

I-495/I-95 (Capital Beltway) Congestion Relief Improvements From the America Legion Bridge to the Woodrow Wilson Bridge

I-270 Congestion Relief Improvements From I-495 to I-70

VINCI Concessions

December 20, 2017

Contact Information:

Sidney Florey

Director Business Development North America

VINCI Concessions

1221 Brickell Avenue

Suite 2040

Miami, FL 33131

(407) 470-6639

sidney.florey@vinci-concessions.com

Ohio River Bridges – East End Crossing
VINCI Highways



December 20, 2017

To:

Mr. Jeffrey T. Folden, P.E., DBIA
Chief, Innovative Contracting
MDOT State Highway Administration

RE: VINCI Concessions' response to Request for Information for I-495/I-95 (Capital Beltway) Congestion Relief Improvements from the American Legion Bridge to the Woodrow Wilson Bridge and I-270 Congestion Relief Improvements from I-495 to I-70.

Dear Mr. Folden:

VINCI Concessions would like to thank the Maryland Department of Transportation (MDOT) for the opportunity to provide our views and share our experience for the potential public-private partnership (P3) procurement of the Capital Beltway and I-270 Congestion Relief Improvements.

Designated Point of Contact:

The information for our designated point of contact is herein included:

Mr. Sidney Florey

Director Business Development North America
VINCI Concessions
1221 Brickell Avenue, Ste. 2040
Miami, FL 33131
Mobile: (407) 470-6639
Office: (786) 580-5947
sidney.florey@vinci-concessions.com

VINCI and its affiliates have the capacity to deliver a fully turnkey project by providing whole-lifecycle services, commencing with the design phase through construction, operations and maintenance. In addition, VINCI has the financial depth to be the project developer and equity partner. As a vertically integrated company, we also have the capability to respond as a design-build-finance-operate-maintain firm. At this time, and to add other members to our team, we would need to evaluate the scope of work, once it is fully defined, but we herein offer our views and put forward our interest on this important project.

In conclusion, we again appreciate the opportunity to provide input for the Congestion Relief Improvements to be undertaken by MDOT and look forward to meeting with your staff at a one-on-one meeting in the near future.

Sidney Florey
VINCI Concessions

RFI Questions and Responses

Section 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.

Introduction to the VINCI Group

With global headquarters in Rueil-Malmaison, France, VINCI is a world leader in concessions and construction with more than 183,000 employees in over 110 countries and over €38 billion (USD\$45 billion) in annual revenues as of December 31, 2016. VINCI's global activities include the design, construction, financing, operations and maintenance of infrastructure assets and facilities that improve daily life and mobility for all. Because our projects are in the public interest, VINCI considers that reaching out to all stakeholders and engaging with them in dialogue is essential for our success. Also, since our philosophy is all-around performance, above and beyond economic results, VINCI is committed to performing its activities in an environmentally and socially responsible way.

Introduction to VINCI Concessions

VINCI Concessions, a wholly-owned direct subsidiary of the VINCI group, is a world leader in infrastructure concessions. Through its various divisions that include VINCI Railways, VINCI Highways and VINCI Airports, VINCI Concessions is one of the world's leading concession companies and the largest in Europe, with a portfolio containing 54 Public-Private Partnership (P3) projects under construction, operations and/or maintenance, including more than 3,300 miles of highways

in operations globally, bringing extensive development capacity and resources to its projects. With its 13,421 employees around the world, VINCI Concessions generates 16.5% of the VINCI group's revenues, with the remainder being contributed by the contracting arm of the parent company: VINCI Construction (heavy civil works), Eurovia (road and rail works), and VINCI Energies.

Potential Interest on Project

As a whole lifecycle company, VINCI has the capacity to deliver a fully turnkey project by providing whole-lifecycle services, commencing with the design and construction of the asset, and continuing through the operations period to provide asset management services that include operations, maintenance and major rehabilitation. In addition, VINCI has the financial depth to inject equity on both availability payment and traffic revenue risk P3 projects and obtain private financing, allowing the private sector to develop a unique opportunity to establish a payment mechanism that fits their needs in the development and construction of infrastructure assets. As a vertically integrated company, we have the ability to respond as a firm that excels on all delivery structures, but more specifically design-build-finance-operate-maintain (DBFOM), which includes agreements with VINCI affiliates in the U.S.

At this early stage, and by examining the preliminary scope of work as stated in the Request for Information (RFI), VINCI hereby states our interest on this project. However, our final determination to participate in a procurement process depends on several factors, including projected equity and private financing amount, delivery structure, payment mechanism, baseline data made available by MDOT, and other factors as

explained in this response to the RFI.

In regards to our experience, the following projects are a representative example of the projects we have closed and are successfully managing around the world.

