

DRB Recommendation

**Ranger Construction Industries, Inc. & FDOT District Four
For Project
SR-80 from SR-15 (US 441) to County Road 880**

FPID: 428720-1-52-01/ 429246-2-52-01

Federal Aid Project Number: 1002-059-P

Contract No. T-4387

County: Palm Beach

DRB Issue: NOI #3 Issue Statement

Is Ranger Construction Ind. Inc. (Ranger) entitled to additional compensation for constructing Miscellaneous Asphalt Pavement (MAP) due to a plan revision?

Hearing Information: Dates January 30 & 31, 2017 from 9:00 am to 4:00 p.m. Held at PALM BEACH OPERATIONS, 7900 Forest Hill Boulevard West Palm Beach, FL 33413-3342

Project Information

Type: Bid Build **Contractor:** Ranger Construction Ind. Inc. (Ranger)

Original Duration: 460 days **Original Contract amount:** \$20,572,639.74

Scope of work: The improvements under this contract consist of safety and resurfacing, restoration and rehabilitation (RRR) improvements on SR 80.

Members of the Dispute Review Board:

Dan Garner, P.E., Member

Don Henderson, P.E., Member

Ronnie Klein, Chairman

1. Summary of the Parties Positions

1.1 Summary of the Contractors Position

The issue in dispute is the recovery of costs resulting from a plan revision which substantially changed the nature of the design and type of construction for the miscellaneous asphalt pavement (MAP) from that shown in the original plan. The plan revision was issued by the Department and was the result of a plan error. The revision materially increased the cost of the work by increasing the number of locations and amount of MAP which needed to be placed by hand on project 429246. Under the original plan for project 429246, there were two locations consisting of a total of 128 tons where MAP was shown to be constructed in areas of reset guardrail. Both these areas were adjacent to the existing roadway which made them easily accessible. The plan revision increased to 42 the number of locations where the MAP was now to be placed at reset guardrail; all 42 new locations were at the bottom of slopes nearly 30' off the existing roadway, and increased the quantity by 892 tons (Note - plan revision increased quantity by 892 tons, final quantity based on specification 339-7 was 821.94 and is not in dispute). This caused substantially more hand-placed construction of the MAP.

To compensate Ranger for this substantial change, the Department simply overran the pay item 339-1 Miscellaneous Asphalt Pavement equivalent to the additional tonnage. However, this pay item's unit price is based on the work shown in the original plan and is comprised of blended costs for both machinery-placed miscellaneous asphalt (utilized for new guardrail installation) and hand-placed miscellaneous asphalt (utilized for reset guardrail) immediately adjacent to the existing roadway. Since the revised plan substantially increases the amount of MAP required to be placed by hand - in locations not near the existing roadway but at the bottom of slopes - the blend of less efficient hand work now significantly outweighs the more efficient machinery work to the point the pay item unit price does not cover Ranger's costs. Ranger's claim is for recovery of actual costs to perform this changed work.

1.2 Summary of the Departments Position

The Department has the right contractually to increase pay item quantities. The contractor is not entitled to renegotiate work unless the increase is a major item of work. A major item of work is defined as 5% of the original contract. Original Value of miscellaneous

asphalt is $\$143,248 / \$20,572,634 = .69\%$. Therefore, the contractor is not entitled to renegotiate the miscellaneous asphalt pay item.

The contractor claims that he bid the pay item with blended costs with much of work accomplished by machine close to the pavement and not by handwork. The Department disputes this claim. The contract bid unit price does not support the contractor's claim of blended costs. Logically, if blended costs were used, the contract unit cost would be significantly less than the statewide average price for (hand-placed?) Miscellaneous Asphalt Pavement. However, research revealed that on 140 contracts, the statewide average price was \$163.37 per ton and the contractors bid price was \$160.00 per ton. (Exhibit 03) The contractors bid unit price for structural course (placed by machine) was \$80.00 per ton. Therefore, the Department concludes that the contractor's claim of blending machine and hand work has no basis.

The contractor's approach to actual work performed does not support the contractor's claim. The contractor claims that he bid the work with the intention of using a machine is invalid based on his performed method for almost all guardrail pad. For reset guardrail, the contractor removed the face of rail and adjusted the post in place up to grade stakes leaving the existing guardrail posts in place. By contract Specification 538-1, the contractor was required to remove existing guardrail posts and re-drive. The guardrail posts were never removed and just simply raised. Therefore, the contractor benefited from his means and methods and did not provide the Department a credit. When considering these actions, along with the contractor's bid price, the Department must conclude the contractor's intention was to not remove posts from the beginning of the contract since it is impossible to place asphalt by machine with existing reset guardrail posts left in place. The contractor decided it was more convenient to place MAP by hand in areas he could have placed it by machine in new guard rail locations.

