

Huron School Improvements Huron School District

CONTENTS	PAGE
Executive Summary	2.1-2.2
High School Improvements, Overall	3.1-3.2
Entrance Security/Office Renovation	3.3
Commons and Corridor Finishes	3.4
Restroom Updates	3.5-3.6
HVAC Updates	3.7
Science Lab Counter Tops/Sinks	3.8
Interior Doors	3.9
Ceiling Tile	3.10
Auditorium	3.11-3.12
Vocational Building Improvements, Overall	4.1
Restroom Updates	4.2
Middle School Improvements, Overall	5.1-5.2
Entrance Security/Office Renovation/Canopy	5.3
Auxiliary Gym Flooring	5.4
Restroom Privacy Updates	5.5
Locker Room Updates	5.6
Washington Elementary	
Acoustic Upgrades	6.1-6.2
Implementation Timing	7.1
Implementation Budgeting	7.2-7.4
Appendix	8.1-8.8

EXECUTIVE SUMMARY

The Huron School District engaged Koch Hazard Architects in a multi-facility study to evaluate improvements to be made at several school buildings. The two main goals of the improvements were to retrofit the High School for 1,000 students and enhance security. Koch Hazard representatives toured Huron's High School, Vocational Building, Middle School and Washington Elementary School, reviewed current configurations and utilization with district representatives, then developed plans with design solutions for each project. An implementation timeline and estimate are included on pages 7-1-7.2. All projects within this scope are estimated to be completed by August 2020. High School Auditorium lighting is scheduled for summer 2019.

On December 13, 2018, a project kick-off meeting was held in Huron to review the initial scope and to identify overall District needs and wants for the Facilities Improvements Study. Review progress meetings were conducted with the Huron School District facilities committee on January 14 and 31, 2019. Minutes of these meetings are included in the appendix. In depth narratives regarding mechanical and electrical upgrades, as well as a detailed quote from MAS/Electronic Theatre Controls Inc. (ETC), are also included in the appendix.

A preliminary draft of the report was provided to the committee for review and comments on January 14, 2019. A second draft of the report was reviewed with the committee on February 4, 2019.

A Board Draft of the report was presented to the Huron School District on February 25, 2019.

A final report, addressing Board comments and final committee comments, was delivered to the Huron School District on March 11, 2019.

Projects highlighted within this Facilities Improvements Study, included:

High School:

- Entrance and Office Addition & Renovation
- Commons and Corridors Finishes
- Restroom Updates
- HVAC and Lighting Updates
- New Phone and PA Systems
- Science Lab Counter Top/Sinks Updates
- Interior Door Updates
- Ceiling Tile Replacement
- Auditorium Lighting Updates

Vocational Building:

- Restroom Updates

Middle School:

- Office and Security Renovation
- Canopy Addition
- Auxiliary Gym Floor Replacement
- Restroom Updates
- Locker Room Updates

Washington Elementary:

- Acoustic Upgrades in the Commons

Participants in the process included:

Huron School District:

- Terry Nebelsick, Superintendent
- Roger Ahlers, Director of Technology
- Kelly Christopherson, Business Manager
- Jolene Konechne, High School Assistant Principal
- Mike Radke, High School Principal
- Rex Sawwell, Director of Transportation, Building & Grounds
- Laura Willemsen, Middle School Principal

Koch Hazard Architects:

- Keith Thompson, Principal-in-Charge
- Jeff Hazard, Principal Planner
- Chris Brockvelt, Project Manager
- Erica Locke, Interior Designer
- Brooke Wegener, Principal Document Developer

Associated Consulting Engineering, Inc.:

- Norm deWit, Mechanical Engineer
- Damon deWit, Mechanical Engineer
- Brad Shoup, Electrical Engineer



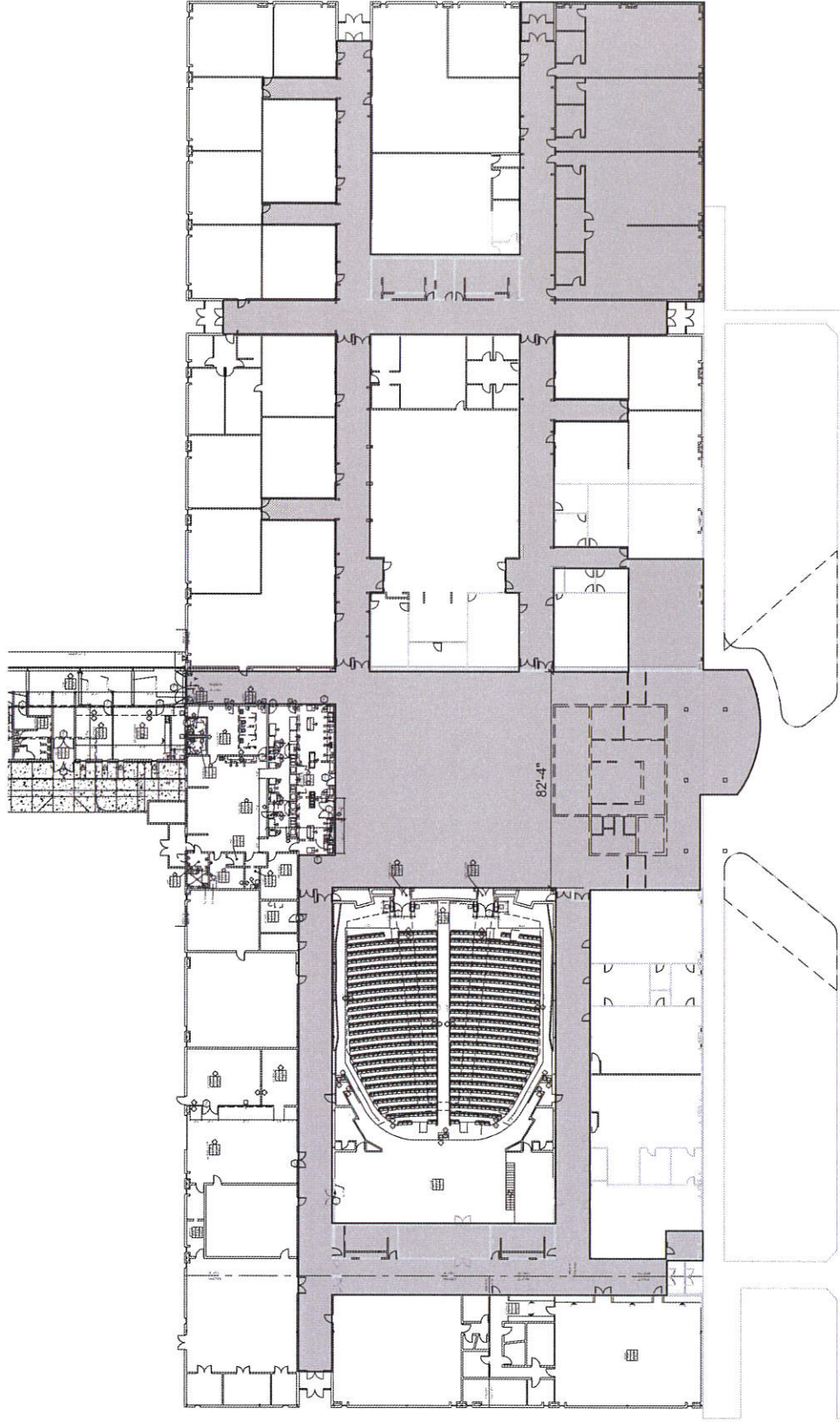
Building	Area	Description	Construction Timing	*Budget Amount	Reference Page
High School	Entrance/Office	Update entry/office configuration to create secure entrance. Renovate office to meet current and future needs.	12/19-8/20	\$1,520,000	3.3
	Commons & Corridors	Commons restrooms	Summer 2020	\$471,000 ^(b)	3.4
	Restrooms	Remove asbestos floor tile, replace with VCT or ERT	Summer 2020		3.5-3.6
		Renovate east and west restrooms, 4 stalls each, supervisable sinks - gain stalls Add privacy stalls at urinals in mens' restroom (2009)		\$466,000	
		Add restroom with changing table for SPED			
		Replace/add EWCs with bottle fillers			
	Phone/Intercom System	Replace current system with system using phones for intercom in rooms, speakers in halls, commons, restrooms. (Direct with vendor)	Summer 2020	\$50,000	
		Middle School and High School separate/some existing copper lines			
		Campus PA System	Summer 2020	\$161,000	
	HVAC System	Replace current DXRTUs with new RTUs with zone dampers and new controls	Summer 2020	\$773,000	3.7
Science Labs	Replace all counters and sinks in lab rooms	Summer 2020	^(c)	3.8	
Interior Doors	Address impacts of recent addition of panic bars at classroom doors	Summer 2020	^(c)	3.9	
Ceiling Tile	Selectively replace aging acoustic tile and grid.	Summer 2020	^(c)	3.10	
Auditorium	Add projector screen in commons		^(c) 100% (commons, some rooms)		
	New stage and house lighting	Summer 2019	\$339,000	3.11-3.12	
Vocational Building	Restrooms	Fully renovate 2 restrooms with 4 stalls each - gain 2 stalls	Summer 2020	\$144,000	4.2
Middle School	Entrance/Office	Update entry/office configuration to enhance security, meet current/future office needs	Summer 2020	\$178,000	5.3
	Canopy	Add canopy at entrance	Summer 2020	\$123,000	5.3
	Auxiliary Gym	Replace 6,200 s.f. of flooring with sports floor	Summer 2020	\$81,000	5.4
	Restrooms	Add privacy stalls at 2 urinals in each of 5 men's restrooms	Summer 2020	\$46,000	5.5
	Locker Rooms	Replace baskets with locker units, reconfigure to eliminate island lockers/enhance supervision	Summer 2020	\$67,000	5.6
Washington Elementary	Commons	Acoustic upgrades	Summer 2020	\$29,000	6.1-6.2

Notes:

- * base bid budget amount
- ^(c) HS finish costs combined

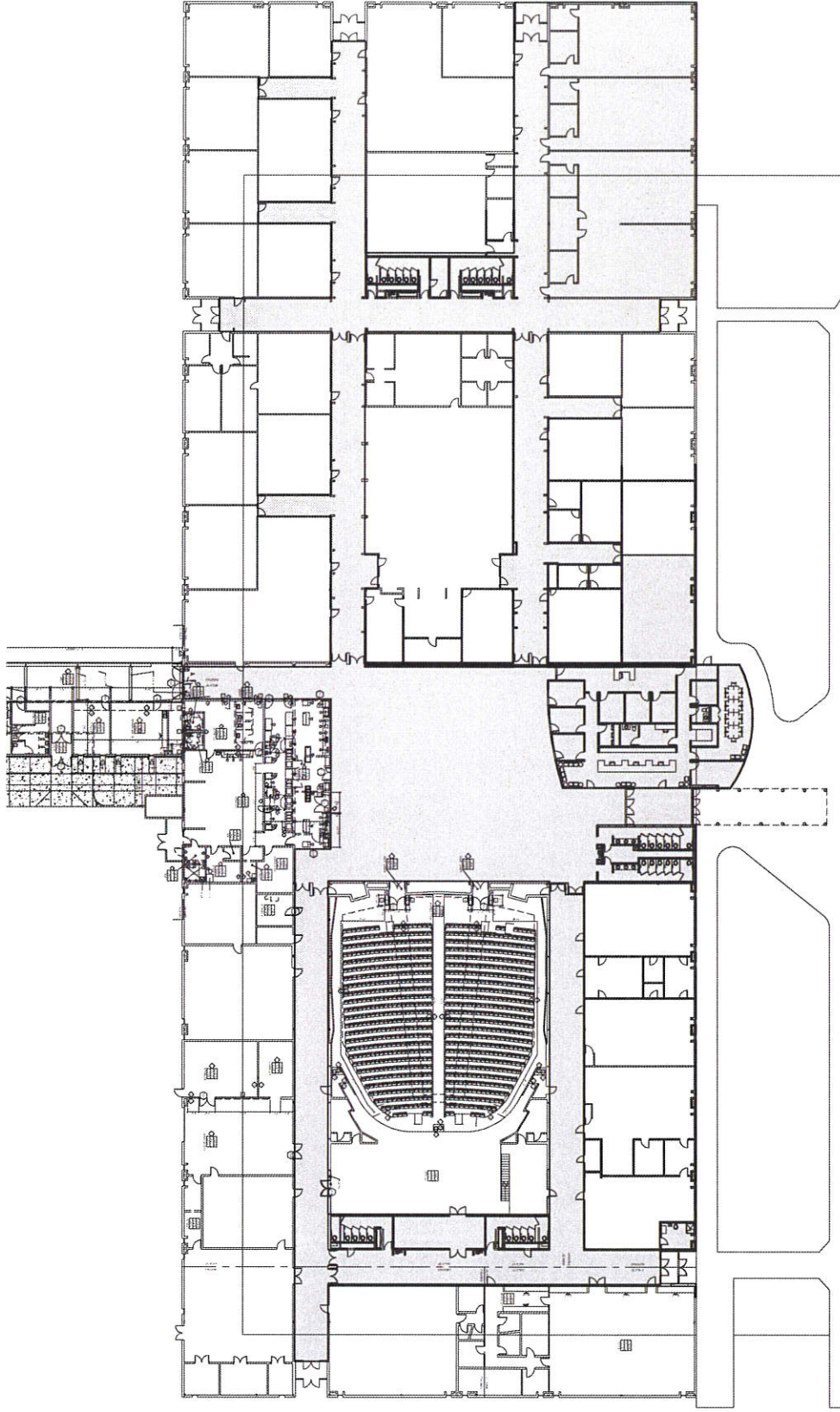
- not included, 5% owner construction reserve for renovation work
- these include 15% contingency for estimating





1"=40'-0"





