To have been included on the April 10, 2023 agenda.

From: **Ron Shutvet** <rshutvet@gmail.com>
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Subject: Lake Monona Waterfront Design Challenge Comments
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I have attached a PDF of my comments on the three master plan submissions to this email.

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Lake Monona Waterfront Design Challenge Comments

Submitted by Ron Shutvet 925 Lake Ct. Madison on April 10, 2023

General: I strongly feel there are many design elements among the three master plan submissions that are detrimental to the overall aesthetics and enjoyment of this lakeshore on Lake Monona for both humans and wildlife. I choose to list design concerns without naming the individual design firms. The three firms had many similar design elements.

Many of the proposed design elements appear to be very costly to design, construct, and maintain. When will cost estimates be made available for these various design elements? Costs will have a huge impact when deciding which design elements may eventually become reality.

The three concept plans all have a Disneyworld feel to them. The artistic renditions portray a perfect city lakeshore where man is living in harmony with nature. But these fanciful artistic creations don't show the downsides of many of these proposed alterations to Lake Monona and its lakeshore.

Artificial vs. Natural Wetlands: The proposed additional marshy areas along Law Park and extending out over the lake along the causeway don't make sense as there never was a marsh or wetland area in those locations prior to building of the railroad corridors and initial causeways over Lake Monona. The original shoreline wetlands along this part of Lake Monona were west of the railroad causeway and extended from the vicinity of the north end of Lake Court on Lake Monona clockwise around the existing Monona Bay to the vicinity of the intersection of Bedford and North Shore Drive. Most of the original shoreline along Law Park before the railroad corridor was constructed was a cobble and boulder strewn shoreline with a sandy bottom. There never was a marshland or wetland area on Lake Monona along the shoreline at the south end of the Monona Causeway. From that location and continuing eastward all the way along the new and old portions of Olin Park and continuing around the shoreline of Turville Point Conservation Park to the southern tip that park where it meets the rail corridor again. This entire area of lakeshore has always had a sandy shoreline with natural deposits of native glacial cobbles and boulders covering most of this shoreline where higher elevations of glacial deposits have been slowly worn away at the lakeshore.

Proposed design elements such as weed beds floating on artificial platforms at the water surface don't make any sense either as each summer the natural submergent weed beds in this area of Lake Monona already provide plenty of habitat and food for fish and other aquatic life. In fact, these weed beds are so prolific that the county has to chew away at them each summer with large weed cutter machines and remove the cut weeds from the lake. If they didn't do this, the weed beds can become so thick during some summers that they impede all types of boating activity.

Proposed manmade wetland shorelines along Law Park would be hard to construct and maintain due to the deep water along the entire length of Law Park. Floating weed bed mats along this shoreline will bob up and down unrealistically and be destroyed by the large waves that frequent this shoreline during storms. This is why the shoreline consists of mostly rip-rap now.

If the city wants to restore a nearby wetland in this area Lake Monona , the portion of Wingra Creek within Olin Park could use some design concepts to consider as part of a master plan for this area. There exists a large neglected wetland along Wingra Creek near where the creek enters Lake Monona. This wetland is partially filled in with decades old fill materials from the demolition of old buildings in downtown Madison deposited in this wetland area. But most of it is still a natural wetland that has just been neglected. I propose that the city survey this wetland and make an assessment as to the potential to restore this area. I can imagine removing much of the imported fill and even opening up a larger area of standing water in the center of this area by removing some of the natural muck deposits that exist there. Design a self-guided nature trail and boardwalk area for this wetland to allow people to intimately experience this wetland on foot.

Canoe/Kayak Learning Course: The canoe and kayak course in a plan design element proposed for the northwest corner of Olin Park west of the new Parks Department office building would be a huge mistake. This area of land along the shoreline between the O'Sheridan Street lakeshore and the new Parks office building consists of natural glacial deposits of sand and gravel that were left near the end of the last ice age as the glaciers receded from the Madison area. During construction of the John Nolen causeway in the 1960's a large natural hill on the causeway right of way at this location was leveled and used as fill for the new causeway. This hill was over 30 feet high, taller even than the glacial hill that the newly remodeled Parks Department building at 330 E. Lakeside Street was constructed on.

The fluctuating water levels of Lake Monona would quickly destroy any attempt to create an artificial water play park for humans at this location. The small water channels separated by wetland vegetation covered islands would be destroyed by the yearly fluctuating water levels of 5 feet or more. The water in these narrow waterways would become stagnant and clogged with weeds due to lack of a fresh water supply being available to flush these artificial waterways out occasionally. In addition, large masses of floating lake weeds and algae tend to be blown in by the wind and pile up at this location to decompose each summer. No one would have fun kayaking through this mess. Leave this area a natural lakeshore as it is now and the many loons that frequent this shoreline in the spring and fall will thank you. There are already many streams, creeks and rivers in the Madison area that provide excellent canoe and kayak adventures in a natural setting.

