



21 April 2013

Robert Shemwell, CBO  
Alameda USD  
2060 Challenger Dr.  
Alameda, CA 94501

RE: Encinal Swim Center at Encinal High School

Dear Mr. Shemwell:

Pursuant to your request we have reviewed the proposed retrofits and upgrades provided by the Alameda Recreation and Park Department for the Encinal Swim Center at Encinal High School. We conducted a site visit and reviewed the site with both Alameda Recreation and Parks District and School District staff. The Alameda Recreation Department proposal includes the following scope:

1. Remove 50% of the 6-lane pool floor to allow it to be made deeper. The City Consultant is recommending a new maximum pool water depth of 5'-6"; however this does not meet the minimum standard for USA Swimming and will require NO-Diving Signs per California Health Code and the California Building Code. Therefore we recommend a minimum water depth of 6'-6" to meet or exceed these code requirements and provide a safer water depth for racing platform dives into the pool.
2. Install new main drains in the 6-lane pool.
3. Replaster and tile the 6-lane pool
4. Replaster and tile the dive pool.
5. Install new racing platforms, ladders and stanchion posts at the 6-lane pool.
6. Install a new 1-meter diving stand and board at the dive pool.
7. Minimal pool deck repairs
8. Undefined repairs of bathhouse.
9. Undefined repairs of the front entrance landscape.
10. Movement of a section of the west side fencing.

The following is a list of observations, concerns, or points of discussions about the proposed project scope and cost estimates provided.

1. The Alameda County Environmental Health Department has previously closed the Encinal Swim Center due to non-compliance with current health and safety requirements. At that time we met with the health department and agreed upon minimum renovations to allow the swim center to re-open with the understanding that the School District would modernize the pools at a future date to bring them into compliance. These minimal renovations were completed the swim center reopened. The City proposed scope will require a submittal to the county health department for review and approval; however the City proposal does not address the previously discussed non-code complaint issues.

2. California Health Code Chapter 31B requires a minimum number of bathroom fixtures based upon the water surface of the swimming pools. The total water surface area of the three existing pools is 6,504 square feet. The code assumes one patron for every 15 square feet for a total of 434 patrons. Based upon code requirements the following table is the minimum number of fixtures required to service the pools.

<b>FIXTURE</b>	<b>RATIO</b>	<b>COUNT</b>	<b>ACTUAL</b>
Women's Showers	1:50	5	8
Women's Toilets	1:60	4	2
Women's Lavatories	1:80	3	1
Men's Showers	1:50	4	8
Men's Toilets	1:75	3	2
Men's Urinals	1:75	3	1
Men's Lavatories	1:80	3	1
Drinking Fountains	1:200	3	2

There are two staff bathrooms each containing a toilet and a urinal. Even if we count these as public bathrooms, the existing bathhouse lacks the minimum number of fixtures. We would have to seek council from the Alameda Health Department to see if they would allow us to count these two staff bathrooms for the public bath fixture requirements. Compliant bathroom fixtures must be within 300 feet of the pool. We looked to the gymnasium locker rooms to see if we could justify our bathroom fixture counts with these. The gymnasium boys locker room is an approximately 375 feet from the swimming pool. These locker room fixtures cannot be used to comply with the fixture count required. In addition, the existing bathhouse is not ADA compliant. When we submit a pool renovation project to DSA we are typically required to provide a fully ADA accessible facility including; a path of travel from the school parking lot, through the bathhouse, to bathhouse fixtures, onto the pool deck and into each swimming pool. The current City plan does not address this.

