

# DISPUTE REVIEW BOARD RECOMMENDATION

October 28, 2013

Mr. Tom Bowles  
Bridge Division Manager  
Russell Engineering, Inc.  
10704 Portal Crossing  
Bradenton, FL. 34211

Mr. Paul W. Wingard, PE, LEED AP, CGC  
KCCS  
1400 Colonial Blvd.  
Suite 260  
Ft. Myers, FL. 33907

Re: SR 45 (US Hwy 41) – Corkscrew Road to San Carlos Blvd.  
FIN 195765-1-52-01, Contract No. T1407  
F.A.P. No. 3012095P (Delegated Project)  
Lee County

Dear Sirs:

Russell Engineering (REI) requested a hearing concerning the requirement of submitting signed and sealed falsework drawings for their deck forming system for a bridge constructed over the Estero River. Summaries of the Department's and REI's positions were forwarded to the Disputes Review Board (DRB), and a hearing was held on October 18, 2013.

**ISSUE: Is the Contractor required to submit signed and sealed falsework drawings?**

## **Contractor's Position**

*Nature of Dispute: The original Dispute goes to the Definition of "Construction Affecting Public Safety", Section 5, "Control of Work", Sub-section 5-1.4, "Shop Drawings", Paragraph 5-1.4.1 (d), transcribed below.*

*(d) Construction Affecting Public Safety: Construction that may jeopardize public safety such as structures spanning functioning vehicular roadways, pedestrian walkways, railroads, navigation channels of navigable waterways and walls or other structure foundations located in embankments immediately adjacent to functioning roadways. It does not apply to those areas of the site under the Contractor's control and outside the limits of normal public access.*

*The Department has taken the position that forming, pouring and stripping forms for the Superstructure Concrete is and should be categorized as "Construction Affecting Public Safety". REI rejects the Department's characterization of the work as such based on the above definition, information garnered from the Project Plans and Permits, Pre/Post site observations, and past experience.*

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**Scope of the Dispute:** *The original dispute regarding whether or not activities required to complete Item 0400-4-4, Concrete Class IV Superstructure, meet the criteria presented by Definition 5-1.4.1 (d), was rendered academic due to Project time constraints. REI, in an effort to mitigate associated delays, authorized our Specialty Engineer to proceed with the mandated review on 19 December 2011, one Work Day after receipt of DCE Jon Sands' disappointing reply to our appeal for assistance. Forced to proceed with the myriad tenets associated with "Construction Affecting Public Safety", REI now seeks the Board's ruling on Entitlement to Redress, including Time if applicable, for damages associated with the Unforeseen Work occasioned by compliance with the aforementioned mandate.*

**Basis for Entitlement:** *REI's claim to Entitlement is informed by the following:*

1. *Definition- The FDOT definition of "Construction Affecting Public Safety" speaks to a level of risk which does not exist on this Project. The examples cited portray structures spanning pre-existing, functioning travel ways which cannot be rerouted and must remain largely unaffected by the proposed construction. Further, the definition is Conditional, citing two succinct areas of the site as exceptions. REI contends that the first of these, areas of the site under the Contractor's Control, is applicable to this Project.*
2. *Plans- Plan Sheet B 1-9, Remark Number 2 at the bottom right corner of the sheet states that the "Estero River is not a navigable waterway".*
3. *Permits- There is no Coast Guard Permit, normally present on Projects involving bridges over functioning navigable waterways. We found no language in the existing Permits which might lead one to suspect the work would be considered "Construction Affecting Public Safety".*
4. *Site Observation- Our Pre-bid inspection of the site confirmed the information shown on the Plans. The "river" is clearly non-navigable for anything but very small crafts. The clearance between the bottom of the deck and the banks is too low to allow pedestrian traffic. This condition is prevalent beneath approximately 3.5 of the 5 spans. Span 3 and a portion of Span 4 maintain enough water to allow shallow draft crafts such as canoes, kayaks, or flat bottom john boats to pass. Extended observation both prior to and following the Bid reveal extremely low volume. In fact, practically all observed waterborne traffic originates at the adjacent canoe/kayak rental establishment, Estero River Outfitters. Motorized crafts are practically non-existent. REI bridge supervision report having seen only one small john boat powered by a small, 10 HP or less, outboard in the entire time we have been on site. Clearly, maintaining control and safe passage for these diminutive crafts is not an issue.*
5. *Past Experience-*

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*Absent clear, unambiguous direction in the Bid Documents regarding "Construction Affecting Public Safety", the Contractor must decide on Bid Night whether or not to increase his Bid to cover the onerous costs associated with this Work Classification.*

*This decision can only be based on Site Inspection and "Red Flags" present in the Bid Documents which have historically indicated such a Classification might be imposed. For Projects over waterways, one normally looks for Coast Guard Permits, notes in the Plans regarding navigation channels, or the presence of Commercial Vessels at the site. None of these indicators are present in this Contract. To the contrary, the question of navigability is in fact answered in the negative.*

*REI has constructed several similar Projects in the past in various Districts, subject to the same Specification cited herein. These include but are not limited to the following:*

- A. SR 5 over the Tomoka River\_ Volusia County\_ FIN 240845-1-52-0 1\_ District 54*
- B. SR 520 over Banana River\_ Brevard County\_ FIN 237506-1-52-01)\_ District 55*
- C. SR 19 over Juniper Creek\_ Marion County\_ Contract No. T5260\_ District 26*

