Florida Department of
TRANSPORTATION

Cost Savings Initiatives

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Production Support Office



Objectives

- Background
- Changes incorporated in 2011/2012
- CSI Workshop/Concept Meeting
- Submittal Requirements
- Review Process
- Design Build CSI’s
- Case Studies

Background

- FDOT established VECP program early 1990's
- Major changes to program 2011/2012
- Results reported to Executive Board monthly & FHWA annually
- Savings since 1994 – $107 million

Federal Regulation

recommendations are implemented and documented in a final VE report prior to the project being authorized to proceed to a construction letting;

(3) Monitor and assess the VE Program, and disseminate an annual report to the FHWA consisting of a summary of all approved recommendations implemented on applicable projects requiring a VE analysis, the accepted VECPs, and VE program functions and activities;

(4) Establish and document policies, procedures, and contract provisions that identify when VECP's may be used; identify the analysis, documentation, basis, and process for evaluating and accepting a VECP; and determine how the net savings of each VECP may be shared between the agency and contractor;

(5) Establish and [illegible]

preferably before the completion of the project's preliminary design. At a minimum, the VE analysis shall be conducted prior to completing the project's final design.

(b) The VE analysis should be closely coordinated with other project development activities to minimize the impact approved recommendations might have on previous agency, community, or environmental commitments; the project's scope or schedule; and the use of innovative technologies, materials, methods, plans or construction provisions.

(c) When the STA or local public agency chooses to conduct a VE analysis for a project utilizing the design-build project delivery method, the VE analysis should be performed prior to the release of the final Request for Proposals or other applicable solicitation document

consider alternative construction materials; and

(2) Be conducted based on:

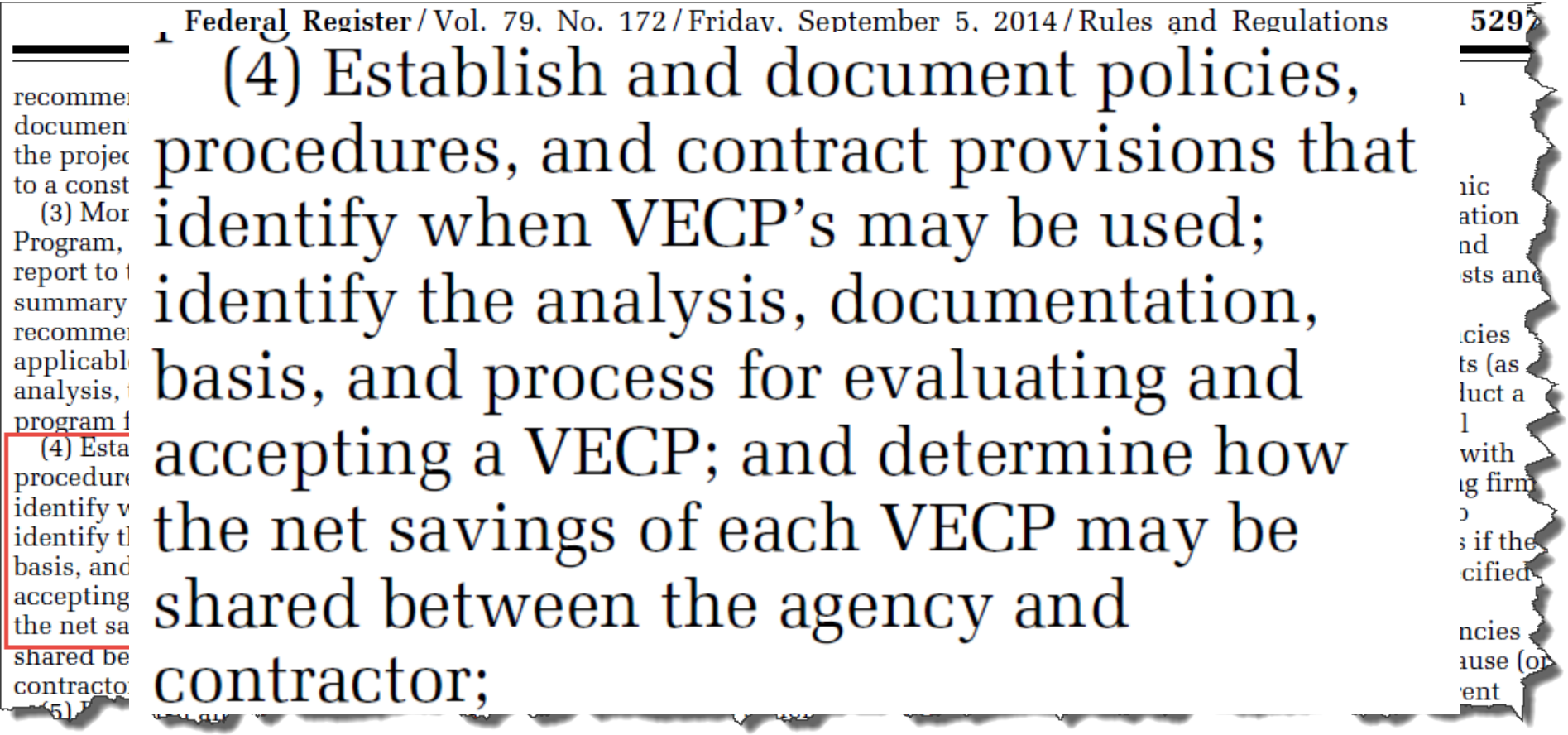
(i) An engineering and economic assessment, taking into consideration acceptable designs for bridges; and

