

Kathleen Ramsay

From: Emmalee Cherington
Sent: Monday, January 23, 2023 2:42 PM
To: Fred Dunnington
Cc: Kathleen Ramsay
Subject: RE: Chipman Hill Reservoir / Tank project
Attachments: Middlebury WST 60%_20230110.pdf; Water Tank Construction Drawings.pdf

Fred-

Thanks for the call. I appreciate your feedback. Attached are the 60% plans and the proposed construction site layout. I believe these more complete plans will answer many of your questions. I did discuss the project briefly with Tony last week so that I could hear his concerns. I would propose a neighborhood meeting late winter. The geotechnical work will not occur until the spring- so much of the design will be on hold until we have that information. Do you have a specific return date scheduled?

As I mentioned on the phone, we are still waiting on information pertaining the geotechnical components of the project- so cut/fill is yet to be determined. That said, there will be considerable construction traffic in the area for the site work. Once stabilized, traffic should be relatively minimal since the tank gets poured on site. The road is on my paving list for the summer after this project is completed. As you agreed, there is little point in repairing the road prior to construction.

Regarding screening, I went out last week to assess the tree elevations with Chris Zeoli. With that information, our engineer will be creating a mock-up for what to anticipate in terms of screening. We will be taking root structure into consideration in determining if trees should be cleared- my goal is to leave as much screening as possible, without impacting the structural integrity of the new tank with potential blow-downs. Supplemental plantings will be incorporated as needed- with the additional benefit of removing invasives.

I think your comment regarding the groundwater is what warrants the most concern- and as I mentioned, I have forwarded your email on to our engineer. I will keep you in the loop as we move forward with that regard.

Enjoy your travels!
-Emmalee

Emmalee Cherington
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From: Fred Dunnington <fsdunnington@gmail.com>
Sent: Monday, January 23, 2023 1:17 PM
To: Emmalee Cherington <echerington@townofmiddlebury.org>

Cc: Kathleen Ramsay <KRamsay@townofmiddlebury.org>

Subject: Fwd: Chipman Hill Reservoir / Tank project

Hi Emmalee -

I called and left a message for you this morning.

See my letter below.

Please call me at your convenience at (242) 816-2978.

Thanks,

Fred

Fred Dunnington

Begin forwarded message:

From: Fred Dunnington <FSDunnington@gmail.com>

Date: January 23, 2023 at 1:13:16 PM EST

To: Kathleen Ramsay <kramsay@townofmiddlebury.org>

Cc: Adorothy <dorothy.mammen@gmail.com>, Rifelj Tony <arifelj@comcast.net>, echerington@townofmiddlebury.org

Subject: Chipman Hill Reservoir / Tank project

Hi Kathleen and Select Board members-

Dorothy Mammen and I own the property at 16 Springside...we are the house to the south of the Chipman Hill reservoir/ tank project. We have lived there 19 years.

Previously I owned a nearby house on 3 Locust Lane, from 1982-1990. From my years living near the old (1900s open) reservoir and the current (1970s) reservoir I have walked around these many times and have some experience with Chipman Hill groundwater. They don't call it Springside for 'nothin...

While working for the Town 1981-2013, I was involved with various construction projects around Chipman Hill and their respective groundwater issues, so I have a healthy respect for what can be expected when digging into the hill. Geologically, the hill has lenses of compacted glacial till and groundwater can emerge at many spots, not just around the lower flanks of the hill.

When the 1970s reservoir was dug into the hillside, the footing drain collected some of this groundwater and in the early 80s I recall that a piece of turquoise PVC water pipe was installed to direct the footing drain groundwater into the old open reservoir. It ran practically continuously. This was, at the time, an effort to contain and discharge the water via the old reservoir and its overflow away and to the east, in partial response to complaints from homeowners nearby and especially from old Charlie Mraz (then in his 90s and a former Water Board member who lived just below Locust Lane, where Chas, his grandson now lives). Charlie developed the houses in the neighborhood known as Chipman Heights in the 1950s, and I know he had undoubtedly way more experience with Chipman Hill groundwater.

In the 1990s, with continuing complaints, the Town constructed an underground drainage system along Locust Lane and over towards the Animal Hospital on Washington St Ext.

I support the proposed project and I have reviewed the site plan and proposed cost estimate for site work along with the Infrastructure Committee information for the proposed Tank project, posted in the Select Board packet for Tuesday Jan 24th. I have a call in to Emmalee Cherington to request a pdf set of the full Dufresne plans to be emailed - and to discuss my questions/ comments, hoping that some of these might be addressed, to minimize taking up valuable Board meeting time.