*Project "A." was an 8" deck on Type II Beams. There was a somewhat active Boat Club adjacent, with a boat ramp. There was sporadic waterborne traffic. All formwork was by REI with no Specialty Engineer requirement. Project "B." was a flat deck bridge very similar to this current bridge. It was constructed on the Causeway to Coco Beach and surrounded by small watercraft and docks. Again, no requirement for a Specialty Engineer. Project "C." was an 8" deck on Type II Beams constructed within the Ocala National Forrest. The bridge marked the end of a canoe trail originating at Juniper Springs Park, managed by the US Forestry Service. REI controlled the passage of canoes through the work zone, in much the same manner described below, without incident. There was no Specialty Engineering required.*

*In each of the foregoing examples, two of which bore Coast Guard Permits, REI was able to maintain effective control of the work zone by channeling waterborne traffic, pouring concrete at night, or both. It worked on those Projects and would have worked on this Project had we been afforded the opportunity to implement these simple measures.*

*Informed by the forgoing enumerated truths, Russell Engineering, Inc. finds nothing in the Contract Documents supporting the assertion that the proposed Deck Replacement is or should be classified as "Construction Affecting Public Safety". We respectfully request that the Board, in light of these presents, find that Russell Engineering, Inc. could not have anticipated the imposition of said Work Classification and, as such, is entitled to Redress, including time if applicable, in amounts yet to be determined by negotiation or other means.*

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### **Department's Position**

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## **Issue Summary**

*Russell Engineering (REI) submitted the request for a DRB meeting stating that the issue was a difference of opinion in the definition of “construction affecting public safety”. The crux of the issue is whether or not the falsework drawings for the US 41 bridge over the Estero River needed to be signed and sealed by a Florida licensed professional engineer as required by FDOT Standard Specifications, Section 5, paragraph 5-1.4 Shop Drawings, sub paragraph 5-1.4.1 (d) Construction Affecting Public Safety.*

## **Background/ Contract Requirements**

*The project consists of widening an approximately four mile long section of US 41 between Corkscrew Road on the south to San Carlos Boulevard on the north. The widening consists of take a four lane divided highway and widening it to six lanes. As part of the project, the US 41 bridge over the Estero River also needed to be widened from 4 to 6 lanes. The bridge construction included a phased approach to the construction wherein the entire existing superstructure, consisting of precast, post tensioned concrete deck sections, was to be removed in different stages and replaced by a new cast-in place superstructure.*

*For REI to construct the new cast-in-place superstructure, it required the installation of a temporary falsework system to span from bent to bent. The type of temporary falsework system to be used was the contractor’s option and was not detailed in the contract documents. The bridge consists of five spans: Spans 1 and 5 extend over land, Spans 2 and 4 extend partially over land and the Estero River, and Span 3 extends over the Estero River.*

*The Estero River, at the bridge location, is approximately 50’ wide and 3’ to 4’ deep. Based on the contract documents, the bridge hydraulic recommendations, sheet B1-9, note 2 of the Remarks, the Estero River is defined as “not a navigable waterway”. Because the Estero River is defined as not a navigable waterway at this point, a typical USCG permit was not required. However, the drawings are silent in regards to restricting access to non-commercial vessels (IE. private watercraft either motorized or manually powered). In fact, the contract documents do indicate in several locations that the channel area will be accessible by the public.*

*33 CFR 115.70 provides further guidance for the USCG in regards to issuing permits based on bridge location and required clearances. This CFR generally states that the Commandant has the right to grant advance approval for bridge projects in lieu of the typical USCG permitting process for “bridges to be constructed across reaches of waterways navigable in law, but not actually navigated other than by logs, log rafts, canoes and small motorboats.” The Estero River falls into this category. As such, on July 14, 2004, the USCG issued the approval for the bridge over the Estero River as an “advance approval category” structure.*

*The Estero River is not defined as a navigable river in regards to commercial vessels however it is open to public access. Based on CFR 33, Section 329.4, the definition of a navigable waterway is: Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The Estero River does not meet this definition because there is no commercial traffic.*

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*The Lee County Board of County Commissioners has adopted a blue ways paddling trails program, which is called the Great Calusa Blue ways, and consists of 190 miles of canoeing and kayaking trails throughout Lee County. The maps include a trail up the Estero River from the mouth of the river at the Estero Bay, eastward to a point east of US 41 which would include the area where the project is located. Information regarding this program is available at the County Offices, on the County website and through a number of other public venues.*

*During the original bid phase of the project, and in accordance with the FDOT instructions to bidders, all bidders are to follow the Bidders Checklist when submitting a bid. The Bidders Checklist, in the fourth bulletin, provides direction to all bidders to inform them how to submit questions for clarification. Therefore if a contractor has a question, or is unclear as to the intent of any provisions of the contract documents, they have an obligation to request clarification from the Department in order to ensure their bid is responsive.*

*Further, during the original bid phase of any project, the FDOT Standard Specifications, Section 2, paragraph 2-4 Examination of Plans, Specifications, Special Provisions and Site of Work, requires that the contractor "Examine... the site of the proposed Work carefully..." and goes on to state this is for the propose of investigating conditions which may be encountered during construction. If the contractor had completed a site visit, it would have been clearly evident that the Estero River was used for the purposes of canoeing and kayaking. This would have been amplified by noting the location of the canoe/kayak rental retail store located a few feet from the eastern limit of construction and directly on the Estero River.*

*Furthermore, while not specifically addressed, there are several other indications within the contract documents which should have lead the contractor to believe the area would not be closed to public access.*

*The bridge drawings sheet B1-10 very clearly show that the turbidity barrier is run parallel to the river bank with an opening maintained down the center of the river. This is further reinforced on the MOT drawings, for example for Phase 1, sheet 297, it again shows the turbidity barrier installed running parallel to the river bank. If there was to be no boating access, the turbidity barrier would have been installed perpendicular to the shore, thus ensuring that any materials dropped would be captured.*

