

Design Conference 2008 Session 73

I-595 Corridor Improvements

Presented By:

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Corridor Consultants for

Florida Department of Transportation

District Four

July 29, 2008 2:00 pm



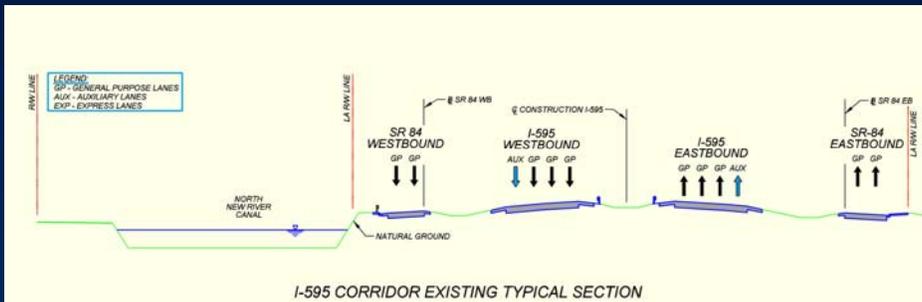
Presentation Outline

- Project Overview
 - Project Location
 - Project Components
 - Project Video
- Development of I-595 as a Public Private Partnership (P3)
 - Project Phasing
 - P3 Advancement Activities
 - P3 Benefits
 - Key Decisions
 - Risk Items
- Initial Finance Plan
 - Coordination
 - Overview of Costs/Revenues
- Project Status
 - Final RFP Provisions
 - Proposal Scoring
 - Procurement and Schedule

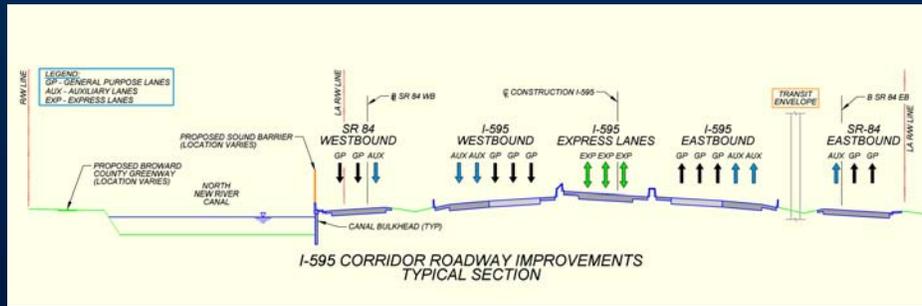
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Typical Sections



I-595 CORRIDOR EXISTING TYPICAL SECTION



I-595 CORRIDOR ROADWAY IMPROVEMENTS TYPICAL SECTION

Project Components



- Express Lanes (reversible)
 - Direct Connect to Florida's Turnpike
 - Open Road Tolling
- SR 84 Continuous Connection
- Turnpike Interchange
- Ramp Improvements
 - Auxiliary Lanes
 - Ramp Braids
 - Bypass Bridges
- Noise Walls
- Transit Accommodations

