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September 8, 2003

Mr. David Koger Earthtech Consulting Engineers 725 20th Street Tampa, Florida 33605 Mr. Robert Sharkey David Nelson Construction Co. 3483 Alternate 19 Palm Harbor, Florida 34683

Ref

FPN: 255734-1-52-01, 255734-1-56-01, 255734-1-56-02

State Road Project No.: 10250-3527

State Road 45 (Causeway Blvd.) from North of Licata Bay Bridge to S.R. 60

305 mm Sanitary Sewer, Station 305+97 to Station 310+49

Gentleman:

The Florida Department of Transportation (FDOT) and David Nelson Construction Company (DNCC) requested a hearing before the Disputes Review Board (Board) concerning the 305 mm sanitary sewer. Summaries of the FDOT's and DNCC's positions were forwarded to the Board, and later rebuttals to the positions expressed in the position papers. A hearing was held in the offices of Earthtech Consulting Services (ET) on August 18, 2003.

In a May 5, 2003, letter to ET, DNCC suggests that they do not accept the Engineer's opinion and requests a favorable response to their claim for this changed condition. On May 7, 2003, ET informs the Board that an impasse has been reached as to whether the Phase II Sanitary Sewer Revision/Relocation constitutes a significant change to the contract and requests a hearing before the Board on this issue.

ISSUE:

Do the Phase II Sanitary Sewer Supplemental Drawings constitute a substantial or significant change in the nature or character of the work."

CONTRACTOR'S POSITION

We will state the Contractors position by referencing and paraphrasing their position paper and input from the hearing. Should the reader need additional information please see the complete position paper by the Contractor.

Included in this contract is a new 305 mm (12") gravity sanitary sewer which is located between an existing 48" force main and a 54" gravity sewer, all under the existing 20th street pavement. The new 12" sewer varies in depth from approximately 2' to 5' below the invert of the larger sewers. DNCC's position is that the 48" force main was not in the location shown on the contract drawings, but at a higher elevation and closer to the 54" gravity sewer. As a result the 12" sanitary sewer was redesigned (moved to a new location out from between the two large sewers) which made the installation more

difficult than what had been anticipated at the time of bidding the project. summarizes their position as follows:

"Is the untimely revisions by the FDOT to the location of the proposed 12" gravity sewer line in Phase 11, from Station 305+97 to Station 310+49 substantially or significantly different from the original location as to constitute a compensable changed condition?"

It is David DNCC Construction Company's (DNCC) belief and contention that the Engineer erred in his determination that that the revised location of the 12" gravity sanitary is not significantly different in character or nature due to the "obvious reduced risk." We further contend that this change created additional costs that were not foreseeable at the time of bid. As such, DNCC should be entitled to renegotiate payment for this work.

By definition, Article 4-3.2 Increase, Decrease or Alteration in the Work, a "substantial change" is defined as a "change in the nature of the design or in the type of construction or which materially increases or decreases the cost or time of performance. " When that occurs, as it does in this matter, the Engineer may direct the work, at their sole discretion, and "the contractor will be paid pursuant to an agreed Supplemental Agreement or in the following manner: " in the interest of brevity, commonly referred to as "Force Account Work." The FDOT has elected to ignore this contract provision and has ruled arbitrarily, without any reasonable foundation, in spite of the evidence to the contrary, that there is no basis for additional compensation to the contractor on a vague and unsubstantiated theory that somehow there has been a "reduced risk." The FDOT adds that even if there might be some additional costs to the contractor, they are offset by this "reduced risk." DNCC summarily rejects this ruling on the grounds that it is, at best, vague, ambiguous, and entirely without any reasonable meaningful basis of evaluation and therefore cannot, and should not, be seriously considered.

In the alternative, DNCC believes and contends that there are numerous and varied other elements included in this revised design/location that, in and of themselves, merit the Board's favorable finding that a "substantial change," as defined by the contract and commonly understood, has in fact occurred in this matter. Therefore, the FDOT should provide, to the contractor, substantiated additional compensation and a compensable extension of time because of this untimely redesign/relocation.

DNCC goes on to give the background for their position that the change was necessitated by the incorrect location of the 48" force main as follows:

On August 9, 2002, while performing some minor work on the existing 48" force main DNCC discovered that the existing lines were laid on gravel bedding and cribbing that was not shown on the Contract Documents. DNCC notified the FDOT that this could represent a serious problem given the water table on this project and expressed our concern that if this bedding ran the length of this line and the adjacent 54" gravity line, both of which are main transmission lines for the COT waste water to the downstream Hooker's Point Treatment Plant, then our pre-bid, normal construction and dewatering methods (well points and periodic sumps) most likely would not be adequate to handle this artificially created "conduit" for ground water and the rise and fall of the tides from Tampa Bay in this area and create additional and extra considerations for dewatering that were not, nor should not, have been included in our bid prices for this project. The FDOT (COT) felt that this was not a changed condition and that it was DNCC's problem

On December 19, 2002, in an occurrence unrelated to this project's construction, an air release valve on the 48" force main broke at the intersection of Maple Street and 20th

Street. While the existing 20th Street was closed for the COT to make the necessary repairs, DNCC had their surveyor locate the centerline of the existing pipe that was exposed to make the repairs. The information indicated that this line was 5'-3" closer to the proposed new 12" line and 1'-6" higher than shown in the contract drawings. We pointed this out to the COT as it would most likely affect the installation of the proposed 12" gravity sewer line that was designated to be installed in the immediate vicinity of this 48" force main. The COT said that it was probably only one location and not indicative of what was actually out there and they felt that their information furnished to the FDOT in the bidding documents was accurate. ... Because the 54" line on our project had been installed in 1951, and in the COT's own opinion, "probably not in very good condition," we felt the COT should take heed. DNCC notified the FDOT (COT) that, in light of this news, coupled with what we had discovered about the location discrepancy of the 48" force main, it would behoove the FDOT (COT) to reconsider the proposed installation of the 12" gravity sewer between the COT's 48" force main and 54" gravity sewer line in Phase II and that DNCC could not assume any responsibility for these changed conditions which were beyond our control. We reminded them that this critical item of work was scheduled to begin in March and requested further instructions and directions. The FDOT (COT) at that time did not consider any further action necessary.

In February, after traffic was switched to the new alignment and DNCC was able to demo the old 20th Street, we found that the entire run of the existing 48" was significantly closer to the new 12" line and higher than shown. DNCC again requested direction as soon as possible because this critical item of work was still scheduled to begin in March and we needed time to evaluate, respond, and mobilize to any changes that might be necessary. Again, in meeting after meeting where DNCC kept reminding everybody of this entire situation, the FDOT (COT) maintained its previous position but did encourage DNCC to continue to explore alternatives if they could come up with any. DNCC is not the Engineering firm for this project and told the FDOT (COT) that it could not take any design responsibility but, in the spirit of partnering, and in the hopes of avoiding a major environmental disaster, DNCC came up with several alternatives for the FDOT (COT) to pursue.

