



Good afternoon. My name is Tom Andres and I work in the Structures Design Office in Tallahassee where I oversee the Plans Review Group for Category 2 bridge reviews.

- My talk today is entitled design-build project development from the perspective of the owner.
- More specifically I am going to talk about how to prepare an RFP package.

Design-Build Project Development from the Perspective of the Owner

ROADMAP:



- FDOT'S DESIGN-BUILD PHILOSOPHY**
- THE CONTRACT**
 - WRITING AN RFP
 - TIPS ON BUILDING-IN CONTRACT FLEXIBILITY
 - DEVELOPING THE CONCEPT PLANS
 - STRATEGIES FOR CONVERTING CONVENTIONAL DESIGN-BID-BUILD TO DESIGN-BUILD
 - STRATEGIES FOR MAINTAINING COMPATIBILITY BETWEEN CONCEPT PLANS AND RFP

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Here is the roadmap for today's discussion.

- ☺ First I am going to give you quick overview of the Department's Design-Build philosophy.
- ☺ Next I am going to cover some of the basic steps of putting together a design-build contract.
- ☺ As part of that discussion I will cover the basic steps in writing an RFP.
- ☺ Then I plan to spend some time providing some tips for building-in flexibility into the contract. I will take you through an exercise which reviews sample language to determine it's suitability in promoting flexibility. We will discuss ways to include checks and balances in the language to allow concepts to be vetted through the ATC process and policed through the Question and Answer step. To be clear when I say flexible RFPs, I am not suggesting that contract language be written loosely, I am talking about the importance of establishing critical project requirements and constraints while at the same time allowing maximum flexibility to encourage innovative solutions that will result in better solutions and substantial cost savings.
- ☺ Next I will discuss the Concept Plans development process –In general, the level of completion of concept plans should be about 30%.
- ☺ Then, I am going to talk about converting conventional design-bid-build projects to design-build. Ways to streamline the process. How to incorporate overly-complete plans as concept plans. Whether and how to up-date the plans before converting to Concept Plans.
- ☺ And then lastly, I am going to spend some time discussing the compatibility of the RFP with the Concept Plans- some important timing and scoping strategies to consider.

Florida Department of Transportation's Design-Build Philosophy

General



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QUESTION 1: WHAT ADVANTAGES DOES THE DESIGN-BUILD PROCUREMENT METHOD OFFER TO THE DEPARTMENT?

ANSWER: There are numerous benefits. These benefits include:

- Early contractor input,
- Acceleration of the project schedule,

Okay let's go ahead and get started. The next series of slides outlines some of the department's Design-Build philosophy.

QUESTION #1 - What advantages does the Design-Build procurement method offer to the Department?

☺ Early contractor involvement in the design process enables construction engineering considerations to be incorporated into the design.

Also constructability issues can be better addressed.

☺ Design-Build also accelerates the project schedule due to overlapping the design and construction activities but there is also an acceleration in project schedule due to the FHWA authorization process.

{tell the story about how design-build got started in Florida – D3 and funding limitations at the end of the fiscal year.

Florida Department of Transportation's Design-Build Philosophy

General



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QUESTION 1: WHAT BENEFITS DOES THE DESIGN-BUILD PROCUREMENT METHOD OFFER TO THE DEPARTMENT (CONT.)?

- Flexibility in project financing methods,
- Promotion of innovative project solutions,
- Reduction in potential claims and litigation after project completion from Department Standpoint,
- Reduction in project costs.

....other benefits:

☺ In general the design-build procurement method offers greater flexibility in project financing than does conventional DBB procurement – in fact most of our P3 jobs (those with a financial component) utilize the design-build procurement method, but not all,

☺ Design-build allows for customized project solutions that are uniquely fashioned by project needs and contractor capabilities and equipment,

☺ ☺ In general, from the Department's perspective design-build results in a reduction of potential claims and litigation; issues are more likely to be resolved by the members of the Design-Build Firm,

☺ ☺ The combination of introducing flexibility which allows for multiple project solutions coupled with competitive bidding typically results in a reduction of overall project costs for design-build projects when compared to conventional projects.

Florida Department of Transportation's Design-Build Philosophy

General



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QUESTION 2: WHAT IS THE DEPARTMENT'S GENERAL DESIGN-BUILD PHILOSOPHY?

ANSWER: Our D/B philosophy is based on the following core principles:

- There are multiple acceptable solutions to most complex transportation problems,
- A well written RFP establishes critical project requirements and constraints that enable the owner to get what he wants while at the same time allowing flexibility and innovation in the process,

QUESTION #2 - What is the Department's Design-Build philosophy?

Our D/B philosophy is based on the following core principles:

- ☺ The acknowledgment that there are multiple acceptable solutions to most complex transportation problems,
- ☺ A well written RFP establishes critical project requirements and constraints and at the same time allows maximum flexibility to encourage innovative solutions that will result in substantial cost savings,

Florida Department of Transportation's Design-Build Philosophy

General



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- QUESTION 2: WHAT IS THE DEPARTMENT'S DESIGN-BUILD PHILOSOPHY (CONT.)?**
- Although there is less Department control in directing project solutions than exists on conventional projects, **WE TRUST** that the enforcement of a well crafted RFP along with a rigorous Design-Build procurement process will result in a superior final product at a reduced cost,
 - A fair and competitive procurement process allows Design-Build teams to compete for projects on a level playing field resulting in the most cost effective transportation solution,

FDOT Design-Build philosophy acknowledges that:

- ☺ Although there will be less Department control in directing project solutions than exists on conventional projects, we **TRUST** that thru the enforcement of a well written RFP along with a rigorous Design-Build procurement process that a superior final product at a reduced cost will emerge in the end,
- ☺ We believe that a fair and competitive procurement process allows Design-Build teams to compete for projects on a level playing field resulting in the most cost effective transportation solution,

Florida Department of Transportation's Design-Build Philosophy

General

QUESTION 2: WHAT IS THE DEPARTMENT'S DESIGN-BUILD PHILOSOPHY (CONT.)?



Design-Build is not about cutting corners to save a penny, it is about developing superior comprehensive transportation solutions that save millions of dollars.

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....and if there is one thing you should take away from this discussion above all else, remember that:

Design-Build is not about cutting corners to save a penny, it is about developing superior comprehensive transportation solutions that save millions of dollars.

Developing the Contract - Useful Steps to Writing an RFP

Writing the Request for Proposal (RFP)



QUESTION 3: I HAVE BEEN ASKED TO WRITE A DESIGN-BUILD RFP. WHERE DO I START?

ANSWER:

Construction Website:

<http://www.dot.state.fl.us/construction/DesignBuild/Design-Build.shtm>

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- Design/Build Boilerplate
- Design/Build Guidelines
- Design/Build Pre-scoping Questions



Now we are going to switch gears here a little.

