




SMSD INDIAN HILLS MIDDLE SCHOOL

# FACILITY EVALUATION





# OVERALL SUMMARY

ACI Boland Architects along with RTM visited each of the schools over a several week process. Each school was evaluated and scored using the A4LE School

Facility Appraisal document included in this report. The school's principal and maintenance personnel were present at the building walk-throughs to offer insight into building positives and negatives.

**The overall Assessment scores are indicated as follows:**

- |                                     |                   |
|-------------------------------------|-------------------|
| • <b>East High School</b>           | <b>145 points</b> |
| • <b>South High School</b>          | <b>149 points</b> |
| • <b>Indian Hills Middle School</b> | <b>133 points</b> |
| • <b>Indian Woods Middle School</b> | <b>139 points</b> |
| • <b>Hocker Grove Middle School</b> | <b>142 points</b> |



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## SUMMARY

Indian Hills is located in Prairie Village Kansas on the busy intersection of Mission Road and 63rd Street. The building was built in 1955 and has had 4 additions, the latest in 2013.

Indian Hills is a 7th & 8th grade middle school that is a feeder for the Shawnee Mission East High School

Student Enrollment is presently 840 students, the building has housed as many as 1,200 students in the 1970's.

The building is composed mostly of block masonry with a brick veneer. The building has been well cared for and is in good overall shape considering its age.

Most of the classrooms have natural daylighting but not all. Ventilation is mostly good but could use improvements to meet modern standards.

Student drop off and pickup is separated between cars and buses. The front loop is utilized by buses and parents use the north parking lot. Cars can spill out onto 63rd street at the end of the day.



The classroom wing is 3-stories tall that is served by two main staircases at each end of the central corridor. The building recently received a new elevator to serve the academic wing.

Classrooms are laid out in a traditional manner on a double loaded corridor. Some of the basement classrooms have limited natural daylighting. The classroom layout is a hindrance to team teaching and collaborative learning. Students lack breakout space for project based learning outside of the classrooms.

Circulation is restricted by staircases behind fire doors and narrow corridors. The building does have a modest footprint so getting to far classes such as PE is attainable during passing periods.

The site is smaller than modern suburban middle schools would have but is not a major issue presently. ADA or paved access to the outdoor play fields is in not present.

The school doesn't have bathroom or locker room facilities for gender fluid students.

Not all bathrooms are ADA accessible.



APPRAISAL

**GUIDE FOR**

**SCHOOL FACILITY APPRAISAL**

**INSTRUMENT FOR**

**Indian Hills Middle School**

**APPRAISAL**



## Directions for Appraising Facilities

### Middle 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 I

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

#### Step 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).





## APPRAISAL GUIDE FOR SCHOOL FACILITIES

**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
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**

**69**

69%

2.0 Structural and Mechanical

**200**

**136**

68%

3.0 Plant Maintainability

**100**

**76**

76%

4.0 School Building Safety &  
Security

**200**

**158**

79%

5.0 Educational Adequacy

**200**

**130**

65%

6.0 Environment for Education

**200**

**133**

67%

**TOTAL**

**1,000**

702

70%

## 1.0 The School Site

100 Points

1.1	<b>Site is large enough</b> to meet present and future educational needs as defined by state and local requirements.	25	15
1.2	<b>Site is easily accessible</b> and conveniently located for the present and future population.	20	8
1.3	<b>Location</b> is removed from undesirable business, industry, traffic and natural hazards.	10	10
1.4	Site is <b>well landscaped and developed</b> to meet educational needs.	10	10
1.5	Well equipped <b>athletic areas</b> are adequate with sufficient solid-surface parking.	10	8
1.6	<b>Topography</b> is varied enough to provide desirable appearance and without steep inclines.	5	5
1.7	Site has stable, well drained <b>soil free of erosion</b> .	5	2
1.8	Site is suitable for <b>special instructional needs</b> , e.g. outdoor learning.	5	4
1.9	<b>Pedestrian services</b> including adequate sidewalks with designated crosswalks, curb cuts and correct slopes.	5	4
1.10	Sufficient <b>on-site, solid surface parking</b> is provided for faculty, students, staff and community.	5	3
<b>Total - The School Site</b>		<b>100</b>	<b>69</b>

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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

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

Table of  
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10	0	2	4	6	8	10
15	0	3	6	9	12	15

**Mechanical/Electrical**

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

Table of  
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and  
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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	<b>Exterior windows, doors and walls</b> are of material and finish requiring minimum maintenance.	15	12
3.2	<b>Floor surfaces</b> throughout the building require minimum care.	15	12
3.3	<b>Ceilings and walls</b> throughout the building, including service areas, are easily cleaned and resistant to stain.	10	8
3.4	<b>Built-in equipment</b> is designed and constructed for ease of maintenance.	10	8
3.5	<b>Finishes and hardware</b> , with a compatible keying system, are of durable quality.	10	10
3.6	<b>Restroom fixtures</b> are wall mounted and of quality finish.	10	6
3.7	Adequate <b>custodial storage space</b> with water and drain is accessible throughout the building.	10	8
3.8	Adequate <b>electrical outlets and power</b> , to permit routine cleaning, are available in every area.	10	6
3.9	<b>Outdoor light fixtures, electric outlets</b> , equipment, and other fixtures are accessible for repair and replacement.	10	6
<b>Total - Plant Maintainability</b>		<b>100</b>	<b>76</b>

Table of  
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10	0	2	4	6	8	10
15	0	3	6	9	12	15

## 4.0 Building Safety and Security

200 Points

### Site Safety

4.1	<b>Student loading areas</b> are segregated from other vehicular traffic and pedestrian walkways.	15	12
4.2	<b>Walkways</b> , both on and offsite, are available for safety of pedestrians.	10	8
4.3	<b>Access streets</b> have sufficient signals and signs to permit safe entrance to and exit from school area.	5	5
4.4	<b>Vehicular entrances and exits</b> permit safe traffic flow.	5	4
4.5	<b>Athletic field equipment</b> is properly located and is free from hazard.	5	4

### Building Safety

4.6	The <b>heating unit(s)</b> is located away from student occupied areas.	20	16
4.7	Multi-story buildings have at least <b>two stairways</b> for student egress.	15	12
4.8	<b>Exterior doors</b> open outward and are equipped with panic hardware.	10	10
4.9	<b>Emergency lighting</b> is provided throughout the building with exit signs on separate electrical circuits.	10	6
4.10	<b>Classroom doors</b> are recessed and open outward.	10	10
4.11	<b>Building security systems</b> are provided to assure uninterrupted operation of the educational program.	10	8

Table of  
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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.)

