



District Facilities Plan Educational Adequacy Report

April 4, 2024

Perkins&Will

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In December of 2023 Bexley City Schools (BCS) retained the Perkins&Will | Moody Nolan team to assist the district with the preparation of a District Facilities Plan (DFP). This undertaking is one of many direct outcomes of the recently adopted BCS Strategic Plan, “**Championing Our Future**” which is to guide the district forward through 2026. This robust plan, the result of a year-long engagement process, has interconnected goals under three broad themes of **Culture, Teaching & Learning**, and **Facilities**, with diversity, equity and inclusion priorities integrated throughout these three themes.

The enclosed Educational Adequacy Assessment is a direct outcome of the broad strategic objective of addressing Bexley’s school facilities. It is part and parcel of the broader DFP process.

CHAMPIONING OUR FUTURE: READING OUR MAP

DIVERSITY, EQUITY, AND INCLUSION IS THE MAP.



CULTURE



TEACHING & LEARNING



FACILITIES



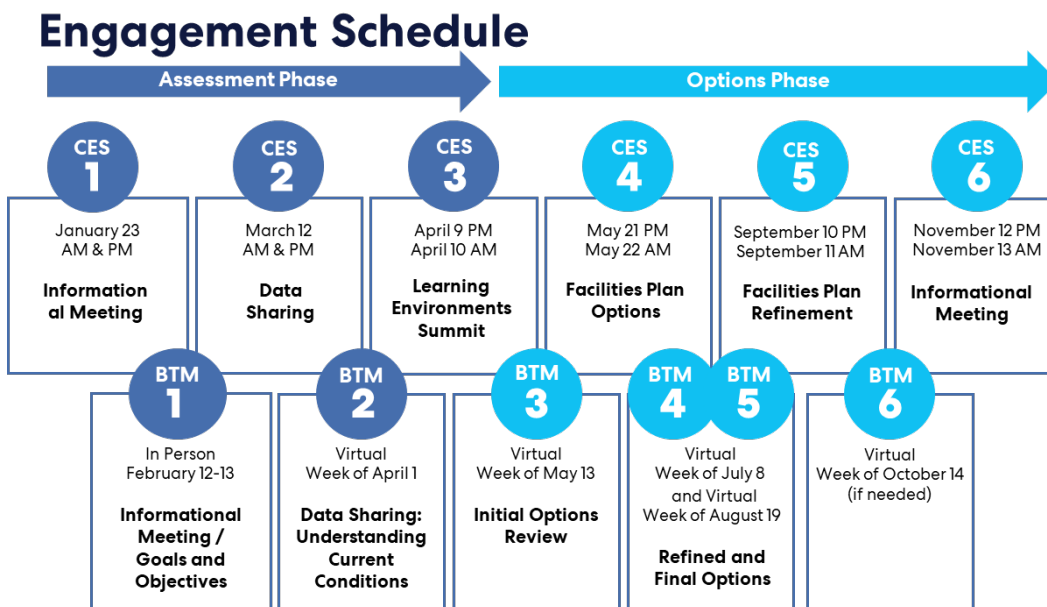
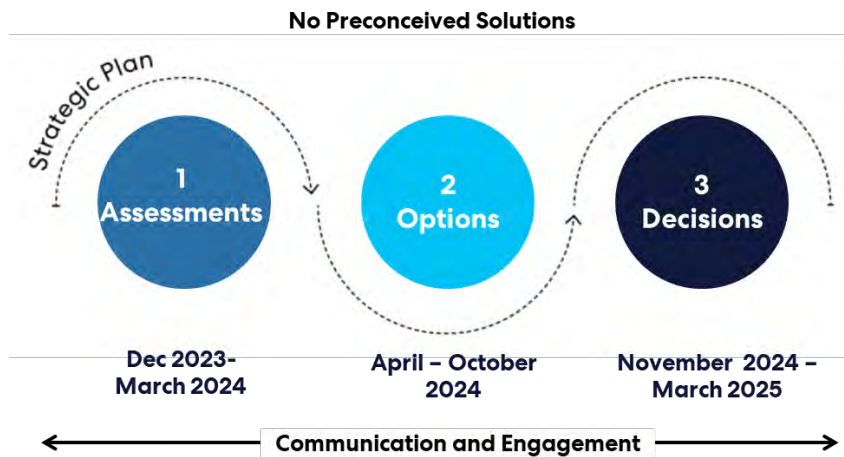
FACILITIES

Goal One: Develop a BCSD district facilities plan that will efficiently utilize spaces and resources to address the growing population and evolving needs of the district.

Goal Two: Prioritize flexible and adaptive spaces to support dynamic teaching and meet the needs of every learner.

Goal Three: Create welcoming spaces that promote safety and belonging for all.

The overall District Facilities Plan process is taking place in three primary phases. The Assessment Phase where data (enrollment, building condition, etc.) is collected about all schools, the Options Phase, where scenarios are created and vetted, and the Decisions Phase, where selected District Facilities Plan scenarios are finalized. During the Assessment Phase, and as an important part of the process leading toward a final FMP, the design team needed to understand the current context of BCS facilities. Therefore, all BCS schools were reviewed for both physical adequacy (adequacy of physical components such as: roofs, walls, windows, mechanical systems, etc.) as well as educational adequacy (qualitative assessment of the physical environment such as: space size, amenities, relationship, type, etc.) and how facilities support or detract from the learning process. The Moody Nolan team performed the physical adequacy review while the Perkins&Will team performed the educational adequacy review. This report outlines the findings of the educational adequacy review. Provided below, starting on page 5, is an Executive Summary of general district-wide findings followed by more detailed findings on each individual school.



Community Engagement and Building Team Process & Schedule

Executive Summary

Bexley is a historic city of over 14,000 residents surrounded by Columbus, Ohio, and known for its close-knit neighborhoods and highly-ranked public schools. Founded as a village, Bexley was incorporated in 1908, covers a geographic area of roughly 2.5 square miles, and became a city in 1932. As a community, Bexley offers a range in home sizes from the more modest to larger estates and enjoys a walkable and vibrant Main Street where shops, restaurants, commercial uses, and other institutions are located.

As a result of the age of the community the average age of Bexley schools is over 84 years (figures 1 and 2, page 11) with the oldest school, Montrose Elementary School (original High School), being constructed in 1921 and the balance of the schools following in the years spanning 1927 (Cassingham Elementary School) to 1969 (Bexley Middle School). All campuses have received additions at various points in their history to meet the demands at that time.

All of Bexley's schools were designed and built for a different educational model, a different economy, and different expectations around learning outcomes. Namely, these school facilities represent a "teacher-centered" model where the teacher was the focus, the "keeper", of all knowledge and where classrooms were designed for students to learn via direct instruction -- teacher at the front of the classroom transmitting information to students arrayed in tidy rows of desks. Schools of this generation, common throughout the United States, are typified by equally sized (but small by today's standards) classrooms primarily designed for one teacher and approximately 25 students organized on opposite sides of a corridor. Schools for older students divide the spaces for specialized functions (theaters, technical labs, etc.). This model was efficient and reflected expectations during the decades when the schools were built.