On March 21, 2003, the FDOT (COT) issued a preliminary set of revised drawings that relocated the proposed 12" gravity sewer line between Station 305+97 and Station 310+49 to a location between the new roadway constructed in Phase I and the existing 48" force main. DNCC, after reviewing these preliminary drawings, notified the FDOT that there would be additional and extra costs involved in making this change and that the schedule had been impacted and an extension of time with costs was now unavoidable.

On March 27, 2003, the FDOT notified DNCC that "the COT" did not consider this revision to be significantly different in character or nature that and DNCC was directed to proceed at existing unit prices. The FDOT, however, did acknowledge that a time extension was due and appropriate.

On April 2, 2003 DNCC began installing the revised MOT and preparatory work and on April 22 we were able to begin this redesign/relocation installation but clearly under protest, fully reserving all of our rights and remedies to seek additional and extra compensation and an extension of compensable time. The FDOT at this time issued a position that "due to the obvious reduced risk" to the contractor ... this revision does not constitute a 'significant change."

DNCC lists the following 8 items, which they contend added to the scope of work the was required under the contract.

- 1. The addition of approximately 1,500 LF of barrier wall due to drop off requirements because now the excavation was much closer to the edge of pavement.
- 2. There was limited access because the barrier wall extended across the entrance to several side streets. This limited access reduced the size of the work area to only one side of the trench and required room inside the Right of Way for local traffic. The average depth of cut was approximately 2' deeper under the revised design than the original design because the pipe was now under the side slope coming off the new roadway pavement.
- 3. Under the revised design (relocation) DNCC had a deeper average cut to install the new 12' sanitary line. After demolition of the existing roadway there was an average cut of 13' and a level working platform. Under the new design the average cut was 15' and sloping work area
- A trench box would now be required to protect the new roadway, which would be under traffic while the 12" line was installed.
- The contract documents includes a pay item for select fill and the FDOT has refused to pay for it.
- 6. Additional pumping time and removal and replacement of newly laid storm sewers. Because the redesigned location of the 12" sewer put it directly under the previously installed storm lines, these lines had to be removed and replaced. In order to remove these lines the water head in the pond and storm system had to be pumped down so there was additional pumping time. The lines would have eventually had to be pumped to make the connection to the storm system on the other side of the street, but not as early as was required to remove and replaced the pipe.
- DNCC had to install a double run of well points to remove the excessive amounts of water entering the trench from the bedding stone used on the 48" sewer and the artesian wells found in the trench. DNCC planned to utilize normal dewatering methods and practices for installation of the original design, based upon the information provided in the contract documents. They expected to use a single run of well points (jetted and sanded) with occasional sumps, which they contend is normal practice in the industry. However, because the existing 48" force main was installed on bedding stone that acted as a pipe for water, the volume of water was significantly greater than anticipated. Additionally, during the installation of the relocated 12" sanitary, they encountered underground springs (artesian wells) that could not have been anticipated and significantly increased the expected installation time and cost. They contend that the dewatering system they were forced to use, a double run of augured-in well points, multiple sumps and standby pumps is not "normated dewatering practice."
- 8. The FDOT has agreed that the delayed start due to the redesign has impacted the construction schedule, and consequently the contract time by 27 days. The original scheduled duration fo the 12" sewer was 22 days and included 5 days of float after which it would become the critical item of work. Taking into account weather and other delays it actually took DNCC at additional 50 working days (for a total of 72 working days) to complete this work

In DNCC's rebuttal paper they contend that the FDOT ignores the obvious numerous and varied changed conditions that were incurred as a result of the redesign of the 12's sanitary sewer installation and makes the following points:

- 1. DNCC did not make the request for a hearing before the Board. The FDO did, at a time when DNCC desired and believed that an amicable solution was possible.
- 2. DNCC was not a party to the mutually agreed upon changed location. The mutual agreement was between the COT and the FDOT.
- 3. DNCC did not ask the FDOT, ET or the COT what means and methods i could use to install the Phase II work as suggested by the FDOT.
- 4. DNCC was concerned about the installation of the 12" line in close proximity to the 48" force main. However, upon discovery that the 48" sewer was every than the 48" sewer was every the 48" sewer was every than the 48" sewer was every the 48"

- closer and shallower than shown on the drawings, a changed condition was created, and construction became very risky for all parties.
- 5. The COT suggested using sheeting and shoring as the method to install the 12" sewer. This method is not normal to the construction industry for this type of work. A trench box is the usual (normal) method of installing work of this nature. No design of the sheeting, or quantities and pay items were included for sheeting and shoring.
- 6. DNCC did not include sheeting and shoring in their bid and offered to show the FDOT their bid to prove none was included.
- 7. DNCC did not state, or imply, that they intended to use a double trench box to install the 12" sewer, and excavation inside the box was not contemplated at the time of bid.
- 8. The 12" sewer problem was brought to the FDOT's attention in August, 2002, but ignored by the FDOT until it was broached at the January 23, 2003, meeting with the Board. The complete transcript of the meeting indicates that Mr. Koger (ET) stated that, "Vince Gallagher did say that the COT did anticipate the contractor would come up with an alternative method of doing this."
- 9. DNCC first brought the issue to the FDOT's attention in August, 2002, but was ignored until December claiming that "means and methods were the contractor's responsibility." Actually DNCC was trying to mitigate damages as required by the specifications, Section 5-4 Errors or Omissions in Contract Documents, which states, "do not take advantage of any apparent error or omission discovered in the Contract Documents, but immediately notify the Engineer of such discovery."
- DNCC did bring up reasons why not to install the pipe as shown on the original contract drawings because the installation as shown no longer existed.
- 11. DNCC was constantly discussing various alternative methods of installing the 12" sewer, and after review the COT chose one of the methods suggested by DNCC. Various methods of installation were suggested, but DNCC was not the designer and merely presented alternatives in the interest of mitigating damages to all parties.
- 12. DNCC agrees that the quantities do not change appreciably, but contend the nature and character of the method of installation changed. The only changes to the installation were the addition of a more difficult manhole and the average depth of cut increased by 2', but these were not the primary concern.
- 13. The revised drawings were issued because the original design was not constructible due to the changed condition (the actual location of the 48" pipe). The COT stated post-bid that there was no way they were going to allow the contractor to excavate between their 54" and 48" lines for the sanitary work.. Instead of redesigning the 12" sewer in a new location the FDOT had the option of directing DNCC to install the sewer as shown on the contract drawings even though those conditions did not exist.
- 14. DNCC believes that they have provided, "clear and convincing proof that the determination by the Engineer was without any reasonable and good faithbasis." The nature and character of the installation has changed and **Section**

