

Essexville-Hampton Public Schools
 303 Pine Street
 Essexville, MI 48723
 Mr. Matthew Cortez, Superintendent

Project Manual

Garber High School Pool Repair Project **213 Pine Street** **Essexville, MI 48732**

Project Designer of Record:

Great Lakes Critical Power and Cooling (GLCPC)

13576 S Horrell Road

Fenton, MI 48430

J. William Jensen, PE

Applicable Code	YEAR
Mich Building Code	2015
Mich Mechanical Code	2015
Mich Plumbing Code	2015
Mich Electrical Code w/Part 8	2014
Michigan School Construction Code	Amended April, 2017
Mich Public Swimming Pool MDEQ	01/2005
MI School Fire Safety Rules	NFPA 101, LSC 2015, Chap 43, 14

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General Conditions of the Work

This project involves the renovation and repair of the swimming pool at Essexville-Hampton Public Schools, Garber High School.

The scope includes major removal and replacement of the pool deck including the tile finish floor, mortar base and repair of the “water proofing” layer on the structural concrete base.

In addition, there is “complete” removal of the concrete base, forming steel and supports for approximately 350 sq. ft. at the EAST end of the pool. This work will expose the mechanical equipment area in the tunnel below the deck. A new dicing board base and supports will be installed during this portion of the work.

All existing pool piping, filtering and pumping systems will be repaired or replaced as shown on the drawings.

The current acid and chlorine treatment tanks will be removed from the tunnel and relocated to a new area on the main level of the maintenance shop. New CMU walls, doors and ventilation will be added for this area.

The existing circuit breaker lighting control system will be renovated to provide new switching and lighting control.

This work will take place in the summer of 2017.

There is direct access to this pool from the outside at the east end. A general work area can be provided outside. Contractors will be required to provide a secure area for tools, material and equipment.

Essexville-Hampton Public Schools requires security and background checks for all contractor employees.

Demolition and work area

The “owner” will provide all pool draining prior to start of work and will provide secure access at the WEST, NORT and South ends of the pool. Contractors may use the NORTH EAST door for access at the pool deck level and the SOUTH EAST OUTSIDE doors for access to the lower level. Contractors will provide a secure area for materials, tools and equipment.

All existing pool treatment chemicals, stored materials and miscellaneous materials in the tunnel area, deck stands and pool equipment area will be removed by the owner prior to start of work.

Demolition consists of REMOVAL of entire pool ceramic tile deck and mortar base on the NORTH, WEST and South deck areas and REMOVAL of the ENTIRE DECK (including concrete base and steel forming) for approximately 350 sq. ft. at the EAST end of the pool deck. An existing steel beam at the SOUTH EAST corner of the deck will also be removed. ALL MATERIAL MUST BE REMOVED FROM THE SITE BY USE OF DUMPSTERS to be provided by the contractor.

MECHANICAL demolition includes the removal of pumps, valves and filter controls in the tunnel area.

PLUMBING demolition includes the removal of all deck drains, sanitary drain piping, pool filtering piping, pool gutter drains and piping, pool supply water piping and all pool chemical treatment piping. The pool sump cover will also be removed.

ELECTRICAL demolition includes the removal of tunnel lighting, pool pump starter and filtering controls. The entire tunnel area will be prepped for new electrical systems. In addition, the existing circuit breaker panel used for lighting will be prepped for new lighting controls.

Concrete and Tile Work

After removal of existing tile and mortar base on the NORTH, WEST and SOUTH areas the existing “water proofing” layer is to be repaired, all cracks in the concrete base are to be filled with a water proofing sealant and the entire area is to be refilled with a proper grout and mortar base with PROPER SLOPE to the renovated DECK DRAINS.

A new ceramic tile floor similar to Province Marzetti from Genesee Ceramic Tile is to be applied. 2X2 mosaic on 12X12 sheets is desired. Tile is to be properly grouted. Properly spaced CONTROL JOINTS are required.

A final SLIP RESISTANT coating is to be applied over all finished areas.

The EAST end of the pool will require a complete new sheet metal form, supported temporarily, for the application of new concrete base per ACI standards including new rebar. Corrugated sheet metal will match existing in thickness.

The new concrete base will be anchored to the existing base in areas of saw cut. A new “water proofing” layer, mortar grout and ceramic tile will be added. A non-slip coating similar to all other areas will be applied.

Temporary supports will be removed after all concrete work is complete.

All decking work at the 20 deck drains that are to be core drilled out and replaced with new drains will be coordinated with the PLUMBING CONTRACTOR.

Mechanical Renovation Work

The mechanical work in the equipment tunnel area is to remove the existing pool pump and replace with a new pump of similar size and capacity. Pump is to be supplied by Pool Equipment supplier.

The mechanical work on the main level includes the addition of EXHAUST DUCT and FANS for the new acid tank room and the new chlorine tank room. All material is to be CORRISON RESISTANT including fans and duct.

Fans are to be similar to Greenheck G-097, ¼ h.p. Varigreen motor, with Corrosion coating rated at 240 cfm, .375" esp. and 1435 rpm.

Exhaust grilles (2) are Price Model 80, 14X10, egg crate style with powder coat finish.

Fans are to operate continuously and to have status indication through school BAS. Alarm to function based on fan failure.

Plumbing Renovation Work

All 20 deck drains are to be removed and replaced as part of the deck resurface. Core drill all existing traps and drains out and provide new drains grouted into new mortar and tile. Drains to Watts FD-1100-B, epoxy coated with stainless steel heavy duty strainer.

All existing sanitary drain connections, hangers and piping is to be removed and replaced with Schedule 80 PVC or cast iron (no hub style) piping. Cast iron piping to be painted for corrosion protection.

All existing pool gutter drains to be removed and replaced. Use Lincoln Aquatics 39-225 chrome plated bronze style with flush cover or approved equal.

All existing piping, hangers and supports from gutter drains to be removed and replaced with schedule 80 PVC piping back to tanks.

All existing recirculation piping, hangers and supports to be removed back to pump system and replaced with schedule 80 PVC.

All pool chemical piping, controls and hangers are to be removed and replaced with schedule 80 PVC.

The existing sand filter tanks are to be reused with all new filter controls.

Electrical Renovation Work

The entire conduit and wiring system in the tunnel area is to be removed and replaced with PVC conduit and new wiring.

A new pool pump starter is to be installed using NEMA4 rating.

New LED light fixtures rated for MOIST ENVIRONMENT are to be installed.

The existing circuit breaker panel at the WEST entrance to the pool is to be modified for LIGHT SWITCHES to control the pool area lighting. All switching to be rated for WATERPROOF environment.

General Construction Work

A steel structural support beam must be replaced in the SOUTH EAST TUNNEL area near the pool pump. The new beam must be similar in capacity to the original beam. Temporary supports are required during the beam replacement. This work is coordinated with the DECK REPLACEMENT WORK. The new beam is to be POWDER COATED for corrosion protection.

The existing WEST storage room next to the pool heater is to be divided into TWO ROOMS for pool chemical tanks using CMU construction. All walls to be EPOXY COATED.

New LED lighting and switching to be added.

New powder coated doors to be added.