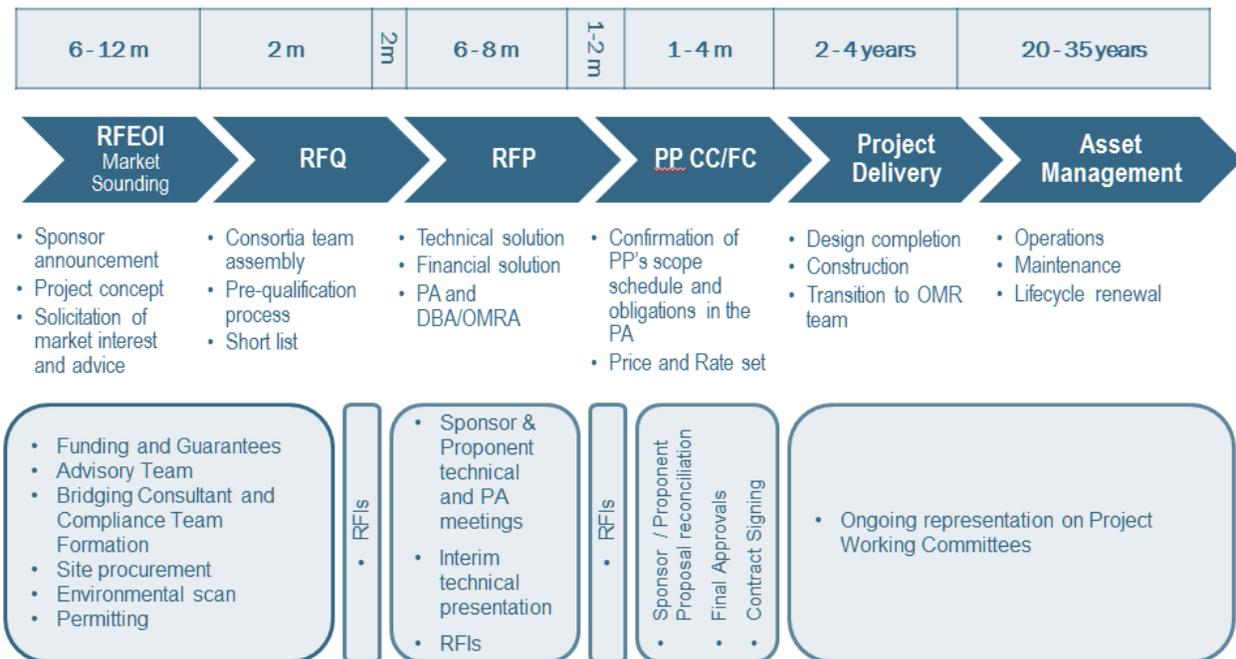
Although the minimum timeframes for responding to RFQs and RFPs depends on the scope of what is to be included in the Project as well as the expected financing sources and precedent documents to be used, we would recommend a minimum of two months for the RFQ and six months for the RFP (likely 8-10 months is more realistic if MDOT has not done a similar P3 project previously) for potential respondents to have adequate time to allow the Department to have confidential technical and commercial 1-on-1 meetings, and to fully develop their response in the case of a typical US based, DBFOM availability payment P3 project. If MDOT decides to proceed with a Project that includes complex funding sources or original documentation that is written specifically for the Project (instead of building on existing documentation from a precedent transaction), it would be beneficial to give potential respondents additional time for the response.

Additional factors to consider, which could lengthen the required RFP period:

- Delayed / incomplete environmental or planning approvals
- Client advisor team unfamiliar with P3 procurement, or delayed onboarding of key advisors
- Missing or bulleted information in RFP or Project Agreement documents

The following graphic provides a typical timeline for a P3 process:

P3 Project Lifecycle – Typical Process



6. *What information would your firm need in order to prepare a response to a potential RFP? What information should MDOT, the offeror, or others provide?*

While the information needed to draft a proposal would vary based on the scope of the Project as well as the types of financing and payment mechanism, it is generally helpful to have the following information available:

- Detailed Scope of the Project
 - Projects Included
 - Concession Project Goals
 - Scope of Responsibility