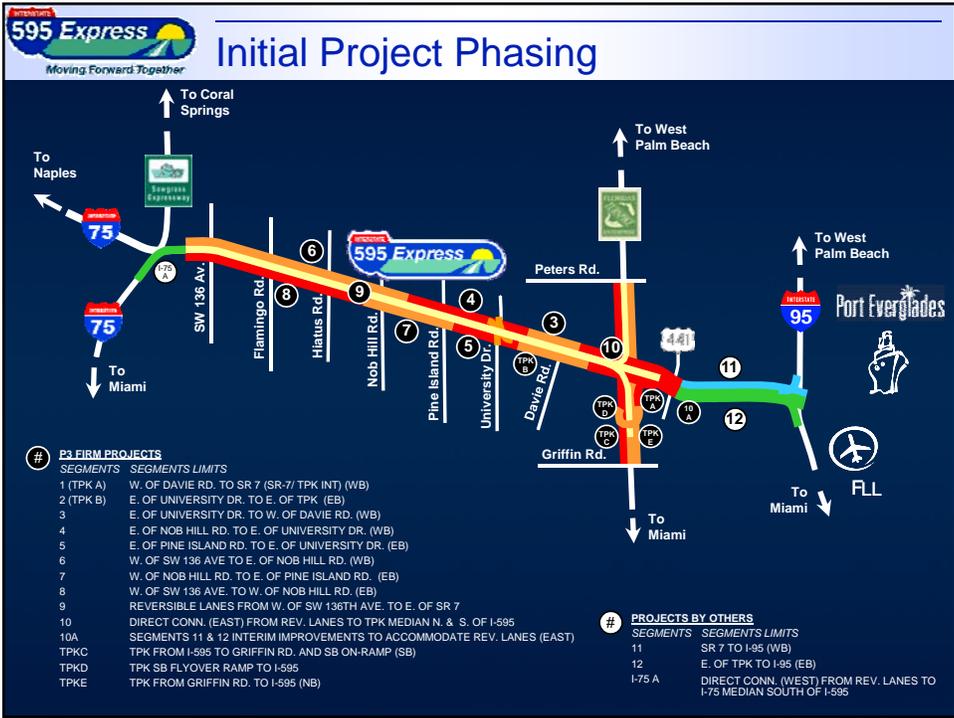
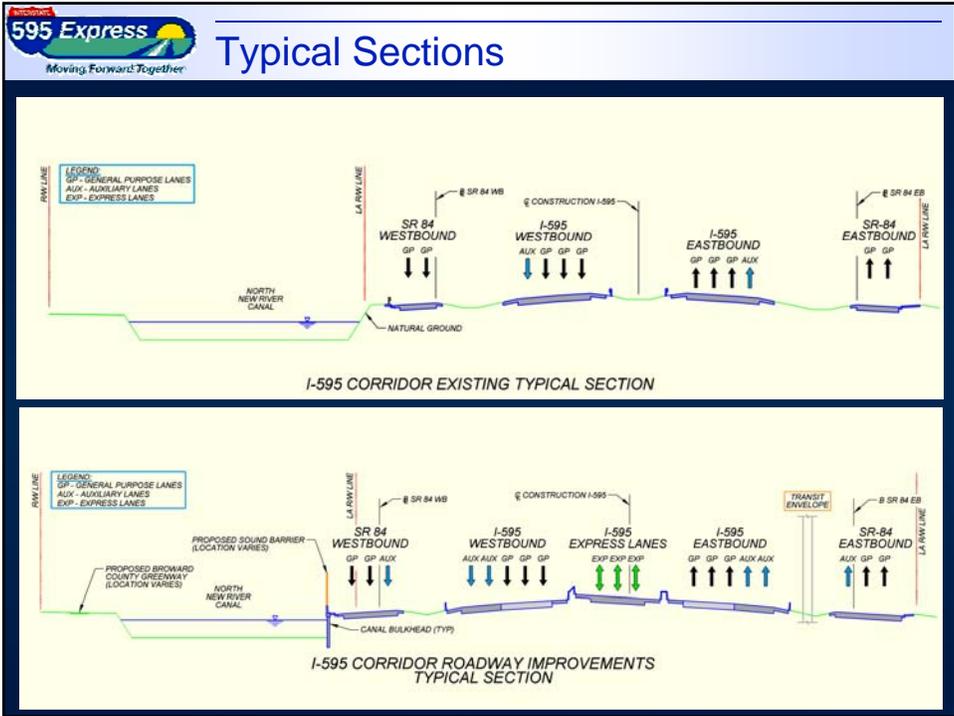


Project Video



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Initial Project Segments Table

