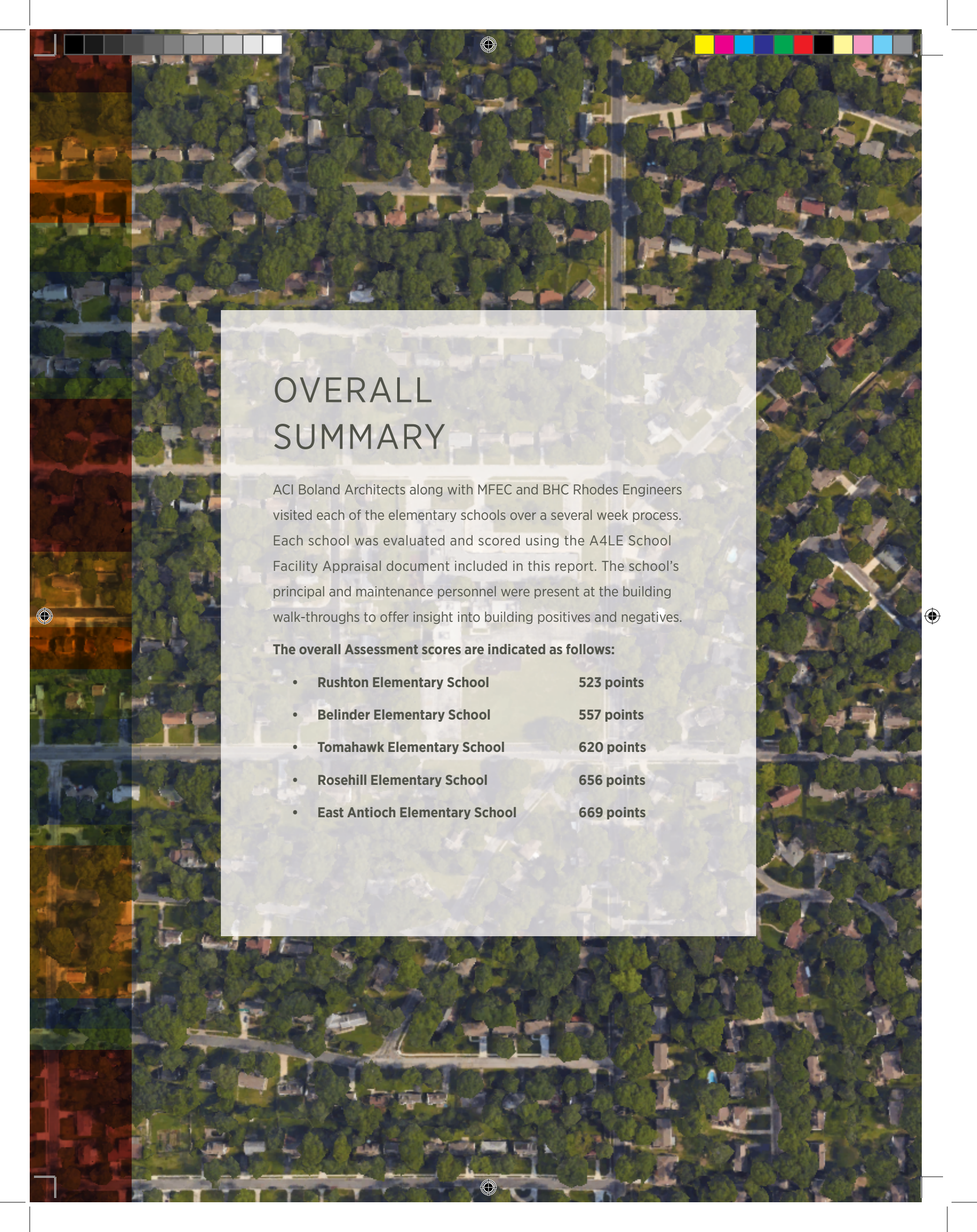




TOMAHAWK ELEMENTARY

# FACILITY EVALUATION





# OVERALL SUMMARY

ACI Boland Architects along with MFEC and BHC Rhodes Engineers visited each of the elementary 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:**

- **Rushton Elementary School** **523 points**
- **Belinder Elementary School** **557 points**
- **Tomahawk Elementary School** **620 points**
- **Rosehill Elementary School** **656 points**
- **East Antioch Elementary School** **669 points**



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## SUMMARY

Tomahawk Elementary is a two story school with approximately 302 students from ages Kindergarten through 6th grade and some Special Education classes for students with Autism (a 2 section school). The building is open for before and after school programs from 7:00 a.m. to 6:00 p.m. School hours are from 8:00 a.m. to 3:10 p.m. The building is 55,219 s.f. with 21 classrooms, cafeteria, kitchen, gymnasium, library w/ maker space, art, music and administrative areas including nurse's office and staff room. The building is a brick, masonry, EIFS and concrete building with steel roof joists and some concrete structure as well. The roof system is a built up roof with roof drains, overflow scuppers, gutters and downspouts. There are no interior permanent ladders to access the roof. There is an HVAC room in the basement and one on main floor with 4 window wells with sump pumps at area drains. An underground tunnel system exists as part of the original building. There are stairs and 2 chair lifts but no elevator.





The school is located in a residential neighborhood on 78 Street and Lamar. The rest of the site is surrounded by individual homes. There is a traffic cross walk at 79th and Lamar Street, but needs to be at 78th street. The cities of Overland Park and Prairie Village couldn't agree on the location or layout. The site has some small asphalt parking lots for staff and visitors with sidewalks connecting these areas. Hard and soft surface play areas are provided with appropriate play equipment. A bus and parent drop off are both located on the north side off 78th Street. The small busses for SPED students leaves about 10 minutes before the parent pick up cars. There are some additional parent parking spaces on the south side that vehicles back into and park, then all leave at the same time onto 79th Street. There are grass ball fields on the south side of the site. The school building has a courtyard with some trees and a chain link fence on one side and wrought iron on the other. Most entries into the building are handicapped accessible. Toilets in building are largely non ADA compliant. The building is fully sprinkled.







APPRAISAL

GUIDE FOR

SCHOOL FACILITY APPRAISAL

TOMAHAWK  
ELEMENTARY

APPRAISAL





## Directions for Appraising Facilities

### Elementary 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:

| Section |                                     | Maximum Points |
|---------|-------------------------------------|----------------|
| 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).





## Building Data Record

|                               |  |                           |                   |
|-------------------------------|--|---------------------------|-------------------|
| <b>Name of Appraiser:</b>     | <u>ACI Boland Architects</u>   | <b>Date of Appraisal:</b> | <u>10/30/2017</u> |
| <b>Building Name:</b>         | <u>Tomahawk Elementary School</u>  |                           |                   |
| <b>Street Address:</b>        | <u>6301 West 78th Street</u>   |                           |                   |
| <b>City, State, Zip Code:</b> | <u>66204Overland Park, Kansas</u>  |                           |                   |
| <b>Telephone Number(s):</b>   | <u>913-993-5500</u>  |                           |                   |
| <b>School District:</b>       | <u>Shawnee Mission School District</u>   |                           |                   |
| <b>Setting:</b>               | <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Suburban <input type="checkbox"/> Small City <input type="checkbox"/> Rural |                           |                   |
| Site Acreage:                 | <u>6.7</u>   | Building Square Footage   | <u>55,219</u>     |
| Grades Housed:                | <u>x</u>   | Student Capacity          | <u>302</u>        |
| # of Teaching Stations:       | <u>x</u>   | # of Floors               | <u>2</u>          |
| Student Enrollment:           | <u>302</u>   | As of:                    | <u>10/24/2017</u> |
| Dates of Construction:        | <u>Original Building - 1954, Additions and Renovations 1956, 1967, 1997</u><br><u>2008 and 2015</u>  |                           |                   |