- Procurement Schedule and Expected Timing
- Technical Specifications
- Extensive Geotechnical Data
- Utility Relocation Status and Data
- EEO/DBE/SBE Requirements
- Current Project Status
 - Right of Way Acquisition
 - Environmental Permits and Requirements (and completed)
 - Utility and Railroad Agreements
 - Intergovernmental Agreements
 - Intra-agency Agreements
 - Civil Rights and Workforce Matters
 - Community Development Programs
- Financial Information
 - Expected Sources of Public Funds
 - PABs?
 - TIFIA?
 - Internal MDOT Funds?
 - Federal Funding Requirements
 - Interest Rate and Credit Spread Protection
 - Financial Model Criteria
- Evaluation Process and Criteria
 - Evaluation Committee Rules
 - Financial Scoring Procedures
 - Technical Scoring Procedures
 - Rules of Communication
- Process from Preferred Proposer to Financial Close
 - Finalization of the Agreement
 - Project Management Plan
 - Documents to be Submitted

7. *What would you consider a reasonable stipend payment for unsuccessful proposers responding to a potential RFP? Please discuss how the stage of project development (purpose and need, alternatives retained for detailed study, preferred alternative, final environmental document, etc.) completed prior to RFP issuance would impact the stipend payment amount.*

The size of the stipend payment is typically driven by the degree of design and estimating work necessary during the RFP, along with associated financial due diligence and legal costs for proponents to develop their financing solutions and contractual frameworks. As a result, we recommend that once MDOT has selected a procurement model, it then calibrate the stipend based on the stipends offered for such projects of a similar size (or as adjusted relative to projects of different sizes). While the quantum of these fees (including for a cancelled project) is

not expected to cover the competing teams' costs, the willingness to pay these fees demonstrates a commitment by MDOT to successfully consummate a deal as opposed to "testing the water". Bidders expend scarce resources pursuing these P3 projects and want to ensure the opportunity is real.

8. Would it be more beneficial for right-of-way acquisition activities to be transferred to the developer or should MDOT retain that risk? Please discuss your reasoning.

Right-of-way ("ROW") acquisition is best assigned to the public sector party, for a variety of reasons:

- ROW acquisition is a much more frequent activity of the public sector than the private sector for linear transportation projects, granting it greater experience and understanding of the legal issues at play, alternatives available, public relations and political reasons to negotiate over landowner payments, and historical precedents in the region.
- When assigned to the private sector, ROW acquisition can be very inefficiently priced due to the lack of control over the determination of the final value of ROW parcels. As noted above, where the private sector lacks mechanisms for controlling a risk, they are prone to overpricing them out of a fear of the associated cost uncertainty.
- Cost impacts of ROW acquisition are just one component to consider, as schedule impacts can follow when negotiations fail. Arbitration and litigation are not only expensive but also potentially lengthy, adding schedule risk to the project and possibly resulting in consortia bidding less aggressive construction schedules to control for this risk. These types of disputes are also often better suited to management by the public sector, as public opinion can turn against a project very quickly when a private sector developer is pitted against an individual landowner.

Plenary's past experience with ROW acquisition risk further supports this position, and having taken this risk on previous DBFOM projects, it has seen first-hand the contingencies and uncertainties it introduces into the bidding process. We recommend keeping ROW acquisition risk at the MDOT level.

c. Technical Challenges

- 1. Based on your experience in the development of similar projects and characteristics of the I-495/I-95 and I-270 corridors, please explain the technical challenges, including minimization of right-of-way impacts, to providing congestion relief improvements. Please provide any recommendations for mitigating or overcoming those challenges that you would be willing to share.*
- 2. Are there recommendations that you may be willing to share concerning the project scope or development strategies to reduce the upfront capital costs and/or the lifecycle costs of potential corridor congestion relief improvements?*

3. *Please explain any technical solutions that you may be willing to share that may enhance the development of the potential congestion relief improvements. Identify risks associated with the solutions and, if possible, discuss estimated cost of the solutions.*

As a developer, Plenary looks to its design, construction, and maintenance partners to lead the development of technical solutions for the projects it pursues. Drawing on a deep well of expertise from its delivery team, which oversees construction and operations at each of its 29 North American P3s, Plenary then aims to refine, enhance, and integrate concepts into a comprehensive response to the project's challenges and constraints – and looks forward to applying this proven method to MDOT's future congestion relief project(s). However, with the limited level of information available on the specifics of the project(s) under consideration and in the absence of support from qualified consortium team members, Plenary is unable to provide any technical recommendations at this time.

