

Educational Facility Master Plan Update

Bowling Green City School District Board of Education
August 30, 2023



 **DLRGROUP**

EMERSION
DESIGN

Introductions

Your Team



Dusty Lake, AIA, ALEP
K-12 Client Leader, Design Lead



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K-12 Education Planner



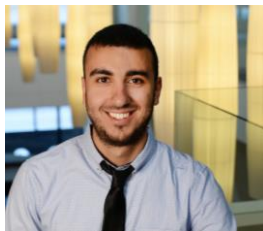
Christie Boron, ALEP, RA, LEED AP
K-12 Educational Planner, Programmer
Emersion DESIGN



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Project Manager



Tim Shimp, Ed.D.
Teaching and Learning
Designer



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Architect, Project Designer



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High-Performance Designer



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Engineering Lead
CMTA

WELCOME

Agenda

- 01 Timeline
- 02 Recap
BOLD and VALUES and Focus Groups
- 03 District Wide Educational FMP
- 04 High School program of Requirements
- 05 High School Themes I Concept I Planning
- 06 Exterior Visioning



Timeline

TIMELINE

Outlining Our Process

June 1 – June 11

1 Discover

Kick-Off June 1:

- » BG School Site Visits
- » OFCC Planning

Meetings:

- » Bi-weekly meetings scheduled with core team (every other Thursday)

District Data

- » Collect
- » Review
- » Organize

June 12 – June 30

2 Launch

Workshops and Focus Groups:

Weeks of June 12 and 19

- » District wide BOLD and VALUES Workshops
- » Virtual HS Focus Group Meetings (9 total)

Meetings:

- » Bi-Weekly meeting check in with core team – POR and Bond alignment
- » **June 29** POR approval meeting with Dan Black

July 1 – August 8

3 Synthesize

HS Visioning Presentation:

July 14

- » Development of HS story, concepts, program, siting, massing and materials

Sustainability Presentation:

July 20

HS Plan Presentation:

July 28

- » HS conceptual floor plan

HS Exterior Presentation:

August 8

- » HS exterior concepts (2)

Meetings:

- » Bi-Weekly meeting check in with core team

August 9 – August 31

4 Report

- » Refinement of exterior HS concept and conceptual floor plan
- » Development of the EFMP

Special Session Board Meeting: Aug 30

- » Presentation of EFMP process and HS design

Meetings:

- » Bi-Weekly meeting check in with core team and updates regarding EFMP template and messaging

September 1 – September 19

5 Recommend

Final Draft of EFMP for review by Core Team Sept. 1

Final EFMP deliverable on Sept. 19

- » Additional renderings
- » Video fly over – 360 view of new HS and site

Meetings:

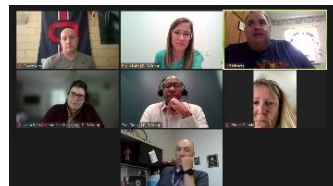
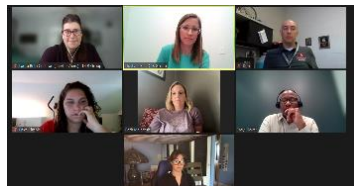
- » Bi-Weekly meeting check in with core team

A black and white photograph of a diverse group of children of various ages and ethnicities. They are all smiling and posing enthusiastically in front of a modern, multi-story school building with large windows and a playground area visible in the background. Some children are making peace signs or pointing towards the camera. The overall mood is joyful and energetic.

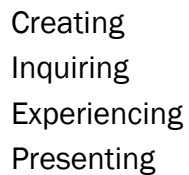
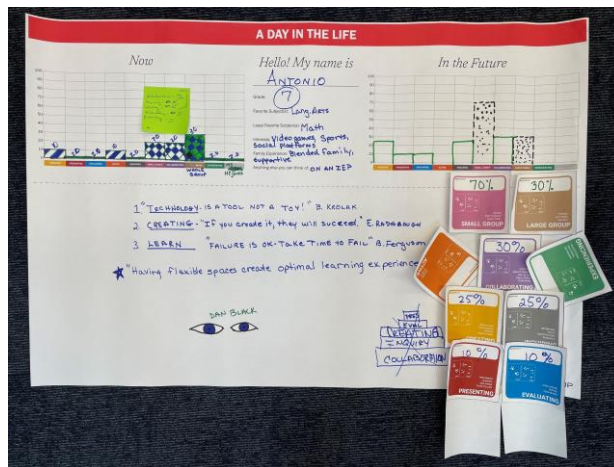
Recap of Workshops BOLD and VALUES and Focus Groups

Workshops and Sessions

District Commitment



BOLD Bridging Organization, Leadership and Design



Small Group
Active
Large Group Evaluating
Collaborating

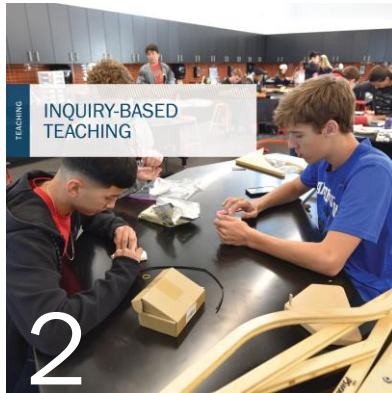
Workshops and Sessions – District Wide

BOLD Bridging Organization, Leadership and Design

Learning

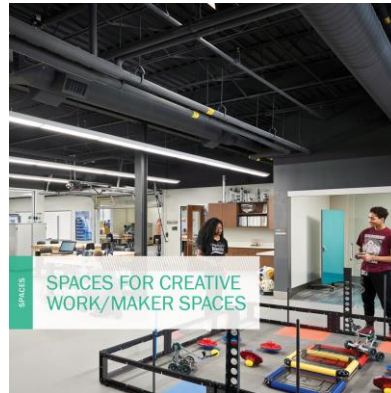


Teaching



Workshops and Sessions – District Wide

BOLD Bridging Organization, Leadership and Design



BOLD Bridging Organization, Leadership and Design

Furniture



Technology



Safety



VALUES

Viewing Architecture Thru the Lens of User Experience and Sustainability



Amplify Community Access and Partnerships

Community support and partnerships will amplify student success. Partnerships should offer comprehensive education opportunities that meet community needs and provide students opportunities around future careers. The school buildings should be made more accessible for community use.