Beach Concepts: Do Madison residents really need or want another beach on Lake Monona? The lake often has poor water quality and existing beaches are sometimes closed for days or weeks due to unsafe levels of bacteria and other organisms in the water. The beaches shown in the proposed plans do not show the curtain wall barriers in the water that surround existing beaches so that the beach water can be isolated from the lake water. The beach water is then continuously filtered and cleaned with expensive pumping and filtering equipment. Any proposed beaches should be displayed on the plans with a similar barrier and filtering system to realistically show how the proposed beach would look.

At various proposed beach locations along the shoreline of Law Park, the water depth rapidly increases as you travel away from the existing shoreline. These proposed beach locations would not be safe for children or inexperienced swimmers. The beaches proposed along Law Park would also experience larger waves on windy days that would erode away beach sand along the beach shoreline and pull it into deeper water.

The beach location shown in one design element along the Olin Park shoreline east of the causeway and near the existing sailboat pier area would have maintenance and water quality issues. That area of Lake Monona tends to regularly experience accumulations of large floating mats of lake vegetation and algae that pile up along this shoreline.

The best location for a new beach on Lake Monona would be along the shoreline at the small group of residential properties just east of the new Madison Parks office building. This area of shoreline has a nice sandy bottom that gradually gets deeper as swimmers move further from shore making this area safer for groups of swimming children. Also, the wave action at a proposed beach along the shoreline of the residential area is much less pronounced than the wave action a proposed beach at Law Park would have as the prevailing summer winds are out of the southwest. Madison should be careful about sighting new beaches on Lake Monona. Most Madison families now avoid using the existing beaches due to ever increasing water quality concerns. The existing single Madison public swimming pool at Goodman Park just 2000 feet away from the Olin Park lakeshore is heavily used by Madison residents. Perhaps money could be better spent on constructing a second Madison public swimming pool in Madison instead of creating additional beach area on Lake Monona that might be rarely be used.

Dock Line and Lake Bottom Topography Issues: The three design firms need to explain how the existing dock line law would affect various proposed design elements that extend out past the existing dock line. Some of the design elements that appear to be extending beyond the existing docking are various piers or waterwalks out over the lake; artificial floating vegetation mats of various sizes; and boat hull shaped islands filled with vegetation or used as platforms for entering the water.

All plans should show the location of the existing dock line relative to the existing shoreline and nearby plan elements. It would be helpful to also show the topographic lines of the lake bottom on the various concept plans along with the numbers indicating the water depth at those locations. The three design firms need to describe the materials and construction of any proposed design elements that are shown extending past the existing dock line further into the lake. Are these design elements supported on piles or somehow anchored to the lake bottom with anchor weights and cables and supported near the water surface with flotation devices? Any design elements that are shown to extend beyond the existing dockline would require that the city to ask the State Legislature to re-examine the existing dock line law and seek to have it changed? This would be a very difficult endeavor.

Winter Weather Issues: I expect the proposed piers and waterwalks will be removed and stored over the winter, as are most existing piers on Madison lakes. It will be very costly to install and remove these design elements. Where would Madison store all these additional pier and waterwalk sections? You would probably need a new large storage area for the pier sections for all the proposed piers and waterwalks. Piers that are not removed in the fall can be damaged by extreme ice heaves during repeating cycles of very cold weather followed by warmer temperatures during the winter. Piers and other structures near the lakeshore can also be damaged by moving ice flows in the spring as the ice is beginning to break up. High wind days in the spring can begin pushing the ice across the lake as a large mass. The force of the wind and the kinetic energy of the moving ice can cause the ice to be pushed up onto the shoreline. Huge piles of ice can accumulate on the lakeshore by this process. I personally witnessed huge piles of ice over 6 feet tall on the Olin park lakeshore by the existing Olin Beach area and all along the northern lakeshore of Olin and Turville Parks one winter in the 1980's. There have since been occasional ice heave and ice shove events at other locations on the Lake Monona shoreline in more recent years.

Safety and Practicality of Over-Water Design Elements: All of the various proposed piers and "waterwalks" appear to be constructed close to the water surface and show no railings of any kind. How is this considered safe for use as a public walkway over the lake? If these structures are supported by pontoons, periods of high wind can make these walkways unsafe to use due to the pier sections bobbing up and down with the waves and no railings to hold onto. Wouldn't there be ADA requirements for the safety of handicapped fishermen and visitors in wheelchairs? Also, wouldn't the proposed waterwalks be required to have at least one bridge section to allow boats to enter that part of the waterway that is otherwise blocked off by the waterwalk? Lake Monona is a navigable waterway and restrictions to boat access of any part of the lake would violate federal law.