State Route 91 Express Lanes, California



The project consists of the operations and maintenance of managed lanes operations and maintenance along SR 91 in Orange County, California. VINCI, through its affiliate Cofiroute USA, is responsible for operations and maintenance, including periodic and preventive maintenance of the roadway and signs; roadway traffic management; overseeing and maintaining the roadside toll collection and toll revenue communication systems; customer service facilities and staffing; financial reconciliation and auditing of toll revenue; and incident response. The project started operations in 2003, with the current contract ending in 2021.

The scope consisted of the integration of systems and implementation services for the RCTC extension of the 91 Express Lanes from the Orange County/Riverside County line to the I-15 intersection. Our subsidiary Cofiroute USA was awarded this project, which consisted of the implementation of two new tolling facilities for multi-point tolling, including all aspects of design, development, integration, and implementation of roadside equipment, traffic management system, variable message systems, customer service center, and back office system. The contract was awarded in 2014 and was completed on time and on budget in July 2017.

Ohio River Bridges-East End Crossing, Over the Ohio River between Kentucky and Indiana



This Design-Build-Finance-Operate-Maintain (DBFOM) project consisted of the design and construction of a 12-mile, four-lane highway, including a cable-stayed bridge over the Ohio river between Louisville, Kentucky and Utica, Indiana, and also including a tunnel in the Kentucky approach to the bridge. The project entered its operations and maintenance phase in 2016 and is currently being managed by the project company, of which VINCI Concessions is the lead. The current responsibilities include operations, routine

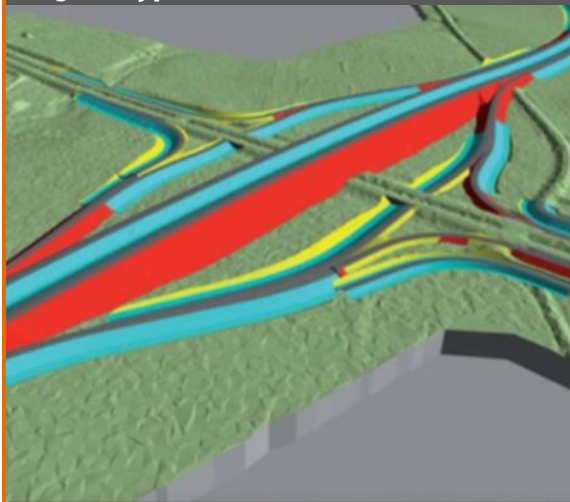
SR 91 Systems Integration Project, California



and preventive maintenance, major rehabilitation activities, and emergency response. These activities exclude the tunnel, for which the operations and maintenance activities were retained by the State of Kentucky. This project was delivered as an availability payment and the contract runs until the year 2051.

The Confederation Bridge, between the provinces of New Brunswick and Prince Edward Island, was designed, constructed and financed by a consortium that included VINCI Concessions. Construction started in 1993 and was completed in 1997 on time and on budget. The bridge is currently in its operational phase until the year 2032.

Regina Bypass, Canada



The Regina Bypass Project, in the City of Regina, Saskatchewan, includes the design, construction, financing, operation and maintenance of a free flow highway corridor through the Regina Region, which includes approximately 36 miles of 4-lane highway (including, 25 miles of new 4-lane highway) and service roads along with a number of interchanges and intersections.

Escota Network, France



The scope consisted of the Design-Build-Finance-Operate-Maintain (DBFOM) revenue concession of a 286-mile highway network that includes 21 tunnels and 50 viaducts. VINCI was responsible for the design, construction and financing, and currently operates and maintains the entire network, including toll collection. VINCI provides all aspects of routine maintenance and rehabilitation, including design and construction; and toll collections and operations.

Confederation Bridge, Canada



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.

We have found that appropriate risk allocation or risk sharing allows for a smooth process when it comes to the procurement, design and construction of P3 projects. We

recommend that MDOT conducts a full risk assessment prior to commencing the procurement process in order to determine which party (MDOT or the private sector) is in a better position to mitigate those risks, which, in turn, will allow the private sector to

provide a higher degree of certainty on construction costs and schedule.

In our experience, the following risks should be considered early in the process:

Risk	Private Sector	MDOT
Environmental Approvals (NEPA)	The private sector should be responsible for any environmental incidents occurring during the construction or maintenance phase and that are directly the responsibility of the developer.	MDOT should commence the environmental approval process as early as possible, but more importantly, should have a record of decision (ROD) in place as early as possible during the bid phase. Obtaining the ROD would increase certainty on the construction schedule.
Unknown Environmental Conditions	When environmental conditions are known, the private sector should be able to include corresponding mitigations and provide cost and schedule certainty.	MDOT should consider retaining the risk of unknown environmental conditions discovered during the construction process. These unknown conditions should be considered a relief event in the P3 agreement. This would allow the private sector to provide price certainty during the bid process.
Unknown Geotechnical Conditions	When geotechnical conditions are known, the private sector should be able to include corresponding mitigations and provide cost and schedule certainty.	MDOT should consider retaining the risk of unknown geotechnical conditions discovered during the construction process. These unknown conditions should be considered a relief event in the P3 agreement. This would allow the private sector to provide price certainty during the bid process.
Utility Coordination and Relocation	The private sector should retain the risk of utility relocation, after all coordination with utility owners has been completed.	Given that MDOT deals on a regular basis with utility owners and has established relationships, this particular risk should be retained by the public sector. Coordinating with utility owners can be managed by the private sector, but the problem lies in the fact that any delays caused by utility owners could greatly impact the construction schedule. This risk should be considered a relief event in the project agreement so that bidders can provide cost certainty.
Unknown Utilities		Unknown utilities pose a great risk to construction cost and schedule. This is a risk better absorbed by MDOT and should be considered a relief event in the project agreement.
Right-of-Way (ROW) Acquisition	In the event the private sector needs additional ROW due to its design or the implementation of Alternative Technical Concepts (ATCs), as approved by MDOT, then the public sector may assign that risk to the private sector. It is important to point out that in this particular instance, the private sector would have to coordinate all ROW acquisition through the Owner and involved governmental agencies.	It is important that the public sector commits to obtaining all ROW required along the project corridor, once the project alignment is determined. This will mitigate the risk of the private sector dealing with property owners and the uncertainty of obtaining the required ROW, therefore, driving down bid costs and avoiding delays during construction.

Permits	Building or construction permits can be obtained by the private sector in accordance with its construction schedule.	The public sector should commit to obtaining and have in place all those permits required prior to the commencement of construction, such as environmental permits and Section 404 permits.
Funding	The private sector would be responsible for their own equity contributions, and working with lenders.	In order to eliminate uncertainty and attract qualified bidders and lenders, we recommend that the public sector has in place all federal, state and municipal funding, along with any other government funding or finance mechanisms, such as private activity bonds (PABs) and/or TIFIA financing, are in place prior to the commencement of a P3 procurement.
Stakeholder Risk	Stakeholder management during construction activities and during the operational phase is a risk that the private sector is typically willing to absorb.	The project can only be successful if the stakeholders along the entire Project corridor are engaged in the development to assure that their voices are heard and implemented into the project requirements. Holding numerous stakeholder meetings to answer questions and remove obstacles for a successful project deliveries is essential.
Political Risk		VINCI Concessions recommends that the project is supported by a political champion that will advocate for the purpose and need of the project in order to keep it moving forward, regardless of the 4-year political cycle.

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 section? How do you assess the likely magnitude of such advantages? What are the potential offsetting disadvantages?

Many times, infrastructure owners focus solely on the capital cost to deliver the project, but do not account for the long-term costs of operations, maintenance and rehabilitation. The challenge with this approach is that states and local governments have many competing priorities when it comes to infrastructure, allowing some assets to fall into a “reactive” or deferred maintenance approach, rather than a “proactive” or preventive maintenance approach. This, in turn, increases the long-term cost of operations, maintenance and

rehabilitation. For this reason, VINCI Concessions sees great value in the DBFOM project delivery that will bring the best value for money to MDOT. The DBFOM model will allow MDOT to reassess and prioritize the other assets that are currently suffering from deferred maintenance due to shortfalls in funding.

That being said, the P3 delivery model may present the following advantages:

- **Benefits of incorporating a design-build approach into the process:** the benefits of a design-build process as part of a DBFOM procurement structure saves money and time during such phase when compared to the traditional design-bid-build (DBB) by minimizing the number of change orders. In our experience in North America and around the world, the

design-build method is the most cost and schedule effective by integrating these services and increasing collaboration between the designer and the contractor. This approach also minimizes the risk on the public sector by only executing one engagement contract, thus having a single point of contact for the project.

- **Benefits of incorporating operations and maintenance into the process:** the benefits of a P3 are not only limited to the design-build period. The inclusion of operations and maintenance (O&M) into the process provides the public sector with several additional benefits:

- **Quality of the Infrastructure Asset:** VINCI Concessions philosophy, as long-term asset holders, is that the integration of the O&M aspect into the Design-Build process is a key factor. The transfer of O&M to the private sector through a DBFOM structure encourages the collaboration of the O&M and asset management teams to get involved during the design and construction phase to provide input on maintainability, materials, operations, and rehabilitation, resulting in high-quality construction and a durable asset.

- **Transfer of long-term O&M risks:** in a DBFOM approach, the long-term risk of “deferred maintenance” is transferred over to the private sector. In an economic environment in which many states are operating at a loss, chronic deferred maintenance has become a nationwide infrastructure issue. Though not on purpose, many states find their funding spreading thin across the expansive networks of highways and roads in the nation, which diminishes the ability of many state DOTs to properly maintain or

conduct rehabilitation activities when needed. By allocating this risk to the private sector, VINCI will have a dedicated team solely for the project and operations, routine maintenance and major rehabilitation will be conducted on time and in accordance with our financial models through being proactive.