*Also in the MOT drawings on sheet 288, Note 13, states that the contractor must have "... a flagman at the bridge to monitor water borne traffic during all bridge construction operations." So it is obvious that the designer understood that the channel was to remain open to water borne traffic such as canoes and kayaks.*

*During the initial stages on the construction project, the contractor submitted, and had approved, his erosion control plan. This plan, as submitted and approved, did not propose installing turbidity barrier perpendicular to the center line of the Estero River thus restricting canoes or kayak from gaining access under the bridge. This is not to say that such a proposal would have been acceptable, but it would have revealed the contractor's position early on in the project.*

*The contractor did not attempt to secure access on the waterway, nor did they secure the shoreline. The contractor could have installed temporary fences flanking each side of the bridge down to the waterline. If this had been done, the contractor could have controlled any off hour*

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*trespassers from gaining accesses under the bridge via the river bank. It is important to note that the west side of the bridge is open to a public park. And without a physical barrier, the construction site becomes an attractive nuisance to children and adults that might be in the park.*

*Furthermore, the contractor did not erect the no trespass signs as required by the Florida Statutes to designate the area as being under the contractor's control. If signs had been posted stating that "THIS AREA IS A DESIGNATED CONSTRUCTION SITE, AND ANYONE WHO TRESPASSES ON THIS PROPERTY COMMITS A FELONY in accordance with FS 810.09(2)(d)", then the contractor could claim to have control of the area 24 hours a day and thus restrict all public access. This was not done.*

*In fact the contractor made no attempt to secure or restrict access to either the land portion or the water portion of the project.*

### **Statement of the Department's Position**

*The Department's position is that no entitlement exists. The Department's position has remained unchanged since the issue was initially raised.*

*The Department believes the river is a navigable waterway in accordance with the permits issued under and made a part of this contract at least in regards to non-commercial, privately owned pleasure vessels. Boaters (kayakers) are commonly using this channel and their protection must be taken into consideration when conducting work over the channel. As such, work on the bridge is deemed Construction Affecting Public Safety [Spec. 5-1.4.1 (d)].*

*Further, in accordance with Spec. 5-1.4.5.4, Temporary Works, for Construction Affecting Public Safety, the contractor is to submit signed and sealed shop drawings. In addition, since this work is classified as Construction Affecting Public Safety, the exclusion for providing submittals under Spec. 5-1.4.5.5, Formwork and Scaffolding, does not apply.*

*Finally, Spec. 5-1.4.6.3 indicates for Construction Affecting Public Safety, the EOR will perform an independent review of all relevant shop drawings and similar documents. The EOR's review is in addition to the requirement of the Contractor to submit signed and sealed shop drawings, and is not in place of submittal of those signed and sealed shop drawings.*

*Even though REI had a one point in time proposed to cordon off an area for kayakers to move back and forth under the bridge while the work progresses, Department doesn't believe this provision relieves REI of the obligation to provide signed and sealed shop drawings under the contract documents. Furthermore, REI never substantiated that this was a workable solution. And in fact, when REI proposed an alternate pouring sequence, this option was no longer viable.*

*This issue is no different than a public roadway on which lanes are closed to prevent traffic from moving under the work on a bridge overhead. The Department would expect signed and sealed shop drawings to be submitted under that circumstance as well. Since this work is deemed Construction Affecting Public Safety, Department believes the contract is clear in requiring the work to proceed only after signed and sealed shop drawings for the deck forms are submitted by REI and approved by the Engineer.*

### **Conclusion**

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*For the reasons stated above, the Department believes that the contractor knew, or should have known, prior to the bid, that the general public may have an occasion to pass under the bridge, through the work area, unless the area was 100% secured prior to construction. And therefore the contractor should have viewed the falsework design as construction affecting public safety and had the design signed and sealed by a licensed professional engineer.*

*The Department believes this is not an untypical position for this situation. On any FDOT project where the public might have an occasion to pass under some part of a structure while under construction, the work is considered Construction Affecting Public Safety and therefore must meet the requirements of Specification Section 5-1.4.5.4. The Department believes the contract is clear and is consistent with other projects statewide. There are no previous DRB rulings to the contrary.*

*And lastly, REI is claiming this was an “unforeseeable condition”. We do not see this as a defensible position based on the voluminous materials readily available to the contractor prior to bid such as the contract plans, standard specifications, supplemental specifications, permit documents, knowledge gained from site visits, and information available through public access.*

*Further to this point, in the letter from REI requesting the DRB hearing, on page two they state that “...the omission of this work from the original Bid was not an oversight. Inclusion was considered. In the end, after thorough examination, the determination to exclude was made.” Therefore this was not an unforeseeable condition. If REI recognized that there may be some inconsistency within the contract documents, they should have brought the matter to the attention of the Department and afforded the Department the opportunity to provide clarification, if in fact the Department felt there was some confusion.*

*Based on the above, the Department does not believe the Contractor, REI, is due an entitlement in regards to this issue and the DRB should find in favor of the Department.*

### **Attachments, Photographs and Supporting Documents**

*Attachment A – Letter Requesting DRB Hearing*

*Attachment B – Project Correspondence*

*Attachment C – Project Photographs*

*Attachment D – Project Drawings*

*Attachment E – Project Specifications*

*Attachment D – Other Documents*

### **REI Rebuttal**

*Having read and considered the seventy page Position Paper, submitted on behalf of FDOT by KCCS, Inc. (Owner) we find much of the material either superfluous or irrelevant. Redundancy and relevance notwithstanding, we would be remiss not to address the document in its entirety. To this end, each point of contention will follow a reference to Page and Paragraph taken from the Owner's Position Paper. Where appropriate, the reference will be expressed as a From/To range.*

