





SHAWNEE MISSION EAST HIGH SCHOOL

FACILITY EVALUATION

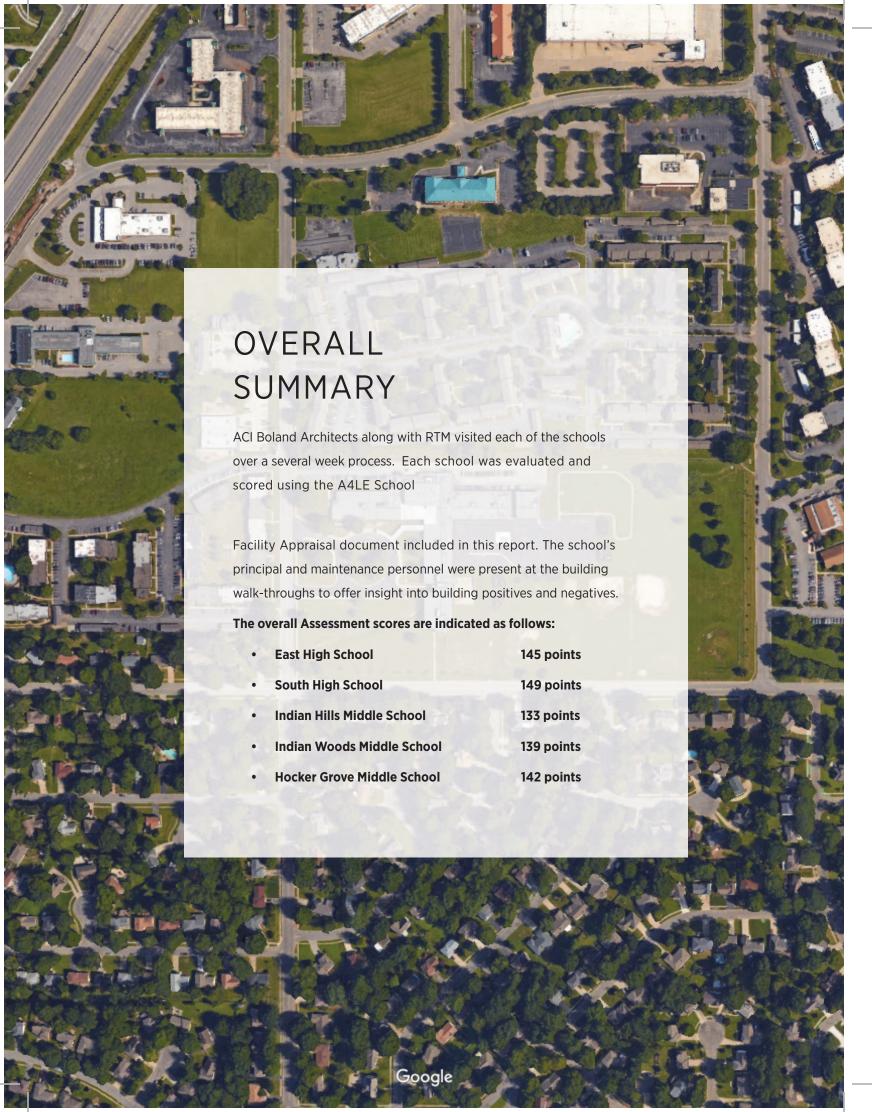


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SUMMARY

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APPRAISAL

GUIDE FOR

SCHOOL FACILITY APPRAISAL

INSTRUMENT FOR SM East High School

APPRAISAL

Directions for Appraising Facilities

High School Appraisal

Prior to evaluating a building, the appraiser should become familiar with the educational program provided within the existing school facility. It is essential to determine other pertinent factors about the facility, which will provide background information sufficient to insure a thorough and accurate appraisal. Particularly helpful are the building's architectural plans, specifications and layout, if these are available. If possible, the school plant should be appraised at a time when school is in session, so that the actual use of the building is more apparent.

Although the Appraisal Guide is designed for individual appraiser use, ideally the school facility should be evaluated at the same time by three to five appraisers. The ratings of each of the appraisers should then be used to arrive at a consensus for each item. The final rating is the result of careful review of the individual scores.

The instrument uses an additive scoring method, with each item having a maximum number of allowable points. A total of 1,000 points is distributed among these six major categories:

<u>Section</u>		<u> Maximum Points</u>
1.0	The School Site	100
2.0	Structural and Mechanical Features	200
3.0	Plant Maintainability	100
4.0	School Building Safety and Security	200
5.0	Educational Adequacy	200
6.0	Environment for Education	200

Prior to Appraisal

Step

Review the educational program; identify the number of faculty members and students; and examine the floor and plot plans carefully.

Overview of the Building and Grounds

Sten II

Upon approach to the site, look for traffic patterns, school safety signs, neighborhood environment, etc. Begin the appraisal by taking a preliminary tour of the entire building noting both exterior and interior features. Information obtained prior to arrival at the campus recorded in the Building Data Record should be verified. The appraisal weights should not be determined during this initial walk through. The appraisal is better accomplished as separate individual steps in the process.

Assignment of Scores

Step III

After the completion of the preliminary inspection, go through the entire instrument section by section. The appraisal will be more accurate if each item is carefully considered, while it is appropriately observed. **Do not try to evaluate from memory** - use actual observation when making the appraisal decision.

Items that are needed/required, but are non-existent, should be given a 0 score. If an item is not needed and is non-existent, full credit should be allowed.

Note the Table of Weights for assistance in determining the score to be given each item. Each item should first be considered in the following terms: Non-Existent, Very Inadequate, Poor, Borderline, Satisfactory and Excellent. The weight (score) should then be assigned for that item. Place score in space provided in the Points Allotted column, total the score for each Section and insert in the space provided. The Section totals should then be tabulated and indicated in the Points Assigned column of the Appraisal Summary. Use the space provided in the Justification for Allocation of Points to provide notes justifying the scores at the extreme ends of the scale (e.g., very inadequate or excellent).