Sense of Belonging

The student population comes from a variety of socioeconomic backgrounds and the buildings should be reflective of the students. Allocation of and access to resources shall be equitable within the district and community. Participants emphasized the importance of creating a welcoming, accessible, and emotionally safe experience for all.

Energy Reduction

How can the selection of major building systems, overall building maintenance, and spatial comfort relate to reduction in operating costs and the beautification of learning environments?

VALUES Viewing Architecture Thru the Lens of User Experience and Sustainability



Physical and Mental Safety

What strategies can be implemented to ensure the safety and security of staff, teachers, and students while in school while also considering the emotional well-being of everyone.

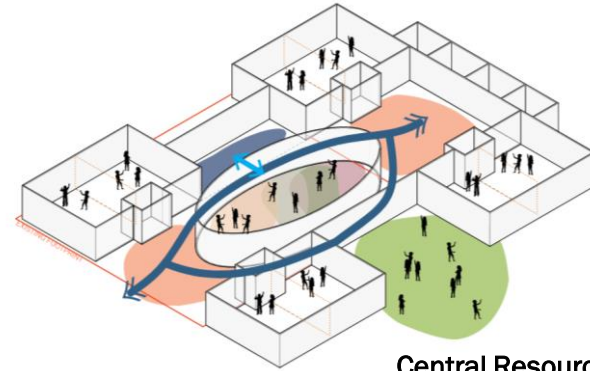


Pride in Bowling Green Schools

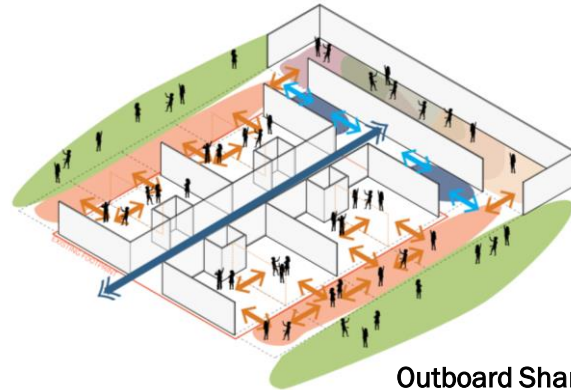
How can a classroom, dining commons, music room, or an exterior courtyard portray the cultural identity of students and the surrounding communities to create a place that the students are proud to be apart of, and how does the history of the school get threaded through the fabric of the new spaces?

Focus Groups

- How should Academic spaces within a 9-12 school be structured to support the current curriculum and to meet the needs of students?
- Which design features would you recommend for Academics areas that would better support the current and future instructional philosophy or approach?
- Are there general and specific Academic spaces currently not met but should be defined for the future? If so, what are they?



Central Resource Space



Outboard Shared Spaces

District Wide Educational FMP

Bowling Green High School X

DESIGNING THE FUTURE

THE SIX CS

Character Education

Critical Thinking

Communication

Creativity

Collaboration

Citizenship

The Six Cs of Education: Planning and Design

Source: Clayton (2016, 2017)

DESIGNING THE FUTURE

AND

STRATEGIES

Problems, there
not well planned
to. When done

The physical
to outcomes.

Spouse on
an open-
ended
topic, re-
visits
today's

Future-facing learning environments adapt and
change as customizable tools that can respond to
different teaching approaches and individual learner
preferences. Learning environments that are flexible
and adaptable ensure that all learners have access
to the best learning experiences possible. When the
built environment can adapt to the needs of the
learner, it can help to create a more inclusive and
personalized learning experience. Additional design
principles, including the building of a strong
foundation, individualization, and innovation can impact student
health, wellness, and positive learning outcomes.

Considering the six strategies, illustration 2 shows the
impact special interest has on student design learning.
Phase A and B also lead to low impact learning
strategies while Phase C and D are least to high
impact learning. When students and teachers are
able to recognize their systems, move around, and
have choice, student and teacher engagement and
success improves.

Illustration 2: Impact of Special Interest on Student Design Learning

Source: Clayton (2016, 2017)

Building and Site Considerations

- Building Envelope
- Geothermal Heating and Cooling
- Renewable Energy – Solar Panel Ready
- Water Systems
- Lighting
- Indoor Air Quality