- 4-3.2 Increase, Decrease or Alteration in the Work, states in pertinent part, "The Engineer reserves the right to make alterations in the character of the work which involve a substantial change in the nature of the design or in the type of construction or which materially increases or decreases the cost or time of performance ...". The specification goes on to say, the contractor will be paid for the work by Supplemental Agreement, and clearly indicates that the intent of the contract is when a change occurs that cost the Contractor time or money the contractor will be paid. This is the whole basis of DNCC's claim.
- 15. DNCC never refused to proceed with the original design, but rather could not proceed with it because those conditions no longer existed and the COT refused to allow DNCC to excavate between the 54" gravity sewer and 48" force main.
- 16. Specification Section 4-3 Alterations of Plans or of the Character of Work defines Significant Change as applies only when either of two conditions are present, (A) or (B). It further clarifies (A) by stating, "In the instance of (A) above, the determination by the Engineer shall be conclusive and shall not be subject to challenge by the Contractor in any forum, "except upon the Contractor establishing by clear and convincing proof that the determination by the Engineer was without any reasonable and goodfaith basis." The FDOT should compare the Changed Condition to the revised design not the "original proposed construction, which no longer exists" as required by the contract.
- 17. The changes in design were not made for the contractor's convenience and Section 7-11.6.1 Arrangements for Protection or Adjustment states; "The FDOT will not consider relocation or adjustment requests based upon the Contractor's proposed use of a particular method of construction or a particular type of equipment as essential to the construction of the project if the Contractor could use other common methods and equipment without relocating or adjusting the utility." The FDOT made the revisions (redesign) because the original design (shown on the contract drawings) was in error (location of the 48" sewer).
- 18. DNCC agrees that the relocation reduces the risk for everyone, but the risk is limited to the contractor by what is shown on the contract drawings, and the drawings were wrong as has previously been pointed out. Risk is a nebulous concept and the FDOT should be looking at the cost of the risk under the redesigned 12" sewer and its location near the active roadway. The redesigned (relocation drawings) of the 12" sewer did not make it easier to install, but in fact made it cost more and take additional time due to the construction means and methods required to construct it as redesigned.

In conclusion DNCC makes the following arguments in support of their position:

We obviously do not agree that the documents presented in the FDOT's position package provide clear and convincing evidence that this is not a "Significant Change" and the FDOT failed to support its own position.

- 1. The length, depth, size, and quantities of work did not change. Yes it did, but not this is not a quantity dispute.
- 2. The revision was made for DNCC's benefit so we could build it the way we bid it No, it was made because of an error in the original plans or changed conditions
- 3. The revisions are not 'significant" per the Contract Documents. Yes it is, the character of the work did change
- 4. The changes reduced everyone's "especially the contractor's" risk.

 No, it really reduced the owner's risk.
- The revisions "actually made it easier" to install.No, it was more difficult to install than the "Original Design"

This package is riddled with inconsistencies and facts that actually support the contractors' position. The FDOT also tends to focus on the non-disputed issues while ignoring the pertinent ones. DNCC was the first to point out that this was not a dispute about quantities but rather about the ability to perform the work in a manner consistent with those available at the time of bid and the fact the FDOT continues to claim that it is, is quite disappointing. The relocation eliminated 50% of our access to the work area and the remaining access had to be shared with local traffic thus further reducing our useable working area. Additionally, in order to support the existing roadway, DNCC now had to excavate within the confines of the trench box and utilize it to support the existing roadway in lieu of open excavating the trench and pulling the box along for man protection only. These impacts significantly slowed production and altered the Character of the Work. The added dewatering, premature pumping down of the ponds, removal and replacement of recently installed utilities all increased the "cost of performances" and were beyond what could have been reasonably anticipated at the time of bid.

FDOT'S POSITION

We will state the Departments position by referencing and paraphrasing their position paper and input from the hearing. Should the reader need additional information please see the complete position paper by the Department.

"The Contractor, (DNCC) has requested that the Disputes Review Board hear and make a recommendation on the entitlement of their claim that the Phase II Sanitary Sewer Supplemental Drawings constitutes a substantial of significant change in the nature or character of the work."

The COT and FDOT/ET contend that a mutually agreed upon revised (relocation) which does not "Significantly Change" conditions of the work and is not grounds for renegotiations of the bid items involved.

The FDOT begins with a history of the Phase II sanitary sewer work as follows:

After the project had been under construction for about one year the contractor, David Construction Company (DNCC) asked the Florida Department of Transportation/Earth Tech (FDOT/ET) and the City of Tampa (COT) what means and methods DNCC could use to install the Phase II work. DNCC was apprehensive about the installation of the 305 mm (12 inch) line and the close proximity to the 1219 mm (48 inch) force main.

The COT suggested a work method that is normal to the construction industry and particularly this type of work, namely sheeting and shoring.

Upon review of their bid documents DNCC stated they had not used the sheeting and shoring work method in preparing their bid. DNCC stated they had intended to use a double trench box work method to install the 305 mm (12 inch) line. DNCC further stated that because the existing force main was not where it was shown on the drawings they could not use the trench boxes work method that they bid.

Actually, DNCC had been discussing changing the 305mm (12 inch) line in Phase II for some time. See the Verbatim discussion from Weekly Meeting #56, January 23, 2003, under category 10, Design. Based on the drawing DNCC provided to the COT on 2-26-03, they actually started thinking and planning this change on or about 12-13-02.

The DOT/ET, COT and DNCC participated in a number of meetings trying to resolve how to install the 305 mm (12 inch) line Phase II mainline. At these meetings and in written form DNCC was constantly bringing up reasons why not to install the pipe as shown on the original contract drawings. In the 1-23-03 progress meeting DNCC stated the high water table would make it impossible to install the pipe. In meetings of 2-26-03 and 2-27-03 the topic of installing the 305 mm (12 inch) pipe came up. In a letter dated 3-3-03, DNCC cited the following reasons to explain why they could not install the 305 mm (12 inch) pipe as shown on the original Phase II drawings: the existing pipe was installed on gravel and possibly installed on timber, the existing force main is not where it was shown on the contract drawings, the possibility of a catastrophic scenario. DNCC further stated in their letter of 3-12-03 that the 1372 mm (54 inch) line is leaking and has stress cracks in it.

The COT and DOT/ET then prepared revised (relocation) drawings and issued them to DNCC. Upon receipt of the revised (relocation) drawings, DNCC then stated they (DNCC) should be allowed to perform the work on a time and material basis. Both the COT and FDOT/ET disagreed with the contractor and everyone reduced their position in written form.

The COT requested that Ms. Joy Christiano review and issue, in accordance with Specification Section 4-3.11, her decision on this matter. The Engineer's Decision was the redesign (relocation of the 12 inch sewer line) does not constitute a "Significant Change" to the Contract.

The FDOT, ET and the COT all agree that the revised (relocation) drawings are not a "Significant Change" in the nature or character of the work per the contract documents. They further agree that DNCC should not receive additional compensation for the work shown on the revised (relocation) drawings, but should be paid for the work shown on the revised (relocation) drawings using the existing pay items. The FDOT, ET and the COT based their position on the following reasoning.