(ii) An analysis of life-cycle costs and duration of project construction.

(g) STAs and local public agencies may employ qualified consultants (as defined in 23 CFR 172.3) to conduct a VE analysis. The consultant shall possess training and experience with leading VE analyses. A consulting firm or individual shall not be used to conduct or support a VE analysis if the have a conflict of interest (as specified in 23 CFR 1.33).

(h) STAs, and local public agencies are encouraged to use a VECP clause (or other such clauses under a different

Federal Regulation



Federal Register / Vol. 79, No. 172 / Friday, September 5, 2014 / Rules and Regulations 5297

(4) Establish and document policies, procedures, and contract provisions that identify when VECP's may be used; identify the analysis, documentation, basis, and process for evaluating and accepting a VECP; and determine how the net savings of each VECP may be shared between the agency and contractor;

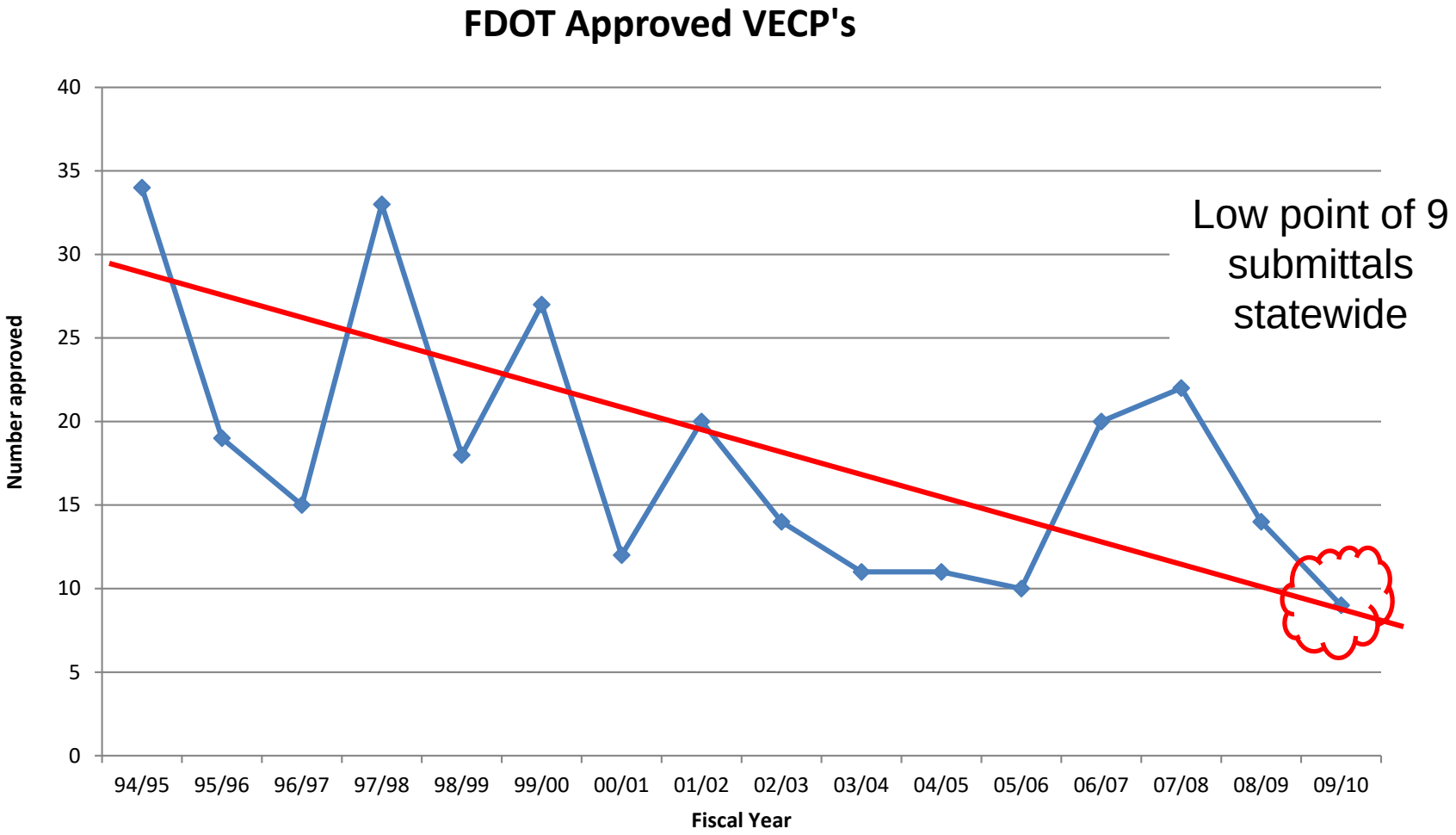
What is a VECP?

VALUE ENGINEERING CHANGE PROPOSAL

A cost reduction proposal that the Contractor initiates and develops for the purpose of refining the contract. The proposal must result in savings without degrading safety, operations, maintenance, aesthetics and essential functions.

Program Results

- 1995 – 2011 Results



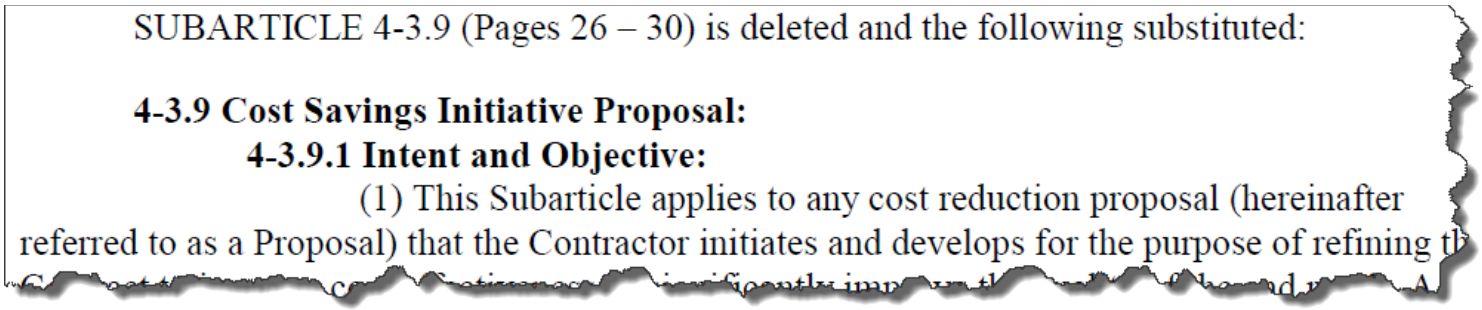
Program Changes

- **FDOT Cost Savings Initiative (CSI) Program**
  - **January 2010 Meeting – FDOT Senior Management, FTBA, Contractors & Consultants**
  - **Construction giving conceptual approval**
  - **Rejecting VECP's after conceptual approval**
  - **Districts not open to changes**
  - **Contractor's paying for engineering costs**