Building Data Record

Name of Appriaser:		ACI Boland, Inc.		_ Da	te of Appraisal	January 22, 2	019		
Building Nam	e:	SM East High School							
Street Addres	s:	7500 Mission Road							
City, State, Zi	p Code:	Prairie Village, KS 66206							
Telephone Number(s):		913-993-6	600						
School District:		Shawnee	Mission Schoo	l District					
Setting:	☐ Urban		Suburban		☐ Small City		Rural		
	Site Acreage	:	36.9	<u>)</u>	Building Squar	e Footage	345,369		
	Grades Hous	sed:	9th-12th	_	Student Capac	ty	2100		
	# of Teaching	g Stations:	х	_	# of Floors	5			
	Student Enro	llment:	1782	<u>2</u>	As of:	1/22/2019			
	Dates of Con	struction:	Original Bldg	1958 Addn. &	Renovation 1968	, 1983, 1989, 20	015, 2016		
Energy Source	e:	☐ Fue	el Oil	Gas	☐ Electric	☐ Solar			
Air Condition	ing:	■ Roof Top		☐ Window Units	☐ Central	☐ Room U	nits		
Heating:		☐ Central		■ Roof Top		☐ Individual Unit			
		☐ Foi	ced Air	☐ Ste	eam	■ Hot Water			
Types of Cons	struction		Exterior Sur	facing		Floor Constr	uction		
Load Bearing	ng Masonry		Brick			☐ Wood Jois	ts		
Steel Frame	e		☐ Stucco			☐ Steel Fram	ne		
☐ Concrete Fr	rame		☐ Metal			Slab on Gr	rade		
☐ Wood			☐ Wood			Structural	Slab		
☐ Other		_	☐ Other		_	☐ Other			

APPRAISAL GUIDE FOR SCHOOL FACILITIES

	Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
ĺ	5	0	1	2	3	4	5
	10	0	2	4	6	8	10
	15	0	3	6	9	12	15
	20	0	4	8	12	16	20
	25	0	5	10	15	20	25

Appraisal Summary	Section	Possible Points	Total Earned	Percent	Rating By Category
	1.0 The School Site	100	72	72%	
	2.0 Structural and Mechanical	200	136	68%	
	3.0 Plant Maintainability	100	80	80%	
	4.0 School Building Safety & Security	200	156	78%	
	5.0 Educational Adequacy	200	143.0	72%	
	6.0 Environment for Education	200	145	73%	
	TOTAL	1,000	732	73%	

1.0 The School Site 100 Points 1.1 25 15 Site is large enough to meet present and future educational needs as defined by state and local requirements. 16 1.2 Site is easily accessible and conveniently located for the 20 present and future population. Location is removed from undesirable business, industry, 10 8 1.3 traffic and natural hazards. 8 1.4 Site is well landscaped and developed to meet educational 10 needs. 8 Well equipped athletic areas are adequate with sufficient solid-10 1.5 surface parking. **Topography** is varied enough to provide desirable appearance 3 1.6 5 and without steep inclines. 1.7 Site has stable, well drained soil free of erosion. 4 5 1.8 Site is suitable for special instructional needs, e.g. outdoor 5 4 learning. 3 1.9 Pedestrian services including adequate sidewalks with 5 designated crosswalks, curb cuts and correct slopes. 1.10 Sufficient on-site, solid surface parking is provided for 5 3 faculty, students, staff and community. **Total - The School Site** 100 72

I abic oi
Weights
and
Categories

Table of

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
5	0	1	2	3	4	5
10	0	2	4	6	8	10
20	0	4	8	12	16	20
25	0	5	10	15	20	25

2.0 Structural and Mechanical Features

200 Points

Structural

sizes.

2.1	Structure meets all barrier-free requirements both externally and internally.	15	9
2.2	Roofs appear sound, have positive drainage, and are weather-tight.	15	12
2.3	Foundations are strong and stable with no observable cracks.	10	8
2.4	Exterior and interior walls have sufficient expansion joints and are free of deterioration.	10	8
2.5	Entrances and exits are located so as to permit efficient student traffic flow.	10	8
2.6	Building "envelope" generally provides for energy conservation (See criteria).	10	6
2.7	Structure is free of friable asbestos and toxic materials.	10	6
2.8	Interior walls permit sufficient flexibility for a variety of class	10	4

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
10	0	2	4	6	8	10
15	0	3	6	9	12	15

Mechanical/Electrical

2.9	Adequate light sources are well maintained, properly placed and are not subject to overheating.	15	9
2.10	Internal water supply is adequate with sufficient pressure to meet health and safety requirements.	15	12
2.11	Each teaching/learning area has adequate convenient wall outlets , phone and computer cabling for technology applications .	15	6
2.12	Electrical controls are safely protected with disconnect switches easily accessible.	10	8
2.13	Drinking fountains are adequate in number and placement, and are properly maintained including provisions for the disabled.	10	6
2.14	Number and size of restrooms meet requirements.	10	6
2.15	Drainage systems are properly maintained and meet requirements.	10	8
2.16	Fire alarms, smoke detectors and sprinkler systems are properly maintained and meet requirements.	10	8
2.17	Intercommunication system consists of a central unit that allows dependable two-way communication between the office and instructional areas.	10	8
2.18	Exterior water supply is sufficient and available for normal usage.	5	4
	Total - Structural and Mechanical Features	200	136

Table of	
Weights	
and	
Categories	

I	aximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
	5	0	1	2	3	4	5
	10	0	2	4	6	8	10
	15	0	3	6	9	12	15

3.0 Plant Maintainability

100 Points

3.1	Exterior windows, doors and walls are of material and finish requiring minimum maintenance.	15	12
3.2	Floor surfaces throughout the building require minimum care.	15	12
3.3	Ceilings and walls throughout the building, including service areas, are easily cleaned and resistant to stain.	10	8
3.4	Built-in equipment is designed and constructed for ease of maintenance.	10	8
3.5	Finishes and hardware , with a compatible keying system, are of durable quality.	10	8
3.6	Restroom fixtures are wall mounted and of quality finish.	10	8
3.7	Adequate custodial storage space with water and drain is accessible throughout the building.	10	10
3.8	Adequate electrical outlets and power , to permit routine cleaning, are available in every area.	10	8
3.9	Outdoor light fixtures, electric outlets, equipment, and other fixtures are accessible for repair and replacement.	10	6
	Total - Plant Maintainability	100	80