- 1. The length, depth and size of the proposed pipeline have not changed. The revised (relocation) drawings require the installation of the same materials as specified and shown on the original Phase II contract drawings.
- 2. The revised (relocation) drawings were issued so DNCC could use the work method (trench box) that they stated that they had put into their bid. This was one of the primary reasons that the COT and the FDOT/ET agreed to the relocation of the 305 mm (12 inch) mainline in Phase II.

- 3. The COT and FDOT/ET believe that the revised (relocation) drawings are not a "Significant Change" per the Contract Documents.
- 4. The revised (relocation) drawings reduce everyone's, especially the contractor's, risk associated with installing the Phase II Sanitary Sewer. This was the other primary reason that the COT and FDOT/ET agreed to the relocation of the 305 mm (12 inch) mainline in Phase II
- 5. The revised (relocation) drawings, and the alternate means and methods used by the contractor, actually made it easier for him to install the revised (relocated) Phase II Sanitary Sewer.

The FDOT then goes on to fully outline each of the above reasons as detailed below:

1. Original Plans

The original contract drawings for Phase II mainline required the contractor to install 452 meters (1483 feet) of 305 mm (12 inch) PVC pipe at a depth of 5.557 to 5.099 meters (18.23 to 16.73 feet). In addition, DNCC had to install 6 deep drop manholes and tie-in to another on the mainline.

Revised (Relocation) Plans:

The revised (relocation) drawings for Phase II mainline required the contractor to install 452 meters (1483 feet) of 305 mm (12 inch) PVC pipe at a depth of 5.557 to 5.099 meters (18.23 feet to 16.73 feet). In addition, DNCC had to install 5 deep manholes and 2 deep drop manholes on the mainline.

The revised (relocation) drawings for Phase II use the same type and classification of PVC pipe, and the same precast manholes as specified and shown on the original Phase II contract drawings. In fact, most of the materials that were installed per the revised (relocation) drawings were actually manufactured and delivered to the project site per the original Phase II contract drawings.

<u>2.</u>

DNCC had originally stated that their bid for Sanitary Sewer work in general and Phase II in particular was prepared using the trench box method of slope protection. This was confirmed in written form in DNCC letter of 3-3-03 and ET letter of 4-4-03. As further proof that this was DNCC intent, they had used the trench box method on all deep mainline Sanitary Sewers installed in Phase I.

The open trench method of slope protection would not have worked in Phase II because of the close proximity of the two large existing Sanitary Sewers. One sewer is a 1219 mm (48 inch) force main and the other sewer is a 1372 mm (54 inch) gravity sewer. Given the existing ground and water table conditions, DNCC would have disturbed one or both of these lines.

At the 3-6-03 meeting the trench box work method was not a passing reference but rather a stated position, whose merits were discussed by all parties present.

<u>3.</u>

The Contract Documents allow the Engineer to make minor changes to assist the contractor with the performance of the work. But it is clearly the intent of the Contract

Documents that the Contractor not receive additional compensation when the Contractor's means and methods have not changed as a result of the revision.

Section 5-1.4.11 Modification for Construction: states that; "Where the Engineer allows the Contractor to make modifications to the permanent works for the purpose of expediting the Contractor's chosen construction methods,... Submit proposals for minor modifications under the shop drawing process."

"Minor modifications are those items that, in the opinion of the Engineer, do not significantly affect the quantity of measured work, or the integrity or maintainability of the structure or its components."

"The Engineer's decision on the delineation between a minor and a major modification and the disposition of a proposal is final". Underlined for emphasis.

The only real change associated with this relocation was the reduction of the risk factor to everyone, especially the contractor.

As discussed above, most of the materials that were installed per the revised (relocation) drawings were actually manufactured and delivered to the project site per the original contract drawings. The contractor used the same work method that he stated that he had put into his bid, to install the work shown on the revised (relocation) drawings. The length, depth and size of the proposed main pipeline did not change.

The Engineer's decision said that the revision (relocation) was not a "Significant Change".

Section 4-3 Alterations of Plans or of the Character of Work. states that; "The Engineer reserves the right to make, at any time prior to or during the progress of the work, such increases or decreases in quantities, whether a significant change or not, and such alterations in the details of construction, whether a significant change or not, including but not limited to the alteration in the grade or alignment of the road or structure or both, as may be found necessary or desirable by the Engineer."

"The term "significant change" applies only when:

(A) The Engineer determines that the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction, or (B) A major item of work, as defined in 1-3, is increased in excess of 125 % or decreased below 75 % of the original Contract quantity."

"In the instance of (A) above, the determination by the Engineer shall be conclusive and shall not subject to challenge by the Contractor in any forum, except upon the Contractor establishing by clear and convincing proof that the determination by the Engineer was without any reasonable and good-faith basis. Underlined for emphasis.

Upon reviewing the documents supporting the positions of both the Contractor and the COT as detailed in ET letter of 4-17-03, we do not find where DNCC has detailed how this revision (relocation) is a "significant change" in accordance with the contract documents. The contractor has failed to make his case on this point and the Engineer stated as much in her decision. The contractor was reluctant to commence Phase II sanitary sewer work until such time as he could reduce his risk of installation. It was only after he received his reduction in risk that he proceeded with the work and requested that the records necessary for force account work be kept.

A Major Item of Work as defined in Section 1-3 of the Specification is " Any Item of work having an original Contract value in excess of 5% of the original Contract amount."

In accordance with the contract documents, the value of all the original Sanitary Sewer work was \$645,150.00, this constitutes only about 3.6 % of the original Contract amount of \$17,831,811.46 and therefore (B) above is not applicable.

Again, the Engineers Determination shall be conclusive and shall not be subject to challenge by the contractor in any forum.

Section 7-11.6.1 Arrangements for Protection or Adjustment states that:

"The FDOT will not consider relocation or adjustment requests based on the Contractor's proposed use of a particular method of construction or a particular type of equipment as essential to the construction of the project if the Contractor could use other common method and equipment without relocating or adjusting the utility."

Although, neither the FDOT/ET nor the COT were obligated to revise the location of the proposed 305 mm (12 inch) pipe, it was felt this minor change was in everyone's best interest. Therefore, in the spirit of cooperation and partnering, the COT and FDOT/ET saw no reason not to relocate the 305 mm (12 inch) sewer line. The COT was going to receive the same system as that which was specified in the original contact documents.

As evidence above, the COT and the FDOT/ET believe the revised drawings are not a "Significant Change" per the Contract Documents.

<u>4.</u>

The risk involved with means and method of construction is clearly and solely the responsibility of the Contractor. Specifications Section 7-11.6 states in part; "The Contractor is solely and directly responsible to the owners and operators of such properties for all damages, injuries, expenses, losses, inconveniences, or delays caused by the Contractor's operations."

The original contract drawings showed the contractor was to install the 305 mm (12 inch) PVC pipe between, and either at the same invert elevation or below the invert elevations of the two very large existing sanitary sewers. One of the sewers is a 1372 mm (54 inch) gravity sewer, which has been lined and the other is 1219 mm (48 inch) force main sewer. ... The original work can and could have been constructed as shown.