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*Example: 211 indicates page two, paragraph 1 and 211\_3/3 would indicate from page 2 paragraph 1 to page 3, paragraph 3. We hope this assists in review.*

*1/0 2/1*

*No issue taken*

*2/2*

*On the 5th line, the Owner describes the Drawings as "silent" regarding "restricting access to "non-commercial vessels". This is simply not true. As the Owner later notes, the General MOT Notes provide for a Flag Person to monitor water borne traffic. It goes without saying that this provision requires the Contractor to Control said traffic appropriately during construction which occasionally included temporary restriction of passage through the work zone. This is precisely how REI completed the structure, absent public injury, with minimal disruption. It is noted that a "flag man" was Dot always stationed below the bridge. In most cases monitoring was performed by numerous workers from the elevated work zone. This approach had been pre-arranged with the management of Estero River Outfitters.*

*2/3 2/4*

*The Owner cites two sections from the Code of Federal Regulations, 33 CFR 115.70 and 33 CFR 329.4, respectively. The former deals with bridge clearances, in which the text equates "small motorboats" to "logs".*

*The latter defines a "navigable waterway" in terms that leave only one conclusion: The subject bridge does not span a Navigable Waterway. The Owner's current Position concurs. Yet, earlier in the back and forth e-mails the DCE, Jon Sands, states" The DOT believes the river is a navigable waterway ...". (see 14/3) They cannot have it both ways. Either the river is navigable and the Plans are in error, or the river is not navigable and the DOT is in error. If we are to accept the Owner's definition of navigable waterways, then any body of water capable of floating a "log" is navigable and should be considered "Construction Affecting Public Safety". Ridiculous!*

*2/5*

*The Owner discusses a Lee County initiative called the "Great Calusa Blueways". So?.. While thrilled to learn of such a noble endeavor, we have been unable to find mention of such in the Contract Documents and do not deem the revelation germane to our present discussion.*

*2/6 3/2*

*In these sections the Owner lectures on our obligations to submit questions according to directions given in the Bidder's Checklist and to examine the "Plans, Specifications, Special Provisions, and Site of Work". Having been at this a long time, REI is cognizant of the great benefits garnered by jealous attention to these two pre-bid procedures. Rest assured, had we any question regarding this issue, we would have asked. Likewise, we did consider all the Contract Documents and visited the site more than once. We found nothing to lead one to believe this Project would meet criteria to classify*



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*it as " ... Construction Affecting Public Safety" either in the Documents or on site. It should also be noted that the burden of examination is a two way street. During the developmental and pre-bid stages the Owner also must perform due diligence, including peer review. Unlike the Owner, we do not imply that due diligence was not performed. On the contrary, we assumed it was. In this light, the inclusion of note 2 on Plan Sheet BI-9 could not have been an oversight. The declaration that the "Estero River is not a Navigable Waterway" is the only clear marker in the Bid Documents regarding this issue, using the same words as the Specifications to clarify, by definition, that this Project does not meet the criteria to merit a classification of "Construction Affecting Public Safety". Since this issue is not addressed in either the Special Provisions or the Technical Special Provisions, a note on the Plans trumps the remaining four documents listed in Standard Specification 5-2, "Coordination of Contract Documents". We will address this in more detail in the Summary below.*

*3/3 3/6*

*The Owner attempts to use the parallel direction of floating turbidity barrier installation and the MOT Plan call for a flagman to illustrate the EOR's understanding that the channel was to remain open, as if REI thought otherwise. We did not. First of all, it is standard practice to install floating barrier parallel to the banks on all Projects over creeks, streams and rivers. Installation transverse to the current from bank to bank is not allowed. Secondly, as previously addressed, the Flagman Provision requires the Contractor to control water borne traffic safely through the work zone. No argument here!*

*4/1 4/3*

*The Owner opines REI's failure to demonstrate control of the worksite by erecting fences on and posting of a Public Right of Way. This goes to the ludicrous position adopted early in the discussion by the Owner wherein the word control as used in Specification 5-1.4.1 (d), without modifiers, is to be read as 2417 control. We are sorry. The Specification neither expresses nor implies the degree of control to be exercised. Webster's defines control as the act of "restraining or directing influence over: REGULATE".*

We steadfastly maintain that throughout the prosecution of this Project we have, by any accepted definition, maintained *control* of the active work site in a manner commensurate to the Contract Documents. The controls (fences & posting) cited above by the Owner are measures not legally available to the Contractor. In fact, the Florida Statute referenced in the Owner's Position Paper gives a very long list of what entities are considered to be an "authorized person" as used in the Statute and Mr. Contractor is not one of them. (see 64/2) To accept the Owner's interpretation of "control" in this context is to say there are no exceptions, all FDOT Projects are classified as affecting public safety. Clearly this not the intent of the Specification.

*4/4 5/1*

The Owner's position is that no entitlement exists and proudly declares that said position has remained unchanged since the beginning. This is true. He assumed a posture that was predisposed to ignore reason. As e-mails went back and forth his arguments evolved from weak to absurd. The

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Owner states a *belief* that the river is navigable based on permits which do not support that supposition and intermittent canoe/kayak traffic which is referenced in 33 CFR 115.70 in the same category as are *logs*.

Having completely rewritten the definition of navigable waterways to suit his purposes and, in so doing, discounting the Industry's accepted meaning as iterated in the Specifications, the Owner takes aim at the meaning of the word *control*. Here he reads the clear text of Specification 5-1.4.1(d) and insists that the solitary word "*control*" actually reads "*control 24 hours a day/seven days a week*". This is not a normal progression of thought. We reject it.