SEG.	FM NO.	I-595 SEGMENT LIMITS
-	420809-1	I-595 Corridor Design Consultant
1	409353-1	W. of Davie Rd. to SR 7 (WB)
2	413271-1	E. of Univ. Dr. to E. of TPK (EB)
3	413272-1	E. of Univ. Dr. to W. of Davie Rd. (WB)
4	413058-1	E. of Nob Hill Rd. to E. of Univ. Dr. (WB)
-	421854-1	Advanced ROW Acquisition
5	419339-1	E. of P. Island Rd. to E. of Univ. Dr. (EB)
6	413270-1	W. of 136 th Ave. to E. of Nob Hill Rd. (WB)
7	413057-1	W. of Nob Hill Rd. to E. of P. Island Rd. (EB)
8	413274-1	W. of 136 th Ave. to W. of Nob Hill Rd. (EB)
9	413273-1	Reversible Lanes (136 th Ave. to E. of SR 7)
10	419341-1	Direct Conn. from Rev. Lanes to TPK Median
10A	TBD	Rev. Lanes Interim Improvements (Segs. 11 & 12)
11A *	409354-3	Environmental Mitigation (Segs. 11 & 12)
11 *	409354-2	SR 7 to I-95 Interchange (WB)
12 *	413277-1	E. of TPK to I-95 Interchange (EB)
TPK C	419336-1	TPK from I-595 to Griffin Rd. & SB On-Ramp (SB)
TPK D	419337-1	TPK SB Flyover Ramp to I-595
TPK E	419338-1	TPK from Griffin Rd. to I-595 (NB)
I-75 A*	419342-1	Direct Conn. From Rev. Lanes to I-75 Median

* Projects not included in P3 Scope

Why Consider a Public-Private Partnership?

- Concept Evaluation Phasing Review indicated that waiting for the Capacity Improvements would prove to be problematic
- Desire to reduce and/or eliminate temporary work between project segments
- Upper Management support to investigate advancing the corridor through a Public-Private-Partnership
- Industry very interested in I-595 as a Public-Private Partnership
- FHWA Support for Public-Private Partnership
- Florida Legislation allowing FDOT to utilize Private Financing to advance projects

P3 Advancement Activities

- District / Central Office / Turnpike Workshop
 - Discuss importance of advancing capacity improvements
 - Identify funding shortfall
 - Discuss revenue potentials
 - Discuss alternate funding options
 - Identify Action Items to move forward

P3 Advancement Activities (Cont'd)

- Add Expertise to Team
 - Financial Team
 - Toll and Revenue Team
 - Procurement Team
- Research
 - Meet with Industry Representatives
 - Research similar projects worldwide

- Advance Technical Issues
 - Emergency response strategies and requirements
 - Public Involvement for P3 and noise
 - Horizontal and vertical geometry for the Express Lanes
 - Transit coordination
 - RW needs/Shared Use Agreements for Drainage
 - Expand Geotechnical Investigations

- Develop Financial Model for I-595
 - Update and refine capital costs
 - Develop revenue projections
 - Develop operations and maintenance costs
 - Perform sensitivity analysis for model inputs
 - Perform Value for Money (VfM) Analysis

- Review of Project Objectives
- P3 Structures Considered
 - Design Build Finance (DBF)
 - Design Build Finance Operate and Maintain (DBFOM)
- Payment Mechanisms Considered

Main Objectives for P3 Implementation

- Optimize mobility in the corridor (express and general purpose lanes)
- Maximize quality of facility and service provided
- Encourage long-term efficiency
- Ensure seamless operations interface with wider road network
- Reduce the cost of financing for the project
- Ensure significant market interest

DBF Considered (Design-Build-Finance)

- FDOT has strong Design-Build track record and know-how
- FDOT retains control of toll policy and collection, plus traffic management decisions
- Maximum flexibility to introduce transit and make future changes
- Few enthusiastic Proposers – risk of less competition/higher pricing
- Does not provide:
 - Risk transfer for long term O&M, nor
 - Incentives to optimize lifecycle costs

