Date:	November 19, 2021
То:	Honorable Chairman Jose "Pepe" Diaz and Members, Board of County Commissioners
From:	Daniella Levine Cava Daniella Lerine Cava
Subject:	Report Providing the Value for Money Assessment and Executive Report for the Rickenbacker Causeway

This report provides the Value for Money (VfM) Assessment and Executive Report for the Rickenbacker Causeway. It's critically important that we address major transportation and infrastructure needs for our roadways and bridges — maintaining them not just for the present but to enhance our resilience for the future, given the escalating impacts of climate change and storm surge. Safety and mobility are also paramount, both for the residents of Key Biscayne and because the causeway is an amenity that draws thousands of cyclists and pedestrians. Throughout this entire process, my goal has been to ensure that we can make progress on these substantial challenges while addressing the needs of the multiple stakeholders who use and care deeply about the future of the Rickenbacker Causeway.

On July 8, 2021, the Board of County Commissioners (Board) unanimously adopted Resolution No. R-648-21, approving my recommendation to publish a solicitation for an open and competitive process for the same project purpose as the unsolicited proposal known as Plan Z. The subsequent competitive *Request for Proposals (RFP) No. 01982, Develop, Maintain and Operate the Rickenbacker and Venetian Causeways and Associated Recreational Elements* was advertised on August 15, 2021 and remains under the Cone of Silence.

Since advertisement of the RFP, there have been many important questions and concerns raised about the unsolicited proposal process as well as the project. We know there are significant limitations with the procurement process regarding public engagement and communications. Throughout this process, I've stressed the importance of ensuring that the County has an opportunity to obtain sufficient public input — an essential part of the decision-making process, and why I pressed to incorporate public feedback and speak in the Sunshine at all possible opportunities.

As mentioned in my report to the Board dated October 4, 2021, I identified that a VfM assessment, though not required at this point in the process, was necessary in order to move forward with a more complete understanding of the options for financing and delivering this project. While we can derive important cost savings, time savings, and innovations from public-private partnership (P3) projects, it was important for the County to explore if this project could realize these benefits using a P3 delivery model.

On October 5, 2021, the Board approved Resolution No. R-942-21, directing the removal of the Venetian Causeway from the RFP. The Board also approved Resolution No. R-979-21 to extend the time for submittal of the proposals in response to the RFP to March 1, 2022, to allow time to make the necessary adjustments to the RFP, and allow sufficient time to complete and review the VfM assessment.

As per my direction, the County engaged a consultant, IMG Rebel Advisory, Inc., under our existing P3 Infrastructure and Financial Advisory Services pool, to perform a VfM Assessment. The VfM analyzed both the project delivery and financing options for the Rickenbacker Causeway project and evaluated the delivery model offering the best "value for money." The VfM analyzed the following four delivery models:

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- 1. <u>Design-Bid-Build (DBB)</u> Conventional County delivery model with financing through a revenue bond, utilization of potential federal funds, maintenance through several short-term contracts, and operation and toll collection by the County.
- 2. <u>Design-Build (DB)</u> Design and construction folded into one contract with public financing through a revenue bond, utilization of potential federal funds, maintenance through several short-term contracts, and operation and toll collection by the County.
- Availability Payment P3 or Design-Build-Finance-Maintain (DBFM) Delivery model integrating design, construction, maintenance, financing, and operation (not including toll collection operations) into a single contract, whereby the project entity gets compensated through availability payments paid from County-operated toll collections and, if toll revenue is insufficient, from non-ad valorem funding sources (and potentially federally funded milestone payments).
- 4. <u>P3 or Design-Build-Finance-Operate-Maintain (DBFOM)</u> Delivery model included in the current RFP that integrates design, construction, maintenance, financing, and operation into a single contract, whereby the project entity is compensated through tolls, with rates set by the project entity in accordance with rate setting policies in the contract to be adopted by the Board (and potentially federally funded milestone payments).

Attached to this report is the Value for Money Assessment Executive Summary and Report for the Rickenbacker Causeway project.

The VfM confirmed that a more integrated delivery model that combines design, construction, maintenance, financing, and operation into a single contract or the P3 delivery following a conventional P3 procurement process is expected to deliver the best "value for money." The VfM also confirmed that the DBFOM model is the only model that minimizes the County's financial risks and financial obligations.

Therefore, the County has two strategic procurement options to further ensure "value for money" for the public.

1. Cancel this procurement and restart a procurement later -

- First, allow time to confirm federal funding availability, further develop the project, engage stakeholders, and complete the NEPA process.
- Second, issue a solicitation recommend use of an RFQ to pre-qualify proposers, then issue RFP to require more detailed proposals with a committed price.

2. Continue this procurement with adjustments -

- Add a prequalification phase to increase market interest.
- Extend both the RFP and Interim Agreement phases to allow time to confirm federal funding availability, further develop the project, stakeholder engagement, and complete the NEPA process.

As we move forward armed with these findings, I will be convening a virtual public meeting December 6, 2021 as I committed to do following the publication of the VfM, to allow for further feedback from the community and stakeholders. I look forward to discussing these strategic options in more detail with our community and with the Board, as we work together to move forward in the best interest of the County and all the stakeholders who are a critical part of this process.

Should you require additional information, as the project remains under the Cone of Silence, please contact Rita Silva, Internal Services Department at <u>rita.silva@miamidade.gov</u>.