3. We have provided an estimate for the City identified scope of work and our opinion is that the project scope of work is \$750,000.00 not the \$500,000.00 noted by the City. (see attached opinion of probable cost) This is in part due to underestimate of some costs, the overlooking of some required scope, and the soft costs that will be required for a DSA project. For example, the City estimate did not include any design or engineering fees. If the bathhouse upgrades are required these could cost as much as an additional \$400,000, which far exceeds the current City budget of \$105,000. However, we have not shown this additional cost in our cost estimate for the sake of comparison clarity.
4. The existing 6-lane swimming pool is 42-feet wide. The National Federation of State High School Associate, the governing body for CIF, requires that a high school swimming pool be a minimum of 45-feet wide and recommends a minimum of 60-feet wide. The AUSD will have to determine if it is prudent to invest \$750,000 into the facility and still not have a pool that meets the minimum standard.
5. The City proposed work will not provide a pool that can serve as a water polo field of play. The City has stated that they intend to satisfy this need with a new pool at Alameda

High School. The AUSD needs to determine if any substantial upgrade at Encinal high school should also satisfy this need.

6. The three swimming pools at Encinal are co-mingled as a single body of water, which is not allowed by current California Code. The pools have been operating on a grandfathered approval. It is not clear if the Alameda County Health Department will allow the pools to operate outside of current code standards if the pools are being renovated.
7. The pool perimeter fence does not meet California Code for a public swimming pool. The City scope does not include bringing this fence into compliance. It is not clear if the Alameda County Health Department will allow the pools to operate outside of current code standards if the pools are being renovated.
8. The existing pool equipment is stored in an outdoor fenced-in enclosure. Much of this equipment is in need of repair. The City proposal does not include any such work. The AUSD needs to determine if they wish to proceed with a  $\frac{3}{4}$  of a million dollar project and still have equipment that will need replacement in upcoming years.
9. The pool deck does not provide an ADA accessible path of travel to each pool. The deck has cross-slopes that exceed the maximum 2% allowable by regulations. The City proposed scope of work is to proceed without the addition of pool decks and ADA accessibility. If we have to add the removal and replacement of the over 15,000 square feet of pool decks it will cost an estimated \$375,000.00 of added scope.
10. The existing underground pool piping is cast iron. Cast iron piping has proven to not be reliable for chlorinated swimming pool water and is likely in some state of failure and should be replaced. The City scope of work does not include this scope. Please note however our estimate of the City scope of work does include the replacement of the cast iron pool main drain piping with pvc as experience tells us that the main drains could not be replaced as noted in the City scope without its replacement.
11. The existing dive pool is 37-feet long and has a 1-meter and 3-meter diving boards. Current California Code requires a pool to be a minimum of 36-feet long for a 1-meter dive board and 46-feet long for a 3-meter dive board. The City proposed scope of work would comply with this if the 3-meter diving board is removed; however there are no cost estimates for the removal of the 3-meter dive in their scope.
12. It is Aquatic Design Group's recommendation that the AUSD should seek a consultation with the Alameda County Health Department to determine what minimum scope they will allow if a partial renovation is to be conducted.
13. It is also Aquatic Design Group's recommendation that the AUSD should seek a consultation with DSA to determine what scope they will require if a partial renovation is to be conducted.
14. If we add the replacement of the pool decks and the refurbishment of the bathhouse as

noted above the City proposed scope estimate complete with soft costs is nearly \$1.7 million. And yet this still does not address all of the code compliant issues.

15. Given the scope of the project we have provided three additional estimates. The first is the re-purposing of the existing Encinal pools with full compliance with current codes. This estimate brings the project to nearly \$2.1 million. The second estimate gives a cost to remove and replace the 6-lane pool with a new 6-lane pool that is 45-feet wide by 75-feet long along with the renovation of the rest of the facility to bring it into compliance with all current codes. This scope of work has an estimate of \$2.5 million. In both of these schemes the Encinal pools still cannot support CIF water polo. To accomplish this we have provided a third estimate to remove all three existing pools and replace them with a single 30-meter long by 25-yard wide pool that can support all high school programs.

I trust this sheds some light on this issue, please contact me if you have any questions or wish to discuss this further.

Best Regards,



**AQUATIC DESIGN GROUP, INC.**

Dennis Berkshire, Senior Associate  
Director of Client Services