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Connie Preston, Community Services Chair
City of Newburyport
60 Pleasant St.
Newburyport, MA 01950

January 29, 2024

Dear Councilor Preston,

I am in receipt of Communication 525 dated January 8, 2024 with questions and concerns regarding the Bartlet Mall Frog Pond project. I would like to reiterate that this project followed a rigorous permitting process that was fully transparent and complied with all MA State Laws. Ten different local, State and Federal jurisdictional entities signed off on the project, after no fewer than a dozen public meetings. We have attempted to keep the responses to the below questions succinct and refer to the City website and/or previous meeting recordings where additional detail, if desired, can be found.

1) Pond habitat: based on comments offered by Professor Vladimir Novotny, there was no survey of pond habitat performed by environmental biologists to determine the impact on aquatic wildlife in and around the pond. Without that information it seems that no one would be able to report on damage that might be inflicted on amphibian populations when the pond is de-watered and the sediment graded and capped. Why was such a survey not conducted prior to project design?

I found no answer to, and very little discussion of, this question from the Conservation Commission. The Notice of Intent was drafted without including habitat impact. Consequently, the City did not conduct a survey of animal and plant habitat so that it could be included with other "scientific evidence" used in the basis of design for alterations to the Frog Pond. Professor Novotny states in his September 5 presentation to the Community Services Committee that turtles inhabit the pond and are considered an endangered and protected species. I did hear concern expressed by the CC for the turtle population (hence an acknowledgement of animal habitat) once dewatering commences, but not enough to recommend an action plan such as a survey or rescue/relocation. Furthermore, The Secretary of the Interior Standards "Guidelines for Rehabilitating Cultural Landscapes" recommends documentation of plant and animal life during the survey of water feature existing conditions. <https://link.edgepilot.com/s/b44318b2/VIksD8nZaEyD1H6duAQltw?u=https://www.nps.gov/crps/tps/landscape-guidelines/preserve/water.htm>

The Bartlet Mall Frog Pond is not a Natural Heritage and Endangered Species Program (NHESP) Site, meaning there are no endangered or protected species present at the Pond. This is noted in the Conservation Commission filing. GEI's wetland and ecology experts evaluated the pond, and found no protected species present. What was required by the Massachusetts Wetlands Protection Act for this filing was a habitat evaluation, not a wildlife evaluation. Section 5 of the Notice of Intent, and Appendix E of the same document, present the findings of the habitat evaluation that was required as part of the Notice of Intent. The Conservation Commission held 4 public meetings and a site walk to review all the

information presented in the Notice of Intent and deemed that the project met all the appropriate performance standards, and that the project complies with the MA Wetlands Protection Act. They subsequently provided an Order of Conditions which has been filed with the Registry. All documentation was reviewed by the DEP and accepted, and no challenges occurred during the appeals period. In fact, Mr. Novotny's original plea to the City of Newburyport, which prescribes exactly what is being proposed here, was included in all documentation and is included at the end of this memo for reference. Mr. Novotny did not attend any of the 4 public meetings with the Conservation Commission to express his concerns nor challenge the methods being proposed, which again were the same methods originally recommended by him and laid the groundwork for this project.

2) Pumphouse: the original approved design for water recirculation was a pump housed in a concealed vault. Since that time the equipment scope has grown to the point where a 14-foot by 14-foot equipment room is needed to accommodate it. Moreover, that expanded footprint must now be housed in an architecturally designed pumphouse to make it compatible with the courthouse, as was discussed with the Planning Board. Based on a conversation with Professor Vladimir Novotny, I am concerned that the current equipment scope is overdesigned. The nanobubbler certainly seems excessive for natural pond restoration of this scale. Can examples be provided of other pond habitats that have been restored using a similar pumphouse design with similar equipment?

I found no answers to this question either from the meetings of the Conservation Commission, the Planning Board or the Community Services Committee. The latter asked the question about the design team's experience but I noted no response giving other similar projects as examples. I have not found on the GEI and Aqueous Consultant websites examples of similar historical urban pond restorations (or any environmental pond restoration) demonstrating documented success with the proposed design and equipment. Nor did I once hear the GEI and Aqueous team members at the meetings refer to other projects to demonstrate proposed design principles or successful application of same. Based on my professional experience, I find it highly unusual to have hired engineering consultants without having verified project-relevant experience. The engineering consultants appear to have considerable experience with environmental remediation caused by industrial pollution, larger civil projects and new park or recreational water features – but not with sensitive existing natural pond habitat within historic cultural landscapes.