- Strong interest – further likelihood of robust short-list, competition, pricing
- Lifecycle and high O&M performance benefits obtained
 - Private sector “lives with” product for 30+ years
 - FDOT locks in a fixed price for turnkey infrastructure management
- Risks of entering into a long-term contract – need proper deal structure to achieve benefits and preserve future flexibility
- FDOT has flexibility to retain (or transfer) control of toll policy and collection, as well as aspects of traffic management in the concession agreement
- Quantitative Value for Money analysis indicates that cost savings from DBFOM are likely to offset additional financial cost – suggesting that qualitative benefits and risk transfer can be achieved with no additional cost *if proper deal structure is implemented*

- **Pure Availability Payment**
 - Payment is based on facility being available less deductions for specific contract requirements
- **Shadow Toll Payment**
 - Payment is based on a pre-determined price per vehicle the Department will pay the P3 firm. This would include all traffic in corridor including SR-84 and I-595 as well as the express lanes
- **True Toll Payment (Not being Considered)**
 - The P3 Firm collects all tolls as payment. This would have been supplemented with an availability payment since the toll revenue projects would not cover the cost of the project.
- **Variation of above**
 - A portion of all or some of the above could be done.

Payment Mechanism Conclusions

- FDOT can implement an Availability Payment combined with a small portion of shadow toll or other payment linked to higher traffic
 - Exact ratio / approach was analyzed and eliminated prior to the final RFP
- FDOT should retain toll setting authority but should also consider contracting separately on a short-term basis for support in toll setting and utilizing toll rates to achieve congestion management on a system-level basis (I-75, I-595, I-95)
- Pure shadow toll, real toll and mixed tolling concessions should remain important options to be studied for applications in other corridors where different circumstances and/or goals prevail

How Does P3 Advance I-595?

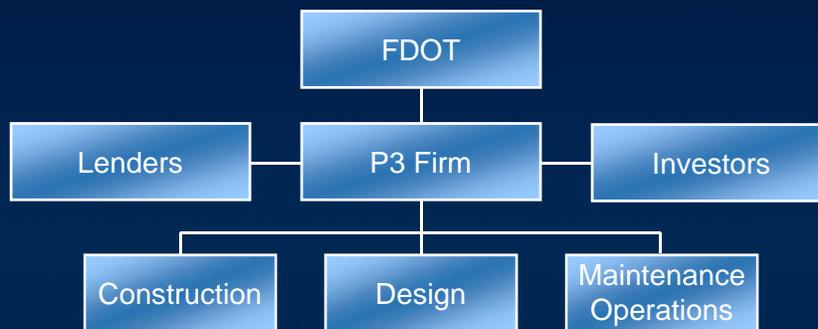


How Does P3 Advance I-595?

- Accelerates the schedule
 - Advances noise wall construction
 - Provides capacity improvements 10 years sooner than the Initial (conventional) plan
- Provides finance mechanism for funding shortfall
- Potential to deliver long-term cost savings and higher levels of service
- Industry Innovation



Typical P3 Model



FDOT Responsible For:
 Procurement Procedures
 Minimum Design/Construction Requirements
 Special construction phasing requirements
 Oversight / Audits of QA/QC
 Minimum maintenance requirements
 Turnover Requirements

P3 Firm:
 Responsible to FDOT, investors and lenders
 Responsible for design, construction,
 operations, & maintenance.

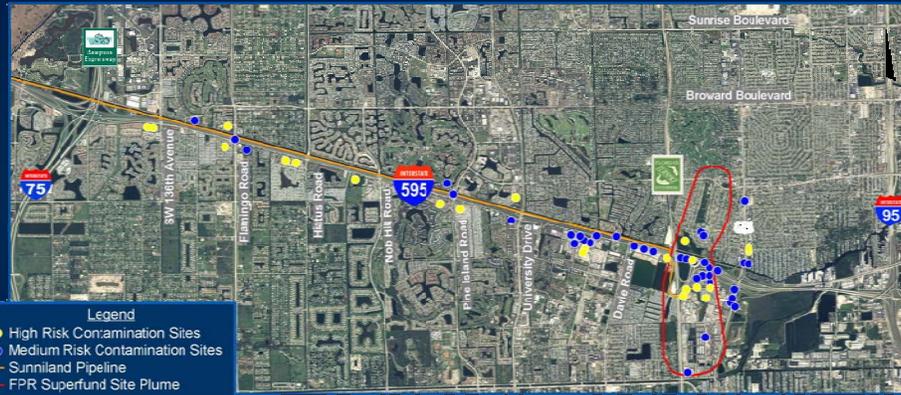
Goal of Project Team:

