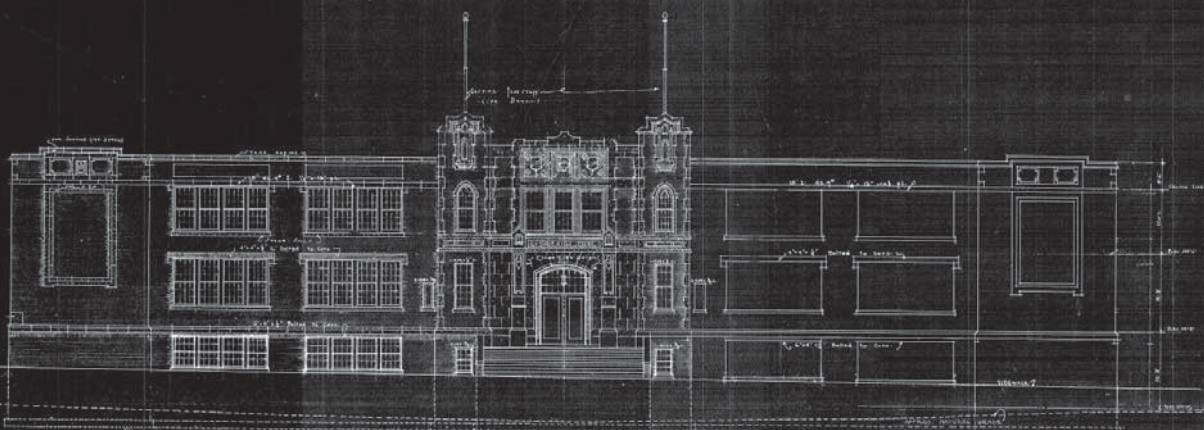




# JR. HIGH RENOVATION FACILITY ANALYSIS



NORTH ELEVATION  
Scale 1/8" = 1'-0"

5538 E. 11th  
OKLAHOMA  
MAY 17, 1924

HIGH SCHOOL BUILDING FOR GUTHRIE OKLAHOMA HAWK & PARR ARCHITECTS OKLAHOMA CITY OKLAHOMA COMM 2529 SHEET 8

## GUTHRIE PUBLIC SCHOOLS

November 19, 2013

The report attached lists items that should be addressed in a renovation of the Jr. High facility based on a review by the architect, interior designer, structural engineer, mechanical engineer, and electrical engineer.

Our conclusion is that the existing Jr. High facility can be renovated to meet the educational specifications of Guthrie Public Schools for a lower cost than building a new facility to house a Sixth Grade Center. At the end of this report are two cost estimates; one for a renovation to the existing facility and another for a new Sixth Grade Center. It should be noted that the new facility does not include an auditorium nor a gym and locker room facility as large as the existing. Rebuilding these facilities would greatly increase the cost of the new facility and widen the gap between the Jr. High renovations vs. the new school.

Items that need to be addressed include but are not limited to:

1. Water damage below ground level
2. ADA accessibility throughout the facility – ramps, wheelchair lifts, railings, restrooms, door swings, egress to a public way
3. Reorganization and resizing of classrooms to meet standards
4. Updated finishes throughout – doors and hardware, ceilings, flooring, paint, wall tile, restrooms, signage, wayfinding, lighting, lockers, millwork
5. Complete window replacement – energy efficiency
6. Tuck-pointing the entire exterior
7. Minor settling repairs
8. Electrical upgrades per electrical report
9. Secure vestibule
10. HVAC upgrades and replacement per mechanical report
11. Fire sprinkler system including updated fire alarm

These items and others could be prioritized and instituted in phases if necessary.

# building data record

Date of Appraisal: October 22, 2013

Name of Appraiser: Sean Willis, James Parizek, Allison Curran

Building Name: Guthrie Jr. High

Street Address: 704 E Oklahoma Ave

City/Town, State, Zip Code: Guthrie, OK 73044

Telephone Number(s): 405-282-5936

School District: Guthrie Public Schools

Setting:  Urban  Suburban  Small City  Rural

Site-Acreage: 2.4 +/- Building Square Footage: 86,000

Grades Housed: 7-8 Student Capacity: \_\_\_\_\_

Number of Teaching Stations: \_\_\_\_\_ Number of Floors: 3

Student Enrollment: 504 as of \_\_\_\_\_

Dates of Construction: 1924, 1936, 1952

Energy Sources:  Fuel Oil  Gas  Electric  Solar

Air Conditioning:  Rooftop  Window Units  Central  Room Units

Heating:  Central  Rooftop  Roof Units  Unit Heaters  
 Forced Air  Steam  Hot Water

Type of Construction:  Load Bearing Masonry  Steel Frame  Concrete Frame  
 Wood  Other: \_\_\_\_\_

Exterior Surfacing:  Brick  Stucco  Metal  Wood  
 Other: \_\_\_\_\_

Floor Construction:  Wood Joists  Steel Joists  Slab on Grade  
 Structural Slab  Other: \_\_\_\_\_

# 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	76	76	S
2.0 Structural and Mechanical	200	133	66	B
3.0 Plant Maintainability	100	51	51	B
4.0 School Building Safety & Security	200	107	54	B
5.0 Educational Adequacy	200	115	58	B
6.0 Environment for Education	200	140	70	S
<b>TOTAL</b>	<b>1,000</b>	<b>622</b>	<b>62</b>	<b>B</b>

# appraisal guide for school facilities

## 1.0 The School Site (100 points)

1.1 <b>Site is large enough</b> to meet educational needs as defined by state and local requirements. (Counting the adjacent land for playground use)	25	20
1.2 <b>Site is easily accessible</b> and conveniently located for the present and future population. <i>Good location in center of town.</i>	20	15
1.3 <b>Location</b> is removed from undesirable business, industry, traffic, and natural hazards.	10	6
1.4 Site is <b>well landscaped and developed</b> to meet educational needs.	10	8
1.5 Well equipped <b>playgrounds are separated</b> from streets and parking areas. <i>No area for outdoor play</i>	10	10
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	4
1.8 Site is suitable for <b>special instructional needs</b> , e.g. outdoor learning. <i>Few outdoor classroom areas available.</i>	5	3
1.9 <b>Pedestrian</b> services include adequate sidewalks with designated crosswalks, curb cuts, and correct slopes. <i>Need ADA access to main entry.</i>	5	1
1.10 Sufficient <b>on-site, solid surface parking</b> is provided for faculty, staff and community. <i>Parking located across street from school.</i>	5	4
<b>TOTAL SCHOOL SITE</b>	<b>100</b>	<b>76</b>

Maximum Points Allotted	Non-Existent	Very Inadequate (1-29%)	Poor (30-49%)	Borderline (50-69%)	Satisfactory (70-89%)	Excellent (90-100%)
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20	0	4	8	12	16	20
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# appraisal guide for school facilities

## 2.0 Structural and Mechanical Features (200 points)

### Structural

- |     |   |    |    |
|-----|---|----|----|
| 2.1 | Structure meets all <b>barrier-free</b> requirements both internally and externally.  | 15 | 10 |
| 2.2 | <b>Roofs</b> appear sound, have positive drainage, and are weather tight. <span style="color: red;">Roof replaced 5 years ago.</span>   | 15 | 13 |
| 2.3 | <b>Foundations</b> are strong and stable with no observable cracks. <span style="color: red;">Basement walls are water damaged - underground perimeter should be excavated and water-proofed. Termite damage needs repaired.</span> | 10 | 8  |
| 2.4 | <b>Exterior and interior walls</b> have sufficient expansion joints and are free of deterioration. <span style="color: red;">Some movement observed - refer to structural report.</span>  | 10 | 6  |
| 2.5 | <b>Entrances and exits</b> are located so as to permit efficient student traffic flow. <span style="color: red;">Good - open floor plan - ADA is main concern.</span>   | 10 | 6  |
| 2.6 | <b>Building “envelope”</b> generally provides for energy conservation (see criteria). <span style="color: red;">Multi-wythe brick not energy efficient - windows should be replaced.</span>   | 10 | 4  |
| 2.7 | Structure is <b>free or friable asbestos and toxic materials</b> (by observation only, without any test reports). <span style="color: red;">Testing for asbestos is required.</span>  | 10 | 4  |
| 2.8 | Interior walls permit sufficient <b>flexibility</b> for a variety of class sizes. <span style="color: red;">Internal walls could be relocated for larger classrooms.</span>   | 10 | 4  |