QUESTION #3 - I have been asked to write a Design-Build RFP. Where do I start?

☺ ANSWER: Standardized Design-Build contract documents, rules, procedures and guidelines are located at the FDOT Construction Office website. See URL link below. The FDOT has developed standard boilerplate language to be used as a starting point.

Included in the boilerplate are notes to the RFP developer regarding project specific content that should be inserted as well as requirements related to RFP reviews.

Also the Construction Office maintains a “HOW TO” manual for design-build called the Design-Build Guidelines.

Lastly, the Construction Office along with the Office of Design maintains Design-Build pre-scoping questions to assist the author of the RFP in establishing project constraints. I will talk a little more about this reference tool in a minute.

RFP Boilerplate Guidance Given in Highlighted Text

Alternative Technical Concept “Must Sees”

Note to developer of the RFP: *Include a list of RFP requirements which may be changed by the Design-Build Firm as proposed Alternates and would be considered favorably, by the Department, if presented and approved through the ATC process. Examples may include: Alternate Interchange Geometric Layouts depicted in the Concept Plans and identified as requirements in the RFP, Alternate Horizontal Alignments than those depicted in the Concept Plans and identified as requirements of the RFP, Alternate Vertical Alignments than those depicted in the Concept Plans and identified as requirements of the RFP, etc.*

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As I mentioned, the RFP boilerplate includes guidance to the developer of the RFP in highlighted text.

Here is just one example in which gives direction for the RFP developer to list all items of the project that has to be the same as shown in the Concept Plans but may change provided that the change is presented in an alternative technical concept and approved by the Department.

Typically in these cases an “equal to or better criteria” is used.

Examples may include changes to the vertical and horizontal alignment from what is depicted in the Concept Plans.

More on this issue a little later.

Developing the Contract - Useful Steps to Writing an RFP

Writing the Request for Proposal (RFP)



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QUESTION 4: WHAT IS A PROJECT CONSTRAINT?

ANSWER: A project constraint is a requirement established in the RFP defining a limitation or functional requirement that must be satisfied in the delivered project.

A project constraint is not a narrow description of a specific solution to an engineering problem as depicted in the Concept Plans.

In other words constraints define the underlying framework from which project solutions are developed.

QUESTION #4 -What is a project constraint?

ANSWER: A project constraint is a requirement established in the RFP defining a limitation or functional requirement that must be satisfied in the delivered project.

☺ A project constraint is not simply a description of the Concept Plans.

Rather a constraints defines the underlying framework from which project solutions are developed.

Developing the Contract - Useful Steps to Writing an RFP

QUESTION 4: WHAT IS A PROJECT CONSTRAINT (CONT.)?

In general, projects constraints can be classified into five (5) different categories:

- Project stakeholders,
- Site Conditions/Surveys,
- Scope of Work,
- Governing Regulations,
- Project Specific Requirements not covered in existing FDOT design reference documents and/or AASHTO design codes.



In general, projects constraints can be classified into five (5) different categories:

- ☺ Requirements dictated by project stakeholders - examples include aesthetics, requirements regarding utility owners, requirements regarding airport glide paths and FAA coordination.
- ☺ Other types of constraints are requirements dictated as a result of site conditions/surveys – these may be requirements related to containment for lead based paint, turbidity and access requirements when you have sea grasses, site environmental classifications for setting concrete covers and mixes, etc.
- ☺ Other types of constraints are requirements defining project objectives and defining the scope of the work – this could be anything from setting the scope based on budgeting constraints, determining beforehand whether a bridge can be widened or whether it has to be replaced, minimum operational capacity requirements, number of lanes, required connections, etc
- ☺ Other types of constraints are governing documents referenced in the RFP including things like the Structures Manual, the PPM and/or AASHTO design codes, this also may include whether an RFP attachment is for information only or a requirement.
- ☺ Project specific requirements not covered in existing FDOT design reference documents and/or AASHTO design codes also have to be addressed. For instance the airport runway bridge in Ft. Lauderdale had to be designed for jet landings so project specific design requirements had to be developed because they did not exist. Bridge Design for High Speed Rail or tolling gantries for Managed Lanes are other examples of where our design codes or policy language may not be complete.

Developing the Contract - Useful Steps to Writing an RFP

Writing the Request for Proposal (RFP)



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QUESTION 5: WHAT ARE PRE-SCOPING QUESTIONS?

ANSWER: Pre-scoping questions are a tool to aid in establishing project constraints.

http://www.dot.state.fl.us/construction/designbuild/DBRules/DB_PRESCOPING_QUESTIONS.docx

QUESTION #5: What are pre-scoping questions?

☺ As I mentioned earlier, pre-scoping questions are a tool to aid in establishing project constraints to be included in the RFP.

Note that some pre-scoping questions originated on design-bid-build jobs, manuals indicated that the designer was to get input from the department for project specific guidance on a particular issue.

Other pre-scoping questions relate to site specific conditions, such as temporary restriction due to glide paths for a project adjacent to an airport - say, or maybe substructure environment classifications due water sampling results taken at the site, etc.

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QUESTION 5: WHAT ARE PRE-SCOPING QUESTIONS?
RFP Boiler Plate Link



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Pre-scoping Questions

Note to developer of the RFP: An electronic copy of the RFP, with changes clearly identified, shall be submitted to the State Construction Office for review and approval prior to submission to Design-Build Firms. All RFP's which govern Projects where Category 1 structures are anticipated shall be reviewed and approved by the District Structures Engineer. All RFP's which govern Projects where Category 2 structures are anticipated shall be reviewed and approved by the State Structures Engineer. All Design-Build Finance RFP's shall be reviewed and approved by the Comptroller's Office. In addition, any major revisions to the RFP, innovative concepts used or RFP's for unique Projects shall be reviewed by Central Office Legal. The Office of General Counsel's Design-Build Legal Team shall review RFP's for all Projects which involve utility relocation. RFP requirements which have been modified in this document since the publishing of version 2011-03a (dated 12/16/2011) are highlighted herein.

*To aid in the development of Project specific RFP requirements a series of pre-scoping questions has been developed. The pre-scoping questions cover many common issues that frequently arise on FDOT Projects and can be downloaded from the following website:
<http://www.dot.state.fl.us/construction/DesignBuild/DBRules/DBRulesMain.htm>*

NOTE: When submitting a RFP for review, edits to this boilerplate document shall be clearly identifiable. Deletions shall be stricken through (~~delete~~) and inserted language shall be underlined in color (underline). Submitted RFP's with the changes made as indicated above will help shorten the review time for everyone involved.



