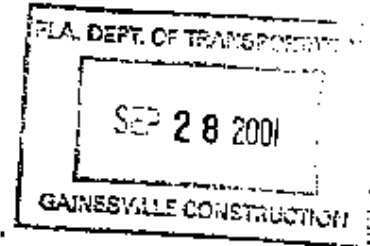


September 26, 2001

Mr. Harry Wood
FDOT District Two Construction
5301A NE 39th Avenue
Gainesville, Florida 32609

Mr. Luther White III
White Construction Co., Inc.
P. O. Box 790
Chiefland, Florida 32644

Re: FDOT Project No. 31030-3513
FIN No. 209786-1-52-01
SR 49 (US 129) Gilchrist County
Dispute Review Board Recommendation
Limerock Claim



Dear Sirs:

The Florida Department of Transportation (Department) and White Construction Company, Inc. (White) requested a hearing concerning the placement of extra limerock base material on the above referenced project. Summaries of the Department's and White's positions were forwarded to the Disputes Review Board (DRB) and a hearing was held on September 10, 2001.

ISSUE: Is White entitled to additional compensation for the placement of extra limerock?

CONTRACTOR'S POSITION

"During the widening portion of this project, White Construction encountered damages and delays caused by the subgrade consisting of unforeseen unsuitable material. Because of these conditions, the subgrade yielded during compaction efforts. Since the project did not call for stabilization of the subgrade, White Construction could not have foreseen or planned for this type of event at the time of bid.

The extra costs incurred are extra material use, additional labor, active and idle equipment, and unanticipated mobilizations. Delays to 2 controlling items (asphalt and limerock) were also encountered because of the yielding subgrade.

White Construction believes we are entitled to compensation in the form of time and money to cover all damages caused by this issue."

DEPARTMENT'S POSITION

"In determining the extra limerock base material placed by White Construction, several factors, which contributed to the excess material, needs to be considered. They are the contractor's means and method, quality control, and sequence of operations.....

The contractor began his trenching operation and placement of the proposed limerock base material prior to placement of the necessary embankment material in all low areas, as specified in note 6, sheet 3 of the plans. This resulted in the outside edge of the trench not being able to support the base when rolled with compaction equipment. Three problems were created: First, the limerock material spilled onto the front slope; second, it made it difficult to obtain density; and third, additional limerock material had to be added.

The contractor made no attempt to balance out the highs and lows of the base material surface after initial placement in the trench prior to his finishing operations.

Also contributing to extra limerock base material being placed from station 84+40 to station 212+00, right roadway, the contractor began his trenching operation and placement of the limerock base material on November 21, 2000 (contract day 56) prior to milling the existing asphalt, placing ARMI layer and the first asphalt structural coarse of 40 mm.

In this area the contractor had to remove approximately 13 mm of the limerock base material that had been contaminated by milling material from the milling operation and dirt that was placed to eliminate drop offs that exceeded the standard drop off requirement.

At the beginning of the finishing operation on January 18, 2001 (Contract day 113), several attempts to finish the widening area to the required .02 cross slope resulted in the area exceeding the planned slope. This required scarifying, placing additional limerock, and refinishing. After several attempts to meet the slope requirements, White Construction agreed to obtain the .02 slope with structural asphalt and absorbed all cost in excess of 105%. This was agreed to by DOT construction representatives.....

It should be noted the contractor allowed 27 calendar days to elapse before he began work on the project.

White Construction utilized a milling machine for the trench excavation where limerock base widening was proposed. This method was used from station 56+44 to station 217+00 for left and right roadways.

During the trench excavation operation the milling machine's rear track left a compacted area below the normal trench excavation line. Also, the rotating characteristic of the milling machines teeth created an uncompacted subgrade. The contractor failed to monitor the depth of cut and roll the subgrade to a firm and unyielding condition. No attempt was made to roll the subgrade until January 9, 2001, when only light rolling was done immediately behind the milling machine for one day. The condition of the subgrade and the attempt by the contractor's finishing crew to obtain density on the 260 mm (average) thickness of limerock with only one vibratory roller, high moisture content in the limerock and no established rolling pattern resulted in the excessive length of time (89 days) to finish limerock

A factor that contributed to the contractor having difficulty in obtaining density from station 56+44 to station 217+40 was the thickness of limerock material which was placed 47 mm (average) beyond the design thickness of 200 mm plus 13 mm for a total thickness of 260 mm (average).