Maximum Points Allotted	Non-Existent	Very Inadequate (1-29%)	Poor (30-49%)	Borderline (50-69%)	Satisfactory (70-89%)	Excellent (90-100%)
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# appraisal guide for school facilities

## Mechanical/Electrical

2.9	<b>Adequate light sources</b> are well maintained, properly placed and are not subject to overheating.	15	12
2.10	<b>Internal water supply</b> is adequate with sufficient pressure to meet health and safety requirements.	15	12
2.11	Each teaching/learning area has adequate convenient <b>wall outlets</b> , phone and computer cabling for <b>technology applications</b> . <i>Classrooms will need additional power and data.</i>	15	10
2.12	<b>Electrical controls</b> are safely protected with <b>disconnect switches</b> easily accessible. <i>See electrical report.</i>	10	10
2.13	<b>Drinking fountains</b> are adequate in number and placement, and are properly maintained and meet requirements. <i>All drinking fountains should be replaced.</i>	10	10
2.14	Number and size of <b>restrooms meet requirements</b> . <i>Restrooms are inadequate for ADA and should be updates</i>	10	4
2.15	<b>Drainage systems</b> are properly maintained and meet requirements.	10	4
2.16	<b>Fire alarms, smoke detectors, and sprinkler systems</b> are properly maintained and meet requirements. <i>Not all classrooms have horn/ strobes - system needs updated.</i>	10	6
2.17	<b>Intercommunication system</b> consists of a central unit that allows dependable <b>two-way communication</b> between office and instructional areas.	10	6
2.18	<b>Exterior water supply</b> is sufficient and available for normal usage.	5	4
<b>TOTAL – STRUCTURAL AND MECHANICAL FEATURES</b>		<b>200</b>	<b>133</b>

Maximum Points Allotted	Non-Existent	Very Inadequate (1-29%)	Poor (30-49%)	Borderline (50-69%)	Satisfactory (70-89%)	Excellent (90-100%)
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10	0	2	4	6	8	10
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# appraisal guide for school facilities

## 3.0 Plant Maintainability (100 points)

3.1	<b>Exterior windows, doors, and walls</b> are of material and finishing requiring minimum maintenance. <i>All exterior windows and doors are past their useful life.</i>	15	3
3.2	<b>Floor surfaces</b> throughout the building require minimum care. <i>Painted floors should be covered with flooring more resistant to slipping.</i>	15	10
3.3	<b>Ceilings and walls</b> throughout the building, including service areas, are easily cleaned and resistant to stain.	10	6
3.4	<b>Built-in equipment</b> is designed and constructed for ease of maintenance.	10	6
3.5	<b>Finishes and hardware</b> , with compatible keying system, are of durable quality. <i>All hardware should be replaced to meet ADA.</i>	10	2
3.6	<b>Restroom fixtures</b> are wall mounted and of quality finish. <i>All fixtures should be replaced - water savings.</i>	10	2
3.7	Adequate <b>custodial storage space</b> with water and drain is accessible throughout the building.	10	6
3.8	Adequate <b>electrical outlets and power</b> , to permit routine cleaning, are available in every area.	10	8
3.9	<b>Outdoor light fixtures, electric outlet outlets</b> , equipment, and other fixtures are accessible for repair and replacement.	10	8
<b>TOTAL – PLANT MAINTAINABILITY</b>		<b>100</b>	<b>51</b>

Maximum Points Allotted	Non-Existent	Very Inadequate (1-29%)	Poor (30-49%)	Borderline (50-69%)	Satisfactory (70-89%)	Excellent (90-100%)
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25	0	5	10	15	20	25



## appraisal guide for school facilities

In general - the school is in need of renovation for ADA accessibility. There are many areas only accessible by stairs. The code requires spending a max of 20% of budget on accessibility unless the item is structurally infeasible. Ramps, or wheelchair lifts should be included. Also, door hardware, horn/ strobe alarms, rest rooms, door swings should be corrected.

### 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<br><i>Drop off on street</i>                                | 15 | 6 |
| 4.2 | <b>Walkways</b> , both on and offsite are available for safety of pedestrians. <i>Sidewalks should be replaced.</i>  | 10 | 4 |
| 4.3 | <b>Access streets</b> have sufficient signals and signs to permit safe entrance to and exit from school area.<br><i>Access to kitchen could be improved.</i> | 5  | 4 |
| 4.4 | <b>Vehicular entrances and exits</b> permit safe traffic flow.<br><i>Somewhat tight site - in neighborhood - no off-street drop off areas.</i>               | 5  | 3 |
| 4.5 | <b>Playground equipment</b> is free from hazard. <i>No outdoor play</i>  | 5  | 1 |

#### Building Safety

- |      |   |    |    |
|------|---|----|----|
| 4.6  | The <b>heating unit(s)</b> is located away from student occupied areas. <i>Unit heaters are exposed at ceiling in many rooms</i>  | 20 | 16 |
| 4.7  | Multi-story buildings have at least <b>two stairways</b> for student egress. <i>Stairs need new handrails and there are some dead-end corridors.</i>                        | 15 | 6  |
| 4.8  | <b>Exterior doors</b> open outward and are equipped with panic hardware. <i>All doors and hardware should be replaced.</i>  | 10 | 2  |
| 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.<br><i>Classroom doors should be replaced - step at some classrooms needs repaired.</i>                                | 10 | 4  |
| 4.11 | <b>Building security systems</b> are provided to assure uninterrupted operation of the educational program.<br><i>No secure vestibule - access control to be integrated</i> | 10 | 2  |

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

## appraisal guide for school facilities

25	0	5	10	15	20	25
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4.12 <b>Flooring</b> (including ramps and stairways) is maintained in a non-slip condition. <i>All treads need replaced.</i>	5	3
4.13 <b>Stairs</b> (interior and exterior) meet minimum standards (maximum 7" rise to 11" tread) and steps range in number from 3-16. <i>Stairs need new handrails/ guardrails.</i>	5	3
4.14 <b>Glass</b> is properly located and protected with wire or safety material to prevent accidental student injury.	5	4
4.15 <b>Fixed projections</b> in the traffic areas do not extend more than eight inches from the corridor wall. <i>Some items project and will need walls or relocated.</i>	5	4
4.16 <b>Traffic areas</b> terminate at an exit or a stairway leading to an egress. <i>Not all egress is accessible nor do they lead to a public way.</i>	5	3
Emergency Safety	15	9
4.17 Adequate <b>fire safety equipment</b> is properly located. <i>No fire sprinkler and lack of fire extinguishers.</i>	15	9
4.18 There are at least <b>two independent exits</b> from any point in the building. <i>Yes, but not all located in correct location for proper egress</i>	15	9
4.19 <b>Fire-resistant materials</b> are used throughout the structure. <i>No stairs are inside of fire rated vertical exit passageways.</i>	15	9
4.20 Automatic and manual <b>emergency alarm systems</b> with a distinctive sound and flashing light are provided. <i>Fire alarm needs brought up to code - school needs fire suppression.</i>	200	107

### TOTAL – BUILDING SAFETY AND SECURITY

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 guide for school facilities

Typically the classrooms are too small for ideal class size. The walls in-between the classrooms can be removed to allow for a new classroom layout through the school.

