VALUE ANALYSIS RESPONSE

December 5, 2017

Following MENG Analysis's VA Review a meeting was held at MENG's office to discuss their recommendations with the School District and the design team. Each proposed concept was considered and evaluated against the overall project goals and budget. The suggestions of the VA team were then reviewed in detail by McGranahan Architects and our consultant team. Our Responses to the recommendations in MENG's final report can be found below, along with recommendations from our consultant team.

The design and consultant team also conducted a concurrent study for cost reduction options, examining each component of the overall project: SHS, ALC, MTC, misc. Athletic Buildings, Campus Site Plan and Athletic Field Improvements. A summary of that exercise can be found in the SD Report issued to the School District to document the end of the SD Phase.

C1 Civil – Utilities

Comments: Water, sewer and storm piping appear to be oversized. Reduce site utility pipe sizes, clean outs, and slopes to meet minimum requirements.

Design Team Recommendation: The design team recommends accepting this proposal. The utility (specifically water and sanitary sewer) sizing is being reviewed as the design progresses. The design team will present their findings to the City Engineer and Fire Marshall with a proposal to size water main appropriately to needs of the building.

C2 Civil – Storm System

Comments: Reduce underground detention systems using alternate stormwater Best Management Practices (BMPs) and Low Impact Development (LID) elements to the extent possible.

Design Team Recommendation: The design team recommends rejecting the BMP options presented in the VA report. They were investigated early on during the site design process and found not to be as beneficial as the approach shown in the current design. The geotechnical report identified that the topographic upper portions of the site may have the ability to utilize deep infiltration; however, infiltration of the topographic upper portions of the site will not be helpful, as the project has already been able to coordinate an equivalent amount of stormwater discharged to the existing wetlands as in the existing site condition, effectively eliminating detention in the topographic upper portions of the site. Based on groundwater conditions, infiltration of the lower portion of the site does not seem as plausible. The design team recommends further investigating the proposed use of LID options such as pervious pavement. These options will be discussed further with the design team and owner for potential implementation.

C3 Civil – Earthwork

Comments: Reduce mass excavation and limit re-use of onsite soils to concurrent phases of work.

Design Team Recommendation: The design team recommends rejecting this proposal. Due to the placement of the building within the hillside and the nature of the soils, it will not be possible to balance earthwork in the construction of the school. Incorporation of landscape berms to utilize excess soil has been proposed in order to reduce the cost for exporting soils off site to the extent feasible. For other phases of the overall project such as the ALC and sports fields, balancing earthwork will be pursued as recommended in the MENG VE analysis; however, the poor existing soils will have limited abilities to be reused.

S1 Structural Component – Eliminate Shoring Wall

Comments: Eliminate soldier pile shoring wall at north of building by reconfiguring lower floor spaces to allow for stepped, slope cut excavations for basement foundations and walls. Excavation would be benched for Geopier installation.

Design Team Recommendation: The design team recommends rejecting this proposal. The geotechnical engineer notes in their analysis that this is not possible. If the building is placed on the slope then the existing slope adjacent to the building must be permanently retained to stabilize the critical slope in the event of a seismic event.

S2 Building Structure – Lateral Systems at Performing Arts

Comments: Construct the theater (PAC) with framed walls stabilized by brace frames integral with the surrounding framing. Add seismic joint the Gym and the east side of the Commons.

Design Team Recommendation: The design team recommends rejecting this proposal. Following the initial VA work shop the design team investigated this proposal and had options priced by a cost estimator. The pricing exercise revealed that the additional cost to construct the PAC and or Gymnasium with structural steel framing in lieu of masonry would add cost to the project.

S3 Building Structure – Simplify at Wrestling Room

Comments: Switch locations of the open Wrestling Room with the south Locker Room and Fitness room. Configure Locker Room and Fitness room with columns from bearing lines in the classrooms above.

Design Team Recommendation: The design team recommends rejecting this proposal. This proposal would simplify the structure but conflicts with the program requirements. See proposal A3 for further explanation.

S4 Building Structure – Relocate CTE

Comments: Move the CTE Programs and Outdoor Storage space to a Pre-engineered Metal Building at the top of the slope adjacent to the classroom wing or other location. Eliminate the soldier pile shoring wall adjacent to the current CTE location.

Design Team Recommendation: The design team recommends accepting this proposal. This proposal was investigated further by the design team during our internal cost reconciliation exercise and was deemed feasible. It was reviewed with the School District and included in the final SD design.

A1 Building Configuration – Exterior Walls & Roof

Comments: Simplified and stacked building perimeter, large wings oriented with main building, and roof form simplified.

Design Team Recommendation: The design team does not recommend accepting the floor plan revisions shown in MENG's sketch. The rectilinear floor plan proposed by MENG will increase the surface area of the exterior wall. The design team does not feel that the cost savings noted in the VA report for this option will be realized due to the additional surface area. Additional area reductions will be investigated during the DD Phase.

A2 Building Configuration – Reduce Circulation

Comments: Reduce circulation space 5%.

Design Team Recommendation: The design team recommends accepting this proposal. Through the design team's internal cost reduction study, the circulation area of the building was reduced by nearly 20,000 sf. This reduction is reflected in the design presented to the School District in the final SD Phase Report. The revised building design yields a circulation ratio of 35 sf per student.

A3 Building Configuration – Wrestling

Comments: Eliminate Wrestling rooms on the ground floor and co-utilize Auxiliary gym(s) for wrestling activities, and main gym for wrestling tournaments.

Drop the second-floor health classrooms to the ground floor, and drop third floor classrooms down to the second floor. Changing from three floors to two, (eliminating one floor and associated floor area).

Design Team Recommendation: The design team does not recommend accepting this proposal. Eliminating the Wrestling Room does not align with the program requirements established by the School District.

A4 Building Construction Type – Type II-A vs Type I-B

Comments: E occupancy, building construction type II-A, fully sprinklered (2015 International Building Code).

Design Team Recommendation: The design team recommends accepting this proposal. The building design presented to the School District in the final SD Phase Report reflects Type II-A Construction.

M1a HVAC System – Classrooms & Offices

Comments: Two-pipe terminal equipment with heat recovery DOAS, Alternate A: Active Chilled Beam (ACB) with VAV terminal heat. (Four ACBs per classroom)

Design Team Recommendation: The design team recommends rejecting this proposal. The design team's interpretation of the current WSEC is that decoupled ventilation systems are required, the proposed alternate approach may have difficulty in meeting this requirement. An additional set of water lines would need to be run to each unit installed handle elevated temperature water and prevent condensation from occurring on the units and within the ceiling cavity, adding cost to the system. The design team feels that accepting this proposal would show a neutral cost savings or potentially even an increase in cost due to the complexities involved with chilled beam systems.

M2b HVAC System – Classrooms & Offices

Comments: Two-pipe terminal equipment with heat recovery DOAS, Alternate B: Two-pipe ACB, six-way valves. (Four ACBs per classroom)

Design Team Recommendation: The design team recommends rejecting this proposal. This option may remove the additional set of water lines noted in option 'A'; however, the piping installation will still be more complex than the currently proposed system's approach. The two-pipe change-over in the classrooms/offices from the corridor will allow for some savings in piping; however, this will be marginal in comparison to the overall piping requirements of the full system. The WSEC requires variable controls at all chilled beam units, typically this necessitates additional ducting because ventilation is required to be ducted directly to each unit. The design team feels that accepting this proposal would show no cost savings or potentially an increase in cost due to the complexities involved with chilled beam systems.