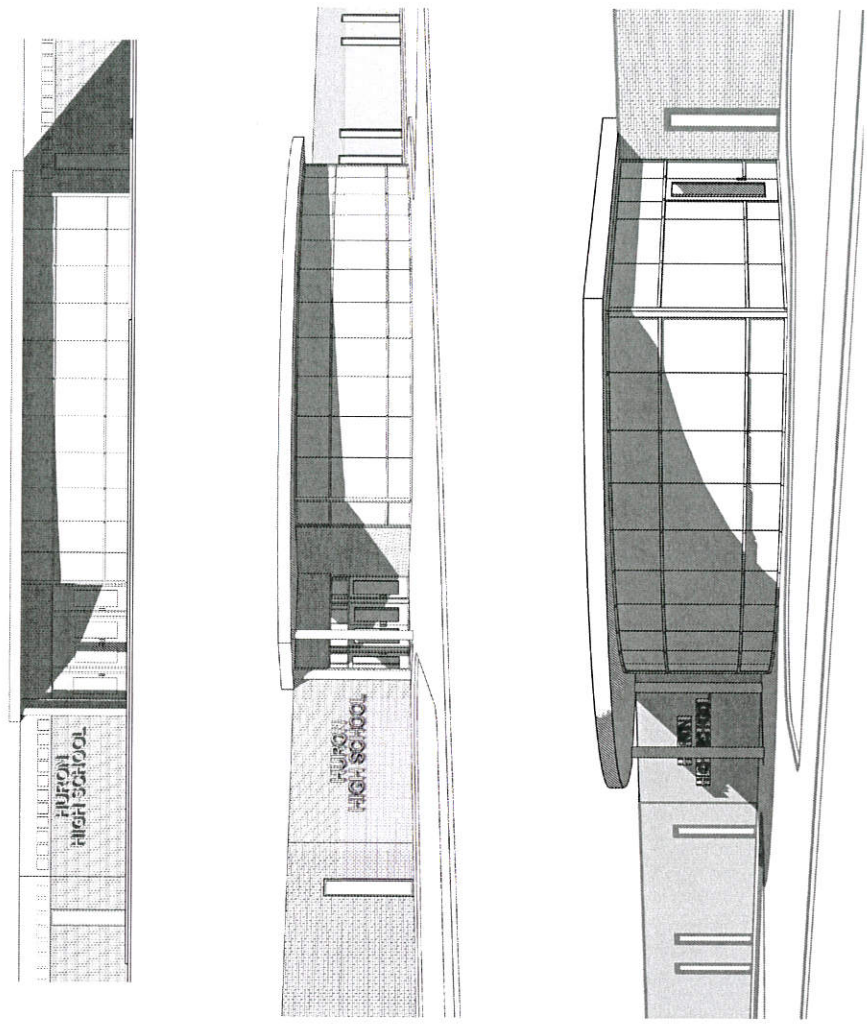
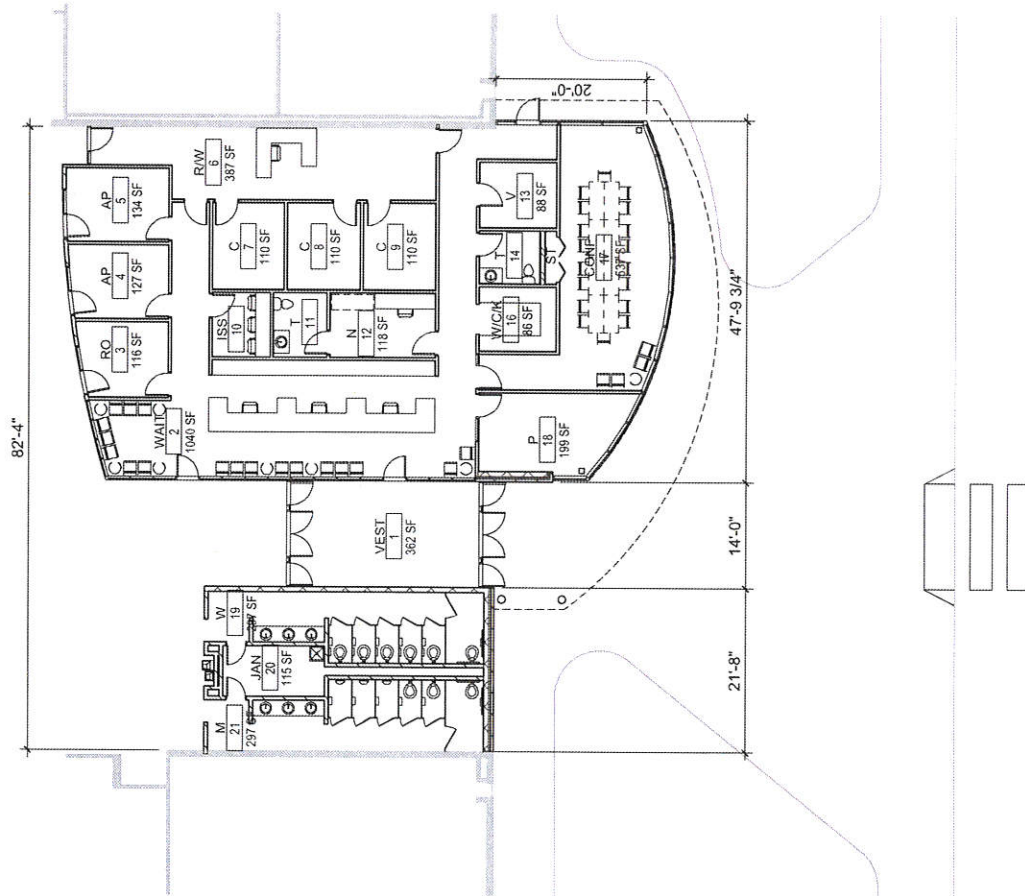
1" = 40'-0"

Overall Floor Plan | After
High School Improvements



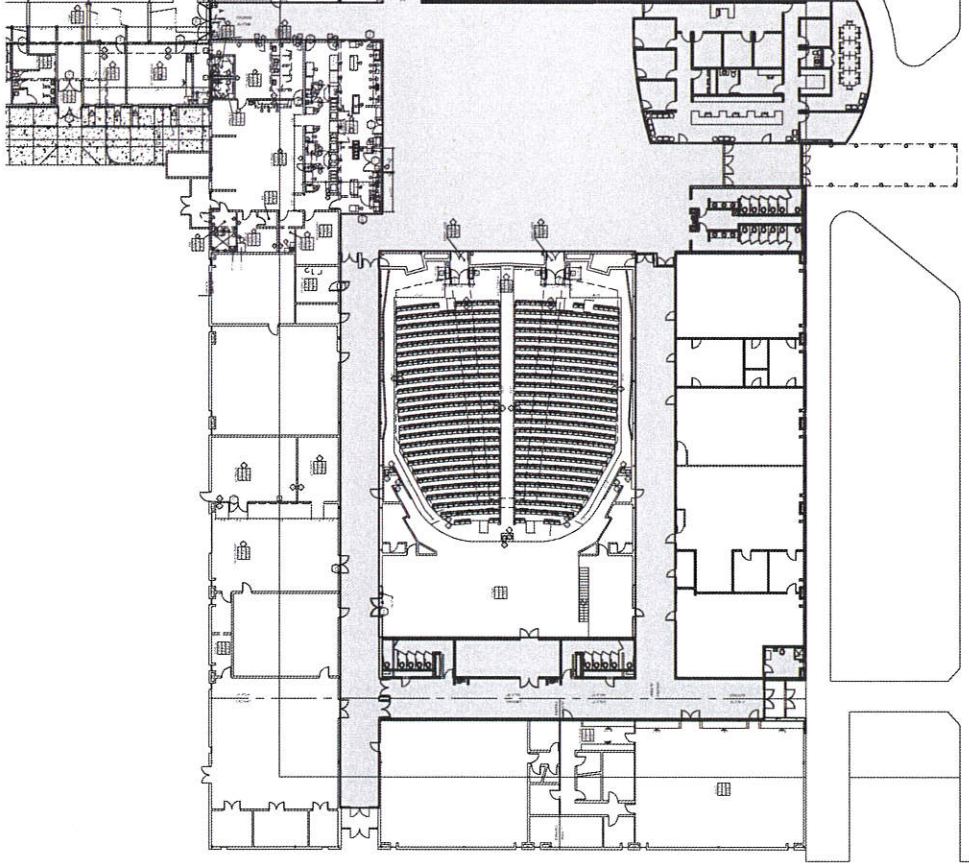
3.3

Scope: Update entry/office configuration to create a secure entrance.
 Renovate office to meet current and future needs.
 Update commons restrooms.



1/16"=1'-0"

3.4
Scope: Remove asbestos floor tile, replace with VCT or ERT.



EXISTING | COMMONS

PRODUCT SPEC PAGE
STANDARD EXCELRON® Imperial® Texture | MultiColor™
 Vinyl Composition Tile (VCT)

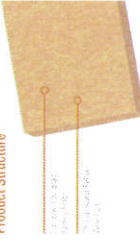
Product Information

Manufacturer	General Dynamics	Overall Thickness	3/16" (1.9mm)	Material	Styrene-butadiene
Product Line	Imperial®	Water Layer Thickness	0.005" (0.13mm)	Installation	Adhesive
Product Description	Imperial®	Color	MultiColor™	Factory Finish	Standard
Product Code	10000000000000000000	Weight	1.1 lbs/sq yd (0.52 kg/sq m)	Lead Time	1-2 weeks

Packaging

Tile Size	12" x 12" (305mm x 305mm)	Shipping Weight per Carton	12.5 lbs (5.7 kg)
Tile Thickness	3/16" (1.9mm)	Shipping Weight per Carton	12.5 lbs (5.7 kg)

Product Structure

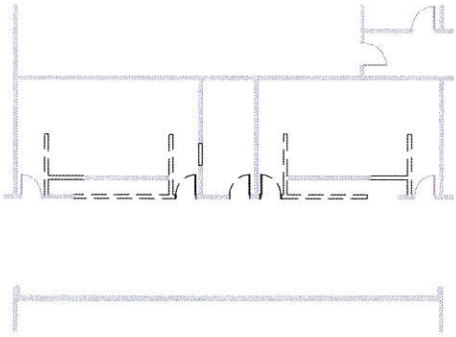


PROPOSED | VCT

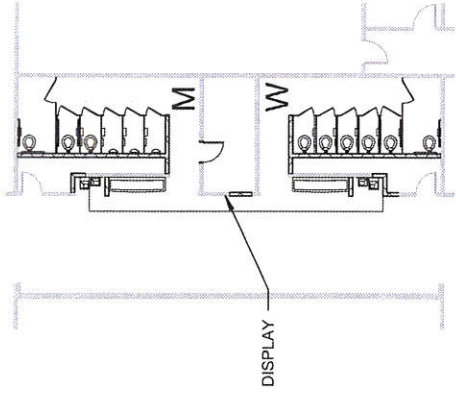
1"= 40'-0"

3.5

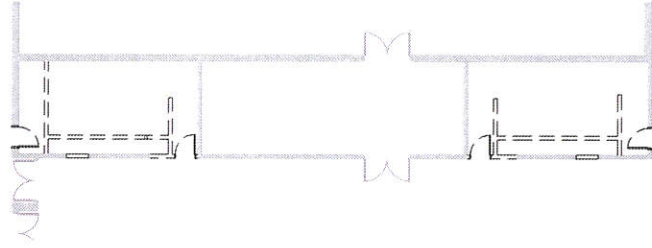
Scope: Renovate east and west restrooms.
Add commons restrooms and privacy stalls.
Renovate SPED restrooms.