### 5.0 Educational Adequacy (200 points)

#### Academic Learning Size

- |     |  |    |    |
|-----|--|----|----|
| 5.1 | <b>Size of academic learning areas</b> meets desirable standards. <i>Most classrooms too small for desired class size.</i>   | 25 | 15 |
| 5.2 | <b>Classroom space</b> permits arrangements for small group activity. <i>Not currently - too small.</i>  | 15 | 10 |
| 5.3 | <b>Location of academic learning areas</b> is near related educational activities and away from disruptive noises. <i>Most group areas are away from classrooms.</i> | 10 | 8  |
| 5.4 | <b>Personal space</b> in the classroom away from group instruction allows privacy time for individual students.  | 10 | 6  |
| 5.5 | <b>Storage for student materials</b> is adequate. <i>All lockers need replaced - if desired to be used.</i>  | 10 | 4  |
| 5.6 | <b>Storage for teacher materials</b> is adequate. <i>Classrooms need more millwork</i>   | 10 | 4  |

#### Specialized Learning Space

- |      |   |    |    |
|------|---|----|----|
| 5.7  | <b>Size of specialized learning area(s)</b> meets standards. <i>Need dedicated classrooms.</i>  | 15 | 10 |
| 5.8  | <b>Size of specialized learning area(s)</b> is compatible with instructional need.  | 10 | 6  |
| 5.9  | <b>Library/Resource/Media Center</b> provides appropriate and attractive space. <i>Media center is small and needs updating - layout, technology.</i> | 10 | 4  |
| 5.10 | <b>Gymnasium (or covered P.E. area)</b> adequately serves physical education instruction. <i>Gym has heat only - locker rooms need renovated.</i>     | 5  | 3  |
| 5.11 | <b>Pre-kindergarten and kindergarten space</b> is appropriate for age of students and nature of instruction. <i>N/A</i>                               | 10 | 10 |
| 5.12 | <b>Music program</b> is provided adequate sound-treated space. <i>Could use acoustical treatment but room size is appropriate.</i>                    | 5  | 5  |

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

## appraisal guide for school facilities

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

5.13	<b>Space for art</b> is appropriate for instruction, supplies, and equipment.	5	3
5.14	<b>Space for technology education</b> permits use of state-of-the-art equipment. <i>New computer lab needed.</i>	5	3
5.15	Space for <b>small groups and remedial instruction</b> is provided adjacent to classrooms. <i>New small classrooms needed.</i>	5	3
5.16	<b>Storage for student and teacher material</b> is adequate.	5	3
Support Space			
5.17	<b>Teacher's lounge and work areas</b> support teachers as professionals.	10	4
5.18	<b>Cafeteria/kitchen</b> is attractive with sufficient space for seating/dining, delivery, storage, and food preparation. <i>Cafe/ kitchen need renovations - ADA access and more functional layout.</i>	10	4
5.19	<b>Administrative offices</b> are consistent in appearance and function with the maturity of the students served. <i>Administration should be redesigned and incorporated with secure vestibule.</i>	5	3
5.20	<b>Counselor's office</b> insures privacy and sufficient storage.	5	3
5.21	<b>Clinic</b> is near administrative offices and is equipped to meet requirements.	5	3
5.22	<b>Suitable reception space</b> is available for students, teachers, and visitors.	5	2
5.23	<b>Administrative personnel</b> are provided <b>sufficient work space and privacy.</b>	5	3
<b>TOTAL – EDUCATIONAL ADEQUACY</b>		<b>200</b>	<b>115</b>

Maximum Points	Non-	Very Inadequate	Poor	Borderline	Satisfactory	Excellent
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# appraisal guide for school facilities

Allotted	Existent	(1-29%)	(30-49%)	(50-69%)	(70-89%)	(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

## 6.0 Environment for Education (200 points)

### Exterior Environment

- 6.1 Overall **design is aesthetically pleasing** and appropriate for the age of students. Existing building is well designed but needs updated. 15 6
- 6.2 Site and building 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 8
- 6.5 **Building materials** provide attractive color and texture. Exterior needs tuck-pointing. 5 4

### Interior Environment

- 6.6 **Color schemes, building materials, and décor** provide an impetus to learning. Interior environment could be improved. 20 8
- 6.7 **Year around comfortable temperature and humidity** are provided throughout the building. 15 12
- 6.8 **Ventilating system** provided adequate quiet circulation of clean air and meets 15 cfm VBC requirement. 15 12
- 6.9 **Lighting system** provides proper intensity, diffusion, and distribution of illumination. 15 12
- 6.10 **Sufficient drinking fountains and restroom facilities** are conveniently located. Quantity ok but need updating. Dispersed throughout facility. 10 4
- 6.11 **Communication among students** is enhanced in the commons area. Only commons area is cafe and it is divided and does not encourage interaction. 15 12

# 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%)
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

- |  |  |            |            |
|--|--|------------|------------|
| 6.12                                     | <b>Traffic flow</b> is aided by appropriate foyers and corridors.<br><i>Bad access to cafe.</i>  | 10         | 6          |
| 6.13                                     | <b>Areas for students to interact</b> are suitable to the age group.<br><i>Wide corridors at locker locations.</i>                         | 10         | 8          |
| 6.14                                     | <b>Large group areas</b> are designed for effective management of students.<br><i>Auditorium needs updating but good central location.</i> | 10         | 8          |
| 6.15                                     | <b>Acoustical treatment</b> of ceilings, walls, and floors provides effective sound control.   | 10         | 8          |
| 6.16                                     | <b>Window design</b> contributes to a pleasant environment.<br><i>A lot of natural light - good for learning.</i>                          | 10         | 8          |
| 6.17                                     | <b>Furniture and equipment</b> provide a pleasing atmosphere.<br><i>Could be updated.</i>  | 10         | 8          |
| <b>TOTAL – ENVIRONMENT FOR EDUCATION</b> |  | <b>200</b> | <b>140</b> |