M3c HVAC System – Classrooms & Offices

Comments: Two-pipe terminal equipment with heat recovery DOAS, Alternate C: Two-pipe FCU, six-way valves.

Design Team Recommendation: The design team recommends rejecting this proposal. This approach will allow for a reduction in piping throughout the system; however, utilizing the six-way valves will increase the cost and complexity of the system controls. The design team feels that accepting this proposal would show a neutral cost savings due to the added complexity of the six-way valve controls.

M2 HVAC System – Commons

Comments: Radiant floor heating with natural ventilation (NV) cooling at Commons area, supplement by large ceiling fans.

Design Team Recommendation: The design team recommends rejecting this proposal. Initial installation and life cycle costs for a natural ventilation system are typically less than a mechanically driven system; however, operating the system will require more interaction with the maintenance staff than the systems they are accustomed to operating. The amount of time required to keep the system operating at its desired performance level could be a burden on the School District's maintenance staff. A natural ventilation system will require additional fans, adding cost and complexity to the overall system controls. Utilizing in-floor radiant heat will also add an additional set of controls to monitor and adjust. The design team believes that this proposal may show a reduction in cost, but it will require constant monitoring and adjustment to maintain an acceptable level of comfort throughout the building.

M3 HVAC System – Cooling

Comments: Air conditioning limited to Admin. Area, Performing Arts Center and designated summer school areas (if any).

Design Team Recommendation: The design team recommends accepting this proposal in concept, but would like to recommend amending it. The design team is in agreement with providing air conditioning for the Admin. Areas and PAC; however, cooling is also recommended to be provided in the Gymnasium and computer labs or rooms containing large quantities of electronic equipment. This proposal was studied further by the design team during its internal cost reduction exercise. After discussing the proposal with the School District, it was accepted and incorporated into the building design and final SD Phase Report.

CM1 Schedule/Phasing

Comments: Reduce schedule by concurrently overlapping early and late construction phases.

Design Team Recommendation: The design team does not recommend accepting this proposal. The design and permit review process for the SHS Phase 2 scope of work would need to be accelerated to allow construction of Phase 2 to start immediately following the Phase 1 scope. The time constraints associated for land use and building permit review/approval process will not make this proposal viable.

P1 Planning – Relocate High School Building South to Eliminate Shoring

Comments: Eliminate soldier pile wall by moving High School building south. Move staff parking to southwest of student parking at former portable location.

Design Team Recommendation: The design team does not recommend accepting this proposal. The School District has continually impressed upon the design team its desire for the SHS to engage the hillside.

T1 Wetlands Culvert

Comment: The existing wetlands are currently connected by a culvert allowing the NE wetland to drain to the SW wetland which eventually discharges from the site. The proposed plans show removal of the existing culvert, but do not show a replacement or an overflow drain for the NE wetland. We are concerned there has been no consideration for the natural outlet for the NE wetland.

If it is the design intent to use the wetland as a detention pond, it still needs a way to discharge.

The plans show dispersion trenches on the steep slopes of the wetlands. Dispersion trenches generally should not be installed on slopes greater than 15%. We recommend replacing the dispersion trench outfalls with more appropriate energy dissipaters such as rocked splash pads.

Design Team Recommendation: The design team recommends accepting this proposal. This was addressed by the site design team prior to the VA Analysis Exercise; however, the drawings were not able to be updated prior to the VA Analysis Team's review.

T2 Construction Management Issues

Comment (Bidding Considerations): Bidding the Alternative Learning Center as a separate project could have potential cost benefit. The benefit in allowing a smaller contractor to bid the project would be their efficiency with wood framed construction and possibly reduced general conditions cost.

Consider bidding both projects at the same time with the option of awarding the contract as a single project or as two separate projects. A cost disadvantage would be administrating two separate projects. Additionally, with two contractors on site at the same time, consideration would need to be given to access, laydown area and utility coordination.

Design Team Recommendation: The design team recommends accepting this proposal. The design team studied options to relocate the ALC during its internal cost reduction study. Relocating the ALC will allow for its construction schedule to remain independent of the other components of the overall project scope.

Comment (Schedule): The current estimate for the High School includes general conditions for 26 months with the Alternative Learning Center and MTC making up another 8 months of general conditions for a total of about 34 months. If the High School is awarded a contract without the Alternative Learning Center, then general conditions cost would need to be added to the project since the High School scope of work encompasses all phases.

Design Team Recommendation: The design team recommends that both projects be bid and constructed under separate contracts. General condition costs are based on a percentage of the construction cost for a project. The SD phase cost estimate already assumed separate general condition costs for each individual building; therefore, no general condition costs to the SHS will need to be increased. Regardless of whether the SHS and ALC are bid as one contract or individual contracts there will still be general condition costs associated with each building. There may be marginal savings to the general condition costs of the overall project if they were they bid under one contract; however, the ALC would need to be constructed as a steel building to attract potential bidders capable of executing a project of this scale. As discussed below, if the ALC were constructed as a steel building the cost savings associated with any shared general condition costs would not make up for the cost increases associated with steel construction as opposed to wood.

Comment (Wood Vs. Steel): We have seen a 5% to 7% cost savings advantage with wood construction verses steel construction depending on the type of project. The Alternative Learning center appears to be a fairly simple single-story structure and therefore a good candidate for wood framed construction. Wood framing for this project would require another major trade group. The advantage of another trade group would be reduced scope for iron workers and schedule relief for the main high school

structure. The disadvantage of wood construction could be interior wall finishes quality, moisture issues and design detail.

Design Team Recommendation: The design team recommends that the ALC continue to be designed as a wood structure. The design team feels that the cost savings to construct the ALC in wood will be greater than any potential reduction in cost associated with bidding and constructing the SHS and ALC together as steel structures under one contract.

Comment (Unique Bidding Climate): The present building boom in the Seattle Puget Sound area has created a huge impact on construction costs with no end in sight. Cost are high because of the availability of contractors, labor and material procurement. It is therefore difficult to estimate construction projects with costs a moving target. Escalation has been stable as a percentage of inflation. However, escalation can't seem to keep up with evolving local conditions. Estimating costs at early design stages are going to be more conservative. As the design progresses and more details are completed contingencies should be reduced.

Design Team Recommendation: The design team recommends conducting a cost estimate during the DD Phase of design to reevaluate the project costs.

R1 Reduce site concrete 5%.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R2 Delete one green house (Bid Alternate for second).

Design Team Recommendation: The design team recommends rejecting this proposal. It does not meet the School District's program requirements.

R3 Reduce irrigation 10%.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R4 Delete football field work, leave as is (Bid Alternate).

Design Team Recommendation: The design team recommends rejecting this proposal. This idea was discussed with the School District; however, it does not meet the needs of the program.

R5 Sports fields, reduce turf grade, use lower cost range.

Design Team Recommendation: The design team recommends rejecting this proposal. It does not meet the School District's program requirements.

R6 Keep baseball field locations and keep as is (Bid Alternate).

Design Team Recommendation: The design team recommends accepting the proposed idea to leave the baseball field in its current location. The idea to retain a grass playing surface was discussed with the School District; however, It does not meet the needs of the athletic program, see SHS Cost Reconciliation Log in SD Report for further explanation.