- **Private Equity and Finance:** the “F” in a DBFOM structure is the glue that holds together the design-build and the O&M phases. By injecting equity into a project, the private sector is accepting a portion of the financial risk by having “skin in the game.”
- **Alternative Technical Concepts and Innovation:** the P3 process allows for the introduction of innovations in constructability and/or materials that could reduce the capital costs, the construction schedule, or both, without sacrificing the long term quality of the highway.
- **Handback benefits:** P3 agreements typically include specific asset handback requirements to ensure the public sector receives an asset, at the end of the contract term, that has been properly maintained and in excellent condition.

In our experience, the disadvantages to a P3 could potentially be the following:

- **Bidders overestimating the traffic and revenue numbers:** many of the P3 projects in the US that have negatively affected the industry is due to overconfident bidders that just want to “win” and have no long-term interest on the asset. VINCI Concessions would advise MDOT to conduct its own traffic and revenue (T&R) studies so as to have a realistic baseline of the long-term viability

of a revenue transaction. In addition, we would also advise that, during the request for qualifications (RFQ) phase, MDOT requires information on bankruptcy from bidders on previous P3s in North America.

- **Underqualified bidders:** the RFQ process, although shorter in nature than the request for proposals (RFP) phase, is no less important. There are recent examples in the US of underqualified bidders being selected based purely on the lowest price, only for the asset owner to realize that the selected bidder does not have the resources and capabilities to deliver the project. We advise that the entire procurement process be based with “best value” in mind, and not with “lowest price.” The final selection should be based, not only on price, but also on quality, the experience of the proposer, technical and financial resources, access to lenders, credit ratings, past ability to commercially and financially close projects, financial strength of major participants, and demonstrable experience in long-term asset holding.

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?

In comparing both approaches, there are clear advantages that emerge for the transfer of O&M responsibilities for the entire freeway from the operational and maintenance perspectives. The most significant challenge for just operating and maintaining the managed lanes is the loss of potential synergies in the utilization of common assets

by a single entity through economies of scale, whether that entity is a developer or MDOT. Such an arrangement would also require increased coordination, thereby decreasing efficiency in operational, maintenance and rehabilitation processes and work. Such decreased efficiency would also increase the operational cost of a private entity in charge of the managed lanes.

While the risks listed for the O&M of just the managed lanes can be mitigated by implementing O&M for the entire freeway, the latter comes with its own set of risks. In conducting O&M for the entire freeway, the issue will be the reliance of the asset condition report and the ability to mitigate the potential un-leveled playing field among the proposers. The information contained in the asset condition report and required rehabilitation works for the asset should not be subjective and all proposers should be held to an equal standard during the procurement period. For MDOT to avoid this liability risk, VINCI Concessions recommends that all documents and reports posted to the data room during the procurement phase are classified as non-reliant documents, so that proposers are encouraged to do their own studies, and removing the risk of liability for MDOT.

The selection of an approach will also depend on whether the developer has access to all the revenues from the managed lanes, and also whether these revenues will be sufficient to cover all the O&M expenditures for the entire freeway or just the managed lanes.

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?

In VINCI Concessions' experience, sizing the packages within reasonable amounts (for example, \$2 billion to \$3 billion) is key for limiting security packages. Beyond \$3 billion, project size, costs and risks associated with bonds and letters of credit would be unusual for the construction industry and thus more complicated to put in place with financial agencies. Under a DBFOM scheme, obtaining a cost-efficient rating from rating agencies would also be a challenge if the project size is greater than \$3 billion. Given the estimated capital cost of \$7.6 billion total for both projects, we would recommend that the Capital Beltway project be procured separately from I-270.

Section 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?

VINCI Concessions has been following and would be interested in participating on a potential procurement for the Congestion Relief Improvements. However, prior to making a final determination on our participation, we would have to examine the final scope of work and packaging for design and construction, the final scope of operations, maintenance and rehabilitation, whether MDOT will be providing subsidies for the project and has applied for TIFIA and/or other public financing/funding vehicles, what will be the final amount of equity required, the proposed payment mechanism (in this particular case likely to be revenue risk), and

whether the T&R study supports the business case. These are items that should be in place prior to commencing any P3 procurement.

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.

Ideally, an RFQ should be issued after the NEPA and project development processes have been completed. VINCI Concessions understands that there are many factors that could affect this sequence, so we would recommend that, at a minimum, the NEPA and project development process be completed as early as possible during the bid phase. This will help the contractual risk allocation process for potential environmental issues and aid the bidders in providing cost and schedule certainty.