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Attachment

c: Geri Bonzon-Keenan, County Attorney Gerald K. Sanchez, First Assistant County Attorney Jess M. McCarty, Executive Assistant County Attorney Office of the Mayor Senior Staff Alex Muñoz, Director, Internal Services Department Maria Nardi, Director, Parks, Recreation and Open Spaces Eulois Cleckley, Director, Department of Transportation and Public Works Felix Jimenez, Inspector General Jennifer Moon, Chief, Office of Policy and Budgetary Affairs Yinka Majekodunmi, Commission Auditor Melissa Adames, Director, Clerk of the Board Eugene Love, Agenda Coordinator

Rickenbacker Causeway P3

Value for Money Assessment

October 2021



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Value for Money Assessment



Rickenbacker Causeway Project - Value for Money Assessment

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The idea of Value for Money revolves around optimizing costs and public value in a way that protects the public interest.

- Value for Money (VfM) is the optimal combination of life cycle costs and quality of a good or service to meet the County's requirements—the same value for less money or greater value for the same money
- Value for Money is assessed from the public perspective, with the goal of protecting the public interest
- A VfM assessment is used to compare P3 and conventional delivery methods for the same project
- Quantitative VfM assessment compares expected cash flows of the P3 approach and conventional approach, while qualitative VfM assessment focuses on a comparison along key P3 value drivers



A Value for Money assessment compares conventional and P3 delivery models against the County's objectives.

- Answers the question, "Which delivery method provides the 'best deal' for the public for implementing a specific project?"
- Should create an understanding of the differences between the P3 and conventional delivery methods
- Contributes to a better understanding of the potential value-driving mechanisms of the P3 option
- Provides decision makers with better information to determine and optimize all of the project delivery alternatives for the Rickenbacker Causeway project

The Value for Money Assessment included multiple components, including qualitative and quantitative analyses.



The Value for Money assessment does have certain limitations in the context of this project.

- The scope of this evaluation is effectively focused on the endpoint of each given contracting solution. However, it is important to note that the way an owner arrives at this endpoint can vary widely, and these paths – the available procurement approaches – have meaningful impacts on the final result.
- In this case, the DBFOM delivery model is assumed to be delivered through a PDA-like approach (e.g., project development with the awarded proposer without a committed bid), rather than a committed bid procurement.
- Although the "value drivers" should remain directionally the same (e.g., delivery models with more market involvement should allow for more innovation and efficiencies), it is important to note that the magnitude of these drivers is likely lessened in a PDA-like approach. As competitive pressure is key to maximizing value, the procurement approach must be taken into account when considering value for money.
- In order to facilitate comparison, this assessment assumes an optimal procurement process for all delivery models.





Project Scope and Objectives



The County aims to accomplish several important objectives with the Rickenbacker Causeway project:

- Improving and replacing existing aging infrastructure assets; while
- enhancing resiliency to protect against sea level rise, storm surge, and flooding;
- improving vehicular traffic flow;
- ▶ and improving bicycle and pedestrian safety and waterfront access.

The Value for Money assessment assumes that the same project is delivered under all approaches, meaning that these benefits will be the same for all delivery models.

The County has other objectives that are used as criteria for evaluating delivery models in the qualitative assessment.

- Design and construction cost efficiencies
- Operations and maintenance cost efficiencies
- Preparation, procurement and contract management cost efficiencies
- Efficient risk allocation
- Low fiscal impact and fiscal certainty for the County
- Time to completion and completion date certainty
- Quality of service during construction
- Long-term quality of service
- Long-term flexibility for the County

The project is located along the Rickenbacker Causeway, a corridor with many important uses and public benefits.

- County's rights-of-way along Causeway crossing Biscayne Bay
- Four-mile causeway, including three bridges, connecting Miami to Virginia Key and Key Biscayne
- Key transportation corridor (both vehicular and multi-modal)
- Popular location for leisure recreation activities

The project scope includes a suite of improvements.

In line with the project objectives of improving and replacing existing aging infrastructure assets while enhancing resiliency to protect against sea level rise, storm surge, and flooding; improving vehicular traffic flow; and improving bicycle and pedestrian safety and waterfront access, the project scope includes the following improvements:

- Replacement of Bear Cut Bridge
- Resiliency improvements, including seawall and island shoreline reconstruction and elevation
- Physically separated bicycle and pedestrian lanes
- Expanded and redesigned public parks and beaches, including concessions
- Replacement of fishing pier and concessions
- Observation deck
- ▶ Interpretive resiliency center, trailhead, comfort stations, and bike repair stations
- Reconstruction of existing toll collection area

At a very high level, the project involves design, construction, maintenance, and operation of the outlined elements of Causeway infrastructure over 40 years.

Project Scope for Analysis & Comparison

- \$442.7M (2021) design & construction cost
- Routine and major maintenance
- Toll collection, operation, maintenance, and repair
 Rickenbacker Causeway

Term

- Design & construction period of approximately five years
- ▶ 40-year O&M period

Financing and Delivery Options

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The financing and delivery models being compared fall along a spectrum of risk transfer to the private sector.

Conventional delivery, nearly all risks borne by the County

Design bid build (DBB) with public financing, maintenance managed and coordinated by the County with works procured as needed, and toll collection by the County.

Most design & construction risks transferred

Option 1

DBB + M

DB+M

Option 3

DBFM

Option 4

DBFOM

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of higher risk transfer to

Spectrum

sector

orivate

Option 2 Design-build in one contract with full public financing, maintenance managed and coordinated by the County with works procured as needed, and toll collection by the County.

> Most risks associated with all functions except toll collection are transferred Availability Payment P3 delivery model integrating design, construction, maintenance, financing, and operation other than toll collection into a single contract, whereby the project entity gets compensated through availability payments paid from County-operated toll collections and, if toll revenue is insufficient, from non-ad valorem funding sources (and potentially federally funded payments).