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
10	0	2	4	6	8	10
15	0	3	6	9	12	15

Building Safety and Security 4.0

200 Points

Site Safety

4.1	Student loading areas are segregated from other vehicular traffic and pedestrian walkways.	15	9
4.2	Walkways , both on and offsite, are available for safety of pedestrians.	10	6
4.3	Access streets have sufficient signals and signs to permit safe entrance to and exit from school area.	5	4
4.4	Vehicular entrances and exits permit safe traffic flow.	5	4
4.5	Athletic field equipment is properly located and is free from hazard.	5	4

<u>B</u>

<u>Building</u>	<u>g Safety</u>	
4.6	The heating unit(s) is located away from student occupied areas.	20 16
4.7	Multi-story buildings have at least two stairways for student egress.	15 12
4.8	Exterior doors open outward and are equipped with panic hardware.	10 10
4.9	Emergency lighting is provided throughout the building with exit signs on separate electrical circuits.	10 8
4.10	Classroom doors are recessed and open outward.	10 8
4.11	Building security systems are provided to assure	10 8

uninterrupted operation of the educational program.

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
5	0	1	2	3	4	5
10	0	2	4	6	8	10
15	0	3	6	9	12	15
20	0	4	8	12	16	20

Building Safety (cont.)

4.12	Flooring (including ramps and stairways) is maintained in a nonslip condition.	5	4
4.13	Stairs (interior and exterior) meet standards (maximum 7" rise to 11" tread) and steps range in number from 3 - 16.	5	4
4.14	Glass is properly located and protected with wire or safety material to prevent accidental student injury.	5	3
4.15	Fixed projections in the traffic areas do not extend more than 8" from the corridor wall.	5	4
4.16	Traffic areas terminate at an exit or a stairway leading to an egress.	5	4
<u>Emerger</u>	ncy Safety		
4.17	Adequate fire safety equipment is properly located.	15	12
4.18	There are at least two independent exits from any point in the building.	15	12
4.19	Fire-resistant materials are used throughout the structure.	15	12
4.20	Automatic and manual emergency alarm system with a distinctive sound and flashing light is provided.	15	12
	Total - Building Safety and Security	200	156

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Weights
and
Categories

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
5	0	1	2	3	4	5
15	0	3	6	9	12	15

5.0 Educational Adequacy

200 Points

Academic Learning Space

5.1	Size of academic learning areas meets desirable standards.	10	8.0
5.2	Classroom space permits arrangements for small group activity.	10	6.0
5.3	Location of academic learning areas is near related educational activities and away from disruptive noises.	10	8.0
5.4	Personal space in the classroom away from group instruction allows privacy time for individual students.	5	3.0
5.5	Storage for student materials is adequate.	5	4.0
5.6	Storage for teacher materials is adequate.	5	4.0
<u>Speciali</u>	zed Learning Space		
5.7	Size of specialized learning area(s) meets standards.	15	9.0
5.8	Design of specialized learning area(s) is compatible with instructional need.	10	6.0
5.9	Library/Resource/Media Center provides appropriate and attractive space.	15	12.0
5.10	Gymnasium and outdoor facilities adequately serve physical education instruction.	15	12.0
5.11	Science program is provided sufficient space and equipment.	10	8.0
5.12	Music Program is provided adequate sound-treated space.	10	8.0

Table of
Weights
and
Categories

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
5	0	1	2	3	4	5
10	0	2	4	6	8	10
15	0	3	6	9	12	15
25	0	5	10	15	20	25

Specialize	d Learning Space (cont.)		
5.13	Space for art is appropriate for instruction, supplies and equipment.	10	8.0
5.14	Space for technology education permits use of state-of-the-art equipment.	10	4.0
5.15	Space for small groups and remedial instruction is provided adjacent to classrooms.	5	2.0
5.16	Storage for student and teacher material is adequate.	5	3.0
Support S	Space_		
5.17	Teacher's lounge and work areas support teachers as professionals.	10	8.0
5.18	Cafeteria/Kitchen is attractive with sufficient space for seating/dining, delivery, storage and food preparation.	10	6.0
5.19	Administrative offices are consistent in appearance and function with the maturity of the students served.	10	8.0
5.20	Counselor's office insures privacy and sufficient storage.	5	3.0
5.21	Clinic is near administrative offices and is equipped to meet requirements.	5	5.0
5.22	Suitable reception space is available for students, teachers and visitors.	5	4.0
5.23	Administrative personnel are provided sufficient work space and privacy.	5	4.0

Total - Educational Adequacy

Table of
Weights
and
Categories

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
5	0	1	2	3	4	5
10	0	2	4	6	8	10

200

143.0

6.0 **Environment for Education**

200 Points

Exterior	<u>Environment</u>		
6.1	Overall design is aesthetically pleasing and appropriate for the age of students.	15 12	2
6.2	Site and buildings are well landscaped.	10	8
6.3	Exterior noise and surrounding environment do not disrupt learning.	10	8
6.4	Entrances and walkways are sheltered from sun and inclement weather.	10	4
6.5	Building materials provide attractive color and texture.	5	4
Interior I	<u>Environment</u>		
6.6	Color schemes, building materials and decor provide an impetus to learning.	20 10	6
6.7	Year around comfortable temperature and humidity are provided throughout the building.	15 12	2
6.8	Ventilating system provides adequate quiet circulation of clean air and meets 15cfm VBC requirement.	15	9
6.9	Lighting system provides proper intensity, diffusion and distribution of illumination.	15 12	2
6.10	Sufficient drinking fountains and restroom facilities are conveniently located.	15 12	2
6.11	Communication among students is enhanced by commons	10	4

Table of Weights and Categories area.

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
5	0	1	2	3	4	5
10	0	2	4	6	8	10
15	0	3	6	9	12	15
20	0	4	8	12	16	20

Interior Environment (cont.)