We can all agree that the Bartlet Mall Frog Pond is a distinctive project with a set of unique circumstances. There are no other projects that we have found that include such an historically and culturally significant stagnant pond in an urban condition. This is not a natural water body in the sense that it does not have an inlet and outlet for fresh water, however it is jurisdictional in that it required approvals from the local Conservation Commission and DEP. The project, in essence, recreates a natural process that doesn't currently exist. It must provide habitat to support wildlife (i.e. not chlorinated) while also providing water that is safe for incidental contact by humans in a proposed controlled and staffed paddleboat operation (see further discussion below). Swimming and wading will still not be allowed by people or their pets in the proposed condition, as it is in the existing condition. Further, the solution must balance budget and maintenance needs against success, all while passing the scrutiny of the local and state regulatory agencies. The proposed design utilized a combination of available technologies, all familiar to our Consultant Team's collective expertise. Both GEI and Aqueous are experts in their fields: GEI Consultants, Inc. is a nationally recognized engineering firm committed to cleaning and maintaining the environment for over 50 years and employing the talents of professional engineers, scientists, and Licensed Site Professionals; and Aqueous Consultants, LLC is a specialized water resources engineering firm with professional engineers and advanced degrees of whom the top landscape architects in the country trust for their water system design work. Below is a short list of projects this team has been involved in:

- Boston Public Garden Lagoon, Boston, MA
 - National Historic Landmark, designed for filtration, circulation, and weighted tube diffusion, fabric, stone and sand liner installation—City of Boston opted for straight domestic water constant filling
- Ipswich Country Club, Ipswich, MA
 - Water management plans for quantity and quality maintenance in irrigation requiring high water quality
- Essex County Club, Manchester-by-the-Sea, MA
 - New pump intake and pump station on existing pond and stream, inflatable cofferdam for installation, wetlands and riverfront management
- North Kingstown Golf Course, North Kingstown, MA
 - New pump house and graded pond for sustainable water quality and quantity on quasi-public property and entity
- Haverhill Country Club, Haverhill, MA
 - Manmade impoundment of natural stream, water quality monitoring and water quantity management for irrigation, wetland and riverfront planning
- Hunter Golf Club, Meriden, CT
 - New pump intake and pump station on existing pond and stream, drained pond for lining and installation of intake structures, wetlands and riverfront management
- Thaden School, Bentonville, AR
 - Award winning architectural project for new water feature pond with subsurface aeration, pump station filtration and UV disinfection for recirculation collecting site stormwater and used as a water learning lab by students
- Private 100-Acre Estate 4-Acre Pond, Mount Desert Island, ME
 - Mitigation of brackish well water intrusion and algal blooms through recirculation and subsurface aeration diffusion, water supply for estate irrigation system
- Avalon Labyrinth, Head of Harbor (Long Island), NY
 - small pond with filtration and recirculation through a series of manmade cascade waterfalls for aeration and high dissolved oxygen
- Inner and Outer Boat Slip Area for New Bedford Harbor, New Bedford, Massachusetts.
 - Sediment dredging and aquatic capping
- Machado Lake, Los Angeles, California
 - Dredging, sediment capping, oxygenation, and recirculation

3) Granite bench wall: I have been perplexed by the granite bench wall since I read the specification in the August bid documents. What had been originally reviewed and approved as a granite edge curb has become a raised basin wall. There appears to be no reason, functional, aesthetic, or historic as to why this change was made nor any consideration for the budget impact that it carries. How does this granite wall contribute to the project goals of pond water remediation?

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There was a brief reference to the granite bench wall by Carol Wagan in the Conservation Commission's meeting of May 16. Apparently, it was changed from the flush granite curb of earlier presentations (see rendering) to a raised granite block wall to keep out geese and ducks. This seems like an extreme solution to a problem for which other far less costly solutions are available – the granite wall has a \$600,000 price tag. It will deter other amphibian wildlife from returning to the pond since it forms a barrier between the beach and water. Finally, it is incompatible with the original Charles Eliot design for the pastoral landscape around the pond.

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Attached are three documents that were presented at various meetings related to the CPA funding of the Bartlet Mall project back in 2022.

1. 'Frog Pond Cleanup CPC presentation 2022' is the original presentation made to the CPC. On page 10, there is a section detail of the granite seat-height wall.
2. 'Bartlet Mall CPA amendment 4.25.22' is the document that specifies the request to allow flexibility in funding the granite blocks, and their size is specified in the letter.
3. 'B&F presentation 2022 pages 31-33' is the presentation that Chuck Griffin made to the City Council in 2022 to approve the CPC allocation. The three pages attached show the seat-height condition of the granite.

You will see that the condition of the granite edge was always intended to be seat-height.

There is also disagreement about the intent of Charles Eliot's original design as it relates to the pond edge. In an 1887 letter to the Mall Improvement Association, Eliot writes:

"The whole of the central part of the Common is a deep basin containing a pond the waters of which (as I understand it) are drawn off when needed by the fire department. In the spring the pond stands some feet above its average summer level – in any season its area shrinks considerably. All this forbids enclosing it with a curb. (The ordinary curbed pond of a public garden is fed from the town water supply and maintained at one level by means of an overflow gate.) Any form of steep bank – shrub covered or otherwise – is similarly out of the question. Were the pond to be low such a bank would be extremely ugly. The existing beach like gravel shore is the best shore for your pond..."