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

Environmental documents: The first item that the public sector should have in place should be environmental approvals and a Record of Decision (ROD). This due to the fact that the environmental documentation typically takes anywhere between 18 and 24 months to complete, and it sheds light on potential environmental risks surrounding the transaction. In addition, the environmental commitments made in the environmental document should be clear, specific and attainable, as any uncertainty will be

considered a risk to the private sector and likely, depending on the magnitude, drive up the bid costs.

Right-of-way (ROW): it is also important that the public sector commits to obtain all ROW required along the corridor, once the project alignment is determined. This will mitigate the risk of the private sector dealing with property owners and the uncertainty of obtaining the required ROW during procurement or construction, therefore, driving down bid costs. In the event the private sector needs additional ROW due to its design or the implementation of ATCs (as approved by MDOT), then the public sector may assign that risk to the private sector. It is important to point out that in this particular instance, the private sector would have to coordinate all ROW acquisition through MDOT and involved governmental agencies.

Permits: The public sector should commit to obtain and have in place all those permits required prior to the commencement of construction, such as environmental permits and Section 404 permits. Building or construction permits can be obtained by the private sector in accordance with its construction schedule.

Funding: Funding certainty is key for any P3 project, regardless of the asset. In order to eliminate uncertainty and attract qualified bidders and lenders, the public sector needs to ensure that all federal, state and municipal funding, along with any other government funding, grants or finance mechanisms, such as private activity bonds (PABs) or TIFIA financing are in place prior to the commencement of a P3 procurement.

Geotechnical Studies and Existing Utility Surveys: A proven approach for P3s that have had success in the market is for the owner to

provide geotechnical evaluation reports and existing utility surveys along the corridor. It is typical for an owner to retain risk regarding pre-existing geotechnical conditions and utilities not mapped on the existing utility survey. This is a way to control uncertainty and unknown risks related to these issues. As stated before, unknown risks drive up bid costs due to uncertainty and inability to price them.

T&R Study and Traffic Counts: since the Congestion Relief Improvements will be revenue risk concessions, MDOT should provide a T&R study that would serve as a base case for design development. Although typically proposers do not rely on the owner's T&R study and conduct their own studies, an owner-provided T&R report helps designers in the consideration of origin and destination of traffic flow within the I-270 and I-495 project corridors, thereby aiding in the development of solutions in those areas where traffic flow and mobility needs to be improved. In addition, the T&R study will also provide important information to the private sector to develop an optimized solution for the O&M phase.

Estimated Remaining Useful Life Analyses: if including the O&M of the general purpose lanes is feasible, MDOT should also provide to the bidders and estimated remaining useful life report of all existing highway features including bridge condition reports. These reports would set the current condition of the existing highway as a baseline, allowing bidders to more accurately price any required improvements or renewal activities, and long-term O&M activities.

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?

The minimum amount of time required for the preparation of a Statement of Qualifications (SOQ) varies from project to project, but the typical timeframe averages between six (6) to 10 weeks. However, due to the scope and complexity of the Congestion Relief Improvements, VINCI Concessions would recommend a timeframe in the higher spectrum at about 10 weeks. A minimum of 10 weeks allows proposers enough time to undertake the necessary preparations and due diligence, qualifications data gathering, and production. On the owner's side, MDOT should consider anywhere between two (2) to four (4) weeks for the evaluation of qualifications and shortlisting process, depending on the capacity and resources of MDOT and its advisors. In general, the Request for Qualifications (RFQ) process, from RFQ release to shortlisting should take no longer than three (3) months so as to keep the momentum going and give a positive signal to the industry that the project is not stalled.

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?

The amount of time required to allow proposers to submit a fully compliant proposal varies from project to project, but the average timeframe for proposal preparation, on average, is about nine (9) months.

It is important to note that the length of the request for proposals (RFP) phase depends on the level of conceptual design already executed by MDOT, and whether the items stated in our response to Question b.3 above have been made available prior to the commencement of the P3 procurement. Also, the owner's level of engagement during the procurement, and their ability to respond to

requests for information and make policy decisions in a timely fashion greatly affects the length of the RFP period. In order to mitigate these risks, MDOT should implement a policy committee for policy-level decisions and a steering committee for more technical decisions during the procurement phase.

Another important factor in the RFP development will be establishing a well-balanced risk profile and MDOT's ability to maintain control over the procurement process, both a function of MDOT's advisory team. Structuring the process with an acceptable risk profile with "skin in the game" by both MDOT and the developer will aid in a successful mitigation of the capital costs, lessening the need for public funds.

For a revenue risk transaction, VINCI Concessions recommends no less than nine (9) months as the absolute minimum. This would enable us to conduct our own internal T&R studies and other analyses.

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?

At a minimum, the information VINCI Concessions would require in order to prepare a response to a potential RFP would be those items included in our response above to Question b.3 of this RFI.

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.

