



April 1, 2024

City of Sidney
Parks and Recreation Committee

RE: Sidney Tiger Sharks
Svarre Municipal Pool Existing Bulkhead
Preliminary Inspection, Project Understanding, and Scoping
I.E. #WR22-04-097

All,

An on-site meeting with Mr. Jeff Hintz, City of Sidney Public Works, and Mr. Peter Erickson, Sidney Tiger Sharks, was held on March 15, 2024 at 1pm. The on-site meeting was held at both the City of Sidney Public Works Facility where the existing steel bulkhead is stored as well as at Svarre Municipal Pool. The purpose of this meeting was to discuss the potential for utilizing the existing bulkhead for future swim meets, requirements or requests the City of Sidney has to ensure the bulkhead is safe for use, and determine if there is any correlation between damage to the welded seam of the stainless-steel gutter of the pool and the placement of the bulkhead, including recommendations for remediation if any correlation exists.

Based on a visual inspection and discussion with Mr. Hintz and Mr. Erickson, the following paragraph summarizes the existing bulkhead construction and setup. The existing bulkhead is constructed of hollow structural steel (HSS) tubing that has been welded to form a truss-like structure. Four individual sections are lifted and set into the pool and interconnected to form the bulkhead used during swim meets. The top of the bulkhead walkway is constructed of 2x6 lumber laid flat. The face of the bulkhead has a rigid plastic material which swimmers push off from. Each structure has four "feet" which bear on the pool floor when set into place. The feet are constructed of 6-inch segments of HSS 2x2x1/8 tubing. Hard-plastic spacers are set between the steel tubing feet and the concrete pool floor. The two end segments of the bulkhead also have two "arms" that extend over the pool gutter when set into place and bear on the concrete above the stainless-steel gutter. The bulkhead is held down in place with 5-gallon bucks of concrete to prevent the structure from sliding when swimmers are pushing off of it. The exact number of 5-gallon bucks of concrete and how they are connected to the structure was not determined with certainty.

While discussing the construction and setup of the bulkhead, we also discussed what action needs to be taken for the Sidney Tiger Sharks to continue to use the existing bulkhead structure for their events. It was determined that if the existing bulkhead structure can be load rated and shown to safely resist the required vertical and lateral loads, it would be acceptable to continue using it for the Tiger Sharks events. Interstate Engineering can perform a load rating analysis of this structure. To the knowledge of everyone at the meeting, there have been no specific requests by insurance or other stakeholders pertaining to a structural review of the bulkhead, however, to protect the public health and safety, all parties agree a structural analysis and load rating of the structure should be performed. If acceptable to move forward with a load rating analysis with all parties, the Sidney Tiger Sharks also requested recommendations for repairing/replacing the deck of the bulkhead as well as the front face of the bulkhead.

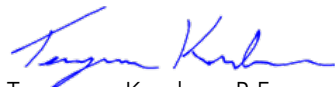
Lastly, we met at Svarre Municipal Pool to review the approximate location where the bulkhead is installed for swim meets and discuss the damage to the stainless-steel gutter system that has occurred over the past several years. Based upon visual inspection and review of a section detail from the pool's construction, the concrete pool deck within the first 27 inches from the edge of the pool wall is supported by a segment of concrete that is cast as part of the wall and also supports the stainless-steel gutter. An expansion joint then separates this segment of the pool deck from the remainder of the slab-on-grade concrete pool deck surface. We cannot be certain, but there is a possibility the force from the "arms" of the bulkhead that extend on to the edge of the concrete

pool deck could be inducing additional localized stress to the concrete wall and stainless-steel gutter and causing the welded seam to separate. There are potentially other factors that may be related to the damage that has occurred to the stainless-steel gutter that are beyond the purpose of this meeting. According to our observations, we recommended altering the "arms" of the bulkhead to extend further on to the concrete deck so that it bears solely on the portion of the deck that is slab-on-grade past the expansion joint. Handrails could be added to the extension of the "arms" to prevent accidental trips as well as assist with people navigating between the bulkhead platform and the pool deck.

In conclusion, we are seeking concurrence of the City of Sidney Parks and Recreation Committee and City of Sidney Council, that upon performing a load rating analysis which determines the existing bulkhead is safe for use, the Sidney Tiger Sharks may continue to utilize the existing bulkhead at the Svarre Municipal Pool. Recommendation for repair, if necessary for a safe load rating and to improve the top platform and front face of the bulkhead, will be made during the load rating analysis. In addition, recommendation to modify the "arms" of the bulkhead so that any loads from the arms will be placed on the concrete slab-on-grade deck beyond the expansion joint of the gutter section.

If you have any questions or require additional information, please feel free to contact me at (406) 998-2434 or Jordan Mayer, PE at (406) 433-5617.

Sincerely,
INTERSTATE ENGINEERING, INC.


Teaguean Knudsen, P.E.
Structural Group Leader


Jordan Mayer, PE
Office Manager

