

Oklahoma Elementary School

1032

**DUBOIS AREA SCHOOL DISTRICT
EDUCATIONAL FACILITIES MASTER PLAN**

JANUARY 18th 2018



Goals

Existing facilities were evaluated and options developed in support of the following goals:

- **Establish an equal standard of quality across all elementary school buildings**
- **Provide environments to support your 21st century educational program**

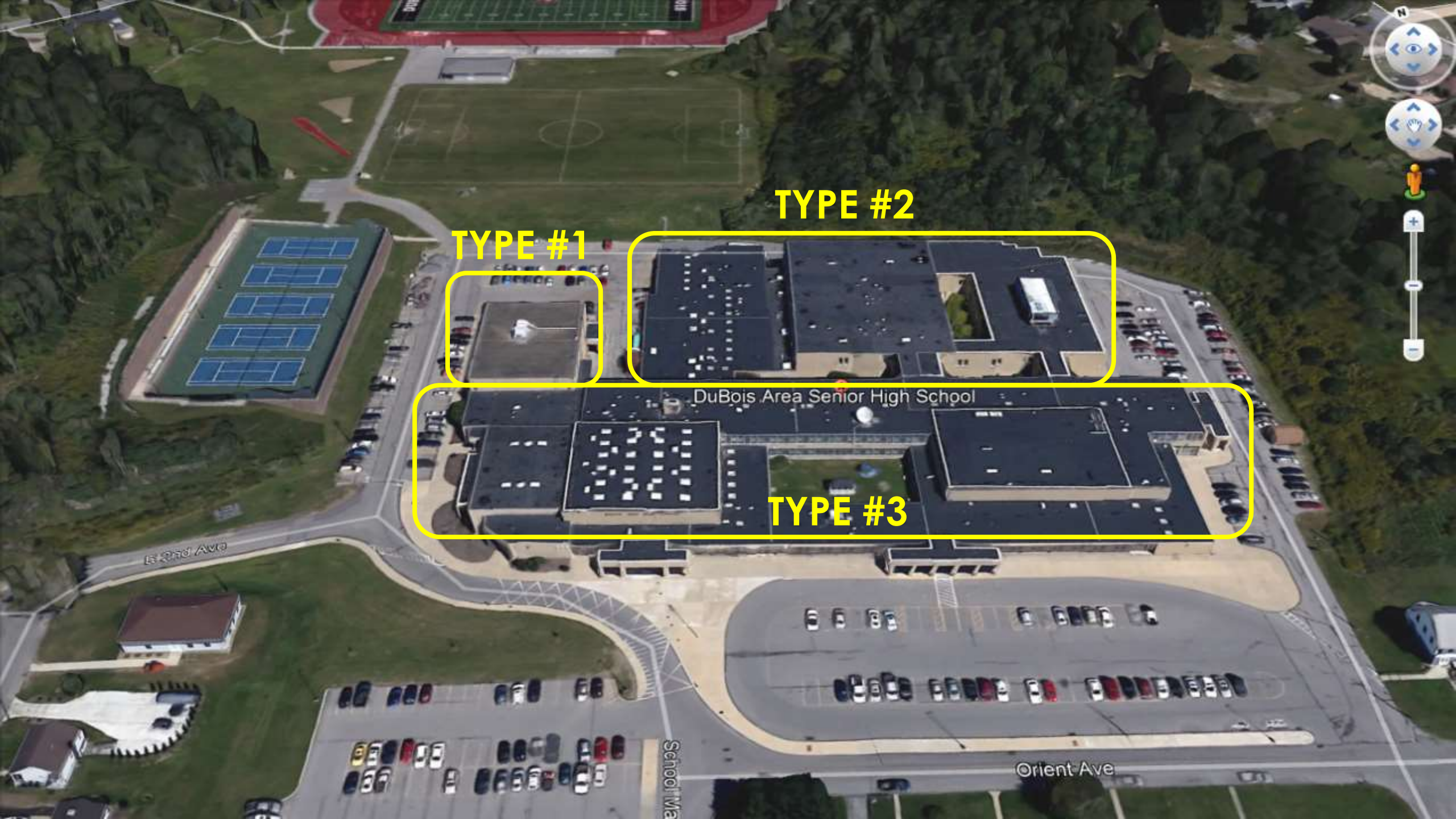
Goals

- **Identify and address safety, security, technological, and spatial needs**
- **Modernize and/or replace aging and inefficient facilities**
- **Create a priority list of needs and actions for the next several years**

A group of children are gathered in a circle, with their hands raised in the air. The image is overlaid with a semi-transparent green filter. The children are wearing various colored shirts, including green and light green. The text "DISTRICT MASTER PLAN" and "LONG TERM FACILITIES PLAN" is centered over the image in a bold, grey, sans-serif font.

DISTRICT MASTER PLAN

LONG TERM FACILITIES PLAN



TYPE #1

TYPE #2

DuBois Area Senior High School

TYPE #3

15 2nd Ave

School Ma

Orient Ave



Roofing Options

- Roof Coatings
 - 10 Yr repair of existing roof
- Single Ply Roof System (EPDM)
 - New membrane and flashings
 - Easy to repair
- Thermoplastic Roofing (TPO)
 - Stronger material than EPDM
 - Difficult to repair
- Multi Ply Systems (Mod-Bit)
 - Multiple layer of strong membrane
 - 30+ Yr warrenty
 - Highest cost





Type #1 Ballasted Roof

- 7980 square feet
- Older roof
- Stones meant to protect roof membrane
- Creates difficulty finding and repairing leaks

Recommendations

- Remove existing roof system (stones, membrane, damaged insulation)
- Install new 3-ply roof system with 3-inches of new insulation



Type #2 Existing EPDM

- 63,500 square feet
- Single Ply results in more chances for leaks
- Ponding found in multiple locations
- Older curbs could be removed

Recommendations

- Minor repairs and roof coating would extend life of roof 10 years
- Coatings 1/3 cost of new roof



Type #3 Existing Built-Up Roof

- 83,000 square feet
- Front portions of school
- Two systems over each other
- Most leaks in school in this area

Recommendations

- Remove existing roof systems down to roof decking
- Install new 3-ply roof system with 3-inches of new insulation
- 30 Year Warranty



Middle School Roof

- 62,566 square feet of flat roof
- Single-Ply EPMD roof
- Some leaks noted

Recommendations

- Inspect all areas of the roof to address leaks
- Minor repairs and roof coating would extend life of roof 10 years
- Coatings 1/3 cost of new roof



CG Johnson Elementary School

- 42,630 square feet
- Single-Ply EPMD roof
- Roof sloped along Jackson St.
- Perimeter leakage effecting brick

Recommendations

- Inspect all areas of the roof to address leaks
- Solution likely a mix of coating repairs and replacement

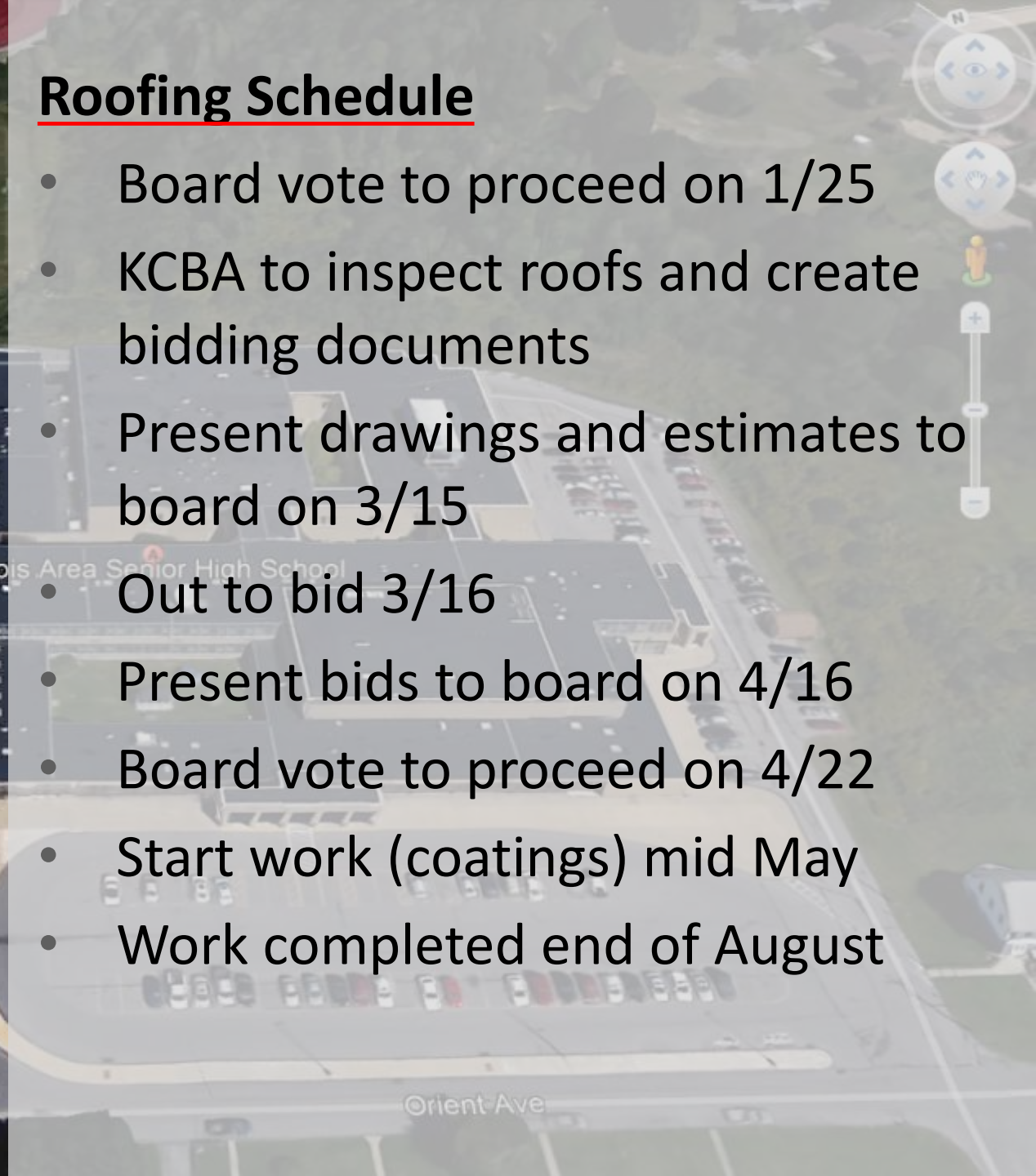
Cost Estimates:

• High School Type #1	Replace	\$80,000
• High School Type #2	Restore	\$475,000
• High School Type #3	Replace	\$2,200,000
• Middle School	Restore	\$457,000
• CG Johnson	Mix	\$750,000
		<u>TOTAL \$3,962,000</u>



Roofing Schedule

- Board vote to proceed on 1/25
- KCBA to inspect roofs and create bidding documents
- Present drawings and estimates to board on 3/15
- Out to bid 3/16
- Present bids to board on 4/16
- Board vote to proceed on 4/22
- Start work (coatings) mid May
- Work completed end of August

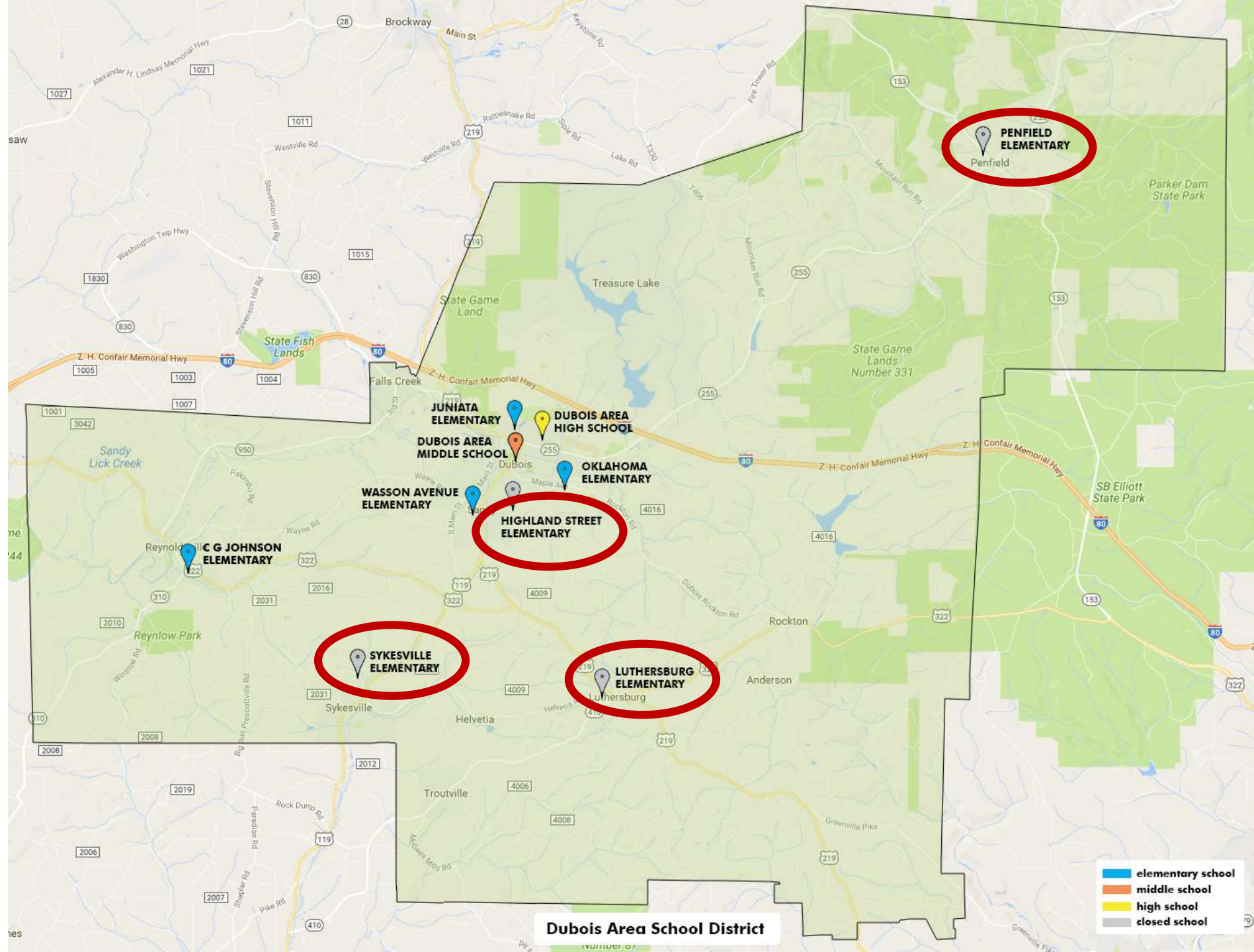


MASTER PLANNING FOCUS



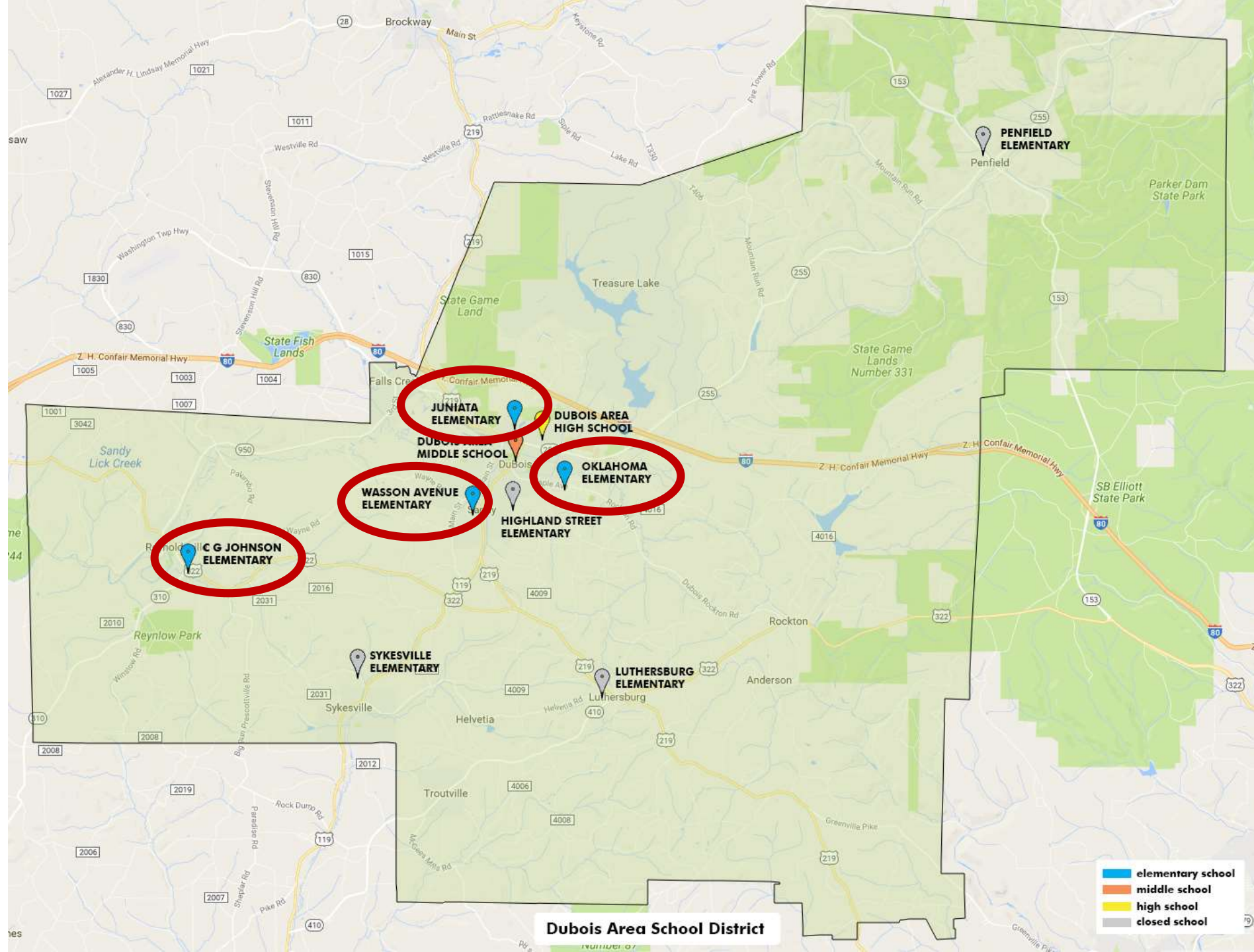
Dubois Area School District

- elementary school
- middle school
- high school
- closed school



Dubois Area School District

- elementary school
- middle school
- high school
- closed school





**JUNIATA
ELEMENTARY**

**DUBOIS AREA
HIGH SCHOOL**

**DUBOIS AREA
MIDDLE SCHOOL**

**WASSON AVENUE
ELEMENTARY**

**OKLAHOMA
ELEMENTARY**

**C G JOHNSON
ELEMENTARY**

**HIGHLAND STREET
ELEMENTARY**

Approach

An architectural analysis of both Wasson and Oklahoma Elementary Schools was conducted that evaluated the following:

- **Overall site and building functionality**
- **General condition (interior and exterior)**
- **Code compliance**
- **Safety and security**
- **Building systems (mechanical, electrical, and plumbing)**
- **Building capacity based on actual educational usage**



STUDENT CAPACITY

CAPACITY SUMMARY



Oklahoma Elementary School

Enrollment = 367

Capacity = 441 (83% or 21 kids/class)



Wasson Elementary School

Enrollment = 457

Capacity = 524 (87% or 22 kids/class)

CAPACITY SUMMARY

SPECIAL EDUCATION



Oklahoma Elementary School

- Emotional Support Classrooms (2)
- De-Escalation Room (in main office)
- Title One Classroom (in former storage room)
- Learning Support Classrooms (2)
 - One is in 445sf seminar room



Wasson Elementary School

- Autistic Support Classrooms (3)
- Sensory Room (1)
- Title One Classroom
- Learning Support Classrooms (2)
 - One room split into two smaller

CAPACITY SUMMARY

MUSIC, ART, SCIENCE (STEAM)



Oklahoma Elementary School

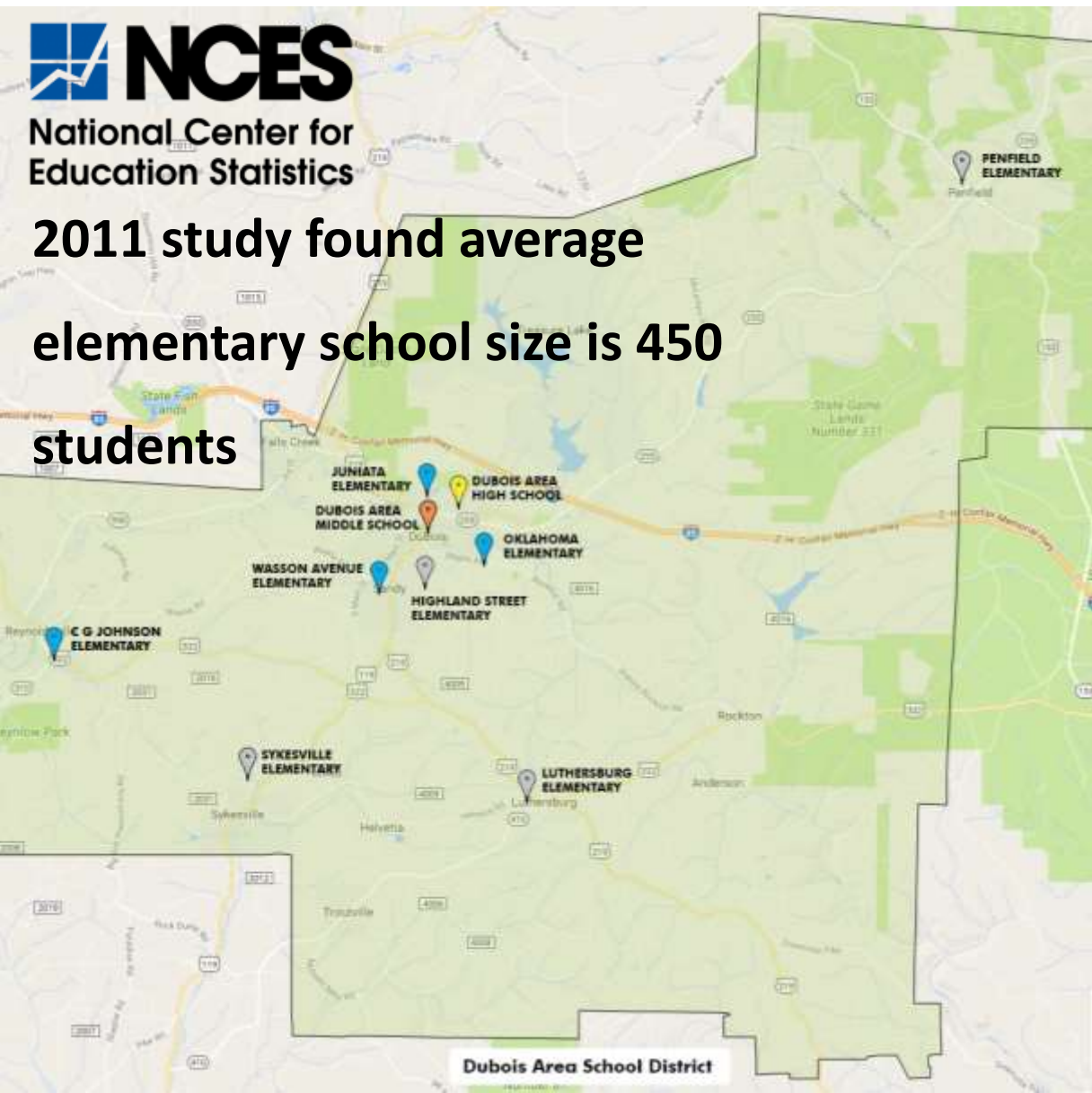
- Music Room in former storage room
 - Access through it to basement mechanical
- Art has been moved to general classroom
- No “Maker Space” included within school



Wasson Elementary School

- Music Room in Large Group auditorium
 - Stage and seating are not ADA compliant
- Art moved into Library with no dedicated storage
- No “Maker Space”

CAPACITY SUMMARY



Oklahoma Elementary: Capacity = 441

Wasson Elementary: Capacity = 457

Juniata Elementary: Capacity = 450

CG Johnson Elementary: Capacity = 475

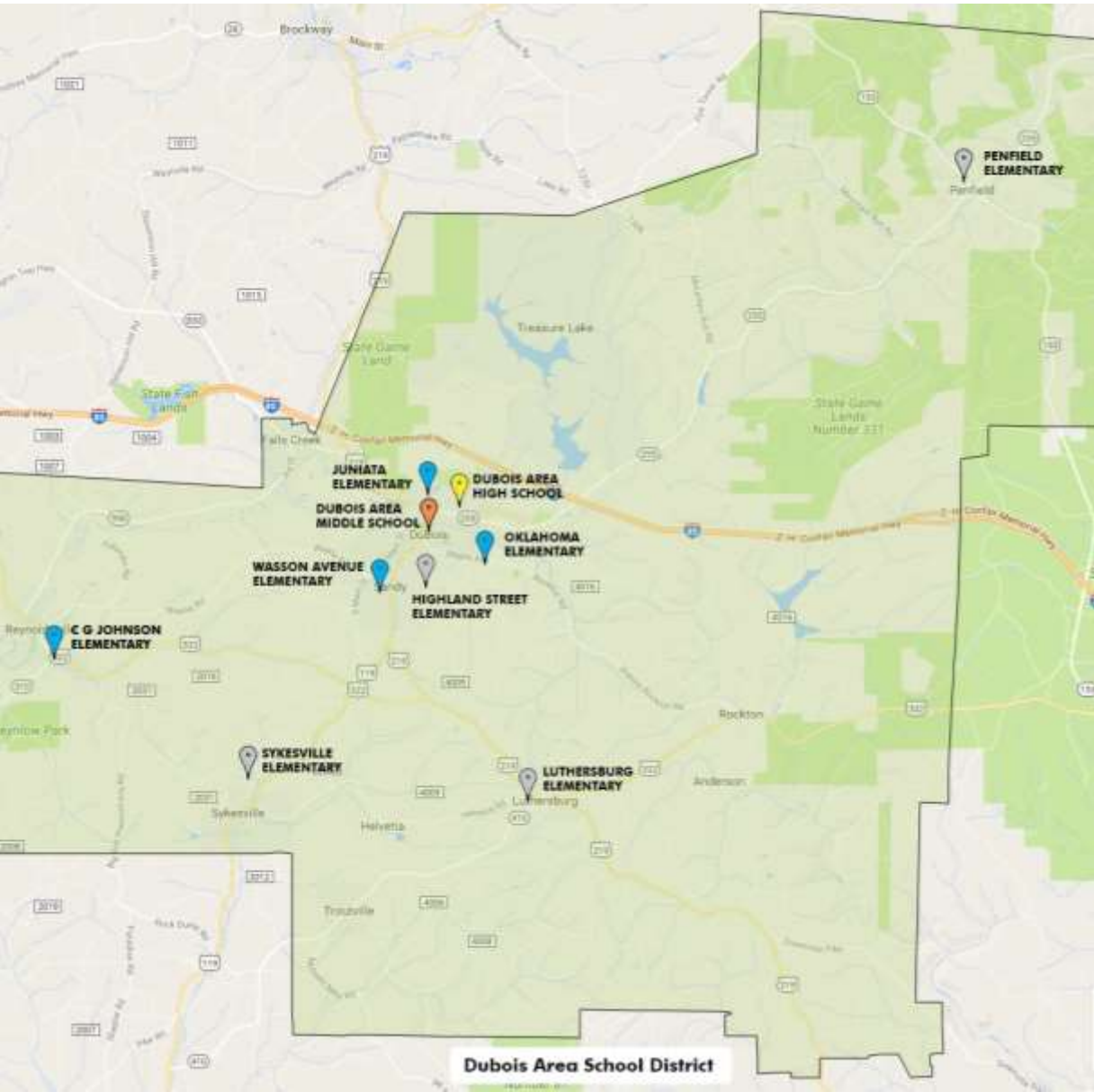
Penfield Elementary: Capacity = 175

Sykesville Elementary: Capacity = 150

Luthersburg Elementary: Capacity = 175

Highland Elementary: Capacity = 300

CAPACITY SUMMARY



Highland closed 2012: 143 students to Wasson

Sykesville closed 2017: 93 students to CG Johnson

Penfield closed 2017: 34 students to Juniata

Penfield closed 2017: 37 students to Oklahoma

Luthersburg closed 2017: 94 students to Wasson

*Improvements at Wasson and Oklahoma also positively effects students from Highland, Penfield, and Luthersburg.