By contrast, today's learners need to prepare for what futurists predict will be relentless change, ferocious competition, unstoppable innovation, and continued globalization. Students will need the skills to grapple with and navigate new technologies like Artificial Intelligence (AI), issues like climate change, and increasingly divisive politics (to name but three). Therefore, students face an interesting, but uncertain future as the global economy and competitive landscape continue to shift. Some speculate that students today will likely have as many as different 17 jobs in their lifetime and that many of those jobs have yet to be invented. Today and in the future, the competencies and habits-of-mind necessary to successfully navigate and compete in this environment have evolved. While knowledge - the content of learning - is critical, so too are skills and dispositions such as: good interpersonal communication; the ability to collaborate; the capacity to synthesize disparate information into new ideas; adeptness at creative problem solving; demonstrating grit and resilience, to name a few. Traditional "teacher-centered" education was aimed at knowledge transfer and not necessarily at the formation of these other core skills and competencies.

It is in this context and using the lens of the Guiding Principles found on page 6, co-created during a January 2024 working session with Bexley district administrators and community members, that all school facilities were evaluated.

Guiding Principles

Our Bexley School facilities will...

Support powerful learning experiences

- With a variety of intentional, multi-use, flexible and adaptable spaces
- Inspire curiosity, joy and connection
- Provide a variety of opportunities (curricular, extra curricular, community)

Our Bexley School facilities will...

Foster well-being and a sense of belonging

- Meet the needs of each learner
- Provide equitable, inclusive and accessible spaces
- Be safe and secure (physically / social emotional)

Our Bexley School facilities will...

Be designed for the future and be community responsive

- Be sustainable and resilient
- Be efficient, fiscally responsible and built to last

The individual school evaluations included on-site interviews, completion of an on-line questionnaire, and tours while school was in session so that the evaluating team could witness the schools occupied and active. These visits took place the week of January 22, 2024, and were a part of a broader schedule of Building Team meetings where further input was and will be received as well as a series of Community Engagement sessions depicted on page 4 above.

Bexley City Schools Educational Adequacy Worksheet						
Date: <u>January 24, 2024</u>						
School: <u>Cassingham Elementary School</u>						
Name: <u>Steve Turckes, Lauren Turnage, Jeannine Hetzler</u>						
	Not Satisfactory	Somewhat Satisfied	Neutral	Satisfactory	Very Satisfactory	N/A
	1	2	3	4	5	N/A
1.1 - Guiding Principles: Do Bexley School facilities:						
1.1a						Re-examine space use every year to maximize use. Get powerful learning experience but some things are not accessible for all students. Aids move things to kids. So
1.1b						connection is really hard, some spaces like 3rd floor where teachers not seen all day.
1.1c						Well used by community and building, works very hard.
1.2 - Guiding Principles: Do Bexley School facilities:						
1.2a						In spite of space moved intervention to where they need to be to support kids, outfit bathrooms to best of ability
1.2b						
1.2c						In spite of space doing what they can, building imposes limitations.
1.3 - Guiding Principles: Do Bexley School facilities:						
1.2a						Not satisfied with an eye to the future, don't have performance practice space, don't have a science space, what were project spaces are now classrooms.
1.2b						Fixing the boiler a lot, sewage in 1st grade classrooms 2x per year.

Select Sample from Educational Adequacy Questionnaire

Common Themes

Compiled below are general, district-wide, findings relative to educational adequacy from the perspective of how the school sites and buildings support the educational objectives contained in the Guiding Principles. As each school is unique, general findings should be viewed as pertaining to many, but perhaps not all buildings and sites. Reports on individual schools follow this Executive Summary and are comprised of a brief overview of that school, followed by a series of building diagrams shared at Building Team meetings the week of April 1, 2024. It should be stressed that this report highlights findings only and does not address remedies. Various possible remedies will be developed during Phase II – The Options Phase - of the District Facilities Plan project.

General School Data

Known for academic excellence, Bexley City Schools enjoy a long history of successfully preparing students for success beyond high school, providing its students with a plethora of academic and extracurricular opportunities.

Five schools on three campuses, including central district offices located at the south end of Bexley High School make up the school and administrative real estate portfolio of Bexley City Schools. The schools are comprised of three elementary schools, one middle school and one high school. Combined, the schools total just over 496,000 square feet. (refer to other building data below)

School Name	Current Enrollment	Current Site Area (Acres)	Recommended site size** (Acres, per 2023 OFCC guidelines based on current enrollment)	Current Building Area (SF)	Current SF/Student	Projected Enrollment Year 2033/34 (10yr.)	Projected Enrollment Growth / (Decline) (10 yr.)
Maryland Elementary	335	4.10	13.35	57,981	173	297	(38)
Montrose Elementary	330	4.65	13.30	69,458	210	351	21
Cassingham Elementary*	501			78,441	157	463	(38)
Total Elementary	1166			205880	177	1,111	(55)
Bexley Middle School*	593			285,321	211	591	(2)
Bexley High School*	760					833	73
District Offices				4,946			
Cassingham Complex Totals	1,854	14.50	58.54	368,708	199	1,887	33
Total All Schools	2,519	23.25		496,147		2,535	16

*Site area total combined for Cassingham Complex

** OFCC provides unspecified site size reductions for urban school sites

2033/34 enrollment data from March 26, 2024 DRAFT Future Think report includes career tech high school students (total 11 in 2033/34)

2033/34 enrollment data for individual elementary schools from Future Think addendum April 15, 2024

For the ease of reading and reviewing the common district-wide issues as well as the school-specific issues that will follow, findings will be presented in bulleted fashion and will be contained in two categories: “school buildings” and “school sites”.

School Buildings

- **Age:** As is indicated in the table to the right, the average age of original construction is over 84 years, however, all buildings have received additions as needs dictated.

School Name	Year of Original Construction	Age in 2024
Cassingham Elementary	1927	97
Maryland Elementary	1950	74
Montrose Elementary	1921	103
Bexley Middle School	1969	55
Bexley High School	1931	93
Average Age in 2024		84.4

- **Interior Environment:** Generally, while well maintained (given budget constraints) the interior environments reflect the period in which the buildings were built. Solid, durable materials have served well over time but do convey an “institutional” feel.
- **Typical Classroom Size:** At each school, average existing classroom size was calculated for Kindergarten, regular core classrooms and science classrooms (see chart below). As benchmarked against sizes in program standards published by the Ohio Facilities Construction Commission (OFCC) in the Ohio School Design Manual (OSDM), classroom sizes vary by category, with Kindergarten faring the worst at an average of 29% (-270 SF) smaller than recommended by OFCC. Core classrooms are on average 7.4% (-62 SF) smaller than recommended by OFCC at the elementary level (however, note that Montrose skews the average) and the middle and high school are smaller by 25% and 27% respectively. By contrast, middle and high school science classrooms exceed in size the OFCC standard. Note that small classrooms limit the number of possible student configurations (collaborative groups for instance), overall flexibility, reduce organized storage opportunities, and have an overall cramped feel.