Earthtech inspectors recorded the trench depth at 100 meter intervals at existing pavement edge and outside edge of the trench width of 2.21 meters. Also, the inspectors took additional depth checks and provided information to contractor's personnel. In contrast, from station 12+22 to station 43+63, the contractor used a motor grader equipped with a mould board plow. In this section there was a 29 mm avg. left roadway and 26 mm right roadway difference. This section was placed and finished within the last two weeks of this operation, only then was sufficient rolling equipment used.

The length of time taken to finish the limerock on the project was caused by the contractor's contention that they could obtain density with a minimum amount of rolling. They began this operation with only one vibratory roller and attempted to roll as much as 1900 meters at a time.

There is no dispute to the fact that extra limerock base material was placed on the project. The cause becomes apparent when you look at the contractor's means and method in which he placed the base material, the sequence of operations, and the lack of quality control the contractor's personnel were willing to implement.

Based on our evaluation of this claim for additional compensation for excess limerock, it is our contention that the problems created were due to actions of the contractor. The following list of items represents these actions.

1. The rotating action of the milling machine left the subgrade in a disturbed condition, rather than being firm and unyielding; also, an imprint from the rear track was left below the trench excavation line.
2. No attempt by the contractor to correct trench excavation even though Earthtech inspectors informed contractor's project superintendent on day one of the trenching operations and repeatedly throughout the entire period of placing base material.
3. The contractor failed to meet the requirements of section 200-5.2 of the Supplemental Specifications, page 77. A test section was not constructed in the field to demonstrate that the compaction equipment could achieve density for the full depth. Nor was a rolling pattern established. The contractor contended that they could obtain density with a minimum amount of rolling (one vibratory roller). If the contractor had established a rolling pattern at the time he placed the limerock material he could have made the necessary adjustment to the trenching operations, thereby eliminating the extra limerock that was placed.

4. Placing limerock base material before milling, ARMI layer, and first asphalt structural course of 40 mm from station 84+40 to station 212+00, right roadway. Approximately 13 mm of limerock base material had to be removed because of being contaminated by milling material and dirt.
5. During the finishing operation, excessive limerock material was removed to obtain proper cross slope of 0.02. (See photos on the CD for limerock wasted beyond shoulder point for the length of the project.)
6. Embankment material was not placed in all low areas as specified in Note 6, sheet 3 of the plans. This resulted in the outside edge of the trench not being able to support the base when rolled. Three problems were created: first, the limerock base material spilled onto the front slope; second, it made it difficult to obtain density; and third, additional limerock had to be added.
7. Putnam County Job (See exhibit I)

Upon review of documents relating to changes requested on Proj. FN 210018-1-52-01, Putnam County. Please be advised that White Construction requested that the item of stabilization be eliminated from this project. This request was granted and White Construction was allowed to place 8" of limerock for the full width of widening and shoulder (6'). This was placed in two 4" \pm lifts by choice of the contractor as full depth was allowed by the contract.

The excavation was done with a motor grader, which exceeded the depth required for limerock base. The subgrade was not rolled prior to placing base rock as the motor grader did not disturb the surface of the subgrade.

A similar operation was conducted on the US 129 job in Gilchrist County from the beginning of the project to the exception at Trenton.

This is in contrast to the excavation on US 129 from north of Trenton to north of Bell, which was accomplished with a milling machine. This left the subgrade in a disturbed and soft condition, as no attempt was made to roll behind the trenching operation.

8. The contractor took 57 days from the time he started placing the limerock base until he began his finishing operation.