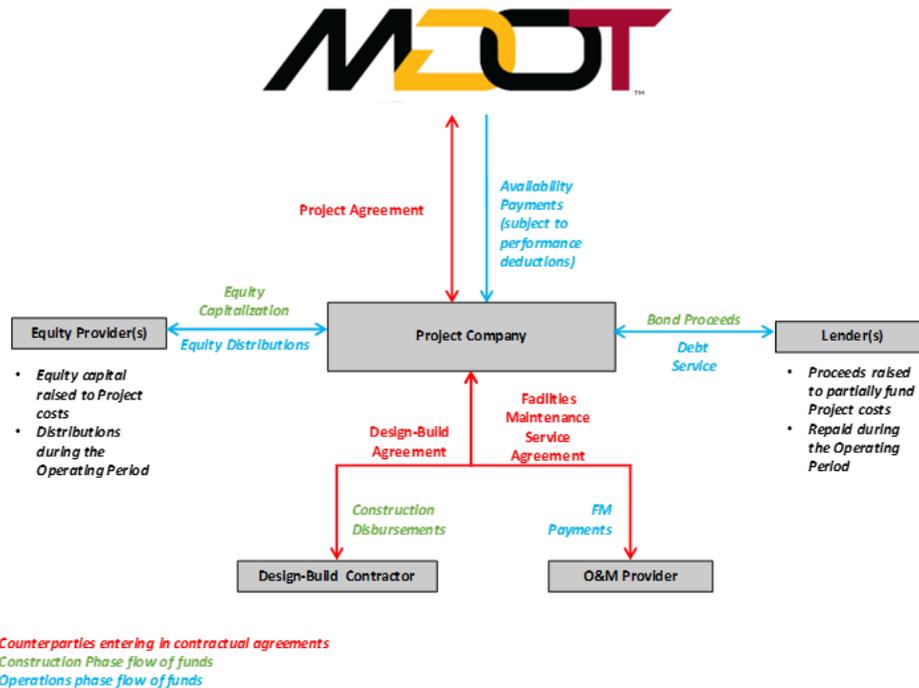
d. Contract Structure

4. *What is your recommended approach for financing the capital cost of potential congestion relief improvements?*

While there is a limited amount of information regarding the scope of the Project, MDOT's Project goals, and any limitations to potential financing structures, we envision that a long-term, committed financing, availability payment model would be the most suitable financial solution for the Project.

Overall Structure

From a high level, this envisioned financial structure fits well into a typical US P3 structure, described and illustrated in the following graphic:



- The developer, as Project Co, will enter into a Project Agreement with MDOT. Project Co will drop down many or all obligations relating to design and construction included in the Project Agreement to the contractor on a “back-to-back” basis through the Design-Build Agreement. The same is true with O&M obligations – these will be dropped down to the O&M provider through the Facilities Maintenance Service Agreement.
- Project Co will raise both debt and equity capital, which will be contributed into the Project to pay for Project costs during the construction period.
- In exchange for satisfying all contractual obligations under the Project Agreement, MDOT will make periodic availability payments, subject to ongoing performance, to Project Co commencing at Substantial Completion.
- A portion of the availability payments are used to repay lenders and equity investors over the operating period.

Financing/Deal Structure

In our view, we see five likely financing options (along with hybrids):

- Milestone Construction Payments
- Construction Completion Payment
- Construction Payments, Availability Payment (w/ any tolls to the Department)
- Toll Model
- Congestion Pricing Model
- Hybrid Models

There are a number of considerations to be addressed prior to determining the ideal structure. Each of the models is discussed below.

Milestone Construction Payments. This structure requires the least amount of private sector financing. Essentially MDOT pays for construction on a monthly basis. Each payment is the lesser of the monthly billing set by a pre-determined schedule of construction costs and the actual work performed (as certified by an independent third party). The balance of the financing is arranged by the developer.