School Name	Kindergarten Classroom				Core Classroom				Science Classroom			
	Average Size	Recommended site size per 2023 OFCC guidelines	Delta	%	Average Size	Recommended site size per 2023 OFCC guidelines	Delta	%	Average Size	Recommended site size per 2023 OFCC guidelines	Delta	%
Cassingham Elementary	917	1,200	-283	-31%	844	900	-56	-7%	1,000	1,000	-1,000	
Maryland Elementary	936	1,200	-264	-28%	773	900	-127	-16%	1,000	1,000	-1,000	
Montrose Elementary	965	1,200	-235	-24%	921	900	21	2%	1,000	1,000	-1,000	
Bexley Middle School					757	900	-143	-19%	1,103	1,000	103	9%
Bexley High School					727	900	-173	-24%	1,257	1,200	57	5%

- **Instructional Material Storage:** As noted above, smaller classrooms limit the amount and type of storage. In some cases, small classrooms force inventive in-room storage solutions creating a somewhat cluttered environment with materials creating a potential source of distraction and further congestion.
- **Flexibility of Instructional Group Sizes:** An issue common to all schools is the lack of variation in instructional spaces. Classrooms designed for approximately 25 students are the norm with little, if any, variation from that model. For example, spaces for smaller (4-8 students) or larger (45-60 student) are very limited.
- **Collaborative Space:** Outside of school libraries, areas or spaces intentionally designed for student collaboration do not exist (exception L2 of MS/HS corridor to arts wing). More often, students are sent to the hallway for this function, sometimes sitting on the floor or at small clusters of co-opted furniture. As the support of these types of skills and habits of mind is important, serious consideration should be given to the creation of these spaces.
- **Student Furniture:** While an effort has been made to move toward new furniture systems in select locations (i.e. libraries), in many cases student furniture is dated, in some cases in poor condition, and not designed to support collaboration, flexibility or current ergonomic standards.
- **Acoustics:** Acoustical issues in instructional areas were not reported nor observed. One area that sometimes creates issues in buildings of this vintage are unit ventilator mechanical systems which have fans in each room. Fortunately, existing systems use centralized air handlers with ductwork distribution systems which help mitigate unwanted mechanical noise.

- Daylighting: Research points toward the positive educational benefits of learning environments which use proper daylighting. While many classrooms in the district do have reasonable daylighting there are many instances of “buried” classrooms (not access to an exterior wall for daylight) and other cases (i.e. Cassingham Complex) where what were once exterior walls with windows were compromised with additions that obstructed windows/daylight. Refer to daylight diagrams for each school.
- Community Use: Like many schools, Bexley City Schools are community resources, visited and/or used extensively after normal school hours by Bexley residents. Current best practices around designing for community use attempt to zone spaces often visited by community members (gyms, theaters, cafeterias, etc.) with easy access from outside, and configured to allow easy security to the balance of the building. While not true in all cases, some “public-facing” spaces require access to academic or other more internal school corridors. Examples of this would be both first floor theaters at the Cassingham Complex. In some cases, gates exist to segregate building areas which themselves can pose issues.
- Security: Safety and security, a Guiding Principle, is a critical issue for any school. All Bexley schools currently have access control via electronic locks and cameras at the main school entry. Best practices around access control for school buildings places the main administrative office adjacent to the school’s main entry and linked together with a secure vestibule. Secure vestibules allow the school to operationally contain visitors within the vestibule while identity and intent are established. The Cassingham campus has such a vestibule for the entire campus. While laudable, administrative spaces are not adjacent to this entry requiring day-time visitor to traverse The balance of the schools rely on the electronic lock and camera arrangement.
- Educational Technology: Technology infrastructure and classroom equipment are in need of upgrades and a consistent classroom experience for current and future needs.

School Sites

- Context: Given the developed age of the Bexley community, most schools are surrounded primarily by single-family residential use and in the case of Montrose Elementary School, commercial uses on the opposite side of Main Street.
- Size: Relative to acreage, all school sites fall well below what OFCC/OSDM would consider appropriate (refer to table above). Maryland and Montrose are less than one-third of the OFCC/OSDM standard and the Cassingham Complex less than one-fourth the recommended size. That being stated, these neighborhood sites are not necessarily uncommon in areas that were developed when Bexley was and with similar density.
- Traffic: Drop-off/pick-up functions take place in the street at curb-side. Many schools report traffic “challenges” surrounding drop-off and pick-up functions.
 - Although on-street drop-off and pick-up is not uncommon for schools on more constricted sites, ideally, this would be fully contained on the school site as this is the safest way to perform this function and the least inhibiting for traffic patterns. However, providing this capacity on already constricted sites would require the elimination of valuable green space, playfields, or parking areas.
- Parking: Parking is generally limited with most schools requiring some faculty to park on nearby residential streets. Event parking often overflows into surrounding neighborhoods.

- Accessibility: Sites have accessible although not always equitable routes. Some school sites do present accessibility challenges for individuals who use mobility aids.
- Storm Water: Select schools report storm water drainage issues that can and have impacted instruction through water infiltration into buildings. District maintenance staff has worked to address these issues.

As the process moves into Phase Two, The Options Phase, it will be necessary to bear in mind the findings of both the physical adequacy surveys and the educational adequacy surveys for all schools. In this next phase, these assessments along with input from the community at-large and particularly the Building Teams will inform the individualized solutions for each campus.