|                          |  |  |  |                                     |
|--------------------------|--|--|--|-------------------------------------|
| <b>Energy Source:</b>    | <input type="checkbox"/> Fuel Oil              | <input checked="" type="checkbox"/> Gas      | <input type="checkbox"/> Electric        | <input type="checkbox"/> Solar      |
| <b>Air Conditioning:</b> | <input checked="" type="checkbox"/> Roof Top   | <input type="checkbox"/> Window Units        | <input type="checkbox"/> Central         | <input type="checkbox"/> Room Units |
| <b>Heating:</b>          | <input type="checkbox"/> Central               | <input checked="" type="checkbox"/> Roof Top | <input type="checkbox"/> Individual Unit |                                     |
|                          | <input checked="" type="checkbox"/> Forced Air | <input type="checkbox"/> Steam               | <input type="checkbox"/> Hot Water       |                                     |

|  |   |  |
|--|---|--|
| <b>Types of Construction</b>                                       | <b>Exterior Surfacing</b>                 | <b>Floor Construction</b>                                  |
| <input checked="" type="checkbox"/> Load Bearing Masonry           | <input checked="" type="checkbox"/> Brick | <input type="checkbox"/> Wood Joists                       |
| <input type="checkbox"/> Steel Frame                               | <input type="checkbox"/> Stucco           | <input type="checkbox"/> Steel Frame                       |
| <input checked="" type="checkbox"/> Concrete Frame                 | <input type="checkbox"/> Metal            | <input checked="" type="checkbox"/> Slab on Grade          |
| <input type="checkbox"/> Wood                                      | <input type="checkbox"/> Wood             | <input checked="" type="checkbox"/> Structural Slab        |
| <input checked="" type="checkbox"/> Other <u>Steel roof joists</u> | Other <u>                    </u>         | <input type="checkbox"/> Other <u>                    </u> |





## APPRAISAL GUIDE FOR SCHOOL FACILITIES

Table of  
Weights  
and  
Categories

| Maximum<br>Points<br>Allotted | Non-<br>Existent | Very<br>Inadequate<br>1 - 29% | Poor<br>30 - 49% | Borderline<br>50 - 69% | Satisfactory<br>70 - 89% | Excellent<br>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  
PointsTotal  
Earned

## Percent

Rating By  
Category

1.0 The School Site

100

73

73%

2.0 Structural and Mechanical

200

124

62%

3.0 Plant Maintainability

100

61

61%

4.0 School Building Safety &  
Security

200

151

76%

5.0 Educational Adequacy

200

119

60%

6.0 Environment for Education

200

92

46%

TOTAL

1,000

620

62%





## 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         | 18        |
| 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         | 5         |
| 1.5                            | Well equipped <b>athletic areas</b> are adequate with sufficient solid-surface parking.                              | 10         | 7         |
| 1.6                            | <b>Topography</b> is varied enough to provide desirable appearance and without steep inclines.                       | 5          | 4         |
| 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.                                     | 5          | 3         |
| 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>73</b> |

Table of  
Weights  
and  
Categories

| Maximum<br>Points<br>Allotted | Non-<br>Existent | Very<br>Inadequate<br>1 - 29% | Poor<br>30 - 49% | Borderline<br>50 - 69% | Satisfactory<br>70 - 89% | Excellent<br>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

|     |  |    |    |
|-----|--|----|----|
| 2.1 | Structure meets all <b>barrier-free</b> requirements both externally and internally.               | 15 | 8  |
| 2.2 | <b>Roofs</b> appear sound, have positive drainage, and are weather-tight.                          | 15 | 11 |
| 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 | 7  |
| 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 | 9  |
| 2.8 | Interior walls permit sufficient <b>flexibility</b> for a variety of class sizes.                  | 10 | 2  |

Table of  
Weights  
and

Categories

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

### Mechanical/Electrical

|     |  |    |   |
|-----|--|----|---|
| 2.9 | <b>Adequate light sources</b> are well maintained, properly placed and are not subject to overheating. | 15 | 9 |
|-----|--|----|---|





|   |   |            |            |
|---|---|------------|------------|
| 2.10  | <b>Internal water supply</b> is adequate with sufficient pressure to meet health and safety requirements.   | 15         | 9          |
| 2.11  | Each teaching/learning area has adequate convenient <b>wall outlets</b> , phone and computer cabling for <b>technology applications</b> .                   | 15         | 6          |
| 2.12  | <b>Electrical controls</b> are safely protected with <b>disconnect switches</b> easily accessible.  | 10         | 8          |
| 2.13  | <b>Drinking fountains</b> are adequate in number and placement, and are properly maintained including provisions for the disabled.                          | 10         | 6          |
| 2.14  | Number and size of <b>restrooms meet requirements</b> .   | 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.  | 10         | 10         |
| 2.17  | <b>Intercommunication system</b> consists of a central unit that allows dependable <b>two-way communication</b> between the office and instructional areas. | 10         | 8          |
| 2.18  | <b>Exterior water supply</b> is sufficient and available for normal usage.  | 5          | 3          |
| <b>Total - Structural and Mechanical Features</b> |   | <b>200</b> | <b>124</b> |

Table of  
Weights  
and  
Categories

| Maximum<br>Points<br>Allotted | Non-<br>Existent | Very<br>Inadequate<br>1 - 29% | Poor<br>30 - 49% | Borderline<br>50 - 69% | Satisfactory<br>70 - 89% | Excellent<br>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 | <b>Exterior windows, doors and walls</b> are of material and finish requiring minimum maintenance.                         | 15 | 9 |
| 3.2 | <b>Floor surfaces</b> throughout the building require minimum care.  | 15 | 7 |
| 3.3 | <b>Ceilings and walls</b> throughout the building, including service areas, are easily cleaned and resistant to stain.     | 10 | 7 |
| 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 a compatible keying system, are of durable quality.                                    | 10 | 9 |
| 3.6 | <b>Restroom fixtures</b> are wall mounted and of quality finish.   | 10 | 3 |
| 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 outlets</b> , equipment, and other fixtures are accessible for repair and replacement. | 10 | 6 |

**Total - Plant Maintainability****100** 61

Table of  
Weights  
and  
Categories

| Maximum<br>Points<br>Allotted | Non-<br>Existent | Very<br>Inadequate<br>1 - 29% | Poor<br>30 - 49% | Borderline<br>50 - 69% | Satisfactory<br>70 - 89% | Excellent<br>90 - 100% |
|-------------------------------|------------------|-------------------------------|------------------|------------------------|--------------------------|------------------------|
| 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 | 5 |
| 4.2 | <b>Walkways</b> , both on and offsite, are available for safety of pedestrians.                               | 10 | 6 |
| 4.3 | <b>Access streets</b> have sufficient signals and signs to permit safe entrance to and exit from school area. | 5  | 3 |
| 4.4 | <b>Vehicular entrances and exits</b> permit safe traffic flow.  | 5  | 3 |
| 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 | 14 |
| 4.7  | Multi-story buildings have at least <b>two stairways</b> for student egress.                                   | 15 | 15 |
| 4.8  | <b>Exterior doors</b> open outward and are equipped with panic hardware.                                       | 10 | 9  |
| 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 | 8  |
| 4.11 | <b>Building security systems</b> are provided to assure uninterrupted operation of the educational program.    | 10 | 8  |

Table of  
Weights  
and  
Categories

| Maximum<br>Points<br>Allotted | Non-<br>Existent | Very<br>Inadequate<br>1 - 29% | Poor<br>30 - 49% | Borderline<br>50 - 69% | Satisfactory<br>70 - 89% | Excellent<br>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.)