- It is possible that there will be no external financing required (no lenders) under this model. This would eliminate fees and due diligence costs associated with the debt financing.
- It is effective in transferring construction period risk, as MDOT only pays once work is completed, and pays no more than the scheduled payments.
- This structure is limited in regards to O&M risk transfer. With no private debt capital at risk it is difficult to effectively transfer the long-term risk of operating costs to the developer.

Construction Completion Payment. This structure will require short-term developer financing to pay for construction costs. MDOT will agree to pay a fixed amount upon the completion of the asset.

- Like the milestone payments, this is an effective structure to transfer construction period risk. In our opinion, the risk transfer is equal in either a milestone or construction completion payment structure.
- This requires a large amount of private sector capital, but on a short-term basis only. This will result in interest being accrued by the developer and factored into MDOT's maximum payment. In our experience in the current interest rate environment, the cost of this financing is quite low. However, there will be costs incurred on both sides for additional financial fees, legal expenses, and due diligence costs associated with the senior debt.
- Like the monthly milestone structure, this has no long-term developer financing. With no long-term capital at risk, it is difficult to transfer long-term operational risk.

Construction Payments, Availability Payment. In this structure, a portion of the capital costs may be funded by MDOT, either as milestone payments or at construction completion. The remaining portion of the capital costs are financed by the developer on a long-term basis. In our experience, the vast majority of P3s that use this structure are for a 30-year or longer terms. A 30-year minimum is optimal in that it incentivizes developers to think long-term, and there is readily available financial capital willing to invest over a 30-year horizon. Once the construction of the asset is complete, MDOT would commence making availability payments to the successful developer. These availability payments would be fixed over the length of the contract, with increases made only for inflation or negotiated changes to the scope of services

provided. Critically, there would be deductions from the availability payment in the event that the conditions did not meet specified standards.

- This approach provides MDOT with price and date certainty on all of its payments to the successful developer. The construction payments are capped at a fixed amount and are only paid for work certified as completed. The cost of long-term operations is also guaranteed, and there is private sector capital in the form of senior debt and equity “skin in the game” to ensure that the long-term risk of operations appropriately managed.
- If MDOT has raised a significant amount of funding for the Project to date, but perhaps not an amount sufficient for the full scope, this approach would enable the developer to finance the funding gap.
- The developer’s cost of finance may be higher than MDOT’s. However, the premium paid is due to the transfer of risk, effectively a risk adjusted rate. If MDOT were to incorporate the same risk adjustment for performance accountability into its own financing structure for the Project, our opinion is that the cost of finance would be equal to or greater than that of an experienced developer.
- In all likelihood, the availability payments will be considered a long-term liability for MDOT and will be presented as such on MDOT’s financial statements.

Toll Model. Under a toll model the Project is funded from revenue generated by the traffic.

- While this approach may appear to be the most attractive to MDOT, one needs to consider the fact that the tolling revenue may not be sufficient to fund the Project and to exacerbate the situation, the cost of providing the tolling services is a drag on the revenue.
- This model is expensive to implement. The cost of financing is higher due to lenders’ requirements for a higher percentage of equity and equity investors’ higher return expectations due to higher risks and significant discounting of tolling revenue as contingencies.
- While MDOT is protected on the downside in the event the revenue does not materialize as expected, they forego upside potential if the traffic exceeds the anticipated flows, a very real possibility given the discounting done as noted above.

Congestion Pricing Model. This model is typically utilized in highly congested areas. It is designed to control the orderly flow of traffic at an acceptable speed. In effect, the “toll” rate is raised or lowered to discourage/encourage drivers from using the managed lane. The price elasticity for saving time by the drivers dictates the price.

- Similar to the toll model discussed above, the cost of providing the congestion pricing services needs to be considered as well as the fact that it may not provide enough funding for the project (however, along with tolling it is one source of funding that could be combined with other models as we discuss below).

- Congestion pricing also demands a higher cost of financing due to lenders' requirements for a higher percentage of equity and equity investors' higher return expectations due to higher risks and significant discounting of congestion revenues as contingencies.

Hybrid Model 1. As its name implies, this model is a combination of the models we have previously discussed. As we believe would be feasible for the Project, this could include a scenario where MDOT either provides milestone, construction completion payments, or availability payments as described above for a portion of the Project, with the balance being funded from tolls and/or congestion pricing.