Stipends certainly provide relief to unsuccessful bidders and also portray MDOT as being fully invested in the procurement. Typical stipends for design-build projects, according to the Design-Build Institute of America (DBIA) range between 0.01% and 0.25% of the project budget. It is important to point out that P3 procurements usually involve a higher degree of effort due to the addition of O&M and financing. VINCI Concessions considers that a stipend in the higher end of the spectrum provided above would be reasonable.

Since this project is extremely unique from the perspective that it will require significant development and design effort, we prefer to look at this effort as a “work product” and not a stipend. A work product would allow MDOT to have ownership of the design, ATCs and value engineering (VE) concepts put forth by the unsuccessful proposers. A fair approach on this on a project as unique as the Congestion Relief Improvements may be to evaluate the details provided by the unsuccessful bidders and compensate based on a percentage of documented costs and incorporating a value for accepted ATCs and VE concepts.

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.

As stated in our response to Question b.3 above, VINCI Concession is of the opinion that the public sector should commit to obtaining all ROW required along the corridor prior to starting the procurement. This will mitigate the risk of the private sector dealing with property owners and the uncertainty of

obtaining the required ROW, therefore, driving down bid costs. In the event the private sector needs additional ROW due to its design or the implementation of ATCs (as approved by the owner), then the public sector may assign that risk to the private sector. It is important to point out that in this particular instance, the private sector would have to coordinate all ROW acquisition through the owner and involved governmental agencies.

Section 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.***

Every project is different and there are several factors that could challenge an on-time and on-budget completion, but after conducting a high-level, desktop review of both, the Capital Beltway and I-270 corridors, VINCI Concessions points out the following potential challenges that should be addressed and mitigated early in the process.

Based on our experience in constructing and managing projects of similar scope and complexity, one key challenge that could affect this project is right-of-way (ROW) acquisition. From our review and past knowledge of the region, both corridors have sections that run through highly urbanized areas with private properties close to or abutting with the corridors' ROW. Needless to say, these areas present a challenge to the

ROW acquisition process. In VINCI Concessions' experience, the best way to mitigate potential delays to a project is to begin the land acquisition process early on and prior to commencing a procurement. This early action would mitigate any potential risks that could delay the construction phase.

The preceding item also brings another challenge that, if not addressed early, could magnify over time, and that is stakeholder management. MDOT should implement an early outreach program to inform, not only the property owners along the corridors, but also all the highway users of the challenges currently faced by commuters, the benefits of the planned congestion relief improvements, and obtain input from the public during these early stages.

Another potential challenge in highly urbanized areas is the coordination with utility owners and the relocation of their respective utilities. Utility coordination is an activity which the public sector is better equipped to handle. One way to mitigate the potential risks caused by utility relocation delays is to implement an "early works" program through which, after a preferred alternate for the project is selected, all utilities are relocated prior to the commencement of the construction activities for the highways. This allows bidders to offer a higher degree of certainty with their bids, as potential risks of delay due to third parties are offset by the early works program.

To offer a more comprehensive list of challenges for these two corridors, VINCI Concessions would have to analyze the preferred alternate and final scope of work, but in our experience, those challenges offered above have a universal nature that affect the vast majority of P3s.

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?

Public-Private Partnerships are often defined as a partnership between the public and private sectors to deliver, operate and maintain an infrastructure asset. In reality, however, the partnerships starts early in the process, not only with the private sector, but also with other agencies, local governments and municipalities and the public. In our view, the toughest challenge for the implementation of the Congestion Relief Improvements will be to get "everyone on the same page," so the early implementation of a stakeholder management process will be key for the successful delivery of the project.

In addition, and as stated in our response to Question c.1 above, the implementation of an early works program for utility relocation could save time and money. Providing certainty that the existing utilities have been relocated and out of the way of construction will significantly reduce the upfront capital expenditures.

Lastly, from a whole-life perspective, VINCI Concessions recommends a DBFOM procurement structure with the utilization of performance-based specifications, rather than prescriptive requirements, and also allowing the submittal of alternative technical concepts (ATCs), as stated in our response to Question d.3 below. As opposed to a design-build structure, a DBFOM accounts for the long-term lifecycle costs of the project, while performance-based requirements are the tool through which innovations and efficiencies that allow for cost-effective bids. The implementation of operations and

maintenance during the design and construction process allow for a design that keeps maintenance, operability, quality and safety in mind for the long term.

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.

In order to offer more succinct technical solutions for the congestion relief improvements, VINCI Concessions would have to analyze the final scope of work and construction packaging for the project. However, in our experience, the implementation of dynamically tolled lanes are an effective way of controlling traffic flow along congested corridors while raising revenue that is directly reinvested on the asset, as demonstrated by our successful experience in managing the SR 91 Express Lanes in California through our subsidiary Cofiroute USA. The implementation of dynamically tolled lanes should be accompanied by the constant exploration and analysis of new ITS technologies coming to market.