R7 Use football field for soccer games.

Design Team Recommendation: The design team recommends rejecting this proposal. This idea was discussed with the School District; however, It does not meet the needs of the athletic program.

R8 Make soccer field grass, not synthetic (Bid Alternate).

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R9 Eliminate bridge, relocate alongside theatre.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R10 Less brick veneer, more economy metal panel siding, 20/80.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R11 Use CMU veneer in lieu of brick veneer.

Design Team Recommendation: The design team recommends rejecting this proposal. The School District has directed the design team to utilize brick as the dominant material in the exterior design of the building.

R12 Reduce punched windows.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R13 Use storefront in lieu of curtainwall.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R14 Use membrane roofing in lieu of metal roofing.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R15 Use and relocate existing greenhouses and refurbish.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R16 Simplify sunshade design.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R17 Reduce relights 50%.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R18 Reduce wood plank ceiling 75%, use ACT.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R19 Reduce floor to floor height from 14' to 13'.

Design Team Recommendation: The design team recommends rejecting this proposal. Reducing the floor to floor height will not allow for enough clear area for routing of the mechanical systems and duct work.

R20 Reduce batting cage budget.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R21 Reduce fieldhouse budget.

Design Team Recommendation: The design team recommends rejecting this proposal. This idea was discussed with the School District; however, it does not meet the needs of the athletic program.

R22 Fieldhouse (Bid Alternate).

Design Team Recommendation: The design team recommends rejecting this proposal. This idea was discussed with the School District; however, it does not meet the needs of the athletic program.

R23 Duct sock in lieu of ductwork @ gym and commons.

Design Team Recommendation: The design team recommends rejecting this proposal. This idea was discussed with the School District; however, there are concerns over the longevity and continued performance of this system.

R24 Reduce fire sprinkler risers from 7 to 4.

Design Team Recommendation: The design team recommends rejecting this proposal. A reduction in the scope of the sprinkler system brings up concerns of life safety performance.

R25 Move labs to top floor to simplify exhaust systems.

Design Team Recommendation: The design team recommends rejecting this proposal. The program requirement for some of the science classrooms to have direct access to the ground level does not allow for this option to be accepted.

R26 Use metallic piping in lieu of aquatherm piping, reduce failure risk.

Design Team Recommendation: If the School District is comfortable with grooved fittings in the metallic piping then the design team agrees there is a cost savings to be realized and we would recommend the change. However, if the School District is not comfortable with grooved fittings and they prefer the joints to be welded then the design team believes a change to metallic piping would result in a cost increase and we do not recommend incorporating it.

R27 Use wireless clock in lieu of IP clock system.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R28 Batting Cage - which essentially functions as a field house (Bid Alternate).

Design Team Recommendation: The design team recommends rejecting this proposal. The design team discussed the idea of renovating the existing Batting Cage Facility with the School District; this proposal was accepted by the School District.

R29 Provide aluminum conductors and busses in lieu of copper.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R30 Eliminate tunable lighting feature.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R31 Reduce light level to 30 foot candles @ daylighting area.

Design Team Recommendation: The design team recommends investigating this proposal further, see SHS Cost Reconciliation Log in SD Report for further explanation.

R32 Recess lighting in lieu of pendent.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R33 Integrate lighting control with DDC.

Design Team Recommendation: The design team recommends accepting this proposal, see SHS Cost Reconciliation Log in SD Report for further explanation.

R34 Remove lighting at tennis courts (or Bid Alternate).

Design Team Recommendation: This proposal is no longer applicable. As part of the design team's internal cost reduction exercise an option to relocate the ALC building site and retain the existing Tennis Courts and their associated lighting was proposed. This option was accepted by the School District, see the SHS Cost Reconciliation Log in the SD Report for further explanation

STANWOOD HIGH SCHOOL PROJECT - COST REDUCTION OPTIONS

Sitework	Proposed Reduction	Accepted	Pending	Rejected
Priority 1: Minor Changes	($1,082,000)	($1,006,100)	$0	($75,900)
Priority 2: Major Changes	($706,376)	($706,376)	$0	$0
Priority 3: Program Changes	($849,501)	($849,501)	$0	$0
Priority 4: Bond Assumption Changes	($7,041,756)	($459,353)	$0	($6,582,403)
Subtotal Sitework	($9,679,632)	($3,021,329)	$0	($6,658,303)

Stanwood High School	Proposed Reduction	Accepted	Pending	Rejected
Priority 1: Minor Changes	($4,437,687)	($4,401,687)	$0	($36,000)
Priority 2: Major Changes	($2,234,878)	($1,701,332)	$0	($533,546)
Priority 3: Program Changes	($14,289,400)	($12,770,400)	$0	($1,519,000)
Priority 4: Bond Assumption Changes	($7,468,742)	($633,336)	$0	($6,835,406)
Subtotal SHS	($28,430,707)	($19,506,755)	$0	($8,923,952)

Alternative Learning Center	Proposed Reduction	Accepted	Pending	Rejected
Priority 1: Minor Changes	($989,908)	($983,908)	$0	($6,000)
Priority 2: Major Changes	($1,521,000)	($1,290,000)	$0	($231,000)
Priority 3: Program Changes	($1,957,999)	($599,999)	$0	($1,358,000)
Priority 4: Bond Assumption Changes	($430,901)	$0	$0	($430,901)
Subtotal ALC	($4,899,808)	($2,873,907)	$0	($2,025,901)

Maintenance and Technology Center	Proposed Reduction	Accepted	Pending	Rejected
Priority 1: Minor Changes	($177,413)	($37,000)	$0	($140,413)
Priority 2: Major Changes	($373,000)	$0	$0	($373,000)
Priority 3: Program Changes	($137,614)	$0	$0	($137,614)
Priority 4: Bond Assumption Changes	($2,574,741)	($2,018,276)	$0	($556,465)
Subtotal MTC	($3,262,768)	($2,055,276)	$0	($1,207,492)

Fieldhouse / Batting Cages	Proposed Reduction	Accepted	Pending	Rejected
Priority 1: Minor Changes	($256,000)	$0	$0	($256,000)
Priority 2: Major Changes	($104,000)	$0	$0	($104,000)
Priority 3: Program Changes	($535,000)	$0	$0	($535,000)
Priority 4: Bond Assumption Changes	($4,075,423)	($1,549,916)	$0	($2,525,507)
Subtotal FH	($4,970,423)	($1,549,916)	$0	($3,420,507)

Totals:	($51,243,338)	($29,007,184)	$0	($22,236,154)

Original Estimate Total:		**$148,321,688**
Estimate Corrections:		**($2,062,487)**
Current Estimate Total:		**$146,259,201**
Minus The Amount of Accepted Savings:		**($29,007,184)**
Revised Estimate Total:		**$117,252,017**
MACC:		**$117,296,424**
Over / Under MACC:		**$44,407**
Additional Bid Risk Contingency:	8%	**($9,383,714)**
Over / Under MACC and Contingency:		**($9,339,307)**

Site Development - Cost Reduction Options

Priority Ranking
1 Minor Change
2 Major Change
3 Program Changes
4 Bond Assumption Changes