Building Capacity and Student Enrollment

- Actual building capacity affected by educational use and regional special education needs
- Most schools operating within acceptable levels of capacity
- Needs for small group and conference spaces in both schools
- New curriculum initiatives (STEM, Maker Spaces, etc.) will further affect buildings' capacities

FACILITIES ASSESSMENTS





Five Key Points

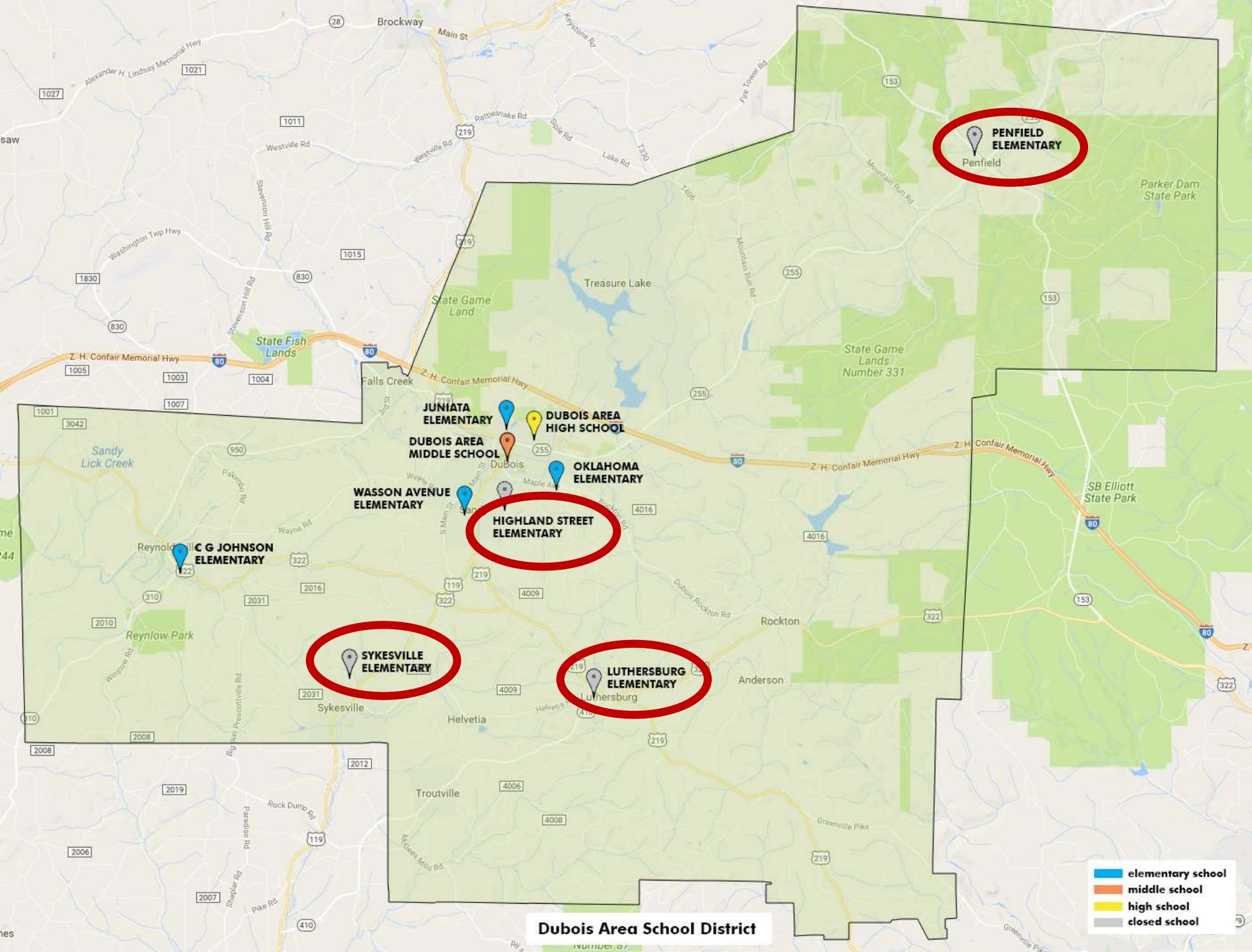
1. Both Wasson and Oklahoma Elementary Schools are in need of renovations
2. Aging infrastructure and changing educational goals - primary factors
3. Both need storage, small group spaces, technology upgrades, as well as music, art, and STEM education spaces. Both have shared gym/cafeterias.
4. Due to site size, it would be easier to expand Wasson than Oklahoma
5. Consideration should be given to consolidating both schools

BUILDING OPTIONS

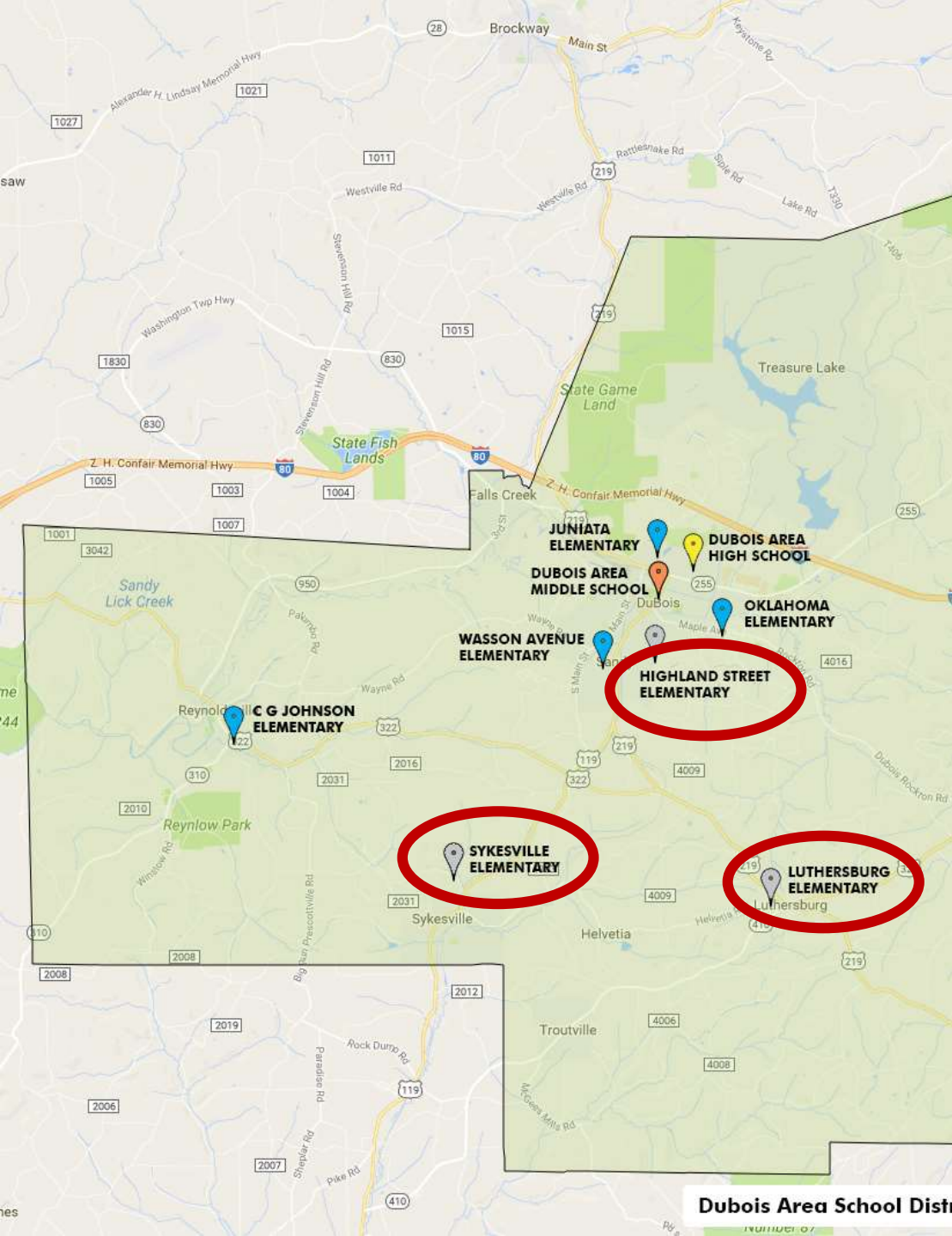
Oklahoma Technology School

1032





Dubois Area School District



Renovation savings as result of consolidation

- Penfield Elementary – 19,500sf at \$160/sf = \$4,965,234 total project costs
- Highland Elementary – 32,200sf at \$160/sf = \$8,080,957 total project costs
- Luthersburg Elem. – 27,244sf at \$160/sf = \$6,865,089 total project costs
- Sykesville Elementary – 25,825sf at \$160/sf = \$6,516,962 total project costs