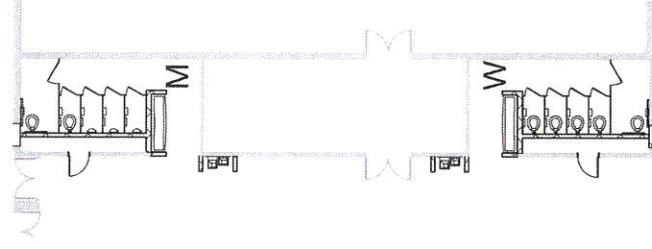
EXISTING | RESTROOM I



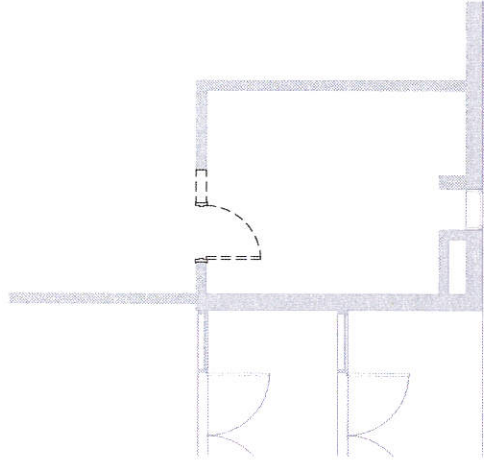
PROPOSED | RESTROOM I



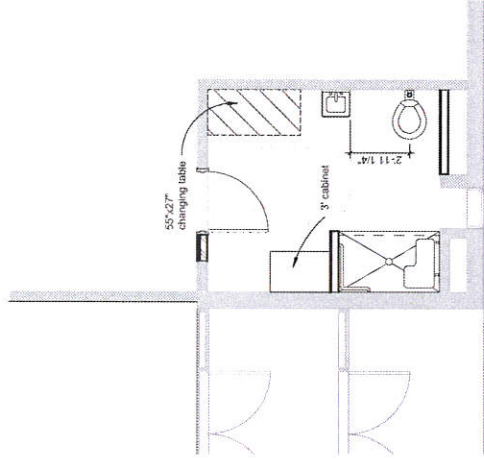
EXISTING | RESTROOM II



PROPOSED | RESTROOM II



EXISTING | SPED RESTROOM



PROPOSED | SPED RESTROOM



3.6 Potential materials for restroom updates.



RESTROOM WALL TILE



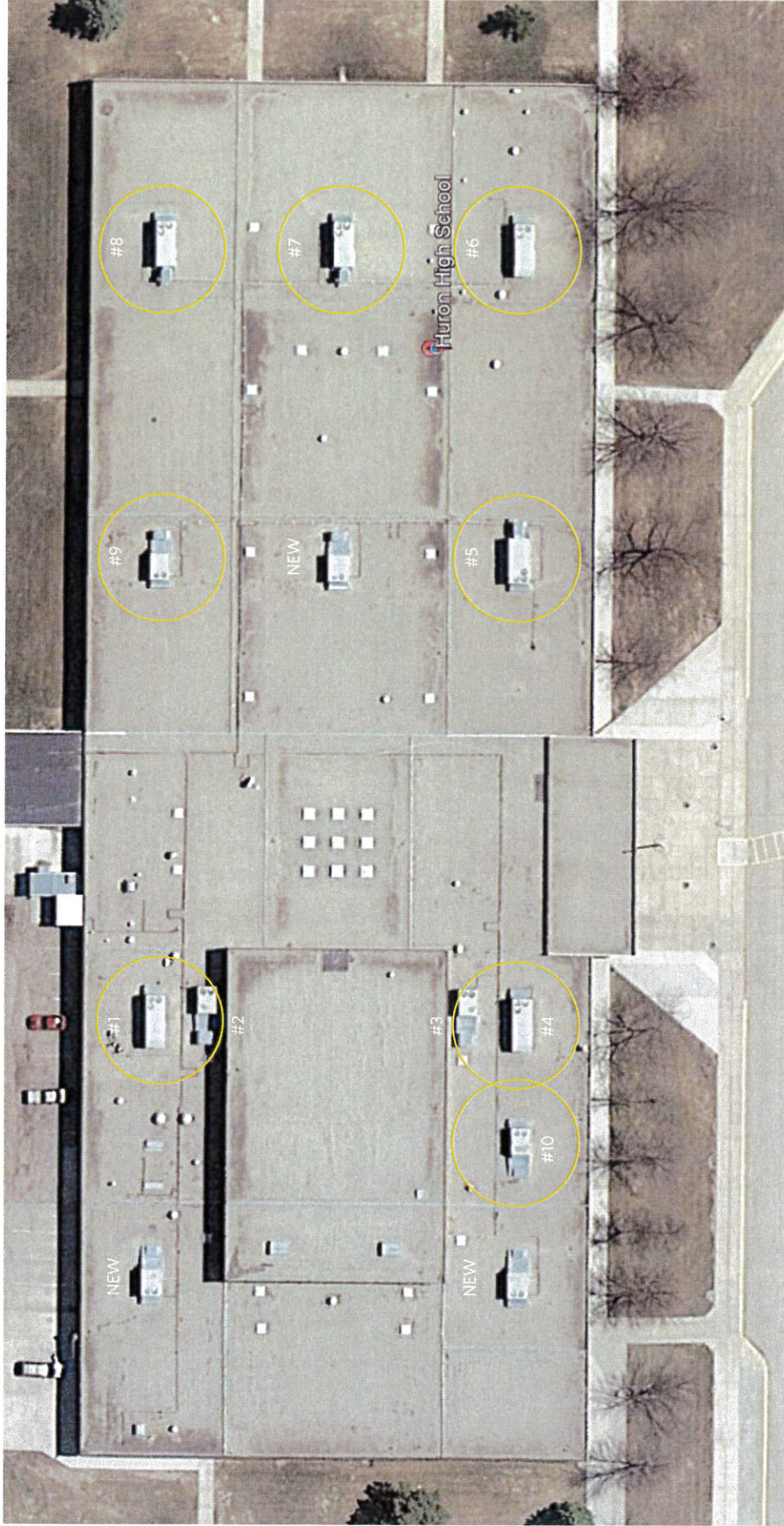
RESTROOM FLOOR TILE



RESTROOM FLOOR TILE

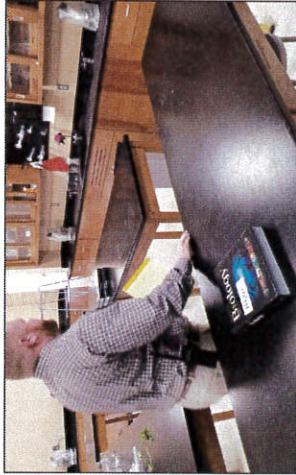
3.7

Scope: Replace current DXRTUs with new RTUs with zone dampers and new controls.
The complete Mechanical Upgrades Reports is located in the appendix section of this document.



3.8

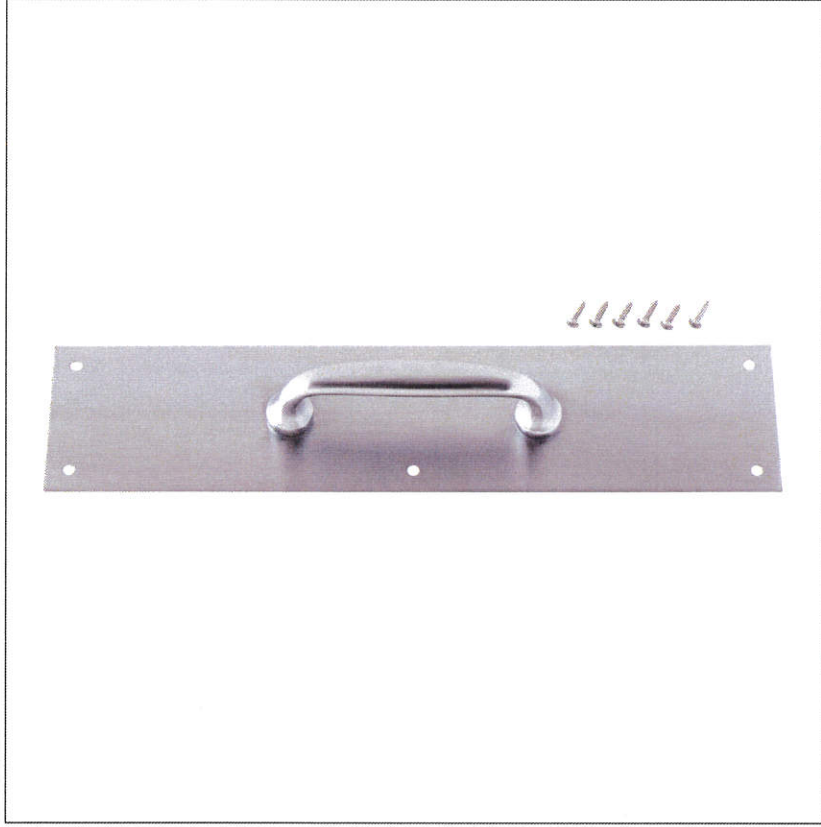
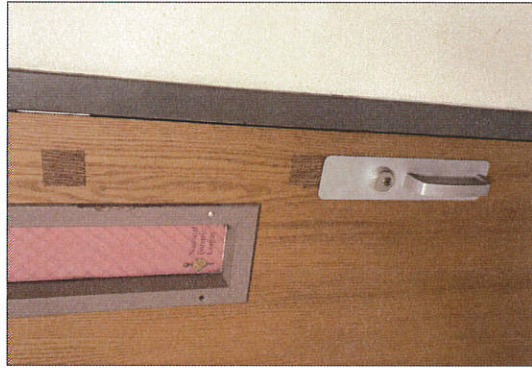
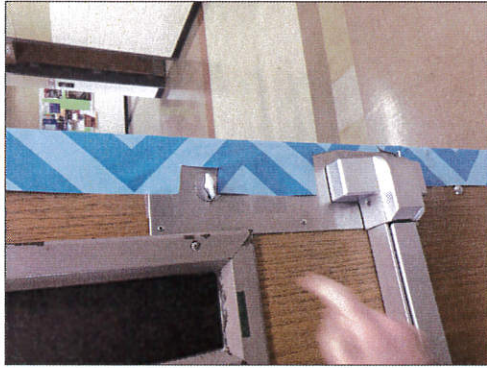
Scope: Replace all counters and sinks in lab rooms.



EXISTING | COUNTER TOPS



3.9
Scope: Address impacts of recent addition of panic bars at classroom doors.

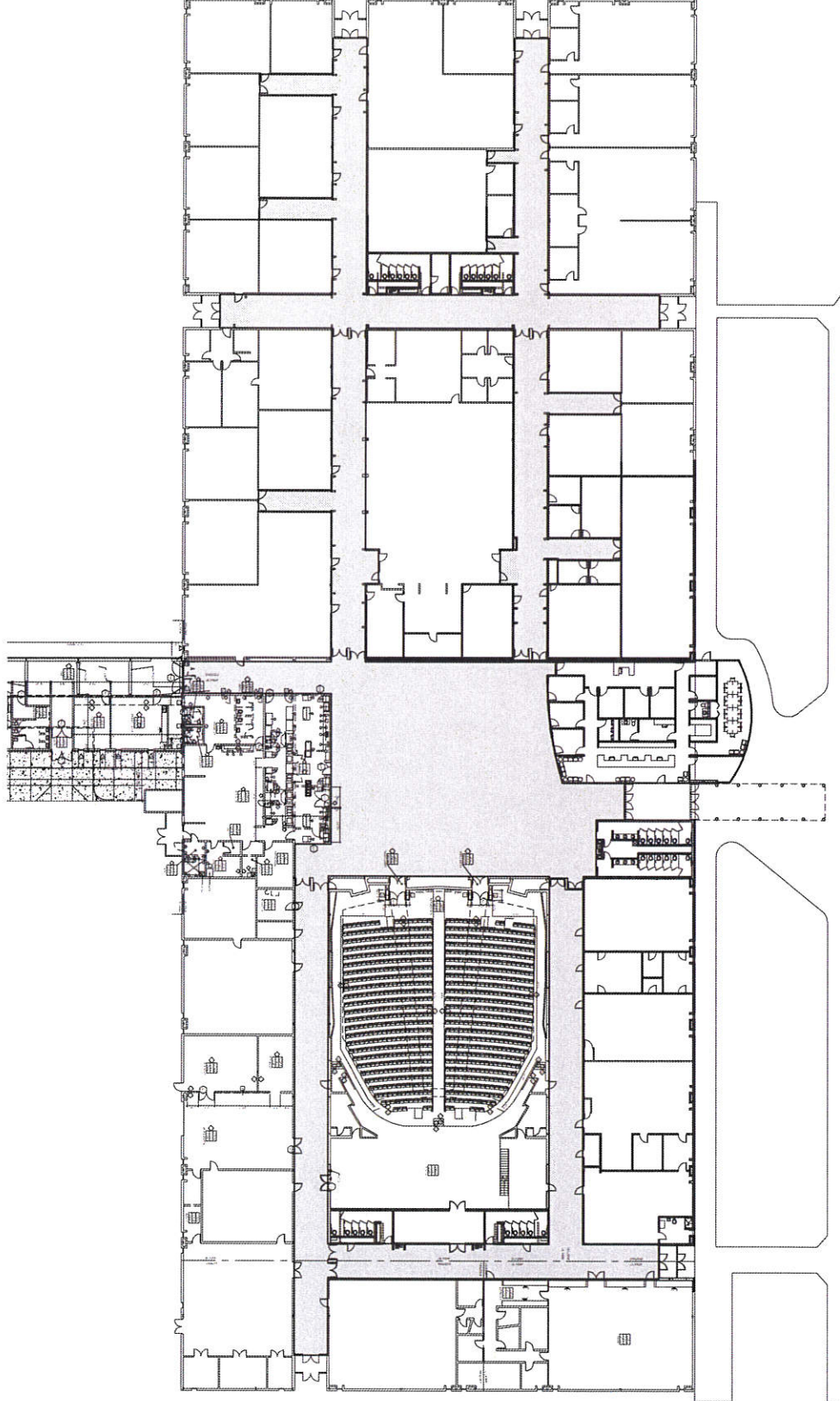


PROPOSED

EXISTING | INTERIOR DOORS

3.10

Scope: Selectively replace aging acoustic tile and grid.



EXISTING COMMONS CEILING



EXISTING HALL CEILING

3.12

Lighting product options.
The complete ETC estimate for these products is located in the appendix section of this document.



GENERAL INFORMATION

The ETC ColorSource PAR offers a quality of build and light that has never been seen in an affordable wash fixture. Using ETC's unique RGB-L color system, the ColorSource PAR provides rich, bright light unlike any other LED washlight in its class. And it was designed and manufactured by ETC.

Specification:

ADVANCED HIGH CEILING 6" REV - New Construction

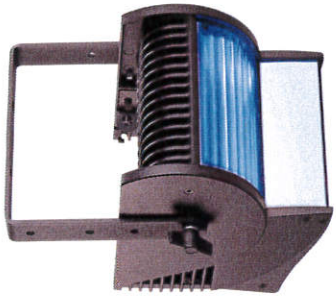


Rogue R3 Spot

Rogue R3 Spot delivers intense output, crisp optics, sharp focus and maintains a value proposition designed to maximize ROI. This feature-packed moving spot has a bright 300 W LED light engine that produces an even field of light, as well as rotating and static gobos, an 8 position and split-color enabled color wheel, and three facet prism to create stunning looks. A quick moving zoom range of 13 - 37" adds to its flexibility of use by giving the Rogue R3 Spot the ability to cover large areas.

GENERAL INFORMATION

Sensor3 dimming systems provide high density, professional features and exceptional reliability for lighting applications that require the best the entertainment industry can offer.