Item #	Priority	Proposed Change	Proposed Reduction	Accepted Y	Accepted M	Accepted N	Accepted $	Pending $	Rejected $
Site 101	1	Not used	$0			x	$0	$0	$0
Site 102	1	Use undeveloped SW corner of site for surface water filtration/detention in lieu of vaults.	($75,900)			x	$0	$0	($75,900)
Site 103	1	Reuse existing Greenhouses (build new foundations and provide new equipment)	($390,000)	x			($390,000)	$0	$0
Site 104	1	~~Use lawn areas on lower site for water filtration/detention in lieu of some of the vaults~~. *Not enough flat land to work with without eliminating future expansion area*	$0				$0	$0	$0
Site 105	1	Reduce concrete paving areas along gym and south façade/Commons by 30% (shift to lawn)	($33,839)	x			($33,839)	$0	$0
Site 106	1	~~Investigate pervious pavement for areas on upper site that can recharge wetlands direct w/o vaults~~. Soils report does not suggest shallow infiltration will work. Pervious pavement has a higher first cost.	$0				$0	$0	$0
Site 107	1	~~Investigate using smaller compact parking stall sizes to reduce pavement area.~~ No savings. Design already incorporates stalls per City requirements.	$0				$0	$0	$0
Site 108	1	Change shrub beds at front entry bridge and west side of building to lawn	($44,275)	x			($44,275)	$0	$0
Site 109	1	Reduce bullpen mounds down to competition minimum (2 per field / 1 for visiting and 1 for home team)	($25,300)	x			($25,300)	$0	$0
Site 110	1	Lower ball control safety fencing heights at athletic fields (baseball & softball, 20' overall between first base and second base)	($37,950)	x			($37,950)	$0	$0
Site 111	1	Through strict stormwater code interpretation, the synthetic turf fields are being modeled as 100% impervious surfaces. Pursue with the City of Stanwood a code interpretation to reduce the imperviousness of the fields would reduce the amount of stormwater detention.	($209,699)	x			($209,699)	$0	$0
Site 112	1	Re-balance earthwork to eliminate concrete wall on south side of project	($111,687)	x			($111,687)	$0	$0
Site 113	1	Raise synthetic turf fields to provide volume for underdrains, rather than excavating below the fields. Sloped grass bank from edge of field clearance to sidewalk.	($113,850)	x			($113,850)	$0	$0
Site 114	1	Eliminate all trees that are not required by code.	($39,500)	x			($39,500)	$0	$0
		Subtotal Priority 1	($1,082,000)				($1,006,100)	$0	($75,900)
Site 201	2	Change permanent irrigation to temp. irrigation around fields, MTC and perimeter areas of SHS	($126,500)	x			($126,500)	$0	$0
Site 202	2	Substitute nylon netting for chain link fabric at ball control safety fencing for athletic fields; occurs above 10' of standard chain link minimum, extends up to 20' total between first and third bases, Baseball and Softball only.	($50,600)	x			($50,600)	$0	$0
Site 203	2	For stormwater detention system in south parking lot, use a shallower prefabricated vault section (Storm Trap "single trap" precast system). This would eliminate water quality (dead storage) from the current vault volume and require adding a water quality treatment system (modular wetland), similar to other areas on-site.	($529,276)	x			($529,276)	$0	$0
		Subtotal Priority 2	($706,376)				($706,376)	$0	$0

Priority Ranking

1 Minor Change
2 Major Change
3 Program Changes
4 Bond Assumption Changes

Item #	Priority	Proposed Change	Proposed Reduction	Accepted Y	Accepted M	Accepted N	Accepted $	Pending $	Rejected $
Site 301	3	Limit throwing event venues outside of the track to shot put only.	($354,200)	x			($354,200)	$0	$0
Site 302	3	Coordinate civil detention system to be hydraulically connected to the baseball field drainage base/sectior	($94,875)	x			($94,875)	$0	$0
Site 303	3	~~Retain existing varsity baseball and softball fields. Replace grass fields with synthetic turf only (drainage to be routed to new multi purpose field). Provide new lighting and fences, and only minor improvements to bleachers, dugouts, etc.~~ *Not feasible to install synthetic field inside fence without removing at least the fence fabric. Ultimately the cost to uninstall and reinstall would be close to new and would add high risk of change orders.*	$0				$0	$0	$0
Site 304	3	Delete 'March to the Match' and retain all of the parking stalls in the existing stadium parking lot. Path to stadium would be across front of ALC. This would allow us to reduce the new parking at the SHS side of the site.	($123,338)	x			($123,338)	$0	$0
Site 305	3	Rearrange sports fields to allow the three existing tennis courts behind Church Creek and the parking lot between Church Creek and SHS to be retained. The tennis courts would be refurbished and 5 new would still be provided. There would be much less "undeveloped" area and it would not lend itself to future field development. More parking would be further from the school.	($277,088)	x			($277,088)	$0	$0
		Subtotal Priority 3	($849,501)				($849,501)	$0	$0
Site 401A	4	Use Grass turf in lieu of synthetic turf for new soccer field. This assumes new field in the proposed new locations, just grass rather than synthetic. Sythetic could be bid as an alternate.	($459,353)	x			($459,353)	$0	$0
Site 401B	4	Use Grass turf in lieu of synthetic turf for fast pitch and baseball fields. This assumes new field in the proposed new locations, and includes all improvements, just grass rather than synthetic. Sythetic could be bid as an alternate. The cost for this option includes $230k add to redevelop the grassy practice area west of the stadium to provide another practice venue (regrade, new soil, grass and irrigation)	($434,528)			x	$0	$0	($434,528)
Site 402	4	Retain existing varsity baseball and softball fields. Grass fields to remain. Provide new lighting and only minor improvements to bleachers, dugouts, fencing etc.	($3,400,000)			x	$0	$0	($3,400,000)
Site 403	4	New grass at football field in lieu of synthetic. Assumes we are still providing a new underdrain system	($347,875)			x	$0	$0	($347,875)
Site 404	4	No new football field at the stadium (make this scope an alternate)	($2,400,000)			x	$0	$0	($2,400,000)
		Subtotal Priority 4	($7,041,756)				($459,353)	$0	($6,582,403)
		Totals	($9,679,632)				**($3,021,329)**	**$0**	**($6,658,303)**