Ensure appropriate risk allocations to optimize P3 contract.

- Traffic
- Contamination
- Utilities
- Government Approvals

- FDOT will retain all traffic and revenue risk on the project
 - Projected revenues make up a small percentage of the availability payments
 - The traffic risk makes financing more expensive
- FDOT evaluated an excessive traffic payment to cover additional maintenance for more traffic than expected
 - Additional payment was very low (approximately 2% of MAP in outer years)
 - Measuring traffic added complexities to the project
 - No proposers felt this was needed (could take it or leave it)

Contamination



Contamination

- Phase 1 Environmental Site Assessments (ESA's) conducted as part of PD&E Contamination Screening Evaluation Report (CSER)
 - Potential sources of contamination identified within ¼-mile of corridor
- Phase 2 ESA's completed by FDOT for applicable Medium and High Risks sites prior to RFP
- EPA Consent Decree – provisions to design and construct within Florida Petroleum Processors (FPR) Superfund Site plume
- Contractor responsible for all known and unknown contamination.
- FDOT has established a tiered cap on direct costs dealing with contaminated materials removal

P3 Firm Responsible for all Utility Relocations

- FDOT Provided over 250 Utility Locates
- FDOT Provided all as-built data obtained from UAOs
- FDOT has provided preliminary coordination correspondence and cost estimating based on the indicative design
- FDOT has facilitated 5 coordination sessions with the short-listed Proposers and all UAOs
- FDOT is committed to attending all utility meetings in the future
- FDOT is transferring its owner rights to the P3 firms

- Permitting
 - Environmental
 - FDOT is pursuing conceptual environmental permits
 - FDOT has responded to agency comments
 - Construction
 - P3 Firm responsible to continue permitting process and get final approvals
- Environmental Re-evaluations
 - Categorical Exclusion II approved in June 2006
 - Major Design Change Re-evaluation Approved Nov 2007
 - Construction Authorization Re-evaluation approved April 2008

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Technical-Financial Coordination

- Technical and Policy Decisions can not be made or evaluated without coordination and understanding of the financial consequences for such decisions

- Capital Costs
- Operations & Maintenance
- Capital Renewal & Replacement

- Final Acceptance Payments
 - fixed amounts and schedule set forth in RFP
 - paid from final acceptance through FY 2019
- Availability Payments
 - Proposers bid annual, unitary maximum availability payment (MAP)
 - paid over life of concession after substantial completion
 - MAP indexed at mix of CPI and flat 3%
 - MAP subject to deductions for under performance
 - ensure lowest cost of capital
- FDOT retains toll-setting authority and T&R risk

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RFP DOCUMENTS

- **Instructions to Proposers**
- **Volume I – Concession Agreement and Appendices (2 documents)**
- **Volume II – Technical Requirements**
 - **Division I – General Requirements and Covenants**
 - **Division II – Special Provisions**
 - Section 1 – Project Description
 - Section 2 – Project Requirements and Provisions for Work
 - Section 3 – Design and Construction Criteria
 - *Attachment 1 – ITS Deployment Requirements*
 - *Attachment 2 – Tolling Infrastructure Support Requirements*
 - *Attachment 3 – Concessionaire CEI Requirements*
 - Section 4 – Operations & Maintenance Requirements
 - Section 5 – Handback Requirements
 - Section 6 – Specifications
- **Volume III – Additional Mandatory Standards**
- **Reference Documents**