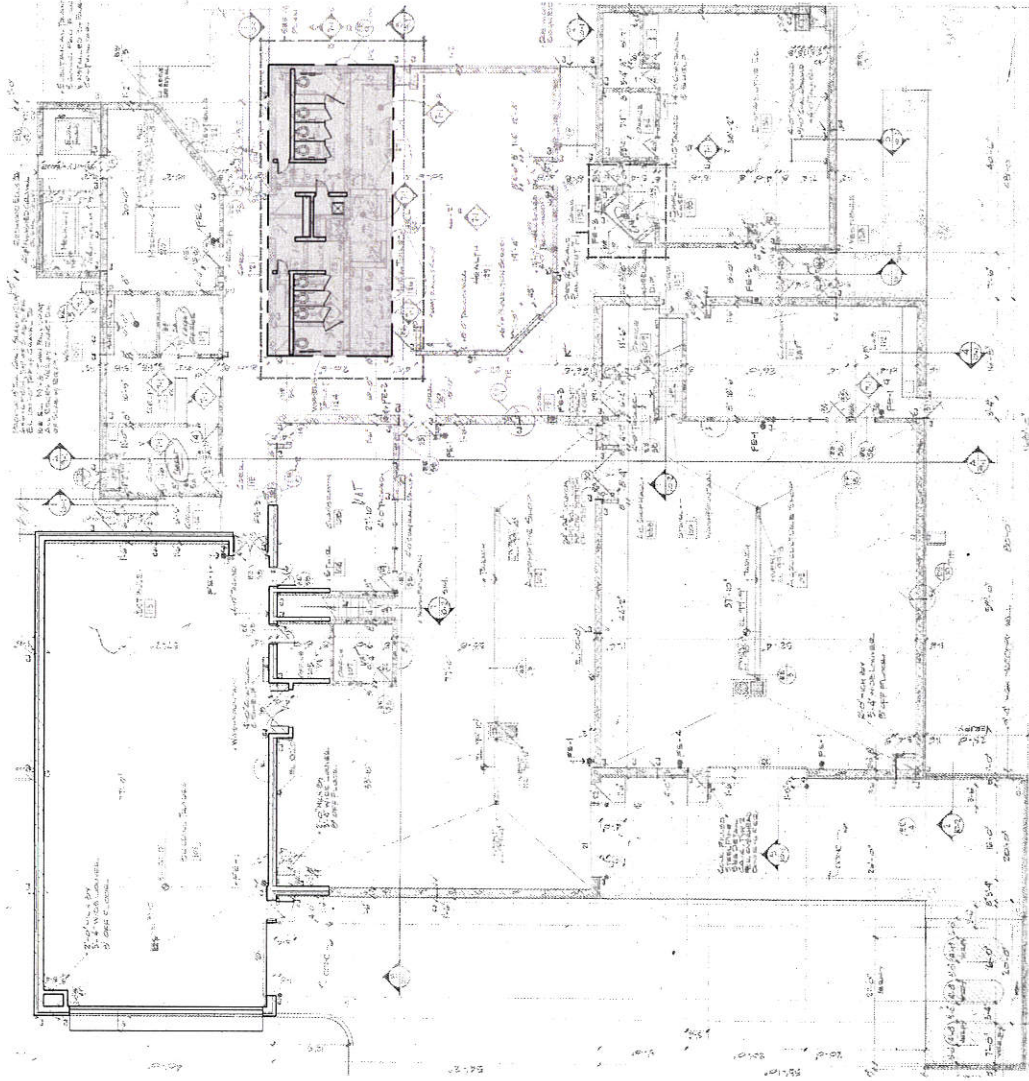


GENERAL INFORMATION

The ETC ColorSource Spot brings together the affordability of a four-color light engine with the build-quality and support of an ETC product. Using a unique mix of red, green, blue and line LED emitters, the ColorSource spot allows for an amazing range of color and depth, unlike other low-cost LED fixtures. Because it utilizes standard ETC optics, adapters and accessories, it is a versatile solution for any lighting need.

GENERAL INFORMATION

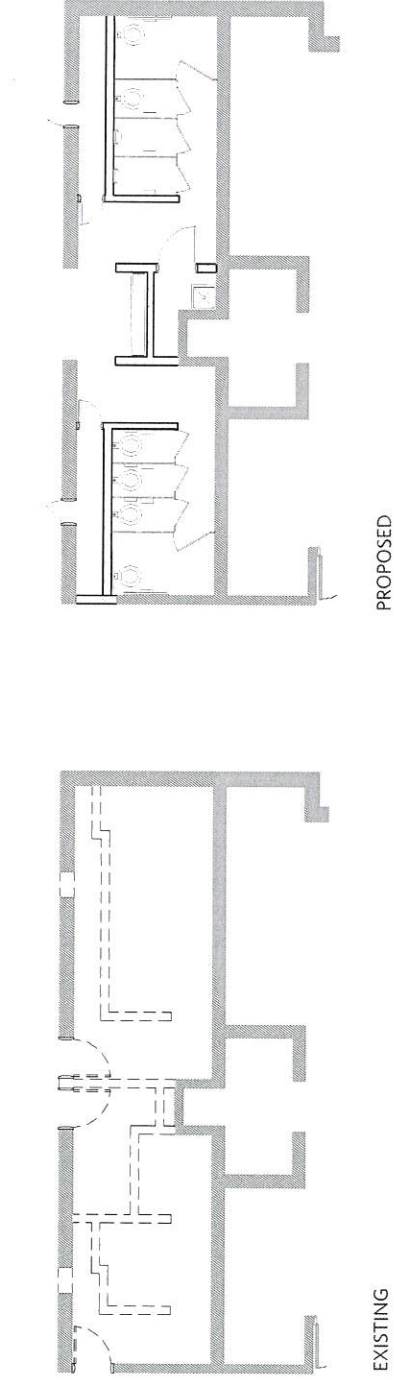
The ColorSource CYC is a dedicated cyclorama fixture designed with the sole purpose of creating beautiful, smooth washes of light on a cyclorama or wall. And it delivers! This is the first ETC fixture to use this innovative five-colour mix of red, green, blue, indigo and lime for expanded range and colour control.



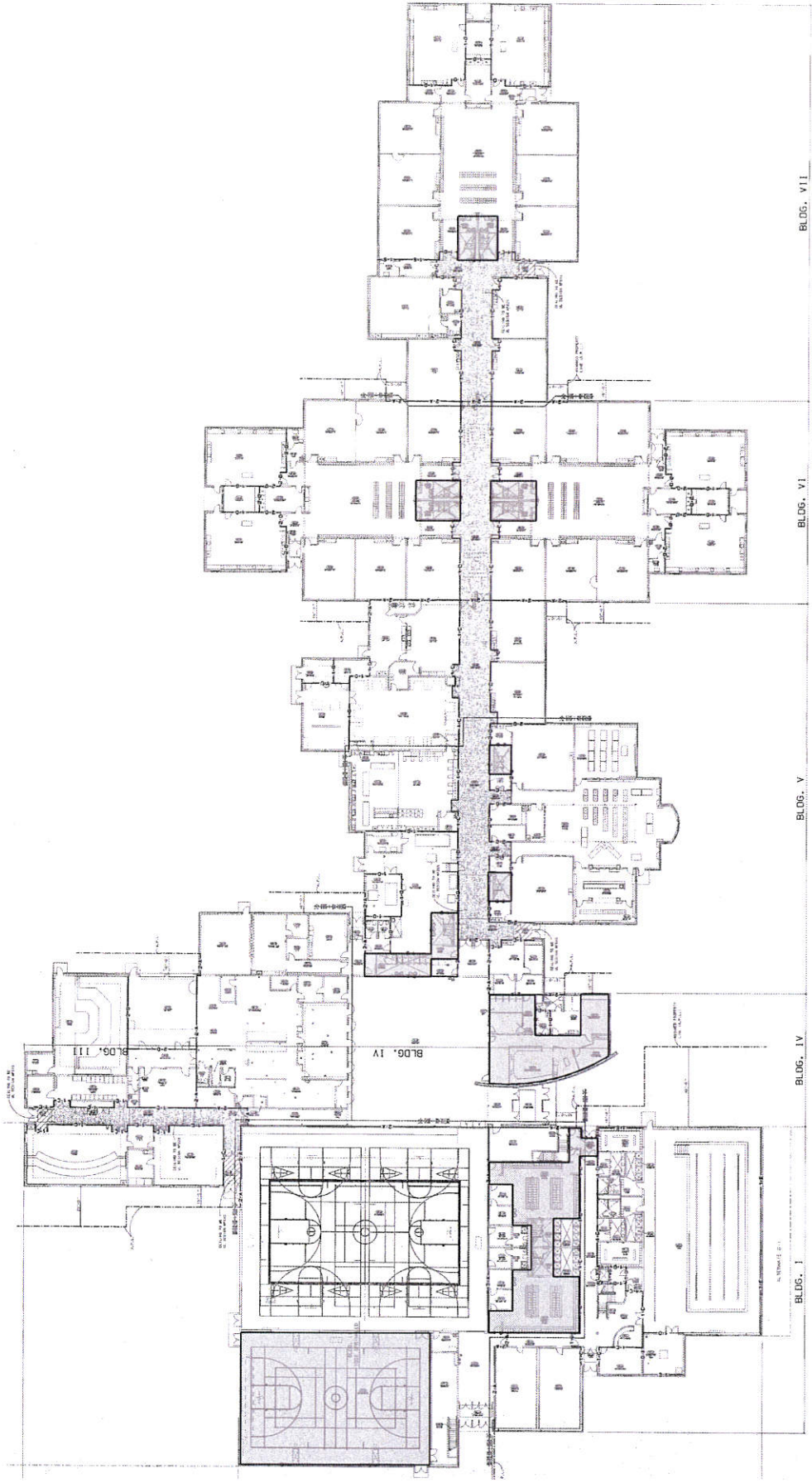
1"=20'-0"



4.2
Scope: Renovate restrooms.

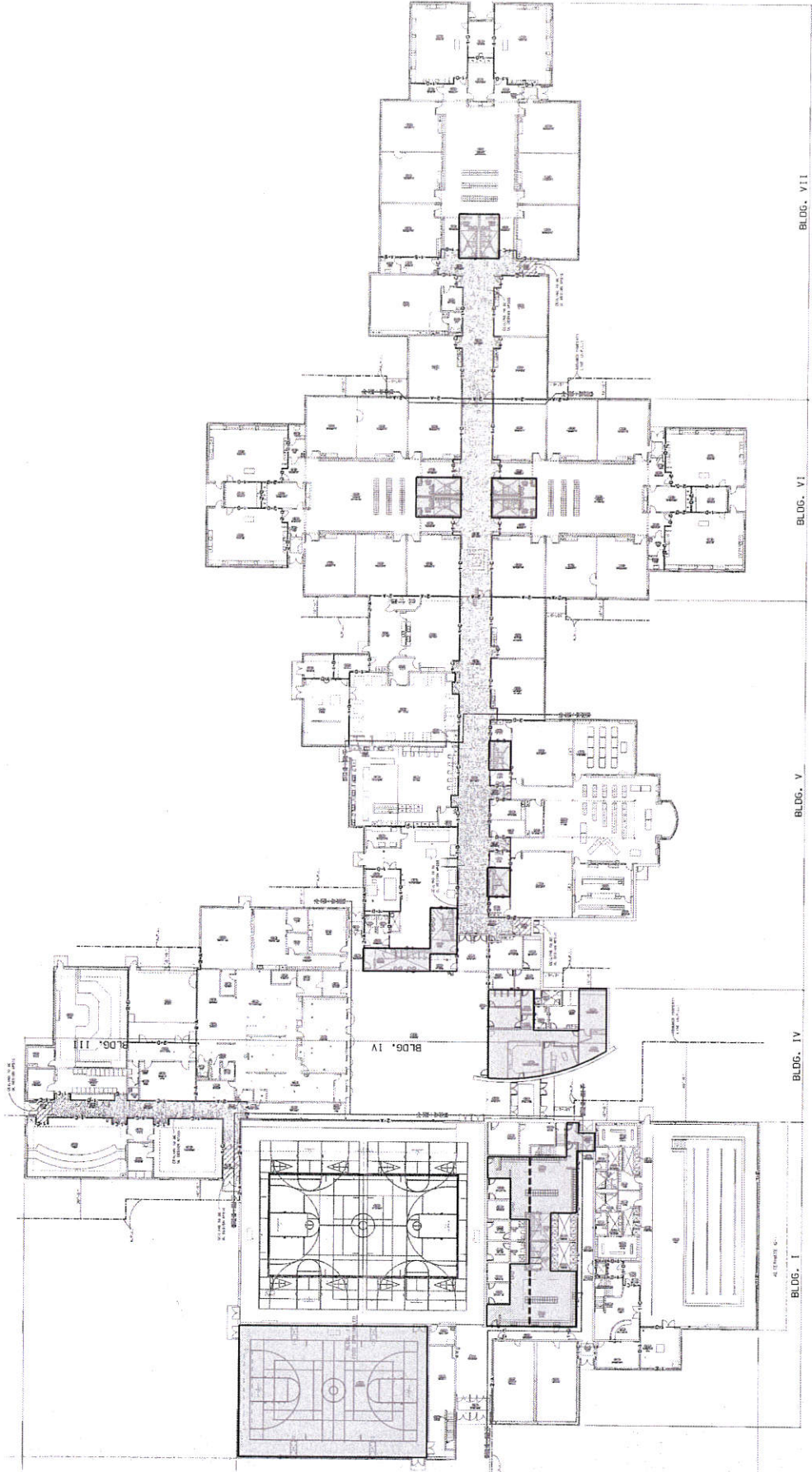


1/8" = 1'-0"



1"=50'-0"





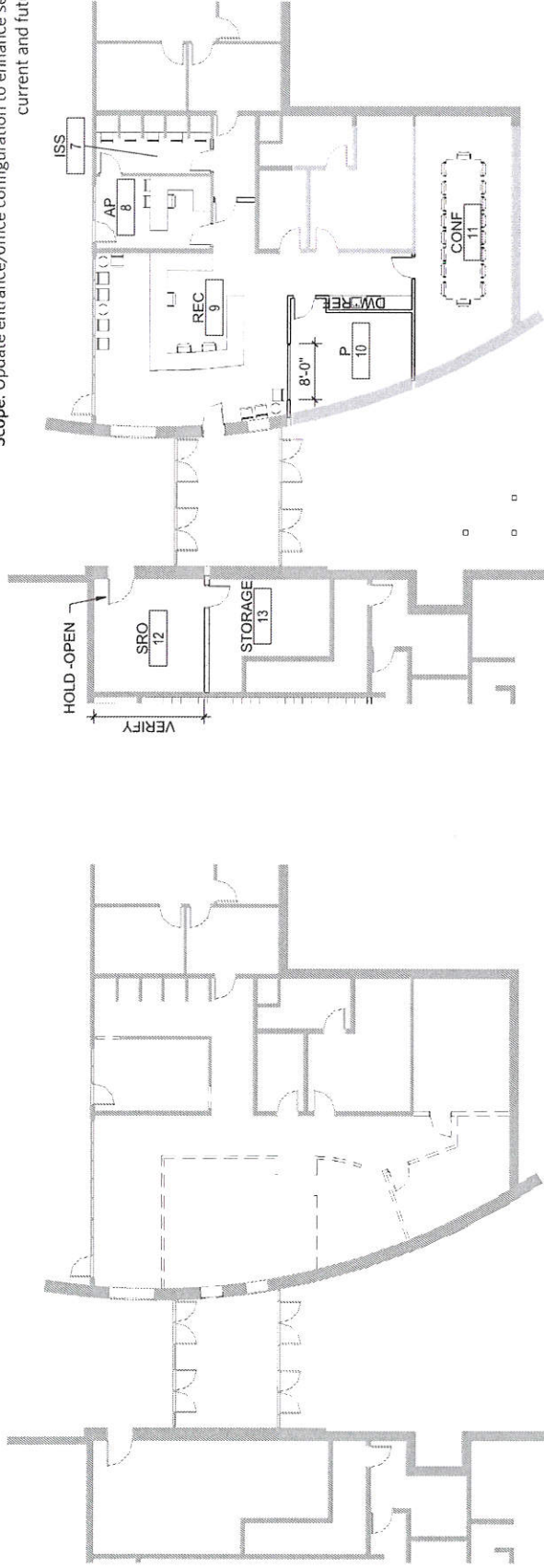
1" = 50'-0"

Overall Floor Plan | After
Middle School Improvements



5.3

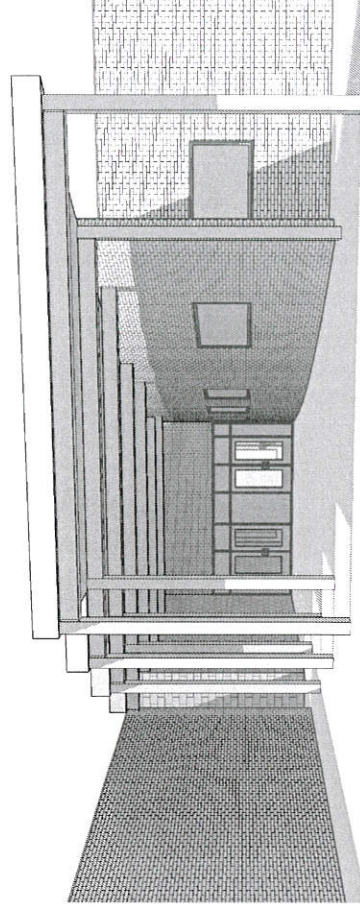
Scope: Update entrance/office configuration to enhance security and meet current and future office needs.
Add canopy.