Stanwood High School - Cost Reduction Options

Priority Ranking

1 Minor Change

2 Major Change

3 Program Changes

4 Bond Assumption Changes

Item #	Priority	Proposed Change	Proposed Reduction	Accepted			Accepted $	Pending $	Rejected $
				Y	M	N			
SHS 101	1	Switch roof assembly from standing metal seam to single-ply membrane with faux-raised ribs	($990,000)	x			($990,000)	$0	$0
SHS 102	1	Switch roof assembly from standing metal seam to single-ply membrane without faux-raised ribs (additional savings beyond item SHS 101)	($310,000)	x			($310,000)	$0	$0
SHS 103	1	Switch metal siding product selection from Nor Clad Al to AEP Span 'Prestige' product line	($127,000)	x			($127,000)	$0	$0
SHS 104	1	Adjust glazing sizes to allow for storefront glazing system in lieu of curtain wall (see supplementary information packet)	($256,000)	x			($256,000)	$0	$0
SHS 105	1	Minimize CTE covered work area under canopy to program minimum (3,000 sf combined)	($128,000)	x			($128,000)	$0	$0
SHS 106	1	Adjust exterior materials percentages, Brick to Metal Panel Ratio reduce ratio from 90/10 to 70/30 (see supplementary information packet)	($700,000)	x			($700,000)	$0	$0
SHS 107	1	Reduce Glazing throughout the building exterior facades by 15% (see supplementary information packet)	($480,000)	x			($480,000)	$0	$0
SHS 108	1	Reduce interior glazing/relites throughout the building by 30%	($230,000)	x			($230,000)	$0	$0
SHS 109	1	Provide solid half height rails in lieu of open railings at tops of stairways and hallway adjacent to the Commons (see supplementary information packet)	($36,000)			x	$0	$0	($36,000)
SHS 110	1	Re-use existing bleachers (move over from current high school)	($100,000)	x			($100,000)	$0	$0
SHS 111	1	Reduce/Refine Geopier scope based on recent soil analysis	($531,587)	x			($531,587)	$0	$0
SHS 112	1	Eliminate (1) monument sign, only one is required	($44,000)	x			($44,000)	$0	$0
SHS 113	1	Allow feeders 100 Amps and larger to be aluminum	($37,110)	x			($37,110)	$0	$0
SHS 114	1	Reduce Hardwired Data Outlet Quantities. General classrooms would have (4) convenience outlets with (1) data jack each ((2) jacks less per outlet), plus (1) teacher location with (3) jacks. Offices would have (1) outlet with (3) jacks ((1) less outlet per office).	($333,990)	x			($333,990)	$0	$0
SHS 115	1	~~Investigate cost of light weight concrete on elevated decks versus normal weight. There is a floor assembly that allows light weight concrete and still meets fire rating. This would reduce the weight of structural steel and the demand on the lateral system due to a lower seismic weight overall.~~ *Lightweight concrete is significantly more expensive than normal weight and would offset any savings in steel.*	$0				$0	$0	$0
SHS 116	1	~~Switch construction types from Type I-B (spray fire proofing req'd) to Type II-B (fire/ seismic separation walls req'd).~~ *Type IIA will allow us to eliminate area separation walls and not fireproof our primary structure so switching to IIB would cost more.*	$0				$0	$0	$0
SHS 117	1	~~Switch construction types from Type I-B (spray fire proofing req'd) to Type II-A 9no spray on fire proofing req'd).~~ *There will be some savings for this item but the spray on fireproofing was not included in the original estimate so the amount of savings is not clear.*	$0	x			$0	$0	$0
SHS 118	1	Use Specialty Concentric Braced Frames rather than Buckling Restrained Braced Frames (BRBF) for lateral support.	($84,000)	x			($84,000)	$0	$0
SHS 119	1	Reduce allowance for kitchen equipment. Assumes savings will be made by reducing finishes in equipment (eg. cooler will have an embossed aluminum skin rather than stainless steel) and careful selection of equipment.	($50,000)	x			($50,000)	$0	$0
		Subtotal Priority 1	($4,437,687)				($4,401,687)	$0	($36,000)
SHS 201	2	~~Frame the gymnasium volume out of steel in lieu of CMU. Would need to add wainscot to protect interior side of walls at court level.~~ *Would add cost.*	$0				$0	$0	$0
SHS 202	2	~~Switch brick module to econ size~~ - *this option will add cost, approx. $200,000*	$0				$0	$0	$0
SHS 203	2	Replace metal siding accent panels with fiber cement board (James Hardie commercial grade)	($114,000)			x	$0	$0	($114,000)
SHS 204	2	Delete clerestory lighting at shared activity spaces and install metal panel siding and skylights (see supplementary information packet)	($52,000)	x			($52,000)	$0	$0
SHS 205	2	~~Increase Rake in Theater seating to reduce area.~~ Changing the rake does not reduce area without reducing capacity	$0				$0	$0	$0
SHS 206	2	~~Reduce Seat Size in Theater to min recommended to reduce area.~~ *Did not result in any measurable area or cost reduction.*	$0				$0	$0	$0
SHS 207	2	Reduce quantity of fixed solar shading by 25% (see supplementary information packet)	($304,000)	x			($304,000)	$0	$0
SHS 208	2	~~Install fiberglass windows instead of aluminum storefront at classrooms~~ - *cost for fiberglass window units is equivalent to aluminum storefront; cost neutral option*	$0				$0	$0	$0
SHS 209	2	Install vinyl windows instead of aluminum storefront at classrooms (see supplementary information packet)	($500,000)	x			($500,000)	$0	$0
SHS 210	2	Fluid Applied sealed floor finish in lieu of tile at locker rooms.	($8,000)	x			($8,000)	$0	$0
SHS 211	2	Sheet Floor to match hallways at all restrooms in lieu of tile	($23,000)			x	$0	$0	($23,000)
SHS 212	2	Limit wall tile at restrooms to 7' AFF rather than full height.	($22,000)	x			($22,000)	$0	$0
SHS 213	2	Reduce 'premium' interior finishes in public common spaces by 30%	($200,000)	x			($200,000)	$0	$0
SHS 214	2	Delete 'premium' finishes from all common areas. Interior finishes in public common spaces to consist of GWB, Acoustic GWB, reveal joints and paint only (additional savings over SHS 213)	($50,000)			x	$0	$0	($50,000)
SHS 215	2	Reduce SHS entry stairs width and revise monumental stairs to lawn. Mutually exclusive with SHS 324	($346,360)			x	$0	$0	($346,360)
SHS 216	2	Simplify Lighting Fixtures; utilize mostly direct lighting throughout	($316,672)	x			($316,672)	$0	$0
SHS 217	2	Theater: Reduce Stage Rigging and Drapery Scope	($114,624)	x			($114,624)	$0	$0
SHS 218	2	Theater: Delete Sliding Hard Tormentor Panels	($139,928)	x			($139,928)	$0	$0
SHS 219	2	Theater: Alternate Seating Upholstery at Main Theater	($186)			x	$0	$0	($186)
SHS 220	2	Theater: General Reduction to Scope for Theater Lighting	($44,108)	x			($44,108)	$0	$0
		Subtotal Priority 2	($2,234,878)				($1,701,332)	$0	($533,546)