<b>4.12</b>	<b>Flooring</b> (including ramps and stairways) is maintained in a nonslip condition.	<b>5</b>	<b>5</b>
<b>4.13</b>	<b>Stairs</b> (interior and exterior) meet standards (maximum 7" rise to 11" tread) and steps range in number from 3 - 16.	<b>5</b>	<b>4</b>
<b>4.14</b>	<b>Glass</b> is properly located and protected with wire or safety material to prevent accidental student injury.	<b>5</b>	<b>4</b>
<b>4.15</b>	<b>Fixed projections</b> in the traffic areas do not extend more than 8" from the corridor wall.	<b>5</b>	<b>4</b>
<b>4.16</b>	<b>Traffic areas</b> terminate at an exit or a stairway leading to an egress.	<b>5</b>	<b>4</b>

**Emergency Safety**

<b>4.17</b>	Adequate <b>fire safety equipment</b> is properly located.	<b>15</b>	<b>12</b>
<b>4.18</b>	There are at least <b>two independent exits</b> from any point in the building.	<b>15</b>	<b>12</b>
<b>4.19</b>	<b>Fire-resistant materials</b> are used throughout the structure.	<b>15</b>	<b>12</b>
<b>4.20</b>	Automatic and manual <b>emergency alarm system</b> with a distinctive sound and flashing light is provided.	<b>15</b>	<b>6</b>

**Total - Building Safety and Security**

<b>200</b>	<b>158</b>
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Table of  
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and  
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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	<b>Size of academic learning areas</b> meets desirable standards.	10	6.0
5.2	<b>Classroom space</b> permits arrangements for small group activity.	10	4.0
5.3	<b>Location of academic learning areas</b> is near related educational activities and away from disruptive noises.	10	10.0
5.4	<b>Personal space</b> in the classroom away from group instruction allows privacy time for individual students.	5	2.0
5.5	<b>Storage for student materials</b> is adequate.	5	4.0
5.6	<b>Storage for teacher materials</b> is adequate.	5	4.0

### Specialized Learning Space

5.7	<b>Size of specialized learning area(s)</b> meets standards.	15	9.0
5.8	<b>Design of specialized learning area(s)</b> is compatible with instructional need.	10	6.0
5.9	<b>Library/Resource/Media Center</b> provides appropriate and attractive space.	15	12.0
5.10	<b>Gymnasium and outdoor facilities</b> adequately serve physical education instruction.	15	9.0
5.11	<b>Science</b> program is provided sufficient space and equipment.	10	4.0
5.12	<b>Music Program</b> is provided adequate sound-treated space.	10	4.0

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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

**Specialized Learning Space** (cont.)

<b>5.13</b>	<b>Space for art</b> is appropriate for instruction, supplies and equipment.	<b>10</b>	<b>8.0</b>
<b>5.14</b>	<b>Space for technology education</b> permits use of state-of-the-art equipment.	<b>10</b>	<b>6.0</b>
<b>5.15</b>	Space for <b>small groups and remedial instruction</b> is provided adjacent to classrooms.	<b>5</b>	<b>3.0</b>
<b>5.16</b>	<b>Storage for student and teacher material</b> is adequate.	<b>5</b>	<b>3.0</b>

**Support Space**

<b>5.17</b>	<b>Teacher's lounge and work areas</b> support teachers as professionals.	<b>10</b>	<b>4.0</b>
<b>5.18</b>	<b>Cafeteria/Kitchen</b> is attractive with sufficient space for seating/dining, delivery, storage and food preparation.	<b>10</b>	<b>6.0</b>
<b>5.19</b>	<b>Administrative offices</b> are consistent in appearance and function with the maturity of the students served.	<b>10</b>	<b>10.0</b>
<b>5.20</b>	<b>Counselor's office</b> insures privacy and sufficient storage.	<b>5</b>	<b>4.0</b>
<b>5.21</b>	<b>Clinic</b> is near administrative offices and is equipped to meet requirements.	<b>5</b>	<b>5.0</b>
<b>5.22</b>	<b>Suitable reception space</b> is available for students, teachers and visitors.	<b>5</b>	<b>4.0</b>
<b>5.23</b>	<b>Administrative personnel</b> are provided sufficient work space and privacy.	<b>5</b>	<b>3.0</b>

**Total - Educational Adequacy**

<b>200</b>	<b>130.0</b>
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Table of  
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5	0	1	2	3	4	5
10	0	2	4	6	8	10

## 6.0 Environment for Education

200 Points

### Exterior Environment

6.1	Overall <b>design is aesthetically pleasing</b> and appropriate for the age of students.	15	12
6.2	Site and buildings are well landscaped.	10	8
6.3	<b>Exterior noise and surrounding environment</b> do not disrupt learning.	10	8
6.4	<b>Entrances and walkways are sheltered</b> from sun and inclement weather.	10	6
6.5	<b>Building materials</b> provide attractive color and texture.	5	4