EXISTING ENTRY

PROPOSED ENTRY

1/16"=1'-0"

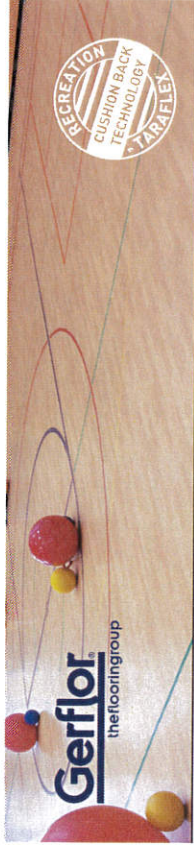
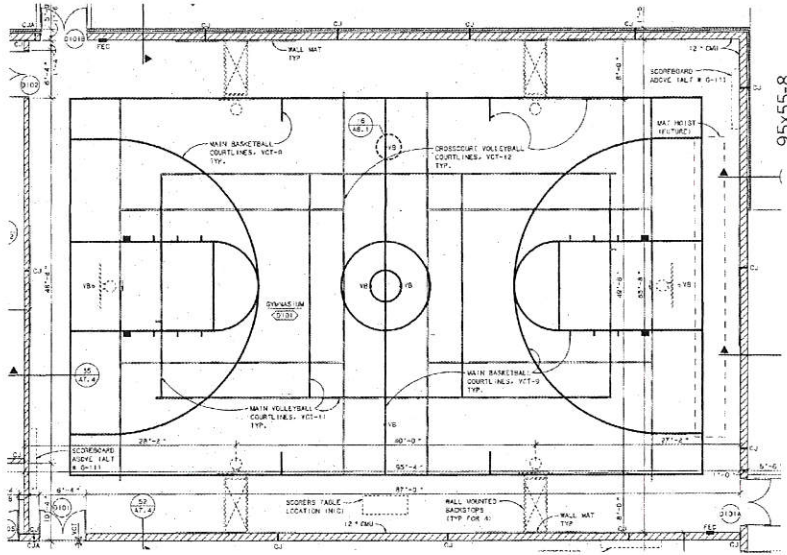


PROPOSED CANOPY



5.4

Scope: Replace current flooring with sports floor.



REC 60

MORE CUSHIONING, GREAT DURABILITY

REC 60 offers more cushioning as well as thicker wearlayer, making it the best option of the Recreation range for sports activities combined with some multi-purpose activities:

- ▶ 0.24 16 mm thick with 0.06 11.3 mm of low-viral wearlayer
- ▶ ComfortForce Reduction: +27%, +€ 33%
- ▶ Provides cushion and safety for children and teens from insecticidal adhesives
- ▶ Meets ASTM F2772 class 2 for safe sports and play
- ▶ Wood designs are available in 66 6" long rolls and are designed for standard gymnasium court sizes, which means less seams and better-looking floors
- ▶ PUProtect surface treatment for no wax, easy maintenance, and enhanced stain resistance

4'11" | PURProtect | 100% recyclable



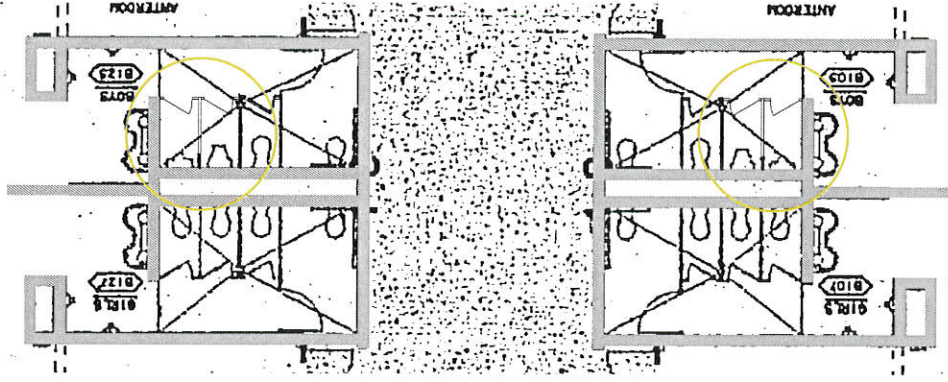
samples@gerflorusa.com

877.437.3567

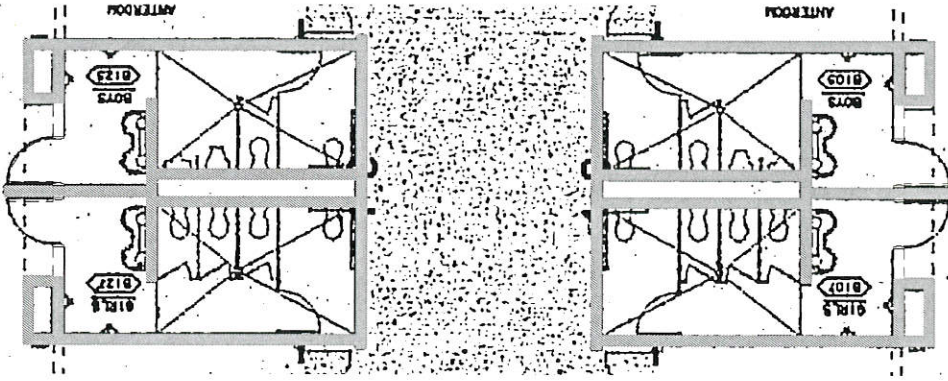
www.gerflorusa.com

5.5

Scope: Add privacy stalls.



PROPOSED



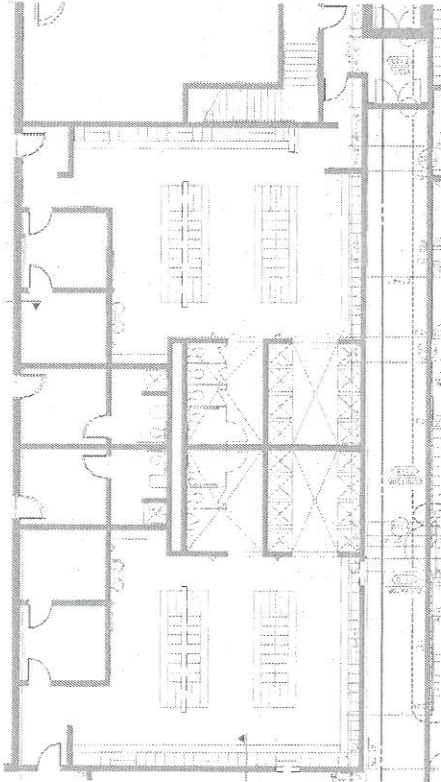
EXISTING

1/8"=1'-0"

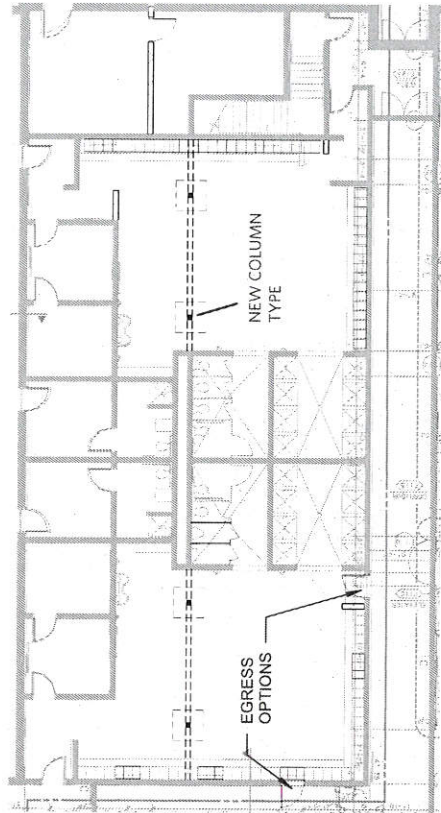


5.6

Scope: Replace baskets with locker units, reconfigure to eliminate island lockers/enhance supervision



EXISTING



PROPOSED

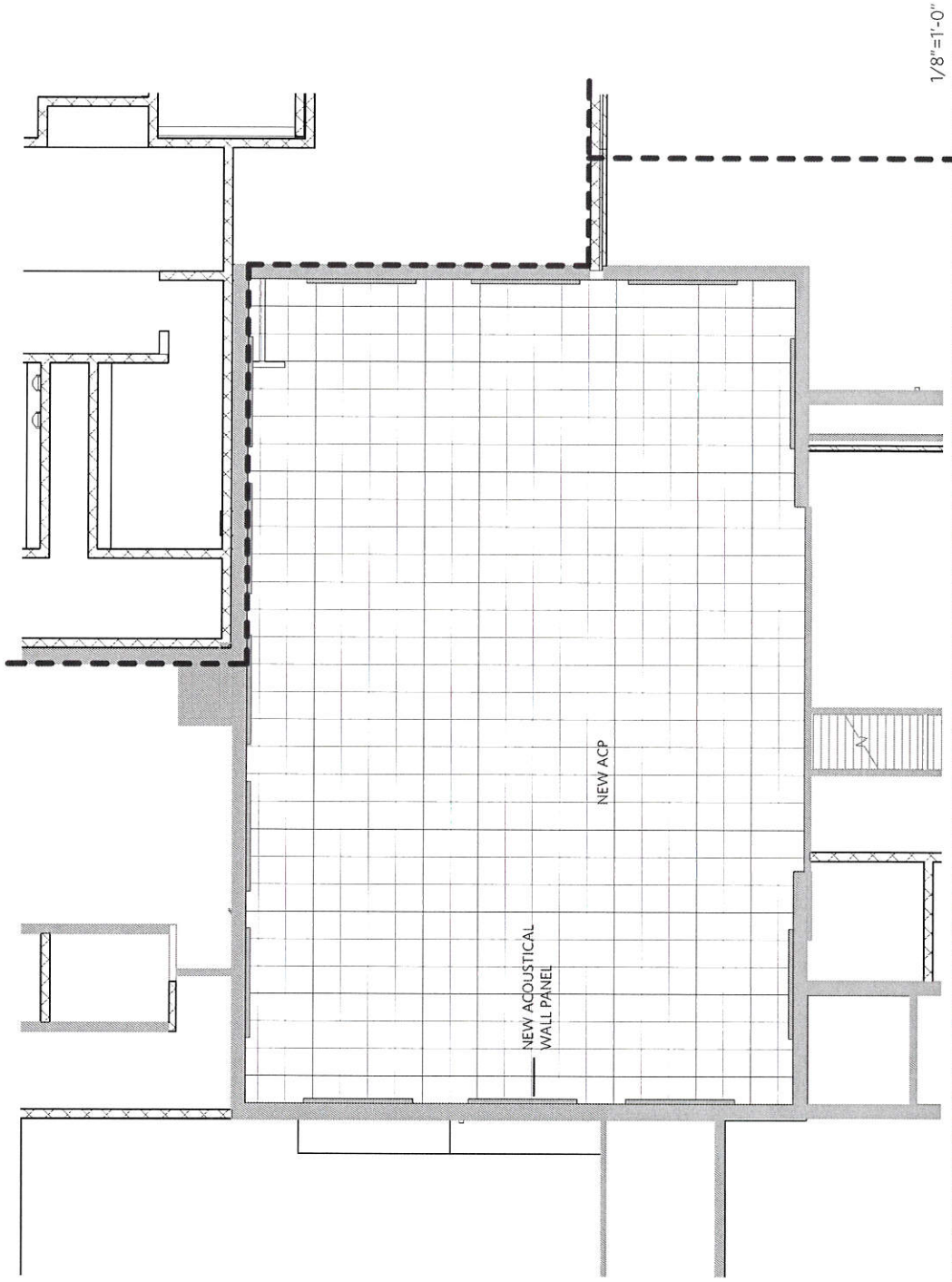
1/16" = 1'-0"

Locker Room Updates
Middle School Improvements



6.1

Scope: Replace acoustical ceiling tile in commons area.



EXISTING

6.2
Product options.



USG MARS™ ACOUSTICAL PANELS
CLIMAPLUS® PERFORMANCE WITH NEW CLEAN ROOM OPTIONS



FEATURES AND BENEFITS

- Available in 12" and 24" sizes, reducing labor time and energy use.
- High performance 100% recycled fiber, reducing environmental impact.
- Available in a variety of colors and finishes, including metallic and wood-grain.
- Available in a variety of textures, including smooth, perforated and embossed.
- Offer 20% higher impact resistance against vandalism, graffiti and fire.
- Clean Room, ISO Class 1000.
- GREENGUARD Gold Certified for low emitting products.
- Superior acoustic performance, up to 0.90 alpha.