Program Changes

- **FDOT Cost Savings Initiative (CSI) Program**
  - **2011 & 2012 Program Changes**
  - **Change name from VECP to CSI**
  - **Incorporated Mandatory CSI Workshop after award, but prior to Contract Time beginning.**
  - **Changed recommended concept meeting to mandatory**
  - **Pay for engineering costs up to 25% of total savings**
  - **Include the CSI specification on Design/Build projects**



SUBARTICLE 4-3.9 (Pages 26 – 30) is deleted and the following substituted:

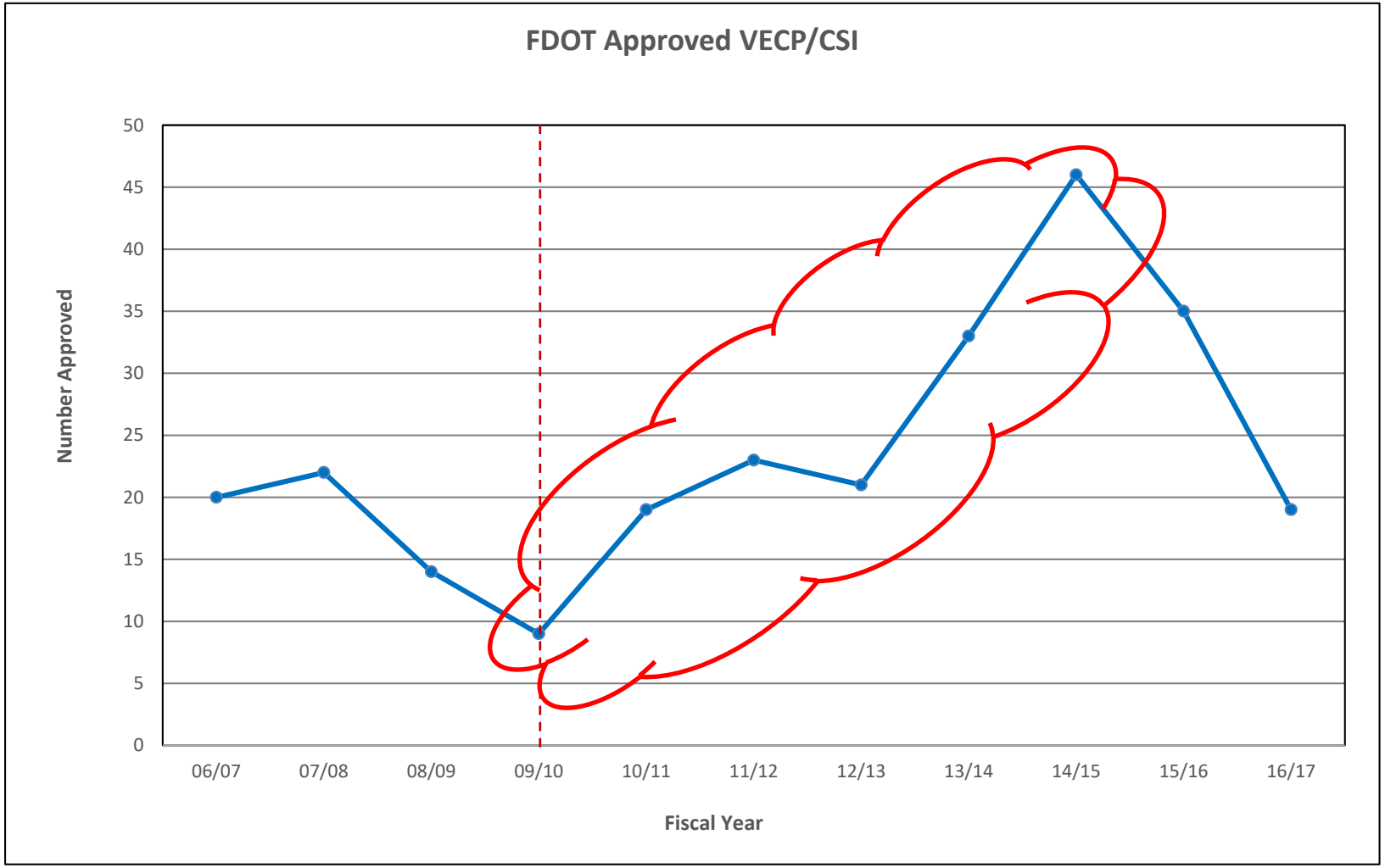
4-3.9 Cost Savings Initiative Proposal:

