



January 24, 2007

Mr. Fred King, Chair  
Maynard Conservation Commission  
195 Main Street  
Maynard, MA 01754

Re: **Supplemental Responses to Submitted Comments**  
**Flow Monitoring and Ben Smith Canal Gate Installation and Gatehouse Repairs NOI's**  
**DEP File No. 213-0219 and 213-0220**  
(PARE Project No. 05051.00)

Dear Mr. King and Members of the Commission:

On behalf of Wellesley Rosewood Maynard Mills, LLC, (WRMM) Pare Corporation (PARE) is pleased to offer the following supplemental responses to the written comments received during the initial Notice of Intent Public Hearings for the above-captioned projects, held on December 5, 2006.

**ORGANIZATION FOR THE ASSABET RIVER (OAR) COMMENT LETTER DATED**  
**DECEMBER 5, 2006**

3. **COMMENT: Review of specifications of monitoring equipment:** Our consultations with USGS and the supplier of the monitoring equipment indicate that the proposed system for monitoring flows below the Ben Smith Dam is unlikely to work. The use of a sonde (pressure gauge), rather than a flow meter, is inappropriate and unlikely to provide an accurate reading. However, even if a flow meter such as the Argonaut-SW) were used, it is unlikely to operate properly without repeated ground truthing and measurements at different stages. This is due to the wide and uneven nature of the channel which may have multiple and changing stream threads at low flows. We request that the applicant be required to present a system which is effective, accurate and verifiable prior to your issuing a decision.

**ORIGINAL RESPONSE:**

During the design process, several flow monitoring devices were reviewed and the selection of the Argonaut SW, which is proposed for both locations, was based upon manufacturers literature, direct communication with the manufacturer, and a review of the channel geometry at both installation locations. Additionally, PARE contacted Mr. Tim Driskell of the USGS who is responsible for the gauging station at Alewife Brook near Arlington, MA (USGS 01103025). Mr. Driskell indicated that the Argonaut SW has been installed at the indicated station, is working well, is reliable, and provides good data. After the proposed installations were described to him, Mr. Driskell indicated that it appeared that the Argonaut SW would provide the anticipated data.

The Argonaut SW is designed for use in shallow water applications with a range of 0.5 to 16 feet indicated by the manufacturer. The location of the monitoring points have been positioned within portions of the channel that are contained by masonry and concrete walls, and are generally uniform (i.e., the approach to the bridge, and



the area of the gatehouse). The uniformity was verified based upon survey completed during the design process. The survey included detailed survey that determined the elevation at one-foot increments across the full width of the stream channels. The selected instruments, and the selected monitoring locations are appropriate for this application.

During the installation procedure, the manufacture/installer will calibrate the Argonaut SW through the use of in-stream flow measurement techniques. Further, given the location of the USGS gauging station located downstream of the confluence of the Assabet River and the canal, a reliable secondary check will be possible.

The monitoring system as proposed is anticipated to provide the data and reliability necessary to determine flow through both the river and the canal.

**SUPPLEMENTAL RESPONSE:**

Utilizing cross section data obtained by PARE during the design process, PARE has evaluated the depth of flow that is anticipated during the period when flow within the channel is at 39CFS. As previously indicated the selected instrument (Argonaut SW) is effective to a depth of 6". As calculated for a range of channel conditions which were modeled to bracket conditions leading to the monitoring point. The depth of flow would be expected to be approximately 7.5". It was also noted that a depressed channel was noted left of the central pier, which likely represents the predominant flow area. During installation, the gauge will be installed within this location in an effort to provide a greater range of monitoring.

If you have any questions or comments, please feel free to contact me at 508-543-1755 or via email at [mbellisle@parecorp.com](mailto:mbellisle@parecorp.com).