It is true that REI suggested various ways to channel waterborne traffic. It is also true that the Owner made it abundantly clear that none of the suggested methods would be acceptable based on his misrepresentation of what constituted "*control*". Schedule constraints demanded that we proceed. We had no reason to believe any demonstration would substantiate anything with this Owner. It is worth noting that the changes made to the pour sequence did not change a thing. In fact, we were never asked how it affected subsequent Phases. The highest risk is of course when placing Superstructure Concrete. Phases III & IV were poured at night. There was zero point zero waterborne traffic.

5/2 612

These section will be addressed in the Summary, herein below.

7/0 23/4

Duplicated correspondence. Speaks for itself. No comment required.

24/0 33/0

*Pictures with no time or date stamp capturing a moment in time and proving nothing. Nonetheless we will address two photos. The bottom photo on Page 27, captioned "Beam dropped in Estero River" is somewhat misleading. If one looks closely he will notice that the beams are suspended from a wire rope choker and that there are no bodies under the beams. This was a controlled activity performed in a safe manner. The photo on Page 33 captioned "Photo of False-work Failure" is more informative for what it does not reveal than for its obvious "got-cha" message. The photo does not reveal the root cause of the failure, which was not related to deck form system but rather to an anomaly of the supporting Substructure concrete. The photo does not reveal the fact that there were no injuries and no equipment damage. It does, however point to the fact that a Signed and Sealed Plan, reviewed for capacity per Specification 5-1.4.6.3 by the EOR, is still subject to the forces of fate. It proves that "stuff" happens, sometimes, despite our best efforts. It does not mean the design was flawed. And, it should not be part of an argument for Original Entitlement to compensation for unforeseen work.*

34/0 38/0

*Plan sheets signifying nothing much.*

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39/0 52/0

Select Std. Specification copied for reference. All but Page 41, which reprints the FDOT Definition of "Construction Affecting Public Safety", are pretty much irrelevant.

53/0 END

This Section consists of so called "Other Documentation", information which for the most part is not germane to the issue. There is an entry from OSHA 1926.703 which is primarily applicable to the vertical, or building trades. However, we do not object to its presence in this discussion. References to "designer" and "engineer" therein are not specific as to the qualifications of either. We find no reference to Professional Registration or Signed and Sealed Drawings. We would argue that a graduate engineer (Magna Cum Laude), EIT since 1977, and having thirty years experience in this type of work would present formidable qualifications.

### **Summary**

It appears the Owner's argument against Entitlement is based mainly on his own definitions of "Navigable Waterways" and "Control", and REI's alleged failure to ask questions when none existed. Specification 5-2, "Coordination of Contract Documents" lists the governing order of the Contract Documents. It is:

1. Special Provisions
2. Technical Special Provisions
3. **Plans**
4. Design Standards
5. Developmental Specifications
6. Supplemental Specifications
7. Standard Specifications

Of the Documents referenced by the Owner in his Position Paper, none were sourced from documents higher in the Order than Plans. In fact, he refers to documents from the two lowest categories. There is no getting around the fact that Note 2 on Contract Plan Sheet B 1-9, using language mirroring Specification 5-1.4.1 and the Industry Standard Definition referenced in the Code of Federal Regulations, represents the only solid information regarding this issue available in the Contract Documents at Bid Time. Nothing has been presented since to trump it.

It is important to contrast the Contractors experience in the Bid process with that of the Owner. Every Project the Owner puts out for Bids is a product conceived, studied, refined, reviewed by Agents of the Owner as well as Industry Peers, publically scrutinized, advertised, amended, amended, and amended some more, spanning a period of God knows how many years. Even as the Bid is active, the Owner is afforded the opportunity to correct errors. And, this process is applauded. Hopefully, it yields a set of Contract Documents that are correct and complete, at least in the important areas. The Contractor on the other hand is afforded maybe one month to prepare a bid. It

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would seem that the Owner, given the amount of time and resources he is afforded, would present a Bid Package which is correct. The Contractor must rely solely on the Bid Documents provided in formulating his bid. In this case we have been accused of not asking the right questions. As stated previously, we considered this issue, for about two minutes. That's about how much spare time is available on Bid Night. In the end, the choice was clear. We had no reason to believe the Plans were in error regarding the Estero River, since our visits to the site and prior experience supported this. As a Bidder, there is no time for exhaustive research in the Federal Register. We must rely on the accuracy of the Contract Documents. We have seen nothing to make us believe our decision was not the right one.

It is also important to note that our argument for Entitlement goes beyond simple definitions and myriad regulations. One must ask, was the Contractor provided documents that are clear and unambiguous in all respects? We say no. The mere fact that the Owner hurls 70 pages of Position at us, which in and of itself is confusing and ambiguous, indicates a fair amount of reaching. It is our contention that any Contractor, seeing the note on Sheet B1-9, recognizing the word for word text from Specification 5-1.4.] regarding "Navigable Waterways" would instantly reach the same conclusion we did. It's a fact. This work was Unforeseeable based on the documents and past experience.

I would offer one last observation in this matter. If one is to accept the Owner's arguments, he has to ask the question: What FDOT Projects would not be considered as affecting public safety? I would answer ZERO. I accept that there are legitimate applications for this Specification. However, as currently applied, there is no uniformity from District to District. It should be incumbent on the Owner to determine whether or not a Project is to be treated as one affecting public safety and clearly indicate this on the Contract Plans. I see no reason for this important determination to be left to the Contractor who is locked into the rigors of the low bid system. Finally, I have been working in Florida since 1987 building FDOT Bridges. I have been on two Projects where this Spec. was applied. One was SR 70 over Manatee River and second is obvious. These two projects are not that similar but share one commonality. They are both District One Projects.

### **FDOT/KCCS Rebuttal**

#### **REI's Claim**

REI has claimed that the falsework used did not need to be signed and sealed based, briefly, on each of the following premises:

1. Definition of "Construction Affecting Public Safety"
2. Plans, notes on sheet B1-9
3. Permits
4. Site Observations
5. Past Experience

The Department offers the following in response to each of these claims.