- This approach would allow MDOT to have the bidders compete on the basis of the size of the contribution payment, be it milestone, construction completion, or annual availability payment. The balance of the Project would be funded from tolls.
- A concern with this approach would be the high cost of providing the tolling services, which may make the concept cost prohibitive.

Hybrid Model 2. In this model, MDOT would enter into an availability payment model with the developer which may or may not include tolling systems installation. MDOT would be the beneficiary of any tolls which would be used to supplement other funds to fund the availability payment.

- This approach allows MDOT to use toll pricing to set policy, such as congestion pricing to minimize pollution, to implement more of a "user pay" approach.
- It allows MDOT to maximize the benefit of the tolling revenue, as the developer would not discount the anticipated revenue.
- Cost of financing is reduced as the developer is responsible for availability, but not revenue. MDOT can set performance standards and punitive deductions for non-performance so its revenue is not jeopardized.
- As a downside, MDOT would have downside risk if toll revenues fell short. However, upside benefit of higher than anticipated revenue remains with MDOT.
- The cost of providing the tolling services can be very high. However, tolling would be at MDOT's option.

Although additional discussion would be warranted, we believe the best approach would be Hybrid Model 2 as it provides MDOT with the most certainty on date certain, price certain delivery for the construction portion of the Project, and high level performance through the operating period. Under this hybrid model the cost of financing is only slightly higher than MDOT cost and the Department is able to maximize the efficiency of the revenue stream if it elects to implement some form of tolls.

Financing Options

Taxable Options

Debt. A privately placed or publicly offered taxable bond with customary project finance risk allocation could be an attractive option for bidders. Lenders in this market have become increasingly hungry for availability payment structures, and private placement investors in particular tend to be very flexible on structure, terms, and timing. For example, private placement investors could explore various structuring efficiencies with bidders such as a “delayed draw” mechanism, an accreting structure, or even a tranche of debt that is linked to CPI. Further, private placement investors are typically willing to commit to credit spreads at bid, which eliminates any credit spread risk MDOT would be carrying from bid date to financial close.

MDOT may also choose to “guide” bidders toward any financial structures or strategies (such as the ones noted above) that are particularly desirable through its scoring system within the RFP. For example, if MDOT values committed finance vs. a volume-based underwriting solution, it can include additional scoring points for a committed finance solution. We have seen successful procurements recently where committed financing is mandated.

Equity. Equity capital contributed by the Project sponsors would cover the balance of Project costs during the construction period (less any milestone payments, if used). The ratio of equity to total private finance (debt plus equity), known as the “gearing ratio,” is constrained by some combination of lenders, the public sector sponsor, debt covenants, and cost. Typically, in an availability payment P3, gearing ratios range from 5% to 10% during construction. Under a traffic risk approach this gearing ratio is increased due to restrictions from lenders because of cash flow uncertainty. This increase in equity (typically 25% to 50%) substantially drives up the overall cost of financing the Project. To the extent MDOT feels that a certain threshold of equity capital during construction is required to implement sufficient risk transfer, it can set a minimum “construction equity ratio” that the developer is required to maintain throughout construction. There are considerable precedent P3 transactions in the US that utilize this strategy.

Tax-Exempt Options

A natural reaction for a public sector sponsor when procuring an availability payment DBFOM is to explore the use of tax-exempt bonds to reduce the Project’s cost of capital and the sponsor’s resultant annual payment. However, without a PAB allocation, tax exemption could introduce the following issues with the Project.

Risk Transfer. A non-PAB tax-exempt structure may limit MDOT’s ability to enforce key performance indicators through monetary deductions, increase MDOT’s termination compensation liability under a developer default, and may require MDOT to covenant to complete the Project even if the developer defaults during construction.

Flexibility and Commitment. As a general rule, tax-exempt investors are much less likely to be accepting of structures that deviate from the market standard. Further, because a tax-exempt solution would require a volume commitment from bond underwriters at bid, underwriters would have a difficult time agreeing to accept any nuances from the market standard into their final pricing included at bid.