6.12	Traffic flow is aided by appropriate foyers and corridors.	10	6
6.13	Areas for students to interact are suitable to the age group.	10	8
6.14	Large group areas are designed for effective management of students.	10	8
6.15	Acoustical treatment of ceilings, walls and floors provides effective sound control.	10	6
6.16	Window design contributes to a pleasant environment.	10	8
6.17	Furniture and equipment provide a pleasing atmosphere.	10	8
	Total - Environment for Education	200	145

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
Allotted	LAISTEIIT	1 - 23 /0	30 - 43 /0	30 - 03 /0	70-03/0	30 - 100 /0
10	0	2	4	6	8	10

Justification for Allocation of Points

BUILDING NAM	ME AND LEVEL:
	Shawnee Mission East High School
	Indicate the justification for the appraisal decision in the space provided.
BUILDING FEA	ATURES THAT CLEARLY EXCEED CRITERIA:
1.	Overall maintenance condition appears good.
2.	Recent turf Soccer /Football /Baseball /Softball fields
3.	Updated secure entry.
4.	
5.	
BUILDING FEA	TURES THAT ARE NON-EXISTENT OR VERY INADEQUATE:
1.	Auditorium needs updating
2.	Wood and auto shops are too small
3.	Need collaboration spaces independent of the hallways
1	Sidewalks peeded on site to athletic areas

5. Older door clearances may not be ADA compliant

6. Lack of a Commons space

Date of Appraisal:	January 22, 2019	
Name of School:	Shawnee Mission East High School	
Name of Appraisers:	ACI Boland, Inc.	

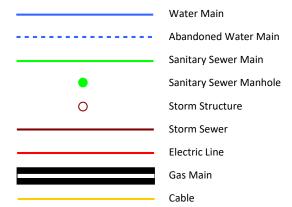
SITE PLAN



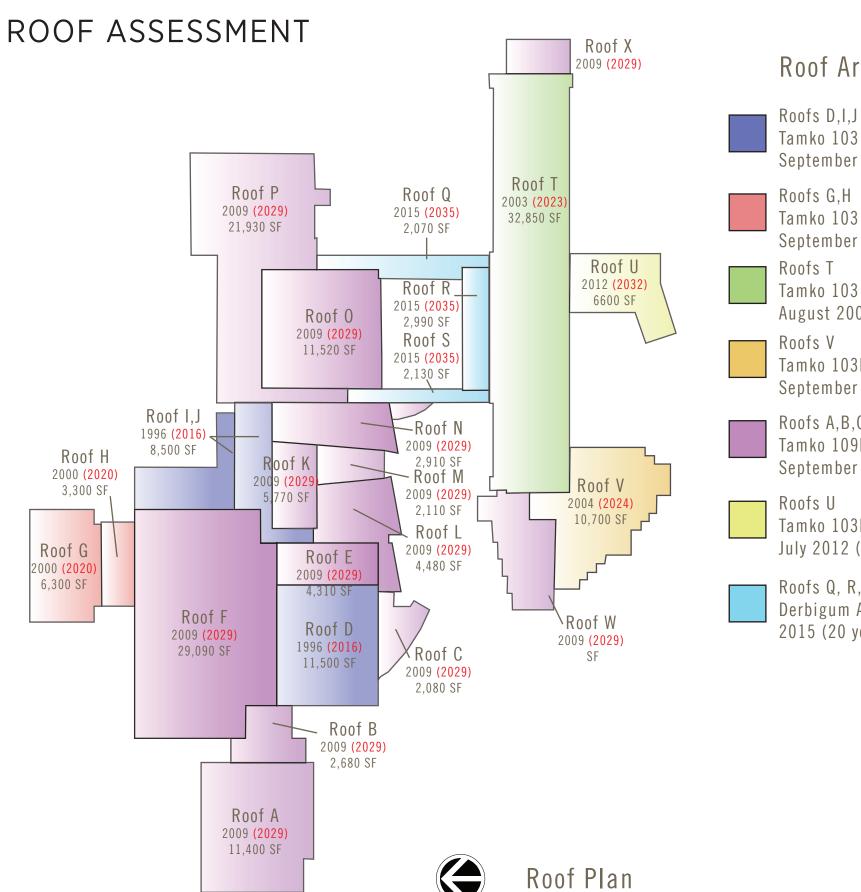
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SITE UTILITIES





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Roof Areas

Tamko 103 / 480 squares September 1996 (20 year) 2016

Tamko 103 / 97 squares September 2000 (20 year) 2020

Tamko 103 / 316 squares August 2003 (20 year) 2023

Tamko 103FR / 107 squares September 2004 (20 year) 2024

Roofs A,B,C,E,F,K,L,M,N,O,P, W, X Tamko 109FR / 1089 squares September 2009 (20 year) 2029