Florida Department of Transportation
District X

DESIGN-BUILD
REQUEST FOR PROPOSAL
for
<Project Description, County>

Financial Projects Number(s):
Federal Aid Project Number(s):
Contract Number:

This slide shows the D/B Boiler plate. The first thing you will see at the top is a link to the D/B pre-scoping questions. You will also find a link to the pre-scoping questions on the Construction website and in the Introduction of the Structures Manual. See link circled in red on the left hand side of the slide.

Developing the Contract - Useful Steps to Writing an RFP		
Pre-scoping Questions		
		FDOT Contact
		District Environmental Manager, Environmental Administrator, Environmental Permits Coordinator
PD&E Manual Part 2, Chapter 11 PD&E Manual Part 2, Chapter 11 Environmental Document, Wetland Evaluation Report, Biological Assessment, Essential Fish Habitat Assessment	Are there sea project limits (for getting restrictions? ed to facilitate crane mits been acquired? g the Design build d? What are the veyed in the RFP?	at, Wetland anager, ator,
	Evaluation Report, Biological Assessment, Essential Fish Habitat Assessment	

...And here is the new format of the Pre-scoping questions which were last updated in January-2014.

☺ Note the first column refers to the Governing Regulation reference.

☺ The second column gives a fairly concise pre-scoping question.

For instance, the last question here involves whether or not the site has sea grassing and gives associated construction access and permit related constraints that may need to be included in the RFP.

☺ The third column specifies the FDOT contacts that are responsible – usually this is the FDOT discipline expert.

We have found these questions to be excellent an excellent recourse when developing RFP constraints.

We have also found these questions very useful when reviewing draft RFP documents.

So the first step is going through each question to see if it applies to the project, and the second step is to work with FDOT Contact person in working through the appropriate contract language.

Each pre-scoping question must be resolved one way or another.

Developing the Contract - Useful Steps to Writing an RFP

Writing the Request for Proposal (RFP)



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QUESTION 6: WHAT ARE SOME USEFUL STRATEGIES FOR WRITING AN EFFECTIVE RFP?

ANSWER: Effective RFPs are written such that all project requirements and constraints are clearly presented in a way that promotes design/construction flexibility. They also specify objective analysis techniques to be used in evaluating traffic operational differences between technical proposals.

Establishing evaluation criteria and weighting the evaluation criteria to reflect the relative importance of the various project solutions is also an important consideration when developing an RFP.

QUESTION #6: What are some useful strategies for writing an effective RFP?

☺ I will be covering this in much more detail later in the presentation later. In general, effective RFPs are written such that all project requirements and constraints are clearly presented in a way that promotes design/construction flexibility.

They also specify objective analysis techniques to be used in evaluating traffic operational differences between technical proposals.

Establishing evaluation criteria and weighting the evaluation criteria to reflect the relative importance of the various project solutions is important. – this is very important –whereas minimizing traffic impacts and utilities may be very important on a very urbanized job in Miami, these issues are less likely to be as important on a rural job in District 3.

FDOT staffing during design-build procurement needs to account for the need to evaluate the various project solutions during procurement.

Before we move onto discussing some possible pit-falls when writing RFPs, I would like to show you a few slides describing how to utilize the Alternative Technical Process to allow flexibly and promote innovation while still insuring that the final solution is acceptable.



First let me briefly cover the alternative technical concept (ATC) process.

Suppose the D/B firm submits a technical proposal for grading, and their design solution violates the RFP. Before they can include those aspects which differ from the RFP, unless otherwise specifically noted, the Firm has to get these changes approved by the FDOT first. This is done during the ATC process.

An ATC is required on all violations of the RFP and when certain aspects of the concept plans are made a requirement and where the proposer chooses to deviate from these requirements.

In general, the design-build firm has to demonstrate that their design is equal to or better than the RFP or where stated equal to or better than the Concept Plans.

As you might guess, this requires that the DOT have the necessary folks in the room to vet each idea and to make a determination whether or not the ATC proposal is acceptable and the DB firm can include the ATC in their technical proposal.

If the solution, is acceptable but violates the RFP in some way, an RFP addendum will only be issued when the change requires a new variation or exception, or when the change violates a requirement that is listed as "Addendum Required Item" in the RFP. The Department tries to word the addendum in such a way as to not give away the idea.

The FDOT Technical Experts are in essence the Gatekeeper for the project ensuring quality solutions.

Sample RFP Language To Allow Flexibility



RFP Flexibility

1. All geometric configuration modifications from what is shown in the Concept Plans must be presented and approved through the ATC process.

A "MUST SEE"



Okay here is some specific sample RFP language to allow flexibility. Although this is not part of the boilerplate language, this language or something similar has been added to multiple successful design-build projects.

All geometric configuration modifications from what is shown in the Concept Plans must be presented and approved through the ATC process.

Sample RFP Language To Allow Flexibility



RFP Flexibility

Each modified interchange configuration shall provide at a minimum the same:

- 1. turning movements and roadway connections**
- 2. number of lanes**
- 3. lanes widths**
- 4. design speed**
- 5. storage lengths for ramps and exclusive turning lanes**

as compared to the Concept Plans.



Here is another example of RFP language which defines criteria to determine if an ATC is in fact equal to or better than the Concept Plans.

Each modified interchange configuration shall provide at a minimum the same:

1. turning movements and roadway connections
 2. number of lanes
 3. lanes widths
 4. design speed
 5. storage lengths for ramps and exclusive turning lanes
- as compared to the Concept Plans.

Sample RFP Language To Allow Flexibility



RFP Flexibility

7. All free-flow movements shown in the Concept Plans shall remain free-flow in the modified interchange configuration.



How about this one?

All free-flow movements shown in the Concept Plans shall remain free-flow in the modified interchange configuration.

Sample RFP Language To Allow Flexibility



RFP Flexibility

8. A traffic analysis for both the Concept Plans interchange configuration and the Design Build Firm's modified interchange configuration shall be conducted and presented in the ATC verifying that the modified interchange configuration operates as good as or better than the Concept Plans interchange configuration.



Lastly, this language also requires an “equal-to-or-better” evaluation criteria.

A traffic analysis for both the Concept Plans interchange configuration and the Design Build Firm's modified interchange configuration shall be conducted and presented in the ATC verifying that the modified interchange configuration operates as good as or better than the Concept Plans interchange configuration.

So you see how adding a few simple bullets to the RFP utilizing certain design aspects of the Concept Plans as a minimum acceptable threshold. Adding requirements for changes to the horizontal or vertical alignment to be vetted during the ATC and in which proposers are “held to account” during the Q&A process. This approach has proven to be a powerful tool in promoting innovation and providing low cost, comprehensive transportation solutions.

Developing the Contract - Useful Steps to Writing an RFP

Writing the Request for Proposal (RFP)



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QUESTION 7: WHAT ARE SOME POSSIBLE PITFALLS IN WRITING AN RFP?