It seems Eliot states here that an edge was prohibitive in 1887 because of the fluctuation of the water level, which will no longer be the case once this project is completed. He goes on to state that a traditional treatment of a pond edge would be a curbed edge. The proposed seat-height edge here has a few purposes:

- Prevent waterfowl from entering the clean pond
- Provide a surface to inscribe a history of the Mall and potentially acknowledge donors
- Provide a place for skaters and other park users to sit

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4) Dock: why is there a dock and how does it contribute to pond water remediation? The dock poses a drowning hazard for children; there is a playground just above it on the embankment.

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Much discussion centered on the dock in the Conservation Commission meetings. Most seemed to be concerned with its weight, the details for rolling it in and out of the pond, and how it fits over the recirculation pump inlet pipe. One commissioner mentioned the public safety hazard but there was no serious response or follow up discussion concerning controlled dock access, rails, life vest storage, lighting, etc.

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Also, the boating program is mentioned in Question 33 from the Community Services Committee. Your response refers to the 2016 pro forma report. In that document it assumes that revenues will be able to offset pond operating cost and maintenance. However, the “comparables” cited are much larger bodies of water in more dense communities (e.g. Manhattan’s Central Park) and in no way guarantee sufficient market analysis to suggest that there is sustainable interest in a boating program on a small historical green.

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My general impression is that the dock idea has not been well thought out either from the public amenity side nor from the City finance/revenue side.

Precedent exists in other communities, as well as Newburyport, for paddle boating activity on a water body such as the Frog Pond. While the comparable programs noted in the 2016 pro forma may be larger, the numbers used in the tabulation are scaled appropriately to the Frog Pond. The pro forma also notes supervised operation, signed waivers and fees.

There is precedent in Newburyport for docks. Our central waterfront is comprised entirely of docks and boardwalks along a water body that is far deeper and more treacherous than the 3.5’ deep pond at the Bartlet Mall. The Frog Pond, in its current condition, is arguably no less dangerous than the proposed condition.

As was discussed during the numerous public meetings, the dock has two primary purposes:

- To protect the intake pipe that will facilitate a clean pond condition
- To provide boating recreation, as has been a goal of the Parks Commission since 2016

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5) Historical landmark status: has the Massachusetts Historical Commission reviewed the project? The project intends to considerably alter this historic and cultural landscape that is cited both as a State and National landmark and recorded in their landmark registries. MHC is required to review any project that receives funding, licensing or permits by State or Federal agencies.

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I reviewed your August 30 document summarizing project permits and do not see the Massachusetts Historical Commission cited. Whereas the project may have been exempted from permitting by MEPA and the US Army Corps of Engineers, it will be receiving State funds through the CPA which should trigger review by MHC. The MHC website states “...However, MEPA’s thresholds do not apply to MHC’s review of state funded or licensed projects. In general, all projects that require a permit, license or funding from any state agency must file a Project Notification Form (PNF) with the MHC, regardless of whether they trigger a MEPA threshold.”

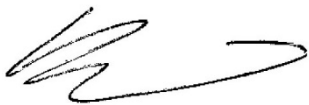
The Massachusetts Historical Commission has reviewed the project and has deemed it to have no adverse effect on the historic property (see attached memo).

- Based on my further review of the project, it is clear that there has been a change of project scope. In presenting the project to the Historical Commission in early 2022 there was little or no discussion of the intended recreational use. Indeed, the fact that the parks department was seeking CPA funds in the Historical Preservation category implied that the project goals were a sensitive and light-touch remediation of the pond while respecting the historical park design and existing plant and animal habitat. The Newburyport CPC evaluation criteria for this category states "Protect, preserve, enhance, restore and/or rehabilitate city-owned properties, features or resources of historical significance." The current solution does not conform to the requirements of historical preservation assuming that the pond was to remain a city park water feature for contemplation and passive enjoyment.

- Since early 2022 there has been a shift away from the historic preservation goal toward recreational use of the pond. This would explain the heavy-handed approach to the engineering solution of capping the pond and adding complicated recirculation, a deep well and excessive aeration, thus destroying the existing pond ecology. The Parks and Conservation Commissions are used to working in tandem to provide much needed and valuable recreational amenities to the citizens of Newburyport. However, the current design, emphasizing recreation over preservation, threatens the historical town green in ways that are disrespectful of the peace, dignity and tradition of a much beloved community landmark.

Given its review by 10 regulatory agencies, we believe there has been a sufficiently thorough process to vet the proposed solution to this complex project and are confident in the approach. We look forward to continuing this conversation with the Community Services Committee/COTW at an upcoming meeting. In the meantime, please do not hesitate to contact me with any additional questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kim Turner', with a stylized, flowing script.

Kim Turner, Manager of Special Projects