APPLICATIONS

- High-end commercial
- Schools and higher education
- Corporate
- Performance venues and sports arenas
- Entertainment venues and auditoriums

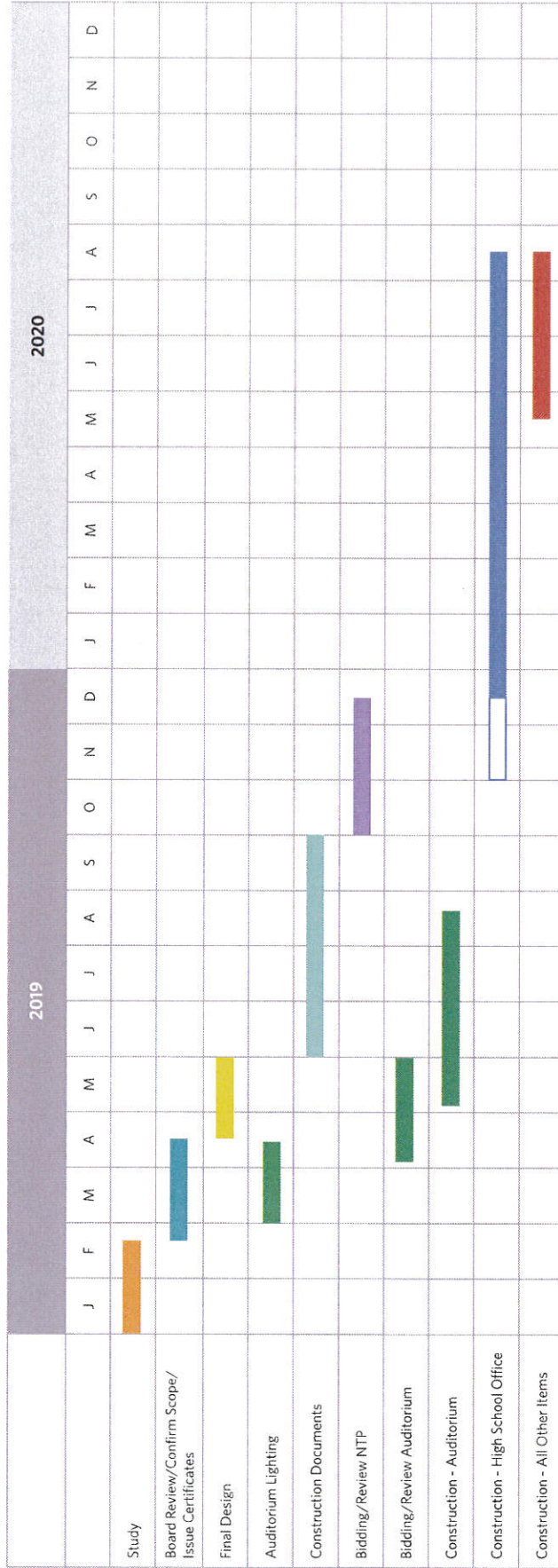
SUBSTRATE

- Available in 12" and 24" sizes.

Fine-textured panel



EXAMPLE | 1-INCH FABRIC ACOUSTICAL WALL PANEL



PRELIMINARY STATEMENT OF PROBABLE COST- TOTAL FACILITIES IMPROVEMENTS

March 11, 2019

New Phone System (direct with vendor)	40,000
CCTV Relocations (direct with vendor)	10,000
High School Entrance/ Office	1,493,745
High School HVAC Replacement	772,757
High School Restrooms (including SPED)	465,706
High School Finishes	471,481
High School Auditorium Lighting	403,490
Campus PA system	161,130
Vocational School Restrooms	143,813
Middle School Offices	177,792
Middle School Restrooms	48,723
Middle School Lockers	67,210
Middle School Auxiliary Gym Flooring	81,102
Middle School Canopy	133,255
Washington Elementary Commons Acoustics	28,703
TOTAL CONSTRUCTION	4,498,908

PRELIMINARY STATEMENT OF PROBABLE COST- HIGH SCHOOL OFFICE ADDITION

March 11, 2019

Demolition	83,278	
Foundations	43,053	
Substructure	10,326	
Superstructure	48,150	
Exterior Closure	182,532	
Roofing	23,921	
Interior Construction	290,783	
Mechanical- new RTU , plumbing, sprinkler	240,471	
Electrical- new power, data, lighting	98,946	
Kitchen Equipment- conference	1,173	
Specialties	40,074	
Sitework	50,400	
Contingency (15%)	166,966	
Inflation to 2020 (3%)	30,895	3.0%
Construction Reserve	64,004	5.0%
Subtotal Construction	1,374,973	
cost per square foot	\$261	
Testing/Miscellaneous	11,131	1%
Other	11,131	1%
Professional Services (estimate)	96,248	7.0%
TOTAL CONSTRUCTION	1,493,745	

PRELIMINARY STATEMENT OF PROBABLE COST- HIGH SCHOOL RESTROOMS

March 11, 2019

Demolition	28,115	
Substructure- patching	3,004	
Interior Construction- new restrooms, bar/ prep area, wood floor, paint, misc	136,737	
Mechanical- HVAC, plumbing, sprinkler	119,546	
Electrical- new power and lighting	30,803	
Specialties	36,559	
Contingency (15%)	53,215	
Construction Reserve	20,399	5.0%
Subtotal Construction	428,379	
cost per square foot	\$245	
Testing/Miscellaneous	3,548	1%
Other	3,548	1%
Professional Services (Estimate)	29,987	7.0%
TOTAL CONSTRUCTION	465,706	

PRELIMINARY STATEMENT OF PROBABLE COST- VOCATIONAL TECH RESTROOMS

March 11, 2019

Demolition	10,153	
Substructure- patching	1,502	
Interior Construction	48,904	
Mechanical- HVAC, plumbing, sprinkler	36,817	
Electrical- new power and lighting	5,985	
Specialties	13,037	
Contingency (15%)	17,460	
Construction Reserve	6,693	5.0%
Subtotal Construction	140,551	
cost per square foot	\$276	
Testing/Miscellaneous	1,164	1%
Other	1,164	1%
Professional Services (Estimate)	658	7.0%
TOTAL CONSTRUCTION	143,813	



PRELIMINARY STATEMENT OF PROBABLE COST- MIDDLE SCHOOL OFFICE

March 11, 2019

Demolition	18,184	
Substructure- patching	469	
Interior Construction	66,347	
Mechanical- HVAC, plumbing, sprinkler	22,648	
Electrical- new power, data, lighting	22,530	
Kitchen Equipment	1,760	
Specialties	258	
Contingency (15%)	19,830	
Inflation to 2020 (3%)	3,966	
Construction Reserve	7,601	
Subtotal Construction	163,595	
cost per square foot	\$102	
Testing/Miscellaneous	1,322	1%
Other	1,322	1%
Professional Services (Estimate)	11,452	7.0%
TOTAL CONSTRUCTION	177,792	

PRELIMINARY STATEMENT OF PROBABLE COST- MIDDLE SCHOOL RESTROOMS

March 11, 2019

Demolition	12,707	
Structure	4,694	
Interior Construction	6,102	
Electrical- relocations	1,878	
Specialties	11,735	
Contingency (15%)	5,567	
Construction Reserve	2,134	5.0%
Subtotal Construction	44,816	
cost per square foot	\$28	
Testing/Miscellaneous	371	1%
Other	371	1%
Professional Services	3,137	7.0%
TOTAL CONSTRUCTION	48,723	

PRELIMINARY STATEMENT OF PROBABLE COST- MIDDLE SCHOOL LOCKERROOMS

March 11, 2019

Demolition	9,429	
Foundations	5,867	
Substructure- patching	1,690	
Superstructure	14,082	
Interior Construction	5,116	
Specialties	15,020	
Contingency (15%)	7,681	
Construction Reserve	2,944	5.0%
Subtotal Construction	61,829	
cost per square foot	\$29	
Testing/Miscellaneous	512	1%
Other	512	1%
Professional Services (Estimate)	4,328	7.0%
TOTAL CONSTRUCTION	67,210	

PRELIMINARY STATEMENT OF PROBABLE COST- HIGH SCHOOL AUDITORIUM LIGHTING

March 11, 2019

Demolition	10,403	
Interior Construction	8,332	
Electrical- new lighting and controls	284,564	
Contingency (15%)	45,495	
Construction Reserve	17,440	5.0%
Subtotal Construction	366,233	
cost per square foot	\$61	
Testing/Miscellaneous	3,033	1%
Other	3,033	1%
Professional Services (Estimate)	31,130	8.5%
TOTAL CONSTRUCTION	403,490	



PRELIMINARY STATEMENT OF PROBABLE COST- HIGH SCHOOL HVAC REPLACEMENT

February 25, 2019

Demolition	8,132	
Interior Construction- included with ceiling work	0	
Mechanical- RTU's with zone dampers, plumbing, controls	595,531	
Electrical	23,469	
Contingency (10%)	61,214	
Construction Reserve	20,693	3.0%
Subtotal Construction	710,447	
cost per square foot	\$7	
Testing/Miscellaneous	6,285	1%
Other	6,285	1%
Professional Services (Estimate)	49,731	7.0%
TOTAL CONSTRUCTION	772,757	

PRELIMINARY STATEMENT OF PROBABLE COST- MIDDLE SCHOOL CANOPY

March 11, 2019

Demolition	13,417	
Foundations	21,621	
Superstructure	28,926	
Exterior Closure	19,949	
Roofing	12,820	
Electrical- new power, data, lighting	4,048	
Sitework	2,934	
Contingency (15%)	10,371	
Inflation to 2020 (3%)	2,709	3.0%
Construction Reserve	5,704	5.0%
Subtotal Construction	122,499	
cost per square foot	\$107	
Testing/Miscellaneous	1,037	1%
Other	1,037	1%
Professional Services (estimate)	8,575	7.0%
TOTAL CONSTRUCTION	133,255	

PRELIMINARY STATEMENT OF PROBABLE COST- HIGH SCHOOL FINISHES

February 25, 2019

Demolition- assumes no certified asbestos abatement	59,537	
Flooring	70,408	
Ceilings	136,121	
Lab Countertops- solid surface	108,428	
Specialties- Door hardware and projection screen	8,214	
Contingency (15%)	37,930	
Construction Reserve	21,032	5.0%
Subtotal Construction	441,670	
cost per square foot	\$74	
Testing/Miscellaneous	3,827	1%
Other	3,827	1%
Professional Services (Estimate)	22,083	5.0%
TOTAL CONSTRUCTION	471,481	

Alternates:

# & NAME	ADD(DEDUCT)
#1 Enhanced Resilient Tile	42,509
TOTAL ALTERNATES	\$42,509
Professional Services	2,125
TOTAL CONSTRUCTION AND ALTERNATES	\$513,990







Huron School Improvements | DRAFT

Huron School District

PAGE
8.1-8.8

CONTENTS

- Appendix
- Meeting Minutes
- Mechanical Narrative
- Electrical Narrative
- ETC Estimate

13 December 2018
Huron Schools Improvements Study #1849
Progress Meeting
Page 3

13 December 2018
Huron Schools Improvements Study #1849
Progress Meeting
Page 2

Date: 13 December 2018
Project: Huron Schools Improvements Study #1849

Subject: Kick-off Meeting
Present: Roger Aiders, HSD
Kelly Christopherson, Business Manager
Jolene Koroscine, HSD
Terry Nehlsick, Superintendent
Mike Radke, HSD
Rex Sawwell, HSD
Cynthia Smith, KVA
Keith Thompson, KVA


To: Those Present
Norm deWit, ACEI
Brad Shoup, ACEI
This meeting was held to review initial scope for the Huron School District Facilities Improvements Study.

1. Project funding through capital outlay certificates.
2. HS entry office
 - a. Addition at office- to south, modify entry at one side
 - b. 1000 students projected within 10 years
 - c. Add counter-3, seats and two guests
 - d. Add counter for teachers work-leave walls in place, add copier
 - e. IT room to remain
 - f. Separate waiting/ reception
 - g. Display space in waiting
 - h. File cabinet space
 - i. 4 admin offices
 1. One assistant principal with view to commons
 2. One secretary with view to commons
 3. Principal office with view of drop off
 4. Table for 6

- e. Admin conference room- 16 at modular tables
- f. Existing IT elec closet in admin suite, may be difficult to move for miscellaneous storage
- g. Nurse on call room with restroom and staff restroom
- h. Need space for exam table, shaving and cabinet- existing space works
- i. ADA restrooms- 2 plus nurse
- j. Main office
 1. 3 workstations, includes one student
 2. Two countertop printers
 3. ID station
 4. To need to salvage existing desk
 5. To need to salvage existing desk
 6. Waiting chairs for 8
 7. Waiting chairs for 8
 8. SRO office with security monitors, two guest chairs
 9. View of commons
 10. Discrete exit for handicapped students
 11. ISS room with three cubicles
 12. General storage for supplies
 13. General storage for supplies
 14. Secure entrance- eliminate east set of doors
 15. Like appearance of Brookings HS
 16. Consider curve like ES and MS

14. MS
 - a. Secure entry
 - b. Reception reception layout
 - c. Larger reference counter with principal
 - d. Add fridge and counter/ sink
 - e. Move principal toward main office, replace kitchenette
 - f. No additional restroom
 - g. Add door at ISS to office, and door to assistant principal
 - h. Sport floor in auxiliary gym to match ES product
 - i. Restroom renovation for privacy
 - j. Consider revising locker room restrooms also, except pool area in Norcby Center
 - k. Consider general locker room improvements, due to wear and tear
 - l. May reduce lockers, eliminate islands
 - m. Use traditional lockers
15. ES
 - a. Music/ commons noise issues at all 3
16. Next steps:
 - a. KH to develop initial concepts
 - b. Owner to send vocational school plans and HS original plans
 - c. Progress meeting to be scheduled in 2-3 weeks

END OF REPORT
Please carefully review this record and inform us immediately of any inaccuracies.