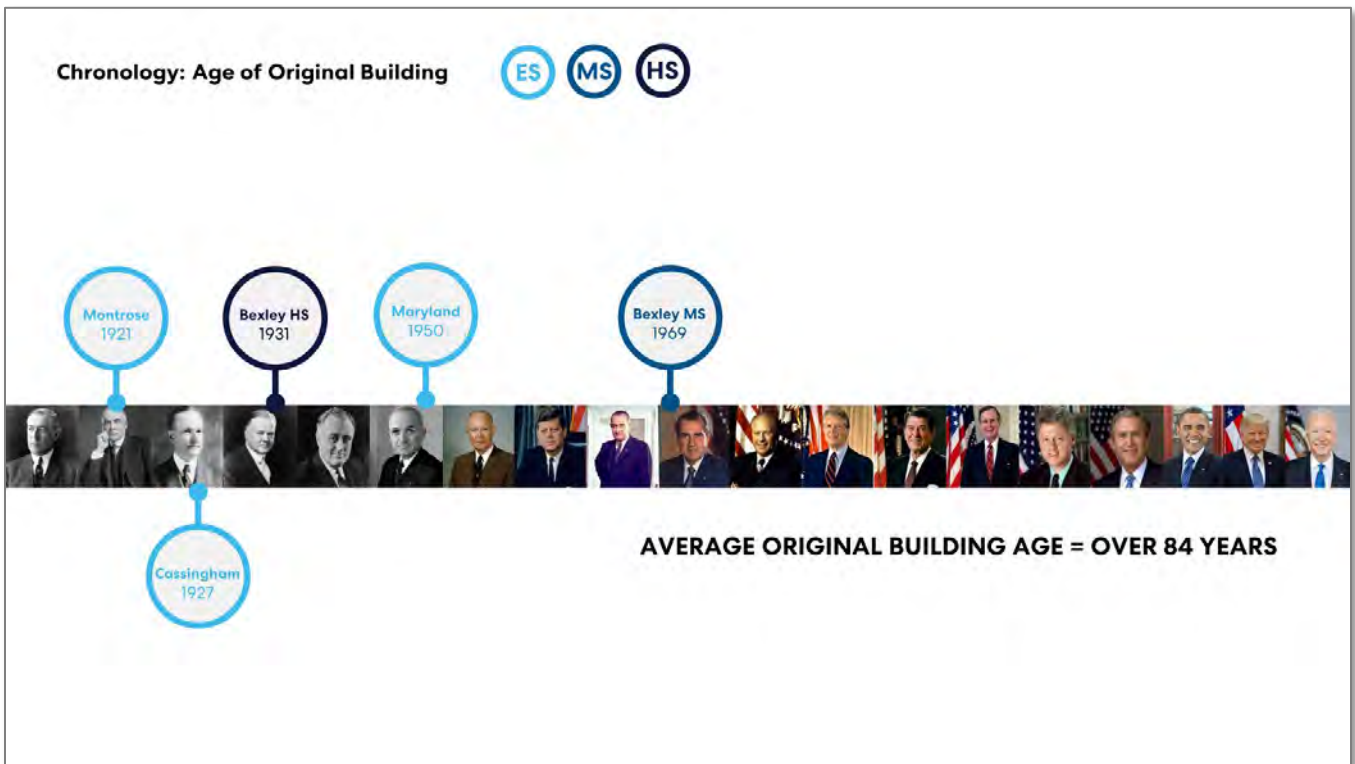


Figure 1

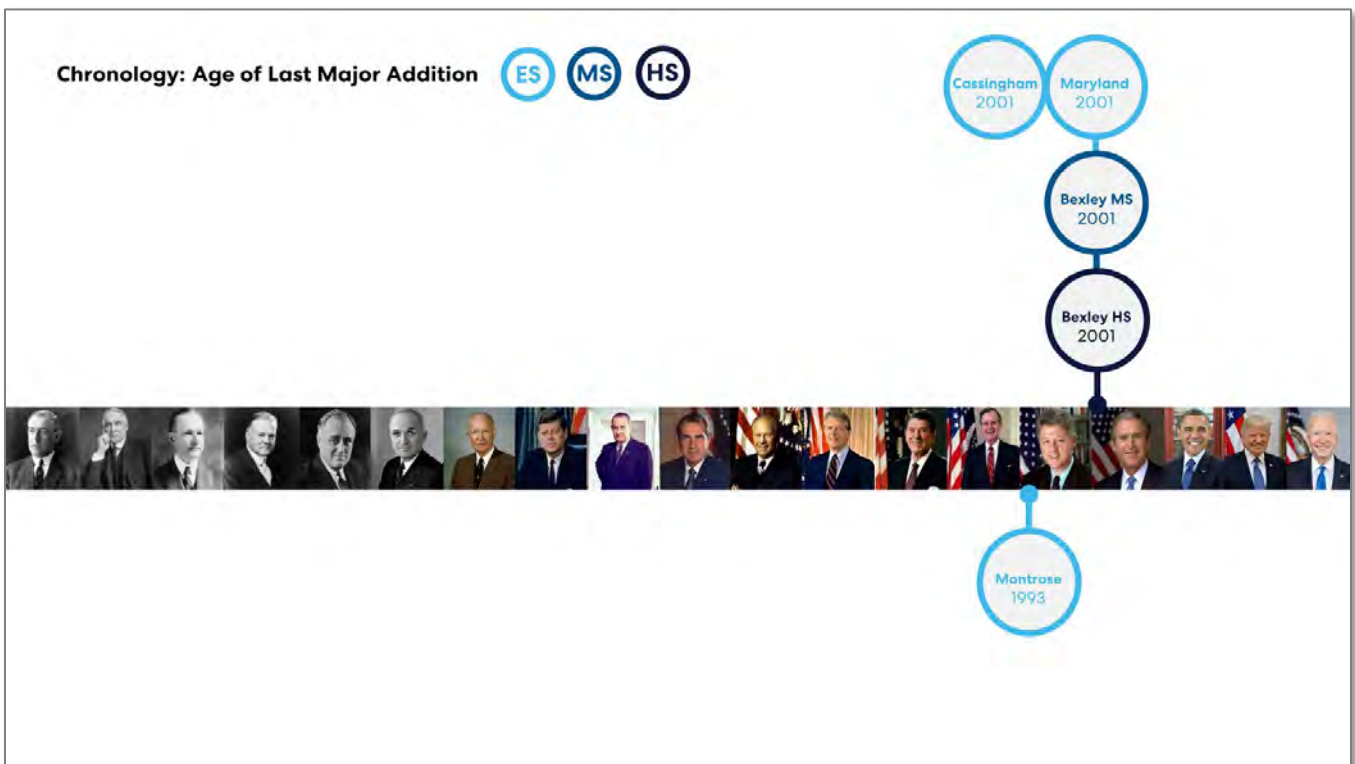


Figure 2

END OF EXECUTIVE SUMMARY

Summary – Cassingham Elementary School

Sharing the Cassingham Complex with Bexley Middle School and Bexley High School, the original three-story (plus partial basement) Cassingham Elementary School was constructed in 1927 and has been modified and added to with the latest major addition occurring in 2001. It currently serves 501 students, kindergarten through fifth grade. Recent ten-year enrollment projections indicate a nearly flat enrollment. The kindergarten program is full-day.

Originally a free-standing school, the 78,441 square foot* building on the north end of the Cassingham Complex, has had several additions over the years in 1993 and again in 2001. In 1969 Bexley Middle School was added providing a connecting link between the elementary school and high school. Cassingham additions have, in part, enclosed a number of rooms that once had exterior exposure and access to daylight, creating windowless “buried” spaces.

CHALLENGES - BUILDING

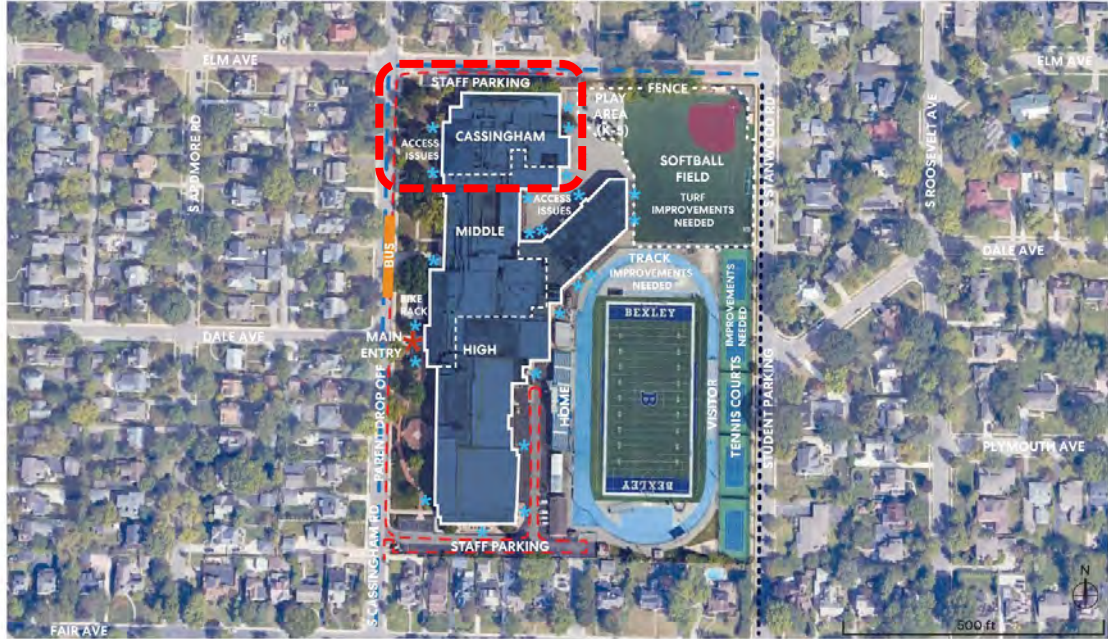
- Secure entry to building is distant – visitors must traverse the cafeteria and other spaces to locate Cassingham office
- Some classroom sizes are too small for current educational modalities
- Some classrooms are “buried” with no daylight
- Some spaces co-opted to alternate uses or spaces serve multiple functions due to lack of space
- No intentionally designed collaborative spaces
- Some student support spaces are not ADA compliant
- Cafeteria: distant, not conducive to elementary use, shared with Middle and High Schools
- Media Center is small, conflicts occur with adjacent Middle School use
- Many restrooms are not ADA compliant
- Some furniture updated, many rooms have older, less flexible furniture
- Technology not standardized
- Lack of appropriate storage an issue
- Lack of consistent temperature an issue