|             |  |          |          |
|-------------|--|----------|----------|
| <b>4.12</b> | <b>Flooring</b> (including ramps and stairways) is maintained in a nonslip condition.                                      | <b>5</b> | <b>4</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>5</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>2</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>10</b> |
| <b>4.18</b> | There are at least <b>two independent exits</b> from any point in the building.                             | <b>15</b> | <b>13</b> |
| <b>4.19</b> | <b>Fire-resistant materials</b> are used throughout the structure.  | <b>15</b> | <b>13</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>15</b> |

**Total - Building Safety and Security****200** **151**Table of  
Weights  
and  
Categories

| <b>Maximum<br/>Points<br/>Allotted</b> | <b>Non-<br/>Existent</b> | <b>Very<br/>Inadequate<br/>1 - 29%</b> | <b>Poor<br/>30 - 49%</b> | <b>Borderline<br/>50 - 69%</b> | <b>Satisfactory<br/>70 - 89%</b> | <b>Excellent<br/>90 - 100%</b> |
|--|--------------------------|--|--------------------------|--------------------------------|----------------------------------|--------------------------------|
| 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 |
| 5.2 | <b>Classroom space</b> permits arrangements for small group activity.  | 10 | 5 |
| 5.3 | <b>Location of academic learning areas</b> is near related educational activities and away from disruptive noises. | 10 | 6 |
| 5.4 | <b>Personal space</b> in the classroom away from group instruction allows privacy time for individual students.    | 5  | 2 |
| 5.5 | <b>Storage for student materials</b> is adequate.  | 5  | 3 |
| 5.6 | <b>Storage for teacher materials</b> is adequate.  | 5  | 3 |

### Specialized Learning Space

|      |  |    |    |
|------|--|----|----|
| 5.7  | <b>Size of specialized learning area(s)</b> meets standards.   | 15 | 8  |
| 5.8  | <b>Design of specialized learning area(s)</b> is compatible with instructional need.                         | 10 | 4  |
| 5.9  | <b>Library/Resource/Media Center</b> provides appropriate and attractive space.                              | 15 | 12 |
| 5.10 | <b>Gymnasium and outdoor facilities</b> adequately serve physical education instruction.                     | 15 | 12 |
| 5.11 | <b>Pre-kindergarten and kindergarten</b> space is appropriate for age of students and nature of instruction. | 10 | 9  |
| 5.12 | <b>Music Program</b> is provided adequate sound-treated space.   | 10 | 7  |

Table of  
Weights  
and  
Categories

| Maximum<br>Points<br>Allotted | Non-<br>Existent | Very<br>Inadequate<br>1 - 29% | Poor<br>30 - 49% | Borderline<br>50 - 69% | Satisfactory<br>70 - 89% | Excellent<br>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                     |

**Specialized Learning Space** (cont.)

|             |  |           |          |
|-------------|--|-----------|----------|
| <b>5.13</b> | <b>Space for art</b> is appropriate for instruction, supplies and equipment.               | <b>10</b> | <b>9</b> |
| <b>5.14</b> | <b>Space for technology education</b> permits use of state-of-the-art equipment.           | <b>10</b> | <b>4</b> |
| <b>5.15</b> | Space for <b>small groups and remedial instruction</b> is provided adjacent to classrooms. | <b>5</b>  | <b>0</b> |
| <b>5.16</b> | <b>Storage for student and teacher material</b> is adequate.                               | <b>5</b>  | <b>2</b> |

**Support Space**

|             |  |           |          |
|-------------|--|-----------|----------|
| <b>5.17</b> | <b>Teacher's lounge and work areas</b> support teachers as professionals.  | <b>10</b> | <b>7</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</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>6</b> |
| <b>5.20</b> | <b>Counselor's office</b> insures privacy and sufficient storage.  | <b>5</b>  | <b>2</b> |
| <b>5.21</b> | <b>Clinic</b> is near administrative offices and is equipped to meet requirements.                                       | <b>5</b>  | <b>2</b> |
| <b>5.22</b> | <b>Suitable reception space</b> is available for students, teachers and visitors.  | <b>5</b>  | <b>2</b> |
| <b>5.23</b> | <b>Administrative personnel</b> are provided sufficient work space and privacy.  | <b>5</b>  | <b>2</b> |

**Total - Educational Adequacy**

|            |            |
|------------|------------|
| <b>200</b> | <b>119</b> |
|------------|------------|

Table of  
Weights  
and  
Categories

| <b>Maximum<br/>Points<br/>Allotted</b> | <b>Non-<br/>Existent</b> | <b>Very<br/>Inadequate<br/>1 - 29%</b> | <b>Poor<br/>30 - 49%</b> | <b>Borderline<br/>50 - 69%</b> | <b>Satisfactory<br/>70 - 89%</b> | <b>Excellent<br/>90 - 100%</b> |
|--|--------------------------|--|--------------------------|--------------------------------|----------------------------------|--------------------------------|
| 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 | 8 |
| 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 | 4 |
| 6.5 | <b>Building materials</b> provide attractive color and texture.                          | 5  | 3 |

### Interior Environment

|      |   |    |    |
|------|---|----|----|
| 6.6  | <b>Color schemes, building materials and decor</b> provide an impetus to learning.                          | 20 | 8  |
| 6.7  | <b>Year around comfortable temperature and humidity</b> are provided throughout the building.               | 15 | 8  |
| 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 | 12 |
| 6.10 | <b>Sufficient drinking fountains and restroom facilities</b> are conveniently located.                      | 15 | 6  |
| 6.11 | <b>Communication among students</b> is enhanced by commons area.  | 10 | 1  |

Table of  
Weights  
and  
Categories

| Maximum<br>Points<br>Allotted | Non-<br>Existent | Very<br>Inadequate<br>1 - 29% | Poor<br>30 - 49% | Borderline<br>50 - 69% | Satisfactory<br>70 - 89% | Excellent<br>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.)

|  |   |            |           |
|--|---|------------|-----------|
| <b>6.12</b>                              | <b>Traffic flow</b> is aided by appropriate foyers and corridors.                           | <b>10</b>  | <b>3</b>  |
| <b>6.13</b>                              | <b>Areas for students to interact</b> are suitable to the age group.                        | <b>10</b>  | <b>2</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>3</b>  |
| <b>6.16</b>                              | <b>Window design</b> contributes to a pleasant environment.                                 | <b>10</b>  | <b>3</b>  |
| <b>6.17</b>                              | <b>Furniture and equipment</b> provide a pleasing atmosphere.                               | <b>10</b>  | <b>2</b>  |
| <b>Total - Environment for Education</b> |   | <b>200</b> | <b>92</b> |

Table of  
Weights  
and  
Categories

| <b>Maximum<br/>Points<br/>Allotted</b> | <b>Non-<br/>Existent</b> | <b>Very<br/>Inadequate<br/>1 - 29%</b> | <b>Poor<br/>30 - 49%</b> | <b>Borderline<br/>50 - 69%</b> | <b>Satisfactory<br/>70 - 89%</b> | <b>Excellent<br/>90 - 100%</b> |
|--|--------------------------|--|--------------------------|--------------------------------|----------------------------------|--------------------------------|
| 10                                     | 0                        | 2                                      | 4                        | 6                              | 8                                | 10                             |





## Justification for Allocation of Points

BUILDING NAME AND LEVEL:

Name of School Building \_\_\_\_\_

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

BUILDING FEATURES THAT CLEARLY EXCEED CRITERIA:

1. Item 1      Playground size \_\_\_\_\_
2. Item 2 \_\_\_\_\_
3. Item 3 \_\_\_\_\_
4. Item 4 \_\_\_\_\_
5. Item 5 \_\_\_\_\_

BUILDING FEATURES THAT ARE NON-EXISTENT OR VERY INADEQUATE:

1. Item 1      Receiving area floods \_\_\_\_\_
2. Item 2      No defined front entry \_\_\_\_\_
3. Item 3      Inadequate shelves and cabinetry in SPED classrooms. \_\_\_\_\_
4. Item 4      No roof access \_\_\_\_\_
5. Item 5 \_\_\_\_\_
6. Item 6 \_\_\_\_\_
7. Item 7 \_\_\_\_\_
8. Item 8 \_\_\_\_\_
9. Item 9 \_\_\_\_\_



**Date of Appraisal:** 10/30/2017

**Name of School:** Tomahawk Elementary School

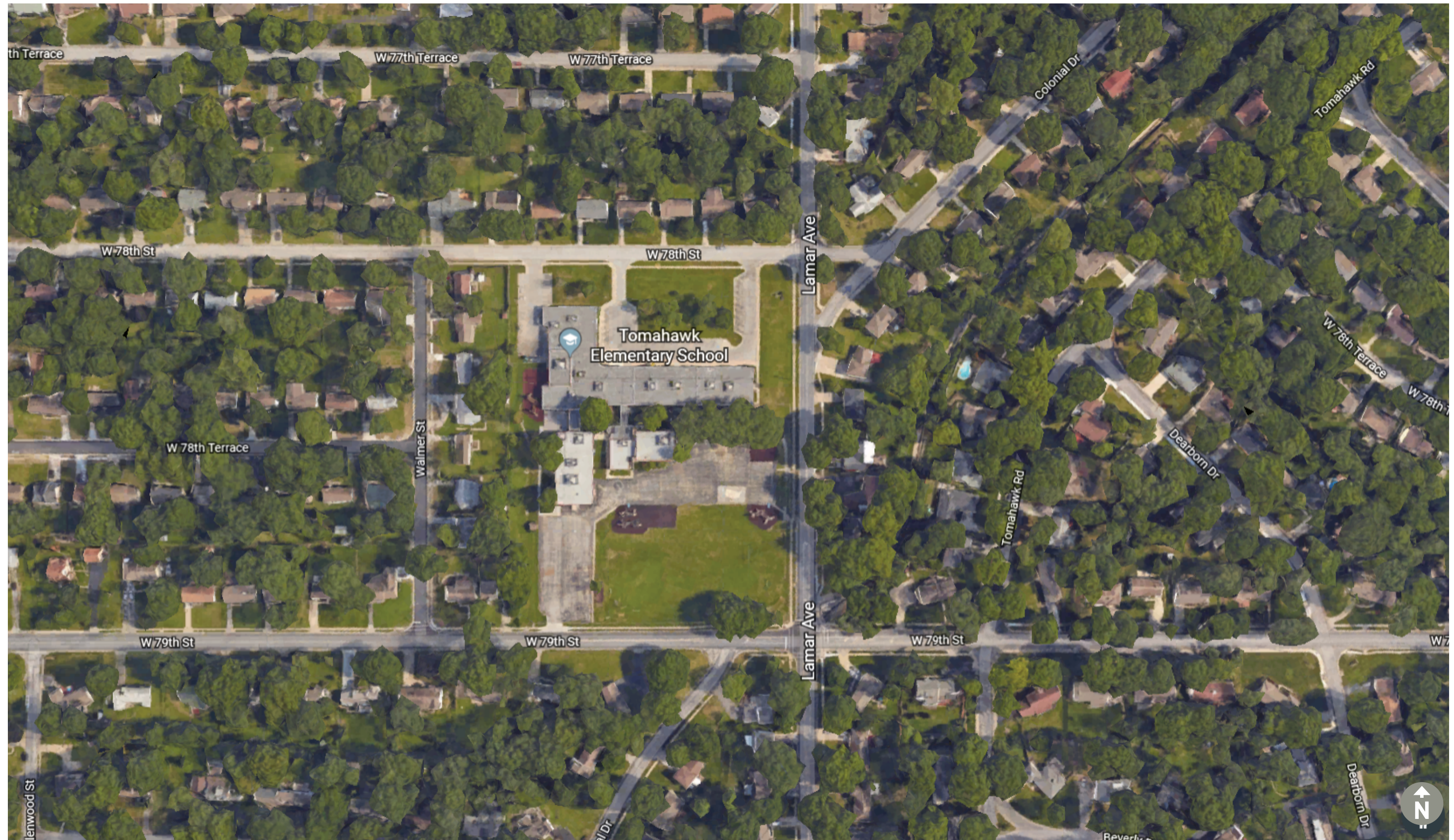
**Name of Appraisers:** ACI Boland Architects

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





# SITE PLAN









# FACILITY OBSERVATIONS

## Architectural Observations

23

SHAWNEE MISSION SCHOOL DISTRICT



Corridors have low ceilings (8'-0" a.f.f.). Surface mounted light fixtures. Chair lift at steps. Exposed pipes and conduits. Ceramic tile floors





No cubby storage for students in the 1st thru 6th Grade classrooms, only coat hooks close together for coats and back packs. Need built in casework with doors to hide the clutter. Classrooms need different types of desks, tables and furniture for various teaching methods.

In the SPED/SLC classrooms the open bookshelves are covered with curtains. The clutter is too distracting for the students with Autism. The SLC students are learning verbal skills. Visual aids and pictures are used. Smaller areas with movable screens/walls are needed to provide some privacy for alone time for SLC students. There are only 5 students per SLC class along with teachers and para professionals.



Corridors have VCT flooring requiring maintenance. Walls are concrete masonry units with glazed block on lower part of wall. Some doors swing into corridors.





Student toilet rooms need updating. Most of them are not ADA accessible. No mirrors.



SLC toilets need changing stations and closer proximity to the actual classroom for toilet training of the younger students. The outside door is not desirable.



Staff toilets need updating. Not ADA accessible.



Kindergarten toilet, no grab bars for ADA accessibility.





Nurse toilet not ADA accessible.  
No shower.



Drinking fountains protruding  
into Corridors more than allowed  
by ADA. Need to verify if storage  
cabinets protrude more than 4"  
into corridor exiting.



Classrooms with traditional desks. Need different casework and furniture to allow for various methods of teaching instruction. Large exposed ductwork added in one of the schools renovation projects.



Kindergarten rooms have coat hooks for backpacks and coats. There are no individual cubbies per school district standards.





Instrument storage clutters the corridors.



Need larger staff conference room. Can't fit all of the staff in this room at the same time.





Main entry not easily recognizable as an entry.



Need a crosswalk at Lamar and 78th Street, but the cities of Overland Park and Prairie Village couldn't agree on location and configuration. Students are supposed to use crosswalk at Lamar and 79th Street (further south) where there is a school crossing guard. Instead they cut across street at Lamar and 78th instead. Principal has concerns for student safety.





Ramp down to Maintenance/Tractor room has one drain that requires a sump pump when it rains. When power goes out the Tractor room and adjacent 5th Grade corridor is flooded because the sump pump doesn't work. Rust stains at railing/retaining wall is unsightly. There are 3 other window wells with similar drains in this classroom wing.



Parent pick up in the afternoon occurs on the north side of the school. There are also small SLC busses. The busses leave a few minutes before the vehicles. Vehicles back up onto 78th Street creating traffic issues





People climbing on roof where the connecting building steps up. Rust stains on roof membrane need to be maintained. Other stains indicate water ponding.