Most risks associated with all functions are transferred *(current procurement)*

Delivery model included in the current RFP that integrates design, construction, maintenance, financing, and operation into a single contract, whereby the project entity is compensated through tolls, with rate setting policies in the contract to be adopted by the Board (and potentially federally funded milestone payments).

These delivery models can also be examined with regard to the relationship between the County and project parties.



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These diagrams represent the model's contractual relationships and the level of integration of project responsibilities.



Delivery models were also defined with specific reference to implementation in the Rickenbacker context.

	1. DBB + M Conventional Delivery + Public Financing	2. DB + M Integration of design and construction
Contracting	Design Bid Build + multiple short term O&M contracts	One integrated Design-Build contract + multiple short term O&M contracts
Financing	30–40-year tax-exempt municipal toll-backed revenue bonds, supported by reserve fund with CBA pledge (covenant to budget and appropriate from legally available non-ad valorem revenues)	30–40-year tax-exempt municipal toll-backed revenue bonds, supported by reserve fund with CBA pledge
Payment	Progress payments during construction and periodic payments for the various O&M contractors	Progress payments during construction or milestone payment at completion and periodic payments for the various O&M contractors
Evaluation Criterion	Lowest construction price (typically)	Qualitative analysis and design and construction price
"Typical" Risk Allocation	Limited construction risk transferred to the project entity; all else—including interface and revenue risks—remains with the County	Some design and construction risk transferred to the project entity; long term performance and revenue risks retained by the County

These characteristics define the key aspects of how each model was assumed to function for the assessment.

	3. DBFM All functions except toll collection integrated	4. DBFOM Integration of design, construction, finance, operations, and maintenance
Contracting	One integrated Design, Build, Finance, and Maintain contract with separate contract for toll collection	One integrated Design, Build, Finance, Operate, and Maintain contract
Financing	Private financing, via an efficient mix of equity and long-term debt, which might be taxable or tax-exempt	Private financing, via an efficient mix of equity and long-term, which might be taxable or tax- exempt
Payment	Payment via availability payments from County- operated toll collections, with the option for the County to make a milestone payment offsetting availability payments	Payment via privately operated toll collections and concessions sales, with the option for the County to make a milestone payment offsetting toll increases
Evaluation criterion	Best value (combination of whole life cycle costs and other relevant public objectives, e.g., design quality, risk acceptance, timing of completion)	Best value (combination of whole life cycle costs and other relevant public objectives, e.g., design quality, risk acceptance, timing of completion)
"Typical" Risk Allocation	Most design, construction, financing, and maintenance risk transferred or shared with the project entity; revenue risk retained by County	Most design, construction, financing, maintenance, operations, and revenue risk transferred or shared with the project entity



Qualitative Analysis

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The qualitative assessment evaluates the delivery models on the County's criteria for the Rickenbacker Causeway project.

- The criteria shown in the previous section are consistent with those typically used in a Value for Money assessment but are customized for Miami-Dade County and the Rickenbacker Causeway project.
- Each delivery model is rated against each criterion to determine whether it provides more or less public value in this area. For example, an approach that is expected to ensure faster completion, all else equal, would score higher.
- These directional insights are based on extensive benchmarking, professional experience with similar projects, review of available literature, and understanding of the models' features.
- These insights were then considered in the context of the Rickenbacker Causeway project.

First, the pros and cons of each delivery model were considered for the Rickenbacker Causeway project.

Model	Pro	Con
1. DBB + M	 Known and proven method for Miami-Dade County Full control on design details, means and methods 	 Forced marriage of designer and builder Price is only selection factor (typically) Slower delivery & higher cost Can be dispute prone Limited lifecycle focus Lower expected lifecycle cost savings Most risks are retained by County
2. DB + M	 Expedited delivery schedule Early price certainty Consideration of qualifications in selection Lessens design and construction costs Limited change orders Promotes innovation Significant risk transfer 	 Greater transactional complexity Less control over design details Limited lifecycle focus Longer procurement process

These insights are intended to give a high-level understanding of how the models' feature impact things the County values.

Model	Pro	Con
3. DBFM	 Expedited delivery schedule Early price certainty Qualifications based, best value selection Lessens design and construction costs Limited change orders Promotes innovation Enhanced performance security Long term budget certainty More effective long-term risk transfer 	 Revenue risk remains with County Less familiarity to County Greater transactional complexity Less control over design details Longer procurement process Long-term commitment with less flexibility for County
4. DBFOM	Pros of DBFM, plus:Most significant risk transferGreatest performance security	 Least long-term flexibility for County Less familiarity to County Greater transactional complexity Less control over design details Longer procurement process

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Next, the four delivery models were evaluated against the County's identified criteria for the Rickenbacker project



Note: Please see Appendix 4 for a detailed explanation of each of these assessments.

*Note: The efficient risk allocation for revenue risk is difficult to determine definitively; this analysis does not take a position whether it is more efficient for the public or private sector to manage revenue risk for the Rickenbacker Causeway.

This assessment offers a high-level understanding of the strengths and weaknesses of different approaches.



Note: Please see Appendix 4 for a detailed explanation of each of these assessments.

The qualitative analysis reveals tradeoffs between objectives, but also that only one model minimizes County fiscal impact of the Rickenbacker Causeway project.

1. DBB + M	 Most familiar and flexible model County responsible for effectively all project risks with few cost efficiencies Major financial exposure for the County
2. DB + M	 Relatively familiar and flexible model County responsible for most project risks with better cost efficiencies than DBB Major financial exposure for the County
3. DBFM	 Less familiar and less flexible model County transfers many project risks and gains large improvements in efficiency Highest financial exposure for the County Strong performance on most qualitative aspects of Value for Money
4. DBFOM	 Less familiar and less flexible model County transfers the most project risks and gains the most efficiency improvements Only model to minimize financial exposure for the County Expected to result in better Value for Money for the public than conventional model

Preliminary Quantitative Analysis

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The quantitative assessment compared the costs to deliver the same project under the four different delivery models.