The revised (relocation) drawings reflect that DNCC now has to protect only the 1219 mm (48 inch) force main, and not the 1372 mm (54 inch) gravity sewer. The joints of the 1219 mm (48 inch) sewer are restrained. The revised (relocation) drawings show the 1219 mm (48 inch) sewer further away from the new 305 mm (12 inch) sewer than was originally shown. Therefore, the contractor has even more flexibility in installing this facility.

As evidence above, the revised (relocation) drawings reduces everyone's, especially the contractor's risk associated with installing the Phase II Sanitary Sewer. This was the primary reason the COT and FDOT/ET agreed to the relocation of the 305 mm mainline in Phase II.

<u>5.</u>

The revised (relocation) drawings reduced the amount of effort required to install Phase II Sanitary Sewer from that which was shown on the original Phase II contract drawings.

Overall there are 2 fewer manholes to install and 4 other manholes that have had their types changed, from deep drop manholes to deep manholes. By the plans and specifications it takes more effort to install a deep drop manhole than a deep manhole.

In addition, the contractor has changed his method of dewatering. The contractor used larger interceptor pumps and well casings for Phase II Sanitary Sewer than he did in Phase I. This revision to his previously performed work method (Phase I construction) has allowed him to reduce the amount of gravel bedding that he would have had to use.

As evidence above, the revised (relocation) drawings and the alternate means and methods used by the contractor actually made it easier for him to install the revised (relocated) Phase II Sanitary Sewer.

Conclusion: (Department's Original Submittal)

The documents presented in this submittal clearly demonstrate that DNCC is not entitled to additional compensation for the relocation of the 305 mm (12 inch) PVC pipeline in Phase II. This is clearly not a 'Significant Change" nor is it a change in the nature or character of the work. The relocation was a benefit to everyone and was a clear case of win-win for all. The COT and the FDOT/Earth Tech contend that the length, depth and size of the proposed pipeline has not changed. The location of the pipe was moved so that DNCC could use the work method (trench box) that they stated that they had put into their bid. DNCC had successfully used the trench box work method throughout Phase I mainline pipe installation.

The FDOT in their rebuttal of DNCC's position paper maintains that the reason for this dispute is the failure of DNCC to understand the Contract Documents and/or what was required of DNCC by the documents. Despite all that DNCC has said the issue has not changed and is still, Whether or not the Phase II Sanitary Sewer revision/relocation constitutes a "Significant Change" or a "Substantial Change"

The FDOT, ET and the COT all contend that the revised (relocation) drawings are not a Significant Change and, therefore, DNCC should not receive any additional compensation for the revised (relocation) drawings.

The FDOT believes the issue is simple and states what the issue is not as follows:

- 1. The issue is not the timeliness of the revision.
- 2. The issue is not who initiated the revision/relocation.
- 3. The issue is not were there differing site conditions.
- 4. The issue is <u>not</u> determining whether or not DNCC used the proper dewatering method for Phase I and/or Phase II sanitary sewer work.
- 5. The issue is not the amount of risk reduction as a result of the revision.
- 6. The issue is <u>not</u> whether or not the Contractor properly bid the Sanitary Sewer Work.
- 7. The issue is <u>not</u> whether or not the Engineer's original estimate was based on separate payment for gravel fill and sand fill or whether or not these items should have been or were included in the cost of the sanitary pay items.

The FDOT states that DNCC has presented all the above points as relevant, which they disagree with, but goes ahead and addresses the statements made by DNCC as they were presented on a page by page basis. Outlined below are the statements made by DNCC and the FDOTs rebuttal paragraph, for the actual explanation of the rebuttal we would ask that the reader go to the FDOTs rebuttal book.

Page #1

DNCC attempts to interject a unique version of the "issue" that is before the board and offers a definition for "Substantial Change" that the Specification Documents they reference do not support.

DNCC's first misstatement can be found in the first paragraph of their submittal where they state what the issue is. They misstate it by including the words "untimely" and by asking if the location is "substantially or significantly different from the original location to constitute a compensable changed condition."

As quoted in letter dated June 27, 2003 the issue is "whether or not the Phase II Sanitary Sewer Revision/Relocation constitutes a "Significant Change" or a "Substantial Change". Both parties agreed to this issue statement and this ruling should not be confused by DNCC's deliberate attempt to place another issue in front of the board. Time is a separate issue that will be dealt with upon receipt and review of a claim from DNCC in accordance with the Contract Documents.

Page # 2 DNCC again tries to use misleading data and statements as if they were the truth.

"DNCC discovered that the existing lines were laid on gravel bedding and cribbing that was not shown on the contract drawings". "This artificially created "conduit" for ground water and the rise and fall in the tide from Tampa Bay in this area and created additional and extra considerations for dewatering that were not, nor should not, have been included in our bid price for the project. The FDOT (COT) felt that this was not a changed condition and that it was DNCC's problem".

There is no cribbing under the existing pipe within the construction limits of this project. Isolated pieces of wood were found at only one location. DNCC has taken this and exaggerated it to indicate an unforeseen condition. The cribbing that was going to cause DNCC such a problem was never there in the first place.

The project is surrounded by Tampa Bay with the water approximately 300 yards away on either side. A reasonably prudent contractor would have expected some tidal action. Additionally, the Phase II Sanitary Sewer work is the outflow of the proposed sanitary sewer system. This means that all utilities that the contractor installed in Phase I (both storm and sanitary) are at a higher elevation than the Sanitary Sewer in Phase II. All mainline storm and sanitary sewers in Phase I were installed on a stone, bedding, therefore all the ground water from Phase I drains to the outflow location of the sanitary sewer in Phase II.

Pages # 2 and # 3 DNCC further states:

Because the 54" line on our project had been installed in 1951, and in the COT's own opinion, "probably not in very good condition," we felt the COT should take heed. DNCC notified the FDOT (COT) that, in light of this news, coupled with what we had discovered about the location

discrepancy of the 48" force main, it would behove the FDOT (COT) to reconsider the proposed installation of the 12" gravity sewer between the COT's 48" force main and 54" gravity sewer line in Phase II and that DNCC could not assume any responsibility for these changed conditions which were beyond our control.

DNCC also states on page # 3 that, "In February, after traffic was switched to the new alignment and DNCC was able to demo the old 20th Street, we found that the entire run of the existing 48' was significantly closer to the new 12" line and higher than shown." DNCC alleges that the entire run of 48" FM was actually 5'3" farther to the west, and 1 1/2 feet higher than plan

Again, these two positions are irrelevant to the issue at hand. In fact, in DNCC's own statement they define it as a "changed condition". The issue is NOT if there was a changed condition.

DNCC further states that, "On March 21, 2003, the FDOT (COT) issued a preliminary set of revised drawings that relocated the proposed 12" gravity sewer line between Station 305+97 and Station 310+49 to a location between the new roadway constructed in Phase I and the existing 48" force main.