Priority Ranking

1 Minor Change

2 Major Change

3 Program Changes

4 Bond Assumption Changes

Item #	Priority	Proposed Change	Proposed Reduction	Accepted			Accepted $	Pending $	Rejected $
				Y	M	N			
SHS 301	3	Replace exterior brick with metal panel in its entirety	($1,200,000)			x	$0	$0	($1,200,000)
SHS 302	3	Replace exterior brick with fiber cement panels in its entirety (additional savings beyond SHS 301)	($100,000)			x	$0	$0	($100,000)
SHS 303	3	Delete fall protection system for roof	($128,000)			x	$0	$0	($128,000)
SHS 304	3	Delete skylights from upper floor shared activity spaces. This assumes SHS 206 has already been selected. If not there is no savings for this item.	($72,000)	x			($72,000)	$0	$0
SHS 305	3	Remove portion of glazing from the library (20%) (see supplementary information packet)	($35,000)	x			($35,000)	$0	$0
SHS 306	3	Remove portion of glazing from the student commons (30%); metal panel to be installed in areas where glazing is deleted (see supplementary information packet)	($21,000)	x			($21,000)	$0	$0
SHS 307	3	~~Delete clerestory lighting from shared activity and common areas; change roof spine and framing to eliminate split gable roof form in favor continuous gable~~. *The two sides of the building are not symmetrical so the ridge has to move up to accommodate the longer extension on the north. This creates more exterior wall surface and is at best cost neutral.*	$0				$0	$0	$0
SHS 308	3	Reduce amount of classroom casework by 30%	($618,806)	x			($618,806)	$0	$0
SHS 309	3	Replace Marmoleum sheet flooring throughout with exposed, sealed, grey concrete finish (not ground and polished, no color concrete)	($569,891)	x			($569,891)	$0	$0
SHS 310	3	At Aux. Gyms install rubber athletic flooring in place of wood floors	($27,000)			x	$0	$0	($27,000)
SHS 311	3	Delete operable partition at PAC stage; program only requires a stage curtain	($28,050)	x			($28,050)	$0	$0
SHS 312	3	Reduce Shared activity spaces by 30% (see Design Option #3 in supplementary information packet). Mutually exclusive with SHS 407	($2,297,698)	x			($2,297,698)	$0	$0
SHS 313	3	Delete ceilings in the classrooms and allow the structure to remain exposed. This will require that standard steel pan floor decking is switched to acoustical steel deck. (only works if construction type is changed to Type II otherwise we will have exposed spray on fireproofing)	($64,000)			x	$0	$0	($64,000)
SHS 314	3	Reduce typical ceiling heights to 9'-0" (reduce corresponding window unit heights by 1'-0" as well)	($520,000)	x			($520,000)	$0	$0
SHS 315	3	Delete ceilings in all athletic rooms (weight/fitness/wrestling), expose structure. This will require that a standard steep pan floor decking is switched to acoustical steel deck.	($38,000)	x			($38,000)	$0	$0
SHS 316	3	Construct Drama Room with minimal lighting and lighting controls	($63,087)	x			($63,087)	$0	$0
SHS 317	3	Construct Drama Room with minimal stage rigging and drapery	($12,370)	x			($12,370)	$0	$0
SHS 318	3	Construct Drama Room with minimal general lighting	($6,185)	x			($6,185)	$0	$0
SHS 319	3	Delete wood floor from Drama Room, install resilient floor in place	($10,205)	x			($10,205)	$0	$0
SHS 320	3	Delete steel pipe rail grid from Drama Room	($45,398)	x			($45,398)	$0	$0
SHS 321	3	Non-proprietary intrusion alarm control system (Bosch or similar)	($79,168)	x			($79,168)	$0	$0
SHS 322	3	Simple input plates and no hard-wired controllers for classroom AV systems. Rather than a single controller that controls and coordinates all the AV equipment in the room, each piece of equipment would have its own, independent controller, either hand held or at the device itself.	($556,650)	x			($556,650)	$0	$0
SHS 323	3	Construct the CTE wing of the building as a stand alone pre-engineered building; additional area reduction throughout floor plans (see Design Option #2 in supplementary information packet)	($5,809,622)	x			($5,809,622)	$0	$0
SHS 324	3	On the north side of the building eliminate the stairs down to the Commons entry. Entry would happen at Level 2 and use internal stairs to get down to Level 1	($1,037,254)	x			($1,037,254)	$0	$0
SHS 325	3	Limit air conditioning to Admin, PAC, Gym and computer rooms.	($950,016)	x			($950,016)	$0	$0
		Subtotal Priority 3	($14,289,400)				($12,770,400)	$0	($1,519,000)
SHS 401	4	Reduce seating capacity for the PAC by 74 seats (2 rows). Reduces PAC by 850sf.	($106,250)			x	$0	$0	($106,250)
SHS 402	4	Eliminate (2) classrooms from the building program (see supplementary information packet)	($550,000)			x	$0	$0	($550,000)
SHS 403	4	~~Incorporate low-slope roofing strategy and parapets to reduce building height and structural complexity; eliminate mech. Mezz. at attic space and install mech. equip. on low slope rooftops~~. *Was not studied to determine savings but was not acceptable to the District.*	$0			x	$0	$0	$0
SHS 404	4	~~Eliminate mechanical mezzanines and install mechanical equipment on low slope rooftops w/ screens. Contingent upon accepting SHS 404.~~ *Was not studied to determine savings but was not acceptable to the District.*	$0			x	$0	$0	$0
SHS 405	4	Remove Transitions program from SHS (see supplementary information packet)	($250,000)	x			($250,000)	$0	$0
SHS 406	4	Move the High School farther south to fully eliminate need for shoring on existing slope. (See supplementary information packet)	($1,890,000)			x	$0	$0	($1,890,000)
SHS 407	4	Delete shared activity space entirely from floor plan; retain only circulation space in corridors (see Design Option #5 in supplementary information packet). Mutually exclusive with SHS 312.	($2,285,768)			x	$0	$0	($2,285,768)
SHS 408	4	Delete (1) Aux. Gym (see Design Option #6 in supplementary information packet)	($1,850,000)			x	$0	$0	($1,850,000)
SHS 409	4	Delete Green Room from program and utilize the Drama Classroom to serve as a Green Room (see supplementary information packet)	($225,000)	x			($225,000)	$0	$0
SHS 410	4	Rough-in only for future access control system	($19,792)			x	$0	$0	($19,792)
SHS 411	4	Rough-in only for future exterior CCTV cameras	($66,798)			x	$0	$0	($66,798)
SHS 412	4	Rough-in only for future interior CCTV cameras	($66,798)			x	$0	$0	($66,798)
SHS 413	4	Non-proprietary IP Intercom/ clock system	($158,336)	x			($158,336)	$0	$0
		Subtotal Priority 4	($7,468,742)				($633,336)	$0	($6,835,406)
		Totals	($28,430,707)				**($19,506,755)**	**$0**	**($8,923,952)**