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### ***Issue #1 – Construction Affecting Public Safety***

*REI has claimed that the falsework used did not need to be signed and sealed based on the fact that the level of risk does not rise to a level requiring that a PE design/sign & seal the falsework system. What would be the definition of an acceptable level risk? We believe that if more than zero individuals, either the general public or workers on the project are potentially put in harms way, this is an unacceptable level of risk.*

*The OSHA Standards for Construction, CFR 29, Part 1926, section 703 states in paragraph (a), that all falsework (formwork) “shall be designed ... so that it will be capable of supporting without failure all ... loads”. Based on the failure experienced, the falsework, as designed, was not capable of meeting this requirement meaning that the system used did not comply with the applicable Federal regulations.*

*Further, in the same section, paragraph (b)(8)(i), the standard states;*

*“The design of the shoring shall be prepared by a qualified designer and the erected shoring shall be inspected by an engineer qualified in structural design.”*

*We would question the credentials of the individual doing the design; do they meet the requirements of being a “qualified designer”. And the section states that an engineer shall inspect the shoring. Again we would question if the REI staff has the credentials to be considered an engineer.*

*In regards to public safety, nothing was done to properly secure the site, see original position paper. As such, the public freely traveled under the structure putting those individuals potentially in harms way. Again, what is the acceptable level of risk? Our position is that if the number is greater than zero, the risk is not acceptable and the falsework should be signed and sealed.*

### ***Issue #2 – Plan Sheet B1-9***

*REI has claimed that based on the note stated on sheet B1-9 that the Estero River is not a navigable precludes the need for signing and sealing the bridge falsework drawings. This was explained in detail in the original position. We agree the note exists. However, this applies to commercial vessel travel. Nowhere in the plans are there any notes or indications that non-commercial vessels may travel the river. In fact, just the opposite is true, see original position paper.*

### ***Issue #3 – Permits***

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*REI has claimed that due to the lack of any USCG permits, they had no reasonable anticipation that vessels may navigate the Estero River. They are correct in that what we think of as a traditional USCG permit does not exist for this project. However, as explained in the original position paper, the USCG did approve the project. Regardless of the existence or lack thereof, of any USCG permits, the Estero River is regularly traversed by small private water craft. Therefore, as outlined in the original position paper, the falsework design should have been signed and sealed.*

### **Issue #4 – Site Observations**

*REI has claimed that based on their pre-bid site observations the river is clearly not navigable. The only watercraft they observed were small private vessels. We agree with their observations in general. However, REI states they observed canoes, kayaks and flat bottom boats using the river. It is exactly for that reason that the falsework needed to be signed and sealed, to afford these vessels some level of safety. As long as the number of vessels is greater than zero, the project raises to the level which should be considered Construction Affecting Public Safety.*

### **Issue #5 – Past Experience**

*REI has claimed that based on their past experience on similar projects, the Department has not required that the falsework be signed and sealed. First, while we understand the need for consistency, the obligation of the contractor is to build the project in accordance with the contract. This same obligation extends to the CEI firm and to the Department itself. In fact, even the guidelines for the DRB require that the Board decide each issue based on the merits of the contract for that specific project.*

*REI offered three examples of similar projects, constructed by them, where they were not required to submit signed and sealed falsework designs. One of the projects referenced is the SR 91 bridge over Juniper Creek. This bridge is an AASHTO type bridge. The deck system consisted of stay in place deck pans, obviously a totally different type of construction. Below is a picture of the underside of the bridge deck. However, while REI may not have submitted signed falsework drawings, the submittal for the stay in place decking was signed and sealed. See a copy of the shop drawing below.*

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NOTE: OMIT CONCRETE INSERTS FROM EXTERIOR SIDE OF EXTERIOR BEAM

FORM SUPPORT DETAIL

GENERAL NOTES

- 1) TOPKAL, INC. will furnish only that material listed in the Bill of Material.
- 2) All material for bridge forms shall conform to ASTM Specification A 653 (grades as shown) having a coating designation of C-155 according to ASTM specification A-924.
- 3) The Engineer or Contractor shall verify all dimensions.
- 4) All sheets and supports shall be obtained from Topikal as shown in pricing plans.
- 5) ALL FORM SHEETS SHALL HAVE A NOMINAL MINIMUM BEARING OF ONE INCH AT EACH END.
- 6) FOR SAFETY OF THE WORKMAN ALL SHEETS MUST BE SECURELY FASTENED BEFORE CONSTRUCTION TRAFFIC IS PERMITTED.
- 7) Reinforcing steel and supports for reinforcing steel shall be placed in accordance with applicable drawings and in conformance with good reinforced concrete practice and under the continuous supervision of a properly trained foreman.
- 8) CONCRETE SHALL NOT BE DEPOSITED ON FORMS TO A GREATER DEPTH THAN 9 1/2 INCHES ABOVE TOP OF FORM.
- 9) Any extra concrete placed in the deck slab as a result of the violation of this type of forms shall not be the responsibility of the form manufacturer.
- 10) CALCIUM CHLORIDE (FOR ANY ADMIXTURE CONTAINING CHLORIDE SALTS) SHALL NOT BE USED IN THE CONCRETE PLACED ON BRIDGE FORM SHEETS.
- 11) If situations arise that are not specifically covered by the notes or pricing plans, or if there is any doubt as to the correct procedure to be followed in erection, please contact TOPKAL for additional instructions or clarification, call from 1-877-887-4226.
- 12) Vertical adjustment of support angles shall be deferralized at the field to maintain correct slab thickness and roadway slope.