ANSWER: Possible pitfalls include:

- Not giving the RFP document the attention it deserves.
- Not properly defining the project ultimate build-out requirements.
- Being overly restrictive.
- Not properly defining all of the project constraints.
- Not remembering why you did what you did when you developed the concept plans.
- Don't fall in love with the Concept Plans.

QUESTION #7: What are some possible pitfalls in writing an RFP?

- ☺ Writing a well written RFP is very difficult. It is not as simple as downloading the boilerplate and filling-in the project description. If you want to ensure that you get what you want, you have to give the RFP the attention it deserves.
- ☺ Another pitfall that I see that is fairly common is not properly defining the full-build out for the project – and I should point out that just because your project does not have an ultimate section does not mean that the RFP should not address future requirements. This is especially true on urban projects. If you are preparing a RFP on an urban project, a future build-out should be included as part of the RFP package and each Proposer should show how their solution accommodates the final solution. That way both long and short term costs can be factored-in in the technical scoring.
- ☺ Being overly restrictive is another common mistake- more on that topic later.
- ☺ Another pitfall is not properly defining all of the project constraints – this is a biggy – but for projects that have been in development for many years reassessing prior commitments and constraints is a very important step – you need to revisit these periodically to see if they are still valid.
- ☺ On that point, not remembering why you did what you did when you developed the concept plans can be a BIG PROBLEM - especially for jobs that have been in development for a long time or on conventional projects that have been converted to design-build.
- ☺ Don't fall in love with the Concept Plans.

Developing the Contract - Useful Steps to Writing an RFP

Writing the Request for Proposal (RFP)



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QUESTION 8: WHAT ARE SOME EFFECTIVE STRATEGIES FOR REVIEWING DRAFT RFPs?

ANSWER: The following is a useful reverse-engineering exercise for reviewing draft RFPs.

THE PROCESS:

- Review the draft RFP, attachments and concept plans.
- Brainstorm possible cost saving changes from what is depicted in the concept plans but allowed by the RFP.
- Determine whether the modification would be acceptable?
- If not include RFP language to prohibit the change while maximizing flexibility.

QUESTION 8: What are some effective strategies for reviewing draft RFPs?

When we are reviewing a draft PFP, we like to use a reverse engineering process. Here's how the process works – at about 90% draft stage, form a small multi-disciplined team.

☺ Prior to Meeting have all members review the draft RFP and Concept Plans.

☺ Put yourself in the shoes of a prospective Design-Build Firm.

What would you do differently to reduce costs or add value.

☺ Is it acceptable?

If so, take no action.

☺ If the solution is not acceptable, modify the RFP to disallow it.

Of course this process does not have to be performed in a group– each reviewer can utilize this process individually.

Developing the Contract - Useful Steps to Writing an RFP

Writing the Request for Proposal (RFP)

PROMOTE DESIGN/ CONSTRUCTION FLEXIBILITY

Effective RFPs are written such that all project requirements and constraints are clearly presented in a way that promotes design/construction flexibility while still allowing for an acceptable solution.

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The next series of slides outline specific strategies for promoting flexibility within the design-build procurement process.

We have accumulated numerous examples through the years of how RFP language can promote designs that are different than the original Concept or Indicative Plans – concepts that are in many cases provide greater value and are less costly.

10 to 20 percent cost savings over what was shown in the Concept Plans estimate is not unusual. We have had a few instances where the best-value proposal was more than 25% less than the Concept Plan estimated cost.

However I want to stress that this strategy requires a well written RFP. It also likely requires experienced support staff to evaluate proposed options during the Alternative Technical Concept Process – especially on large and complex projects.

As I mentioned earlier, writing an effective RFP is not an easy task. It involves clearly defining project constraints, scope of work, and functional requirements in a way that promotes flexibility and fairness.

Tips on Building a Flexible RFP

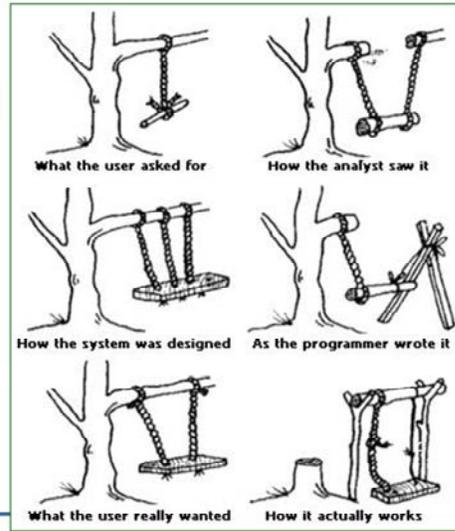
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THE RFP MUST BE WRITTEN CLEARLY

... SO THERE IS NO
MISINTERPRETATION
OF THE
REQUIREMENTS.

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First and foremost the RFP has to be written clearly.

An RFP can be written with concise language while still allowing design flexibility – just to be clear, don't confuse ambiguous contract language with allowing design flexibility.

All project requirements must be clearly presented in a way that leaves no room for interpretation.

Tips on Building a Flexible RFP

Writing the
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DO NOT !!

SIMPLY DESCRIBE THE SOLUTION

**Define the specific project constraints
from which many acceptable project
solutions can be developed.**

Rule #1: Do not simply describe the solution presented in the concept plans.

Define the specific project requirements from which many acceptable project solutions can be developed. This requires a thorough understanding of the project history.

Tips on Building a Flexible RFP

Writing the
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DO NOT JUST DESCRIBE THE CONCEPT PLANS

The first step in writing a successful RFP is to determine the functional requirements of the transportation facility. This means you have to remember why you did what you did when you developed the concept plans.

When developing a Design-Build RFP it is important to identify the functional requirements of the transportation facility.

As I stated earlier, this means you have to know why you did what you did when you developed the concept plans.

And if the project has been around for many years, you may have to reevaluate earlier constraints and commitments to see if they are still valid.

It has never been more **important to document** all project constraints and commitments on conventional projects – so that if the project gets converted to design-build later, the RFP process is as seamless as possible. More on that a little later.

Tips on Building a Flexible RFP

Writing the
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Proposal (RFP)

PERFORMANCE BASED RFPs VERSUS A PRESCRIPTIVE RFPs

A prescriptive RFP describes a single solution, a performance based RFP focuses on setting requirements for a successful outcome.

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In many ways writing an RFP is like writing a specification.

You can be “prescriptive” and describe a single solution that meets the project needs – in the case of the spec - you would tell the Contractor how to do something step by step.

Or you can be “performance based” and write a specification which focuses on a successful outcome. An RFP is very similar.

In certain instances there may be project constraints that have to be prescriptive – more on that later - but the best practice is to use a performance based approach, wherever possible.