Renovation savings as result of consolidation

- Penfield Elementary = \$4,965,234
- Highland Elementary = \$8,080,957
- Luthersburg Elem. = \$6,865,089
- Sykesville Elementary = \$6,516,962

TOTAL SAVINGS = \$26,428,241



Renovation savings as result of consolidation

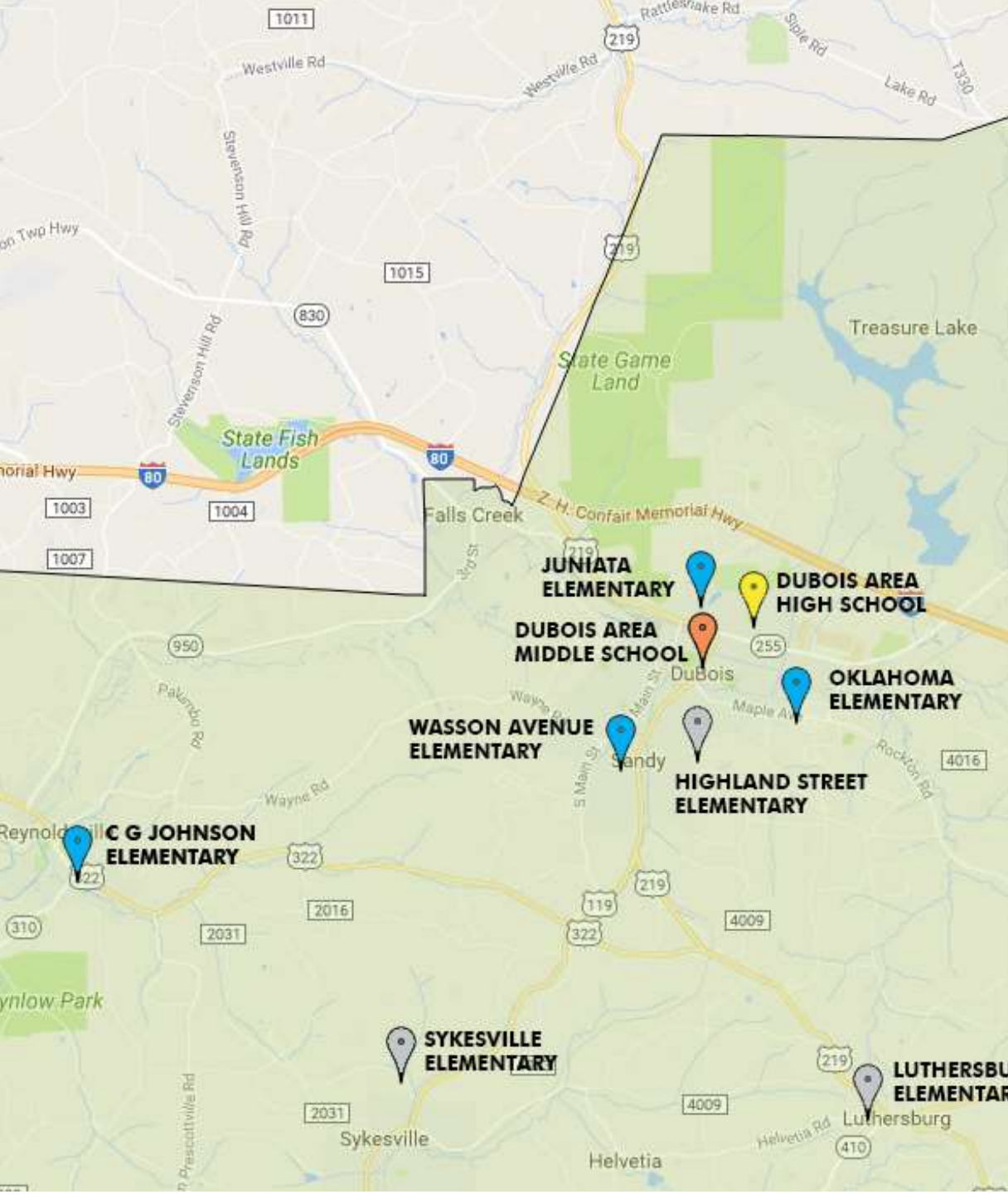
Number of students at time of closing:

- Penfield Elementary = 71 students
- Highland Elementary = 143 students (2013)
- Luthersburg Elem. = 94 students
- Sykesville Elementary = 93 students



2011 Study:

**National Average Primary
School Enrollment = 450**



- Juniata Elementary: Last Renovated in 2012
- CG Johnson Elementary: Last Renovated in 2000
- Oklahoma Elementary: Last Renovated in 1994
- Wasson Elementary: Built in 1977, no work since



OPTIONS TO CONSIDER:

- 1. Renovations to both Wasson and Oklahoma**
- 2. Renovations and additions to both schools**
- 3. Renovation and enlargement of Wasson to consolidate Oklahoma**
- 4. New school at Wasson**
- 5. New larger school at Wasson to consolidate Oklahoma**
- 6. Grade reconfiguration for additional options**



Benefits to consolidation:

1. Reduce operating costs from smaller, older schools
2. Promotes staff efficiency
3. Shared resources for students
4. Financial gain of property sales
5. Less buildings in need of major repairs and upgrades

HOPEWELL ELEMENTARY SCHOOL
SOUTHERN LEHIGH SCHOOL DISTRICT



Energy Analysis:

- **Annual energy costs for Wasson and Oklahoma = \$129,623**
(**\$1.31 / squarefoot**)
- **Juniata is DASD best performing**
(**\$1.04 / squarefoot**)
- **New LEED Silver school**
(**\$0.86 / squarefoot**)
- **\$69,423 annual energy cost savings**
(Based on 70,000sf new school)



Keb Architects

Wasson Elementary School
DuBois Area School District
DuBois, Pennsylvania

DUBOIS AREA SCHOOL DISTRICT BUILDING CAPACITY

2017 EXISTING CONDITIONS

SCHOOL	GRADES	CAPACITY	ENROLLMENT (2017/18)	DIFFERENCE	UTILIZATION
C.G. Johnson	K-5	475	372	103	78.32%
Juniata	K-5	500	408	92	81.60%
Oklahoma	K-5	441	361	80	81.86%
Wasson	K-5	500	438	62	87.60%
Middle School	6-8	1,349	836	513	61.97%
High School	9-12	1,372	1,053	319	76.75%
TOTAL	K-12	4,637	3,468	1,169	74.79%

Elementary class size

21

Issues

- Aging buildings at Wasson and Oklahoma
- Roof work needed at High School and CG Johnson
- Paving work needed at Middle School and High School
- Limited budget

DUBOIS AREA SCHOOL DISTRICT BUILDING CAPACITY

BUILD NEW WASSON, KEEP OK, ELEMENTARY TO K-4, MIDDLE SCHOOL TO 5-8

SCHOOL	GRADES	CAPACITY	ENROLLMENT (2017/18)	DIFFERENCE	UTILIZATION
C.G. Johnson	K-4	475	325	150	68.42%
Juniata	K-4	500	345	155	69.00%
Oklahoma	K-4	441	300	141	68.03%
Wasson	K-4	500	345	155	69.00%
Middle School	5-8	1,349	1,100	249	81.54%
High School	9-12	1,372	1,053	319	76.75%
TOTAL	K-12	4,637	3,468	1,169	74.79%

Elementary class size

17

Summary

- Moves 5th Grade to Middle School
 - Earlier introduction to science and technical education

DUBOIS AREA SCHOOL DISTRICT BUILDING CAPACITY

BUILD NEW WASSON, CLOSE OK, ELEMENTARY TO K-4, MIDDLE SCHOOL TO 5-8

SCHOOL	GRADES	CAPACITY	ENROLLMENT (2017/18)	DIFFERENCE	UTILIZATION
C.G. Johnson	K-4	475	425	50	89.47%
Juniata	K-4	500	440	60	88.00%
Oklahoma					
Wasson	K-4	500	450	50	90.00%
Middle School	5-8	1,349	1,100	249	81.54%
High School	9-12	1,372	1,053	319	76.75%
TOTAL	K-12	4,196	3,468	728	82.65%

Elementary class size

22

Summary

- Closes Oklahoma Elementary School
 - Smaller new Wasson creates higher class size

DUBOIS AREA SCHOOL DISTRICT BUILDING CAPACITY

BUILD NEW WASSON, CLOSE OK, ELEMENTARY TO K-4, MIDDLE SCHOOL TO 5-8

SCHOOL	GRADES	CAPACITY	ENROLLMENT (2017/18)	DIFFERENCE	UTILIZATION
C.G. Johnson	K-4	475	425	50	89.47%
Juniata	K-4	500	440	60	88.00%
Oklahoma					
Wasson	K-4	500	450	50	90.00%
Middle School	5-8	1,349	1,100	249	81.54%
High School	9-12	1,372	1,053	319	76.75%
TOTAL	K-12	4,196	3,468	728	82.65%

Elementary class size 22

Pros

- Shared resources in one new elementary school
- Eliminates operating cost of Oklahoma Elementary School

Pros

- All schools near 82% utilization
- 5th Grade enhanced science, art, technical education (STEAM)