### Interior Environment

6.6	<b>Color schemes, building materials and decor</b> provide an impetus to learning.	20	16
6.7	<b>Year around comfortable temperature and humidity</b> are provided throughout the building.	15	12
6.8	<b>Ventilating system</b> provides adequate quiet circulation of clean air and meets 15cfm VBC requirement.	15	9
6.9	<b>Lighting system</b> provides proper intensity, diffusion and distribution of illumination.	15	9
6.10	<b>Sufficient drinking fountains and restroom facilities</b> are conveniently located.	15	9
6.11	<b>Communication among students</b> is enhanced by commons area.	10	4

Table of  
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10	0	2	4	6	8	10
15	0	3	6	9	12	15
20	0	4	8	12	16	20



**Interior Environment** (cont.)

<b>6.12</b>	<b>Traffic flow</b> is aided by appropriate foyers and corridors.	<b>10</b>	<b>6</b>
<b>6.13</b>	<b>Areas for students to interact</b> are suitable to the age group.	<b>10</b>	<b>6</b>
<b>6.14</b>	<b>Large group areas</b> are designed for effective management of students.	<b>10</b>	<b>4</b>
<b>6.15</b>	<b>Acoustical treatment</b> of ceilings, walls and floors provides effective sound control.	<b>10</b>	<b>6</b>
<b>6.16</b>	<b>Window design</b> contributes to a pleasant environment.	<b>10</b>	<b>8</b>
<b>6.17</b>	<b>Furniture and equipment</b> provide a pleasing atmosphere.	<b>10</b>	<b>6</b>
<b>Total - Environment for Education</b>		<b>200</b>	<b>133</b>

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10	0	2	4	6	8	10

## Justification for Allocation of Points

BUILDING NAME AND LEVEL:

Indian Hills Middle School

Indicate the justification for the appraisal decision in the space provided.

BUILDING FEATURES THAT CLEARLY EXCEED CRITERIA:

1. Overall building condition appears to be maintained well.

2. Provides some natural light.

3. Recent updates to media center.

4. Wellness room.

5. Has turf soccer /FB practice field

BUILDING FEATURES THAT ARE NON-EXISTENT OR VERY INADEQUATE:

1. Science spaces small, minimal storage.

2. Music spaces too small for use, minimal storage.

3. Art does not have direct exterior access.

4. No bleachers in the auxiliary gym (staff complaint).

5. Only newer sections are fire suppressed.

6. Have to go through locker room to access training.

7. Kitchen does not have its own dock.

8. Industrial Arts/Tech areas need attention

9. Lack of group or collaboration spaces

10. Site /parking accessibility an issue

**Date of Appraisal:** January 15, 2019

**Name of School:** Indian Hills Middle School

**Name of Appraisers:** ACI Bioland, Inc.

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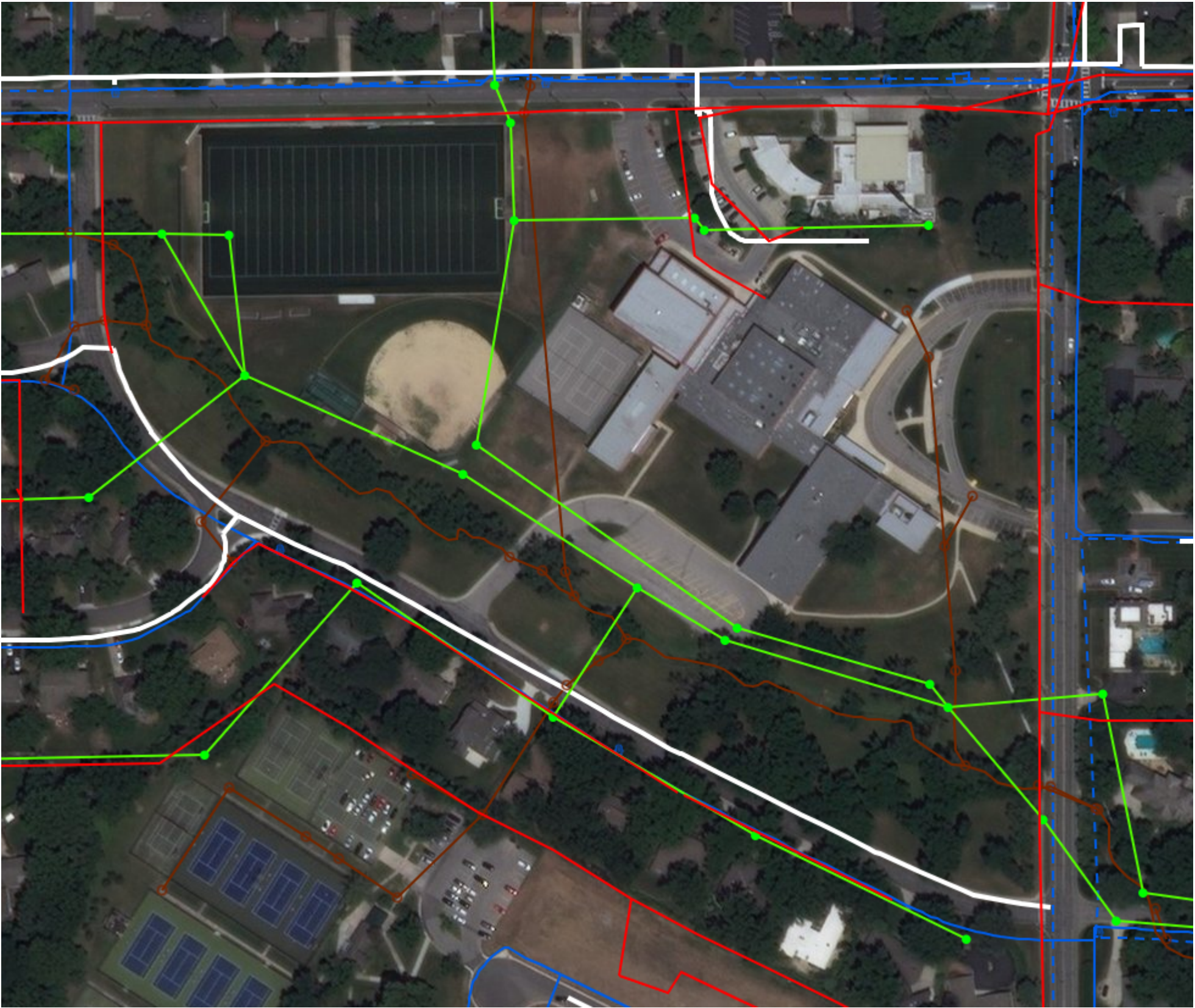
SITE PLAN