Section d: Contract Structure

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

There are a range of potential financing options that could be considered such as taxable bonds, private activity bonds (PABs), private placement bonds, bank debt, and Transportation Infrastructure Finance and Innovation Act (TIFIA) loans. Capital markets can provide a source of long-term financing

through various types of bond facilities from taxable bonds, to PABs, to private placement bonds. The potential quantum and tenor of bonds such as PABs are well suited to the long-term concessions and repayment profiles typically associated with P3 projects. Bank debt typically provides a source of short to medium term financing and is often used during the construction period as bridge financing to complement the longer term financing facility in place.

TIFIA loans are administered by the US Department of Transportation and can be used to specifically fund the design and construction of highway projects. TIFIA credit assistance can lower the amount of private sector financing needed and the costs of that financing by assuming a subordinate position in the cash flow waterfall of a project.

Such Federal programs have been utilized with great success on most P3s in the U.S. in order to subsidize the capital cost of infrastructure assets and reduce the amount of private financing. The preferred finance mechanism will ultimately be a function of many factors, such as the capital costs of the project, concession term, risk profile, cost of financing and payment mechanism.

2. 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?

The concession term of a P3 agreement is something that, without a doubt, MDOT should establish for the following reasons:

- Creates a level playing field for all proposers to calculate O&M projections, financial models and, ultimately, the price

to be included in their proposals;

- Simplifies the proposal evaluation process for MDOT—although each proposal should be evaluated in its own merit, establishing a fixed concession term allows MDOT to more easily evaluate the actual cost in net present value presented by each proposer, essentially allowing MDOT to compare “apples to apples;”
- Utilizes a proven approach to a DBFOM procurement that has been successfully utilized on many transactions around the world; and, more importantly,
- Allows MDOT to establish contractual asset handback requirements at the end of term so as to receive an asset from the private sector that has been well maintained and in good shape.

The contract term usually depends on many factors, including the design life of the asset and the contractual allocation of risk. For this particular project, however, since MDOT is considering a revenue risk concession, VINCI would recommend that MDOT explore the possibility of a contract term of no less than 52 years, as there is consensus among tax advisors that this would provide certain tax benefits to the developer which would be passed on to MDOT in the bid. In addition, longer contract terms, such as 52-, 60-, 75-, or 99-year terms, will provide a more resilient business case for investors and lenders from the perspective that these longer contract terms allow for a much better chance of economic recovery through an economic down-turn, which usually occurs at least once during longer concession terms.

In addition, MDOT should conduct a non-investment-grade T&R study which, combined with concession contract maximum toll escalation rights, would be useful tools for MDOT in determining the

optimal contract term for the project.

3. Are there any contract terms you would recommend, such as Alternative Technical Concepts, Alternative Financial Concepts, contract balancing, predevelopment 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.

VINCI Concessions would certainly recommend the following:

- **Performance-Based Requirements:** Ideally, the technical requirements in a P3 project agreement should be based on performance and should not be prescriptive. Performance-based requirements open the door to innovations and efficiencies in design, construction and O&M that would be usually not achievable if standard specifications are followed. These innovations may include, for example, new pavement materials and technologies that could extend the life of the riding surface and minimize renewal activities throughout the life of the concession. That being said, we understand that owners may want to limit certain performance requirements and be more prescriptive in certain areas, and this is where alternative technical concepts come in.
- **Alternative Technical Concepts (ATCs):** ATCs are proposed deviations from the contractual requirements that may bring further innovations and efficiencies into the construction or O&M activities. ATCs have been proven to be an effective tool

that may provide cost and schedule reductions, not only from a construction phase perspective, but also from a whole-life perspective. MDOT should definitely allow for the submittals of ATCs during a P3 procurement for the Congestion Relief Improvements and should have a robust process in place for the evaluation of submitted ATCs. It is important to point out that ATCs submitted to MDOT during the procurement process should be kept confidential, as they may contain proprietary material and processes.

- **Alternative Financial Concepts (AFCs):** Similar to ATCs, MDOT should also allow for the submittal of AFCs. Prior to starting a P3 procurement, MDOT should have set out the funding and financial structure of the project; however, AFCs could open the door to alternative methods of financing not previously considered by MDOT. In our experience, a financially well-structured procurement attracts a very small number of AFCs. As with ATCs, MDOT should have a robust evaluation procedure for submitted AFCs and they should be kept confidential for the reasons previously stated.
- **Predevelopment Agreements:** If amenable to MDOT, VINCI Concessions tends to see predevelopment agreements as advantageous for delivering the project on time and on budget. This model allows for a greater involvement of the contractor during the preliminary design phase and allows for a better allocation of risk between the public and private sectors during the design development and execution phases, providing for a more cost-efficient way for all parties. In summary, the advantages of this approach are as follows:
 - Reduces time for tendering and establishes a closer relationship

between the owner and contractor to deliver the project faster.