4-3.9.1 Intent and Objective:

(1) This Subarticle applies to any cost reduction proposal (hereinafter referred to as a Proposal) that the Contractor initiates and develops for the purpose of refining th

Program Results

- 2010-2017



What is a CSI?

COST SAVINGS INITIATIVE

A cost reduction proposal that the Contractor initiates and develops for the purpose of refining the contract. The proposal must result in savings without degrading safety, operations, maintenance, aesthetics and essential functions.

What's Not a CSI?

- Correction of plan errors
- Proposal not identified as a CSI



CSI Workshop

- Mandatory
- Prior to beginning of Contract Time
- Discuss potential CSI Proposals
  - Advantages/Disadvantages
  - Submittal & Review schedule
- Option to delay construction start date
- Eliminated if agreed by Dept. & Contractor
- Scheduled by the Construction PM
- Many times combined with the Pre-con mtg

CSI Workshop

Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.
SECRETARY

DATE

CONTRACTOR NAME
CONTRACTOR ADDRESS

RE: Cost Savings Initiative
Financial Project No. *xxxxxx-x-52-xx*
Federal Aid Project No. *xxxxxxx*
Contract No. T*xxxx*
Description:

Dear *NAME*:

Per the Contract Documents, Supplemental Specifications 4-3.9, Cost Savings Initiative (CSI), a Workshop will be held, prior to construction time beginning, for the Contractor and the Department to discuss any ideas that could result in reducing the cost of the project, reducing contract time, increasing the cost effectiveness of the project, or improving the quality of the project. The Department, at its sole discretion, may delay the start of construction at the beginning of a contract for the purpose of a CST Proposal development and review.

The CSI Workshop can be eliminated only if agreed to by both the Department and the Contractor. Please complete and print the attached form for signatures and return to me as soon as possible.

Please contact me if you have any questions.

Sincerely,

Name of Project Manager
Title

CC: Insert Name, Operations Construction Manager
Insert Name, Value Engineering Manager

www.dot.state.fl.us

SAMPLE

Cost Savings Initiative Proposal – Pre Contract Meeting

In accordance with **FDOT Specification 4-3.9**, we will need to meet before the Notice to Proceed is issued. At the meeting, we would discuss any of your potential Cost Savings Initiative (C.S.I.) proposals. To simplify the process, please fill out the form below and return it with the executed contract documents and send a copy to the District Value Engineering Office.

Date: _____

Contract Number: _____

Project Number: _____

[ ] We do not have a Cost Savings Initiative Proposal at this time. Please waive the required Workshop Meeting.

[ ] We have or are considering a Cost Savings Imitative Proposal. Please schedule the Workshop meeting to discuss its potential.