I have the following comments / questions:

1. I understand that the site work is for clearing to the rough base grade, for soil borings, and exploratory work to locate the 1970's reservoir footing drain and to reroute the overhead utility lines to the east around the project site. What is the base elevation (bottom of excavation) for the new tank? 640? Seems like overall, the excavation exceeds the fill? Or is the excavated material to be filling part of the early 1900s reservoir from 632 up? Will there be a lot of trucking of material up or down Springside Rd? The section of Springside below the Gill's and down to Seminary St. has been patched, repeatedly, ever since I first lived up there, over 40 years ago...

2. Where will construction staging, field offices / trailers, material laydown, etc be for this project. Any places nearby on the Town land but off-site of this site plan to be used? I and other neighbors would like to know of all fill sites and involved lands.... I strongly recommend neighbors pre-construction meetings.

3. Be advised that the 1980s / 90s underground Cable TV headend infrastructure very likely may remain in the construction access road, north of the present Comcast/ Xfinity building... The original Cable TV headend was a small metal structure across the road to the north of the present Comcast / Xfinity headend building, and across the old reservoir drainage overflow, up against the Battell Trust property line. Underground old cable TV conduit, wires, old metal fencing, bases for satellite dishes etc are probably abandoned underground and/ or buried across and around the access to the original reservoir. This is exactly the area where the proposed tank overflow will need to go along with the drains that I recommend below.

The old buried Cable TV infrastructure may have preceded Dan Werner's time, so I'm not sure he or Dufresne or Emmalee were aware of this. Excavating through this old infrastructure and junk may not have been anticipated in DeBisshop's cost estimate.

4. From my history and experience noted above, I STRONGLY recommend that the overflow pipe and footing drain for the 1970s reservoir be piped to the east, not merely daylighted with headwall just above the proposed tank as shown on the plans.

Simply piping the 1970s reservoir overflow and foundation drain to the east could eliminate all the upslope clearing /excavation - the triangular area into the Battell Trust land towards the 1970s reservoir.

I also think that gravity site drainage from the bottom of the old open reservoir (down to elevation 630) should be excavated by DeBisshop, with positive slope. The site plan shows the foundation drain for the new tank discharging in a headwall at elevation 632. As noted above, I also recommend that this new tank footing drain be discharged to the EAST, instead of to the south. Why not use the same trench as the tank overflow...eliminate the cost of another headwall...

BTW the new tank overflow is shown as a 12" pipe? Seems a bit large...Existing reservoir is 8" The engineer's sizing of a 12" pipe seems to anticipate a very large overflow of water pumped from the Town's wells.

The 1970s reservoir tapped into groundwater that changed drainage and caused property impacts for the properties to the south including the house site at 16 Springside that Dorothy Mammen and I own, as well as other neighborhood properties. The Town later paid for a corrective drainage project along Locust Lane.

For our house, the groundwater emerges at the uphill side, and a few years ago I installed a French drain around the north and east side to intercept it, but we still experience the effects of high groundwater even up at 16 Springside. Dorothy has asked me to emphasize her great concern for increased groundwater up against our basement wall and the resulting economic impact.

By combining the drain and overflow outfalls and directing the water all to the east, I hope the Town and neighbors can mitigate / avoid future groundwater problems and remediation costs.

That said, I know that the Colonial Drive neighbors to the southeast also experience Chipman Hill groundwater, and hopefully the recent construction had provided new stormwater pipes for their foundation drains and sump pumps as well as underdrains for Colonial Drive itself. I had recommended to Dan Werner, when I discussed the Tank project siting with him many months ago, that maybe a Colonial Drive drainage connection for the Tank project water might be needed depending on what groundwater emerges during the site work and construction project and what discharge volumes there will be. Its a fair distance from the headwall outfall southeast down to Colonial Drive, but where else would a significant discharge be piped to? Certainly the Town would not want to create new problems for the Colonial Drive neighbors, any more than already exist or might be aggravated for the Chipman Heights, Springside, Locust Lane or Forrest Lane neighbors...

5. How tall will the new tank be? Will the existing large evergreen trees be preserved at least in part to the SW and SE? Can there be some replacement evergreen trees planted where the old tall trees around the open reservoir site will be removed on the south side, where the tank site requires the slope cut?

6. Finally, I recommend that the relocated overhead powerline be more completely routed around the access road...be advised this carries the internet service for the whole Town! ...Along with the power and communication lines to the Chipman Hill Communications Tower. Undergrounding all this may be advisable as windthrow from trees blowing over on Chipman Hill does happen....as our property personally experienced in December.

Thanks for considering all this. I do support the project and the timetable for the site work, and hopefully these comments will be taken as constructive and timely.

Sincerely,

Fred Dunnington
Dorothy Mammen