Courtyard has unsightly razor wire at chain link fence. Principal would like to get rid of it. It was installed to keep people from climbing on the roof inside courtyard, creating a security concern.





The overlapping exposed downspouts on northwest corner need to both connect to storm sewer system.



Exterior doors from the Boys/ Girls toilets are not needed. Students exit the building without being monitored which creates a security concern.





Visible vertical cracks at stair wall masonry need to be evaluated.

MEP Observations



Dehumidifier running in space to reduce humidity



Data closet in storage room





Ductwork exposed in classroom  
& ceiling water damage



Exposed ductwork and sprinkler  
system in classroom space



Dehumidifier running in space to reduce humidity



Floor mounted plumbing fixtures



Roof access via 6 foot  
extension ladder



Floor mounted plumbing fixtures





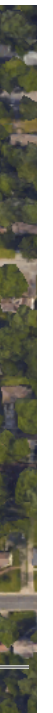
Smoke Detection on  
HVAC equipment



Roof drainage discharge on sidewalk



Piping and Ductwork exposed in lower level storm shelter. Space utilized for sensory space.







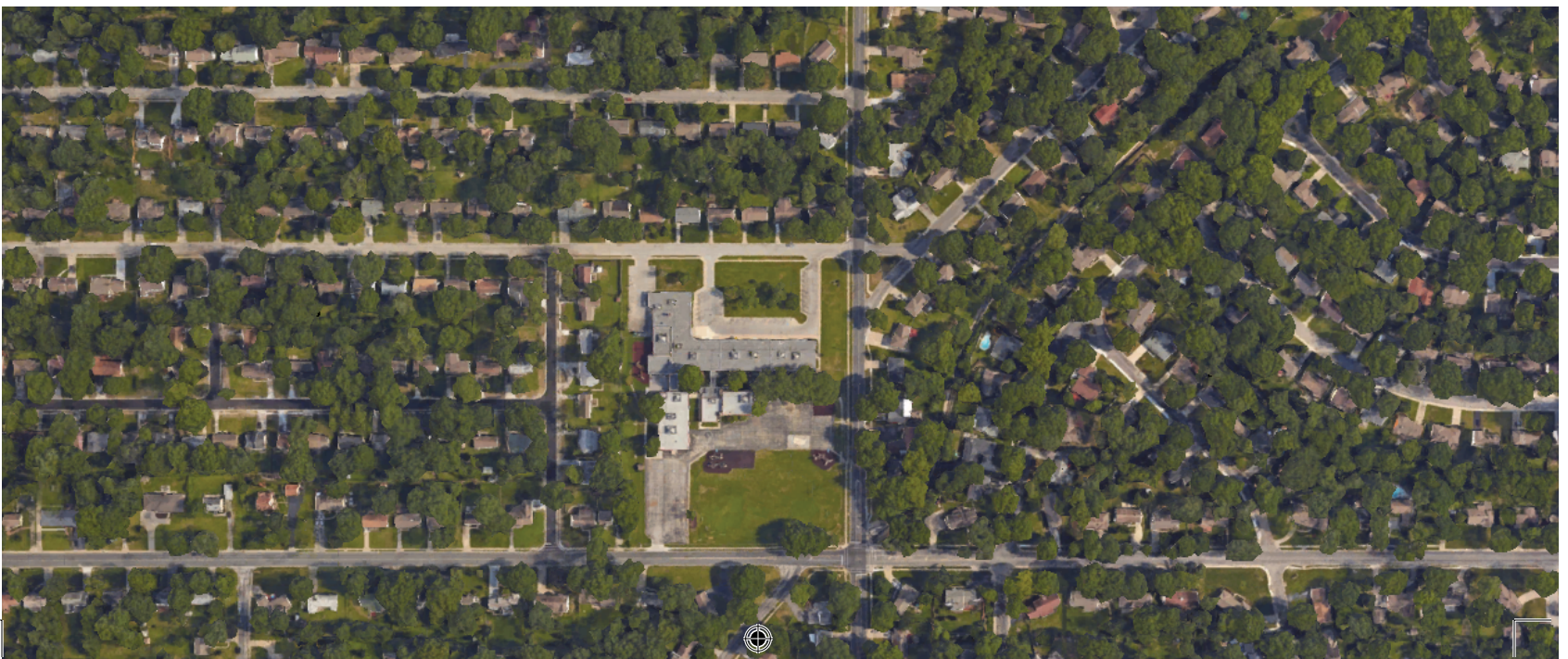
# SITE ANALYSIS

## Existing Conditions

The existing school building and parking is situated mostly on the northern portion of the site. The existing playgrounds are located on the south side of the existing building. There is an existing grass ballfield along the southern portion of the property. This area slopes moderately (2-3%) from the playground at the southwest corner to the southeast corner of the property. There are sidewalk connections along 78th Street and up to the building. There are approximately 40 parking stalls located at the north end of the site. There appears to be enough space for approximately 25 vehicles to queue onsite and not be on 78th Street. The site appears to be reasonably well drained.