BUILDING



NEIGHBORHOOD

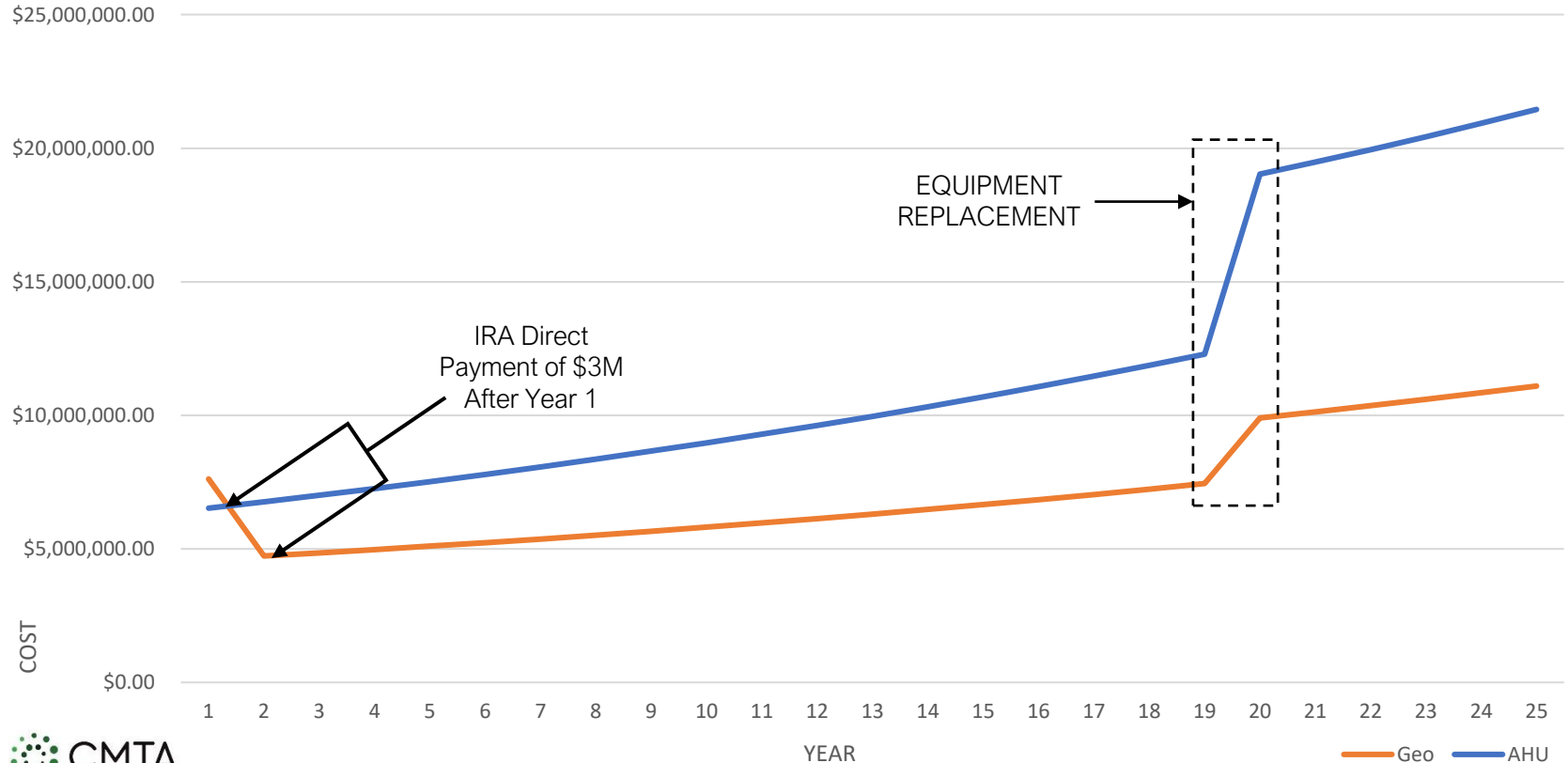


REGION

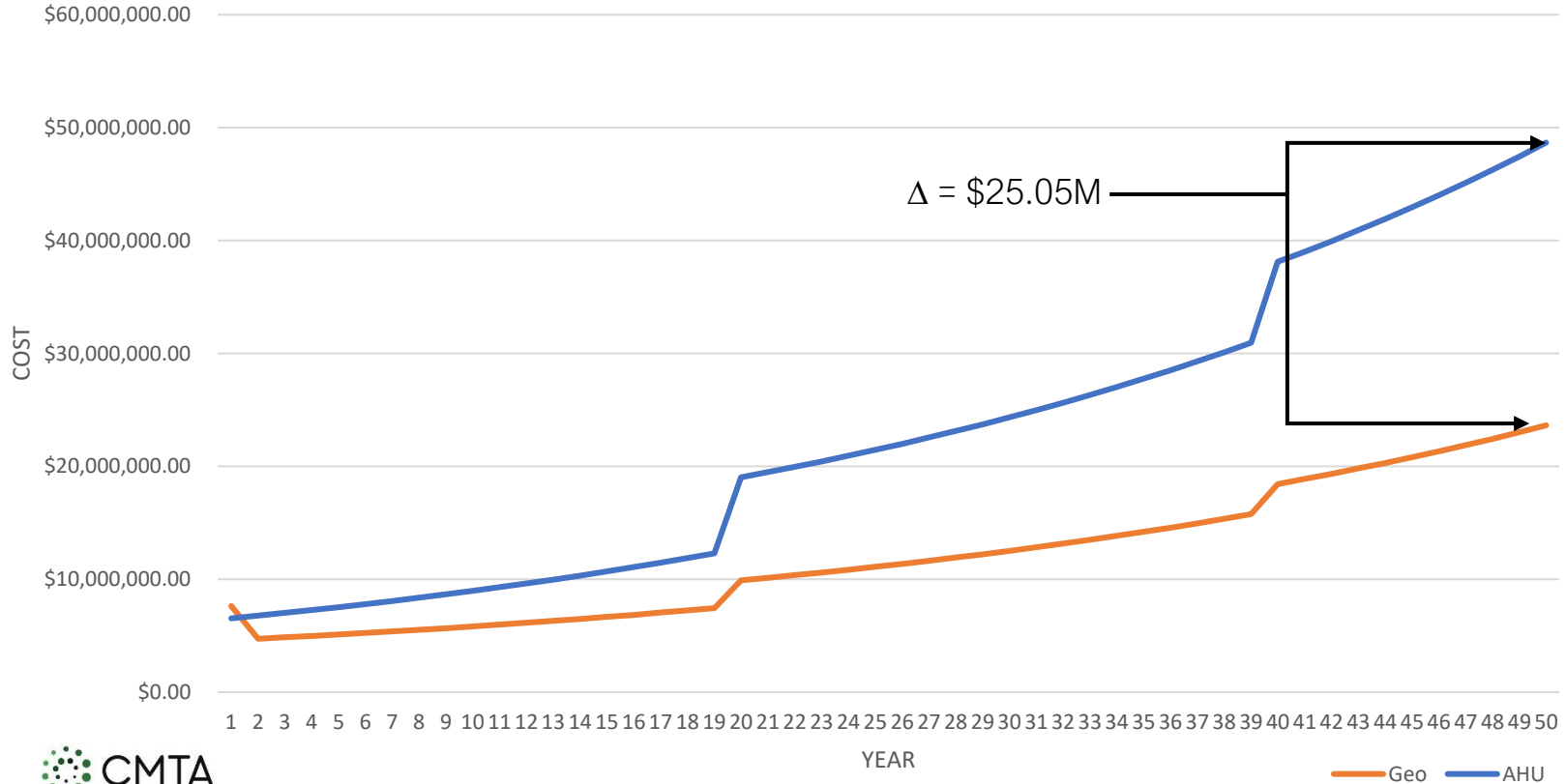


PLANET

Life Cycle Cost Analysis – 25 yr



Life Cycle Cost Analysis – 50 yr



High School Program of Requirements

HS Program

Program Area		Exsting BG HS SF	REQUESTED	SUGGESTED BASED ON 150,000 SF
H-AD	Administrative Spaces	5,655	5,730	4,670
H-AC	Academic Core Spaces	33,275	37,690	33,880
H-SE	Special Education Spaces	5,807	5,500	3,850
H-MC	Media Center Spaces	4,817	4,368	4,570
H-VA	Visual Arts Spaces	6,558	5,000	5,000
H-MU	Music Spaces	10,369	10,850	6,390
H-TE	Technology Education Spaces	8,413	11,770	7,540
H-BE	Business Education Spaces	2,961	2,210	2,010
H-FCS	Family and Consumer Science Spaces	1,134	2,800	1,600
H-SD	Student Dining Spaces	4,976	5,680	5,080
H-PE	Physical Education Spaces	28,695	30,470	25,370
H-FS	Food Service Spaces	2,188	3,043	3,015
H-CU	Custodial Spaces	0	500	500
Facility Subtotal:		114,848	125,611	103,475
H-BS	Building Services	38,762	40,196	32,732
Facility Total		153,610	165,807	136,207
*Construction Factor (11% multiplied by the facility total)		0.16	0.11	0.11
Gross Square Feet (GSF) Developed		178,184	184,045	151,190
<i>Difference of Square footage from targeted 150K</i>		28,184	34,045	1,190

OFCC EX FOR DIFF BG ENROLMENT PROJECTIONS		
5YR ENROLL: 610 149 CT	10YR ENROLL: 642 148 CT	PreCovid Enroll: 750 100 CT
4,415	4,415	4,415
27,570	29,495	32,620
3,100	3,100	3,100
4,405	4,630	4,930
2,900	2,900	2,900
4,970	4,970	4,970
3,600	3,600	7,200
2,100	2,100	2,100
1,600	1,600	2,800
5,372	5,809	6,247
16,950	16,950	16,950
2,490	2,753	3,015
500	500	500
79,972	82,822	91,747
25,423	26,290	29,003
105,395	109,111	120,750
0.11	0.11	0.11
116,841	120,967	134,032

HS Functional Capacity Analysis


CAPACITY ANALYSIS			
Program Area	Exsting	REQUESTED	SUGGESTED
# of Teaching Spaces	50	53	49
Total Student Capacity @ 22/class & 75% utilization	825	875	809
Total Student Capacity @ 25/class & 75% utilization	938	994	919
Total Student Capacity @ 22/class & 82% utilization	902	956	884