CHALLENGES – SITE

- Constricted site – the site, in general (all three schools) has limited open outdoor space for play areas, athletic venues, outdoor learning areas, etc.
- Limited off-street parking is inadequate
- No separated bus loading/unloading area
- School secure entry is distant from school and school administrative offices

* Area currently used by Cassingham Elementary School

Site Analysis



Bexley City Schools District Facilities Plan
 Cassingham Elementary School
 04/02/2024



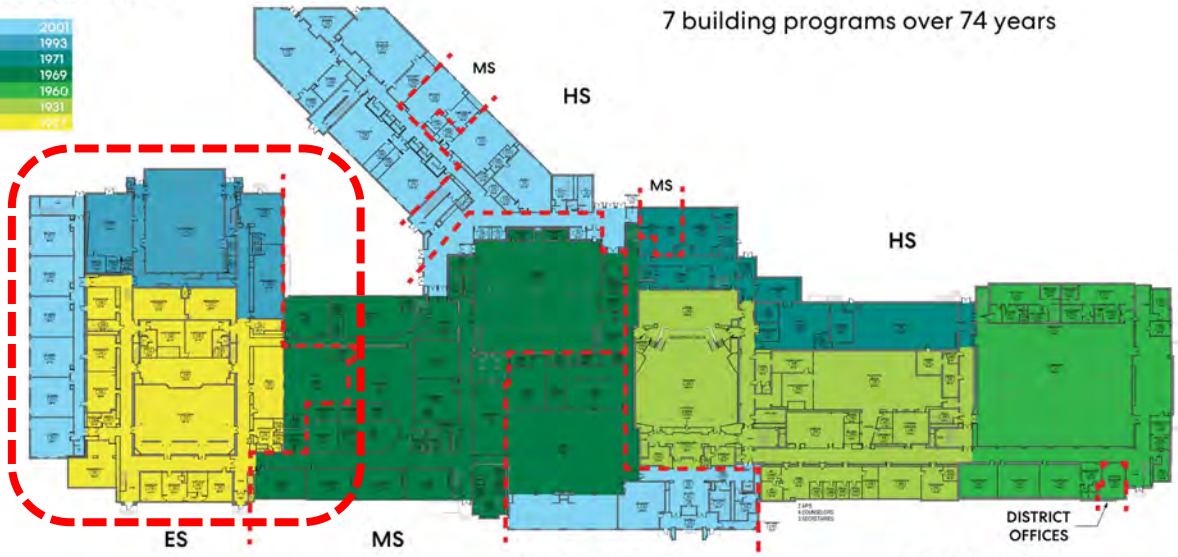
Moody Nolan | **Perkins&Will**

Chronology Diagram



SHARED (ES/MS/HS)

7 building programs over 74 years



Bexley City Schools District Facilities Plan
 Bexley Middle School & High School
 04/03/2024 - 04/04/2024

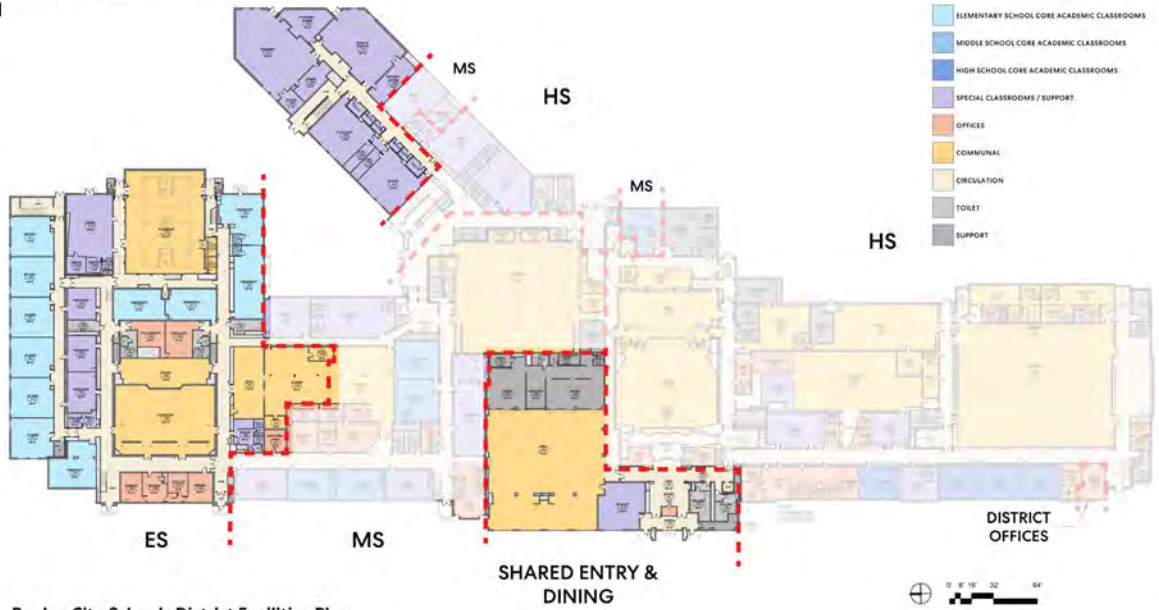
Existing First Floor Plan
 0' 8' 16' 32' 64'



Moody Nolan | **Perkins&Will**

Adjacency Analysis
Level 01

SHARED (ES/MS/HS)



Bexley City Schools District Facilities Plan
Cassingham Elementary
04/02/2024



Moody Nolan | Perkins&Will

Adjacency Analysis
Level 02



Bexley City Schools District Facilities Plan
Cassingham Elementary
04/02/2024



Moody Nolan | Perkins&Will

Adjacency Analysis
Level 03



- LEGEND**
- ELEMENTARY SCHOOL CORE ACADEMIC CLASSROOMS
 - HIGH SCHOOL CORE ACADEMIC CLASSROOMS
 - SPECIAL CLASSROOMS / SUPPORT
 - OFFICES
 - CIRCULATION
 - TOILET
 - SUPPORT