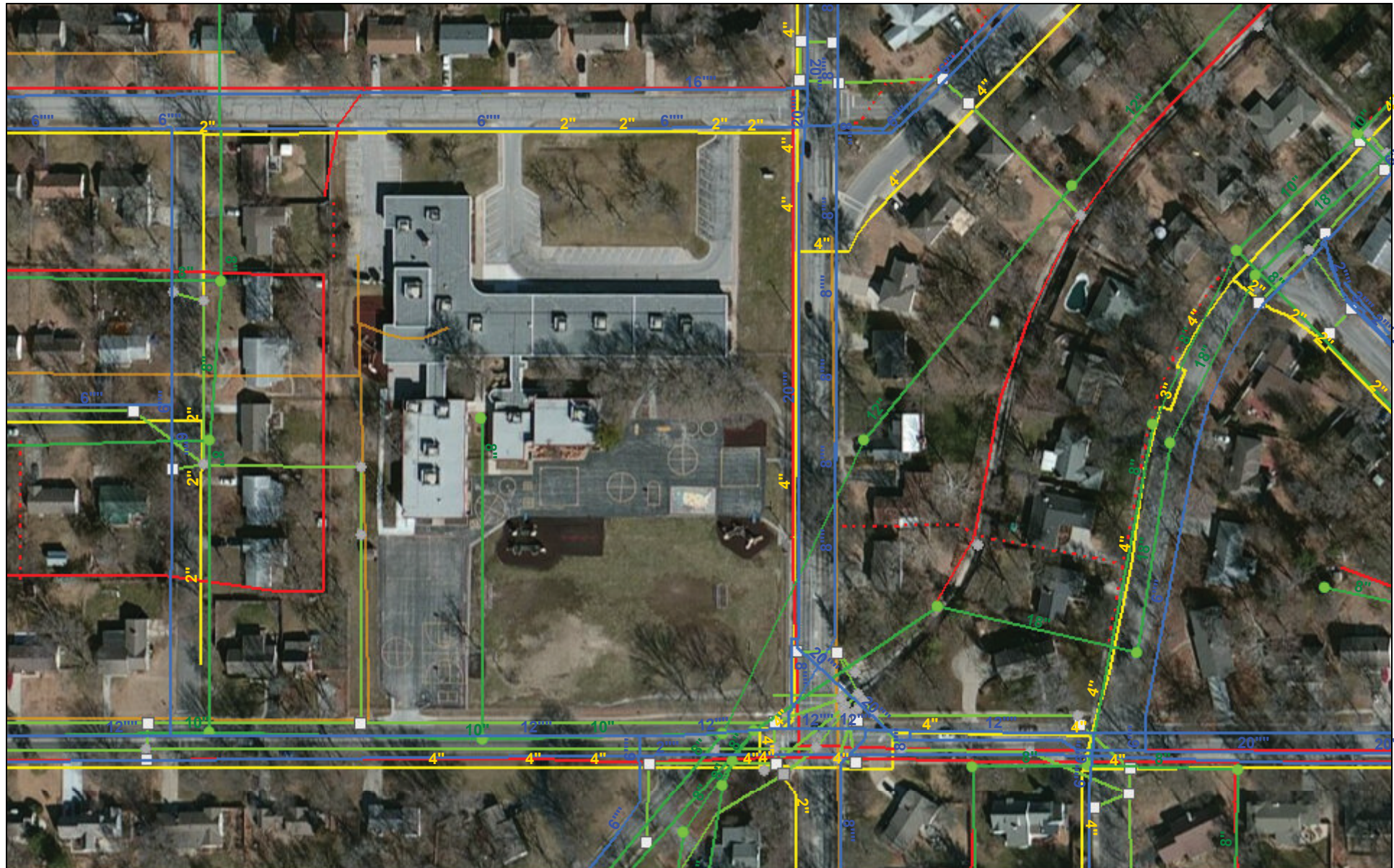
## Replacement School Assessment

If a replacement school was to be built on the same site while the existing school would remain open, it would need to be constructed at the south end of the property where the existing grass ballfields are located. This is a relatively flat piece of ground that would be easily developable for the new school building. New parking lot, drives, and playgrounds would not be able to be built until the existing school building and parking areas are demolished. Potentially decreasing the amount of impervious surface with a new school, stormwater detention and water quality facilities would possibly not be needed with the project. A Johnson County Wastewater sanitary main extension would not be required for the project as there is existing main at the south end of the site. However, a main removal might be required when the existing school is removed. There are also two mains, including one service the existing school, which might restrict the available space for the new building footprint. All other utilities are readily available around the proposed building location to serve the new building. The main concern with a replacement school on the existing site while the existing building remains open would be the phasing and timing of the demolition of the existing school building and the construction of the new parking lot.





# Tomahawk Elementary Existing Utility Map



12/20/2017, 10:06:36 PM

## Johnson - Water Mains

— Main

## Johnson - Sewer Manholes

● Active Manhole or Cleanout

— Johnson - Sewer Mains

— Johnson - Stormwater Inlet

● Others

□ Curb Inlet

□ Area Inlet

— Johnson - Stormwater Pipe

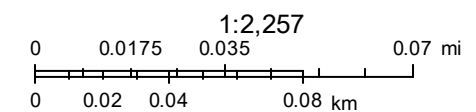
— Johnson - OH Electric

--- Johnson - UG Electric

## Johnson - Telecom

— Overhead

— Johnson - Gas Main



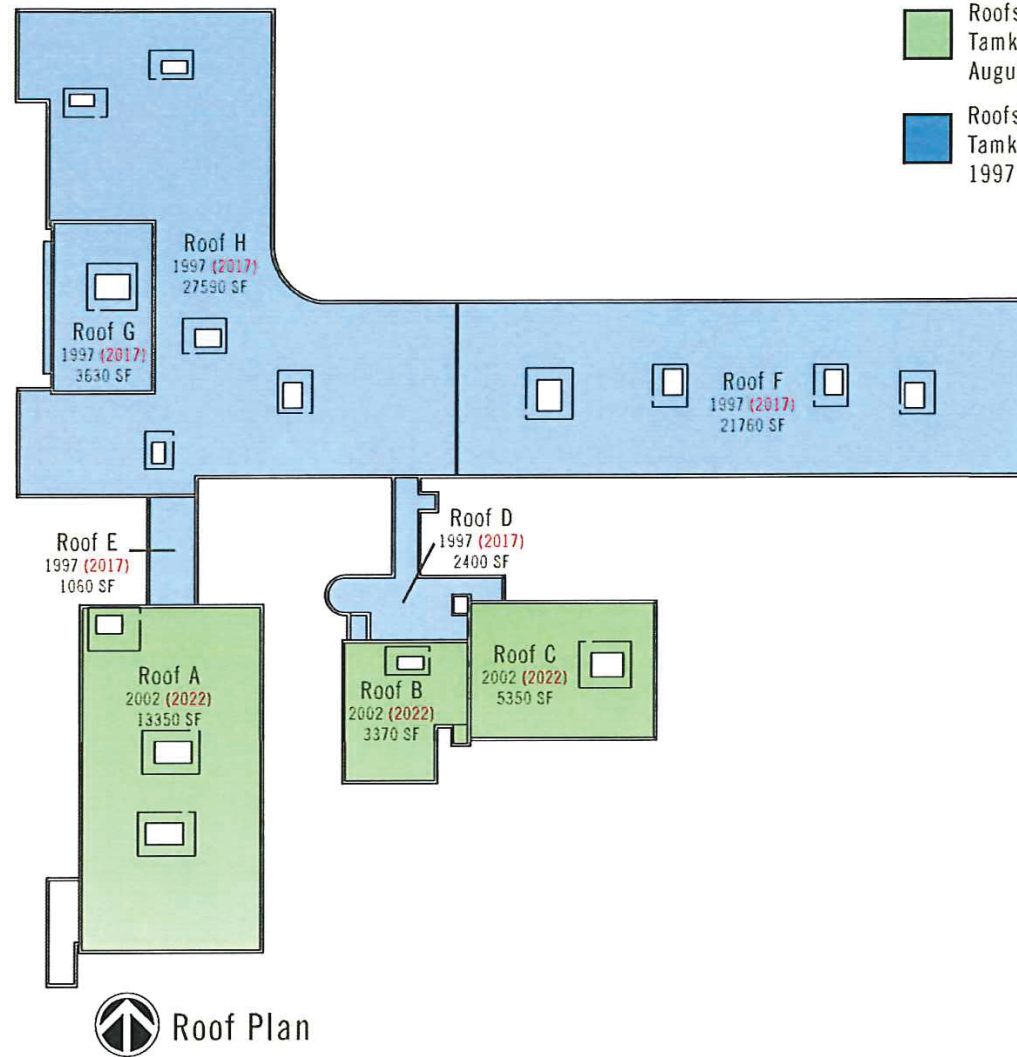
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

BHC Rhodes ArcGIS Online User  
BHC Rhodes



## Roof Areas

- Roofs A,B,C (Gym, Music, SW Academic)  
Tamko 103 / 134 SQ.  
August 2002 (20 year) **2022**
- Roofs\* D,E,F,G,H  
Tamko 103 / 350 SQ.  
1997 (**Missing**)



# ROOF ASSESSMENT | A1

TOMAHAWK ELEMENTARY SCHOOL

Shawnee Mission School District





# ARCHITECTURAL NARRATIVE

**Principal: Brian Watson | S. F. 55,219 | 2 story | 1954 original building | Mascot: Tigers**  
**Additions and Renovations in 1956, 1967, 2008 and 2015**