While the Department recognizes that the summary of pay items contained a discrepancy in the bid quantities for MAP, the plans clearly illustrate a comprehensive design in multiple other locations. Therefore, a comprehensive explanation of the work was provided at the time of the bid. In addition, the contract documents are clear. The contract documents are clear in stating contract quantities are approximate. The Engineer of Record on the 429246 project simply did not show an accurate quantity of Miscellaneous Asphalt tonnage required for reset guardrail in the plan Matrix that was provided. However, the EOR clearly depicted the requirement to construct miscellaneous asphalt in the plan cross sections for the 429246 project and plan details on the 428720 project.

The Department cannot consider the Contractor's time and material records in their entirety, since RCI has historically placed all

miscellaneous asphalt in-house and they hired a subcontractor after bid to perform their miscellaneous asphalt for most miscellaneous asphalt placed. The subcontractor was hired at an hourly rate so there was no incentive for the subcontractor to achieve efficient production. Secondly, throughout the project the contractor varied their resources for both personnel and equipment, displaying inconsistencies which contributed to their inefficiencies. The contractor did not employ sound construction management techniques which proves the contractor never followed what has been asserted to be a pre-planned, blended cost, and did not try to mitigate additional costs through efficient construction operations.

Finally, the contractor proved through his own time & material records that miscellaneous asphalt could be placed for an expense below the contract bid item. (Reference 9-2-15 /9-3-15/ 9-22-15). In addition, the contractor proved that he could achieve production to turn a profit with the hired subcontractor on 10/28/2015.

The Department refutes the contractor's claim that placing miscellaneous asphalt 30 feet horizontally away from another location differs materially from the locations which were originally accounted for in the plan quantities. The contractor would like the board to believe they intended to use a machine but project records prove a machine was only used for a very small portion of the overall asphalt placed at the contractor's option because of his means and methods. The contractor saved money on reset guardrail and spent more money on miscellaneous asphalt because of his choice. The contractor wants the board to believe that the Department is responsible for the contractor's inefficiencies or management choices, however contract documents and contract records clearly demonstrate this is simply a frivolous claim.

1.3 Summary of the Contractors Rebuttal

The Department attempts to refute the fact the contract unit price for MAP is a blended price of both machine installation and hand installation by comparing the contract unit price to statewide average prices. The Department states on page 5 of 63 "Logically, if blended costs were used, the contract unit cost would be significantly less than the statewide average price for (hand-placed?) Miscellaneous Asphalt Pavement." First, as the Department's own research shows Ranger's unit price is less than the SWA. Secondly, and more importantly, comparing a specific contract unit price to SWA has absolutely no bearing on this issue. If comparisons to SWA were a determining factor for extra work, then the Department would not put each project out to bid but would simply pay every contractor the SWA for all work. Clearly this is not the case.

The Department also believes Ranger did not perform the work in a manner in which it was bid. Ranger did in fact perform as bid. Any opinion to the contrary by the Department is completely speculative and proffered in an attempt to muddy the waters.

The Department admits the plans were in error related to the quantity of work for the MAP. They attempt to squirm out of their self-imposed error by saying the quantities shown in the plans are approximate and the "EOR simply did not show an accurate quantity" of MAP for reset guardrail. However, this "simple inaccuracy" of quantity caused a significant change in the scope of work and substantially increased the remote areas of hand-placed MAP. Thus the contract unit price is no longer representative of the work. Additionally, it was not a simple inaccuracy of a quantity, the plan view sheets which define the work were in error and resulted in 66 plan sheet revisions. This is clearly not a case of "the EOR simply did not show an accurate quantity".

The Department also attempts to support their position by stating Ranger should have known there was a plan error. This is also flawed logic. The Department and their designer have a duty to produce accurate plans. They have months to review and countless layers of Quality Control checks to ensure accuracy. Ranger has merely a few weeks to develop a bid which is based on the plans provided by the Department.