Bexley City Schools District Facilities Plan
Cassingham Elementary
04/02/2024



Moody Nolan | Perkins&Will

Adjacency Analysis
Basement



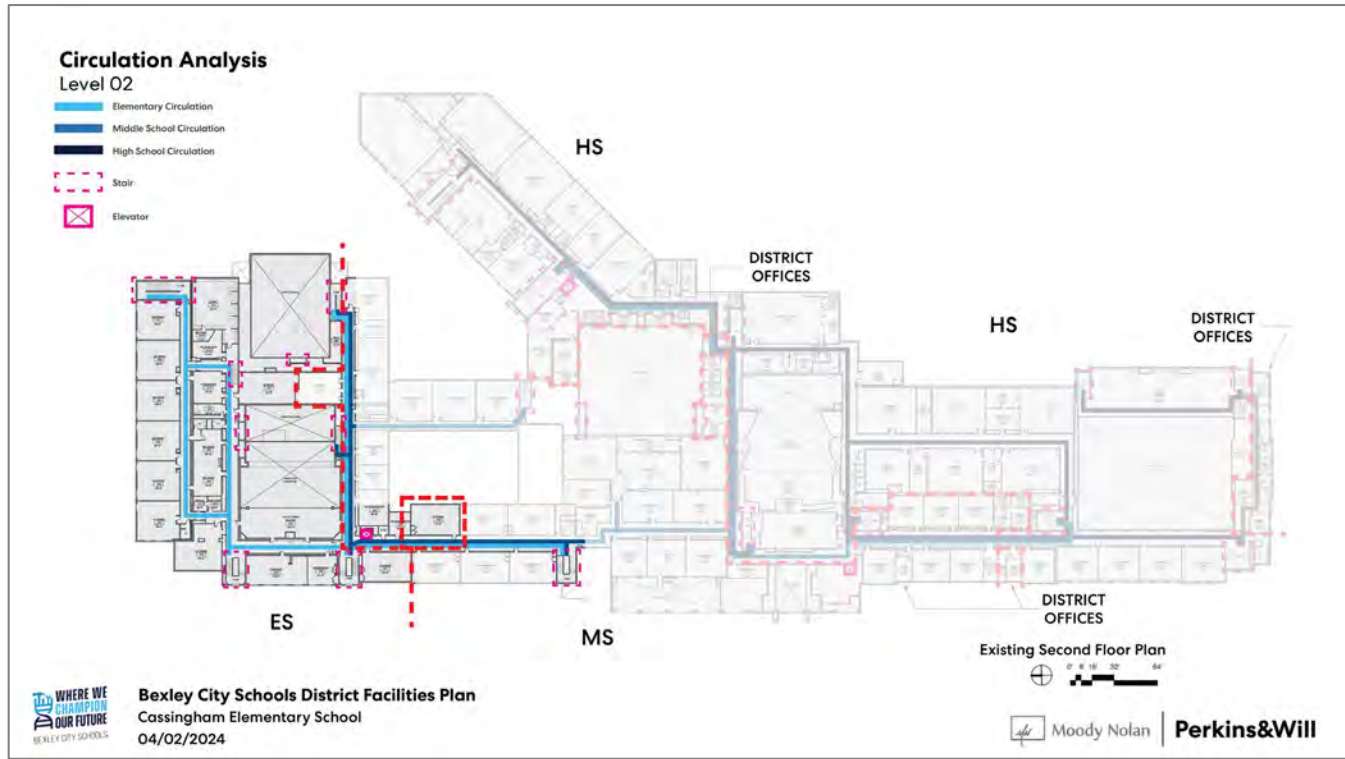
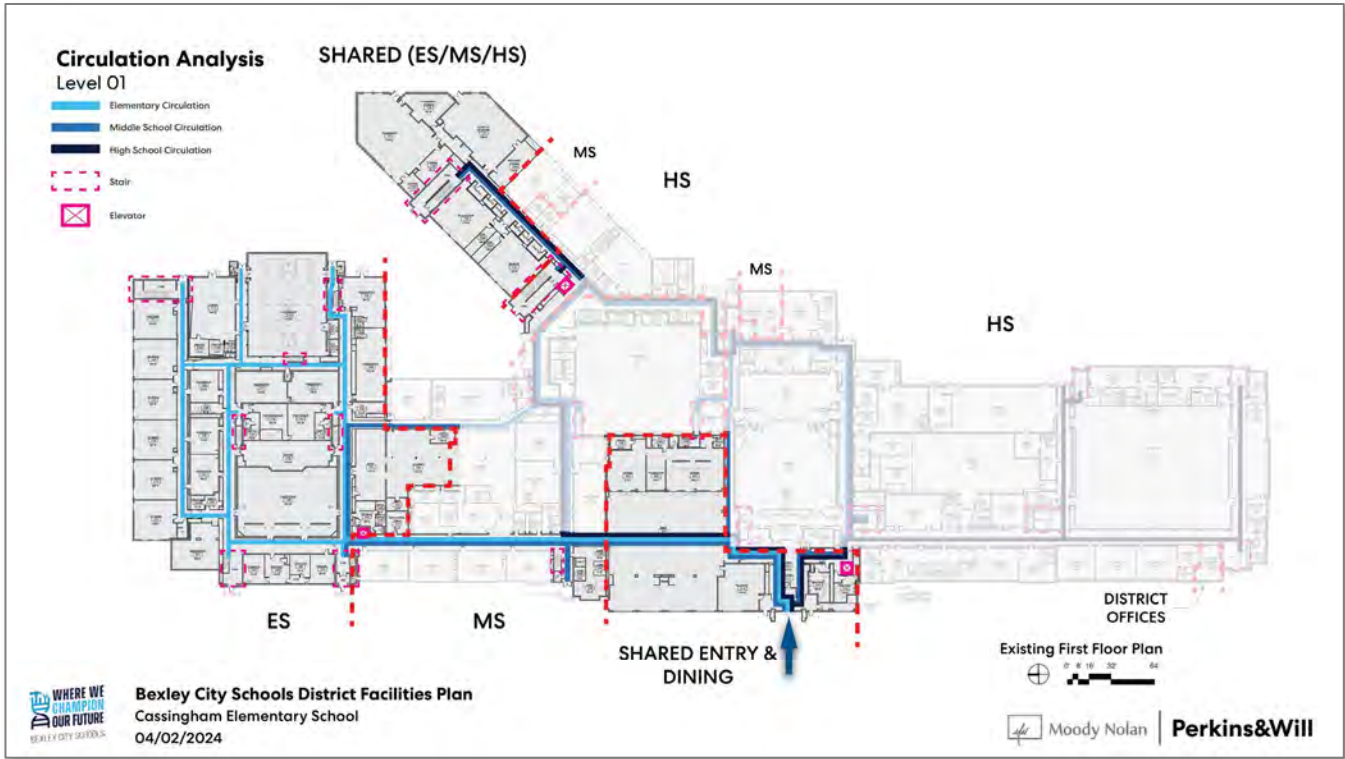
- LEGEND**
- OFFICES
 - COMMUNAL
 - CIRCULATION
 - TOILET
 - SUPPORT



Bexley City Schools District Facilities Plan
Cassingham Elementary
04/02/2024



Moody Nolan | Perkins&Will



Circulation Analysis

Level 03

- Elementary Circulation
- Middle School Circulation
- High School Circulation
- Stair
- Elevator



Existing Third Floor Plan



Bexley City Schools District Facilities Plan
Cassingham Elementary School
04/02/2024

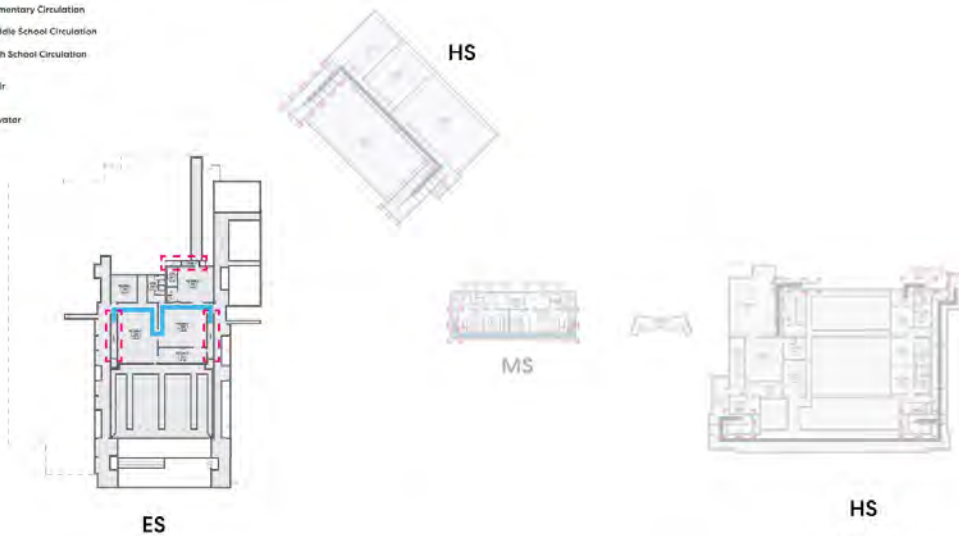


Perkins&Will

Circulation Analysis

Basement

- Elementary Circulation
- Middle School Circulation
- High School Circulation
- Stair
- Elevator