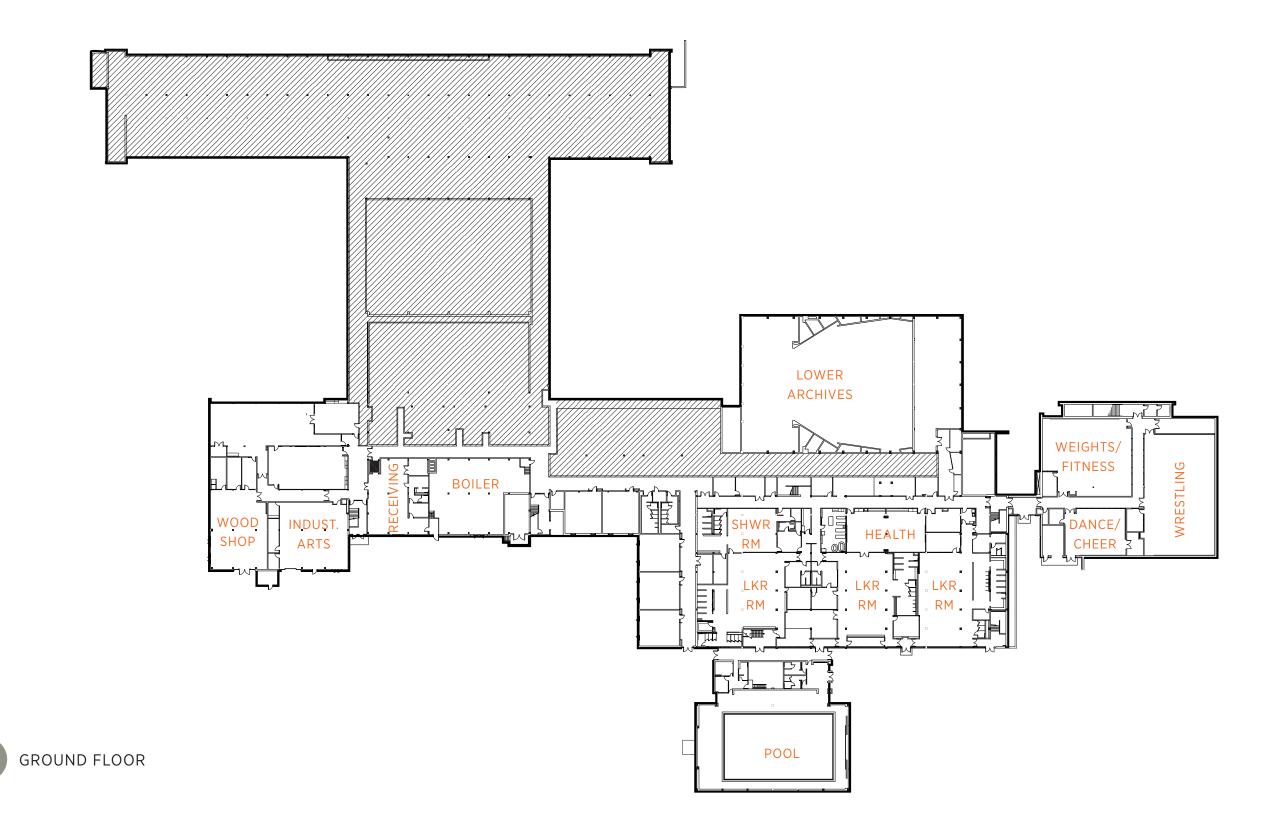
Tamko 103FR / 66 squares July 2012 (20 year) 2032