- The assessment considered investment and financing costs, costs to operate and maintain the Rickenbacker Causeway, and existing Causeway debt using Rickenbacker project data and information provided by the County.
- In all delivery models, these costs are paid from toll and modest concessions revenues from the Causeway and federal funding.
- The assessment accounts for efficiencies that can be generated, differential financing costs, transaction costs, and more.
- Note that the assessment uses the conservative assumption that the same labor requirements would apply under conventional and P3 delivery, meaning that labor cost assumptions are not driving the estimated cost efficiencies.

In comparing the County's annual cash flows across delivery models, the minimal County financial obligation in the DBFOM stands out.









The quantitative assessment also examined the business case from the point of view of the private partner.



The overall costs of the DBFM and DBFOM models are expected to be lower than DB + M and DBB + M delivery when considering the value of risks.

- The more integrated delivery models are expected to offer more efficiencies, and therefore lower design and build construction costs (DB + M, DBFM and DBFOM) and lower operations and maintenance costs (DBFM and DBFOM).
- The delivery models that include private financing (DBFM and DBFOM) show a higher cost of financing than the publicly financed models (DBB + M and DB + M).
- However, for an "apples to apples" comparison we will need to correct the publicly financed models for the life cycle cost risks (e.g. unexpected major maintenance, design errors leading to higher maintenance costs, coordination issues between contractors) and revenue risks (e.g. revenues lower than expected, unexpected change in traffic) that are transferred to a private partner and priced under the privately financed models.
- After adjusting for the value of these risks, the overall costs of the DBFM and DBFOM model are expected to be lower than a DB+ M or DBB + M model.

Including the value of the risks the County bears in each delivery model creates a more complete comparison.



In the absence of significant federal funding, Rickenbacker Causeway revenues would need to increase substantially under all approaches.

- Under all delivery models, significantly more funding (from tolls and/or federal grants) would be needed for the project.
- Under the DBFOM and DBFM, the amount of money needed would be agreed to upfront with the awarded proposer in order to cover all project costs and risks.
- Under the DBB + M and DB + M, the County could choose to raise less revenue for the project, because the project's costly risks are not "priced in".
- However, in this case the County would run the risk of its project funds falling short, which would require the potentially very undesirable step of accessing other County funding.

*Note: If toll revenues were insufficient to meet project costs, this would likely trigger the use of the reserve fund with CBA pledge (covenant to budget and appropriate from legally available non-ad valorem revenues).


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Preliminary Conclusions and Next Steps

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The Value for Money Assessment yielded several main observations on the optimal delivery model for the project.

- More integrated delivery models (i.e., DBFM, DBFOM) are expected to generate "value for money" due to life cycle costing, risk transfer and performance incentives, when procured competitively.
- The DBFOM model is the only model that minimizes the County's financial risks and financial obligations.
- Alternative financing and delivery options—DBB + M, DB + M, and DBFM would create significant fiscal liabilities for the County and exposure to life cycle cost and toll revenue risks.

Moving forward, the conversation will also focus on implementation strategy and optimizing financial feasibility for the Rickenbacker project.

- As a next step, the findings from the VfM assessment will be used to inform strategic project choices for the Rickenbacker Causeway.
- The assessment will support discussions and decision-making around optimizing the financial feasibility of the project, maximizing the benefits of integrated delivery models, engaging stakeholders, and ensuring that the entire implementation strategy – beyond just the choice of delivery model – maximizes value for money and public benefits.
- Strategic options for next steps are being developed.

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Technical Assumptions

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Project Schedule Assumptions

Phase	Details	Dates	2022	2023	2024	2025	2026	2027- 2066
Interim Agreement Phase	18 months	01 Jul 2022 – 31 Dec 2023						
Permitting Phase	18 months, concurrent with IA phase	01 Jul 2022 – 31 Dec 2023						
Design Phase	36 months, beginning with IA phase and overlapping with first 18 months of construction	01 Jul 2022 – 30 Jun 2025						
Construction Phase	36 months, beginning at the end of the permitting phase	01 Jan 2024 – 31 Dec 2026						
Operations Phase	40 years	01 Jan 2027 – 31 Dec 2066						

Rickenbacker Causeway Project – Value for Money Assessment

Project Capital Investment Cost Assumptions

Capital Investment Cost Category	Cost	Escalation (p.a.)
Design	\$31.6M	2%
Construction	\$411.1M	3.5%
Permitting (3% of D&C)	\$13.3M	2%
Owner's Rep (7% of D&C)	\$31.0M	2%
Owner's Contingencies (10% of D&C)	\$44.3M	2%
Federal Grant Funding (offsetting project costs)	(\$2.0M)	-
Total Capital Investment Costs	\$497.6M	-

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Project O&M Cost Assumptions

O&M Cost Category	Cost	Escalation (p.a.)
Annual Routine Maintenance	\$3.1M	2%
Annual Major Maintenance / Lifecycle Costs (average)	\$1.4M	3%
Annual Operations*	\$3.0M	2%
Total O&M Costs	\$7.5M	-

*Note: Data availability limitations mean that this operations figure includes additional functions (e.g., janitorial services) beyond simply toll collection; this fact does not have any meaningful impact on the assessment's conclusions.

Additional Transaction Cost Assumptions

Assumption	DBB + M	DB + M	DBFM	DBFOM			
Additional preparation costs for Miami-Dade County	-	\$0.5M	\$1.5M	\$1.5M			
Assuming a PDA approach, the additional transaction costs associated with DBFM and DBFOM will be minimal, compared to two-step P3 procurements.							
Bond issuance costs for Miami-Dade County	1%	1%	-	-			
For delivery models 1 and 2, a 30 –year revenue bond will be issued in order to provide public financing for the project.							