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



NEED EXITS AT GRADE

NEED EXITS AT GRADE

NEED EXITS AT GRADE

ELECTRICAL EQUIP DANGER

RESTROOM NOT ACCESSIBLE

MOVEMENT AT ELEVATOR

EGRESS AT STAIRS

ENCLOSE STAIRS

RENOVATE KITCHEN

ADA ACCESS TO CAFE

OBSTRUCTED VIEWS

ENCLOSE STAIRS

ENCLOSE STAIRS

EGRESS AT STAIRS

POSSIBLE NEW MAIN ENTRANCE/ SECURE VESTIBULE

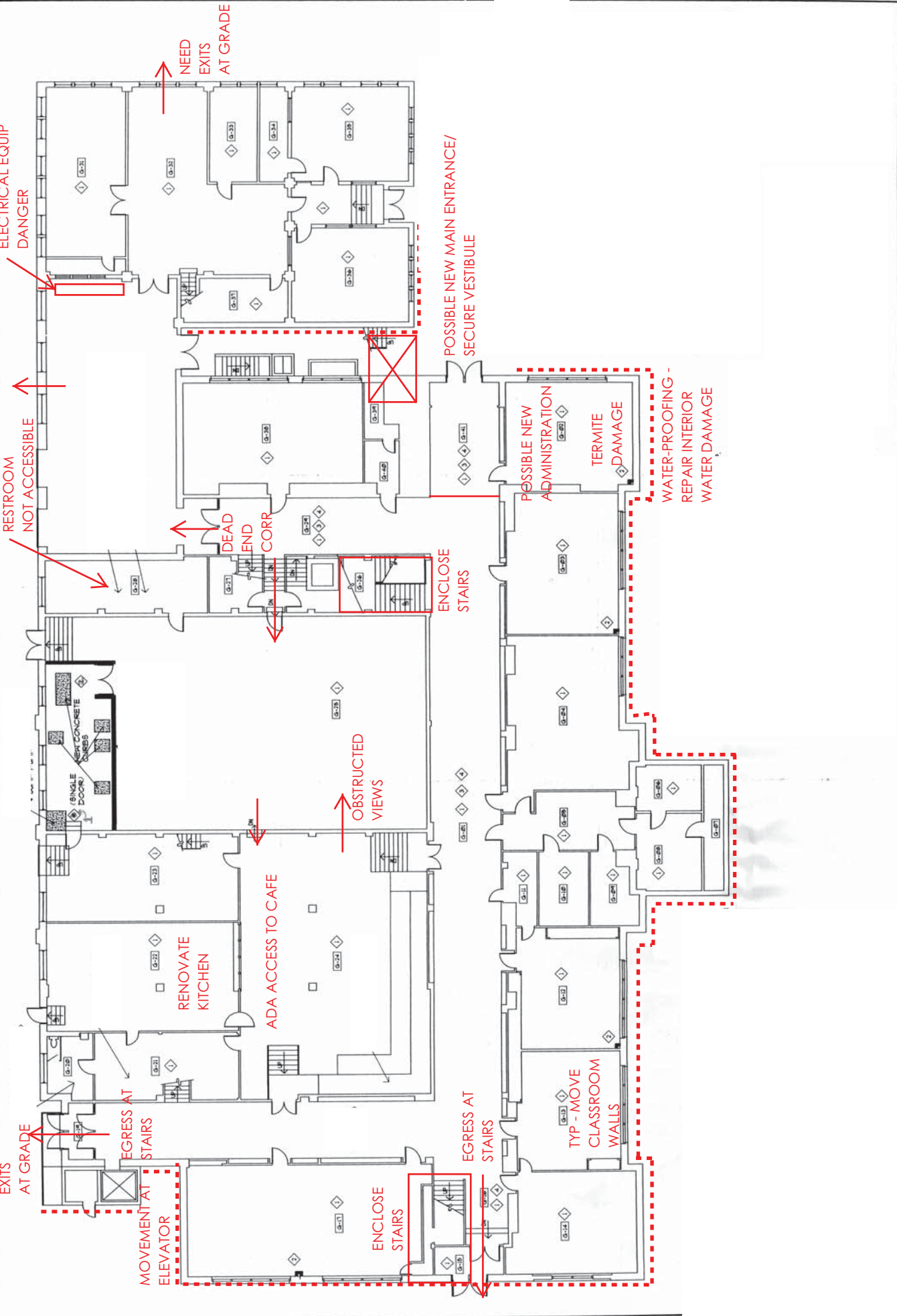
POSSIBLE NEW ADMINISTRATION

TYP - MOVE CLASSROOM WALLS

TERMITE DAMAGE

WATER-PROOFING - REPAIR INTERIOR WATER DAMAGE

NEED EXITS AT GRADE



NEW EXIT  
STAIR TOWER

MOVEMENT AT  
ELEVATOR

REPAIR WATER  
DAMAGE

ENCLOSE  
STAIR

NEW EXIT  
STAIR TOWER

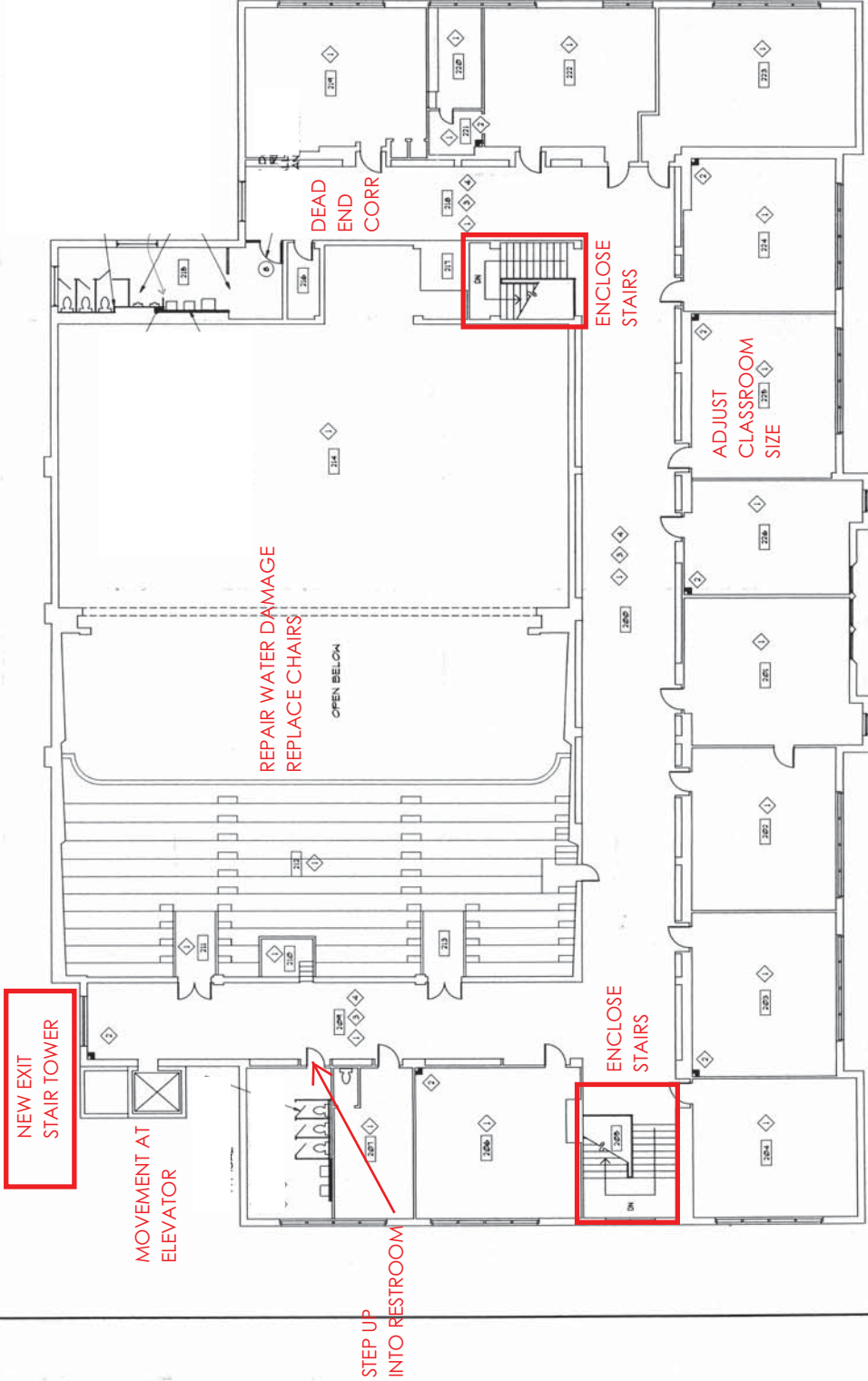
ENCLOSE  
STAIR

SECURE  
WASTEBLE

WATER DAMAGE  
UNDER STAIRS

ADA RAMP TO ENTRY

Refer sheets A1, A2, A3 for plans of restrooms. Refer

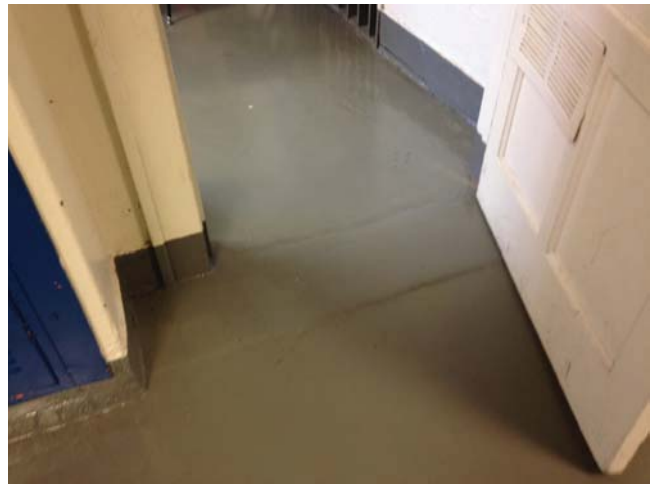



**1 SECOND FLOOR PLAN**  
 1/8"=1'-0"





Termite Damage



Step down into classroom



Egress below grade



Step up into restroom—ADA upgrades



Movement at previous addition line



Renovate Auditorium



Water repair—new seating/ lighting



Heating/ seating/ lighting/ finishes



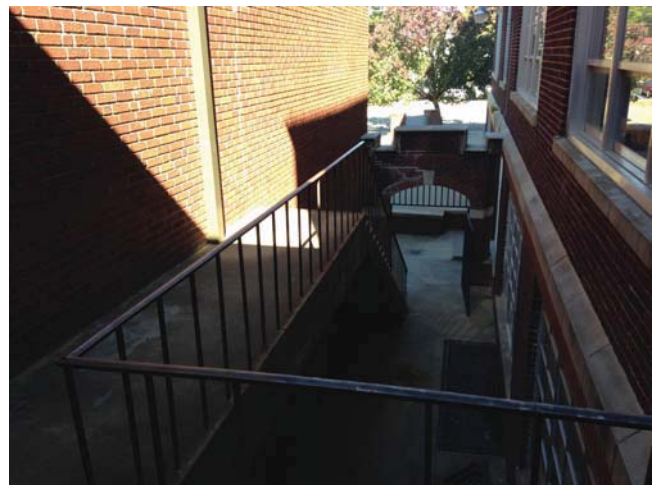
New lockers/ flooring/ finishes



Clean up exterior utilities/ alley access

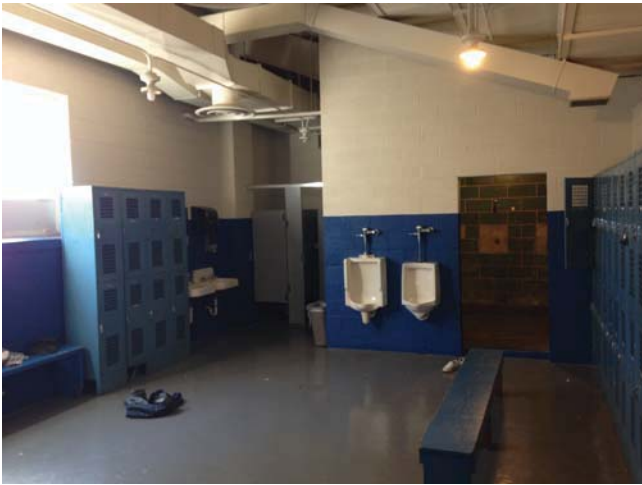


Exterior needs tuckpointing



Egress stair not to code





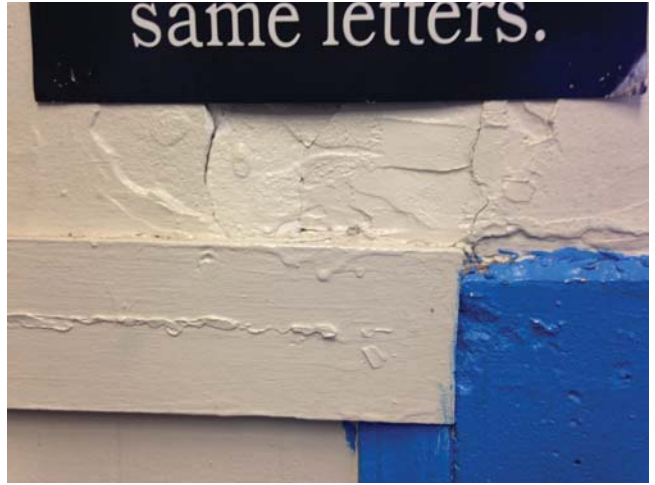
Locker rooms need full renovation



All windows should be replaced



Café access difficult—poor visibility



Water damage below grade



Cooler/ freezer located outside



Kitchen needs reorganized/ updated





Some settling observed—easily corrected



Non-accessible egress path



Brick needs tuckpointing



Movement at elevator—new windows



Elevator—some movement



Gym exterior in better condition



November 8, 2013

Mr. Sean Willis, Studio Director  
THE STACY GROUP  
222 East 10<sup>th</sup> Street Plaza  
Edmond, Oklahoma 73034

Re: Guthrie Junior High Initial Scope Visit  
Wallace Engineering Project Number 1311059

Sean:

On Tuesday, October 22<sup>nd</sup>, I visited the Guthrie Junior High School with you for the purpose of observing the current condition, document any structural distress and deterioration seen, and to provide an opinion on the structural integrity of the building. My observation was limited to a visual survey of areas readily available to view, both interior and exterior.