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility



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For the next series of slides, determine if the RFP constraint described is too prescriptive



OR

If it properly establishes functional requirements that allows for flexibility while ensuring an acceptable solution.



Next we are going to play a thumbs or thumbs down game. I will give you some sample RFP language on the next series of slides.

- ☺ For each, determine if the RFP language is too prescriptive - Thumbs-down
- ☺ OR
- ☺ ☺ If it properly defines functional requirements that allows for flexibility while ensuring an acceptable solution.

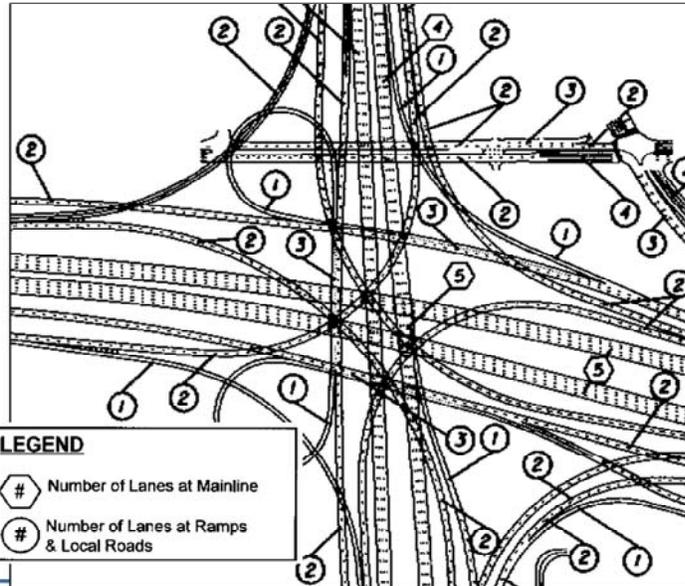
I should point out before we get started that many of these examples have been taken from actual RFP's, but I have modified the details and facts for "training purposes".

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

Example #1:
Describe the
Minimum Number of Lanes
at various
Locations and for
Various Movements
within the Project.



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Okay let's get started.

Example #1- Define the Minimum Number of Lanes and specific roadway facilities and define the required turning Movements within the Project.

In this example, this exhibit was attached to the RFP and referenced as a requirement.

☺ Yes, this would be considered an appropriate way of describing the operational requirements of the project.

In this particular case, the final interchange solution looked quite different than the original concept plan interchange layout depicted here.

Although the final solution provided the same number of lanes for each ramp, mainline, and local road, it was configured completely different geometrically.

**Thumbs-up or Thumbs Down Exercise:
Ways to Build In RFP Flexibility**

Example #2:
Require specific Aesthetic Requirements for the various Pier Shapes.

Sample:
All of the Util... Shall w.

Depends

Give the requirements in the RFP
Require that they be echoed back to you in the Technical Proposals
Hold the Teams accountable thru the Q&A

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Example #2: Require specific Aesthetic Requirements for the various Pier Shapes.

Based on input from project stakeholders, specific aesthetic requirements were agreed to.

In this case, the RFP refers to this attachment showing these sketches.

Any thoughts on this one? Thumbs-up? Thumbs-down?

☺ It depends. This is one of the few areas where a prescriptive approach is appropriate if in-fact aesthetics is a real commitment.

One note of caution here – to ensure you get what you want, make sure that the family of pier shapes include all likely possibilities such as hammerhead, “C” piers, straddle piers, etc.

Also make sure the sketches adequately cover project variability – wide bridges, narrow bridge, tall bridge, short bridges, etc.

When determining pier shapes, and pier rustication consider the tallest pier and the shortest pier on the project to make sure the aesthetic treatment is appropriate for all cases.

☺ A very important point about ensuring that these sort of prescriptive type commitments are met is to give the requirements in the RFP, require that they be echoed back to you in the Technical Proposals and hold the Teams accountable thru the Q&A.

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

Example #3:
Describe the traffic connections that need to be accommodated (free-flow versus signalized).



Sample:

All movements crossing Washington Street and Adams Avenue shall be grade separated. No signals proposed within the FDOT limited access right of way for the future connections at Adams Avenue and Washington Street will be allowed. Furthermore, the proposed design shall not require the future installation of signals at either of these locations within the limited access right of way.



Okay moving on.

Example #3: Describe the traffic connections that need to be accommodated (free-flow versus signalized).

So in this example, Washington Street and Adams Avenue are to be grade separated, with no signals allowed.

Any thoughts?

☺ Yeh this ones probably fine.

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

Example #4:
Describe the traffic
connections that
need to be
accommodated.



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Sample:

The following connections need to be accommodated:

- Madison Road EB to I-95 SB (Ramp A)
- Jefferson Blvd. Blvd. to I-95 SB (Ramp C)
- Jefferson Blvd. to I-95 NB (Ramp E)
- Jefferson Blvd. to Madison Rd (Ramp F)
- Madison Road WB to I-95 SB (Ramp G)
- Madison Road EB to Jefferson Blvd. Blvd. (Ramp H)
- Reconstruction of I-95 SB to Madison Road Exit Ramp
- Removal of the I-95 NB to Madison Road WB loop ramp
- Reconstruction the I-95 NB to Madison Road EB ramp to include access to Madison Road WB
- Reconstruction of Madison Road to I-95 NB Entrance Ramp.

How about this one?

Example #4: Describe the traffic connections that need to be accommodated.

And let's assume here that there is also a statement regarding free-flow versus signalized and stop condition requirements.

☺ Yeh this is a good example of how to do it.

Thumbs-up or Thumbs Down Exercise
Ways to Build In RFP Flexibility

Example #5:
 Require a top-down construction approach in order to satisfy traffic control requirements.

Sample:

- Give the requirements in the RFP
- Require that they be echoed back to you in the Technical Proposals
- Hold the Teams accountable thru the Q&A



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How about this one.

Example #5: Require a top-down construction approach using an overhead gantry in order to facilitate construction access and MOT.

- ☺ ☺No this is probably a little too restrictive– The preferred approach here would be to include the traffic restrictions such as designating lanes requirements during peak, non-peak and night time operations.

And then you could show a top-down method of construction in the Concept Plans which meets the traffic restriction requirement.

There may be cases when permitting, say, on a water job with sea grasses which may require top-down construction for say the superstructure but you would not dictate the type of equipment. So here you could include all permitting restrictions such as turbidity etc. and you could require top-down construction. In this case, you would likely include the bathometric survey of the waterway, you might show a temporary work trestle for substructure access. You could depict a top-down method in the Concept Plans which complies with the RFP.

- ☺ This is a case where it might be important enough to require specific language in Technical Proposals about how the RFP will be satisfied, and then hold the Team's accountable thru the Q&A.