Revenue Assumptions

Revenue Category	2022 level	Escalation (p.a.)	Increase at Substantial Completion
Annual Cash Toll Revenues	\$11.4M	2%	Output
Annual Plan Toll Revenues	\$1.0M	2%	Output
Annual Ancillary Revenues (Concessions + Misc.)	\$200k	2%	25%
Total Revenues	\$12.6M	-	-

Cost allocation assumptions

Assumption	DBB + M	DB + M	DBFM	DBFOM
Retained design costs	100%	20%*	20%	20%
Retained permitting costs	100%	100%	10%	10%
Owner's rep costs	100%	100%	100%	100%
Retained owner's contingency costs	100%	40%*	40%	40%
Additional transaction costs	100%	100%	100%	100%
Retained routine maintenance costs	100%	100%	10%	10%
Retained lifecycle costs	100%	100%	10%	10%
Retained operations costs	100%	100%	100%	10%

*Transferred to private party for management but paid by owner

Efficiency assumptions

Assumption	DBB + M	DB + M	DBFM	DBFOM
Design efficiencies	-	2.5-7.5%	7.5-12.5%	7.5-12.5%
Capex efficiencies	-	2.5-7.5%	7.5-12.5%	7.5-12.5%
Routine maintenance efficiencies	-	_	7.5-12.5%	7.5-12.5%
Lifecycle efficiencies	-	_	7.5-12.5%	7.5-12.5%
Operations efficiencies	-	-	-	7.5-12.5%

P3 Efficiencies Benchmark Information

Drainat	Covings Deletive to DCC	Savings Relative to	Commonto
Project	Savings Relative to PSC	Competitor	Comments
I-595, Florida	14.3% lower than PSC	30% below next most	ATC's and risk transfer
(Road)	(\$300m)	competitive price	
A30, Quebec	33% lower than PSC	~20% below competitor	Hybrid toll and availability
(Road + Bridge)			
Denver FasTracks, Colorado	13% lower than PSC	~20% below competitor	17 ATC's accepted
(Transit)		(\$300m)	
Southeast Stoney Trail, Alberta	NPV 63% below PSC	~40% below competitor	Innovation and market
(Road)			shift
Alberta Road Projects	NPV 27% below PSC	-	2003 - 2012
(Average of 5 Projects)			
Windsor Essex Parkway,	NPV 15% below PSC	~20% below competitor	
Ontario			
(Road)			
I-635 (LBJ Freeway), Texas	NPV 15% below PSC	~50% below competitor	
(Road)			
Port of Miami Tunnel, Florida	12.5% lower capital costs	~50% below competitor	Based on VfM analysis
(Road / Tunnel)	than PSC		2010
Goethels Bridge, New York	13.7% lower than PSC	~7.2% below high bid	
(Road / Bridge)			
Presidio Parkway, California	20% lower than PSC	-	Separate DBFOM and DB
(Road)			projects

Source: I-70 East Corridor Project Value for Money Report, December 2013



Financial Assumptions

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Debt Defeasance Assumptions

- Under DBB + M, DB + M, DBFM models, the County is assumed to pay debt service on existing Rickenbacker revenue bonds as planned through 2044
- Under DBFOM, awarded proposer is assumed to defease this debt by paying off existing principal (~\$27M including assumed \$100k in fees) on Jan 1, 2024 at financial close
 - This is a simplifying assumption for the purpose of this high-level calculation; actual schedule for debt defeasance would be determined by the County.

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Financing Assumptions

Assumption	DBB + M	DB + M	DBFM	DBFOM	Source
Long term debt	72%	72%	62%	42%	
Base rate	3.02%	3.02%	3.38%	3.38%	
CBA/Revenue Bond Rate	2.27%	2.27%	2.63%	2.63%	Bondbuyer 20 Bond Index (DBB, DB + M) / Bondbuyer 25 Revenue Bond Index (DBFM, DBFOM)
Debt Service Reserve	0.25%	0.25%	0.25%	0.25%	
Buffer	0.50%	0.50%	0.50%	0.50%	
PABs spread	-	-	0.25%	0.25%	
Credit spread to A+	-	-	0.50%	0.50%	
Cost of debt	3.02%	3.02%	4.13%	4.13%	
TIFIA	28%	28%	28%	28%	High-level review of Rickenbacker project costs
SLGS Rate 10/12/21	2.13%	2.13%	2.13%	2.13%	State and Local Government Series Rates, for 30 yr securities
1 BP for TIFIA	0.01%	0.01%	0.01%	0.01%	
Buffer	0.50%	0.50%	0.50%	0.50%	
TIFIA Rate	2.64%	2.64%	2.64%	2.64%	
Equity share	о%	о%	10%	30%	
Equity return	-	-	10%	14%	
WACC	2.91%	2.91%	4.30%	6.67%	

Public Financing vs Private Financing

Although commonly cited as a key difference between delivery models, the relative costs of public versus private financing should not be understood as a simple point in favor or against a particular model. Facially, it is true that public financing can often be secured at a lower cost than private financing.

However, this does not represent an "apples to apples" comparison, as the cost of private financing reflects the costs of additional risks being transferred to a private partner.





- Earlier than expected major maintenance
- Cost increases
- Bankruptcy of subcontractors
 - Coordination and liability between the design-build contractor and the O&M contractors
- Delay in insurance for insurable events
- Significant underperformance of subcontractors
- Disagreement about liability for penalties and deductions etc.