Instructions to Proposers

- **Governs the procurement process and proposal submission requirements**
- **Proposal Requirements (Section 4.0)**
 - **Administrative (Appendix A)**
 - EEO, DBE, Buy America, Contract Funds/Lobbying, Debarment/Suspension Certifications
 - **Technical (Appendix B)**
 - Management/Administration, Preliminary Corridor Master Plan, Operations & Maintenance
 - **Financial (Appendix C)**
 - Maximum Availability Payment Proposal, Financial Plan
 - **Certain technical and financial information will be put into escrow**
- **Evaluation Criteria (Section 5.0)**
 - **Pass/Fail**
 - **Technical Proposal (up to 50 points)**
 - **Financial Proposal (up to 50 points)**
- **Unsuccessful, responsive Proposers will receive up to \$2 million**
 - **FDOT entitled to work product**
- **If Project cancelled after award, successful Proposer entitled to \$2.5 million**

Volume I – Concession Agreement and Appendices

- **Commercial Terms and Conditions Between FDOT and Concessionaire**
- **Payment of Final Acceptance Payments (Article 4.10.4, Appendix 3)**
 - **7 lump sum payments**
 - **1st Final Acceptance Payment at Final Acceptance or July 2012 (whichever is later)**
 - **Remaining payments made each subsequent July**
 - **Final Acceptance Payments subject to performance-based deductions (Appendix 3)**
- **Payment of Availability Payments (Article 12, Appendix 6)**
 - **Monthly Payments starting at Substantial Completion**
 - **95% of Maximum Availability Payment divided by 12**
 - **Quarterly Reconciliation**
 - **Paid amounts actually “earned” during a Quarter**
 - **Based on “availability” of the roadway during the Quarter**
 - **Subject to other performance-based deductions (i.e. routine maintenance/incident response)**
- **Compliance with Federal Requirements (Article 23, Appendix 18)**
 - **Requires familiarity and compliance with federal laws related to federal-aid projects**
 - **Cooperation with FHWA oversight and audit responsibilities**

Volume II – Technical Requirements

- **Division I – General Requirements and Covenants**
 - Based on FDOT's standard design-build specification, modified accordingly
 - Procedures and requirements generally applicable to the performance of the Work

Volume II – Technical Requirements

- **Division II – Special Provisions**
 - **Section 1 – Project Description**
 - Overview of project objectives, improvements and phases of work
 - Basic roles and responsibilities of FDOT, Concessionaire, Regulatory Agencies
 - **Section 2 – Project Requirements and Provisions for Work**
 - Governing Regulations – Federal, State and local manuals & guidelines
 - Requirements for:
 - *Right of way acquisition*
 - *Project schedule and submittals*
 - *Progress reporting*
 - *Public involvement*
 - *Quality plan*

Volume II – Technical Requirements

- **Division II – Special Provisions**
 - **Section 3 – Design and Construction Criteria**
 - Detailed criteria of Concessionaire responsibilities for:
 - *Environmental components / permitting*
 - *Utilities*
 - *Aesthetics*
 - *Roadway / structures*
 - *Maintenance of traffic and work restrictions*
 - Section 3 Attachment 1 – ITS Deployment Requirements
 - *Criteria for interim and permanent traffic management systems to support general purpose and express lanes operations*
 - Section 3 Attachment 2 – Tolling Infrastructure Support Requirements
 - *Criteria for tolling gantries, signing, equipment / buildings to support the express lanes open road tolling system*
 - Section 3 Attachment 3 – Concessionaire CEI Requirements
 - *Criteria for work task and staffing responsibilities for Concessionaire's construction engineering & inspection (CEI)*