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

**Example #6:
Specify all
traffic control
restrictions.**



Sample:

NO LANE CLOSURES are allowed on the Project during the Special Events days previously listed in this RFP in order to minimize potential impacts to the events.

SR 15 (Quincy Street) is designated as a Hurricane Evacuation Route. All lanes must be open for traffic within 12 hours of a hurricane evacuation notice and shall remain open for the duration of the event as directed by the Project Administrator.



Example #6: Specify all traffic control restrictions.

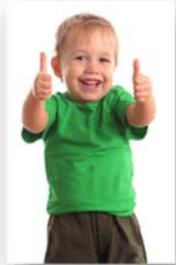
NO LANE CLOSURES are allowed on the Project during the Special Events days previously listed in the RFP.

SR 15 (Quincy Street) is designated as a Hurricane Evacuation Route. All lanes must be open for traffic within 12 hours of a hurricane evacuation notice and shall remain open for the duration of the event as directed by the Project Administrator.

☺ Yes, Good Example.

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

Example #7: Show in the Technical Proposal how the design will accommodate ultimate build-out requirements.



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Sample:

The Design-Build Firm shall present a design approach that does not preclude the Walton Transit (WT) alignment for the future construction of an overpass over SR-816 to accommodate the future East-West transit corridor, per the Preliminary Walton Transit Alignment in Attachment A - Scope of Services, Section 2.

What about this one?

Example #7: Show in the Technical Proposal of how the design will accommodate the ultimate build-out requirements.

The design shall accommodate a future east-west transit corridor including the construction of a future overpass at SR-816.

☺ Yes, This is a very good example.

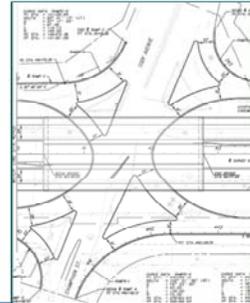
Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

Example #8:
Require a specific
overpass
configuration.



Sample:

The Design Build Firm will be required to design and construct a Single Point Urban Interchange (SPUI) at the intersection to comply with the proposed action selected in the approved Environmental Assessment (EA).



Alright here's one.

Example #8: Require a specific overpass configuration.

In this this case the RFP is requiring a Single Point Urban Interchange at the intersection to comply with **the** approved Environmental Assessment (EA).

☺ Whereas the language may be accurate, the tone is too rigid. An ATC could still be entertained – right?, but how would a proposed non-SPUI be evaluated? – And would an addendum have to be issues if another solution was accepted through the ATC process? – the author of the RFP needs to foresee these possibilities in advance, and have a plan of how to address them.

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

Example #9:
Attaching the
Concept Plans as
“Information
Only” and
considering them as
a starting point.

Sample:

The horizontal layout must be per the geometric presented in the Concept Plans or a FDOT approved Alternative Technical Concept (ATC).

Depends

If the RFP has not been written to allow flexibility from the beginning, then the project may hit a wall when different options are proposed .



This one's probably a little better.

Example #9: Attaching the Concept Plans as “Information Only” and considering them as a starting point.

“The horizontal layout must be per the geometry presented in the Concept Plans or a FDOT approved Alternative Technical Concept (ATC).”

Any thoughts?

☺ It depends. It is not adequate to simply state that your entertaining options, right?

You would have to have performance based measures built into the RFP. And you would have to spell out how ATC geometric options would be evaluated or you might hit a wall

...so we are getting closer but we are not there yet.

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

Example #10:
Attaching the
Concept Plans as
“Information
Only” and
considering them as
a starting point.



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Sample:

The capacity and/or level of service of the SR-26/SR-13 Interchange must remain as designed in the 100% Reference Plans and the ultimate Reference Interchange Master Plan, or improved. Any change to the Interchange geometry must be accompanied by a Traffic Analysis in the Technical Proposal for both the Department's Reference Interchange Master Plan, as included in the Reference Documents and for the Design-Build Firm's proposed concept comparing and confirming equal or better capacity.

How about this one.

Example #10: Attaching the Concept Plans as “Information Only” and considering them as a starting point.

With the language that the operational capacity and level of service of any proposed geometric changes must be equal to or better than the capacity and level of service provided in the Concept Plans.

With a stipulation that any ATC approved geometry would include a traffic analysis comparing both.

☺ ☺ So now we're starting to get somewhere – the trick is to make sure that the use of traffic analysis software is being used correctly and consistently – right?

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

Example #11: Horizontal and Vertical Geometry



- Geometry must be per the Concept Plans or a FDOT approved Alternative Technical Concept;
- The minimum movements and minimum number of lanes shall meet or exceed what is depicted in the RFP;
- All Alternative Technical Concepts related to roadway geometry shall include a traffic analysis performed by the Concessionaire for both the IPD and alternate design showing that the "operational capacity" and "level of service" of the alternate design is equal to or better than the Concept;
- Approved Alternative Technical Concepts related to roadway geometry that do not violate the RFP will not require an addendum to the RFP.



So here's an example that does just that.

Example #11: Horizontal and Vertical Geometry.

Notice here that all of questions have been answered.

How geometric changes will be evaluated?

Where they will be evaluated? As an ATC.

And lastly, it exempts-out geometric ATC's from disclosure in an amended RFP.

Get with your individual district for input on whether to divulge geometric approved ATCs – as I indicated, this preference can vary from district to district

Just remember you have to have a performance based RFP to make this work.

☺ So yes, thumbs-up for this one.

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

**Example #12: Fix
the horizontal
alignment.**



Sample:

The Design/Build Firm shall use the design for the horizontal geometrics as presented in the Concept Plans. Any changes to horizontal design depicted in the Concept Plans will require Department approval.



Here is one more geometric related example.

Example #12: Fix the horizontal alignment.

Here it is not even clear how or where the geometrics changed would be vetted and approved?

☺ So without knowing more – this is not very good – Right?

Thumbs-up or Thumbs Down Exercise Ways to Build In RFP Flexibility

Example #13:
**Setting minimum
bridge lengths.**

Usually the
bridge length is
tied to a real
constraint



Sample:

The proposed west end of the bridge (front face of back wall) shall be located at or before SR 211 survey baseline station 920+93. The proposed east end of bridge shall be located at or beyond SR 211 station 940+44.



Okay, we are almost done.

Example #13: Setting minimum bridge lengths.

Any thoughts on this one?

Here we are setting maximum begin bridge station and minimum end bridge station.

☺ No this is not the preferred way to specify the requirement.
What if the DB Team changes the alignment?

The RFP should specify the real constraint behind the bridge length?

Such as:

A minimum horizontal clearance from a lane line to accommodate future road widening?

Or a minimum horizontal clearance along a canal to facilitate maintenance access?

Or a maximum fill or wall height to eliminate maintenance issues or to avoid adjacent property visual barrier concerns.