On page 11 of 63 of the Department's position paper they show a copy of the typical section for project 428720 which includes the station limits of where the Reset Guardrail AND MAP are to be constructed. However, this is the other project in this contract, not the project which is the subject of this dispute. On project 429246 there is no such typical section showing Reset Guardrail and MAP station limits, there is only the Summary of Quantities matrix. The Summary of Quantities matrix in the original plans for 429246 - the location in the plans intended to convey the where the MAP is placed - shows only 2 station limit locations. (See attached original plan sheet 15 for project 429246-2-52-01).

However, when the Department discovered their plan error and issued 66 plan revisions the number of locations where MAP now was to be placed increased by 43. (See attached plan revision 15A and 15B for project 429246-2-52-01).

Ranger developed a unit price for MAP based on the quantities shown in the plans and the ratio of hand placed vs. machine placed MAP. When the Department makes a plan revision due to their plan error that substantially flips that ratio, creating significantly more hand placed, high cost work, then a material change has occurred and additional compensation is warranted.

On plan view sheet (Plan Sheet 79) from the original plan set, the original plan view sheets coincided with the Quantity Summary Sheet related to MAP. Note the EOR differentiated between Reset Guardrail with MAP and Reset Guardrail that did not have MAP.

The left roadway clearly depicts Guardrail Reset and 2" miscellaneous Asphalt whereas on the right roadway no MAP is shown to be constructed in the reset area.

The Department states every responsible bidder would know MAP would also be required on the right roadway. In essence they are saying - yes, we know our plans are wrong but you Ranger should have known we made a mistake. When a design clearly shows MAP in one area and not in another it is evidence the designer made a conscious decision to do exactly that. And when a contractor bids on what is shown and then the Department changes the design by issuing 66 revised plan sheets, and that change has a material consequence on the cost of the work, the contractor is entitled to additional compensation.

1.4 Summary of the Departments Rebuttal

The Department disputes that the nature of the work changed substantially.

The plan error mentioned is simply an error of quantity in a portion of the plan. The contract plans clearly described the requirement for the work to be performed by plan detail and by plan cross section. Contractually, the Department has the right to increase or decrease quantities and this work is not a major item of work as defined by contract. The original Plan Sheet-3 (Summary of all pay quantities) displayed 42872015201- 232 tons 42924625201 663.3 tons of MAP. Revised Plan Sheet 42872015201- 232 tons 42924625201 1555.3 tons of MAP.

The contractor implies that 30 feet away from the roadway is an enormous distance. The fact is, that 30 feet away from the roadway is just as accessible as next to the roadway on this project. There were no obstructions and the terrain was mostly 6:1.

Contract records do not support the claim of blended costs. The contractor has never provided any detail of how blended cost was derived. As stated in the Departments position, the contractor did not follow the specifications to reset guardrail by removing the existing posts which made it impossible to place MAP for reset guardrail by machine.

Ranger's actual costs are the result of poor management using varied resources inefficiently. The Department cannot be responsible for the contractor's inefficiencies. Time & Material records indicate that the

work could be accomplished below the contract bid price. The contractor's claim records include a 17.5% mark up on varied labor and equipment.

A responsible bidder is required by contract to review the entire plan set. Sheet 23 of 49 of the executed contract states that the contractor reviewed the contract plans to his full satisfaction. Certainly, the requirement of MAP for resetting guardrail should have been anticipated at the time of bid. Plan cross sections and plan details indicated that MAP was required as part of the original bid documents.

The Department disputes that the MAP was not shown. Plan cross sections on the 42924625201 project and plan details on the 42872015201 project clearly indicated MAP was required.

The Department disputes that the nature of the work was altered. The work was described adequately as required. The Department agrees that the plan quantity was in error but completely within the Departments contractual right to revise without renegotiations since MAP was not a major item of work.

The work was shown at the time of bid. The quantity was in error. The Department has the right contractually to increase or decrease quantities. The Department concludes that the price at the time of bid was competitive and could have been profitable if the item of work was managed properly. The question that the board should ask themselves, "Could the contractor have placed the MAP for reset guardrail by machine?" The answer is yes but his means and methods to leave the existing guardrail posts in place prevented him from doing so.

Applicable Contract Provisions and Refutation of Department's Position in 12/14/15 Letter.