PRINTS ISSUED			BRIDGE FORM SHOP DRAWING FOR PROJECT NO. 238776-2-52-01	
DATE	NO.	TO WHOM		
1/15/09	1	CONTRACTOR		
			CUSTOMER: RUSSELL ENGINEERING, INC.	
REVISIONS			<div style="display: inline-block; vertical-align: middle; font-size: small;">                     PHONE: (404) 266-0975                      FAX: (404) 239-9848                      3400 PEACHTREE ROAD N.E.                      SUITE 1515, ATLANTA, GA 30326                 </div>	
DATE	REASON			
			BPI: MCM      JOB NO. 488-127W      SHEET NO. 1 OF 1 DATE: 1/15/09      CHECKED: T.V.T.	

James F. Bir, P.E.  
State of Florida  
No. 0001423

JOB 13 108

*James F. Bir*

Further, we discussed this project with the PA/SPE for the project, Marc Gregory. He brought to light several interesting facts. First he confirmed the above information of the deck type and shop drawings. Second he said that traffic under the structure was almost non-existent. And lastly, since most of the water craft using Juniper Creek were active only on weekends, the contractor was precluded from working on the bridge Friday, Saturday or Sunday. Therefore, based on the above, it is understandable that the SR 19 bridge may not have risen to a level of Construction Affecting Public Safety.

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*A second example is the SR 5 bridge over the Tomaka River. We have no specific information about this project but according to REI's position paper, "Project 'A' was an 8" deck on Type II Beams." This would lead us to believe this was also a stay in place deck system.*

*No information was found regarding the SR 520 project.*

*Regardless of the above information, this issue should be resolved based solely on the merits of the information available for this project.*

### **Conclusion – from original position paper**

*For the reasons stated above, the Department believes that the contractor knew, or should have known, prior to the bid, that the general public may have an occasion to pass under the bridge, through the work area, unless the area was 100% secured prior to construction. And therefore the contractor should have viewed the falsework design as construction affecting public safety and had the design signed and sealed by a licensed professional engineer.*

*The Department believes this is not an untypical position for this situation. On any FDOT project where the public might have an occasion to pass under some part of a structure while under construction, the work is considered Construction Affecting Public Safety and therefore must meet the requirements of Specification Section 5-1.4.5.4. The Department believes the contract is clear and is consistent with other projects statewide. There are no previous DRB rulings to the contrary.*

*And lastly, REI has claimed this was an "unforeseeable condition". We do not see this as a defensible position based on the voluminous materials readily available to the contractor prior to bid such as the contract plans, standard specifications, supplemental specifications, permit documents, knowledge gained from site visits, and information available through public access.*

*Further to this point, in the letter from REI requesting the DRB hearing, on page two they state that "...the omission of this work from the original Bid was not an oversight. Inclusion was considered. In the end, after thorough examination, the determination to exclude was made." Therefore this was not an unforeseeable condition. If REI recognized that there may be some inconsistency within the contract documents, they should have brought the matter to the attention of the Department and afforded the Department the opportunity to provide clarification, if in fact the Department felt there was some confusion.*



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*Based on the above, the Department does not believe the Contractor, REI, is due an entitlement in regards to this issue and the DRB should find in favor of the Department.*

### **Applicable Laws and Specifications**

Article 2-4 of the Standard Specifications:

*Examine the Contract Documents and the site of the proposed work carefully before submitting a proposal for the work contemplated. Investigate the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents.*

*The Department does not guarantee the details pertaining to borings, as shown on the plans, to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. The Contractor shall examine boring data, where available, and make his own interpretation of the subsoil investigations and other preliminary data, and shall base his bid on his own opinion of the conditions likely to be encountered.*

*The bidder's submission of a proposal is prima facie evidence that the bidder has made an examination as described in this Article.*

Florida Statute 810.09(2)(d):

*(d) The offender commits a felony of the third degree, punishable as provided in s. [775.082](#), s. [775.083](#), or s. [775.084](#), if the property trespassed is a construction site that is:*

- 1. Greater than 1 acre in area and is legally posted and identified in substantially the following manner: "THIS AREA IS A DESIGNATED CONSTRUCTION SITE, AND ANYONE WHO TRESPASSES ON THIS PROPERTY COMMITS A FELONY."; or*
- 2. One acre or less in area and is identified as such with a sign that appears prominently, in letters of not less than 2 inches in height, and reads in substantially the following manner: "THIS AREA IS A DESIGNATED CONSTRUCTION SITE, AND ANYONE WHO TRESPASSES ON THIS PROPERTY COMMITS A FELONY." The sign shall be placed at the location on the property where the permits for construction are located. For construction sites of 1 acre or less as provided in this subparagraph, it shall not be necessary to give notice by posting as defined in s. [810.011](#)(5).*

Article 5-1.4.1(d) of the Standard Specifications:

*Construction Affecting Public Safety: Construction that may jeopardize public safety such as structures spanning functioning vehicular roadways, pedestrian walkways, railroads, navigation channels of navigable waterways and walls or other structure foundations located in embankments immediately adjacent to functioning roadways. It does not apply to those areas of the site under the Contractor's control and outside the limits of normal public access.*

Section 329.4 - General definition:

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*Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the water body, and is not extinguished by later actions or events which impede or destroy navigable capacity.*

### Findings and Discussion

In his email dated December 16, 2011, Mr. Jon Sands, FDOT District 1 Construction Engineer states:

*“The DOT believes the river is a navigable waterway in accordance with the permits issued under and made a part of this contract. Boaters (kayakers) are commonly using this channel and their protection must be taken into consideration when conducting work over the channel. As such, work on the bridge is deemed Construction Affecting Public Safety [Spec. 5-1.4.1 (d)].”*

The KCCS/FDOT position paper maintains that:

*“the river is a navigable waterway in accordance with the permits issued under and made a part of this contract at least in regards to non-commercial, privately owned pleasure vessels.”*

These determinations are essentially a change from the plans. Plan sheet B1-9 clearly states that the river is “not navigable” and when asked in the hearing, is it or is it not the Department’s position that the river is defined as navigable, the answer was *“the river is not navigable”*.