Sincerely,

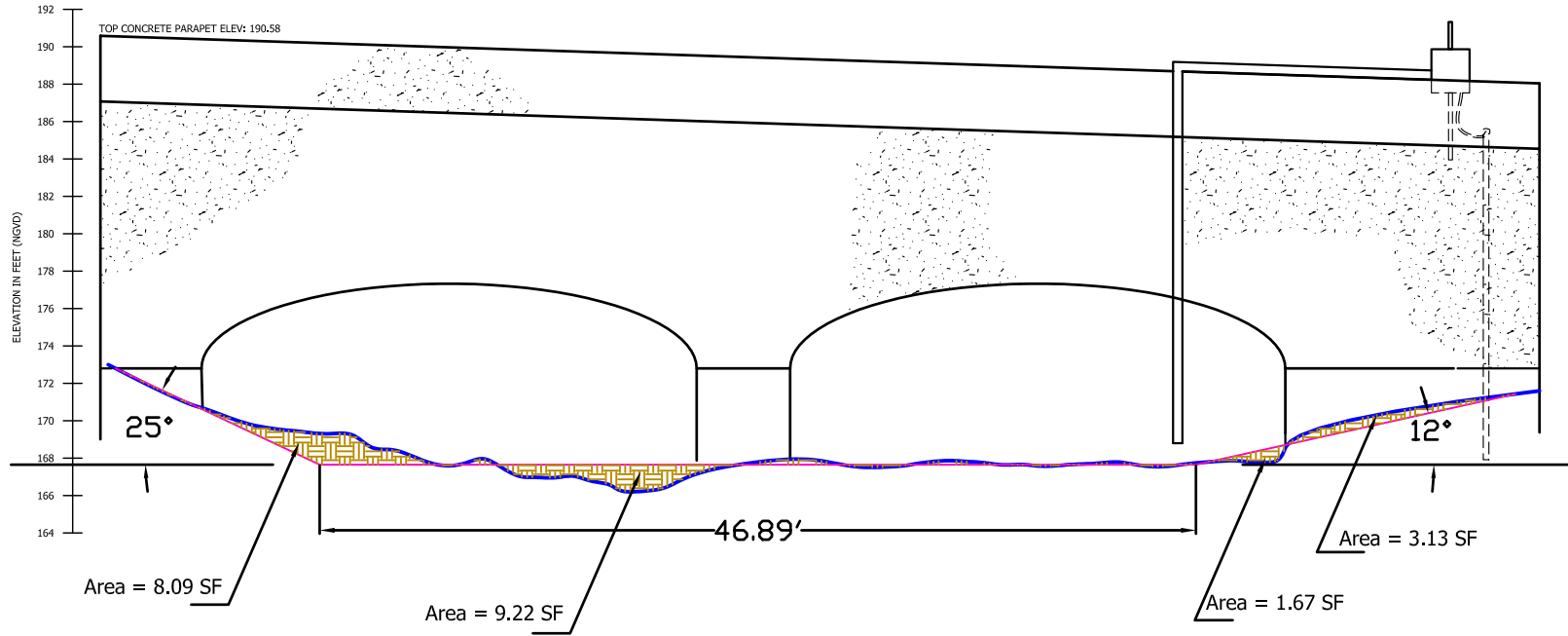
PARE CORPORATION

J. Matthew Bellisle, P.E.  
Vice President

Attachment

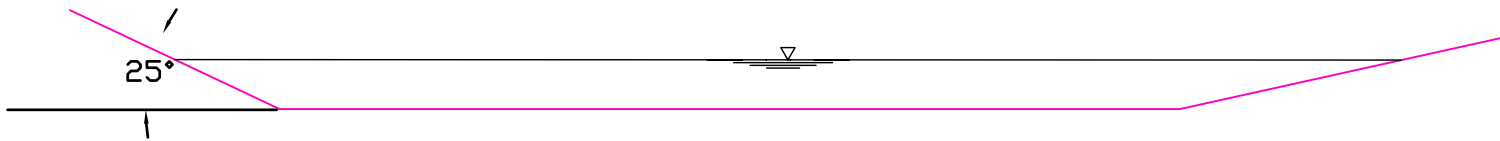
cc: Briscoe Lang, PARE  
Joseph Mullin, WRMM

# Approximate Trapezoidal open channel cross section



--- UPSTREAM MUDLINE

CASE I



CASE II

