

Dispute Review Board Recommendation

March 22, 2010

To: Community Asphalt Corp. (Contractor)
9725 NW 117th Avenue
Suite 110
Miami, FL 33178
Attn: Daniel Buraglia, Project Manager

New Millennium Engineering, Inc. (CEI representing the Department)
6101 Orange Drive
Davie, FL 33314
Attn: Mark G. Siegenthaler, P.E., Senior Project Engineer

**Project: Turnpike Northbound Mainline Widening – Peters Road to Sunrise Blvd.
FIN: 406094-4-52-01 & 406094-6-52-01**

ISSUE:

Is the Engineer misinterpreting Section 455.E (Auger Cast Piles) of the Specifications by requiring the Contractor to pump a quantity of grout equal in volume to a 5 foot length of pile before beginning to extract the auger and, further, in requiring that this grout be wasted and not included in the volume of the pile?

CONTRACTOR'S POSITION:

The Contractor has asked the Board to find that he is entitled to recover the costs associated with the alleged grout waste. The following are cited by the Contractor as relevant specifications:

455-42.7 Use a grout pump/system equipped with a pressure gauge to accurately monitor the pressure of the grout flow. Test and calibrate the equipment during construction of the demonstration pile to demonstrate flow rate measurement accuracy of +/-3% over the range of pressures anticipated during the work.

455-44.10 Pump the grout with sufficient pressure as the auger is withdrawn to fill the auger hole, preventing hole collapse and to cause the lateral penetration of the grout into soft or porous zones of the surrounding soil. Carry a head of at

least 5 feet of grout above the injection point around the perimeter of the auger to displace and remove any loose material from the hole. Maintain a positive rotation of the auger at least until placement of the grout.

455-44.11 Once the grout head has been established, greatly reduce the speed of the auger and commence extraction at a rate consistent with the pump discharge. Maintain extraction at a steady rate to prevent a locked-in auger, necking of the pile, or a substantially reduced pile section. Ensure grout starts flowing out from the hole when the cutting head is at least 5 feet below the ground surface. Place a minimum volume of grout in the hole of at least 115% of the column of the auger hole from a depth of 5 feet to the tip. Place a minimum volume of grout in the hole of at least 105% of the column of the auger hole from the ground surface to a depth of 5 feet. Do not include any grout needed to create surplus grout head in the volume of grout placed in the hole.

455-44.12 Assume responsibility for the grout volume placed.

455-48 The Engineer will monitor pile installation.

455-50.2 Price and payment will also include the removal and proper disposal off site of all spoil from the auger operation and all excess grout displaced from the auger hole.

534-10.10 Price and payment will be full compensation for all work specified in this Section, including but not limited to: furnishing all materials, labor, panels, special panels, posts, collars, reinforcing steel, foundations....

The Contractor maintains that the Engineer is incorrect in equating the language “a head of at least 5 feet of grout”, found in 455-44.10, to a volume equal to a 5 foot length of the pile column. He cites Webster’s Dictionary in supporting the position that “head” is a measurement of pressure or “the difference in depth of a liquid at two points” and not a measure volume. In essence, the Contractor’s position is that the Specification requires that a pressure at least equal to that found below a 5’ depth of grout (about 5 psi) be established at the pile tip and maintained as the auger is extracted.

DEPARTMENT’S POSITION:

The Department maintains that the Specifications clearly convey the requirement to establish a volume of grout equal to 5 foot length of the pile column prior to beginning extraction and to maintain this volume above the injection point during extraction. Section 455-44 is cited as requiring the Contractor to “carry a head of at least 5 feet of grout above the injection point around the perimeter of the auger to displace and remove any loose material from the hole... ensure grout starts flowing out from the hole when the cutter head is at least 5 feet below the ground surface... (and) not include any grout

needed to create surplus grout head in the volume of grout placed in the hole.” The Department also includes 455-50.2 in supporting its position.

In rebutting the Contractor’s Position Paper, the Department introduces three construction/engineering publications as being representative of industry practice. Each describes the need for a grout “head” in auger cast pile construction and all three sources equate head to a volume of grout above the auger tip.

BOARD FINDINGS:

The Board finds that, taken as a whole, Section 455-44 of the Contract Specifications clearly conveys that a volume of grout equal to 5’ of the pile column is to be established above the auger tip and that this volume is not to be included in computing the pile minimum grout quantity that is called for in 455-44.11. Further, the Contract is clear that the Contractor is responsible for furnishing, placing and disposing of this grout head volume and all excess grout.

If the reader of 455-44.10 is unclear as to pressure or volume, he finds clarification in 455-44.11 when told to ensure grout starts flowing from the hole when the auger tip is at least 5’ below ground and to not include any grout needed to create surplus grout head in the volume of grout placed in the hole.

The Board finds that 455-44.10, in directing that a head of at least 5’ of grout be carried above the injection point, strongly infers that this section is describing a volume of grout. Had the intent been to maintain a 5 psi pressure, the words “carried at” instead of “carried above” would have more clearly conveyed pressure and not volume.

The Board has relied solely on the Contract Specifications in arriving at its findings and recommendation. Nevertheless, it is significant to include that the Board finds the Department’s interpretation of 455-44 with regard to grout head to be consistent with industry practice. The Board knows of no auger cast pile specification that does not include an initial volume of grout placed in the hole and carried above the auger tip during extraction.

BOARD RECOMMENDATION:

The Board recommends that there is no entitlement for additional money or time to the Contractor for the grout needed to establish the 5’ head called for and described in Section 455-44.

Please remember that a response to the DRB and the other party of your acceptance or rejection of this recommendation is required in 15 days. Failure to respond constitutes an acceptance of this recommendation by that party.

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

Respectfully submitted,
Dispute Review Board:

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| Michael C. Bone | DRB Chairman |
| Frank A. Consoli | DRB Member |
| David Donofrio | DRB Member |

Signed for and with the concurrence of all members:

A handwritten signature in black ink, appearing to be 'M.C. Bone', with a long horizontal line extending to the right.

Michael C. Bone, Chairman