The 1st set of revised/relocation drawings do not reflect additional changes that DNCC asked the COT to make so as to reduce the work, and effort needed to install the proposed 12 inch pipe in the revised/relocated position.

Pages # 4, #5, #6 and #7

DNCC states that, "The City has claimed that DNCC could not have trenched, supported the existing pipe and met OSHA requirements and therefore had to tight sheet this entire run of pipe."

Whether or not DNCC could have done this or not is not what the issue is. DNCC would have you believe that the issue is how they could have installed the pipe in the original location. The issue is whether or not the sanitary sewer revision/relocation constitutes a "significant change" or "substantial change".

Although, the 305 mm (I 2 inch) pipe as shown on original Phase II plans could not be installed using the open trench work method (see page 71C) neither the FDOT/ET nor the COT stated that tight sheeting was the only work method that we would approve.

DNCC stated, "the City had prior knowledge that it could not build without sheeting"

The COT has never said that sheeting and shoring was the only work method that we would approve. What we said was that if a contractor put sheeting and shoring into their bid, that the cost of that work method was covered in our pay items. The payment for Sheeting and shoring is included in Contract Item 3090 Series - PVC Pipe.

COT then said that it was their intention to leave the sheeting in place"

Whether or not the COT said this or not, or whether it would be allowed or not is not the issue.

COT then said that they expected the contractor to provide them with alternatives after the bid.

Whether or not the COT stated this or not is irrelevant.

What was happening was that the COT and the FDOT/ET were requiring DNCC to comply with the contract requirements for making arrangements and obtaining approval of his work method.

Article 7-11.6.1 of the Contract Specifications states, "Do not commence work at points where the construction operations are adjacent to utility facilities or other property, until making arrangements with the utility facilities to protect against damage that might result in expense, loss, disruption of service, or other undue inconvenience to the public or to the owners". Underlined for emphasis.

Page #8

DNCC again goes into a lengthy discussion dealing with the facts, according to DNCC, concerning the "Degree of Difficulty." DNCC tries to explain that the Phase II Revised/Relocation Sanitary Sewer drawings required them to make a deeper excavation than the original Phase II Sanitary Sewer Drawings.

DNCC forgets to tell you that they removed the overburden material so that they wouldn't have to have a deeper cut. This material was used as backfill for the pipe they installed per the Revised/Relocated Phase II Sanitary Sewer. This further proves that there Was no "Significant Change" as defined by Section, 4.3.1.

DNCC again discusses the differences between the slopes allowed by OSHA and the Contract Documents and again this has nothing to do with the issue of the dispute.

Page #9

DNCC tries to make a case that installing manhole # 8A as shown on the Revised/Relocation drawings is more difficult then a simple tie-in as shown on the original Phase II drawings.

We agree that a tie-in above the flow line of a manhole is usually easier to install than a new manhole. In the case at hand, the original drawings called for the tie-in to be made near the invert elevation of an existing 457 mm (18 inch) sanitary sewer that was running 1/2 to 3/4 full, most of the time. Additionally, by the original drawing the contractor had to remove and replace portions, if not all, of the existing invert. Nor do we read about how the contractor was going to handle the sewage in the existing pipe/manhole while installing the new pipe some distance out of the existing manhole. All these associated activities made the tie-in per the original drawings a very difficult and risky affair.

Another activity at the original location of the sewer that DNCC fails to mention is the fact that they will be working around and tying-into a manhole that is some 15 - 18 years old. The possibility for a catastrophic failure is very real at this location. For unlike the sewer pipe that has recently been lined, the existing manhole that DNCC was to tie into has not been refurbished since it was installed. To install the tie-in as shown on the original contract drawings DNCC may have had to remove all the dirt from around the manhole or risk turning the manhole over.

Page# 11

DNCC states that the cost to install the relocated 12" line is more than the cost to install the same 12" line in the original location shown in the plans.

In the Standard Specification 4-3.1 where significant change is explained, cost is not taken into consideration.

In the last paragraph of section I DNCC states that "Any cost analysis should be based solely upon costs."

They are therefore stating that the contract reference to significant change is irrelevant and we should simply look at their costs. This goes directly against the contract. The contract language is clear and there is no contract basis for utilizing their concept of basing our analysis solely upon their costs.

At the bottom of page 11 and the top of page 12 DNCC states that the Department acknowledged that there were additional costs incurred beyond what was contemplated in the original design but we have made no attempt to reimburse these costs.

We refute the statement that we have made no offer to reimburse DNCC for these costs. We have paid for additional attenuators and barrier wall that was needed to perform this construction.

Page # 12

DNCC discusses their interpretation of standard specification 4-3.

DNCC states that the specifications use the words "substantial" and "significant" interchangeably. This is not true, and in fact, they are referenced in two different sections of the specifications (4-3.1 vs. 4-3.2). DNCC further attempts to cloud the issue by intermingling the verbiage from 4-3.1 with 4-3.2. These sections need to be looked at independently. "Significant change" is clearly defined by 4-3.1 and this is what the Engineer ruled on. Specification 4-3.2 is based on if there are alterations in the character of the work. DNCC inadvertently left this portion of the specification out of their discussion. If there are alterations in the character of the work then it would be a significant change as defined by 4-3. 1. The bottom line is 4-3.1 is the specification that applies. As stated in our original position, the character of the work as altered does not differ materially in kind or nature from that involved in the original proposed construction. In addition, the nature of the design and the type of construction did not change.

Pages #13, #14, # 15, #16 and #17

DNCC states that "the only consideration that should be applied is "did the revised work increase or decrease the cost or time of performance?"

There is no contractual basis for this. DNCC is again attempting to utilize a total cost claim approach. The issue needs to be evaluated in accordance with the contract. Again, specifically 4-3.1 determines what a significant change is.

DNCC states that it is their belief and contention that the only consideration that should be applied is did the revised work increase or decrease the cost or time of performance? DNCC then lists why they should be given more money.

As stated above, we disagree with the premise behind their argument based on standard specification 4-3.1.

Addition of barrier wall and attenuators.

The COT has paid for additional attenuators and barrier wall that was needed to perform this construction. as DNCC stated.

Limited access to reduced size work area.

The total distance from the west ROW to the edge of pavement is some 21 meters (69 +/-feet) wide. The distance from the west ROW line to the location of the original Phase II Sanitary sewer is 8.7 meters (28.5 +/- feet). The distance from the Revised/Relocation pipeline to the EOP is 5 meters (16.4 +/- feet). The new design allowed for the same work area on both sides of the excavation.

DNCC states that they had access to the trench from both sides and could stockpile materials and could work from the edge of pavement to the right-of-way line in the original design.

This is not accurate.

DNCC states that due to the barrier wall extending across the entrance to several side streets they had to provide access through the work zone for local traffic and this further reduced their work zone in half.

ET/Department requested that all side streets remain open and agreed to compensate the contractor for any necessary attenuators to make this possible. DNCC insisted and elected to close these side streets for their convenience to limit public access.