Standard Specification 4-3.2 Increase, Decrease or Alteration in the Work - this sections gives the Engineer the right to make alterations or revisions in the work which involve a substantial change in the nature of design or type of construction or which materially increases the cost of performing the work. This is what the Department did by issuing a revised set of plans which substantially altered the work related to the MAP. The altered work in turn materially increased the cost of performance. As described above due to the dramatic increase in areas of hand-placed MAP, the cost to install the MAP increased substantially and thus is no longer covered by the unit price. The resulting extra work is therefore compensated in accordance with subsection 4-3.2.1.

FDOT Response: The work was not altered, the quantity was increased. The increase in cost to perform the work, was due to the contractor's chosen means and methods. Since the contractor could have used a

machine to do the work, there is no basis for his claim of blended work.

Standard Specification 4-3.2.1 Allowable Costs for Extra Work - states the Engineer will pay for extra work via an agreed to Supplemental Agreement or as actual labor, equipment and material cost. Since there was no agreed to Supplemental Agreement, Ranger is entitled to be paid actual labor, equipment and material.

Contractually all quantities are approximate. The issue is not an error in design but an error in quantity. The threshold to allow for renegotiation was not exceeded and therefore paid at the original contract unit price.

The relevancy is a Subcontractor was hired after award through sublet to accomplish unit price work at an hourly rate. We conclude the hired sub was certainly not part of his blended cost at the time of bid. The hourly rate was \$265.00/hour for a four-man MAP crew and daily rate of \$2120.00. Ranger's in house four-man MAP crew on September 2, 2015 including burden was \$879.38. Therefore, Ranger's management made a business decision to hire an MAP crew that cost 240% more than the in house.

Since MAP is not a major item of work, the error is not significant contractually. The Department paid a unit price that was similar to 140 other contracts so the Department did not receive an enrichment at Ranger's expense. The Department is denying compensation because there is simply no entitlement for additional compensation. The scope of work was shown and detailed. If the contractor had made better business decisions during construction, there would be no current argument. The contractor is trying to recover losses that were in no way the fault of the Department. Ranger is being unfair asking the tax payers of Florida to compensate them for making poor business decisions.

3. Relevant Specifications

Standard Specifications Article 4-3.1 (a) and (b)

4. Key findings and Analysis of Facts

- a. The original contract documents (plans and quantity matrix) defined areas of MAP placement predominately in areas adjacent to the roadway where MAP could be placed by use of paving equipment. The revised plans and quantities defined areas of MAP placement in areas that were predominately at substantial distance from the roadway, on slopes where the

use of paving equipment was impractical and potentially unsafe.

- b. Under Standard Specification 4-3.1, "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... 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."
- c. With regard to the MAP plan and quantity changes the Engineer determined that neither the requirements of (a) or (b) above were met and that, as a result, the altered plans and quantities did not constitute a "significant change". The Engineer further determined that the requirements of Article 4-3.1(a) above were not met because, in the opinion of the Engineer, the Contractor could use paving equipment to place the MAP even though the work was predominately approximately 30 LF away from the roadway and at the bottom of an embankment having an approximately 6:1 slope. Other reasons provided by the Engineer in determining that the requirements for "significant change" were not met dealt primarily with the cost of the work. These reasons were not considered by the Board to be relevant in a determination of entitlement based on this specification.
- d. Standard Specifications Article 4-3.1 goes on to state the following: "In (a) above, the determination by the Engineer shall be conclusive. If the determination is challenged by the Contractor in any proceeding, the Contractor must establish by clear and convincing proof that the determination by the Engineer was without any reasonable basis". By proving to the Board that placement of MAP by machine at the bottom of the subject embankment slope would be unsafe as well as highly inefficient and impractical the Contractor provided to the Board "clear and convincing proof" that the Engineer's decision on this matter was without reasonable basis.

5. DRB Recommendation

The Board has reviewed all of the information provided by the Department and by Ranger Construction Industries. Oral arguments were presented by the contending parties on January 30, 2017

The Board is governed in our decision making process by the plans, specifications and the Contract. Based on the Contract documents as well as our judgment of the circumstances, the altered plans and quantities represent a "significant change" as defined in the Standard Specifications 4-3.1.

Therefore the Board recommends entitlement.

This Recommendation is the unanimous decision of the members of the Dispute Review Board.

Submitted by and for

Date of Recommendation: February 17, 2017

A handwritten signature in blue ink, appearing to read 'R Klein', is written on a light blue rectangular background.

Ronnie Klein, Chairman

Don Henderson P.E., Member

Dan Garner P.E., Member