Roofs Q, R, S Derbigum AAP / 2015 (20 year) 2035

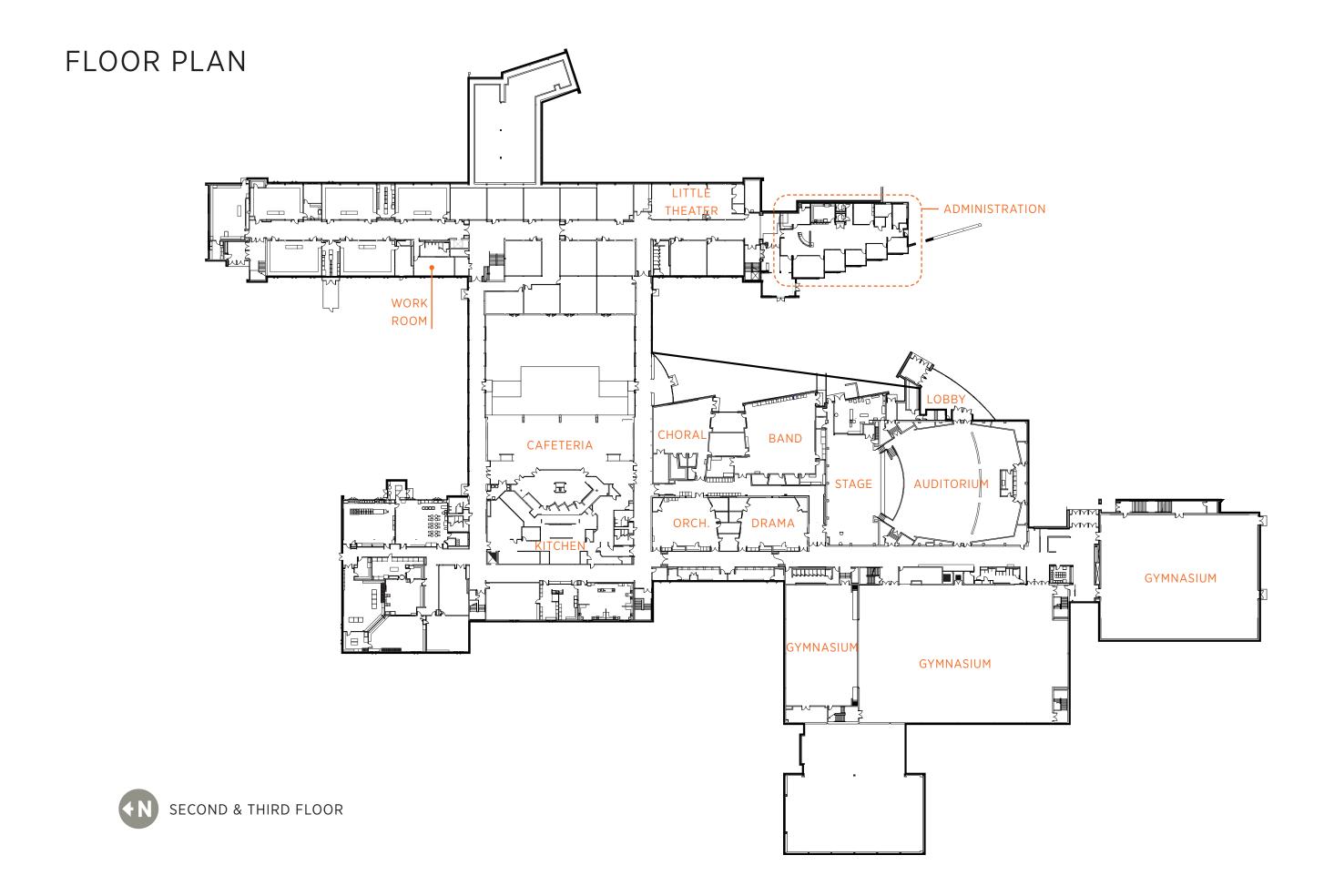


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FLOOR PLAN

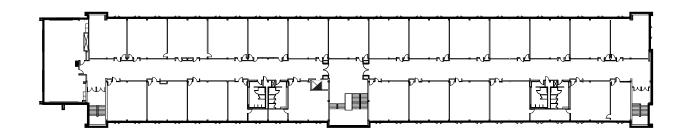


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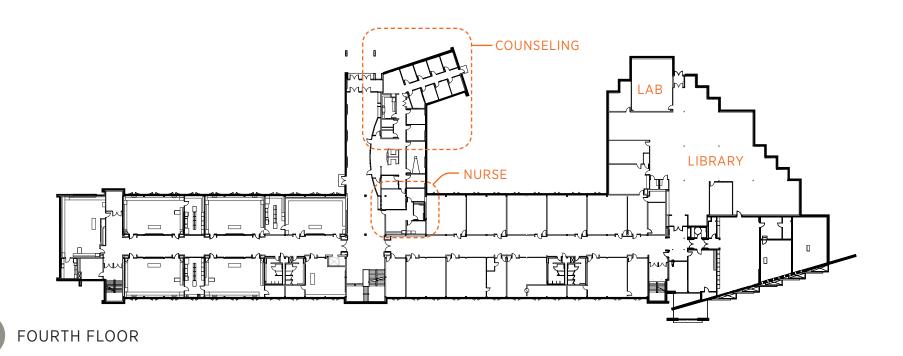


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FLOOR PLAN







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FACILITY OBSERVATIONS

Architectural Observations



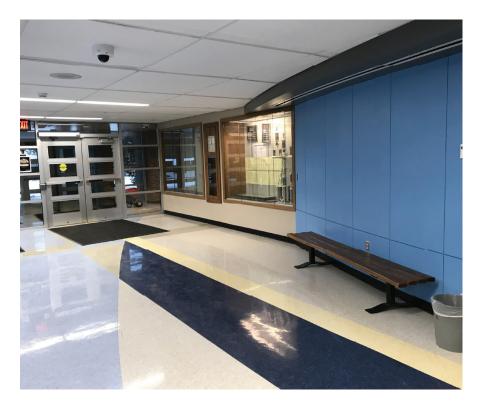
Sidewalks link various portions of the building but do not extend to the athletic fields on the site.



3rd floor corridor stairwell is congested during high-traffic periods.



Sloped hallway may not be up to current accessibility standards.



Building lacks a breakout or commons space off the entrance corridors.



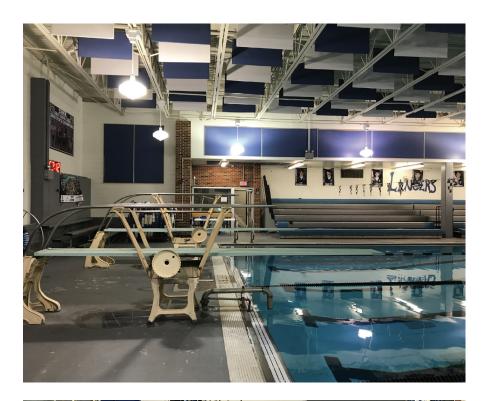
Cafeteria is small for high school.



Open electrical J-box in the wrestling room.



Chlorine vapor from the pool seeps into adjoining corridor space.



Pool equipment and general space needs updating.



Pool deck need surfacing and upgraded tile.



Metal shop space is tight.



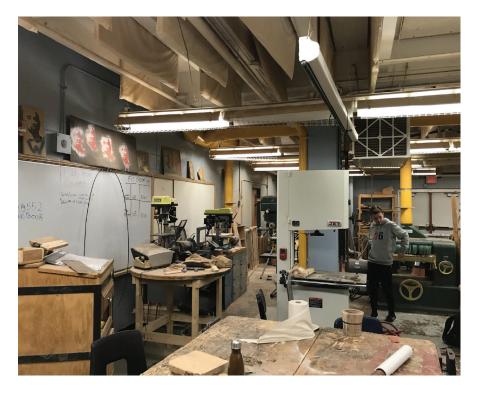
Welding bench is not divided into stations and equipment could use updating.



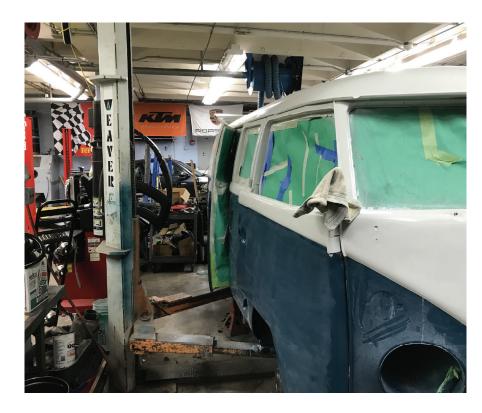
Some spaces such as this digital lab need updated furnishings.



Storage cabinets in the corridor are not ideal.

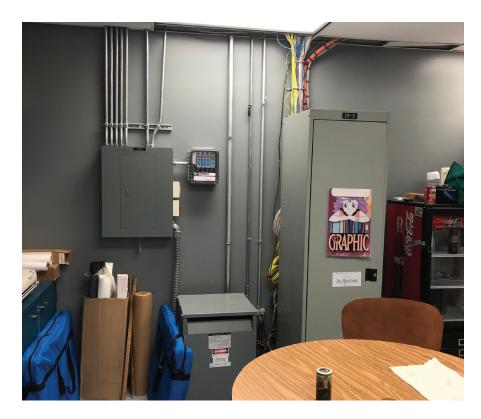


Shop is crowded with equipment and tables.



Auto shop is too small for the scope of the program.