Sincerely,
Koch Hazard Architects

Keith Thompson, AIA

3. Mechanical
 - a. Add 15 rooftop units are new
 - b. Consider remaining units if possible
 - c. Update controls
 - d. Consider central boiler/ chiller
 - e. Separate FACS exhaust from office suite
4. Restrooms
 - a. Add privacy stalls at urinals in 2009 addition
 - b. Add stalls in existing classroom groups
 - c. Consider increasing future counts
 - d. Consider improving access from auditorium
 - e. Add unisex restroom in special ed room, incorporating changing table
 1. Existing room used for programming
 - f. Consider visible sinks
 - g. Can omit one entry in each classroom wing restroom
 - h. Restroom entry can be removed
 - i. Restroom may include urinal
 - j. Include new drinking fountains
5. Asbestos tile- remove and replace- VCT or LVT ERT
6. Phone/ intercom
 - a. Existing not working satisfactorily
 - b. Match MS with phones and speakers, confirm announcements work when
 - c. New central systems for both MS and HS vocational
 - d. Main lines currently at vocational school and serving all three buildings
 1. Caller ID issues
7. Science labs
 - a. New counters- no harsh chemicals used
 - b. No wall to teacher storages
 - c. Include new legs for lab tables
 - d. New sinks
 - e. Gas piping in good condition
8. Interior doors
 - a. Existing classroom doors retrofitted with panics per code official - leaving holes
 - b. State fire marshal referenced 20 person make- staff will forward report
 - c. Consider coreplates or all new doors
9. Ceilings
 - a. Replace old tile, grid to be selectively replaced
 - b. Coordinate for projector and screen in commons
10. Carpet- no longer necessary due to office renovation
11. Paint- no separate work in this project, district will continue maintenance paint work
12. Vocational building
 - a. Restrooms- increase size and provide accessibility
 - b. 3 stalls per gender
 - c. Consider visible sinks
 - d. Request for indoor house construction
 1. Current house 30x54 - 1520 sf max
13. Utilities
 - a. Soil is corroding iron pipes around all buildings



K O C H - H A Z A R D
A R C H I T E C T S

Date: 14 January 2019
 Project: Huron Schools Improvements Study #1849
 Subject: Kick-off Meeting

Present:
 Roger Ahlers, HSD
 Kelly Christopherson, Business Manager
 Terry Nebelsiek, Superintendent
 Mike Raabe, HSD
 Laura Williams, HSD
 Damon deVIL ACEI
 Chris Brockwell, KHA
 Keith Thompson, KHA

To:
 Jeff Hazard, AIA
 Brad Shoup, ACEI

This meeting was held to review progress for the Huron School District Facilities Improvements Study.

1. HS entry/office
 - a. Tub not required at nurse
 - b. Meeting room principal office
 - c. Single staff RR in suite table
 - d. Entry addition to move as far south as needed to gain original footprint of commons
 - e. Option C preferred
 - i. No dedicated hall for east exit needed.
 - ii. Exit only door ok out of counselor waiting or office or conference – Card access only.
 - iii. Consider main entrance on east side, less congestion at entry. Prefer
 - iv. Need Counselor reception workstation.
 - v. Access to main bathrooms to be on the north side.
 - f. Option D
 - i. Add workstation for counselor
 - ii. No restrooms in commons, or make up lost seating spaces
 - iii. Like option C RR location
 - g. Commons size
 - i. Have to clean entire commons for events
 - ii. 2 periods starting next year
 - iii. Recapture original footprint with new addition.
 - h. Acoustic treatments TBD
 - i. Existing IT
 - i. Existing IT7 Elec closet in admin suite, may be difficult to move
 - ii. Existing is ceiling only, from about 24 feet down west corridor
 - iii. Existing is punch block type, now will be normal jacks
 - j. Mechanical
 - i. One for one rooftop unit replacement due to limited space
 - ii. Separate FACS exhaust from office suite
 - iii. May combine new office with replacement RTU just west of commons
 - k. Restrooms
 - i. Layout works as shown
 - ii. Existing restrooms in commons to be replaced in 2009 addition
 - iii. Bottle filler at each high-low water cooler
 - l. Phone/intercom
 - i. Scope clarified by email, estimate forthcoming
 - m. Ceilings
 - i. Replace old tile, grid to be selectively replaced
 - ii. Reuse surface mount lights or replace with 2x4 LED lights. Limited ceiling space will likely dictate surface mount fixtures.
 - iii. Coordinate for projector and screen in commons

14 January 2019
 Huron Schools Improvements Study #1849
 Progress Meeting
 Page 2

2. Vocational Building Renovations
 - a. Restrooms approved as shown, with chase for maintenance. Layout may not meet and waiting space may allow for restrooms.
 - b. 32' x 20' restrooms, 10' x 10' SRO, 10' x 10' SRO
 - c. May need additional pavement for turning radius of house moving trailer.
3. Middle School Renovations
 - a. Principal office works next to conference, add window to waiting room
 - b. ISS/AP works
 - c. Keep linger waiting room
 - d. Future second SRO, pending grant, will use third counselor office- consider adding door to room
 - e. Storage
 - i. Build out portion of storage just west of entry for SRO, SRO Conference & Locker Rooms
 - ii. Columns ok to allow removal of bearing wall.
 - iii. Use traditional lockers (double tier) to match existing and fit in basket shelf areas)
 - iv. Consider second emergency egress from boys LR, similar to Girls- review locker issues with Nordeby Center administration.
 - v. Onit island lockers
 - f. Remove doors and partial walls at house restrooms, along with adding partitions at urinals.
4. Auditorium lighting
 - a. Have design ready - district will forward packet and contact
 - b. Theatrical and house lighting, and controls
 - c. Schedule 2019
 - d. Will have electrical work due to panel revision for electronic dimming
5. Schedule
 - a. 2020 ok for construction documents issuance, except auditorium lighting- work to occur in summer 2019
6. ES
 - a. Music/ commons noise issues at all 3 - verify tops of walls are properly sealed.
7. Next steps
 - a. H4 to refine concepts and develop rough estimates
 - b. Progress meeting to be scheduled in 2 weeks

END OF REPORT

Please carefully review this record and inform us immediately of any inaccuracies.

Sincerely,

KOCH HAZARD ARCHITECTS

Keith Thompson, AIA

MECHANICAL SYSTEMS BASIS OF DESIGN
HURON HIGH SCHOOL 2019 IMPROVEMENTS
HURON, SD
FEBRUARY 18, 2019

A. GENERAL REQUIREMENTS:

1. All mechanical work shall comply with the following guidelines:
 - a. State and Local Plumbing Codes.
 - b. International Mechanical Code.
 - c. National Fire Protection Association (NFPA).
 - d. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA).
 - e. National Electric Code (NEC).
 - f. Underwriters Laboratory (UL).
 - g. American Gas Association (AGA) Standards.
 - h. Uniform Plumbing Code (UPC).
 - i. American Waterworks Association (AWWA).
 - j. National Sanitation Foundation (NSF).
 - k. Williams-Sleiger Occupational Safety and Health Act of 1970 (OSHA).
 - l. International Building Code (IBC).
 - m. Americans With Disabilities Act (ADA).
 - n. ASHRAE Standards 62.1 and 90.1.
2. All permits, licenses, and fees shall be obtained and paid for.
3. All air and water systems shall be properly cleaned, balanced and tested, ready for tenant occupancy.
4. Record drawings will be maintained and submitted to the Owner.
5. Operations and Maintenance Manuals (O&Ms) will be submitted to the Owner.
6. All work and equipment will be guaranteed for a minimum of 1-year

B. UTILITIES:

1. Building systems to be complete with all necessary services such as sanitary sewer and domestic water.
2. All piping material for the utilities shall be as required by the city of Huron, SD.

C. PLUMBING SYSTEMS:

1. Piping Systems - The following pipe material shall be used:
 - a. Domestic Water Piping.
 - 1) In building above ground, 3 inches and smaller - type L hard copper.
 - b. Soil, Waste, Rainwater and Vent Piping.

Date: 31 January 2019
Project: Huron Schools Improvements Study/ #1649
Subject: Auditorium Lighting Meeting

Present: Steve Hirsch, MAS
Mark Olson, MAS
Brad Shoup, ACEI
Keith Thompson, KHA

To: Those Present
Damon deWit, ACEI
Chris Brockevell, KHA

This meeting was held to review initial scope for the Huron School District Facilities Improvements Study, auditorium lighting.

1. Auditorium lighting
 - a. Have design ready -- district will forward packet and contact
 - b. Theatrical and house lighting, and controls
 - c. Summer 2019
 - d. Will have electrical work due to panel revision for electronic dimming
 - e. DMX control
 - f. DMX control buffers
 - g. Simple stage control
 - h. New lighting console at control room
 - i. ETC lighting as basis of design
 - j. No follow spots planned
 - k. Issue 4/1, award by 5/1, shops submit 6/1, order by 6/15, deliver by 8/1, install complete by 8/15
 - l. Alternates for moving lights, follow spots
 - m. Verify
 - n. Check 2006 project photos
 - o. Remove stage selector unit, owner will have to purchase wireless Communications system. Verify curtain controls.
- P.
 - a. MAS to forward initial estimates
 - b. Progress meeting to be scheduled after school board approves project

END OF REPORT

Please carefully review this record and inform us immediately of any inaccuracies.

Sincerely,

KOCH HAZARD ARCHITECTS

Keith Thompson, AIA



K O C H • H A Z A R D
A R C H I T E C T S

401 576-7465/245
6000 Bldg. #1613A
11001 23rd Street
P.O. Box 1006 5408
W. WAUKESHA, WI 53186

- 1) In buildings, underground – PVC or cast iron.
 - 2) In buildings, above ground – cast iron, galvanized steel or PVC where allowed by codes.
- e. Natural Gas.
 - 1) 2 inch and smaller – schedule 40 black steel with screwed fittings.
 - 2) 2 ½ inch size and larger and all natural gas piping in concealed locations – schedule 40 black steel with welded joints and fittings.
2. Freezeless wall hydrants with vacuum breakers will be provided.
 3. Floor drains shall be installed in all toilet rooms, mechanical rooms and utility rooms.
 4. Roof drains and overflow roof drains shall be sized and installed per code.
 5. A recirculating hot water pump and piping system shall be installed.
 6. Plumbing fixtures:
 - a. Water Closet:
 - China with flush valves, floor or wall mounted type.
 - b. Urinal:
 - China with flush valves, siphon-jet wall mounted type.
 - c. Lavatories:
 - Countertop or wall hung with faucet and grid strainer.
 - d. Electric Water Coolers:
 - Single level or Two-level wall hung, all stainless steel with electric refrigeration.
 - e. Mop Sink:
 - Fiberglass 24" X 24" receptor with wall hung faucet, hose and mop hangers.
 7. Plumbing fixtures shall be ADA compliant as required.
- D. HEATING, VENTILATING AND AIR CONDITIONING:
1. The existing multi-zone duct systems for the Administrative area shall be modified to accommodate the remodel to that area. Electric radiant panels shall be added to the Principal's office and conference room spaces.
 2. The existing rooftop units that have not already been replaced shall be replaced on budget basis (10 total).
 3. The controls for the existing rooftop unit zone dampers shall be replaced on a budget basis (13 total).
 4. Design Criteria:

Summer Outdoor Temperatures	94/73 deg. F
Summer Indoor Temperatures	75 deg. F / 50% RH
Winter Outdoor Temperature	-15 deg. F
Winter Indoor Temperature	75 deg. F
5. All entrances shall be heated with electric cabinet unit heaters. Utility spaces shall be heated with propeller fan type electric unit heaters.
 6. Air distribution shall be by means of overhead duct system, with distribution of air flow by means of ceiling registers and diffusers and with return air grilles in the return air plenum.

Electric radiant ceiling panels shall be provided at perimeter locations.

Each conference room, training room, unique room shall be a separate HVAC zone. Private offices of similar use and exposure will be grouped into a single HVAC zone.

All equipment, ductwork, etc. shall be selected and arranged to fit with ample space provided for proper maintenance, such as filter changing, etc.

A central building exhaust system shall be provided for toilet rooms.

Fire/smoke dampers or fire dampers and access panels shall be provided at all penetrations of fire and smoke separations as required.
 7. Ductwork Systems:
 - a. All ductwork shall be installed per SMACNA Standards.
 - 1) Supply and Return Ductwork:
 - Sheet metal lined with 1" ductliner and round ductwork with 1" external insulation. Flexible duct connections shall be 8 feet maximum length.
 - 2) Ventilation System Outside Air:
 - Sheet metal with 1-1/2" rigid external insulation. Provide drains in the ductwork adjacent to outside intake louvers.
 - 3) Exhaust Systems:
 - Sheet metal with 1-1/2" blanket external insulation within 4 feet of the discharge through the building envelope. Provide drains in the ductwork adjacent to exhaust air louvers.
 - 4) Ducts Exposed to Weather:
 - Sheet metal with 2" external rigid insulation with weatherproof jacket.
 - 5) Underfloor Ducts:
 - PVC coated galvanized sheet metal.
 8. Exhaust Units:
 - a. Roof mounted units shall be centrifugal units with weatherproof housing, backward curved aluminum wheel, rubber vibration isolators, bird screen, factory wired disconnect switch, heavy-duty aluminum gravity backdraft damper, either adjustable pitch V-belt drive (over 300 cfm) or direct drive as required and AMCA certified ratings.
 9. All motors larger than 1 horsepower shall be premium efficiency motors sized for non-overloading (pumps) or at 120 percent of the brake horsepower requirement.
 10. Air Dampers:
 - a. Air damper blade edge seals shall be EPDM rubber and jamb seals shall be of the flexible

metal compression type. Dampers shall be AMCA certified for leakage. Modulating dampers shall be opposed blade.

E. PIPING INSULATION:

1. All pipe covering shall be furnished with a factory-applied all service jacket.
2. All piping exposed to outdoor weather conditions shall be additionally covered with 20 mil PVC jacket sealed watertight.
3. All insulation installations shall conform to ASHRAE Standard 90.1.
4. All fittings, valves, flanges and strainers shall be insulated and covered with premolded PVC plastic covers.

F. PIPING AND DUCT IDENTIFICATION:

1. Piping and ducts, insulated and non-insulated, except where concealed inside walls or below floors, shall have 1 inch high black letters, designating the type of service and an arrow in the direction of flow.

G. BUILDING AUTOMATION:

1. Complete automatic temperature control and DDC building automation systems complete with a personal computer workstation and color graphics shall be provided as manufactured by Siemens. Contractor installed systems purchased from a distributor will not be acceptable.