The Contract – Developing the Concept Plans

Concept Plans:



Approved Design Variations and Exceptions

Supporting Documents and Site Survey Information

Approved Typical Sections

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Okay switching gears. Let's talk about developing the concept plans.

I said that concept plans are used as a starting point for the design.

I also said that all designs which vary from the concept plans have to perform equal-to or better-than certain aspects of the concept plans as specified in the RFP. We talked about how the RFP typically includes equal-to or better-than criteria and sometimes pulls-in aspects of the concept plans as a minimum threshold.

The supporting documents are typically attached to the RFP. These supporting documents may include such things as preliminary geotechnical borings, seagrass surveys, contaminated site surveys, PD&E documents, traffic projections, approved typical sections, etc.

Some of these documents are pulled-in as requirements, but many are attached to the RFP for "information only".

Since these plans are only a starting point and will likely be modified by the design-build proposers, it is best to keep the plans general in nature and only developed to the 30% level. In fairly rare instances the level of completion of certain aspects of the Concept Plans may need to be more complete than 30%.

The Contract – Developing the Concept Plans

Concept Plans (cont.):



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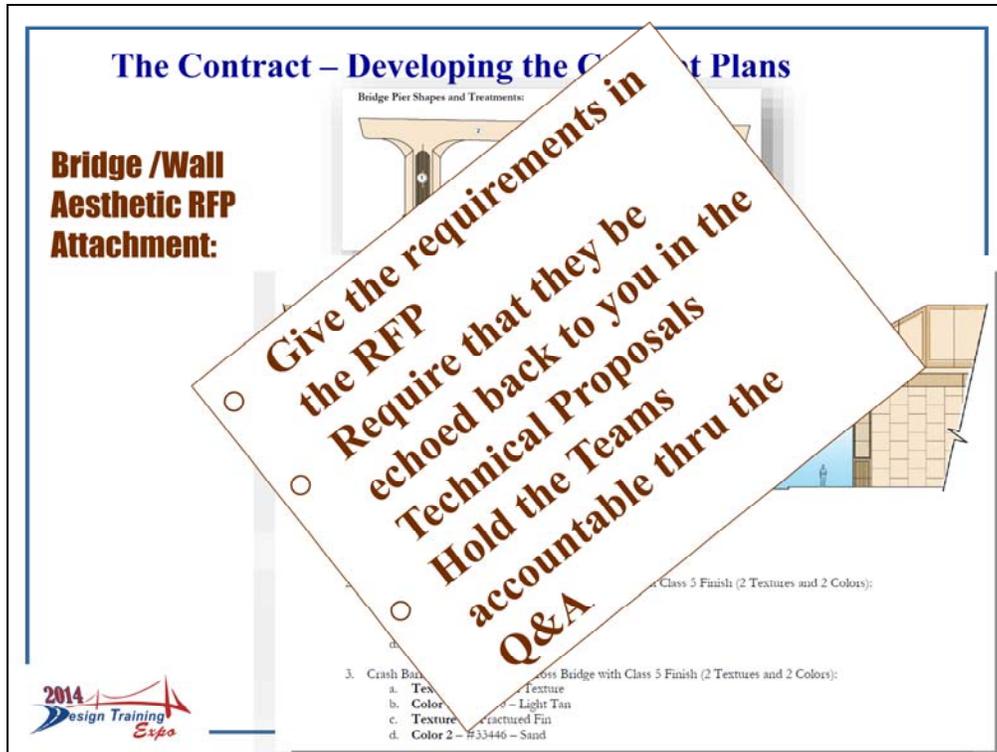


Generally speaking concept plans are typically developed to the 30% plan stage.

For instance, if a project is located in an environmental sensitive area, the concept plans may need to be more developed in the area of construction access or depicting a construction technique that is acceptable from a permitting standpoint.

If a project has to satisfy specific aesthetic requirements, the concept plans should include details depicting specific mandatory aesthetic requirements related to things like pier shapes, textures, colors, landscaping, etc. In these instances, the plans may need to be developed beyond the 30% level in these areas. However, please note that unless these requirements are specifically referenced in the RFP, they are not contractually binding.

The best way to think about concept plans is that they depict one solution which satisfies the RFP but as we have shown, certain aspects of the concept plans can become minimum thresholds from which ATCs are approved.



Here is a sample of how mandatory aesthetic requirements can be attached to the RFP and referenced as a requirement regarding pier shapes, textures, colors of piers and walls, etc.

These sorts of sketches need to cover all possible pier types.

- ☺ If aesthetic is a commitment that has to be followed exactly – put the specific requirements for texture color and shape in the RFP, require that these be echoed back in the technical proposal, and hold the teams accountable through the Q&A.

If you miss one of the three very important steps, you may not get what you want in the end.

The Contract – Developing the Concept Plans

Concept Plans (cont.):



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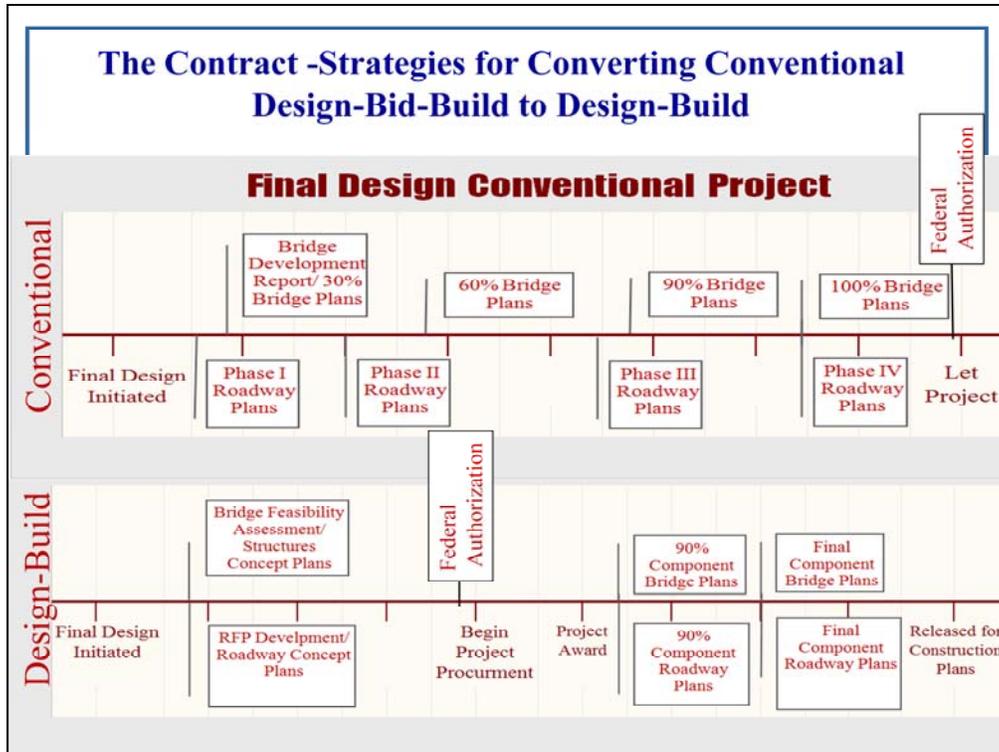
One additional point about the concept plans – and this is an important one.