Depth of cut and location.

DNCC states that they had to make a deeper average cut to lay the 12" in the revised/relocated location. This was based on additional fill height. What DNCC fails to mention is that they removed the overburden that had previously been placed to protect the side slopes, and this removal of overburden meant they excavated the same depth for the pipe as shown on the revised/relocation drawings, as was shown on the original Phase II Sanitary Sewer drawings.

Remove and replace pipe previously installed in Phase I and pump down ponds longer than originally anticipated.

This is the first time that DNCC has made mention of not being paid for this work. It was overlooked on the last pay estimate. Payment in accordance with existing unit prices will be made on the next pay estimate. The issue is NOT whether or not DNCC has been paid for any additional work.

DNCC is trying to shift a totally unrelated activity into this dispute. DNCC states that they had planned to pump down the ponds. Now DNCC wants the COT and the FDOT to pay for the pumping. DNCC neglected to mention the reason why they are pumping the ponds in the first place. DNCC was going to pump the water from the ponds to facilitate the installation of all Phase II utilities (water, sewer, and storm). DNCC was pumping the ponds prior to the start of Phase II Sanitary Sewer work to facilitate the installation of the water line. They continued during the installation of the Phase II Sanitary Sewer work. As they have not finished the storm construction they are still continuing to pump down the ponds even today. It did not matter what location the sewer pipe was at, original or revised/relocated, DNCC was going to pump the ponds for the installation. Regardless of the arguments that both of us are making, none of the above is at issue today.

Increase dewatering costs

In addition, the contractor has changed his method of dewatering. The contractor used larger interceptor pumps and well casings for Phase II Sanitary Sewer than he did in Phase I. This revision to his previously performed work method (Phase I construction) has allowed him to reduce the amount of gravel bedding that he would have had to use. Of the 452 meters (1483 feet) of 305 mm (12 inch) mainline that was installed in Phase II only 211.23 meters (693 feet) was installed on stone. Less than half of Phase II deep mainline Sanitary Sewer was installed on stone bedding while all of Phase I deep mainline Sanitary Sewers was installed on stone bedding. The changes in dewatering and stone bedding saved the contractor a lot of effort installing the 305 mm sewer line.

Time

Time is not part of the dispute at hand. Time is a separate issue that will be dealt with upon receipt and review of a claim from DNCC in accordance with the Contract Documents.

Conclusion: (Department's Rebuttal Submittal)

In the submittal presented by David Nelson Construction Co. to the Board, the City of Tampa and the Florida Department Of Transportation/Earthtech have found no new or clarified points to revise our position which is: the revised (relocation) drawings are not a "Significant Change" in the nature or character of the work per the contract documents and therefore David Nelson Construction Co. should not receive additional compensation for the work shown on the revised (relocation) drawings.

Pertinent Specifications

4-3 Alteration of Plans or of Character of Work.

4-3.1 General: The Engineer reserves the right to make, at any time prior to or during the progress of the work, such increases or decreases in quantities, whether a significant change or not, and such alterations in the details of construction, whether a substantial change or not, including but not limited to alterations in the grade or alignment of the road or structure or both, as may be found necessary or desirable by the Engineer. Such increases or decreases or alterations shall not constitute a breach of Contract, shall not invalidate the Contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. The Contractor agrees to perform the work, as altered, the same as if it had been a part of the original Contract.

The term "significant change" applies only when:

- (A) The Engineer determines that the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction, or
- (B) A major item of work, as defined in 1-3, is increased in excess of 125% or decreased below 75% of the original Contract quantity. The FDOT will apply any price adjustment for an increase in quantity to that portion in excess of 125% of the original Contract item quantity, or in the case of a decrease below 75% to the actual amount of work performed, such allowance to be determined in accordance with 4-3.2, below. In the instance of (A) above, the determination by the Engineer shall be conclusive and shall not be subject to challenge by the Contractor in any forum, except upon the Contractor establishing by clear and convincing proof that the determination by the Engineer was without any reasonable and good-faith basis.

4-3.2 Increase, Decrease or Alteration in the Work:

The Engineer reserves the right to make alterations in the character of the work which involve a substantial change in the nature of the design or in the type of construction or which materially increases or decreases the cost or time of performance. Such alteration ... the Surety. The Engineer ... to an agreed Supplemental Agreement in the following manner:

5-1.4.11 Modifications for Construction: Where the Engineer allows the Contractor to make modifications to the permanent works for the purposes of expediting the

Contractor's chosen construction methods, the Contractor shall submit proposals to the Engineer of Record for review and approval prior to modifying the works. Submit proposals for minor modifications under the shop drawing process. The FDOT may require additional submittals and/or submittal under a Value Engineering Change Proposal for major modifications.

Minor modifications are those items that, in the opinion of the Engineer, do not significantly affect the quantity of the measured work, or the integrity or maintainability of the structure or its components.

Major modifications are any modifications that, in the opinion of the Engineer significantly affect the quantity of measured work, or the integrity or maintainability of the structure or its components.

The Engineer's decision on the delineation between minor and major modifications and the deposition of a proposal is final.

7-11.6.1 Arrangements for Protection or Adjustment: Do not commence work at points where the construction operations are adjacent to utility facilities or other property, until making arrangements with the utility facilities to protect against damage that might result in expense, loss, disruption of service, or other undue inconvenience to the public or to the owners. The Contractor is solely and directly responsible to the owners and operators of such properties for all damages, injuries, expenses, losses, inconveniences, or delays caused by the Contractor's operations.

The FDOT will make the necessary arrangements with utility owners for removal or adjustment of utilities where the Engineer determines that such removal or adjustment is essential to the performance of the required construction. The FDOT will not consider relocation or adjustment requests based on the Contractor's proposed use of a particular method of construction or a particular type of equipment as essential to the construction of the project if the Contractor could use other common methods and equipment without relocating or adjusting the utility. The Engineer will determine the responsibility for any such required adjustments of utilities. The Contractor shall make all requested relocations or adjustments because of delivery to the job site of Contractor-furnished materials, at no expense to the FDOT.

<u>CONTRACT ITEM 3090 SERIES - PVC PIPE</u> (COT of Tampa Sewer FDOT Technical Special Provisions)

The Contractor shall furnish all labor, materials, and equipment necessary to construct test, and maintain all pipe and fittings as described herein and within these COT of Tampa

Sewer FDOT Technical Special Provisions, complete as shown on the Plans, specified and directed by the Engineer.