Timing. When compared to a tax-exempt solution, a taxable solution tends to be a much simpler structure, as tax-exempt borrowings in the P3 space require a conduit issuer or a non-profit entity to issue the bonds. Further, tax-exempt borrowings typically have a longer timeframe from bid to financial close, as the bonds must be marketed and sold to a multitude of different investors. These factors increase a public sector sponsor's risk of an increase in interest rates from bid to financial close – developers do not take risk on base rates (e.g. treasuries) from bid to financial close. Further, because there are fewer parties involved in a taxable financing, MDOT will be able to minimize costs normally incurred through a tax-exempt financing (such as bond counsel, disclosure counsel, and a tax-exempt financial advisor).

Cost. Long-term tax-exempt rates as a percentage of taxable rates have historically been more attractive than taxable rates. However, in the current market, the standard for tax-exempt rates is to sell bonds with a 10-year par call. While this par call increases future refinancing flexibility and the potential for MDOT to reduce its availability payment through a reduction in debt service (though this refinancing gain would likely have to be shared with the developer), the cost of the option significantly increases the cost of borrowing.

5. Should MDOT set a concession term or allow proposers to establish a concession term as part of the response to a potential RFP? If MDOT were to set the concession term, what is a reasonable concession term and why?

In order to establish a clear and even playing field for all bidders and a consistent basis for evaluation of bids, we recommend a defined concession term for all bidders, as is standard for P3 projects in North America. The standard concession term length of 30 years is a recommended option, as it takes advantage of existing lender appetite for debt of that tenor while ensuring a sufficiently long timeframe through which to promote the alignment of interests between MDOT and the developer.

6. Are there any contract terms you would recommend, such as Alternative Technical Concepts, Alternative Financial Concepts, contract balancing, pre-development agreements or progressive agreements, etc. to minimize risk to proposers, maximize opportunities for innovation, maximize a concession payment to MDOT, or are key to obtaining competition? Please discuss the benefit and risks of the recommended contract terms.

Properly Sized Shortlist. The best and strongest teams are now highly sought after within the industry, and each of the growing number of states adopting P3 delivery methods are seeking

to attract the attention of the best and strongest teams. Even the best and strongest teams have finite resources, and must, therefore be highly selective in deciding which opportunities to pursue. Limiting the list of bidders for the proposal stage to three (3) teams helps to bring the best and strongest teams to a procurement, and ensures that each will commit to developing the strongest proposals due to a more reasonable chance of winning. A limited shortlist also reduces MDOT's liability for stipend payouts in the eventuality that a project is canceled or terminated after a certain date.

Stipend/Break Fee. As noted above, the exact stipend amount should be calibrated with the information that is requested in the RFP, the duration of the RFP period, and commensurate with the level of effort.

We also recommend that MDOT offer a cancellation fee to the bidders in the event that the procurement is cancelled prior to closing (or during the procurement itself). The amount of the cancellation fee should step up over time (i.e. it should be lower if cancelled early in the process and should be higher if cancelled later in the process). A cancellation fee was offered, for example, on the recent US P3 projects Long Beach Civic Center and UC Merced 2020 pursuits.

Procurement Schedule. The marketplace is experiencing a significant increase in the number of P3 projects. With resource commitment significant, we encourage MDOT to publish an aggressive, yet achievable procurement timetable and then maintain the schedule. Too often, the projects are "on again / off again", losing momentum and with that, interest from qualified teams.

Fair, Transparent Procurement. A strong commitment to transparency during the procurement process and post award is crucial to running a fair process and maintaining accountability from bidders. We suggest MDOT hold regular public meetings for updates on congestion relief, set up project-specific websites that release public information about the respective bidders (such as public disclosure statements), and comply with any state level Open Records requirements.

Alternative Technical (or Financial) Concepts Process. The ATC process could introduce unnecessary complexity to the process if it is not well defined. The qualification process and steps should be thoughtfully defined, as should how and if the ATCs would impact the scoring for bidders. Key aspects include:

- The best and most effective way to bring in ATCs follows closely (but not identically) the US DOT, FHWA (and several other State DOTs) or Infrastructure Ontario's innovation methodology. In this method, proposers first focus on being compliant with the base requirements as clearly defined by the Owner.
- This levels the playing field, as all proposers are essentially bidding the same criteria and performance requirements, which instills fairness and transparency. With this firmly established, proposers are encouraged to craft methods that increase value (or decrease costs), during both construction and O&M phases. The key aspect here is that a

proposer "owns" their specific ATC ideas. They are not shared with other proposers, which encourages more ingenuity and creativity. These innovations are vetted with the Owner during the proposal stage to ensure they meet the base requirements, often through a series of defined meetings, where critical feedback is confidentially provided to each bidder.