# SITE UTILITIES



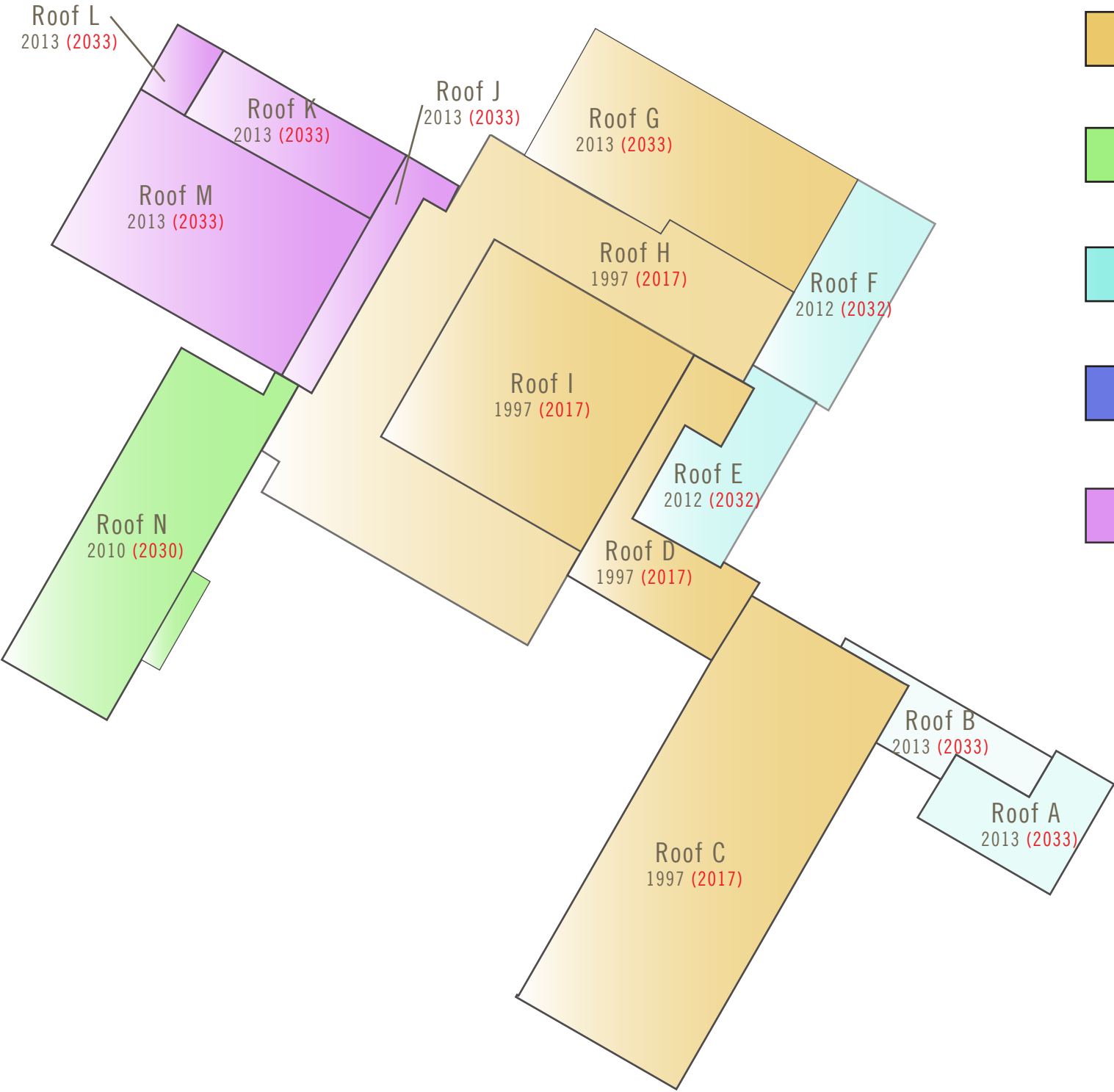
- Water Main
- Abandoned Water Main
- Sanitary Sewer Main
- Sanitary Sewer Manhole
- Storm Structure
- Storm Sewer
- Electric Line
- Gas Main
- Cable