Appendix 3

Scenario/Sensitivity Assumptions

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Scenario/Sensitivity Assumptions

Assumption/Input	Downside Scenario	Upside Scenario
Costs		
Design Costs	+10%	-10%
Construction Costs	+10%	-20%
Routine Maintenance Costs	+10%	-10%
Lifecycle Costs	+10%	-10%
Operations Costs	+10%	-10%
Efficiencies		
All Efficiencies Categories	+2.5 pp	-2.5pp
Funding		
Federal Grant Funding Note: This represents a conservative assumption that does not seek to model major increases in federal funding. This assessment was conducted before the passage of the Infrastructure Investment and Jobs Act.	\$2M	\$10M
Interest Rates		
DBB + M – All In Interest Rate	+ 25 bp	-75 bp
DB + M – All In Interest Rate	+ 25 bp	-75 bp
DBFM – WACC	+ 25 bp	-75 bp
DBFOM - WACC	+ 25 bp	-75 bp



Detailed Qualitative Analysis

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Criterion 1: Design & Construction Cost Efficiencies

- Delivery models that integrate the design and construction phases will tend to produce greater cost efficiencies.
- Integration allows the contractor to avoid costly interface problems, ensuring that designs facilitate efficient construction and minimize hidden costs resulting from technical issues or ambiguities.
- Additionally, many P3 models that leverage outcome-based specifications enable innovation in design and construction which can encourage cost efficiencies.
- For these reasons, DB + M, DBFM and DBFOM delivery models with integrated phases will score higher than conventional delivery, with the P3 models receiving the highest scores.

 Lower Cost Efficiencies
 Higher Cost Efficiencies

 Lower Score
 Higher Score

Criterion 2: Operations & Maintenance Cost Efficiencies

- The long-term and integrated nature of P3 contracts leads naturally to a whole-life-cycle perspective.
- This perspective can effectively encourage investments such as undertaking, rather than deferring, efficient maintenance that will lead to overall cost efficiencies.
- In some cases, outcome-based specifications may also allow for innovation in operations or maintenance that could further decrease costs.
- Because DBB + M and DB + M delivery models do not include operations and maintenance in an integrated contract, they will generate little to no cost efficiencies in this area. DBFM and DBFOM models, on the other hand, will generate higher cost efficiencies.

Lower Cost Efficiencies
Lower Score

Higher Score

Higher Cost Efficiencies

55

Criterion 3: Preparation, procurement, & contract mgmt. cost efficiencies

- The greater complexity and relative novelty (for the County) of some delivery models leads to higher preparation, procurement, and contract management (i.e., transaction) costs.
- Despite the value of, for example, carefully assessing and allocating risks, or setting thoughtful performance requirements, these activities can be time-intensive and costly.
- Transaction costs would fall on a spectrum, from the most familiar, simplest delivery model (DBB + M) to the longest-term, most comprehensive and complex (DBFOM).
- At the same time, conventional delivery requires multiple procurements for design, construction and multiple short-duration O&M contracts—this could lead to a situation where a P3 procurement can be less costly than all of the combined procurement processes needed during the entire lifecycle of a project that is delivered conventionally.

Higher Transaction Costs

Lower Transaction Costs

Lower Score

Higher Score

(A)

Criterion 4: Efficient Risk Allocation

- Risk allocation is at the core of P3 deal: the P3 contract is all about the risk allocation.
- The private sector is willing and able to take responsibility for many of the risks in the life of a public asset, but not just any risks; for example, the risks of supervening events.
- Risk allocation is based on the principle that the party best able to manage these risks should indeed bear them; the closer a delivery model gets to this ideal, the higher its score.
- Options 1-4 exist on a continuum of efficient risk transfer:
 - DBB + M: Very little risk is transferred from the County
 - DB + M: Meaningful improvement in risk allocation with most design and construction risk transferred from the County
 - DBFM: Significant life cycle risk transfer, expected to be efficient
 - DBFOM: Significant life cycle risk transfer, efficiency depends on manageability of revenue risk

Risks All Placed in One Hand

Risks with Party Best Able to Manage Them

Lower Score

Higher Score

Criterion 5: Low Fiscal Impact and Uncertainty for the County

- Under current constraints, all non-DBFOM delivery models would very likely require relying on the County's covenant to budget and appropriate (CBA) from available non-ad valorem revenues (in addition to potential toll-backed debt and federal funding).
- These delivery models would therefore represent a long-term commitment of a finite source of County funds.
- Conversely, a DBFOM delivery model as currently proposed would have a minimal fiscal impact on the County.

Higher Fiscal Impact on the County

Lower Fiscal Impact on the County

Lower Score

Higher Score

A

Criterion 6: Time to Completion & Timeline Certainty

- One key driver of timeline considerations is the extent to which delivery models are able to integrate multiple components and project phases.
- This integration can minimize interface problems and transition time that can cause delays and in some cases allow parallel planning of design and construction; this factor means that any model integrating design and construction (e.g., non-DBB +M models) will have a higher score all else being equal.
- P3 models will also provide strong incentives for timely completion through their tethering of payments (in this case, the ability to collect availability payments or toll revenues) to project completion.
- Delivery models without integration or financial incentives for completion here, DBB + M – will score lower, while a more integrated model like a DB + M can improve construction time.

Longer & more uncertain construction timeline Shorter & more certain construction timeline

Lower Score

Higher Score

Criterion 7: Quality of Service During Construction

- The performance requirements established by a delivery model can ensure that nuisance during construction (e.g., restricted access, delays, etc.) are minimized.
- Typically, DBFM and DBFOM P3 models would have much more comprehensive performance standards, and a greater ability to set incentives to enforce them, than more conventional models.