9. When comparing the average trench excavation depths to the design thickness plus 13 mm, it becomes apparent that over excavation of the trench was cause of the extra limerock base material.
10. The contractor in his claim letter dated April 3, 2001 (see exhibit J) indicates the plans were not in accordance with index 505. This index represents the limits of different classification of material and where they can be placed on a newly constructed roadway. Widening projects (see exhibit I) where existing subgrade is not to be distributed, no stabilization is required. The contractor recognized this as a standard construction practice because he had requested the elimination of stabilization on SR 100 project in Putnam County. Also, the contractor stated the material was unsuitable, which caused the subgrade to yield in the widening area. The soils were consistent throughout the length of the project except a short section where clay material was encountered. The District Material lab cored this area and a determination by the department not to remove the material because of the hard and firm condition in a dry state.
11. The contractor attempted to get density in excessive lengths, up to 1900 meters for a 2.21 meter widening area.

DRB FINDINGS

Both parties agree that additional limerock was placed in the trench excavation template. From the tabulations presented it appears both parties agree on the depth of over excavation in the trench as measured before placement of the limerock. In White's analysis, the trench over excavation was considered and payment for limerock in over-excavated area was not requested.

Three of the factors cited by the Department that contributed to additional limerock were: 1) placing limerock before milling, 2) difficulty in obtaining .02 cross-slope, 3) embankment not placed in low areas prior to limerock placement. While all of these factors may have contributed to waste or extra material delivered to the job, they are irrelevant when considering the final actual template of the widening.

The Department contends that the milling machine disturbed the subgrade and left it in a loosened condition. It was pointed out that the rear track of the milling machine left a significant imprint in the subgrade material. While noted that in areas where there was clay material this condition did not exist. It is the opinion of the DRB that the use of the milling machine should not disturb material below the cutting teeth. The DRB further believes material not capable of supporting the rear track of the milling machine would not have the LBR to support the base

material and the compactive effort applied. This is the most compelling evidence that the subgrade yielded.

The Department also states that the length of time after placing the limerock and beginning finishing operation contributed to the additional material. When asked at the hearing how this contributed, the Department stated that truck traffic on the limerock already placed, but not finished, would "drive it down". If in fact this happened, this would further imply a yielding subgrade.

The Department also states a test section was not constructed to demonstrate that the compaction equipment could achieve density for the full depth of limerock placed. The DRB interprets the requirement for this test to determine the compactive effort required for full depth placement, not a test for the stability of the subgrade. While this test would have probably revealed the subgrade problem it was not the intent of the specifications.

Although not presented in their position papers, the Department did state at the conclusion of the hearing that the contractor did not comply with Section 120-9.4 Compaction of Subgrade in the standard specification. Section 120-9.4 refers to the subgrade area as defined in Section 1-3. Section 1-3 defines the subgrade as "those portions of the roadbed shown in the plans to be constructed to a design bearing value or to be otherwise specially treated". Since this subgrade was already constructed and no design bearing value given or special treatment specified the Board's interpretation is that Section 120-9.4 does not apply. Also there is no indication that this requirement was communicated to the contractor during construction. This would indicate that the Department did not see applicability of this specification section, at least during construction.

The DRB found no evidence presented that the contractor for this project should anticipate anything but a subgrade capable of supporting base material placed in one lift. Note 5 on sheet 3 of the plans state that optional base group 6 may be placed in one lift as requested by District Construction as a pilot project.

DRB RECOMMENDATION

The Board finds entitlement to White's position that the subgrade yielded in the widening portion of this contract and recommends as follows:

The Department and White Construction negotiate to compensate White for extra limerock placed within the design template of the widening portion as a result of the yielding subgrade.

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

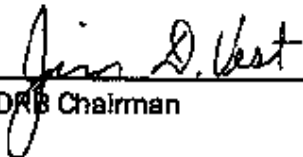
I certify that I participated in all of the meetings of the DRB regarding the Dispute indicated above and concur with the findings and recommendations.

Respectfully submitted,

Disputes Review Board

Jim D. Vest, DRB Chairman
Rammy Cone, DRB Member
Ralph D. Ellis, DRB Member

SIGNED FOR AND WITH THE CONCURRENCE OF ALL MEMBERS:



DRB Chairman

cc: Larry Stubbs, Earth Tech, Inc.