

Board Report

August 24, 2015



CONSULTANTS



Motz Engineering Update

- Pre-Purchase Lighting Package
- Summer 2015 Mechanical Upgrades
 - Ayer and Sherwood
 - Nagel
- Anderson Stadium Lighting
- Turpin Stadium Lighting
- Wilson – Geothermal System

Pre-Purchase Lighting Package

- Investigated LSI Substitute Bid which saves the District an additional \$33,000
- Received a sample of the proposed light fixture
- Reviewed light fixture with Ray Johnson and Bob Vanderwoude
- Determined by the team to accept this substitute bid

Summer 2015 Mechanical Upgrades

Ayer and Sherwood Mechanical System Upgrades

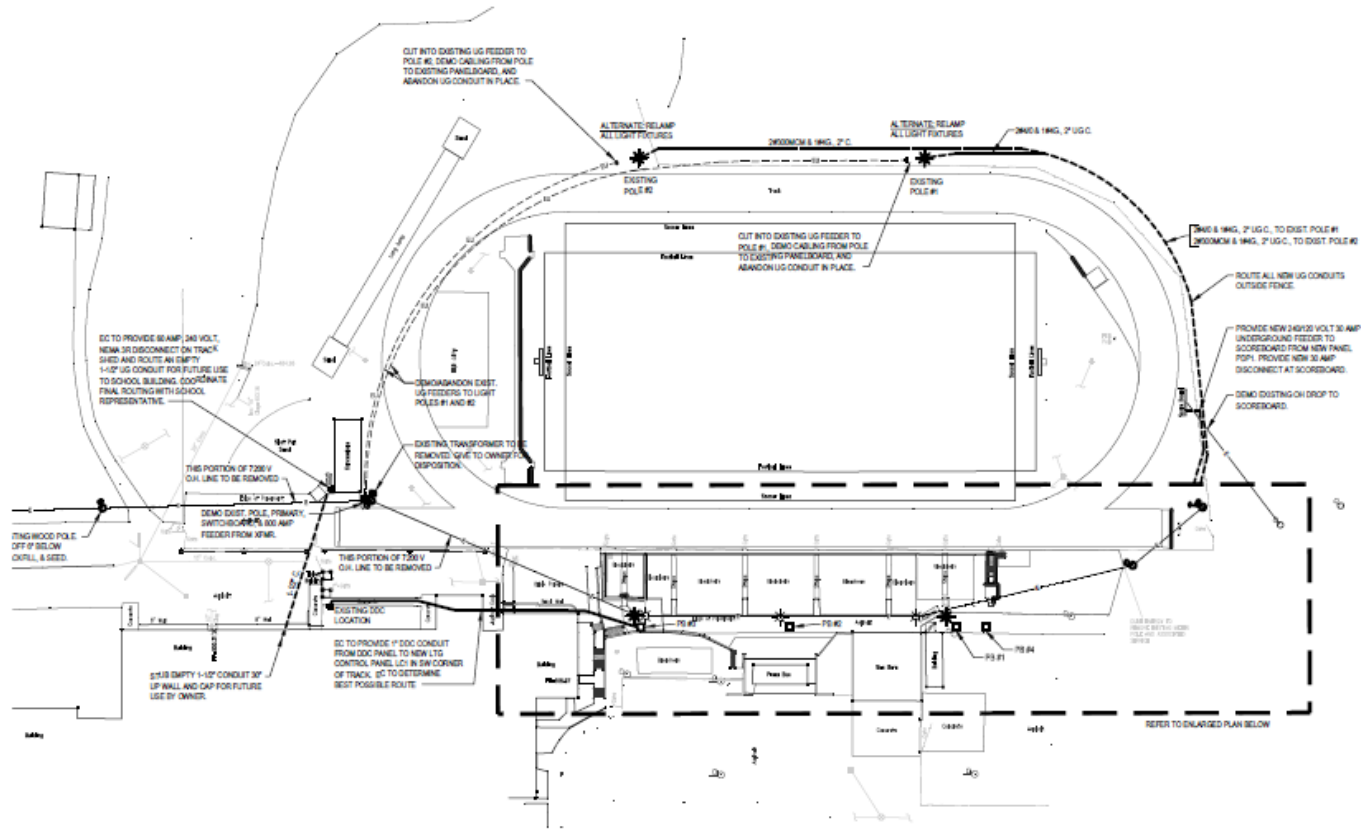
- Work is complete with the exception of punch lists and final commissioning.