Total Student Capacity @ 25/class & 82% utilization	1,025	1,087	1,005


Notes *The 50 Existing Used teaching spaces includes the Auxiliary Gym, The 49 Suggested does not have an Aux Gym*
There are 5 additional existing teaching spaces that exist above the 50 that are currently not assigned for regular classes
*75% **Utilization Rate** reflects the current utilization of teaching spaces*
*82% is the **Suggested Utilization Rate** . This represents core classrooms being utilized 85% (6/7 bells) and specialized teaching spaces utilized at 75% (5/7 bells)*

Teaching Space Size Analysis:

Available Seats = (Total Room SF - 150 SF)/25

150 SF: the total square footage associated with a typical amount of classroom casework as well as space allocated for a teacher desk/work area. This 150 sf tends to exist regardless of classroom size. 25 sf/student: The remainder of the square footage is allocated for student seating and work area.

Existing core academic teaching spaces:
 711 sf  22 students

Suggested new core academic teaching spaces:
 810 sf  26 students.

HS Program and Cost



\$1,238,492

Demo/Abatement of existing High School Core Academic

\$4,981,118

Conversion of remaining existing HS into BGCS Activity Center (approx. 54,000 SF)

\$824,739

New BGCS Activity Center Entrance (approx. 2,000 SF)

\$62,319,332

New High School Development

\$3,436,320

5% Contingency

\$72,800,000

TOTAL

Why are we saving a portion of the existing HS?

The cost to renovate the 54,000 SF of the new Activity Center would only afford the District about 14,000 SF at the new high school.

High School Themes | Concept | Planning

Organizational Themes

1. Pathways

Student to student;
student to teachers/staff;
faculty to faculty



2. Hubs

Community Connectors



3. Context

Site Campus; Community;
District and City History



Design Themes

The Great Black Swamp and Agriculture

Bowling Green was one of the highest points in the swamp, making the community the perfect place to start a farm and raise a family.