A poorly designed set of Concept Plans whether it be the roadway layout, or structure concepts will likely negatively affect the final solution.

Think about it this way, if an “equal to or better than” criteria is employed and the bar for the minimum threshold is too low, then the final approved ACT solutions may be of less quality than it would otherwise be if the Concept Plans were better designed from the onset.

Also a poorly designed set of Concept Plans may not fully disclose a project’s full range of possibilities that a good one would. So a poor set of Concept Plans may result in an RFP that is written around a solution which is less than optimum.

The last point I want to make about Concept Plans is that they have to be in accordance with all RFP requirements. This means that RFP and the Concept Plans have to be developed concurrently and the Concept Plans have to be revised as the RFP changes– this is very important.



Now let's talk about the process of converting a conventional design-bid-build project to a design-build project.

But before I do that, let's look at the final design process for each.

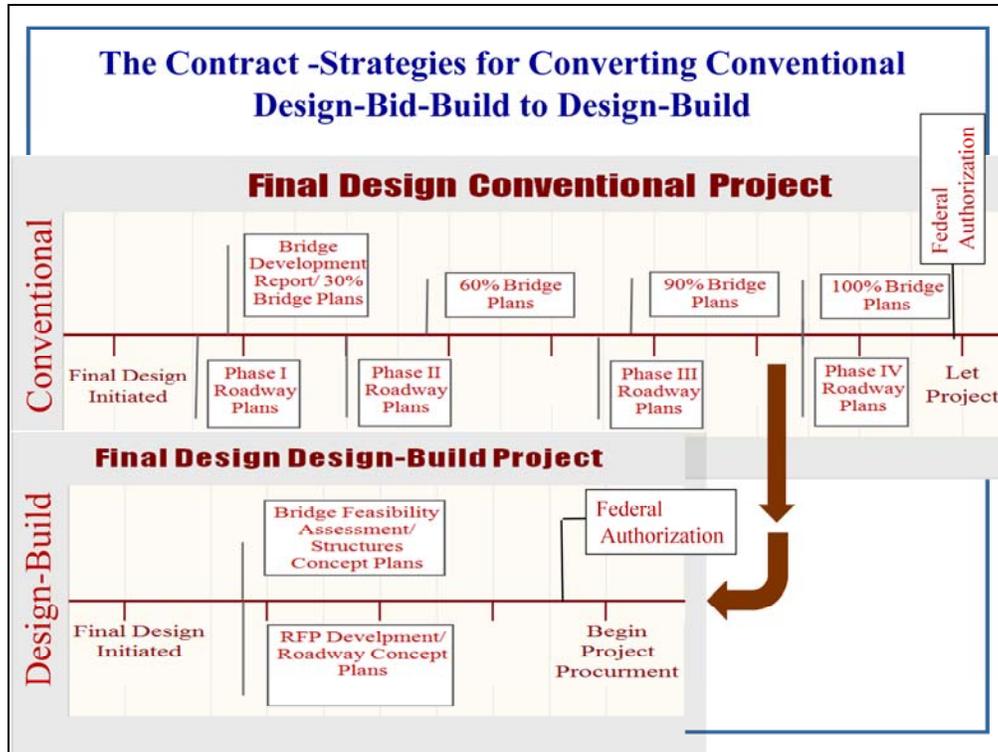
As can be seen in the time line at the top of the slide for a conventional project the roadway and structures plans proceed from Phase I through Phase IV while the bridge plans concurrently proceed from BDR to 100% bridge plans.

Notice that the Federal Authorization occurs just prior to letting.

On the bottom time line note you have the RFP development for both structures and roadway and the concept plan development as well as bridge feasibility assessment which may or may not be required depending on the project. The purpose of the bridge feasibility assessment is simply to verify that requirements of the RFP are achievable.

Then after the contract is in place, federal authorization is granted and the procurement process begins.

After best-value selection, and award, the final design commences and component plans are submitted and reviewed by the Department and stamped "Released for Construction."



There are a lot of inherent issues associated with converting a project from design-bid-build to design-build.

Things like determining the appropriate level of completeness of the plans

How to best establish design constraints in the RFP without describing the Concept Plans.

If the consultant drafting the RFP is not the original designer, establishing design constraints in retrospect may be quite difficult.

It is important to know the history of the project so the underlying reasons for all major design decisions are well understood. These underlying reasons are the basis from which the design constraints should be developed.



I want stress the importance of making sure that the RFP and the Concept Plans are compatible.

What you do not want is a set of concept plans which do not comply with the RFP.

Let me repeat this: What you do not want is concept plans which do not comply with the RFP.

We see this again and again where maybe a project gets converted from design-bid-build to design-build and the original designer that produced the plans is no longer under contract. Some new requirement not consistent with the original design gets added to the project, but we do not go back and update the Concept Plans –not good.

Where I think the Department is lacking, is the timing of the RFP and Concept Plans.

Since the two documents have to go hand-in-hand, it is best to write the RFP while the Concept Plans are being developed in order to streamline the process.

Summary



- ❑ **FDOT'S DESIGN-BUILD PHILOSOPHY**
- ❑ **THE CONTRACT**
 - **WRITING AN RFP**
 - **TIPS ON BUILDING-IN CONTRACT FLEXIBILITY**
 - **DEVELOPING THE CONCEPT PLANS**
 - **STRATEGIES FOR CONVERTING CONVENTIONAL DESIGN-BID-BUILD TO DESIGN-BUILD**
 - **STRATEGIES FOR MAINTAINING COMPATIBILITY BETWEEN CONCEPT PLANS AND RFP**

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So in summary.

- ☺ I gave you a quick overview of the Department's Design-Build philosophy.
- ☺ Next I covered some of the basic steps of putting together a design-build contract.
- ☺ As part of that discussion I covered the basic steps in writing an RFP.
- ☺ I gave you some tips on building-in flexibility into the contract.
- ☺ I briefly discussed Concept Plan development.
- ☺ I talked briefly about converting conventional design-bid-build projects to design-build.
- ☺ And then lastly, I discussed the importance of developing the RFP and Concept Plans concurrently to insure compatibility between the two documents.

Summary

Questions?



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So with that I will open it up to any questions that you might have.

You can see my contact information there on the slide. Feel free to give me a call or send me an email – and am available also during the break.

Thanks.