MEP Observations



Data rack and electrical equipment in library workroom



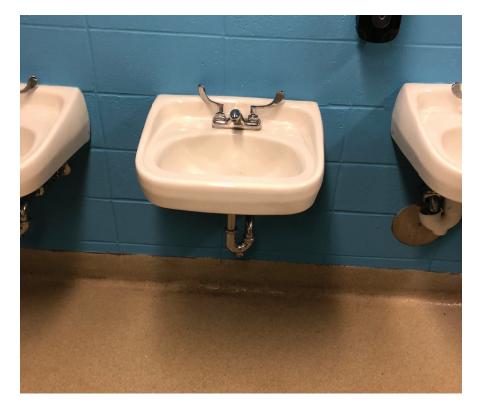
Dehumidification unit in classroom



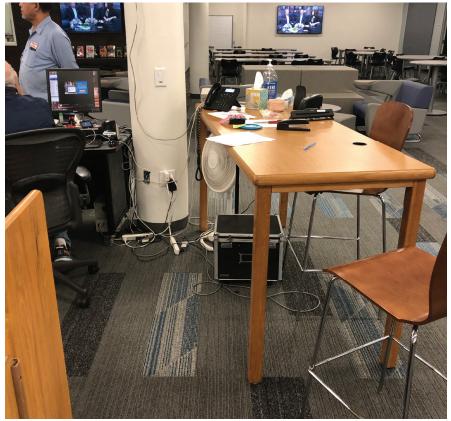
Exterior light fixture has low light level



LED fixtures in corridors



Plumbing fixtures not updated



Power supplies

ARCHITECTURAL NARRATIVE

Principal: Dr. Scott Sherman | Mascot: Lancers | S. F. 345,369 s.f. | 36.9 acres | 5 levels | 1958 original building Additions and Renovations in 1968, 1983, 1989, 2015, 2018

General

 The building was designed for a 2,100 maximum capacity, it has 1,782 at its current enrollment

Building

- Auxiliary gym roof has issues, leaks
- Rooms 300, 303, 304, and 305 have leaks and possible mold issues. There may also be structural issues.

Classrooms

- There are five to six empty classrooms
- Fine and performing arts
- The Art rooms could be larger with a better layout and furniture to optimize the space
- The Black Box is currently in the old music room and in need of updating. The southeast corner leaks and needs to be cleaned.
- The PAC stage floor is in poor condition (this was a 2008 project).

Gymnasium/Athletics

- The main gymnasium was redone this summer (year)
- The bleachers in the Auxiliary Gym are in poor condition
- There is no lift at the stage in the gymnasium
- The locker rooms have poor air quality, flooring, and lockers
- There are not enough lockers in the men's athletic locker room

- The weight room mirrors located low on walls are breaking
- The Dance and Weight Room could be expanded
- · The small fitness room does not get used
- The scoreboard in the main gym is newer, good condition
- The Gymnasium has an estimated 1,800 capacity

Cafeteria/Kitchen

· Possible cracking in the floor

Counselor/Nurse/Admin

- Office and counselors are separated
- The behavioral cool down is located with the front office space, separation would be ideal.
- The principals office gets water from the window

Special Classrooms/Media/Library

- There are programs for Architecture CAD, a Digital Media Lab, Accounting Lab, Digital Art, and Video Productions
- Room 413B was upgraded for the Journalism program
- The Media room once housed 34,000 volumes but is now closer to 8.000.
- The Media room is used more as classroom space now, it also houses the Online Virtual Classroom
- There is an autism program
- There are two classrooms for special needs students (16 to 20 students including autism program)

- FACS has only one classroom with eight stations, which limits the number of students who can participate
- There is a woodshop, bright and well laid out.
- The Autoshop areas are both small and in need of updating, low head room.

Toilets

- Some toilets are older with limited ADA compatibility.
- No gender neutral toilets or locker rooms.

Circulation/Lockers/Commons

- There is no common space in the building
- The third-floor elevator breaks down frequently and only goes to floors 3, 4, and 5.
- The third-floor main stairwell is a congestion point

Site

- There is no ADA access to the tennis courts of the baseball field
- There is a need for easily maintained, stabilizing landscaping at the hill by the baseball fields

Wishes & Wants

 Desire for gender neutral locker room that is separated from the men's and women's

MEP NARRATIVE

General Project Information

Owner: Shawnee Mission School District

School Name: East High School

Project Address 1: 7500 Mission Road, Prairie Village

City: Lenexa State: KS

Floor Area: 345,369 sf

Building Stories: 5

Building Use Type: High School

Code Occupancy Group: E Occupancy

Team Contact Information

Contact Name: Keith Hammerschmidt

Contact Company: RTM Associates

Contact Phone: 913-322-1400

Contact Fax: 913-825-6697

Contact Email: khammerschmidt@rtmassociates.com

General

- Mechanical system serving the building is a 4-pipe hydronic system, air cooled chiller and boilers, with air handlers located in various mechanical rooms. Portions of building are served by rooftop units. Age of mechanical equipment ranges from 1 year to over 20 years.
- Lighting throughout building appears to be sufficient. Majority of building has changed out corridor lighting to LED panels. Majority of classrooms have fluorescent light fixtures.
- Existing electrical service size appears to be sufficient, though close to maxing out for size of building. Most areas of the building have available space for additional circuits.
- Half of building has fire sprinkler coverage and other half does not have any fire sprinkler coverage.

Mechanical

System Descriptions

- 4-pipe hydronic system, air-handlers and fan powered boxes
 - Air cooled chillers around 5 years old. Typical life of a chiller is 20 25 years.
 - Boilers are less than 5 years old. Typical life of a boiler is 20 25 years.
 - Air-Handlers vary 1 10 years old. Typical life of air-handler is 20 25 years.
 - Rooftop units vary 2 20 years old. Typical life of rooftop unit is 15 20 years.
 - Pool unit is almost 15 years old. Typical life span is 15 20 years.
 - Kitchen mechanical equipment is around 20 years old.
- Lower level has humidity issues. A couple classrooms have portable dehumidification units. Pool mechanical system may be part of the cause.
- Building has operable windows. Operable windows make it difficult to maintain humidity levels within the building.
- A cassette VRF split system has bee added to a computer classroom.
- Insulation is beginning to deteriorate on refrigerant lines serving split systems located on the roofs.
- Wood shop dust collection system and metal shop exhaust system doesn't appear to be the most affective systems.

Controls Systems

- A full BMS control system is currently installed to serve all HVAC equipment.
- Majority of classrooms appear to have individual control.