Alternative Learning Center - Cost Reduction Options

Priority Ranking

1 Minor Change
2 Major Change
3 Program Changes
4 Bond Assumption Changes

Item #	Priority	Proposed Change	Proposed Reduction	Accepted Y	Accepted M	Accepted N	Accepted $	Pending $	Rejected $
ALC 101	1	Delete cross ventilated nail base for rigid insulation; not necessary unless asphalt shingles are used	($100,000)	x			($100,000)	$0	$0
ALC 102	1	Exposed sealed concrete floors at science labs, prep rooms, CTE and Art Room in place of chemical resistant sheet flooring	($12,000)	x			($12,000)	$0	$0
ALC 103	1	Eliminate (1) monument sign; only one is required	($44,000)	x			($44,000)	$0	$0
ALC 104	1	Eliminate geopiers from foundation. Increase foundations to work with 2,000 psf bearing	($615,946)	x			($615,946)	$0	$0
ALC 105	1	All Restrooms receive sheet floor to match corridors in lieu of tile floor	($6,000)			x	$0	$0	($6,000)
ALC 106	1	Reduce storefront glazing at entrances by 20%	($8,200)	x			($8,200)	$0	$0
ALC 107	1	Reduce interior glazing by 30%	($37,000)	x			($37,000)	$0	$0
ALC 108	1	Adjust exterior materials percentages, Brick to Metal Panel Ratio reduce ratio from 90/10 to 70/30	($51,000)	x			($51,000)	$0	$0
ALC 109	1	Move mechanical penthouse to ground level at Saratoga	($30,000)	x			($30,000)	$0	$0
ALC 110	1	~~Investigate the cost impact for constructing the gym volume out of cmu in place of wood framing~~. *Would add cost.*	$0				$0	$0	$0
ALC 111	1	~~Steel Structure in lieu of wood for economy of scale and bidding strategy with SHS.~~ *Might make the ALC more attractive to a bidder on SHS but will increase cost by 4-5%*	$0				$0	$0	$0
ALC 112	1	Allow feeders 100 Amps and larger to be aluminum	($7,452)	x			($7,452)	$0	$0
ALC 113	1	Reduce Hardwired Data Outlet Quantities. General classrooms would have (4) convenience outlets with (1) data jack each ((2) jacks less per outlet), plus (1) teacher location with (3) jacks. Offices would have (1) outlet with (3) jacks ((1) less outlet per office).	($68,310)	x			($68,310)	$0	$0
ALC 114	1	Reduce allowance for kitchen equipment. Assumes savings will be made by reducing finishes in equipment (eg. cooler will have an embossed aluminum skin rather than stainless steel) and careful selection of equipment.	($10,000)	x			($10,000)	$0	$0
		Subtotal Priority 1	($989,908)				($983,908)	$0	($6,000)
ALC 201	2	Reduce the overall exterior height of the building by 1'-0"; typical interior spaces to have 9'-0" ceiling heights	($70,000)	x			($70,000)	$0	$0
ALC 202	2	~~Switch brick module to econ size~~ - *this option will add cost, approx. $53,00*	$0				$0	$0	$0
ALC 203	2	Install rubber gym floor in place of wood	($16,000)			x	$0	$0	($16,000)
ALC 204	2	Reconfigure roof geometry to simplify roof form and constructability; eliminates north clerestory lighting at LHHS Shared Activity and south clerestory at Gymnasium. Also eliminates a roof drainage problem between Gym and Commons	($85,000)	x			($85,000)	$0	$0
ALC 205	2	~~Install fiberglass windows instead of aluminum storefront at classrooms~~ - *cost for fiberglass window units is equivalent to aluminum storefront; cost neutral option.*	$0				$0	$0	$0
ALC 206	2	Install vinyl windows instead of aluminum storefront at classrooms	($260,000)	x			($260,000)	$0	$0
ALC 207	2	Delete clerestory lighting for the Shared Activity space and common areas at the LHHS, replace with skylights (ALC 208A)	($90,000)			x	$0	$0	($90,000)
ALC 208	2	Switch roof assembly to single-ply membrane with faux-ribs at sloped roofs	($825,000)	x			($825,000)	$0	$0
ALC 209	2	Switch roof assembly to single-ply membrane throughout without faux-ribs (additional savings beyond ALC 209)	($125,000)			x	$0	$0	($125,000)
ALC 210	2	Not used	$0			x	$0	$0	$0
ALC 211	2	Reduce wall tile at toilet rooms to 7' AFF from full height.	($5,000)	x			($5,000)	$0	$0
ALC 212	2	Simplify Lighting Fixtures; utilize mostly direct lighting throughout	($45,000)	x			($45,000)	$0	$0
		Subtotal Priority 2	($1,521,000)				($1,290,000)	$0	($231,000)
ALC 301	3	Delete fall protection for roof	($56,000)			x	$0	$0	($56,000)
ALC 302	3	Replace metal siding accent panels with fiber cement board (James Hardie commercial grade)	($97,000)			x	$0	$0	($97,000)
ALC 303	3	Replace exterior brick with metal siding in its entirety	($333,000)			x	$0	$0	($333,000)
ALC 304	3	Replace exterior brick with fiber cement siding (James Hardie commercial product) in its entirety	($381,000)			x	$0	$0	($381,000)
ALC 305	3	Install batt insulation (R49) at roof assemblies in place of rigid insulation, will require cavity venting to be added to the scope	($125,000)			x	$0	$0	($125,000)
ALC 306	3	Frame entry canopy with wood	($16,000)			x	$0	$0	($16,000)
ALC 307	3	Minimize the length of the entry canopy to LHHS entirely	($38,000)	x			($38,000)	$0	$0
ALC 308	3	Delete the entry canopy to LHHS entirely	($194,000)			x	$0	$0	($194,000)
ALC 309	3	Revise massing to feature gable roof forms and reduce clerestory lighting (see figures ALC 306A & B)	($116,000)			x	$0	$0	($116,000)
ALC 310	3	Delete the clerestory lighting from the Shared Activity space and commons areas of LHHS (roof form sim. to figure ALC 208, no skylights)	($40,000)			x	$0	$0	($40,000)
ALC 311	3	Replace Marmoleum sheet flooring throughout with exposed, grey, sealed concrete finish (not polished, no color concrete)	($110,677)	x			($110,677)	$0	$0
ALC 312	3	~~Delete the vestibule between the Saratoga wing and the Gym, replace with a roof canopy between the two buildings; eliminates 2 Hr. Fire Rated Construction requirement at the Gymnasium~~. *Would require a underground utility connection for fire sprinklers and hydronic lines. This would offset the limited savings.*	$0			x	$0	$0	$0
ALC 313	3	Eliminate 30% of built in casework	($18,000)	x			($18,000)	$0	$0
ALC 314	3	Reduce Shared activity spaces by approx. 15% (see figure ALC 308)	($70,000)	x			($70,000)	$0	$0
ALC 315	3	Non-proprietary intrusion alarm control system (Bosch or similar)	($28,566)	x			($28,566)	$0	$0
ALC 316	3	Non-proprietary IP Intercom/ clock system	($28,566)	x			($28,566)	$0	$0
ALC 317	3	Simple input plates and no hard-wired controllers for classroom AV systems. Rather than a single controller that controls and coordinates all the AV equipment in the room, each piece of equipment would have its own, independent controller, either hand held or at the device itself.	($130,410)	x			($130,410)	$0	$0
ALC 318	3	~~Install shingle roofing at sloped roofs (will require change in roof pitch to at least 4%)~~. *The reduction in the cost of the roofing material is less that the increase in cost for the added exterior wall area that results from the steeper roof pitch.*	$0				$0	$0	$0
ALC 319	3	Limit air conditioning to Admin, Gym and computer rooms.	($175,780)	x			($175,780)	$0	$0
		Subtotal Priority 3	($1,957,999)				($599,999)	$0	($1,358,000)
ALC 401	4	~~Investigate a low slope roof and parapet strategy to reduce building height and structural complexity, eliminate mech. Mezz. and place mech. equipment on low slope rooftops~~. Was not studied to determine savings but was not acceptable to the District.	$0			x	$0	$0	$0
ALC 402	4	Reduce Gym scope to function as a large multi-purpose room not a gymnasium. 1/2 court ability or two 1/2 court games, but no ability to have full court games or volley ball. Reduce area by 2,000 sf. Reduce height.	($372,600)			x	$0	$0	($372,600)
ALC 403	4	Rough-in only for future access control system	($8,000)			x	$0	$0	($8,000)
ALC 404	4	Rough-in only for future exterior CCTV cameras	($27,945)			x	$0	$0	($27,945)
ALC 405	4	Rough-in only for future interior CCTV cameras	($22,356)			x	$0	$0	($22,356)
ALC 406	4	Build ALC behind Church Creek and MTC behind it's current location. This would allow the ALC to be bid 6 months earlier to avoid escalation. It would mean less usable site area by the end of the project and the ALC would be as far away from SHS as possible on the site. This portion of the site does not drain to the wetlands so detention would be required. There is no site area to work with so it will be underground. That will add $400k, offsetting the savings in escalation.	$0	x			$0	$0	$0
		Subtotal Priority 4	($430,901)				$0	$0	($430,901)
		Totals	($4,899,808)				**($2,873,907)**	**$0**	**($2,025,901)**