# ROOF ASSESSMENT



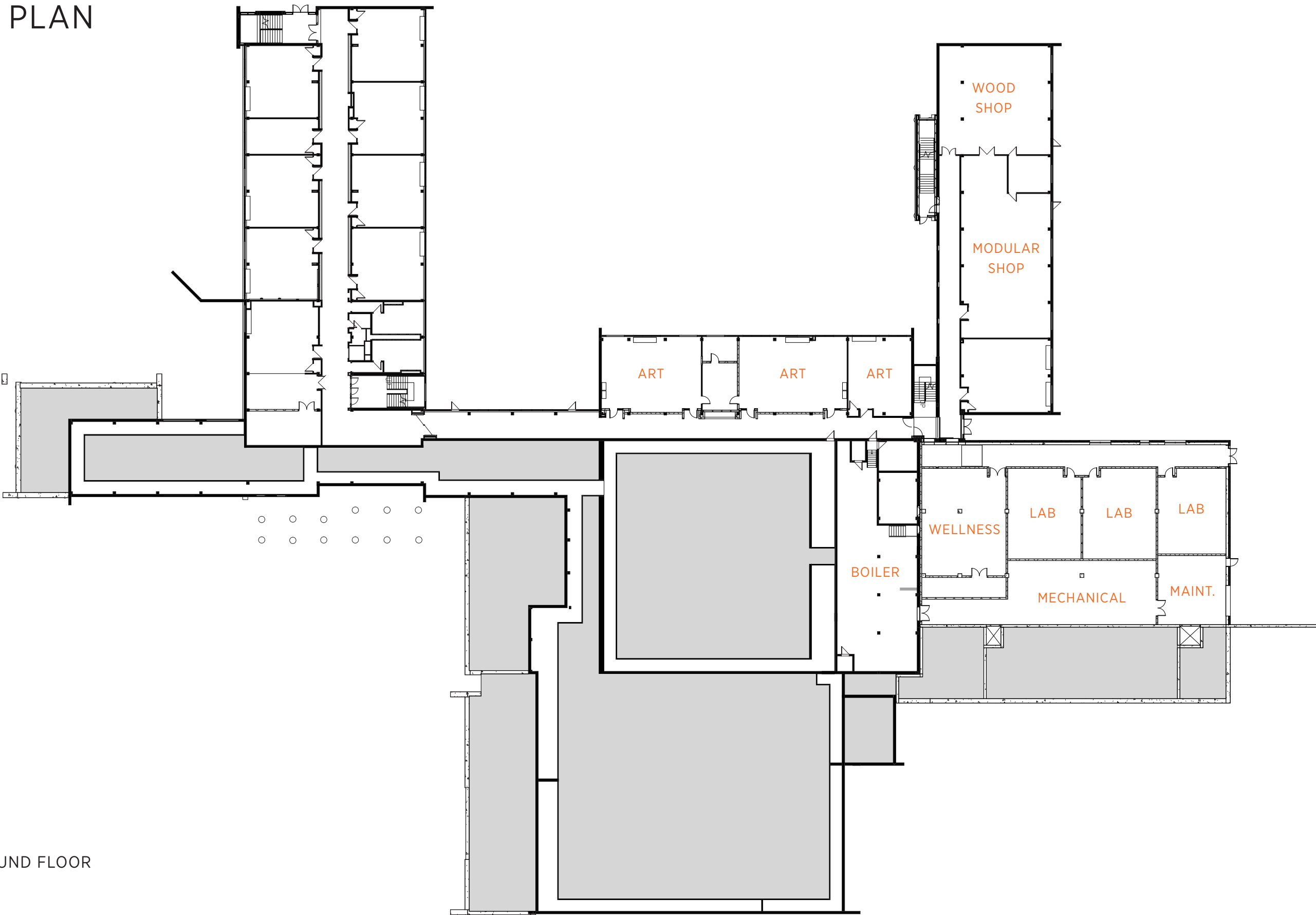
## Roof Areas

- Roofs \* (Unknown locations remain)  
Tamko 103 / 520 squares  
1997 (20 year) **2017**
- Roofs N  
Tamko 103 FR / 68 squares  
June 2010 (20 year) **2030**
- Roofs A\*,E\*,F\*  
Modified Bit.  
Fall 2012-2013 (**Missing**)
- Roofs \*(Unknown location)  
Tamko 109FR / 101 squares  
March 2013 (20 year) **2033**
- Roofs J,K,L,M  
GAF I12MGPF / 102 squares  
March 2013 (20 year) **2033**