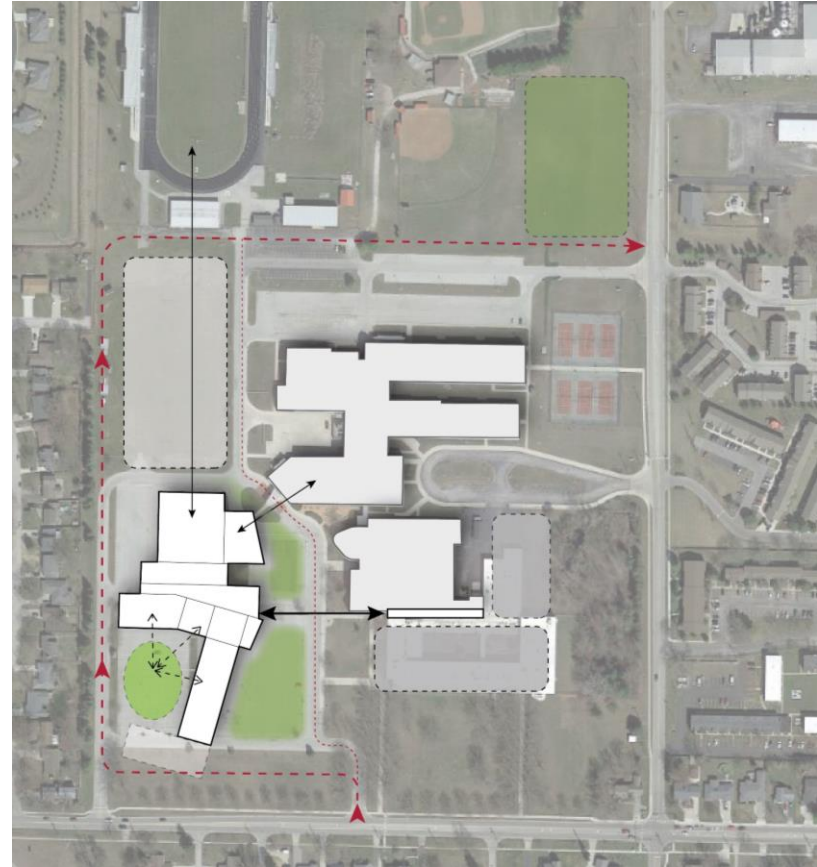
- Embrace natural materials & textures
- Emphasize community and collaborative areas
- Pathways woven through floor plans and design gestures; journey
- Design moments that are intentional
- Create sense of pride in place and belonging
- Celebrate the BG story



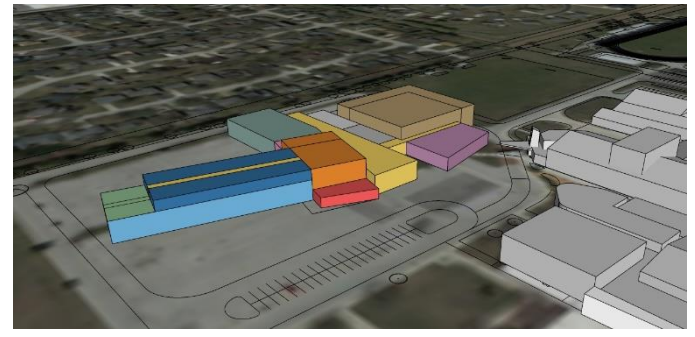
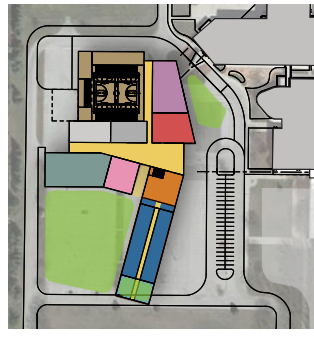
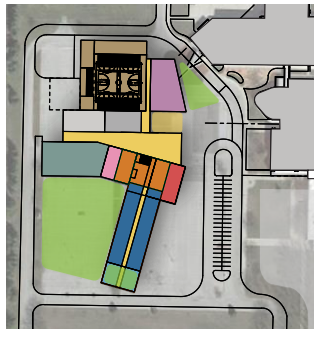
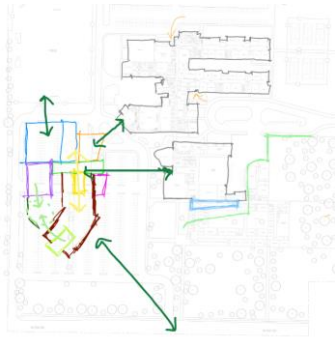
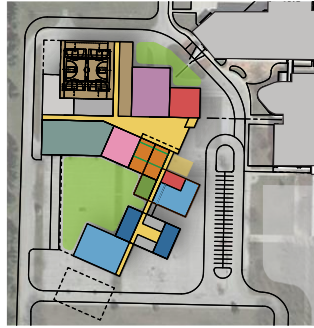
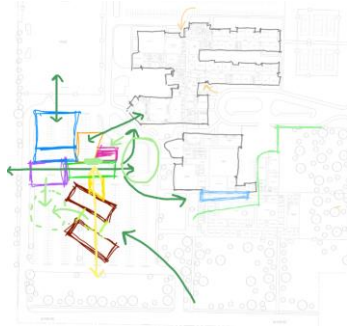
Siting & Program Influences

Understanding your site

- Gymnasium at north side of site with relation to athletic fields.
- Music and Performing Arts near Middle School Auditorium.
- PENTA (CTE) program spaces are used by public.
- Media/Business/STEM as HUB with the most adjacencies.
- Courtyard space with relationship to Science and PENTA for plant studies.
- Learning neighborhood pods need to be sited for potential future additions.
- Transition of Public versus Private zones.