Contractor **Date Signed**

Authorized Signature _____ _____

Company Representative (printed) _____

Company Name _____

CEI **Date Signed**

Authorized Signature _____ _____

Company Representative (printed) _____

Company Name _____

FDOT **Date Signed**

Authorized Signature _____ _____

Project Manager (printed) _____

CSI Workshop

- **Participants**
  - Construction PM
  - Contractor
  - Design PM
  - EOR
  - District VE
  - Functionally Affected Offices: Design, Maintenance, Materials, Traffic Operations etc.
  - FHWA on Oversight projects
  - State Structures on Category 2

Concept Meeting

- Mandatory
- After beginning of Contract Time
- Discuss potential CSI Proposals not discussed at CSI Workshop
  - Advantages/Disadvantages
  - Submittal & Review schedule
- Option for time extensions
- Eliminated if agreed by Dept. & Contractor
- Same attendees as CSI Workshop
- Scheduled by the Construction PM

Submittal Process

- Contractor floats idea to FDOT Construction
- Construction provides feedback to Contractor
- Construction schedules concept meeting
- Contractor formally submits CSI package.



Submittal Requirements

Per Section 4-3.9 of Spec Book

- **Description**
- **Separate detailed cost estimates**
- **Revised plans**
- **Engineering Analysis**
- **Date decision needed**
- **Revised Project Schedule**



Description

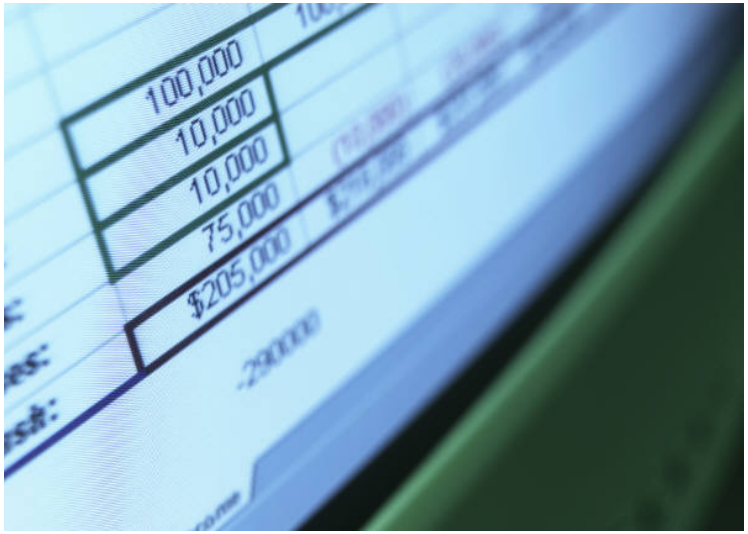




Clear Description of the changes to the original design

Cost Estimates

- **Separate existing & proposed.**
- **Breakdown by contract items**
- **Indicate increases, decreases & deletions**
- **Identify new items by pay item.**



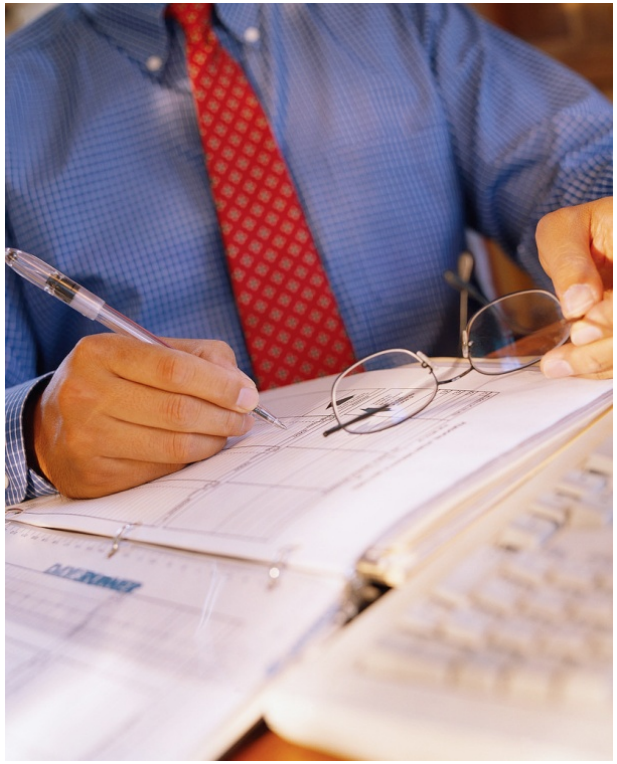
Plans

- **Revised plan sheets, plan details , design standards etc.**
- **Sufficient to describe proposed changes**