If the floating waterwalk sections are anchored in place by concrete anchors attached to the pier sections with steel cables, These cables would eventually become tangled with hundreds if not thousands of fishing lures that inadvertently snagged onto the cables by unsuspecting fishermen?

How will you keep bicycles off the piers and waterwalks? Who will regularly clean aquatic bird poop off all the piers and waterwalks. There will be a lot of it and you can't depend on the rain to wash it off regularly.

Large walkways out into the lake would need to have lighting for better visibility both so boats don't accidently run into the floating walkways after sunset and so people can see where they are walking on a pier or waterwalk without railings at night. Then there are those foggy days and nights when lights probably won't help save the waterwalk from fog blinded boaters traveling faster than they should in hazardous conditions.

What are all these proposed over water design elements constructed of? How are they anchored in place? How do they behave in various weather conditions? For safety reasons, how will these objects out on the water be made visible to boaters especially during foggy conditions and after dark? I expect the ongoing maintenance costs for these design elements could be costly. The three competing design firms should provide existing data on similar design elements that have been utilized in other cities. This data should include approximate construction and maintenance costs, as well as input as to how they might have done things differently. Cities chosen for comparison should experience harsh winters and have larger lakes susceptible to high wind conditions as Madison does.

The existing metal fishing pier on the south end of Law Park is supported by pontoons and anchors to the bottom. The pier sections are hinged together to allow the pier to move up and down with the wave action. This existing fishing pier creaks loudly as waves move its sections up and down. A similar large floating waterwalk could become much noisier than this existing small fishing pier. Therefore, any new piers should be designed and constructed to be more stable and silent when shifting up and down with wave action. Just want the sound of water lapping against the pier please. No squeaking allowed.

Ped/Bike Overpasses: There are multiple pedestrian or ped/bike overpasses suggested at various locations in the Law Park area. These overpasses will have safety concerns during during storms of any kind. Only the brave will ever venture out onto these overpasses during storm events. The metal railings will make good lightning rods but people walking over the overpasses will be taller than the railings so good luck walking in the rain on these overpasses. The overpasses will need lighting for safety after dark and may therefore affect the aesthetics of the

lakeshore at those locations after dark. Significant reduction in natural rainfall and natural light can affect the growth of plants underneath the overpass bridges and ramps. Overpass structures often detract from the aesthetics of the area below them.

Riprap and Railroads: The existing blasted limestone riprap over the causeway does not look like a natural lakeshore. The City should use natural rounded glacial cobbles and boulders as the visible rip rap along the causeway and all lakeshore areas that will need riprap shoreline protection. The existing Monona Bay shoreline is an example of the use of natural glacial cobbles and boulders as a riprap shoreline. Also use glacial cobbles and boulders that are predominantly igneous or metamorphic rocks as they are much more durable than limestone cobbles and boulders. The existing blasted limestone riprap can be repositioned at lower elevations as the shoreline is modified and the new natural rounded glacial cobbles and boulders placed on top of the older riprap.

Have a discussion with the two railroads that cross the lake at the causeway to come up with a more attractive way of maintaining the slopes of the railroad bed fill. More material was recently added to these railroad beds and all the brush and small trees were totally removed leaving a mostly barren rail corridor over the lake. The Union Pacific corridor causeway also has the remains of the beds of two sets of tracks that existed parallel and just to the east of the current single set of tracks. This old fill could be partially removed to transform this area into a lakeshore wetland as a tradeoff for placing more fill into the lake on the east side of the causeway to widen the ped /bike corridor area.

Need a True Long Term Master Plan for the Northern Portion of Olin Park: I am bothered by the limiting boundaries and overall scope of this design challenge. A true long term master plan should call for the city to eventually purchase the residential properties near Olin Park between the new Parks Department building and Wingra Creek as they become available for sale. This area could then become additional parkland that would tie both portions of Olin Park together. The newly remodeled Madison Parks building that once was the headquarters of the State Medical Society is being put to good use for the short term future of this park area. However, a better long term master plan would be to remove this structure and construct a new larger multipurpose park building further from the Lakeshore. It would be nice to see the glacial hill at this site fully restored where the existing building was built into this lakeshore glacial hill. A building set back from the lakeshore could provide a much improved lakeshore experience with additional land available between the building and the lake for a more people to enjoy.