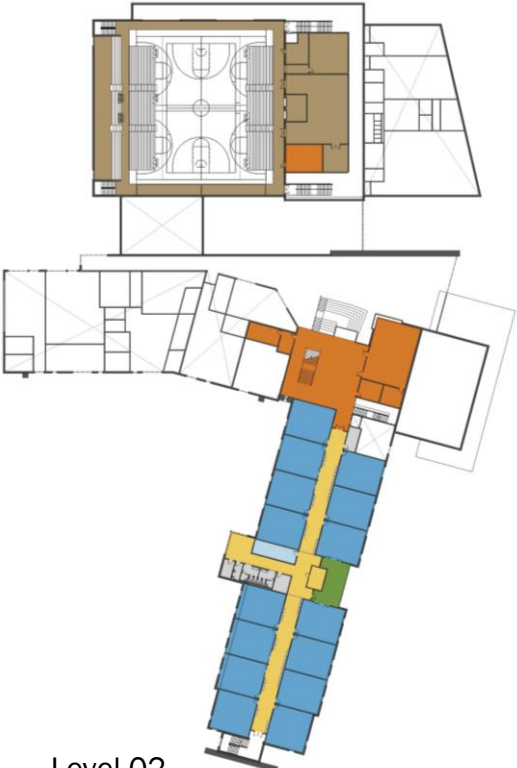
HS Site Massing



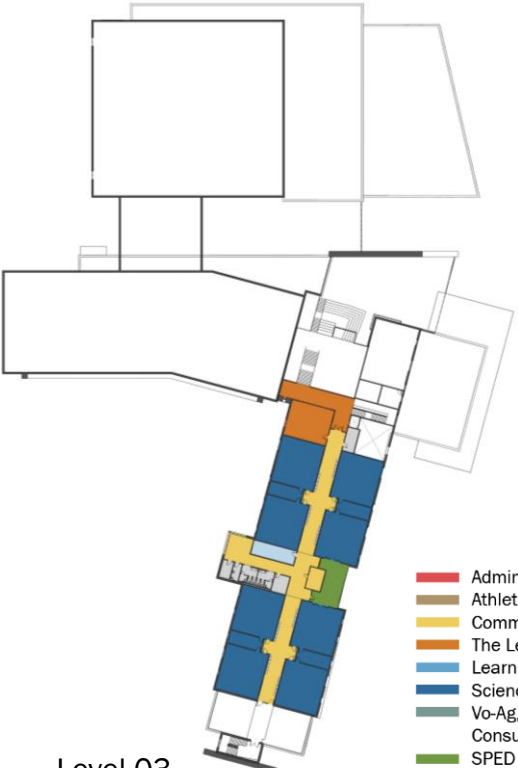
HS Floor Plans



Level 01
Not to Scale



Level 02
Not to Scale



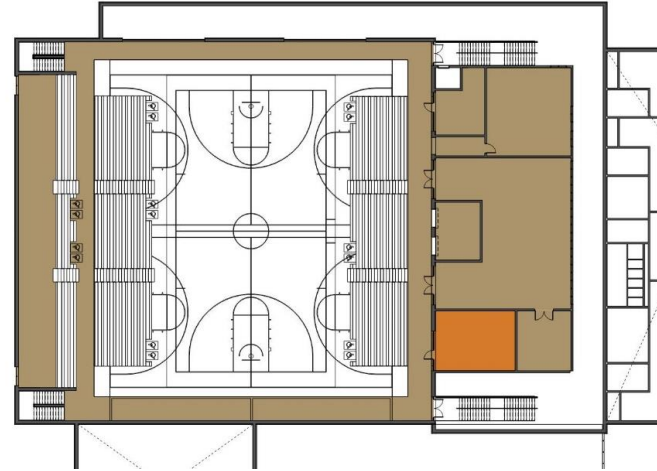
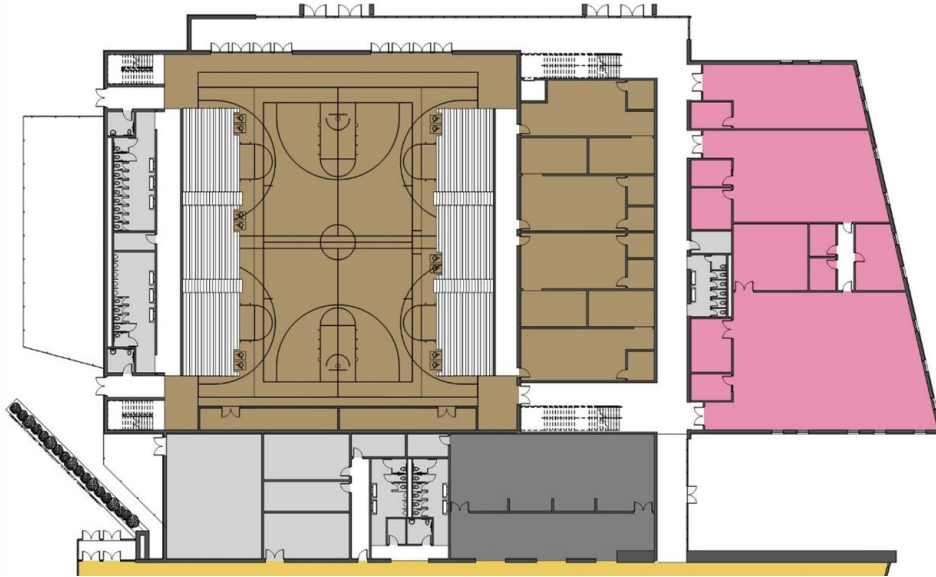
Level 03
Not to Scale

- Admin
- Athletics
- Commons
- The Learning Hub
- Learning Neighborhood
- Science
- Vo-Ag, DECA, and Family & Consumer Sciences
- SPED
- Fine Arts
- Service

HS Floor Plans



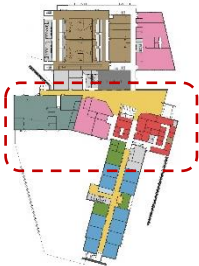
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Level 01
Not to Scale

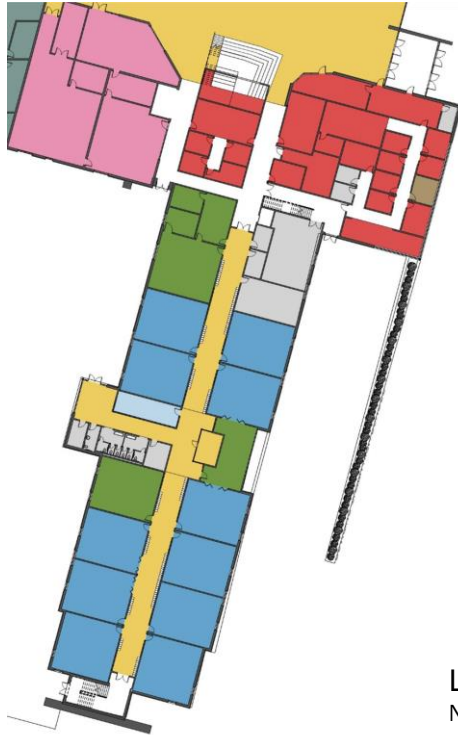
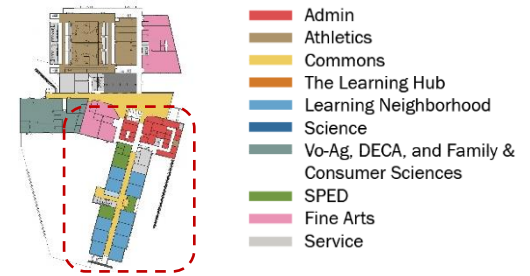
Level 02
Not to Scale