Costs

- \$23.5 million total project cost

DUBOIS AREA SCHOOL DISTRICT BUILDING CAPACITY

BUILD BIG NEW WASSON, CLOSE OK, ELEMENTARY TO K-4, MIDDLE SCHOOL TO 5-8

SCHOOL	GRADES	CAPACITY	ENROLLMENT (2017/18)	DIFFERENCE	UTILIZATION
C.G. Johnson	K-4	475	390	85	82.11%
Juniata	K-4	500	410	90	82.00%
Oklahoma					
Wasson	K-4	625	515	110	82.40%
Middle School	5-8	1,349	1,100	249	81.54%
High School	9-12	1,372	1,053	319	76.75%
TOTAL	K-12	4,321	3,468	853	80.26%

Elementary class size

21

Summary

- Closes Oklahoma Elementary School
 - Larger new Wasson provides more space in elementary schools

DUBOIS AREA SCHOOL DISTRICT BUILDING CAPACITY

BUILD BIG NEW WASSON, CLOSE OK, ELEMENTARY TO K-4, MIDDLE SCHOOL TO 5-8

SCHOOL	GRADES	CAPACITY	ENROLLMENT (2017/18)	DIFFERENCE	UTILIZATION
C.G. Johnson	K-4	475	390	85	82.11%
Juniata	K-4	500	410	90	82.00%
Oklahoma					
Wasson	K-4	625	515	110	82.40%
Middle School	5-8	1,349	1,100	249	81.54%
High School	9-12	1,372	1,053	319	76.75%
TOTAL	K-12	4,321	3,468	853	80.26%

Elementary class size

21

Pros

- Shared resources in one new elementary school
- Eliminates operating cost of Oklahoma Elementary School

Pros

- All schools near 82% utilization
- 5th Grade enhanced science, art, technical education (STEAM)

Costs

- \$27 million total project cost

OPTIONS SUMMARY

- **Wasson and Oklahoma Elementary Schools have the greatest building needs**
- **Both would need to expand to solve educational and safety concerns**
- **Results would be costly and with compromised school buildings**



OPTIONS SUMMARY

- **Wasson site best allows for new facility**
- **Shifting grades into High School not desired result**
- **5th Grade into Middle School more efficient and reduces size of new Elementary School**



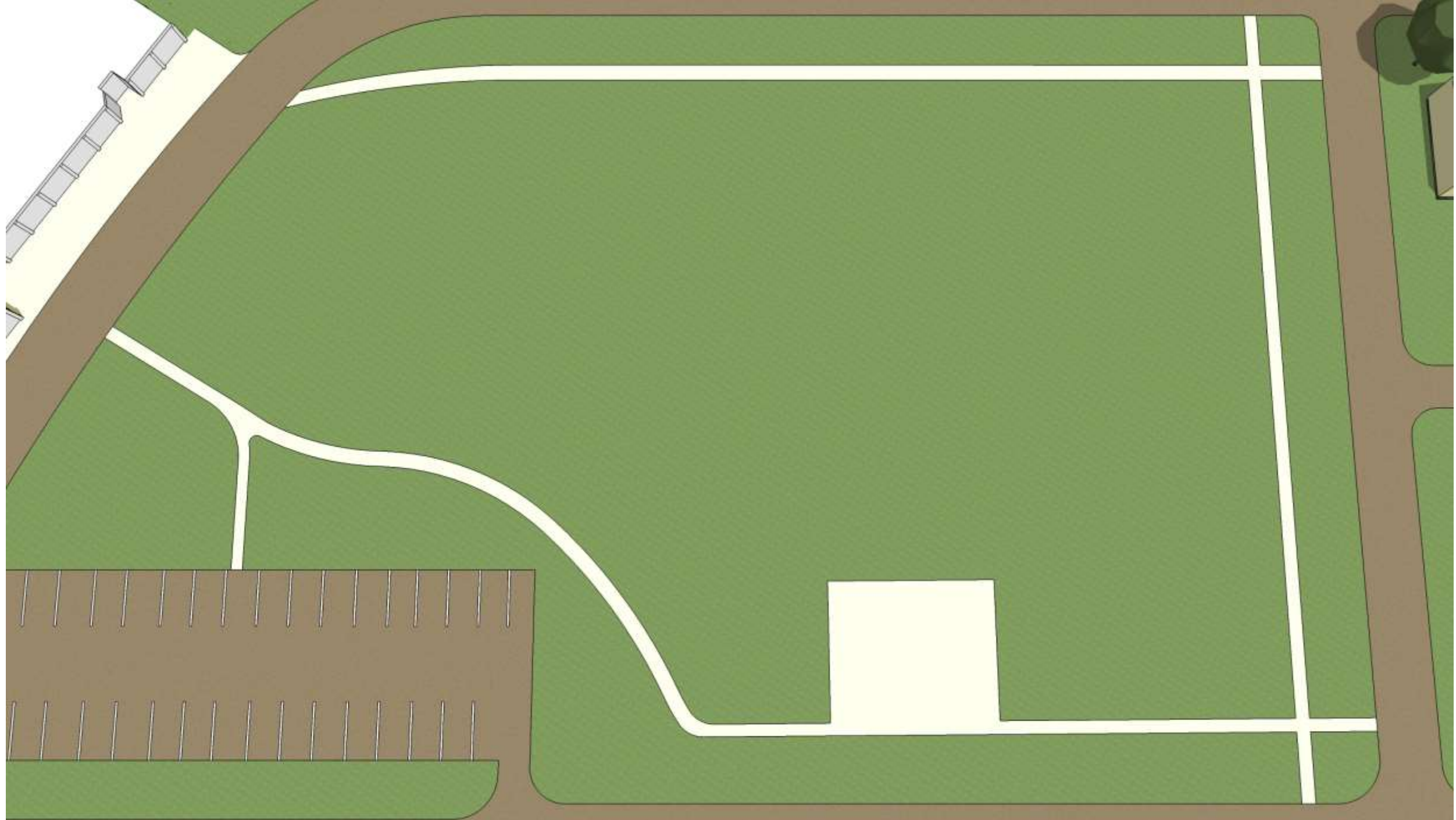
A group of diverse children are gathered in a circle, with their hands raised in the air. The image is overlaid with a semi-transparent green filter. The text "VISION FOR A NEW WASSON ELEMENTARY SCHOOL" is centered over the image in a bold, grey, sans-serif font. The children are wearing various clothing, including a green t-shirt with a drawing of a house and the word "Wasson" on it, and a purple dress. The background is slightly blurred, showing an outdoor setting.

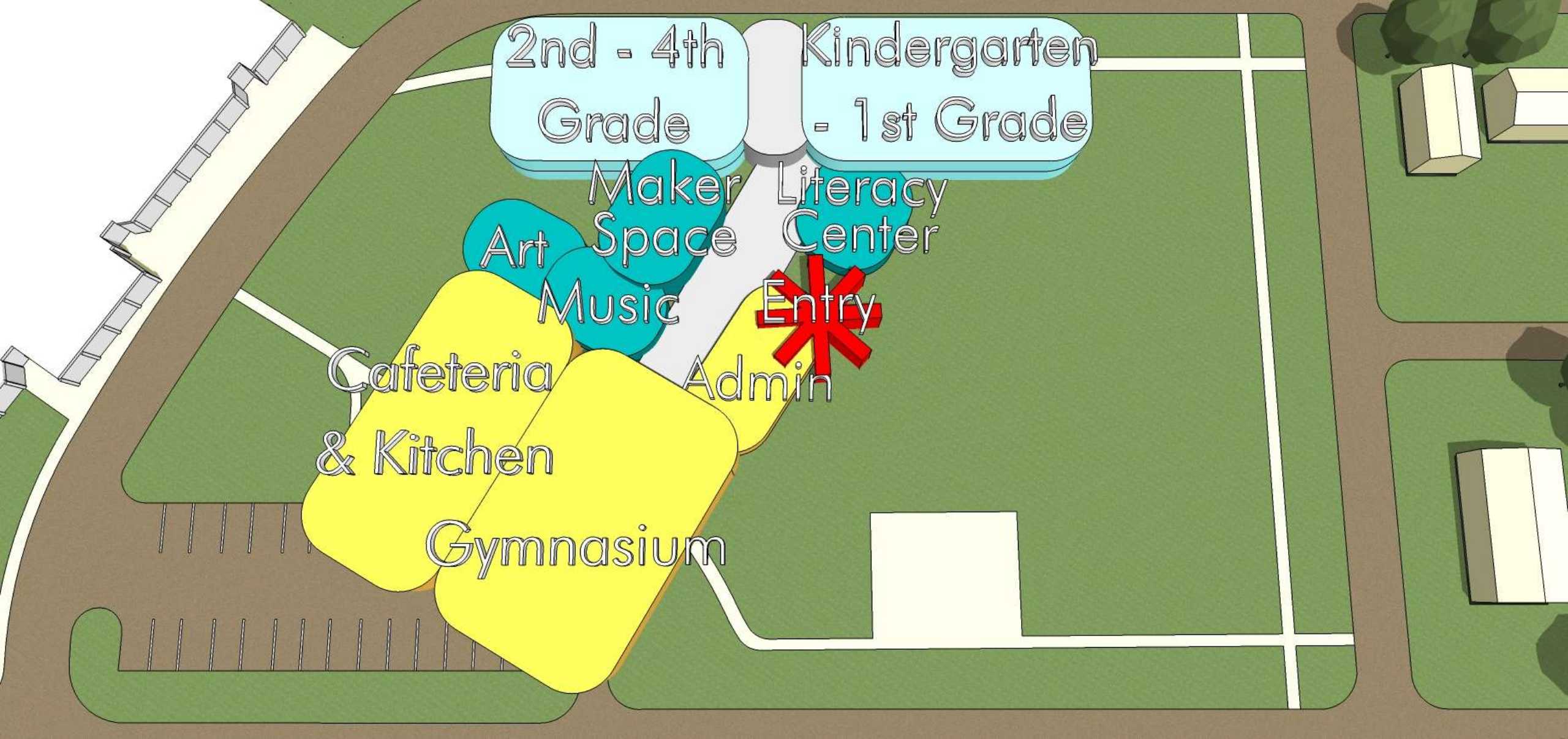
**VISION FOR A
NEW WASSON
ELEMENTARY SCHOOL**

A site plan diagram showing a sloped area on the left and a flat area on the right. The sloped area contains a large white building and a parking lot. The flat area contains a smaller white building and a parking lot. The site is surrounded by green trees and a road network.