FLOOR PLAN

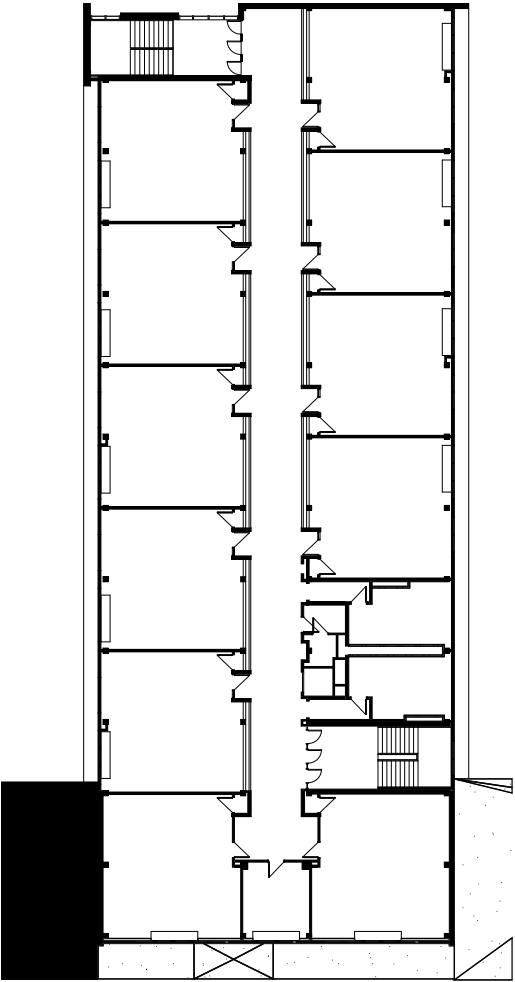


 GROUND FLOOR

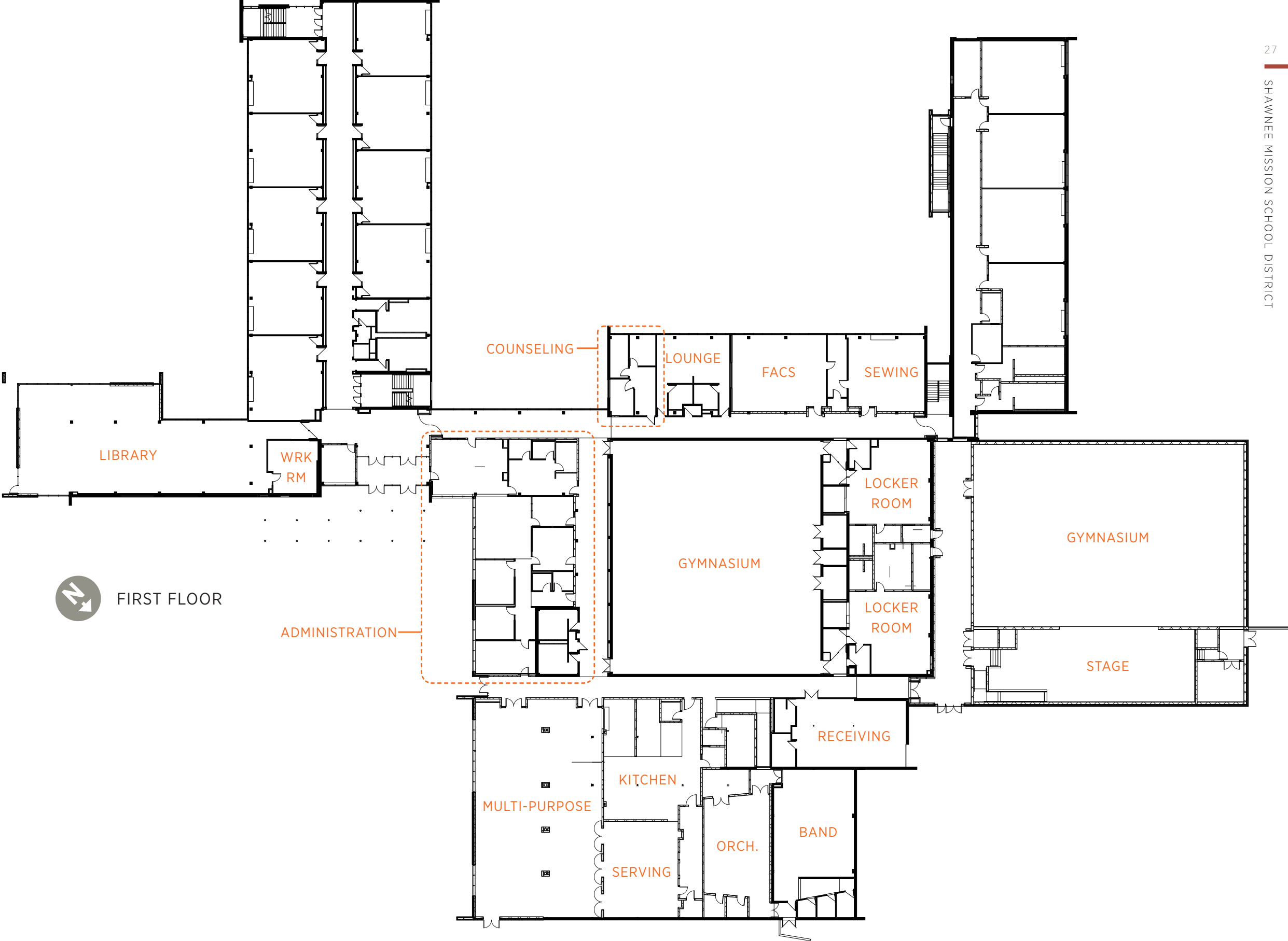




FLOOR PLAN



SECOND FLOOR



FIRST FLOOR



# FACILITY OBSERVATIONS

## Architectural Observations



Mismatched floor patching in stair tower.



Locations where surface-mounted or glued ceilings are used require attention or replacement.





Older portions of building have 9" x 9" tile.



Lower mechanical room floor can take on water periodically.





Cracks in exterior soffit.



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Band room is too small and needs acoustics addressed. It shares space with instrument storage and lockers.



Band room is too small and needs acoustics addressed. It shares space with instrument storage and lockers.





No storage available for student bags, etc.



Vocal room has some acoustic panels but space is not designed specifically for music program.



Entry lobby leads to corridors but not a commons, which this building does not have.



No canopy protection at this drive loop/entry point.





Main entry has canopy protection, other entry points do not.



Stair entry and existing control is problematic for traffic flow and monitoring.





Conventional hallways lack adjoining breakout or collaborative spaces.



Art room has good natural light but does not have direct access to outside.



Tech shop is too small for the functions performed.



There are no fixed bleachers in the auxiliary gym other than semi-portable seating at the court ends.





Columns and tables limit flexibility in seating arrangements.



Kitchen is not directly accessible to the receiving dock. Supplies and food stuffs travel down a corridor to the kitchen.

## MEP Observations



Data rack and electrical panels located in workroom Electrical panel does not have code-required clearance.



Data rack in band storage room





Floor mounted urinals



Portable dehumidification unit  
and power outlet





Portable unit heater



Upgraded plumbing fixtures

# ARCHITECTURAL NARRATIVE

**Principal: Dr. Blake Revelle | Mascot: Knights | S. F. 124,462 s.f. | 16.9 acres | 3 levels | 1955 original building  
Additions and Renovations in 1961, 1968, 2012, 2013**

## General

- The building was constructed in 1954
- The building was designed for a 1,200 maximum capacity, it currently has 840 students enrolled

## Building

- Operable windows through the building are large enough for someone to crawl out of
- Lighting is predominantly fluorescent
- There are not enough security cameras in the building to adequately monitor, there are none in the stairwells.
- The boiler rooms floods and creates a 'waterfall'
- New Boilers and Chillers were added in 2014
- There is asbestos floor tile in the lower level corridor

## Classrooms

- All rooms are being utilized (there are no extra classrooms)
- There is a traditional department organization now, but the principal would like to move to a team-teaching model or pod-based teaching
- Room 8 is dingy
- There is traditional furniture in most classrooms, there is a desire to be more collaborative

## Fine and performing arts

- Performing arts is in the lower floor of the academic wing
- The Band and Orchestra rooms need more storage

space and currently have lockers located within them, which is not ideal. The small rehearsal rooms do not get used much, as there is a need for more spaces that can accommodate group learning.