HS Floor Plans



- Admin
- Athletics
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- Service

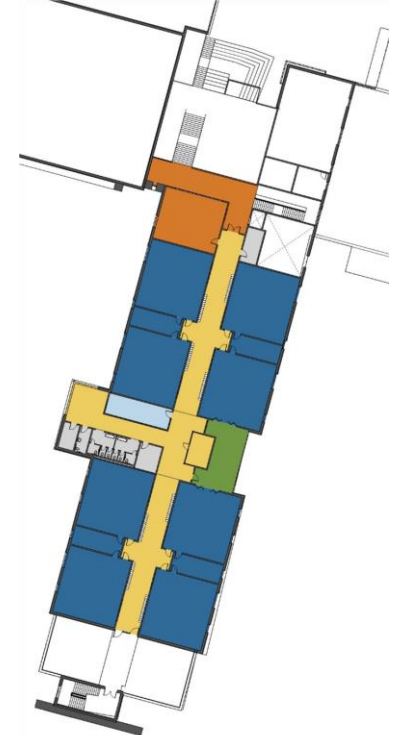
HS Floor Plans



Level 01
Not to Scale



Level 02
Not to Scale



Level 03
Not to Scale



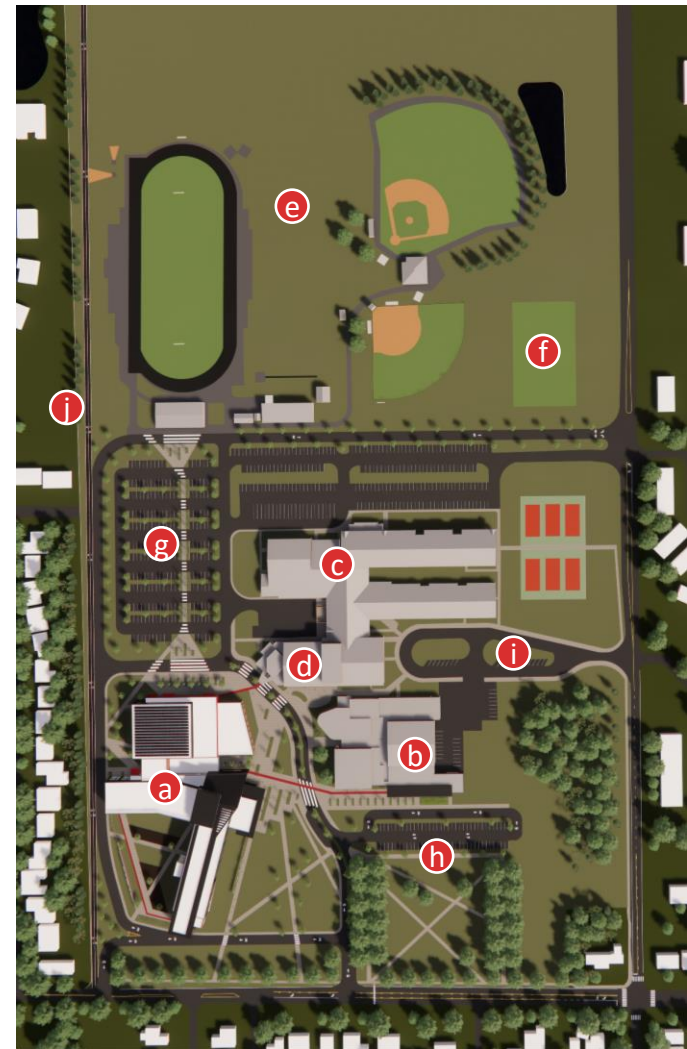
Site Plan

- a** New BG High School
- b** New BGCS Activity Center
- c** BG Middle School
- d** Performing Arts Center
- e** Existing Athletic Fields
- f** Relocated Athletic Field
- g** New parking and geothermal well field
- h** New parking for activity center
- i** Existing MS/HS bus loop
- j** New city bike path