- Creates a better interface between design and construction which in turn reduces costs.
- Provides for the identification and understanding of risks during predevelopment phase leading to a more effective allocation of risks during delivery phase.
- Wider scope for innovation.
- Owner has significant control, particularly in the early stages before the price is finalized.
- Opportunity to understand project drivers and what constitutes a successful outcome.
- Fewer variations and change orders as the Contractor has been closely involved in the development of the project.
- Better planning of works and resources.

A predevelopment agreement may also have some disadvantages herein stated:

- Two phase contractual process can be complex given there are two contracts (e.g. predevelopment agreement, and DBFOM agreement) which are substantially different in nature.
- Involvement of the owner's senior staff from an early stage and for a longer period of time.
- Establishing the future terms and conditions for the realization of studies and the project itself is sometimes too prescriptive at tender stage.
- Little competitive tension when the contractor is determining the risk-adjusted price.
- Possibly more difficult for the owner to obtain project finance, given the

costs of the project will not be determined until after the contractor has been engaged.

Ultimately, MDOT should make the decision on whether to utilize a predevelopment agreement approach based on what brings the most value for money, and stakeholders and users. VINCI Concessions is willing to work with MDOT regardless of the contractual approach on this project.

Section 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.

VINCI Concessions' major concern at this early stage would be the size and packaging of the project, as stated in our response to Question a.5 above and herein stated once again. In VINCI Concessions' experience, sizing the packages within reasonable amounts (for example, \$2 billion to \$3 billion) is key for limiting security packages. Beyond \$3 billion project size, costs and risks associated with bonds and letters of credit would be unusual for the construction industry and thus more complicated to put in place with financial agencies. Under a DBFOM scheme, obtaining a cost-efficient rating from Rating Agencies would also be a challenge if the project size is greater than \$3 billion; and especially for tunnel works. Given the estimated capital cost of \$7.6 billion total for both projects, we would recommend that the Capital Beltway project be procured separately from I-270.

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.

Prior to commencing a procurement for the Congestion Relief Improvements, VINCI Concessions recommends that MDOT conducts an analysis of the construction market in the Capital Beltway area and ensure that local contractors, suppliers and other providers such as designers and MBE/DBE companies have the market capacity to support a project of the magnitude of the Relief Congestion Improvements. Once the determination has been made that MBEs/DBEs have the capacity to support the market while the improvements are being built, the most typical way of requiring MBE/DBE participation is through requiring that bidders include a minimum percentage of the total work be adjudicated to these companies. MDOT should be careful, however, that the required MBE/DBE percentage is in accordance with market capacity within the context of the capital cost and amount of work to be required by the congestion relief improvements.

Another viable approach is to remove the MBE/DBE requirements from specialty work items. Items that have a history to providing opportunities to the MBE/DBE firms should follow a prequalification process to make sure the firm has the capacity to perform on such heavy demands that will be part of this project.

We pride ourselves in the fact that as a global company, we can bring a wealth of global expertise to highly complex projects such as the Congestion Relief Improvements for the Capital Beltway and I-270. But we also recognize that there are no better experts than the local market suppliers and DBE/MBE

companies to build these projects on time and on budget. As such, VINCI Concessions has always had the policy to engage the local workforce and integrate ourselves into a cohesive team that will benefit all stakeholders and the local community through partnership.

A constant effort is required to encourage the MBE/DBE community to participate. Understanding this requires a significant amount of outreach and, in some cases, a possible mentoring program that can help MBE/DBE firms in developing a solid platform to work with. As these projects require significant cash flow, perhaps a payment mechanism to pay invoices on store materials upon inventory audits on a special frequency that could be identified early would also be helpful.

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

VINCI Concessions would appreciate the opportunity to meet one-on-one with MDOT prior to the commencement of a procurement to better share our views and experiences in successful P3s in North America and around the world. We also put forward the following recommendations to engage the local market:

- MDOT should reach out to local trade schools and unions to encourage training, particularly to dispel the myths of P3 transactions and to let them know that, although the capital costs of these projects are very high, the local trades do have an important role to play.
- MDOT should also hold industry outreach sessions to introduce the developers that have been shortlisted and provide one-on-one opportunities to subcontractors and vendors with them to share their

scope and credentials, encouraging participation from the local market.

- MDOT should provide a mechanism to engage bonding companies to support the local small businesses so that they have a level of bonding capacity available while bidding.
- MDOT should conduct community outreach and minority engagement sessions during the procurement process so that the local market is well informed of the available opportunities.

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

VINCI Concessions has no additional comments and we appreciate the opportunity provided by MDOT to the industry to share our views on successful P3s. We look forward to working with MDOT on the congestion relief improvements along the I-495 and I-270 corridors.