1. Attendance according to the Principal: 302 students
2. Building is open from 7:00 to 6:00. Class hours are from 8:00 to 3:10. They have a Johnson County Parks and Recreation program before and after school.
3. Site: Parent drop off and pick up on north side of building off 78th Street. They only have 3 small SPED-SLC busses that drop off and pick up a few minutes before vehicular traffic.
4. Site: East side of building also has an asphalt playground for parent pick up. The cars back up into spaces on 2 sides, load up and all leave at the same time.
5. Site has a lot of big older trees. Grade drops off from north to south by 8' and also has a steep slope on east side of site along Lamar Avenue.
6. Site: There is a crosswalk at Lamar and 79th Street. The school really needs a crosswalk at Lamar Ave and 78th Street but Overland Park and Prairie Village couldn't agree on the layout so kids are supposed to go further south to 79th street crosswalk. The Principal said they don't, students cut across street at 78th and he is concerned for student safety. The Overland Park/ Prairie Village city boundary is at Lamar and 78th.
7. There is an exterior ramp access to the Tractor room that slopes down. The drain at the bottom of the ramp uses a sump pump to pump out the water when it rains. If they lose power the area fills up with water and floods the Tractor room and adjacent 5th Grade corridor. The Principal said this area has flooded twice in the past 3 years. There is also a lot of rust stains at the steel guardrail and concrete retaining wall.
8. Building materials are brick, EIFS, aluminum windows in all classrooms. Exposed metal gutters and downspouts.
9. Main building entry isn't easily identifiable as the "main entry". Nothing about the architecture says "Entry".
10. Secure entry vestibule with buzz in hardware and cabinet unit heater.
11. Administration offices has a reception desk, security monitors, waiting area, Principal's office. Conference room is across the corridor off the Staff break room. It's not large enough.
12. Teacher Workroom is located in an electrical/data room with exposed data panels on the walls.
13. Regular Classrooms are 825 s.f. Most of them have a large round duct running through them. Countertops are plastic laminate, lower sink heights, acoustical tile lay-in ceilings with traditional desks. Base cabinets and a hodge-podge of different loose book shelves with a lot of tote trays, exposed conduits, curtains on some exterior windows. Sinks have standard faucet, no gooseneck style faucets. Doors have continuous hinges.
14. SLC (Special Language Classrooms) are defined as "Language emersion for students with Autism." They have 15 students with autism. They communicate with visual aids. The teacher said the students are distracted by all the open shelving with multi-colored books and teaching items in room so they put curtains over the upper open shelves to hid them. She said storage cabinets with doors on them would be helpful. A separate private area is needed in the room as a calming/quiet space. The classrooms need better acoustics between them.
15. SLC- Some of the younger ones are in toilet training, so close proximity to a toilet would be helpful. These toilets need to be ADA accessible and have a changing table area.
16. Kindergarten rooms have no cubby storage, only coat hooks. Two of the kindergarten rooms are



- larger (1026 s.f. and 1145 s.f.) have individual toilets in the room with small storage closet. The 3rd kindergarten room (845 s.f.) has no toilet and very little storage. One of the kindergarten rooms has exterior door with steps down to playground and one has a ramp down to playground. Third room has no exterior door.
17. No collaboration spaces or small meeting rooms for students
  18. Classrooms have no cubby storage. There are hooks on wall for back packs etc. Typical desks.
  19. Low ceilings throughout school corridors (approx. 8'-0" tall).
  20. No interior roof ladder access.
  21. Drinking fountains protrude into hallway clearances, against ADA guidelines.
  22. Kitchen has adequate equipment.
  23. Cafeteria has ceiling fans, a painted mural on one wall, lay-in acoustical ceiling, a large overhead coiling door to kitchen and windows on one side. There are numerous large totes on the perimeter of the room for after school programs.
  24. Gymnasium has wood floors, 2 ceiling hung basketball goals and a separate stage with curtains. Floor inserts for volleyball standards. There are no bleachers. There are no sound panels but it appears that the bricks have gaps in them with acoustical material behind them.
  25. Nurse's office has 2 beds without cubicle curtains around them for privacy. The toilet does not have a shower. They need one to clean up messy kids. VCT flooring. There is a glass window between Nurse's area and office reception area.
  26. Art Room had adequate storage. The room had a ramp at main door. The kiln is in a separate room.
  27. Band and strings room is small room on lower level. Window/area wells. This room has had some mold issues in the past according to the Principal.
  28. Most of the student toilets have older fixtures and finishes. Plaster ceilings with surface mounted 1x4 light fixtures. Glazed cmu to 4'-0" a.f.f. with painted cmu the remainder. Small exterior windows with light blocked out. No mirrors. Floor mounted urinals in Boys Toilets.
  29. Library could use more natural light. Adequate book shelf storage.
  30. Musical instrument storage is located in the corridor.
  31. Playgrounds are adequate. 2 large pieces of play equipment. Hard and soft playground areas. Kindergarten has a smaller piece of play equipment.
  32. There is a courtyard with water feature. There is a fence with razor wire on one side. The principal would like to get rid of.
  33. U shaped concrete stair has a low roof and sometimes kids climb up on the roof.
  34. Staff restrooms need updating. Principal stated that there weren't enough.
  35. Most toilets are not ADA accessible. Some of them have doors to the exterior. They have ceramic tile floors and glazed block walls.
  36. They have HVAC issues, some areas too hot or too cold.
  37. Corridors have VCT flooring, ceramic tile flooring and carpet tile in classrooms. Glazed block and painted block in corridors
  38. There is some visible vertical wall cracks at stair wells in the glazed block.
  39. No elevator, but a couple of chair lifts at gym and one corridor.
  40. Boiler Room: Access to old underground tunnels used for original piping.
  41. MFEC accessed the roof. There were RTU screens, built up asphalt roof, exposed piping, roof drains and overflow scuppers. Roof has evidence of water ponding, rust stains and patch areas.
  42. The building has a sprinkler system.





# MEP NARRATIVE

## General Project Information

|                              |                                 |
|------------------------------|---------------------------------|
| <b>Owner:</b>                | Shawnee Mission School District |
| <b>School Name:</b>          | Tomahawk Elementary School      |
| <b>Project Address 1:</b>    | 6301 W. 78th St.                |
| <b>City:</b> Shawnee Mission | <b>State:</b> KS                |
|                              | <b>Floor Area:</b> 55,219 sf    |
| <b>Building Stories:</b>     | 1                               |
| <b>Building Use Type:</b>    | Elementary School               |
| <b>Code Occupancy Group:</b> | E Occupancy                     |

## Team Contact Information

|                         |                         |
|-------------------------|-------------------------|
| <b>Contact Name:</b>    | Keith Hammerschmidt     |
| <b>Contact Company:</b> | MFEC, Inc.              |
| <b>Contact Phone:</b>   | 913-322-1400            |
| <b>Contact Fax:</b>     | 913-825-6697            |
| <b>Contact Email:</b>   | khammerschmidt@mfec.com |



## General

- A significant portion of existing building included accessible ceiling space, excluding a portion of classrooms.
- Observations regarding code deficiencies are in reference to the current 2012 IBC code series adopted by local jurisdictions. Should local jurisdictions adopt codes newer than the 2012 IBC, additional updates may be required to building systems. Items of note include:
  - 2015 IBC requires a full FEMA storm shelter which would require backup generator power, ventilation and restrooms.
  - 2015 IBC added requirements for carbon monoxide detection in select classrooms served by fuel fired equipment.
- It appeared that the below grade Mechanical and Electrical room had flooded in the past. Sump pump is installed to remove water, but appears to allow several inches of water to collect before being able to clear the floor. Electrical equipment is elevated off floor. Sump pumps don't seem to have backup power and basement floods during power outage.
- No permanent roof access was available at the building. A temporary ladder was required to be leaned against side of building to access equipment on roof. Other levels of roof above first level also required temporary ladders to access equipment.
- Entire facility is protected by fire sprinkler system.