Existing Basement Floor Plan

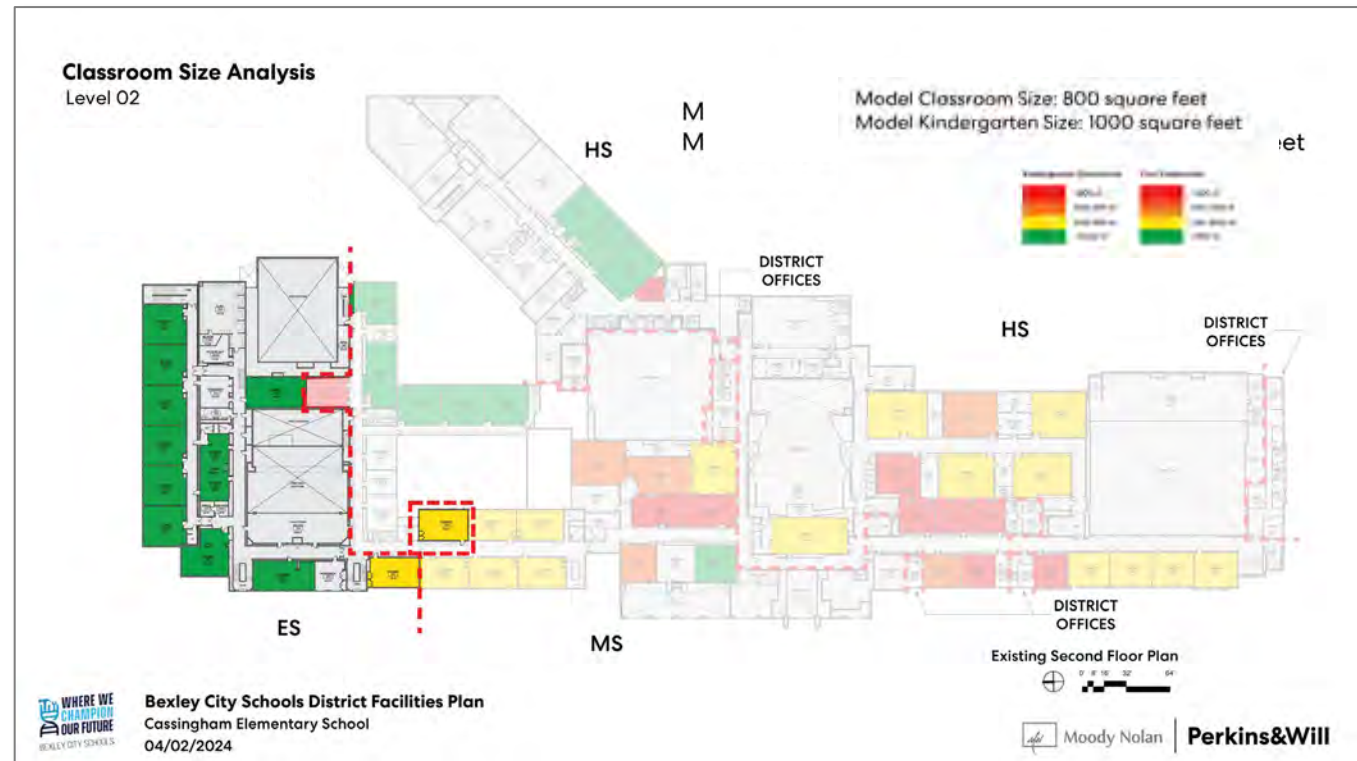
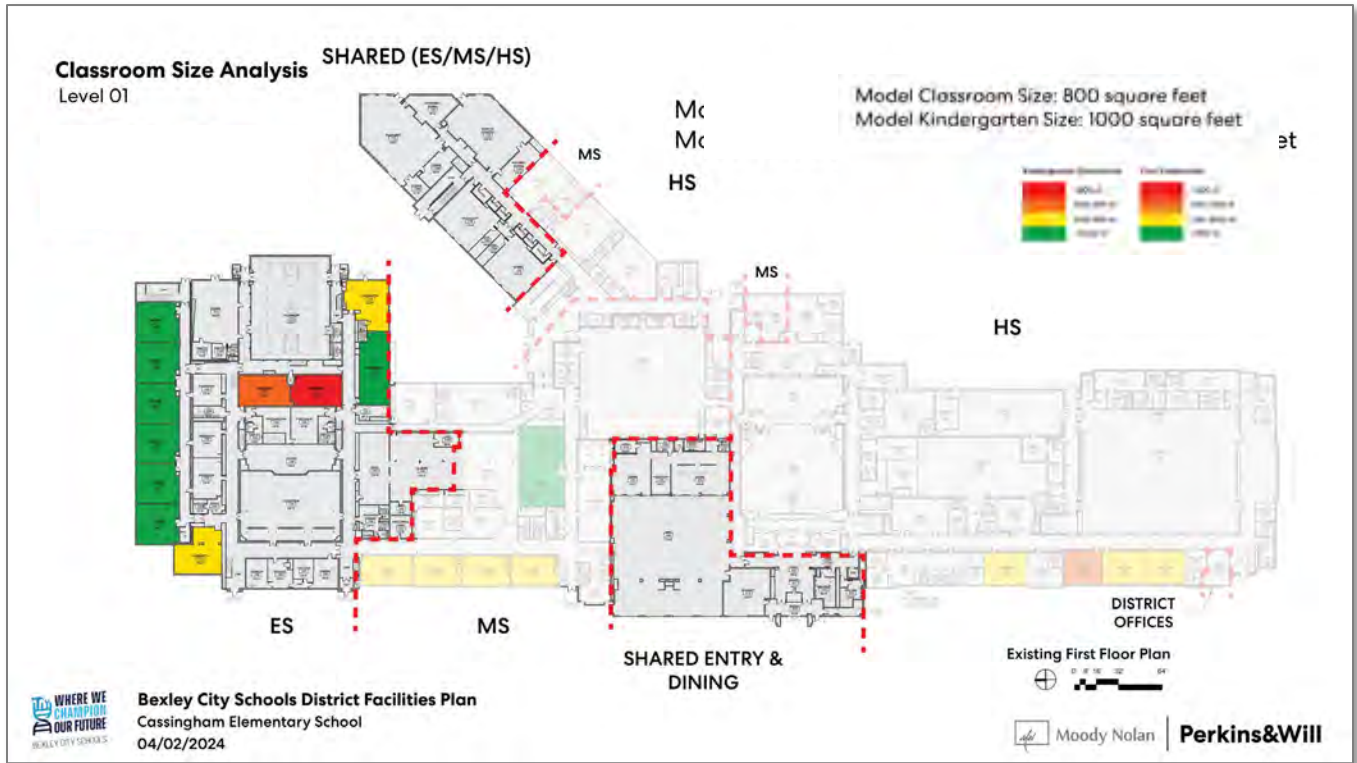