The specification "Construction Affecting Public Safety", Section 5, "Control of Work", Sub-section 5-1.4, "Shop Drawings", Paragraph 5-1.4.1 (d), states:

(d) Construction Affecting Public Safety: Construction that may jeopardize public safety such as structures spanning functioning vehicular roadways, pedestrian walkways, railroads, navigation channels of navigable waterways and walls or other structure foundations located in embankments immediately adjacent to functioning roadways. It does not apply to those areas of the site under the Contractor's control and outside the limits of normal public access”

The specification defines areas and instances where public safety “may” be jeopardized. The phrase “such as” is used. When queried by the Board, both parties agreed that, in this case, “such as” means “for example”. KCCS/FDOT maintains the point of the public safety specification is to be applied *“if the acceptable level of risk is greater than zero, then the risk is not acceptable”*.

*The specification includes four (4) examples of construction over land and only one (1) example of a structure to be constructed over water, which is, “navigation channels of navigable waterways”.*

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KCCS/FDOT states that the Contract incorporates CFR 329, which defines the term “navigable waters of the United states” for authorities of the Corps of Engineers and defines Navigable waters, “as those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use in transport interstate or foreign commerce. A determination of navigability, once made, **applies laterally over the entire surface of the waterbody**, and is not extinguished by later actions or events which impede or destroy navigable capacity”.

Therefore the Department has **limited the channel** area of the water surface to be **the singular area** to apply the public safety specification and **excludes the rest of the lateral surface** of a waterbody. By excluding the lateral surface of a waterbody that falls outside the channel area the Department has raised the presumption for the reasonable conclusion to be made that the intent of this specification is to focus on the higher volume and larger vessel areas **at the exclusion of the marginal areas of traffic that are commonly and frequently known to utilize the non-channel areas for recreation or other purposes that may include, but not be limited to rowboats, canoes, kayaks, and small motorboats**, in multi-span bridges and it also excludes all situations involving non-navigable waterways.

“Reasonableness” is always a matter of degree, and the focus from “laterally over the entire surface of the waterbody” appears be an attempt of striking a balance between costs to the Contractor and via its bid, to the Department and contradicts KCCS/FDOT’s position that the specification applies to any area wherein just one (1) person may be exposed.

In light of the forgoing, it also seems reasonable for the Contractor to conclude, as it did, that a navigation channel is typically bordered by a fender system and other navigational aides, which were not present at this location of the Estero River.

The bidder has no option other than to bid the job accordingly. KCCS/FDOT stated that the Contractor has a clear obligation to seek clarification if he is unsure of the designer’s intent. However, the Contractor testified that he clearly understood the scope of work based on his site visit and the content of the plans and no questions were raised based upon this. If the Engineer believes REI should have inquired whether signed and sealed drawings were required, the Board raises the question: **“Why didn’t any of the other bidders ask the identical question”**.

If the Department felt that additional areas and instances other than the five (5) examples listed should fall under the "Construction Affecting Public Safety" category, perhaps a better phraseology would have been: *“such as, but not limited to...”* and also provide other examples of structures spanning bodies of water, both navigable and non navigable.

The Board spent some time examining the definition of navigable vs. non navigable. However, in the final analysis, the Owner and Author of the specification, classified the waterway as non

## DISPUTE REVIEW BOARD RECOMMENDATION

navigable. This was the instruction to bidders, and therefore, governs how the bidder is to approach the project. Is the Estero River a navigable waterway? By the definition contained in CFR Section 329.4, it most likely is. However, the point is moot as the plans indicate that it is not and that is what must govern in this case.

REI brought forth other examples of bridges where they were not required to submit signed and sealed drawings because of the “navigation” argument. The Engineer countered this by saying that on the SR 91 bridge over Juniper Creek, signed and sealed drawings were required by virtue of the fact that REI utilized a stay-in-place metal deck on this project and shop drawings were required. While this is true, it is important to note that the metal decking system is incorporated in the project and the specifications are clear that metal deck systems must be submitted to the Department for approval. It is important to note that the overhang construction was a conventional overhang system and no drawings were required for this stage of the work. The overhang is just as critical (if not more so), as it is a cantilever section. This begs the question “Why no signed and sealed drawings on the overhang?”

KCCI/FDOT’s also stated that the traffic in the SR 91 bridge over Juniper Creek instance was “almost non-existent” which is inconsistent and at odds with its argument herein that *“if the acceptable level of risk is greater than zero, then the risk is not acceptable”*

### **DRB Recommendation**

The Board finds entitlement to the Contractor’s position and recommends that he be compensated for all costs involved in obtaining signed and sealed drawings.

The Board appreciates the cooperation by all parties involved and the information provided to make this recommendation. Please remember that failure to respond to the DRB and the other party concerning your acceptance or rejection of the DRB recommendation within 15 days will be considered acceptance of the recommendation.

I certify that I participated in all of the meetings of the DRB regarding the Dispute indicated above and concur with the findings and recommendations.

Respectfully Submitted,

Disputes Review Board

Rammy Cone, DRB Chairman as appointed by the Members

James Guyer, DRB Member

Roy Adams, DRB Member

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SIGNED FOR AND WITH THE CONCURRENCE OF ALL MEMBERS:

\_\_\_\_\_  
DRB Chairman

CC: file