Summer 2015 Mechanical Upgrades

Nagel Mechanical System Upgrades

- The new chiller has been operational for over two weeks.
- The work for the new boiler will be completed by early September, well in advance of the heating season.

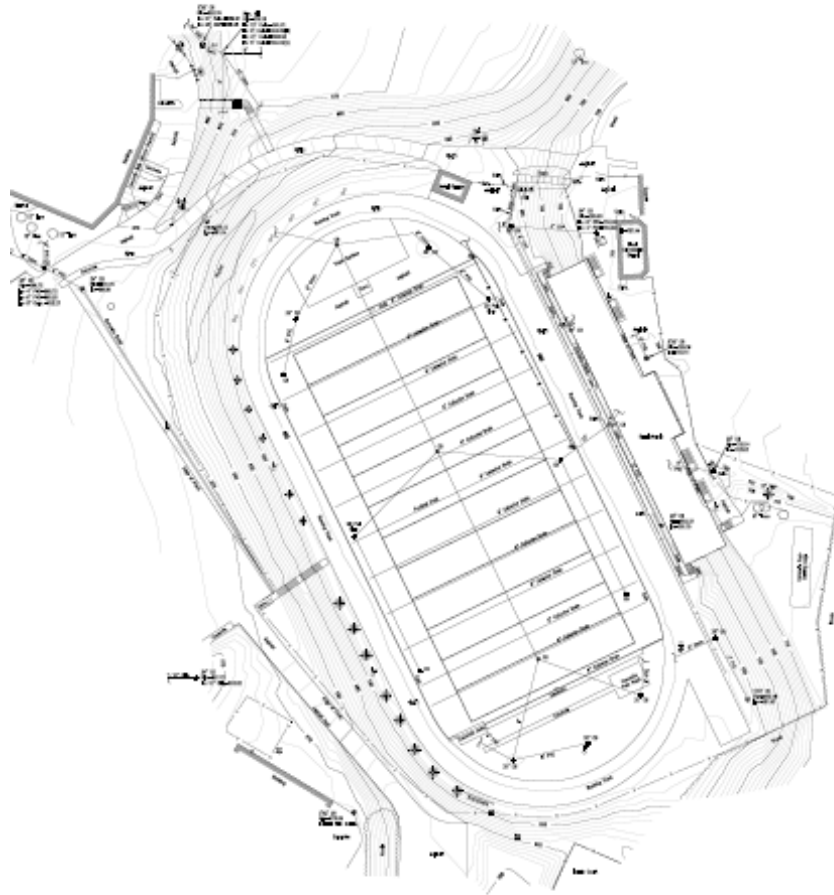
Anderson Stadium Lighting



ANDERSON HIGH SCHOOL

Other than minor punch list items,
this project is complete.

Turpin Stadium Lighting



TURPIN HIGH SCHOOL

Other than minor punch list items,
this project is complete.

Wilson Geo-Thermal Evaluation

- A test well was drilled in late June with excellent thermal conductivity results. Well field could be smaller than originally planned.
- The following budget pricing for the well field was received earlier this month:

Jamison Well Drilling	\$ 624,948
Swint	\$ 663,390
Geothermal Loop Pros	\$ 750,000

- Estimated Annual Energy Savings: \$24,000
- Anticipated Simple Payback: 27 years
(based upon \$650,000 well field cost)

Wilson Geo-Thermal Evaluation

The Geo-thermal option is not viable, but why?

- There are no Duke Energy incentives for the bore field.
- The district has a long standing policy of negotiating long-term purchase agreements for natural gas and electricity which are very favorable.
- The district has a history of operating your facilities very efficiently and the same is anticipated for this new building. The fact that 8 of your 9 buildings are Energy Rated supports this statement.

Wilson HVAC System Options

At present, we are investigating the following high performing HVAC System options:

- High efficiency condensing boilers for heating and a variable speed chiller for cooling with chilled beams.
- Hybrid System – Variable Refrigerant Flow System for the classrooms with integral energy recovery plus the system described above, but smaller, for the common areas.