Lower service quality during construction

Higher service quality during construction

Lower Score

Higher Score

A

Criterion 8: Service Quality & Long-Term Performance

- The full life-cycle perspective encouraged by long-term service delivery contracts integrated across multiple project phases is a key driver of long-term performance.
- For example, investing in efficient preventative maintenance will be incentivized financially, and can also improve service quality if future issues are avoided.
- Outcome-based contracting for P3s leaves room for the private sector to decide how to deliver the envisaged services in a way that meets public objectives for quality and performance and provides remedies if these standards are not met.
- This allows for creative solutions, life cycle cost savings and better quality of service, leading to higher scores for P3 delivery models.
- Note, however, that setting (and changing) long-term performance requirements is often difficult, and if the specifications are not structured well, service quality can suffer.

 Lower Service Quality & Performance
 Higher Service Quality & Performance

 Lower Score
 Higher Score

Criterion 9: Long-Term Flexibility for the County

- While long-term commitments present clear advantages reflected in other criteria, they also reduce flexibility for the County. This reduced flexibility can mean long-term commitments of funds and a constrained ability to make certain operational changes or changes to project areas. This loss of flexibility goes hand-in-hand with gains in certainty in cost, schedule, performance, and more.
- With no long-term commitments (other than, of course, to pay the necessary debt service),
 DBB + M and DB + M delivery models offer much greater flexibility to the County.
- In a DBFM, the County loses much of its flexibility with a commitment to a long-term availability payment, though it would retain operational control of tolling.
- In a DBFOM, the County has very limited flexibility within the bounds of its long-term concession agreement.

Less Long-Term Flexibility
More Long-Term Flexibility
Lower Score
Higher Score

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Rickenbacker Causeway P3

Value for Money Assessment Final Executive Report

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November 2021

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Value for Money Assessment Introduction & Project Objectives

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A Value for Money assessment compares conventional and P3 delivery models against the County's objectives.

- Value for Money (VfM) is the optimal combination of life cycle costs and quality of a good or service to meet the County's requirements—the same value for less money or greater value for the same money
- Value for Money is assessed from the public perspective, with the goal of protecting the public interest
- Assessment answers the question, "Which delivery method provides the 'best deal' for the public for implementing a specific project?"



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The County aims to accomplish several important objectives with the Rickenbacker Causeway project:

- Improving and replacing existing aging infrastructure assets; while
- enhancing resiliency to protect against sea level rise, storm surge, and flooding;
- improving vehicular traffic flow;
- ▶ and improving bicycle and pedestrian safety and waterfront access.

The Value for Money assessment assumes that the same project is delivered under all approaches, meaning that these benefits will be the same for all delivery models.

The County has other objectives that are used as criteria for evaluating delivery models in the qualitative assessment.

- Design and construction cost efficiencies
- Operations and maintenance cost efficiencies
- Preparation, procurement and contract management cost efficiencies
- Efficient risk allocation
- Low fiscal impact and fiscal certainty for the County
- Time to completion and completion date certainty
- Quality of service during construction
- Long-term quality of service
- Long-term flexibility for the County

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Financing and Delivery Options

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The financing and delivery models being compared fall along a spectrum of risk transfer to the private sector.

Conventional delivery, nearly all risks borne by the County

Design bid build (DBB) with public financing, maintenance managed and coordinated by the County with works procured as needed, and toll collection by the County.

Most design & construction risks transferred

Option 2 Design-build in one contract with full public financing, maintenance managed and coordinated by the County with works procured as needed, and toll collection by the County.

> Most risks associated with all functions except toll collection are transferred Availability Payment P3 delivery model integrating design, construction, maintenance, financing, and operation other than toll collection into a single contract, whereby the project entity gets compensated through availability payments paid from County-operated toll collections and, if toll revenue is insufficient, from non-ad valorem funding sources (and potentially federally funded payments).

Most risks associated with all functions are transferred *(current procurement)* Delivery model included in the current RFP that integrates design, construction, maintenance, financing, and operation into a single contract, whereby the project entity is compensated through tolls, with rate setting policies in the contract to be adopted by the Board (and potentially federally funded milestone payments).

Option 1

DBB + M

DB+M

Option 3

DBFM

Option 4

DBFOM

B

The delivery models differ in terms of contracting structure, financing, payment, and responsibility for risks.

	1. DBB + M	2. DB + M	3. DBFM	4. DBFOM
Contracting	Separate contracts for design, construction, O&M	One design-build contract, separate O&M contracts	Integrated contract for design, building, maintenance, separate toll collection contract	One integrated contract for all functions
Financing	Public financing (County-issued debt)	Public financing (County-issued debt)	Private financing (Debt + equity)	Private financing (Debt + equity)
Payment	Payments from County to contractors as required (from Causeway revenues)	Payments from County to contractors as required (from Causeway revenues)	Availability Payment from County to awarded proposer (from Causeway revenues)	All Causeway revenues transferred to awarded proposer
Responsibility for Project Risks	Everything except limited construction risks are County responsibility	Most design and construction risks are awarded proposer responsibility; all else is County responsibility	Risk that Causeway won't generate enough revenues (revenue risk) is County responsibility, most other risks are awarded proposer responsibility	Most design, construction, financing, maintenance, operations, and revenue risk are proposer responsibility

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Qualitative Analysis

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The qualitative assessment evaluates the delivery models on the County's criteria for the Rickenbacker Causeway project.

- The criteria shown in the previous section are consistent with those typically used in a Value for Money assessment but are customized for the Rickenbacker Causeway project.
- Each delivery model is compared against each criterion to determine whether it provides more or less public value in this area.
- For example, an approach that is expected to ensure faster completion, all else equal, would score higher.
- These directional insights are based on extensive benchmarking, professional experience with similar projects, review of available literature, and an understanding of the models' features.

