

## **Background Information on the Catoctin Bathhouse Project (Updated 10/11/16)**

**What is the current plan for the bathhouse project (up until now)?** BYM has united behind the plan to build a new bathhouse at Catoctin, and more than \$251,000 has been contributed or pledged so far. At the 2015 and 2016 Annual Sessions, BYM approved the capital budget to complete the project before the start of camping season in 2017, based on an estimated total cost of \$297,000.

**What have we spent so far?** So far we have spent about \$33,591 for architectural and engineering fees, new hot water heaters which will be installed, and permit fees. In addition, hundreds of hours of volunteer and staff time have been dedicated to moving this project forward.

**How did we get bids for the project?** Five general contractors were invited to submit bids. We selected these contractors based on recommendations from colleagues and friends in the building trades. Two declined to submit bids. The remaining three (two from the local Frederick area and one from Baltimore) reviewed the project designs and specifications, visited the site with their sub-contractors, submitted requests for information to the architect, and prepared detailed bids for the project. All three general contractors are highly experienced in commercial construction and generally receive most of their business through referrals (i.e. clients like their work). They are similar in size, with 25 to 40 people on staff. It took approximately six weeks to get the bids from start to finish.

**How did the bids compare to our estimate?** The bids we received were more than double what we expected – from \$656,000 to \$693,000.

**Why are the bids so much higher?** We were all surprised by the high bids – including our design team. Our original estimate was based on the preliminary designs and the best available knowledge and experience that we were able to gather at the time from professionals in the industry. But questions linger: Is it because we are on another peak in the building market where quality builders can command top dollar? Is it because construction prices increased sharply in the two years between when our original estimate was made and the bids were received? Is it because of the remoteness of the construction site? Is it because we are building in Maryland instead of central Virginia, where it often costs half as much to build the same building? Likely, all of these factors contributed.

The initial estimate was based on preliminary drawings and specifications which included fewer details. The designs were subsequently refined and expanded – adding costs and complexity. The actual bids were based on much more careful review of the final, detailed project specifications by contractors who had every incentive to carefully identify all associated project costs.

Finally, it is important to note that it is not unusual for construction bids to be much higher than original estimates - as anyone who has put an addition on their home or renovated a Meeting house will tell you.

**Can we find a better price by putting the project out to other bidders?** Each of the bids was derived independently by experienced, recommended, top-quality contractors. The bids differ by less than six percent. These are probably reliable current estimates for our project as currently designed in today's builders' market in rural Maryland. In our judgement, getting additional bids from other quality contractors is not likely to produce a different result.

**Is this worth the price?** This seems to be a relatively expensive building. There are reasons for this. First of all, this is a bathhouse. Bathrooms are always one of the most expensive rooms in any building – because of all of the plumbing, masonry, fixtures, and electrical equipment concentrated there. Think of this building as a house with ten bathrooms. Second, the bathhouse has to be built to commercial code (not residential), which is more expensive. Third, it has a partial basement, which is expensive to excavate and construct. Composting toilets – a central feature - need a basement in which the waste can be collected and processed. We chose to install composting toilets in order to reduce the impact of our camp on the watershed and to extend the life of our septic system.

**Were the bathhouses we built at Shiloh cheaper to build?** The Shiloh septic system and bathhouses were installed in the mid-1990's for \$97,677 and \$127,827, respectively. It would likely cost us substantially more to build the same facilities today, based on inflation. For example, at a three percent annual rate of inflation, the same facilities would cost more than \$400,000 to construct today. However, construction costs in central Virginia are not the same as in Maryland. Our experience with the construction of cabins and other camp facilities in central Virginia and Maryland has shown that it is generally twice as expensive to construct facilities in Maryland.

**How can we reduce the cost?** We have identified a number of cost-reduction strategies that could be made without compromising the most important features and capacities of the building (e.g. changes to window, masonry, plumbing, truss, and roofing specifications). We are still in the process of determining the exact cost savings of the proposed changes. We are seeking to avoid making significant structural changes that require further permit review and delays, which would put at risk our plans to have the facility completed before camp starts. The final price is certain to be more than we originally estimated, but less than the current bid price.

**Why not just install regular toilets?** Using regular toilets would cost less, but only if one ignores the substantial financial and environmental costs of upgrading or replacing and using a septic system for sewage. Regular toilets consume lots of water and produce lots of waste, which, after being processed through our septic system, is then released to the watershed. Composting toilets reduce this impact on the environment. Composting toilets also help us avoid the cost of upgrading or replacing our septic system, which we would likely need to do if we were to install additional conventional toilets. A new septic system could cost as much as \$40,000 to \$60,000 to install (or more, if pumping stations are required) and would likely require clearing a substantial amount of forest for a new septic field.

**Why are there two separate bathrooms in the plan? Doesn't this add cost?** It does add cost. However, it has long been a priority for this project and our community to provide separate, gender-neutral, ADA-compliant bathrooms, and assure safe spaces for all people in our community.

**Can we be confident in the new construction budget?** The revised construction budget was developed in a careful, cautious, and conservative manner. This is a lesson we have learned from this experience, and which we will apply to future projects moving forward. We started with a firm construction bid amount for the entire project from our preferred general contractor. The budget includes allowances for various non-construction costs, such as architectural and engineering fees, legal expenses, insurance, tree removal, and staffing expenses. The budget also includes almost \$100,000 for possible contingencies. We hope we will not have to use these funds. Going forward, we are confident the budget covers every conceivable expenditure and contingency.