**SLOPED AREA
OF THE SITE**

**FLAT AREA OF
THE SITE**





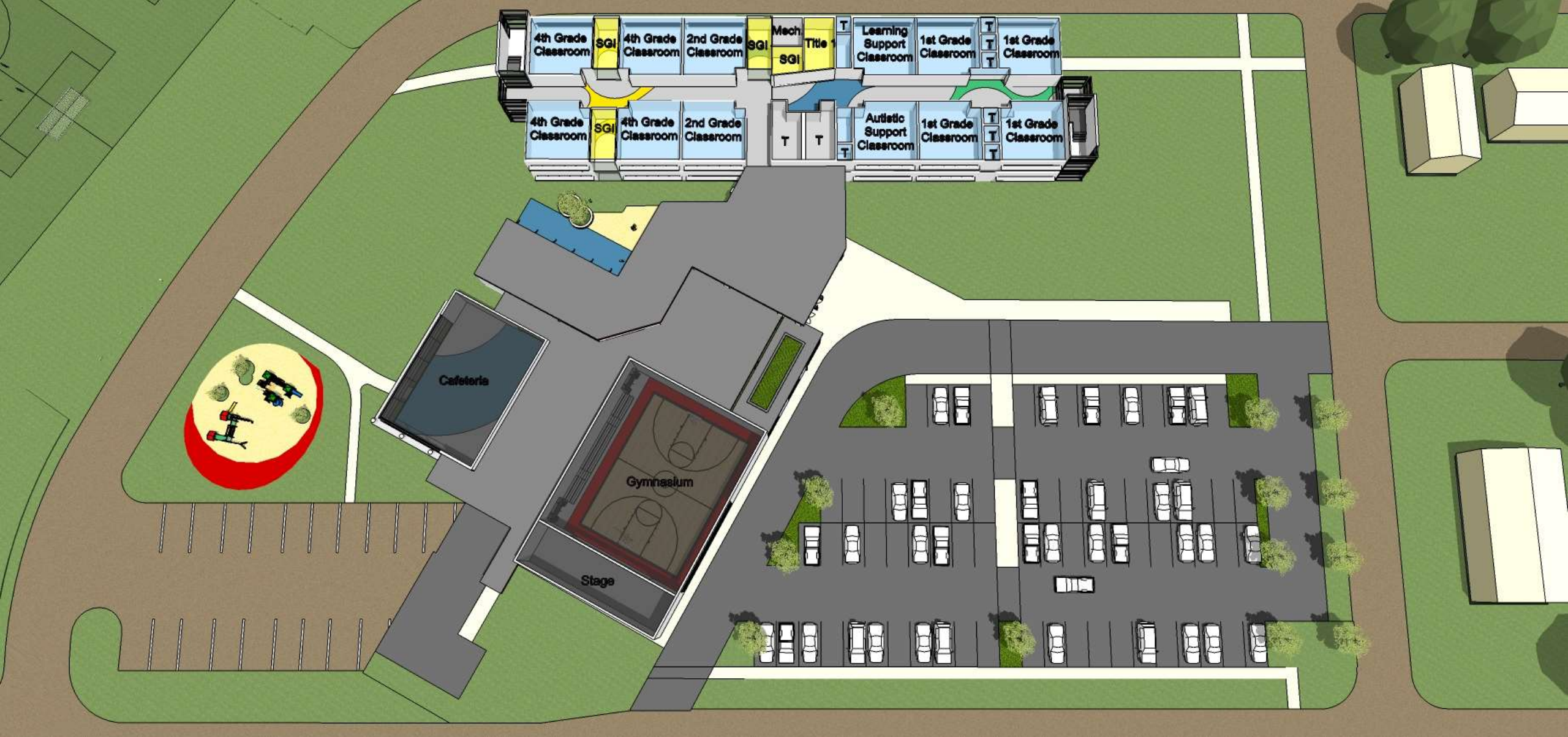
Proposed New Elementary School at Wasson

70,000sf school for 500 students



Proposed New Elementary School at Wasson

70,000sf school for 500 students



Proposed New Elementary School at Wasson

70,000sf school for 500 students



Proposed New Elementary School at Wasson

70,000sf school for 500 students



70,000sf school for 500 students:

- K-4 grade structure
- 4 classrooms per grade
- 2 Austistic Support classrooms
- 2 Learning Support classrooms
- Art, Music, STEM, & Literacy Center