## Mechanical

- **System Descriptions**
  - The majority of the building is served from rooftop units. The units ranged in age from recently been installed in the last couple years to 10 years old. Typical life span of a rooftop unit is 15 years.
  - Original boiler / chiller central plant has been eliminated and mechanical equipment switch to rooftop units.
  - Kitchen mechanical equipment has recently been updated.
  - Rooftops that serve classrooms are fed from exposed ductwork.
  - A few classrooms have a portable dehumidification unit.
  - There are no dedicated mechanical equipment serving spaces where there are data racks.
- **Controls Systems**
  - A full BMS control system is currently installed to serve all HVAC equipment.
  - Not all classrooms were provided with dedicated thermostat controls. Several classrooms were served from one unit and shared thermostats which can cause student and teacher discomfort.
- At least one classroom had a portable dehumidifier in the space.
- **Additional Updates required to bring systems up to current codes:**
  - Provide minimum ventilation per current codes to each classroom.
  - Energy recovery will be required when minimum ventilation rates are brought up to code.
- **Additional Updates required to bring systems up to current SMSD Standards:**
  - HVAC equipment efficiencies shall be increased.





- Each classroom shall be provided with its own thermostat.

## Plumbing Systems

- **Hot Water**

- Domestic hot water system consists of multiple gas-fired water heaters distributed around the building. Majority of water heaters are around 2 years old.
- Domestic hot water supply appeared to be sufficient, though appeared no hot water at classroom sinks.

- **Water Supply**

- The water service has recently been upgraded with a backflow preventer.
- Water pressure appeared to be sufficient.

- **Roof Drains**

- Roof drains are discharged to grade by down spouts and not piped to storm sewer. This causes drainage issues around the building. Overflow scuppers are provided.

- **The majority of the restroom groups appeared to have been floor mounted fixtures and weren't ADA compliant.**

- **The nurse area does not have a shower – accessible or otherwise.**

- **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.
- Add accessible roll-in shower for the Nurse Area.
- Hot water recirculation line shall tie into hot water line with-in 3 feet of every hand washing sink.
- All classrooms shall be provided with a sink in the classroom.
- Replace majority of water closets and urinals with new wall-mounted fixtures.

## Electrical Systems

- **Lighting**

- Exterior illumination did not appear sufficient. There was no dedicated parking lot lighting. Wall mounted light fixtures were aged.

- **Power**

- Electrical service is underground. Newer service equipment is protected by ground fault protection which is in line with current codes.
- Extension cords and power supplies were common in classrooms due to insufficient quantities and locations of electrical receptacles.
- Power systems appeared to have available space and spare for future improvements, depending on scope.

- **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. However, locations for data racks were in difficult to access storage spaces at times. Also, basement which is prone to flooding had data rack installed on blocks.
- **Additional Updates required to bring systems up to current codes:**
  - Electrical
    - » All receptacles to be replaced with tamper resistant devices.
    - » Additional Exterior lighting to ensure sufficient illumination.
  - Lighting – New lighting controls with occupancy sensors installed in entire building.
  - 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. May require replacement of main service panel.
    - » 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.





**SMSD 2019 Bond**  
**Johnson County, KS**  
**February 1, 2018**

Concept Estimate



**Construction Cost Summary - New Elementary Schools**

| <i>Description</i>                         | <i>Quantity</i>  | <i>Cost</i>         | <i>Unit Cost</i> |
|--|------------------|---------------------|------------------|
| Lenexa Hills - 2017 2nd Quarter Cost       | 74,656 SF        | 17,641,213          | 236.30           |
| Escalation to 1st Quarter 2018             | 2.58%            | 455,143             | 6.10             |
| Lenexa Hills Current Cost                  | 74,656 SF        | 18,096,356          | 242.40           |
| Projected Escalation to 2Q 2019            | 6.25%            | 1,131,022           | 15.15            |
| 3 Section School Total                     | 74,656 SF        | \$19,227,378        | \$257.55         |
| Existing Bldg Demo                         | 70,000 NSF       | \$420,000           | \$6.00           |
| <b>Total Construction Cost - 3 Section</b> | <b>74,656 SF</b> | <b>\$19,647,378</b> | <b>\$263.17</b>  |
| Soft Costs                                 | 16%              | \$3,143,581         | <b>\$42.11</b>   |
| <b>Total Project Cost - 3 Section</b>      | <b>74,656 SF</b> | <b>\$22,790,959</b> | <b>\$305.28</b>  |

**Two Section School - Cost based on Lenexa Hills with less classroom space**

|  |                  |                     |                 |
|--|------------------|---------------------|-----------------|
| 2 Section School                           | 62,000 SF        | \$16,575,472        | \$267.35        |
| Existing Bldg Demo                         | 55,000 NSF       | \$330,000           | \$6.00          |
| <b>Total Construction Cost - 2 Section</b> | <b>62,000 SF</b> | <b>\$16,905,472</b> | <b>\$272.67</b> |
| Soft Costs                                 | 16%              | \$2,704,876         | <b>\$43.63</b>  |
| <b>Total Project Cost - 2 Section</b>      | <b>62,000 SF</b> | <b>\$19,610,348</b> | <b>\$316.30</b> |



**SMSD 2019 Bond Elementary Evaluations**  
**Johnson County, Kansas**  
**February 1, 2018**

Concept Estimate



**Total Project Cost Summary - Elementary Renovations**

| <i>Description</i>                      | <i>Quantity</i>   | <i>Cost</i>         | <i>Unit Cost</i> |
|---|-------------------|---------------------|------------------|
| Belinder Renovation/Addition Cost Sumn  | 65,751 SF         | 12,715,643          | 193.39           |
| East Antioch Renovation/Addition Cost S | 55,078 SF         | 9,136,014           | 165.87           |
| Rosehill Renovation Cost Summary        | 81,924 SF         | 9,614,291           | 117.36           |
| Rushton Renovation/Addition Cost Sumn   | 49,237 SF         | 10,204,918          | 207.26           |
| Tomahawk Renovation Cost Summary        | 52,169 SF         | 5,774,573           | 110.69           |
| <b>Total Project Cost</b>               | <b>304,159 SF</b> | <b>\$47,445,439</b> | <b>\$155.99</b>  |





**SMSD 2019 Bond Elementary Evaluations**  
**Johnson County, Kansas**  
**February 1, 2018**

Concept Estimate



**Tomahawk Renovation Cost Summary**

| <i>Description</i>             | <i>Quantity</i>  | <i>Cost</i>        | <i>Unit Cost</i> |
|--------------------------------|------------------|--------------------|------------------|
| Tomahawk Interior Finishes     | 52,169 SF        | 2,031,687          | 38.94            |
| Tomahawk MEP                   | 52,169 SF        | 2,073,472          | 39.75            |
| Construction Subtotal          | 52,169 SF        | 4,105,159          | \$78.69          |
| Design Contingency             | 10.00%           | 410,516            | 7.87             |
| Construction Contingency       | 4.00%            | 180,627            | 3.46             |
| Escalation to 2nd Qtr 2019     | 6.00%            | 281,778            | 5.40             |
| <b>Total Construction Cost</b> | <b>52,169 SF</b> | <b>\$4,978,080</b> | <b>\$95.42</b>   |
| <b>Tomahawk Soft Costs</b>     | <b>16%</b>       | <b>\$796,493</b>   | <b>\$15.27</b>   |
| <b>Total Project Cost</b>      | <b>52,169 SF</b> | <b>\$5,774,573</b> | <b>\$110.69</b>  |

**General Construction Inclusions**

Demolish and Replace: Flooring, Ceilings, 100% Casework  
Paint all interior partitions  
Plumbing Fixtures, existing piping to remain  
Demolish existing HVAC and Replace: RTUs, GRDs, and Controls  
Existing Ductwork to be reutilized  
Electrical Fixtures and Devices, new wiring to new fixtures only

**General Construction Exclusions**

Hazardous Abatement  
Interior/Exterior Glazing  
Floor Plans and Partition Layout to remain as Existing  
Doors, Frames, and Hardware  
Window Coverings  
Elevator Installation or Renovation  
Sitework or Street Repairs