North

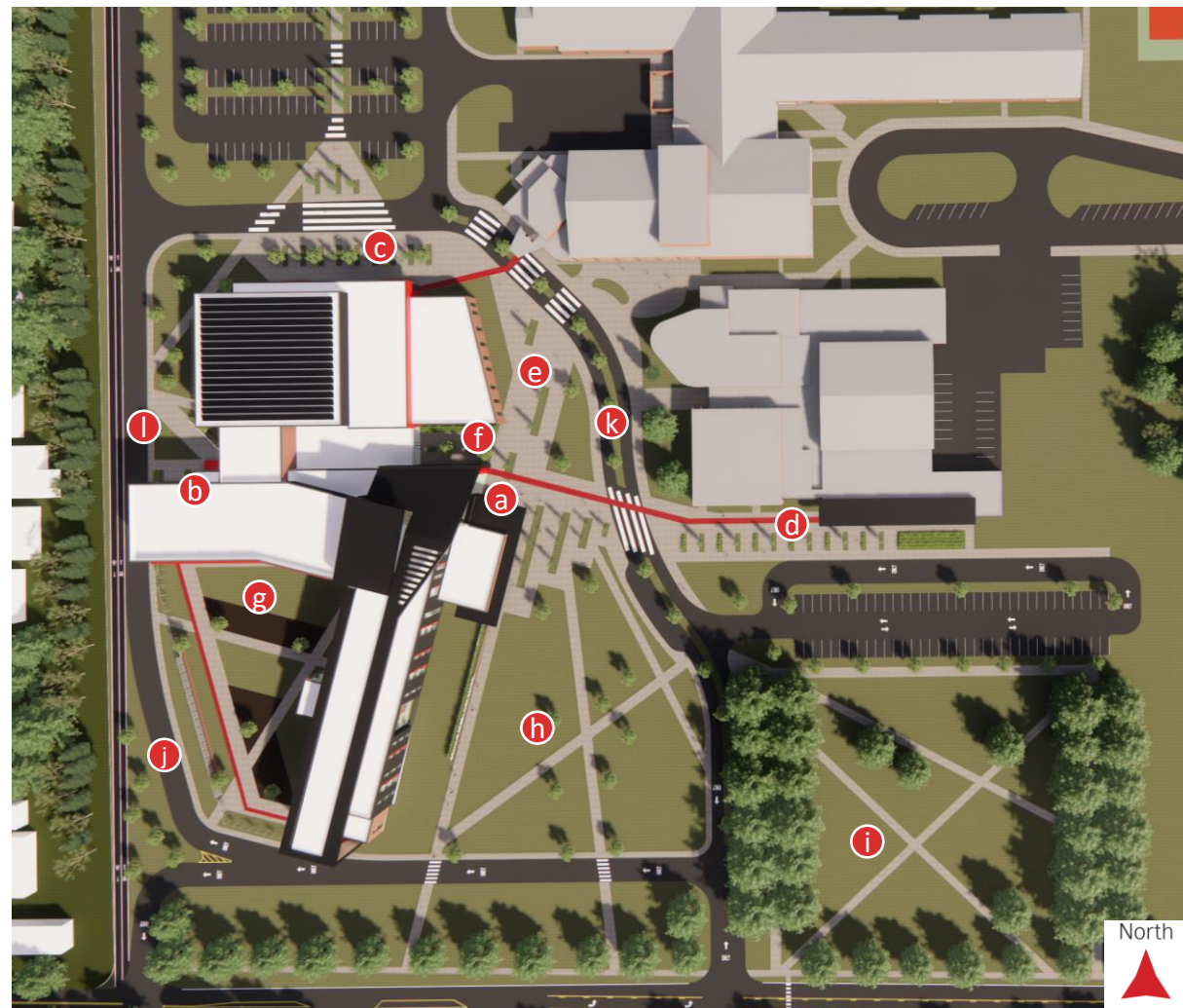


Not to Scale



Site Plan

- a** HS Entry
- b** Secondary Entry
- c** Athletics Entry and Plaza
- d** BGCS Activity Center Entry
- e** Main campus plaza
- f** Outdoor dining
- g** Learning courtyard
- h** New campus quad
- i** Enhanced existing quad
- j** HS drop-off/pick-up drive
- k** Campus boulevard
- l** Loading/Receiving



Exterior Visioning

Exterior Visioning

BG Design Precedent

Bowling Green State University

1. The Wolf Center: Collaborative Arts
2. Stroh Center: Athletics
3. The Maurer Center: Business Education



Exterior Visioning

Ohio HS Examples



Exterior Visioning

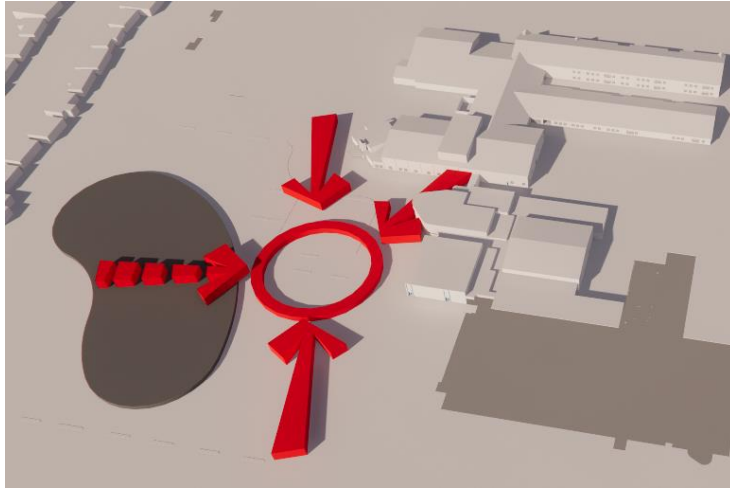
National HS Examples



Convergence

Community | Learning | Nature | Pride

The architectural form and material choices of the new high school have been meticulously orchestrated not only to accommodate the forward-looking learner but also to celebrate the concepts of learning, nature, pride, and community. The design's convergence embodies the act of bringing people together while spotlighting significant moments within the school's walls.

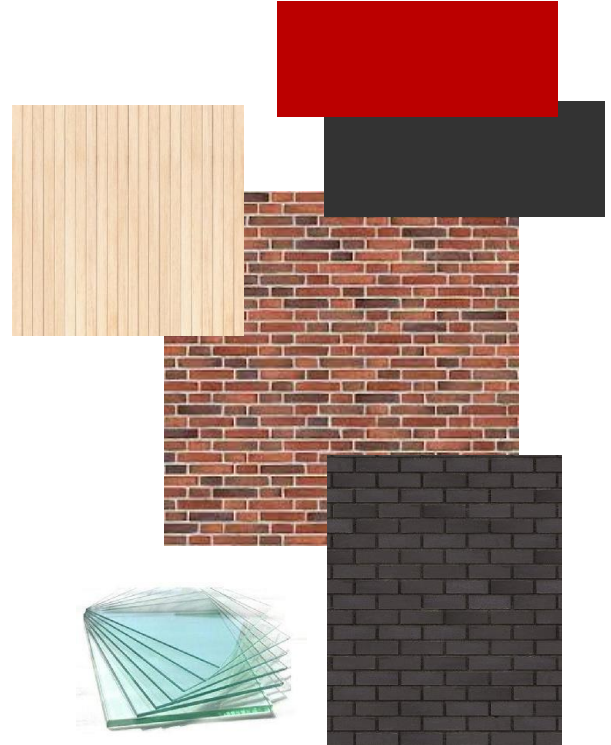


SCARLET

Hex: #8B0000
RGB: R 187 | G 0 | B 0
CMYK: C 0 | M 100 | Y 100 | K 27

MINE SHAFT

Hex: #333333
RGB: R 51 | G 51 | B 51
CMYK: C 0 | M 0 | Y 0 | K 80



Exterior Rendering

The New BG HS



Exterior Rendering

The New BG HS



Discussion