- The music rooms have poor HVAC and acoustics
- Band currently has around 150 students
- Choir needs storage space for risers, which are currently kept on the stage. There are no risers in the classroom and the stage has been converted for Choir.
- The Art room is of adequate size but does not have direct access to the outdoors.

## Science Rooms

- The science hallway is separate from the rest of the classrooms, it would be difficult to integrate into pod-based teaching
- The Science rooms are small, but it may be a furniture layout issue

## Gymnasium/Athletics

- The Auxiliary gym has no room for bleachers
- The main gym floor is being replaced this summer (2019). Bleachers for this space are approximately 20 years old and in good shape.
- There is an approximately 750 student seating capacity, which is not enough for current enrollment
- The divider wall and bulkhead will be removed this summer (2019)
- Cross Country has 130 students participating in it, a track would be beneficial to this program.

**Cafeteria/Kitchen**

- The restrooms are undersized in the cafeteria
- There are 250-275 students per lunch period
- There is a need for more flexible furniture to serve the Cafeteria
- The kitchen was remodeled in 2015 when the cafeteria addition was completed

**Counselor/Nurse/Admin**

- The Counselors office is close enough to work with the main office
- If the counselor's department grows, they will not have space for additional staff
- ISS is taking up room in the office that should be a conference room

**Special Classrooms/Media/Library**

- The building houses both SAIL and ACE which are special education programs
- The classrooms below the gymnasium (Journalism and Computers) do not have access to natural light
- The Media Center was updated two years ago (year) and received furniture grants. Recent updates have made it more media centric, but the space is not as inviting as desired. The space is large enough to hold 80 to 100 students.]
- Robotics is very small and does not have enough space for storage. The space also houses Design & Modeling – computer lab. Rooms 7 and 8 were separate but not the HVAC.
- There is an Industrial Technology program
- The FACS rooms do not have enough plugs for electronic devices, hoods in this room are adequate.

**Toilets**

- The building is short of restrooms

**Circulation/Lockers/Commons**

- The old elevator shaft has been filled with storage

**Site**

- Parking lot access and handicap spots are not adequate, it needs to be doubled in the front lot for visitors and events.
- There is a desire for electricity at the baseball fields for a pitching machine
- ADA access to fields is not adequate
- Access to tennis courts is muddy
- There are two tennis courts, which the public uses

**Wishes & Wants**

- There is a desire for one to two more rooms for instruction
- Track
- More security cameras
- Improved stairwells that are wider and more appealing
- Outdoor classroom that can open the building to the outdoors



# MEP NARRATIVE

## General Project Information

<b>Owner:</b>	Shawnee Mission School District
<b>School Name:</b>	Indian Hills Middle School
<b>Project Address 1:</b>	6400 Mission Road
<b>City:</b> Lenexa	<b>State:</b> KS
	<b>Floor Area:</b> 124,462 sf
<b>Building Stories:</b>	3
<b>Building Use Type:</b>	Middle School
<b>Code Occupancy Group:</b>	E Occupancy

## Team Contact Information

<b>Contact Name:</b>	Keith Hammerschmidt
<b>Contact Company:</b>	RTM Associates
<b>Contact Phone:</b>	913-322-1400
<b>Contact Fax:</b>	913-825-6697
<b>Contact Email:</b>	khammerschmidt@rtmassociates.com

## General

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- A portion of the mechanical system serving the building is served from 2-pipe hydronic system with unit ventilators. Other portion of building served by rooftop units. Age of mechanical equipment ranges from 5 years to 25 years.
- Lighting throughout building appears to be sufficient though a couple corridors appear to have low light levels. Majority of building has fluorescent light fixtures. Minimum spaces have LED lighting.
- Existing electrical service size appears to be sufficient, electrical system appears to have recently upgraded. Majority of the building have available space for additional circuits.
- Only portions of building have fire sprinkler protection. Majority of building had area smoke detection in corridors.

## Mechanical

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- System Descriptions
  - 2-Pipe Hydronic system with unit ventilators and rooftop units.
    - Unit Ventilators units around 10 - 20 years old. Typical life of a unit ventilator is 15 – 20 years.
    - Chiller is around 7 years old. Typical life span is 20-25 years.
    - Rooftop units range from 10 years old to 25 years old. Typical life of a fan rooftop is 15 – 20 years.
    - Boilers are around 12 years old. Typical life span is 20 – 25 years old.
    - Cooling tower is around 7 years old. Typical life of a cooling tower is 15 – 20 years.
  - Kitchen equipment has been upgraded within last 5 years.
  - Library has a portable dehumidification unit. Humidity issues appear to be an issue.
  - Some classrooms have portable unit heaters. Temperature control appears to be an issue in classrooms.
  - No roof access in building to access mechanical rooftop units on roof.
  - Building has operable windows. Operable windows make it difficult to maintain humidity levels within the building.
  - Dust collection system is an older not most affective system but has been rebuilt in the last couple years.
  - Mechanical room is accessed through classroom.
- Controls Systems
  - A full BMS control system is currently installed to serve all HVAC equipment.
- 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.
- Additional Updates required to bring systems up to current SMSD Standards:
  - HVAC equipment efficiencies shall be increased.