ELECTRICAL SYSTEMS NARRATIVE
 Huron High School 2019 Improvements
 ACEI Project No. 119003

A. CODES AND REGULATIONS:

1. Design of the facility will comply with the current edition of the National Electrical Code (NEC) and with local codes and regulations. Apparatus, equipment, materials, and installation will conform with standards of the National Electrical Manufacturers Association (NEMA), Underwriters Laboratories, Inc. (UL), Institute of Electrical and Electronic Engineers (IEEE), Illuminating Engineering Society (IES), The National Board of Fire Underwriters (NBFU), the National Fire Protection Association (NFPA), Occupational Safety and Health Act (OSHA), and the Department of Energy, 10 CFR Part 435.

B. MAIN SERVICE EQUIPMENT:

1. The existing service has adequate spare capacity to service the renovation/addition.

C. POWER DISTRIBUTION EQUIPMENT:

1. 480/277V. Panelboards will be provided to serve lighting and equipment loads. The distribution over-current devices will be circuit breakers. Spare circuit breakers and space for future devices will be provided.
2. 208/120V. Panelboards will be provided to serve general receptacle and equipment loads. The distribution over-current devices will be circuit breakers. Spare circuit breakers and space for future devices will be provided.

D. AUDITORIUM THEATRICAL DIMMING SYSTEM:

1. The existing theatrical dimming system and house lights shall be removed. New electrical systems include an architectural/theatrical dimming system with associated devices and wiring, LED house lighting, and LED theatrical lighting fixtures.

E. WIRING METHODS AND MATERIALS:

1. All 120V and higher power circuits shall be run in metallic raceways. Low voltage control and system wiring may be run "free-air" where not exposed. Where cable is run "free air" in accessible lay-in tile ceiling spaces, the cable shall be rated for the intended use (plenum rated), run in cable tray where possible or shall be neatly run and supported, using acceptable means to ensure reliable installation and performance.
 - a. Install exposed cable parallel and perpendicular to surfaces or exposed structural members, and follow surface contours where possible.
 - b. Install sleeves for cable penetrations of concrete slabs and walls unless core-drilled holes are used. Install sleeves for cable penetrations of masonry and fire-rated gypsum walls and of all other fire-rated floor and wall assemblies. Install sleeves during erection of concrete and masonry walls.

- c. Secure and support cable at intervals not exceeding 8 feet and not more than 12 inches from cabinets, boxes, fittings, outlets, racks, frames, and terminals.
 - d. Cables shall not be laid on or draped across any ceiling tiles, grids, electrical or mechanical fixtures. Maintain at least a 2 foot separation between the communications cables and fluorescent or HID lighting circuits.
2. Conduit: Rigid steel, EMT, PVC and flexible metallic conduit shall be used per NEC limitations. PVC will only be used underground with rigid metallic cils through floor slabs. Flexible metallic conduit will only be used for connections to motorized equipment, transformers and lighting fixture whips. Liquid-tight flexible conduit shall be used where appropriate.
 3. Conductors: Minimum size of wire for power and lighting will be No. 12 AWG. Design will be based on use of copper conductors. Aluminum conductors will generally not be permitted. Conductors for light and power wiring shall be color coded per industry standards.

F. WIRING DEVICES

1. Convenience Outlets:
 - a. General: Two pole, 3 wire, 20 ampere, 125 volt, specification grade duplex receptacle, grounding type, gray outlets will be provided for general convenience receptacles. Receptacles shall be tamper resistant where required by the NEC. Special outlet provisions will be specifically addressed on the drawings.
2. Switches:
 - a. General: Toggle switches will be gray, 20 ampere, specification grade.
3. Coverplates:
 - a. General: Coverplates for devices shall be satin finished stainless steel in all finished areas. Galvanized plates may be used for equipment rooms and unfinished spaces.

G. INTERIOR LIGHTING:

1. General: Facility lighting will be designed with conventional lighting units using IES recommended foot-candles for tasks to be performed.
2. Lighting Fixtures: Selection of commercial lighting fixtures for various rooms and areas will be in accordance with industry standards. Luminaires shall be LED type.
3. Switching: Lights will generally be controlled from local wall switches.
4. Emergency Lighting: Emergency lighting will be provided at exits, paths of egress, and elsewhere required by code. Emergency power will be provided through the use of the existing emergency lighting system (generator).

HURON HIGH SCHOOL 2019 IMPROVEMENTS

Page 2 of 3

5. Exit Signs: Internally illuminated LED exit signs will be provided to mark locations of exits and exit routes as required to comply with fire code requirements. Exit signs shall be cast aluminum with black housing and brushed aluminum face(s).

H. MECHANICAL EQUIPMENT CONNECTIONS:

1. Feeders, branch circuits and connections will be provided for all mechanical equipment.
1. VOLTAGE DROPS:
 1. Feeders and branch circuit conductors shall be sized for a maximum combined voltage drop of 5% from power source to the farthest load.
 - J. FIRE ALARM SYSTEM (Conventional Type):
 1. Method of Fire Protection: The existing system will be expanded and consist of pull stations, detectors and appropriate signal devices as required per appropriate codes.
 - K. PUBLIC ADDRESS SOUND SYSTEM:
 1. A mixer/amplifier will be provided and be interfaced with the owner's telephone system. Paging speakers will be provided in public spaces (hallways, gym, auditorium, restrooms, commons, etc...).
 - L. CLOCK AND CLASS CHANGE SIGNALING SYSTEM:
 1. A new masterclock and wireless synchronized clocks shall be provided. Class change bells will be provided in public spaces (hallways, gym, auditorium, commons, etc...).
 - M. TELEPHONE/DATA CABLING AND TERMINATION SYSTEM:
 1. New cabling and outlets will be provided as required for the renovation/addition. The system shall be a category 6 certified system.

END OF SYSTEMS NARRATIVE

HURON HIGH SCHOOL 2019 IMPROVEMENTS

Page 3 of 3





Bill of Materials

For
Huron High School
Huron, South Dakota
February 20, 2019

Quotation # 130046787.1.0

All equipment where applicable standards have been established shall be built to the standards of Underwriters Laboratories Inc., the National Electrical Code, the United States Institute for Theatre Technology and the American National Standards Institute. Approved equipment shall be so labeled on delivery to the job site.

This quotation is based on a bill of materials received from Mark Huron with MAS Productions on February 1st, 2019.

I. Power Control Devices to consist of:

- 1 7123A1012 **A. Echo Relay Panel to consist of:**
 ERP24 - Unison Echo Relay Panel with:
 Painted Steel Enclosure (no door)
 120/208V three-phase main lug input
 24-space relay sub-panel (24 installed one pole relays)
 30-space breaker sub-panel (24 installed one pole breakers)
 Breaker sub-panel includes 1 installed one pole breaker for control electronics
 Integral control processor w / 1 DMX input
 UL924-listed control bypass input
 3 option card spaces
 1 - Net interface
- 1 7123A1703 **ERPA-SMD** - Unison Echo Relay Panel Surface Mount Door Front panel and door assembly with no overhang For 277V ERP
- 1 7180A1210 **B. SC1008 - Branch Circuit Emergency Lighting Transfer Switch (BCELT) to consist of:**
 SC1008 - Branch Circuit Emergency Lighting Transfer Switch (BCELT) to consist of:
 Single 20A circuit UL1008 emergency transfer
 120-277V input
 Control loop for 0-10V or DALI
 Closed contact fire alarm input
 Test button and Laser Test light sensor

ETC Inc. | 3031 Pleasant View Rd | PO Box 620919 | Middleton, WI 53562-0919 | 608.831.4115 | etconnect.com
 Visual Environment Technologies
 GSF-02.2.0.9 (Revised 10-28-2016)

Bill of Materials for
 Huron High School
 Huron, South Dakota
 February 20, 2019
 Quotation # 130046787.1.0
 Page 2 of 4

C. Emergency Accessories to consist of:

- 1 7180A1200 **EBDK** - Emergency Bypass Detection Kit

II. Distribution Devices to consist of:

A. ColorSource Connector Strips to consist of:

- 4 QUOTE-30061 **CRS-9950-(12BO)6(3X1)-R-115** - ColorSource Connector strip 50'-0" long with:
 12 - panel mount 20A Stage Pin (2P&G/GPC) connectors wired on 6 - 20A circuits
 3 - XLR-SFDM3 DMX out connectors wired on 1 universe 11 - hanging brackets
- 3 QUOTE-30061 **CRS-9908-(4BO)4(2X1)-R-115** - ColorSource Connector strip 8'-0" long with:
 4 - panel mount 20A Stage Pin (2P&G/GPC) connectors wired on 4 - 20A circuits
 2 - XLR-SFDM3 DMX out connectors wired on 1 universe 3 - hanging brackets
- 7 7199A2106 **CSR GIJB** - Gridiron Junction Box with mounting hardware and terminals for (6) 20A circuits

III. Equipment Racks to consist of:

A. Control Equipment Rack to consist of:

- 1 QUOTE-10031 **RACK** - Black 19" rack sized as job requires and to include: quad power box, and blank panels to fill
- 1 QUOTE-10032 **DOOR** - Door for Rack
- 1 SGN1256-M **CISCO SG350-28P** - Cisco Switch
 - 24 RJ-45 ports of 10/100/1000 PoE+ (195W total allowance)
 - 2 combo ports of RJ-45 or mini-GBIC/SFP
- 1 QUOTE-10033 **PATCH PANEL** - 1U, 19" rack-mount custom patch panel (use for custom labeling and mixed fiber optic and UTP networks)
- 24 N2027 **MAP BR1** - 1U Brush Grommet Panel
- 1 SGE1061 **MAP BR1** - 1U Brush Grommet Panel
- 24 N4035 **RSN-TERM** - Response Four Port DMX/RDM Gateway with 4 terminal connectors
- 1 4267A1024 **RSN-TERM-RR** - Response Four Port DMX/RDM Gateway with 4 terminal connectors
- 2 4267A1026 **RSN-TERM-RR** - Response Four Port DMX/RDM Gateway with 4 terminal connectors
- 1 PJP51012 **MAP 1000R** - 1000VA / 750W rack-mount UPS
 - With rack-mount kit

ETC Inc. | 3031 Pleasant View Rd | PO Box 620919 | Middleton, WI 53562-0919 | 608.831.4115 | etconnect.com
 Visual Environment Technologies
 GSF-02.2.0.9 (Revised 10-28-2016)



Bill of Materials for
Huron High School
Huron, South Dakota
February 20, 2019
Quotation # 130046787.1.0
Page 3 of 4

IV. Architectural Control Devices to consist of:

A. Echo Inspire Control Stations to consist of:

- 2 7186A1006-4
E1006-4 - Echo Inspire Button Station (Black) to include:
- 6-button electronics assembly
- Single gang decorator faceplate
- Button label sheet
- Installation hardware

V. Control Devices to consist of:

A. Element 2 – 1K control console to include the following:

- 1 433A1011-US ELEMENT 2 1K - Element 2 Console with 1024 Outputs to Include:
32,768 Control Channels
10,000 Cues
1 - Master Crossfader Pair
1 - High Resolution Level Wheel
40 - Pageable Channel/Playback Faders
2 - Ethernet Ports
4 - DMX Output Connectors
Supports 2 External Display Port monitors
Solid State Hard Drive
USB Ports
1 - Element 2 - Dust Cover
1 - 6' Locking Power Cord Edison
1 - 3 Button Mouse

B. Control Console Accessories to consist of:

- 2 1094A1010 ECPB DMXOUT / NET - DMX Output / ETCHNet Control Plug-in Station
with:
1 - XLR-5FDM3 DMX Out Connector
1 - RJ-45 (568B) Connector in XLR case
- 2 QUOTE-10024 ECPB DMXIN/DMXOUT/NET - DMX Input / DMX Output / Net Control
Plug-in Station with:
1 - XLR-5FDM3 DMX In Connector 1 - XLR-5FDM3 DMX Out Connector
1 - RJ-45 (568B) Connector in XLR case
- 4 1094A1034 ECPB DMXOUT - DMX Output Control Plug-in Station with:
1 - XLR-5FDM3 DMX Out Connector (labeled DMX OUTPUT)

ETC Inc. | 3031 Pecos View Rd. | PO Box 620979 | Mesquite, WI 53562-0979 | 608.831.4116 | etconnect.com

Visual Environment Technologies
GSF 03.2.0.9 (Revised 10-28-2016)

Bill of Materials for
Huron High School
Huron, South Dakota
February 20, 2019
Quotation # 130046787.1.0
Page 4 of 4

VI. Manufacturer's Services to consist of:

- A. Drawings for approval submitted within 6-8 weeks of receipt of order
B. Two (2) year limited warranty on parts and workmanship with the exceptions called out in ETC's Terms and Conditions
C. The services of a factory engineer to startup system are not included.
D. The services of a factory engineer to startup system and instruct user personnel - such services to be supplied on 21 day notice
E. Startup services do not include CCIP and OCIP claims
F. Production requires 1-6 weeks for delivery of equipment after receipt of written approval and release
G. Operation Manuals as required
H. Complete As-Built drawings as required
I. Eight hours of console training
J. Four hours of console training
K. One day of LightDesigner training

VII. Notes and Clarifications

- A. All flush mount back boxes, except for touchscreens, theatrical wiring devices, and where specifically noted are provided by others.
B. This quotation excludes all installed cabling, interconnecting cables, and back boxes unless specifically listed.
C. Delivery lead times will be advised at date of order.
D. Please check with factory at time of order for ColorSource Connector Strips availability.
E. Dimming systems utilizing the Emergency Bypass Detection Kit (EBDK) require normal/emergency feeds.
F. Overcurrent protection of sense circuitry is to be installed in compliance with local electrical codes.
G. Monitor(s), Control Cables, Control Plug in Stations, Console Worklights and all other console accessories not specifically listed herein are to be provided by others.
H. Addressing of DMX controlled fixtures is not included. ETC shall be responsible for the origination of the control signal output from the last ETC supplied device. The integrity of the control signal between third party devices shall not be maintained or guaranteed by ETC.
I. Pipe, rigging, multi-conductor cable and all other distribution accessories not specifically listed herein are to be provided by others.
J. Fixtures and any accessories not listed herein are to be provided by others.
K. Offline software shall be available via www.etcconnect.com.
L. Please note that ETC specifically excludes prevailing wage reporting. Such reporting is the responsibility of the contractor, not ETC.

ETC Inc. | 3031 Pecos View Rd. | PO Box 620979 | Mesquite, WI 53562-0979 | 608.831.4116 | etconnect.com

Visual Environment Technologies
GSF 03.2.0.9 (Revised 10-28-2016)