Volume II – Technical Requirements

- **Division II – Special Provisions**
 - **Section 4 – Operations & Maintenance Requirements**
 - Establishes Concessionaire requirements and limits for operations and maintenance of the facility assets during both the Construction and Operating Periods
 - Establishes performance measures for maintenance and operations as the basis for determining noncompliance points, violation and availability faults defined in the Concession Agreement
 - **Section 5 – Handback Requirements**
 - Criteria for the transfer of operations & maintenance of the facility from the Concessionaire to FDOT at the termination of the Agreement
 - Includes Evaluation and Renewal Work Plans in accordance with specific asset condition requirements at time of Handback
 - **Section 6 – Specifications**
 - Project-specific 'value added' replacement of (or addition to) various sections of Division II (Construction Details) of the FDOT Standard Specifications for asphalt / concrete pavement, bridge components, turf, signal installation and lighting

Volume III – Additional Mandatory Standards

- **Included as part of the Contract Documents**
- **Example information provided:**
 - Permit applications and subsequent comment / response information (submitted to date)
 - Concessionaire responsible for all permitting requirements upon contract execution
 - Superfund Consent Decree
 - FHWA approved project reevaluations
 - Existing landscape and maintenance agreements
 - Operations & maintenance limits (construction and operating periods)
 - Pavement design criteria and cores
 - Transit accommodation design criteria

Reference Documents

- **Not included as part of the Contract Documents**
 - FDOT makes no representation or guarantee as to the accuracy or completeness of the Reference Documents
- **Provided to Concessionaire for informational purposes only**
- **Example information provided:**
 - Indicative Preliminary Design
 - Traffic & Revenue Study
 - Preliminary drainage reports
 - Level II contamination reports
 - Right of way control and design survey data
 - Preliminary geotechnical exploration data
 - Utility base map and subsurface investigations
 - Existing roadway, structures and ITS plans

Total Score = Technical Score + Financial Score

Technical Scoring = 50 Points

Financial Score = 50 Points

Financial Score is broken into Two parts

- Financial Feasibility = 5 Points
- Points for MAP(P)* = 45 Points

$$P_i = P_{\max} - R \times \frac{MAP_i - MAP_{\min}}{MAP_{\text{ind}}}$$

Where:

P_i = Points assigned to Proposer "i"

P_{\max} = The maximum number of points available for the MAP criteria (45 points)

MAP_i = The MAP bid by Proposer "i"

MAP_{\min} = The lowest MAP proposed by all bidders meeting pass/fail requirements

R = Maximum technical score points possible minus the minimum technical score required to achieve an overall "Good" adjectival score (the pass/fail criteria)

MAP_{ind} = the difference in "MAP dollars" that makes FDOT indifferent between a marginally passing "Good" technical score and a perfect technical score

2007

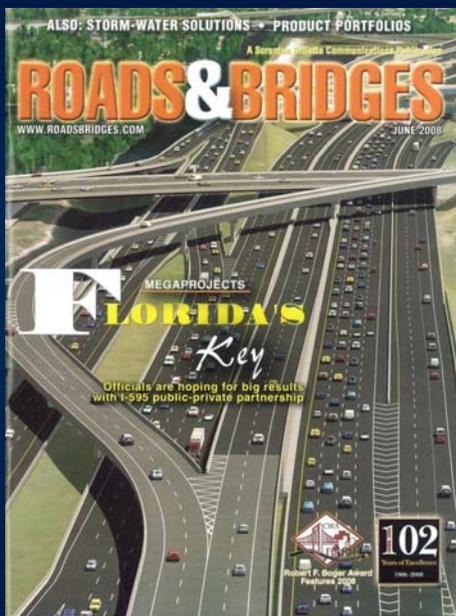
- December 3rd Shortlist Proposers
- December 10th Issue 1st Draft of RFP

2008

- February 20th Issue 2nd Draft RFP
- April 18th Final RFP
- September 5th Proposals Due
- October 24th Selection of Best Value Proposal
- December / January Execution of Contract

2009

- Spring **BEGIN CONSTRUCTION**



Roads & Bridges

June 2008 Issue

Online article is available at

www.roadbridges.com

Title of the article is "Back Brace"



Closing

For additional information

1-595.com



U.S. Department of Transportation
Federal Highway Administration