Maintenance and Technology Center - Cost Reduction Options

Priority Ranking

1 Minor Change
2 Major Change
3 Program Changes
4 Bond Assumption Changes

Item #	Priority	Proposed Change	Proposed Reduction	Accepted Y	Accepted M	Accepted N	Accepted $	Pending $	Rejected $
MTC 101	1	Allow feeders 100 Amps and larger to be aluminum	($2,000)			x	$0	$0	($2,000)
MTC 102	1	Eliminate geopier foundations. Increase footings to work with 2,000 psf bearing	($138,413)			x	$0	$0	($138,413)
MTC 103	1	Reuse existing generator. Original estimate assumed a new generator but the current one is in good shape.	($37,000)	x			($37,000)	$0	$0
		Subtotal Priority 1	($177,413)				($37,000)	$0	($140,413)
MTC 201	2	Refine structural bay size to a consistent 25' module; reduce floor area to accommodate standard bay; area reduction of 1,200 sf from the floor plan - *see revised MTC floor plan drawing*	($285,000)			x	$0	$0	($285,000)
MTC 202	2	Eliminating the potential to install a storage mezz. In the future allows the height of the Shop Bay, Maintenance Parts Storage, Grounds Storage, Custodial Storage and outdoor covered storage to be reduced by 3'	($20,000)			x	$0	$0	($20,000)
MTC 203	2	~~install fiberglass windows instead of aluminum storefront at classrooms~~ - *cost for fiberglass window units is equivalent to aluminum storefront; cost neutral option*	$0				$0	$0	$0
MTC 204	2	Use Vinyl window in lieu of aluminum storefront	($8,000)			x	$0	$0	($8,000)
MTC 205	2	Eliminate covered parking area for work truck/trailer; reduce outdoor storage area to Ed Spec value of 1,250 sf	($60,000)			x	$0	$0	($60,000)
		Subtotal Priority 2	($373,000)				$0	$0	($373,000)
MTC 301	3	Eliminate cooling from the mechanical system (provide heating and ventilation only)	($137,614)			x	$0	$0	($137,614)
		Subtotal Priority 3	($137,614)				$0	$0	($137,614)
MTC 401	4	Use existing portable for Tech storage and eliminate the Tech Parts Storage in the MTC. Include the cost for relocating the portable.	($446,465)			x	$0	$0	($446,465)
MTC 402	4	Delete the Tech. Department scope from the new Maintenance Building to reduce area; incorporate the Tech. Department into the new SHS	($110,000)			x	$0	$0	($110,000)
MTC 403	4	Renovate the existing Maintenance building rather than building new. Tech department would be located in the current fitness portable (2,600 sf) which would be relocated to be adjacent to the Maintenance Building. Assumption is a budget of $200/sf, but no specific scope has been developed. This would also allow us to keep (6) new tennis courts and add only (2). We can also keep an additional 150 stalls at the grandstand parking lot and not build them new. We could take ALC 406. But we cannot take Site 102 or Site 305	($2,018,276)	x			($2,018,276)	$0	$0
		Subtotal Priority 4	($2,574,741)				($2,018,276)	$0	($556,465)
		Totals	($3,262,768)				**($2,055,276)**	**$0**	**($1,207,492)**

Field House / Batting Cages - Cost Reduction Options

Priority Ranking

1 Minor Change
2 Major Change
3 Program Changes
4 Bond Assumption Changes

Item #	Priority	Proposed Change	Proposed Reduction	Accepted Y	Accepted M	Accepted N	Accepted $	Pending $	Rejected $
FH 101	1	Batting Cages: install Single-Ply Roofing in lieu of Standing Seam (pitch roof down towards fields, away from view from road). *This will be done but the savings are mutually exclusive with bidding the cages as an alternate.*	($88,000)			x	$0	$0	($88,000)
FH 102	1	Batting Cages: Insulate and condition restrooms only; provide only ventilation for remainder of spaces. This will be done but the savings are mutually exclusive with bidding the cages as an alternate.	($20,000)			x	$0	$0	($20,000)
FH 103	1	Batting Cages: Eliminate GWB interior finish and wall base; interior assemblies to be finished in plywood. This will be done but the svings are mutually exclusive with bidding the cages as an alternate.	($20,000)			x	$0	$0	($20,000)
FH 104	1	Batting Cages: Opt for thickened slab foundation in lieu of footings and stem wall. This will be done but the savings are mutually exclusive with bidding the cages as an alternate.	($38,000)			x	$0	$0	($38,000)
FH 105	1	Batting Cages: Switch metal siding product selection from Nor Clad Al to AEP Span 'Prestige' product. This will be done but the savings are mutually exclusive with bidding the cages as an alternate.	($90,000)			x	$0	$0	($90,000)
		Subtotal Priority 1	($256,000)				$0	$0	($256,000)
FH 201	2	Batting Cages: Clad building in fiber cement siding (James Hardie commercial line) in lieu of metal siding. This will be done but the savings are mutually exclusive with bidding the cages as an alternate.	($104,000)			x	$0	$0	($104,000)
		Subtotal Priority 2	($104,000)				$0	$0	($104,000)
FH 301	3	Batting Cages: Remove locker rooms and coach's offices from program, reduce overall area of enclosure	($460,000)			x	$0	$0	($460,000)
FH 302	3	Batting Cages: Eliminate Toilet Rooms and adjacent storage room	($75,000)			x	$0	$0	($75,000)
		Subtotal Priority 3	($535,000)				$0	$0	($535,000)
FH 401	4	Field House: Bid the Field House Renovations as an Add Alternate	($1,295,507)			x	$0	$0	($1,295,507)
FH 402	4	Batting Cages: Keep existing facility; repaint and reroof and add a center demising wall. This would also require an addition for the two toilet rooms. (Bid the full new Batting Cage Facility as an Add Alternate)	($1,074,916)	x			($1,074,916)	$0	$0
FH 403	4	Batting Cages: Construct as net enclosure and roof only. Bathrooms are to be the only enclosed space (required to be insulated and conditioned).	($480,000)			x	$0	$0	($480,000)
FH 404A	4	Reduce the allowance for improvements to the stadium by the value of new field lighting ($275,000) by making the new field lighting an alternate bid item.	($275,000)	x			($275,000)	$0	$0
FH 404B	4	Reduce the allowance for improvements to the stadium down to $100k. Assumes the scope is limted to restaining the wood surfaces at the seating area under the roof, not including the underside of roof.	($200,000)	x			($200,000)	$0	$0
FH 405	4	Field House: Renovate existing Field House only (retain configuration of the existing two team rooms); omit construction of addition	($750,000)			x	$0	$0	($750,000)
		Subtotal Priority 4	($4,075,423)				($1,549,916)	$0	($2,525,507)
		Totals	($4,970,423)				**($1,549,916)**	**$0**	**($3,420,507)**