70,000sf @ \$230/sf = \$16,100,000

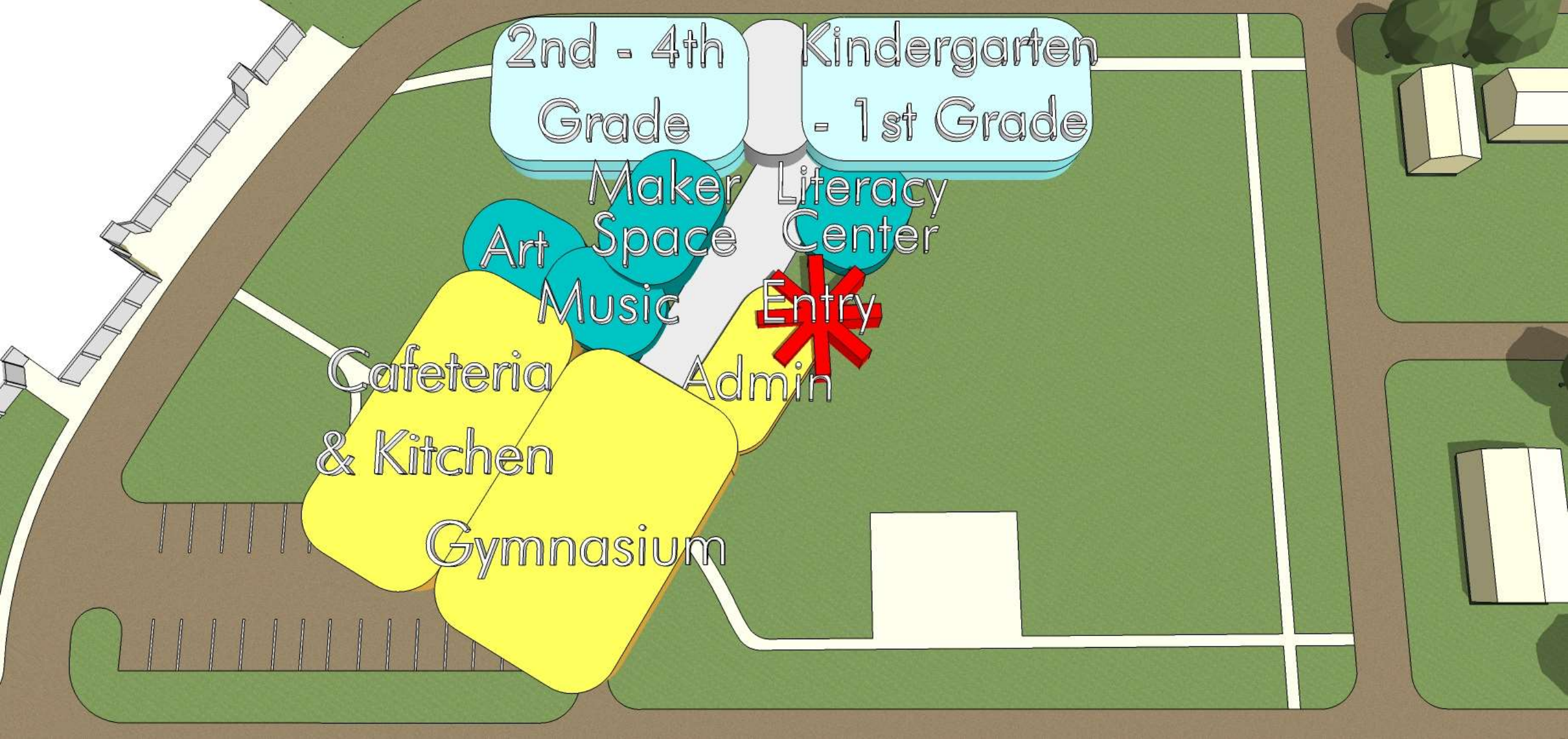
Site work = \$2,415,000

5% Contingency = \$925,750

Construction Total = \$19,440,750

Total Project Costs = \$23,440,085

Proposed New Elementary School at Wasson
70,000sf school for 500 students



Proposed New Elementary School at Wasson

70,000sf school for 500 students



Proposed New Elementary School at Wasson

81,000sf school for 625 students



Proposed New Elementary School at Wasson

81,000sf school for 625 students



Proposed New Elementary School at Wasson

81,000sf school for 625 students



Proposed New Elementary School at Wasson

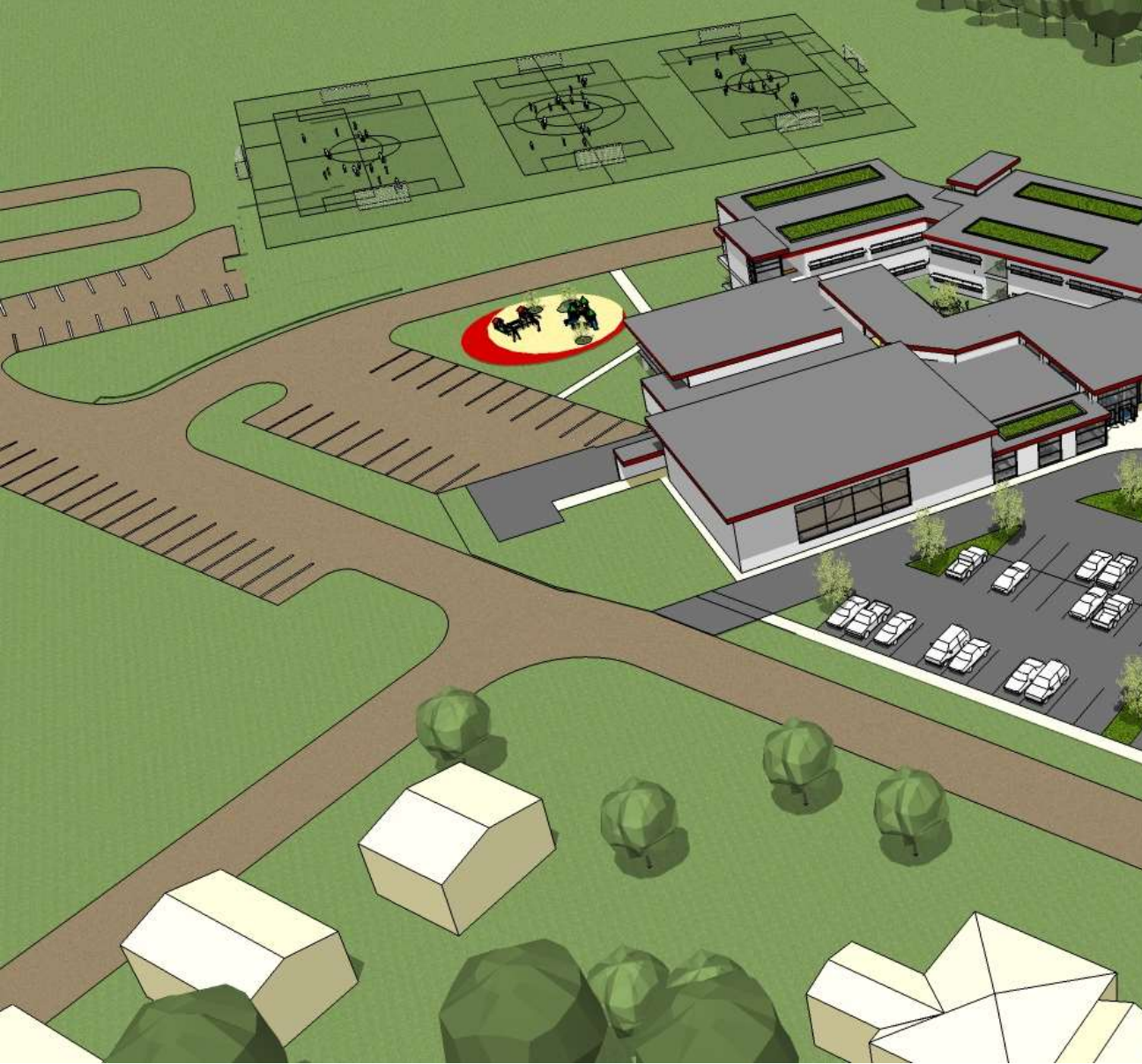
70,000sf school for 500 students





Proposed New Elementary School at Wasson

81,000sf school for 625 students



81,000sf school for 625 students:

- K-4 grade structure
- 5 classrooms per grade
- 2 Austistic Support classrooms
- 3 Emotional Support classrooms
- 2 Learning Support classrooms
- Art, Music, STEM, & Literacy Center

81,000sf @ \$230/sf = \$18,630,000

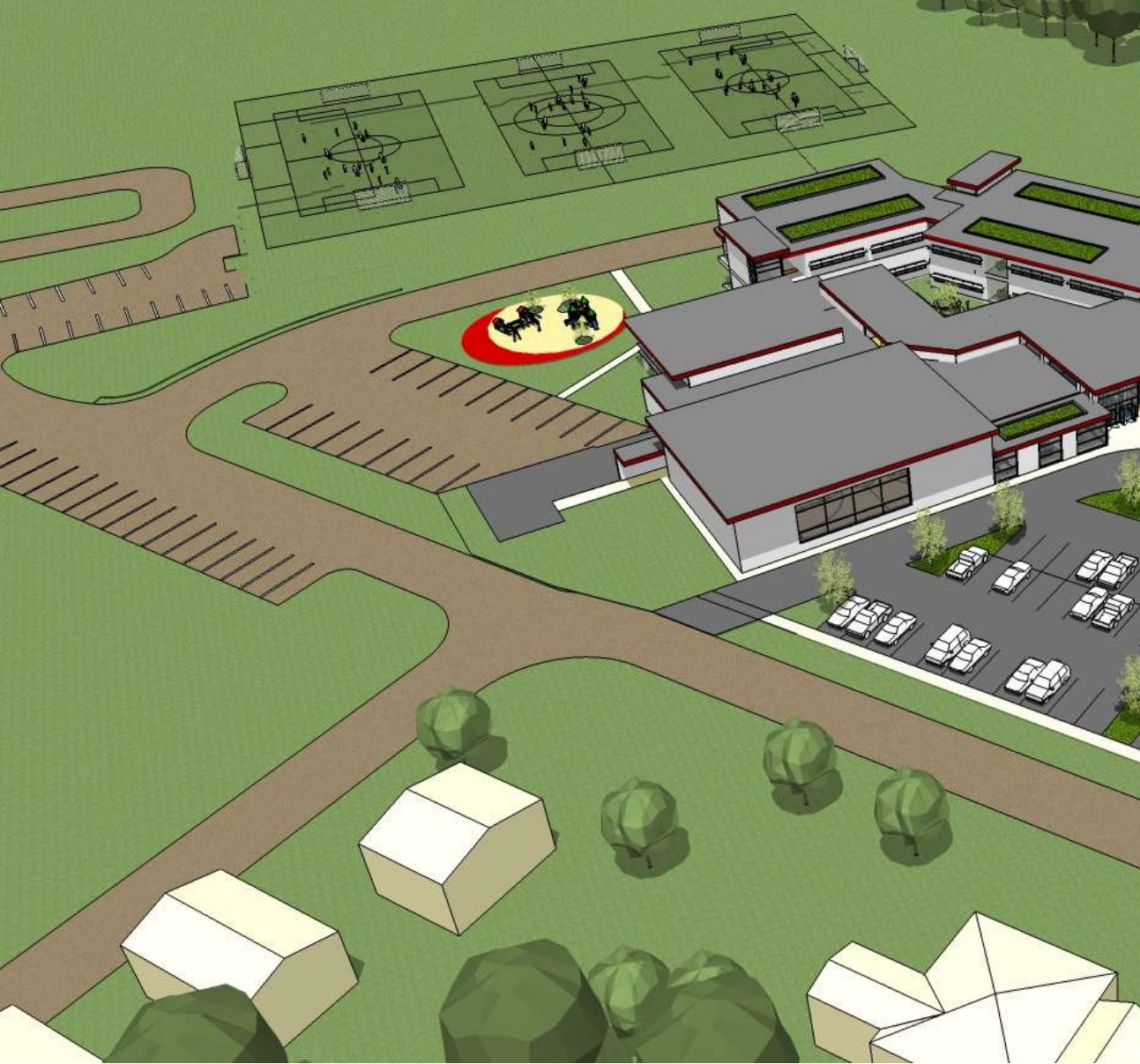
Site work = \$2,794,500

5% Contingency = \$1,071,225

Construction Total = \$22,495,725

Total Project Costs = \$27,044,956

Proposed New Elementary School at Wasson
81,000sf school for 625 students



New School at Wasson Summary:

- **Renovation of existing school provides short term options, with some educational compromises, and a less energy efficient facility.**
- **Even a smaller new Wasson provides better long term options and a more energy efficient facility**
- **Costs range from \$23M to \$27M**

Proposed New Elementary School at Wasson
81,000sf school for 625 students

FOUR KEYS TO CONSIDER:

- 1. Safety and security needs at Wasson and Oklahoma**
- 2. Address roof leaks and water infiltration... it only gets worse**
- 3. Prioritize educational goals**
- 4. Create long-term facilities master plan to budget and implement these goals**



A group of children are gathered in a circle, some with their hands raised. Two children in the foreground wear green t-shirts with the text 'Familienzentrum' and a drawing of a house and sun. The word 'DISCUSSION' is overlaid in large, bold, black letters across the center of the image.

DISCUSSION