It is my understanding the junior high was built in 1924 with additions and remodels in 1936, 1956 and 1990. The building is a reinforced cast-in-place concrete structure with exterior walls comprised of masonry with a brick and stone veneer. The first level is built partially below grade and has several level changes. The main entrance is at the second level approximately 8-feet above finish grade. This level has two-story volumes for the auditorium and library, part of which was originally a basketball court. The third level has classrooms on the north, east and west sides surrounding the upper portion of the auditorium and library. The roof structure above the auditorium and library is framed with steel trusses and purlins. The roof for the remainder of the building could not be determined visually.

A two-story addition was added to the west side in 1936 and now houses the Shop classrooms and Band and Vocal classrooms. This structure is also reinforced cast-in-place concrete.

An elevator was added to the southeast corner of the building during one of the later renovations.

#### OBSERVATIONS

In general, the structure for the building is in good condition with minor damage or distress in various locations. However, the damage and distress observed should be easily repaired.

In several locations along the north wall at the first level, damage to the plaster finish and substrate has been caused by water infiltration. Pictures 1, 2 and 3.

Wallace Engineering  
Structural Consultants, Inc.  
200 East Brady Street  
Tulsa, Oklahoma 74103  
918.584.5858, Fax 918.584.8689  
www.wallacesc.com



Distress due to settlement was seen at several interior locations on the first floor, the most noticeable at the unoccupied room adjacent to the office below the entry and at the interior stairs down to the Shop classroom. Pictures 4 and 5.

The elevator shaft addition has shifted away from the main building opening a joint of approximately  $\frac{3}{4}$ -inch at the second level and wider as it goes up to the roof. Pictures 6, 7 and 8.

Water infiltration has damaged the plaster around one of the windows in the upper level of the auditorium. Pictures 9 and 10.

Several of the steel lintel angles on the north elevation have deteriorated somewhat. The amount of deterioration could not be determined during the observation. No noticeable distress was observed in the brick veneer supported by the lintel. No pictures.

The brick veneer has been repointed at a few locations. The original distress was likely due to settlement. Picture #11.