The work includes all related work and appurtenances required to locate existing sanitary sewer lines and make the connections as shown on the Plans to the proposed and existing lines, connections to existing manholes, reconstructing manhole flow channels to accommodate new pipe arrangements, removal of existing sanitary sewer pipe: and manholes within the pay limits for the proposed pipe, removal of sidewalks, driveways, curbs, curb and gutter, and permanent pavement; bypass pumping, excavation, short tunnels, backfill, sheeting, sheeting left in place, rock excavation, shoring, bracing dewatering, pipe bedding, additional selected sand fill material, additional crushed stone, pipe fittings, pipe work, making all pipe connections, standard pipe cradles and encasements shown on the Plans, installation and removal of plugs and bulkheads installation of flexible and rigid adapters, testing, special temporary and nonpermanent pavement replacement, nonpermanent sidewalk and driveway replacement, protection repair and replacement of utilities and house services, maintenance of traffic, including maintaining access across driveways along the line of the work, protection, trimming and replacement of trees and shrubs, protection, repair and replacement of culverts and other storm water facilities, reconstruction or regrading of road shoulders and ditches, disposal of surplus excavated material, protection of existing structures, making joints between pipes and manholes or structures and all other work incidental to the installation of the sanitary sewer pipe complete in place. Where restrained pipe is shown, all restraining devices are included as part of the pipe.

Dispute Review Board Findings

The Engineer made a determination that the redesign, and relocation of the 305mm (12 inch) Sanitary Sewer was not a Significant Change to the Contract under Specification 4-3 Alteration of Plans or of Character of Work.

The Contractor admits that this is not a quantity dispute and therefore, part (B) of Specification 4-3 Alteration of Plans or of Character of Work does not apply.

The whole dispute is with paragraph (A) of the subject specification (4-3) and has the Contractor established, "clear and convincing proof that the determination by the Engineer was without any reasonable and good-faith basis."

DNCC says that they brought the problems with the installation of the 12" sanitary sewer to the Departments attention in August, 2002, when they discovered that the existing lines were laid on gravel bedding. However, the Board can find no reference to the problems expressed by the Contractor until the measurements made on the 48" force main in December, 2002, and then on January 23, 2003, at the Progress and DRB meetings.

Sheeting and Shoring could have been used to construct the 12" sanitary sewer in its original location. However, because of the close proximity to the 48"force main and age and close proximity to the 54"gravity sewer, and the fact that it is not the usual Department policy to leave sheeting in place this was not a reasonable option.

The City apparently expected that the Contractor would include Sheeting and Shoring in their price as the method to install the 12" sanitary sewer.

The length and size of the 12" sanitary sewer have not changed, but the depth and location for this sewer have changed.

The Contractor is governed by the OSHA safety requirements, Specification 7-1.5, Occupational Safety and Health Requirements.

A narrow trench box would have to be used, as shown on exhibit C-7, if the box was to be drug into the trench ahead, and the excavation not encroach upon the influence lines from the 48" force main.

The 48" force main is actually closer to the original 12" sanitary sewer and the invert is higher than the drawings indicate. Since the Department took no measurements we can only assume that the dimensions found by the Contractor are correct. During the hearing the Department representative made the statement that if the, 48" force main was in the location indicated by the Contractor he would not have let them excavate in that area to install the 12" sanitary.

Provided that the 48" force main is located as indicated by the Contractor's surveyors, and we have no reason to believe that they performed an incorrect survey. It is doubtful, especially in light of the Departments comments at the hearing, that either the City or the Department would have allowed the 12" sanitary sewer to be placed in the original location.

The 12" sanitary sewer was relocated to a position outside of the 48" force main due to the planned location of the 48" force main being different from its actual location.

The Department made their recommendation to relocate the 12" sewer on the, "obvious reduced risk to the Contractor". The COT's risk came from the fact that they had no backup plan and no way to shut down the big sewers (54" and 48") quickly if something were to happen. Therefore, there was a reduced risk of a failure to both the City and the Department.

The change in location of the 12" sanitary sewer was made in the sprit of partnering the project.

The Contractor used a different dewatering system on the installation of the 12" sanitary sewer than what he had used during the Phase I work.

Some additional pumping was required to empty the storm drains and keep them empty during the removal and replacement of those previously installed storm drain lines.

As built drawings for the installation of the 54" gravity sewer, or its lining, indicate that the sewer was laid on 2" of lime rock bedding, but says nothing about wood cribbing.

A 27 day time extension for the delay in furnishing the design/relocation drawings has been recognized by the Department, but as yet has not been finalized by the granting of any time.

The Department in at least two instances makes reference to the fact that they expect a claim for time from the Contractor and will review it when it is presented.

It has taken longer to install the 12" sanitary than planned by the Contractor and schedules have been accepted indicating this additional time.

The Department has paid or agreed to pay for placing the barrier wall and attenuators, select fill and removal and replacement of storm lines placed during Phase I which impact the 12" sanitary in its new location.

Dispute Review Board Recommendation

The Board is governed in our decision making process by the plans, specifications (standard, supplemental, technical, special), and the contract. Therefore our recommendation is based on the above documents. We have also taken into consideration the position papers, rebuttals and oral presentations given by all the parties.

The Board recognizes that the issue as stated by the Department revolves around the substantial and significant nature or character of work. The question as stated previously is do the Phase II Sanitary Sewer Supplemental Drawings constitute a substantial or significant change in the nature or character of the work..." The Engineer has made a decision that the relocation of the 12" sanitary sewer does not constitute a Significant Change under the contract. So the question the Board must answer is did the Contractor establish by clear and convincing proof that the determination by the Engineer was without any reasonable and good-faith basis?

The Board believes that the nature of the work (as relocated) is the same as original design. According to Webster's Dictionary nature is defined as "kind; sort; type: as, things of that nature". Based on this definition the relocated work is of the same (kind, sort, and type) as the original proposed work.

The character of the work is more difficult to define. Webster gives the definition as "The combination of qualities or features that distinguishes one person, group, or thing from another". Using this definition the Board finds that the character of work did change from the original location to the relocated location. The changes are the addition of barrier wall and attenuators, additional dewatering, excavating inside the trench box, removal and replacement of cross drain pipe, and changes to the Contractor's work area.

In Specification 4-3.2 Increase, Decrease or Alteration of Work:

The Engineer reserves the right to make alterations in the character of the work which involve a substantial change in the nature of the design or in the type of

construction or which materially increases or decreases the cost or time of performance....

There was an alteration in the character, not nature, of the work. There appears to have been an increase in the cost of construction and an increase in time.

The Board finds, based upon the above, that there is a change in the character of the work and that the Engineer's decision was unreasonable given the above findings. Therefore, the Contractor has entitlement to their claim that the Phase II Sanitary Sewer Supplemental Drawings constitute a substantial or significant change.

The Board sincerely appreciates the cooperation of all parties and the information presented for its review in making this recommendation. The Disputes Review Board's recommendation should not prevent, or preclude, the parties from negotiating an equitable solution (should it be appropriate) to any issue pursuant to their partnering agreement.

Please remember that a response to the Board and the other party of your acceptance or rejection of the recommendation is required within 15 days. Failure to respond constitutes an acceptance of this recommendation by the non-responding party.

I certify that I have participated in all meetings of this DRB regarding this issue and concur with the findings and recommendations.

Signed with the concurrence of all Board members

John C. Norton

Chairman

Donald E. Henderson

Member

Ashley R. Cone

Member