Engineering Analysis

- **Effects on other project elements**
- **Pre-qualified consultant in type of work.**
- **Computations and drawings signed & sealed by Contractor's Engineer.**



Schedule

- **Date Decision is Needed**
- **Revised Project Schedule**



Review Process

- FDOT Construction copies District Value Engineer (DVE)
- Determine if contractor date can be met.
- Construction & DVE identify reviewers.
- Distribute CSI submittal to reviewers

Review Process

- **Construction reviews contract requirements, constructability and price proposal.**
- **DVE coordinates Department review, including EOR.**
- **Category 2 Bridges sent State Structures Office**



Review Process

- **Comments & recommendations compiled from reviewers**
- **If necessary schedule a comment resolution meeting**
- **Prepare & send recommendation to District Management**

Review Process

- Some Districts use Electronic Review Comment (ERC) System for review.
- Some Districts use e-mail for review.
- DVE must be copied on all response e-mails.
- Flowchart of review process posted on Production Support Office web.

http://www.fdot.gov/designsupport/ProjectReview/CSI/default.shtm

Review Process

- Notify Contractor of decision.
- Approved CSI eligible for documented Engineering costs. Up to 25% of total savings.
- If approved begin SA process with savings split of 50-50 net reduction.



Savings Calculation

Construction Cost Savings	$100,000
Documented Engineering Costs	$25,000
Net Reduction	$75,000
50% of Net Reduction	$37,500

Category 2 Bridges

- **Conditions of Acceptance: Spec 4-3.9.6**
  - **Independent engineering peer review funded by contractor**
  - **Not involved in CSI design**
  - **Pre-qualified under 14-75**
  - **Contractor designate primary engineer responsible for the CSI design**





Review Questions

- **Can a CSI be processed to correct plan errors?**

No!!!

Review Questions

- **Does the Department pay for CSI development costs?**

Only Documented Engineering Costs

- **Up to how much does the Department pay for documented engineering costs?**

25% of total savings

Design Build

Design Build

- **Cost Savings Initiatives (CSI) -** Any change from that presented in the ELOI or Technical Proposal that the DB Firm makes/proposes subsequent to the award.
  - Changes to the ELOI or Technical Proposals will be handled as a CSI
  - Use of information from other DB Firm's proposals will be considered as a CSI
  - Rejected ATC's will not be considered
  - Don't pay for Engineering Costs prior to RFC
  - Parties responsible for initiating a CSI (Department and DB Firm)

Design Build

- Up until 2012, FDOT did not include language in DB RFPs for VECPs or CSIs

- Expectation was/is that DB Firms would include the benefits of value engineering or cost savings ideas into their design and technical proposals

- By and large, that is still the expectation of the FDOT. With many of the changes FDOT has made to Technical Proposal submittal details, we expect there to be reduction of CSIs

Design Build

Technical Proposal is a "Book of Promises"

- Historically within FDOT, we have received very detailed Technical Proposals from DB Firms vying for DB projects
- FDOT has been listening to the DB Firms about the costs to prepare Technical Proposals and have made changes to require less detail to be provided
- The "Book of Promises" moniker was coined by then State Structures Design Engineer, William Nickas, and has stuck as a description

Design Build

Technical Proposal is a "Book of Promises"

- The reason FDOT considers the Technical Proposal as the Book of Promises is that it is the document provided by the DB Firms stating what it is that they intend to build for the FDOT and that is what the FDOT Proposal Evaluators use to score the submitting teams

- Changes from this are CSIs

Design Build

How to Identify the CSI? How are they Different on DB and DBB projects?

- CSIs on DBB projects are typically brought forward by the contractor based on the contract plans provided by the Department

- Since DB projects are selected based on Technical Proposals which lead to later development of the final construction plans by the DB Firm, the questions of CSIs get shifted more towards the Department

Design Build

How to Identify the CSI? How are they Different on DB and DBB projects?