- Two key aspects to inspiring both increased value and efficient costing include (a) performance-based vs. prescriptive specifications, and (b) the assumption that ATCs are confidential and treated as unique to the presenting team and are not disclosed until after selection and award. Also, ATC ideas commonly evolve through the bidding period in response to ongoing discussions. As such, one-on-one meetings to vet potential ATCs with the procurement team and the Owner's technical experts associated with the discipline of the ATC are encouraged.
- It is important to note that when the Owner chooses a less-confidential path related to ATCs, innovation is greatly reduced, as developers are not partial to distributing creative intelligence to competitors in an active procurement. Similarly, it is important to consider those elements that the Owner feels must be constrained by tight prescriptive specifications and put such in the base requirements, and allows as much opportunity as possible via performance-based specifications. Additionally, handback requirements can be used to establish end-of-project expectations.
- In the ATC process, final responses to the ATCs should be received no later than two months prior to the proposal/bid date. This will give the contractor adequate time to fully recognize the benefit of the approved/conditionally approved ATC in terms of impact to price, schedule and/or risk.

Prescribed Financial Close Date. Prescribing a reasonable financial close date removes the ambiguity of bidders choosing different, perhaps aggressive, financial close dates in order to appear more competitive in their bid submission. By standardizing the financial close date, no bidder has the ability to propose an unrealistic timeframe that may increase risk for the Project. Additionally, we would also expect MDOT to provide a reasonable and easily understood process for market disruption events that could delay financial close.

Clear Expectations in Draft and Final RFP. Ensuring that all commercial issues in the draft Project Agreements are resolved prior to the issuance of the final Project Agreement will allow bidders to have a clear understanding of the issues and appropriately incorporate into their bids prior to the Proposal Due Date.

Affordability Constraints. Other than the available funding from federal grants, USDOT, and state-level sources, understanding affordability constraints that will be placed on the Project by MDOT early in the procurement process will help shape bidders' proposals to best meet MDOT's goals. The affordability constraints can be in the form of capital expenditure or annual availability payment constraints.

e. Miscellaneous

1. *Are there any particular concerns with the information provided in this RFI? Please explain any concerns and provide any proposed solutions or mitigation to address those concerns.*

We do not have any particular concerns related to any of the information that has been provided in this RFI that has not already been addressed.

2. *Please provide any suggestion or comments on how MDOT can encourage participation by Minority Business Enterprise/Disadvantaged Business Enterprise firms and local workforce in the development of the congestion relief improvements.*

Consistent with precedent P3 project procurements, the RFQ requirements and the draft Project Agreement at the RFP stage should be subject to inclusivity requirements that include mandatory Minority Business Enterprise, Disadvantaged Business Enterprise and Local Small Business Enterprise participation goals. These participation goals would be included as part of MDOT's evaluation criteria for selection as the preferred proponent. With this known evaluation criteria, bidders can coordinate outreach efforts that will provide meaningful participation, as determined by MDOT.

3. *What opportunities would you like to see for industry outreach related to these potential P3 opportunities?*

In keeping with its interest in the project, Plenary looks forward to participating in future market sounding exercises, pre-RFQ "all proponents" meetings, in-procurement interactions, and of course engaging in a long-term partnership if selected as MDOT's preferred proponent for this or other projects. Please do not hesitate to reach out directly if you would like to canvas input on this or other procurements in the future.

4. *Please provide any additional comments or questions you may have related to the information in this RFI.*

We do not have any additional comments or questions related to any of the information that has been provided in this RFI that has not already been addressed. We thank MDOT for the opportunity to provide our response to the RFI. We would be very interested in one-on-one meetings with MDOT to discuss anything within our response, or otherwise relating to the Project, either in person or by telephone.