Reinforcing for the exterior stair between the original building and the 1936 addition is exposed and rusting. Picture #12.

#### DISCUSSION


As stated earlier, the damage and distress is minor in nature and can be readily repaired. The structure is in good condition with no major distress or damage observed.

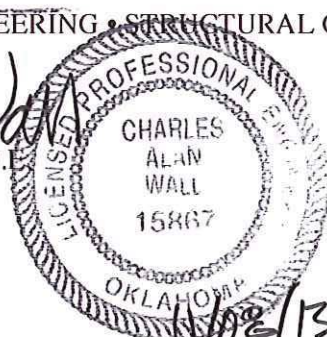
It should be noted that although the building was likely designed to be in conformance with the governing codes in force at the time of the construction of each portion of the building, changes to the structure to accommodate architectural changes could result in major retrofit requirements for the structure.

Please do not hesitate to contact me if you wish to discuss this information or would like Wallace Engineering to do an exhaustive survey of the building and provide construction documents for repair.

Respectfully,

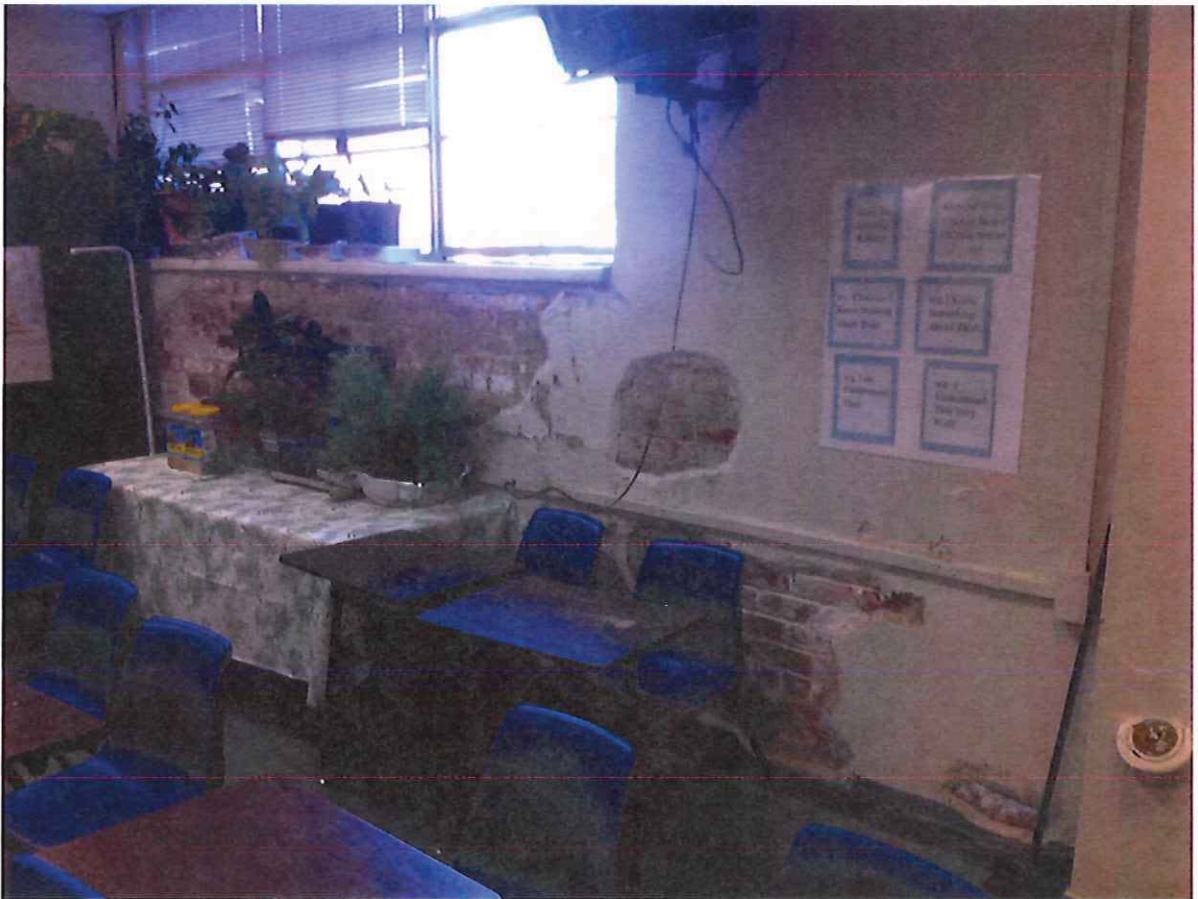
WALLACE ENGINEERING • STRUCTURAL CONSULTANTS, INC.