- During reviews of plans submitted for review by the Department, if there are changes from what was stated in the Technical Proposal, these shall be identified by the DB Firms as a CSI

- If not identified by DB Firms, the FDOT representative will bring it up during the design submittal review as a comment that requires a response

Design Build

How to Identify the CSI? How are they Different on DB and DBB projects?

- CSIs can be in a multitude of types
  - Changing the size of storm sewer pipes
  - Changing from closed drainage system to swales/ditches
  - Changing the number and/or size of piling
  - Changing to a concept from a non-winning Technical Proposal
- Once identified, the cost savings on the contract would be determined (negotiated/resolved)

Design Build

How to Identify the CSI? How are they Different on DB and DBB projects?

- The reviewer of the CSI must be knowledgeable of the RFP, ATCs, Q&A, Technical Proposal in order to determine if a CSI exists

- Who the reviewer is will differ depending on subject matter of the submittal

Design Build

Who is responsible to identify the CSI?

To reiterate:

- The responsibility to identify a CSI rests with the DB Firm
- The Department representative will also identify CSIs in the cases where the DB Firm has not brought forward changes from their Technical Proposals as CSIs
- This identification of CSIs has been the source of significant debate and discussion at many levels

Design Build

Who is responsible to identify the CSI?

- Referring back to early slide that the Technical Proposal is the Book of Promises against which DB Firms were evaluated and won the project, changes from this will be handled as CSIs

- FDOT is reducing the requirements for submittals from DB Firms for evaluation by TRCs. We expect this to reduce the number or need for CSIs

Design Build

What is the CSI process?

- Once the CSI has been identified, the DB Firm and the Department representatives would work out the cost savings

- Once cost savings are determined, the contract documents will be modified to reflect the reduction in cost

Design Build

How are savings determined?

- Cost savings are determined by comparing work to perform based on information shown in ELOI/Technical Proposal and the information now being shown in the plans submitted for review by the Department, negotiating price change with Contractor

- Cost savings would be allocated as provided for in the DB Division I specifications for CSIs

Design Build

How is the contract modified to reflect the determined savings?

- Once the cost savings are determined and agreed upon, a Supplemental Agreement will be used to revise the Contract Documents

- If the DB Firm and the Department are in disagreement over whether the change is a CSI or over the value, the Department can make the change via a Unilateral – not the preferred method

Review Questions

- **On a Design Build Project, does the Department pay for engineering costs prior to the RFC?**

No!!!

Review Questions

- **Can a Contractor submit an approved ATC from a non-winning D/B firm for a CSI?**

Yes!!!

Review Questions

- **Is a change from an ELOI or a technical proposal considered a CSI?**

Yes!!!

Case Studies

State Road 50

- Widening SR 50 in Orange County, FL
- Four lane to six lane
- 2 new bridges
- 12’ lanes, 8’ bike lanes
- Original Contract $15.25 million

State Road 50

- CSI proposed to shorten bridges by 285’
- Eliminate 6 bents/piles
- Total Savings $1.235 million
- Design Fee’s $308 K
- Net Savings $927 K
- Split $463 K

State Road 50



State Road 50



State Road 50



I-75 Managed Lanes

- Constructing I-75 ML “Segment C” in Broward County, FL
- Design Build project
- Proposed 22’ high Sound Walls on West side of I-75
- 8700 feet of proposed Sound Wall
- Original Contract $85.27 million

I-75 Managed Lanes

- CSI proposed 20’ high concrete panels
- Maintain a 22’ high effective wall height
- CSI submitted prior to Release for Construction. No Engineering costs
- Total Savings to be split 50/50 - $405K



State Road 23 – Duval County

- Re-construction of SR 23 in Duval County
- 2 to 4 lane widening
- Design Build Project
- Original Contract $84.85 Million

State Road 23 – Duval County

- CSI proposed to re-align SR 23 at Oakleaf Plantation Parkway
- Shorten Bridges at Oakleaf
- Widen existing bridge over South Prong Double Branch
- Proposal was approved ATC during bid
- Total Savings to be split 50/50 - $403K

Questions



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