Additional Updates required to bring systems up to current codes:

- Demand control ventilation shall be provided for spaces larger than 500 square feet and with average occupant over 25 people per 1000 square feet.
- Energy recovery at locations where exhaust cfm or outside supply cfm exceeds 5500 cfm or is a 100% make-up air / exhaust system. Lockers rooms would require energy recovery.
- Corridors / Path of egress shall not be used as a return air path.

Additional Updates required to bring systems up to current SMSD Standards:

- HVAC equipment efficiencies shall be increased.

Plumbing Systems

Hot Water

- Hot water system appears to be sufficient. A couple spaces require running water for a short extended time before receiving hot water.
- Majority of hot water heaters are around 15 years old. Typical life of a hot water heater is 10 – 15 years.
- Water heaters are electric.

Water Supply

- Water pressure appeared to be sufficient.
- Water service was provided with backflow preventer.

Roof Drains

- Internal roof drains are provided.
- Majority of roof has internal overflow drains. Portions of roof don't appear to have any overflow drains.
- The majority of the restroom groups appeared not to have sensor faucets or flush valves.
- Some locations had ADA compliant water coolers and some bottler fillers, but not all water coolers were.

Additional Updates required to bring systems up to current codes:

- Several water coolers and plumbing fixtures are not ADA compliant and need to be replaced.
- All handwashing sinks will need to have thermostat mixing valves installed to limit maximum water hot water temperature to 110°F.

• Additional Updates required to bring systems up to current SMSD Standards:

- Replace all faucets and flush valves with Toto sensor devices.
- Hot water recirculation line shall tie into hot water line with-in 3 feet of every hand washing sink.
- Replace majority of water closets and urinals with new wall-mounted fixtures.
- Provide some water coolers with bottle filler stations.

Electrical Systems

Lighting

 Corridors have been replaced with LED light fixtures. Majority of classrooms have fluorescent light fixtures.

- Occupancy sensors and vacancy sensors have not been installed in corridors, classrooms, offices, restrooms, etc.
- Exterior lights appeared to be dim and provide low light levels. Majority of exterior light fixtures were not LED.
- Portions of exterior lighting was on during the day. Time clock needs to be rescheduled or photocell adjusted.
- Pool area appears to have low light levels.

Power

- Electrical service is underground. Electrical service equipment appeared to be protected by ground fault protection.
- Some electrical equipment appeared to have surge protection and energy metering.
- Extension cords and power supplies were common in classrooms due to insufficient quantities and locations of electrical receptacles. Multi locations in library were noticed with extension cords and power supplies.
- Various electrical panels had available spaces for added circuit breakers. However, electrical service doesn't appear to have much free available capacity.
 - Electrical panel was located in library workroom.

Special Systems (Fire Alarm, Intercom, Data Systems)

- Fire Alarm system had been updated would support a new mass notification system with minor modifications.
- Intercom system appeared functional and sufficient.
- Data systems appeared functional and sufficient.
 - Data rack was located in a library workroom.
- Classrooms were provided with projector systems.
- Cafeteria sound system is old and doesn't appear to be the most affective system.

Additional Updates required to bring systems up to current codes:

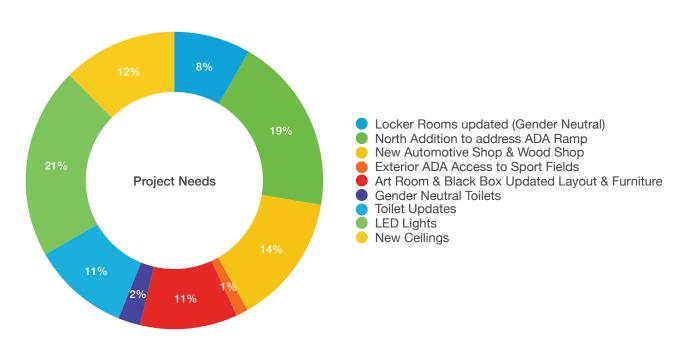
- Electrical
 - Additional Exterior lighting to ensure sufficient illumination.
- Lighting
 - New lighting controls with occupancy sensors installed in entire building.
 - New lighting to meet watts per square foot based on energy code.
- Fire Alarm Addition of mass notification speakers.
- Intercom system None
- Data systems None

- Additional Updates required to bring systems up to current SMSD Standards:
 - Electrical
 - Energy Metering added to all electrical equipment. Some electrical equipment appears to have energy metering but not all.
 - Additional receptacles added throughout classrooms.
 - Lighting
 - New LED light fixtures installed in all areas, interior and exterior
 - Dimming Controls added in classrooms.
 - Fire Alarm Addition of mass notification speakers.
 - Intercom system New Valcom Intercom System
 - Data systems Dedicated IT closets for Data Racks and data associated equipment.

CONCEPT ESTIMATE

TOTAL CONSTRUCTION COSTS				
Total Costs	\$16,523,438			
Inflation 2019 to 2020 6%	\$991,406			
TOTAL COSTS YEAR 2020	\$17,514,844			

PROJECT NEEDS	SQUARE FOOT	COST/SF	HARD CONSTRUCTION COSTS	SOFT COSTS 25%	TOTAL PROJECT COSTS
Locker Rooms updated (Gender Neutral)	4,000	\$275	\$1,100,000	\$275,000	\$1,375,000
North Addition to address ADA Ramp	6,000	\$425	\$2,550,000	\$637,500	\$3,187,500
New Automotive Shop & Wood Shop	5,000	\$375	\$1,875,000	\$468,750	\$2,343,750
Exterior ADA Access to Sport Fields			\$175,000	\$43,750	\$218,750
Art Room & Black Box Updated Layout & Furniture	8,000	\$175	\$1,400,000	\$350,000	\$1,750,000
Gender Neutral Toilets	750	\$425	\$318,750	\$79,688	\$398,438
Toilet Updates	4,000	\$350	\$1,400,000	\$350,000	\$1,750,000
LED Lights	275,000	\$10	\$2,750,000	\$687,500	\$3,437,500
New Ceilings	275,000	\$6	\$1,650,000	\$412,500	\$2,062,500
TOTAL EXPENSES					\$16,523,438



^{*} North connecting addition would address ADA ramp accessibility, provide collaboration spaces, project based learning, art gallery and additional cafeteria seating.