The four delivery models can be evaluated against the County's identified criteria for the Rickenbacker project.



*Note: This analysis makes the conservative assumption that the same labor requirements would apply in all models, meaning labor costs are not a major driver. **Note: This analysis does not take a position whether it is more efficient for the public or private sector to manage revenue risk for the Causeway.

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This assessment offers a high-level understanding of the strengths and weaknesses of different approaches.



The qualitative analysis reveals tradeoffs between objectives, but also that only one model minimizes County financial exposure of the Rickenbacker Causeway project.

1. DBB + M	 Most familiar and flexible model County responsible for effectively all project risks with few cost efficiencies Major financial exposure for the County
2. DB + M	 Relatively familiar and flexible model County responsible for most project risks with better cost efficiencies than DBB Major financial exposure for the County
3. DBFM	 Less familiar and less flexible model County transfers many project risks and gains large improvements in efficiency Highest financial exposure for the County Strong performance on most qualitative aspects of Value for Money
4. DBFOM	 Less familiar and less flexible model County transfers the most project risks and gains the most efficiency improvements Only model to minimize financial exposure for the County Expected to result in better Value for Money for the public than conventional models

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Preliminary Quantitative Analysis

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The quantitative assessment compared the costs to deliver the same project under the four different delivery models.

- The assessment considered investment and financing costs, costs to operate and maintain the Rickenbacker Causeway, and existing Causeway debt using Rickenbacker project data and information provided by the County.
- In all delivery models, these costs are paid from tolls and modest concessions revenues from the Causeway and federal funding.
- The assessment accounts for efficiencies that can be generated, differential financing costs, transaction costs, and more.
- Note that the assessment uses the conservative assumption that the same labor requirements would apply under conventional and P3 delivery, meaning that labor cost assumptions are not driving the estimated cost efficiencies.

In comparing the County's cash flows across delivery models, the minimal County financial obligation in the DBFOM stands out.



The overall costs of the DBFM and DBFOM models are expected to be lower than DB + M and DBB + M delivery when considering the value of risks.

- The more integrated delivery models are expected to offer more efficiencies, and therefore lower design and build construction costs (DB + M, DBFM and DBFOM) and lower operations and maintenance costs (DBFM and DBFOM).
- The delivery models that include private financing (DBFM and DBFOM) show a higher cost of financing than the publicly financed models (DBB + M and DB + M).
- However, for an "apples to apples" comparison we will need to correct the publicly financed models for the life cycle cost risks (e.g. unexpected major maintenance, design errors leading to higher maintenance costs, coordination issues between contractors) and revenue risks (e.g. revenues lower than expected, unexpected change in traffic) that are transferred to a private partner and priced under the privately financed models.
- After adjusting for the value of these risks, the overall costs of the DBFM and DBFOM model are expected to be lower than a DB+ M or DBB + M model.

Including the value of the risks the County bears in each delivery model creates a more complete comparison.



In the absence of significant federal funding, Rickenbacker Causeway revenues would need to increase substantially under all approaches.

- Under all delivery models, significantly more funding (from tolls and/or federal grants) would be needed for the project.
- Under the DBFOM and DBFM, the amount of money needed would be agreed to upfront with the awarded proposer in order to cover most project costs and risks.
- Under the DBB and DB, the County could choose to raise less revenue for the project, because the project's costly risks are not "priced in".
- However, in this case the County would run the risk of its project funds falling short, which would require the potentially very undesirable step of accessing other County funding.



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Preliminary Conclusions and Next Steps

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The Value for Money Assessment confirmed that P3 delivery is expected to deliver the best "value for money".

- More integrated delivery models (i.e., DBFM, DBFOM) are expected to generate "value for money" due to life cycle costing, risk transfer and performance incentives, when procured competitively.
- The DBFOM model is the only model that minimizes the County's exposure and fiscal liabilities.
- Alternative financing and delivery options—DBB, DB and DBFM—would create significant fiscal liabilities for the County and exposure to life cycle cost and toll revenue risks.

However, the procurement process would require the following to help secure that "value for money":

- Building in an RFQ phase to enhance market interest in the project;
- Allowing for sufficient time to confirm federal grant funding availability for improved project financials;
- Engagement with bidders and project stakeholders to ensure the County's and public's goals are met;
- Further project development to minimize uncertainty around the project scope, including changes that could be required in the NEPA process;
- Organizing competitive pressure to ensure fair market pricing; and
- Requesting clear and specific commitments from bidders.

The County has two strategic procurement options to further ensure "value for money" for the public.

Option 1 - Cancel this procurement and restart a procurement later

- First, allow time to confirm federal funding availability, further develop the project, stakeholder engagement, and complete the NEPA process
- Second, issue a solicitation currently recommend RFQ to pre-qualify proposers, then issue RFP to require more detailed bids with a committed price

Option 2 - Continue this procurement with adjustments

- Add a prequalification phase to increase market appetite
- Extend both the RFP and Interim Agreement phases to allow time to confirm federal funding availability, further develop the project, stakeholder engagement, and complete the NEPA process

The County will have an opportunity to further refine its next steps after making this choice.

The two options have many differences, but there is one key trade-off to consider.

- Options 1 and 2 are attempting to accomplish directionally similar goals (e.g., improved market interest, competitive pricing, reduction of uncertainty for the County, enhanced stakeholder engagement etc.).
- However, Option 1 allows for greater optimization of the project's value for money because the fact that a procurement process has already been started under Option 2 makes significant changes more difficult to achieve.
- The County must weigh this against the downsides of cancellation, particularly a potential loss of project momentum.

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