  
Charles Alan Wall, P.E.  
Principal





Picture #1 – Water Damage at First Level



Picture #2 – Water Damage at First Level





Picture #3 – Water Damage at First Level





Picture #4 – Settlement Crack Between Wall and Ceiling in Storage Room



Picture #5 – Settlement at Base of Stairs to Shop Classroom

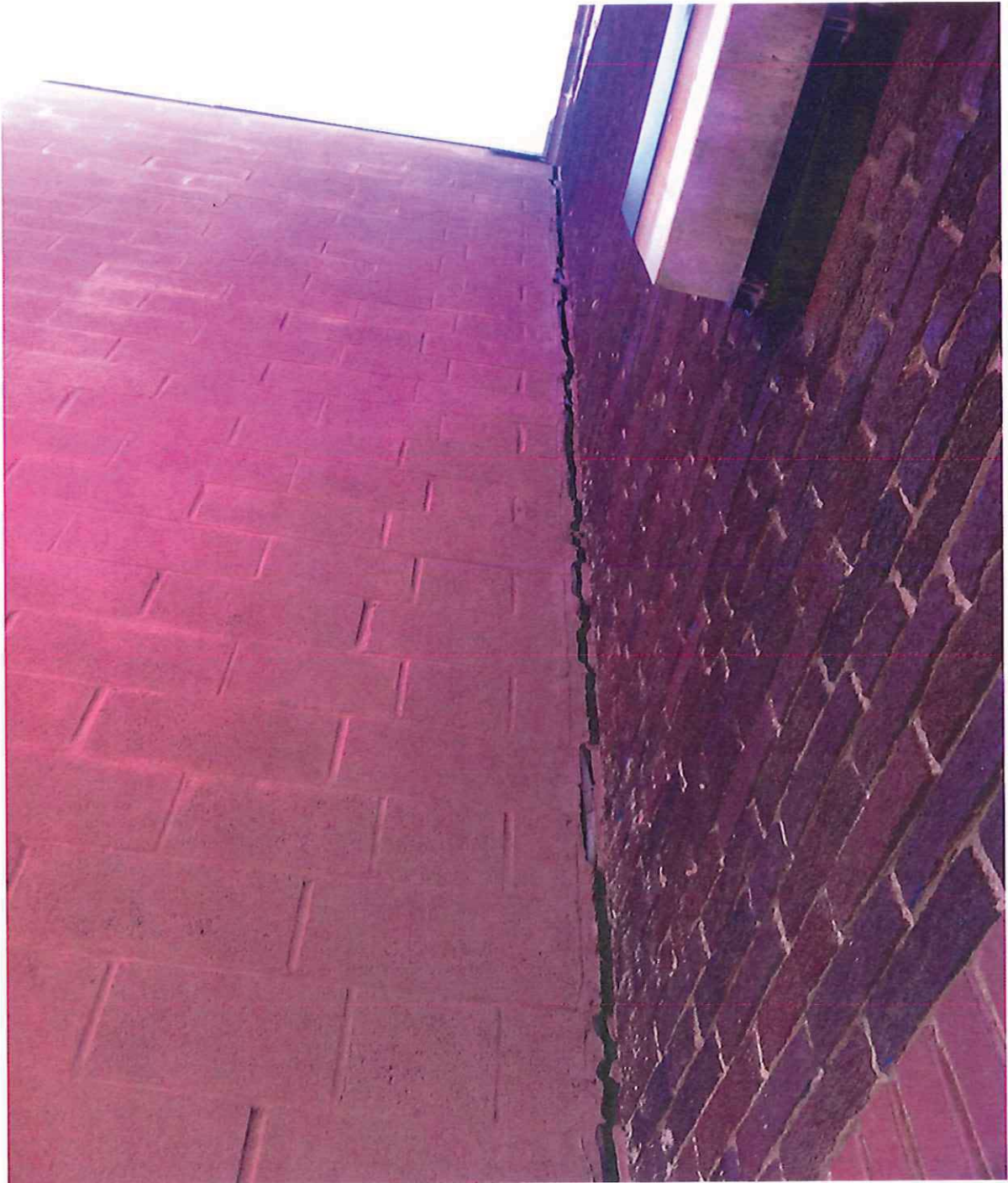


Picture #6 – Separation at Threshold of Elevator at Second Level

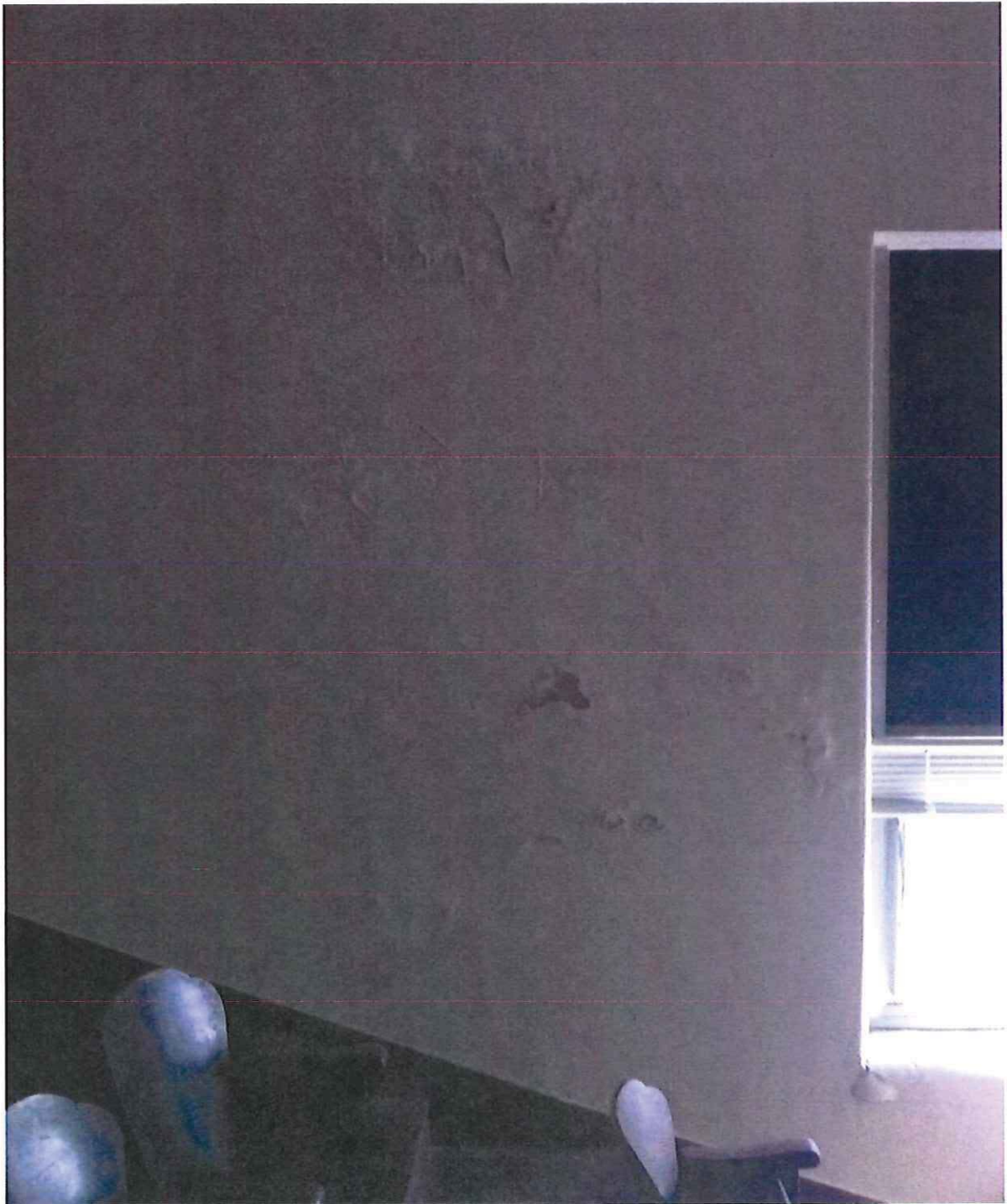




Picture #7 – Separation at Threshold of Elevator at Third Level

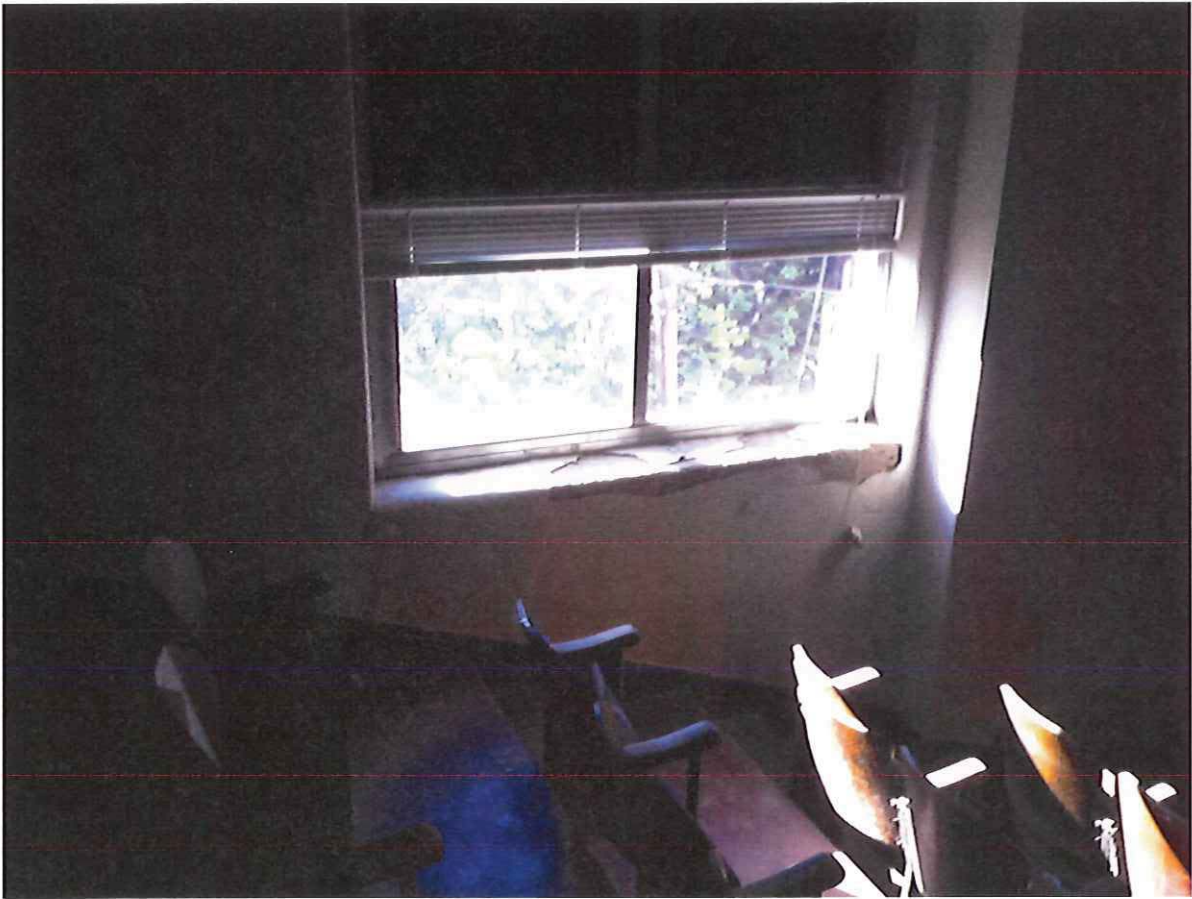


Picture #8 – Separation of Elevator Shaft From Main Building



Picture #9 – Water Damage to Plaster at Upper Level of Auditorium





Picture #10 – Water Damage to Plaster at Upper Level of Auditorium



Picture #11 – Repointed Mortar Joints



Picture #12 – Exposed Reinforcing on Bottom Surface of Exterior Stair



**ENGINEERING ASSESSMENT FOR  
GUTHRIE JUNIOR HIGH SCHOOL  
OKLAHOMA CITY, OKLAHOMA**

**Project**

**November 15, 2013**

**MECHANICAL:**

**ITEM: SITE AND GENERAL**

**General:**

The existing facility is a three story building originally built in 1924 and modified throughout the years with the last modifications and upgrades performed in 1997. The mechanical system is comprised of exposed two-pipe fan coil units and gas-fired/DX cooling packaged rooftop units. A central plant room located on the ground floor has (3) condensing boilers and associated pumps for both chilled water and heating water. Piping is routed on the exterior to an outside air-cooled chiller. Additionally there are two Energy Recovery Units located on the roof that provide the ventilation load or outside air for the building. One serves the Auditorium and one provides outside air via ductwork throughout the building to individual classrooms and spaces.

Kitchen exhaust is routed on the exterior of the building to the roof with its make-up air fan mounted to the exterior wall.



The existing Gym is heated only. There are six heaters, three on each side of the Gym. Only two of the six heaters are working. The lockers located below the Gym are heated only as well.



The building does not have a fire suppression system.

**Existing physical condition:**

All existing mechanical systems and equipment are approximately 15 years of age. The fan coil units are in fair to poor condition. Existing roof top units and energy recovery systems are also approximately 15 years of age. The 90 ton air-cooled chiller is in fair condition, however it should be noted this unit is a single compressor design. Should the compressor fail cooling is lost to the entire two-pipe system. The boilers and associated pumps are in good condition. The existing ductwork, that could visibly be inspected, is comprised of galvanized sheet metal and ductboard and is in good condition. We could not ascertain any of the toilet rooms exhaust condition or if it is working.

The existing drawings indicate condensate from the fan coils is discharged into the existing perimeter drain tile. We did not find any existing information on this drain tile or if it discharges into sump or if it exists.

The existing basement has original boiler and air handler abandoned in place. The sump pump in this room must be maintained in working condition. There were no working lights at the time of our inspection.



The plumbing fixtures are in good to fair condition. Piping sizes and condition could not be determined. We believe there is a combination of galvanized water piping and copper. According to facility staff, much of the old piping has been replaced with newer through the years, but only on an as needed basis or as part of a larger project.

### **General Code and Life Safety Compliance:**

Non-Compliance with ADA for accessible fixtures.  
Boiler venting to the exterior does  
Not comply with current codes.



### **Possibility of continued use or adaptive re-use**

The size and capacity, as well as the age, limits the re-use of any of the existing HVAC systems. The median life expectancy of packaged rooftop and fan coil equipment is 15 years. The ductwork is in usable condition, however ductboard cannot be easily modified. The roof curbs could possibly be re-used and adapted to new units.

The plumbing fixtures could be possibly be reused to some extent. However, low consumption fixtures are now required by Code limiting adaptive use of these fixtures. The piping systems re-use would depend on size and location.