### **Plumbing Systems**

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- Hot Water
  - Portions of the building take a long time to get hot water.
  - Majority of hot water heaters are around 17 years old. Typical life of a hot water heater is 10 – 15 years.
  - Water heaters are gas but not high efficiency.
- Water Supply
  - Water pressure appeared to be sufficient.
  - Water service was provided with backflow preventer.
  - A couple locations of domestic water lines were observed not fully insulated.
- Roof Drains
  - Roof drains are internal.
  - Majority of building appears to not have overflow drains.
  - A couple roof drains were observed draining to grade and not tied into storm sewer.
- Some of the restroom group's plumbing fixtures appeared to have been updated to Shawnee Mission School District standard faucets, flush valves, china, etc. but not all restrooms.
- Some of water closets appeared to not be ADA and very few bottle fillers.
- Majority of urinals were floor mounted.
- Additional Updates required to bring systems up to current codes:
  - 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:
  - Hot water recirculation line shall tie into hot water line with-in 3 feet of every hand washing sink.
  - Replace majority of urinals with new wall-mounted fixtures.

### **Electrical Systems**

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- Lighting
  - Majority of building has fluorescent light fixtures. Minimum spaces have LED light fixtures.
  - Occupancy sensors and vacancy sensors have not been installed in majority of building.
  - Majority of exterior light fixtures were not LED.
  - Some corridors appeared to have low light levels.

- Majority of classrooms have 2 levels of lighting control and 3<sup>rd</sup> level control for downlights over casework. Downlights appear to be original to building.
- Power
  - Electrical service is underground.
  - Electrical service size sufficient and appears to have recently upgraded.
  - Electrical service didn't appear to have energy metering.
  - Extension cords and power supplies were common in classrooms and library due to insufficient quantities and locations of electrical receptacles.
  - Some electrical equipment appeared to have surge protection.
  - Electrical panels are located in workroom.
  - No electrical receptacles on roof.
- Special Systems (Fire Alarm, Intercom, Data Systems)
  - Fire Alarm system doesn't appear to have been update, may require extensive modifications to support a new mass notification system.
  - Intercom system appeared to be older system and not most affective system.
  - Classrooms were provided with projector systems. Stage provided with rear projection system.
  - Majority of data racks were not located in dedicated IT closets with dedicated cooling. One data rack was located in Band Storage room. Another data rack was located in workroom.
- Additional Updates required to bring systems up to current codes:
  - Electrical
    - Additional Exterior lighting to ensure sufficient illumination.
    - Provide code required surge protection.
  - 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.
    - 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.

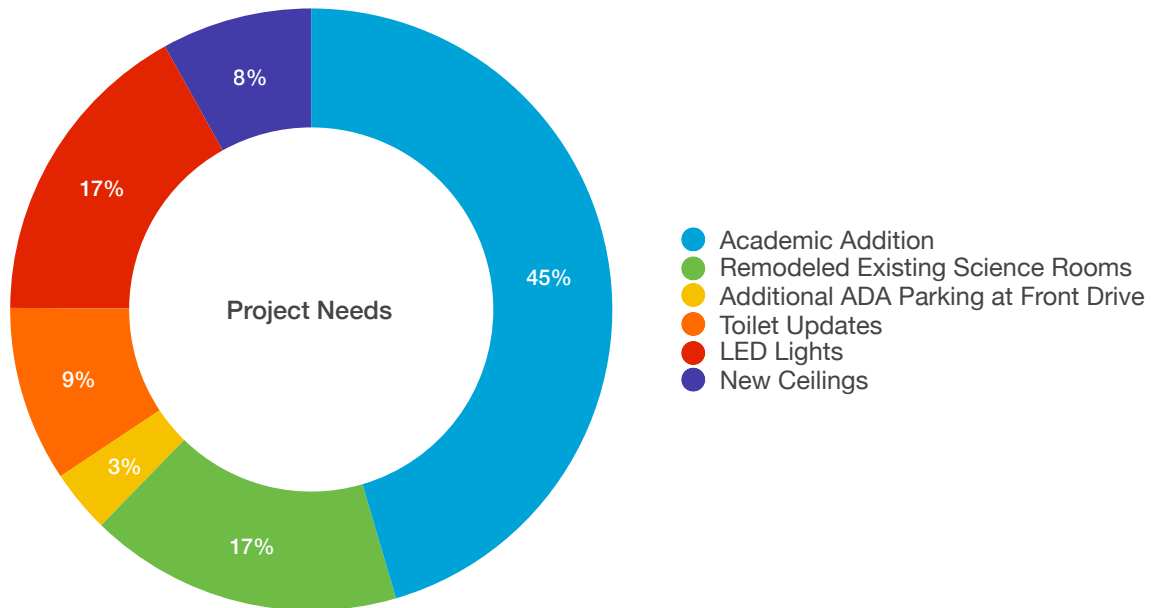




# CONCEPT ESTIMATE

TOTAL CONSTRUCTION COSTS	
Total Costs	\$9,281,250
Inflation 2019 to 2020 6%	\$556,875
<b>TOTAL COSTS YEAR 2020</b>	<b>\$9,838,125</b>

PROJECT NEEDS	SQUARE FOOT	COST/SF	HARD CONSTRUCTION COSTS	SOFT COSTS 25%	TOTAL PROJECT COSTS
Academic Addition	9,000	\$375	\$3,375,000	\$843,750	\$4,218,750
Remodeled Existing Science Rooms	5,000	\$250	\$1,250,000	\$312,500	\$1,562,500
Additional ADA Parking at Front Drive			\$250,000	\$62,500	\$312,500
Toilet Updates	2,000	\$350	\$700,000	\$175,000	\$875,000
LED Lights	125,000	\$10	\$1,250,000	\$312,500	\$1,562,500
New Ceilings	100,000	\$6	\$600,000	\$150,000	\$750,000
<b>TOTAL EXPENSES</b>					<b>\$9,281,250</b>



\* Academic addition with new science rooms to allow for pod based team teaching. Space would include collaboration spaces and a gender neutral toilet.

\* Remodel existing science rooms into special education rooms and other program needs.