### **Suggested program or course of action**

Replace packaged rooftop units and fan coil units with new. If possible relocate fan coil units to corridor and duct into classroom. As a minimum, provide fan coils with ECM motors in lieu of belt drive and higher insulated enclosures to reduce noise. Provide new chiller with multiple compressors.

Plumbing systems would need to be updated to comply with ADA accessibility requirements and current codes. If new flush valve is required, replace entire fixture to comply with low water consumption

mandates.

## **ELECTRICAL:**

### **ITEM: SITE AND GENERAL**

#### **General:**

The existing building is a three story building originally built in 1924 and modified throughout the years with the largest modification and upgrade being performed in 1997. The electrical distribution system was reworked at that time. A new 480Y/277v Square D main panel was installed along with a Square D 150kva step down transformer and 800 amp 208/120v distribution panel SDP all located on the first level. The new MDP serves the RTUs, chiller, step down transformer and various panels throughout the building. These panels were also replaced during the 1997 upgrade. The service enters the building from the transmission lines along the alley behind the building. The telephone pedestal is also located across the alley. The electric service comes in underground from a dip pole somewhat obscured by trees in the photo below:



#### **Existing physical condition:**

The gear is approximately 16 years old and still has useful life. There are numerous spares and spaces available for future use. The lighting in the classrooms was also replaced in the 1997 renovation and appears to be in good working order utilizing T8 fluorescent lamping. Emergency lighting is evident in the corridors on the path of egress.

#### **General Code and Life Safety Compliance:**

The MDP, 150 kva transformer and SDP are not located within an electrical room and the school is using the working space in front of the gear to access a work table as seen below: Though working clearance appears to be met, the students are standing in the working clearance to work at the table. This condition appears to be unsafe and we would strongly recommend enclosing the electrical equipment in a room to keep the students from coming into contact with the electrical distribution equipment. The 150kva transformer is very hot and is not large enough to provide the total ampacity available by the 800 amp 208 volt SDP. The staff mentioned they need more power within the classrooms, which is common for remodels to meet the needs for computers and additional systems.

The lighting was replaced in 1997 but emergency lighting needs to be installed within the classrooms to adhere to current code requirements. Emergency lighting at all exit discharge locations appears to be deficient as well.



Though fire alarm devices were installed in the 1997 renovation, they were not installed in all the classrooms as is the current requirement. The auditorium will require voice evac and the existing fire alarm system will have to be assessed whether it can handle the expansion of all the new visual devices and the voice evac.



#### **Possibility of continued use or adaptive re-use**

MDP contains some ampacity for additional power, but the transformer must be enlarged to provide more 208 volt power for general receptacles and isolated ground receptacles for computers. There should be enough capacity in the 800 amp 208 volt panel and plenty of spaces exist to add breakers but there is not enough physical space for a larger transformer in the current location. Space must be made for a new transformer or it could possibly be located outside.

#### **Suggested program or course of action**

Provide a new larger transformer to feed the existing 800 amp 208 volt distribution panel SDP. This transformer and panel SDP can be fed from the existing 480 volt MDP by providing a new breaker in the existing MDP. Provide new receptacles and isolated ground panels for all computer circuits desired within the existing classrooms and throughout the building. Provide power as required for all mechanical equipment modifications mentioned above and also provide a GFCI service receptacle within 25 feet of all equipment. Provide all required emergency lighting. Expand or replace the existing fire alarm system to handle all the additional devices required.