Bexley City Schools District Facilities Plan
Cassingham Elementary School
04/02/2024



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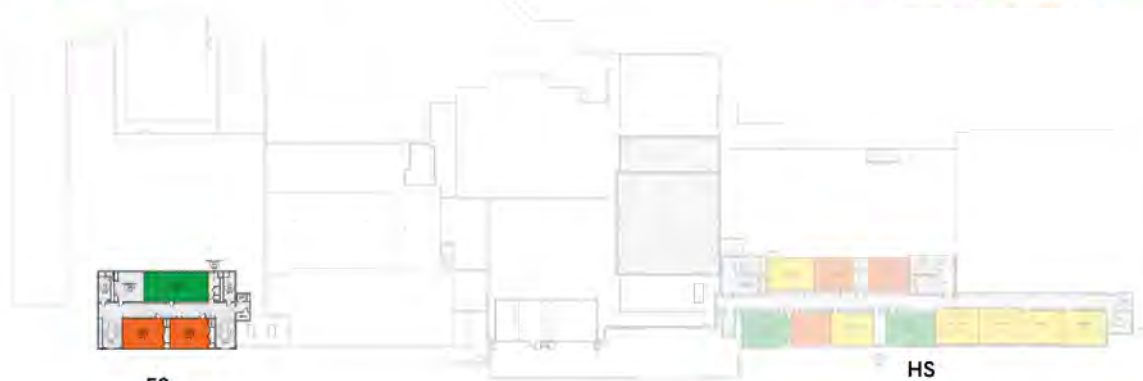
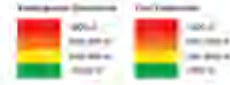
Note: The model classroom sizes are a best practice size where classrooms are located adjacent to extended learning areas/collaboration space and small group spaces. Model classroom sizes for elementary school are indicated for homerooms only. For middle and high school, model classroom sizes are indicated for regularly scheduled core academic classrooms. The model science lab size is based on a 24-student lab from NSTA standards using 60 square feet per student.



Classroom Size Analysis

Level 02

Model Classroom Size: 800 square feet
Model Kindergarten Size: 1000 square feet



ES

HS

Existing Third Floor Plan



Bexley City Schools District Facilities Plan
Cassingham Elementary School
04/02/2024

Moody Nolan | Perkins&Will

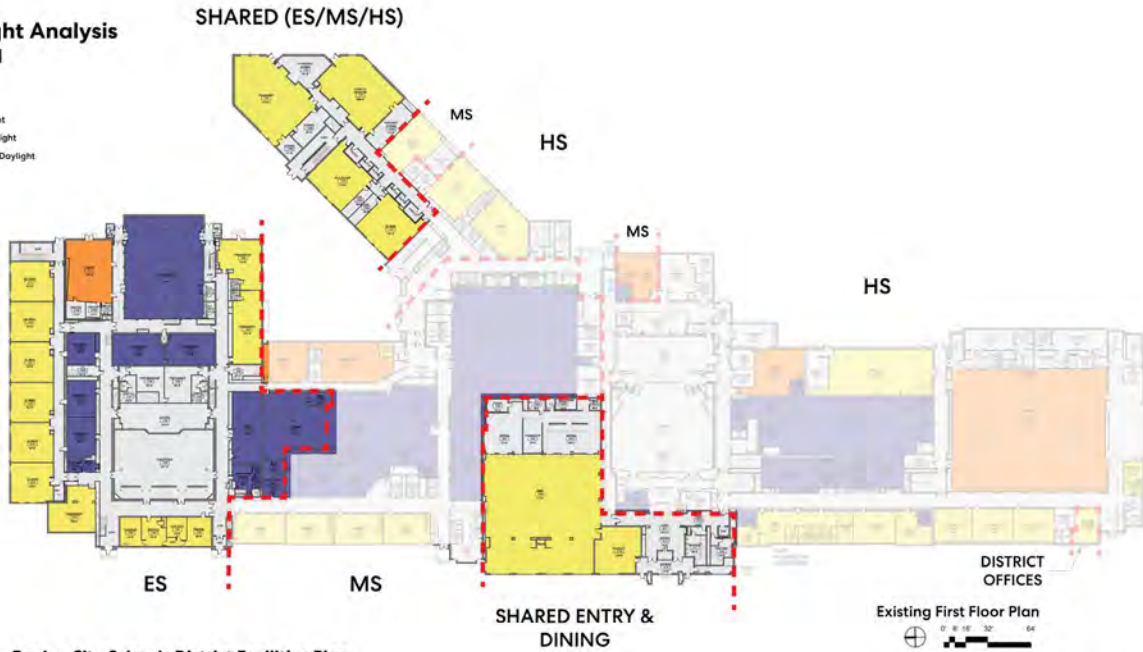
Daylighting

Daylighting has been linked to “better performance of students – as much as 20% improvement in math and 26% in reading on standardized tests”
(Heschong Mahone Group, 1999)



Daylight Analysis
Level 01

- No Daylight
- Some Daylight
- Adequate Daylight



Bexley City Schools District Facilities Plan
Cassingham Elementary School
04/02/2024

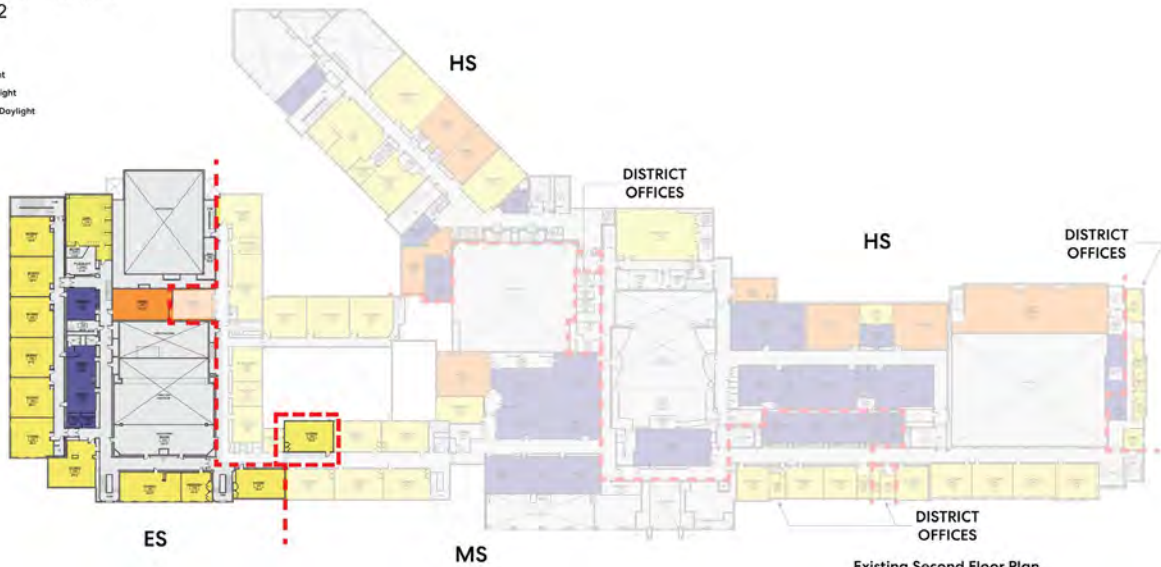
Existing First Floor Plan



Perkins&Will

Daylight Analysis
Level 02

- No Daylight
- Some Daylight
- Adequate Daylight



Bexley City Schools District Facilities Plan
Cassingham Elementary School
04/02/2024

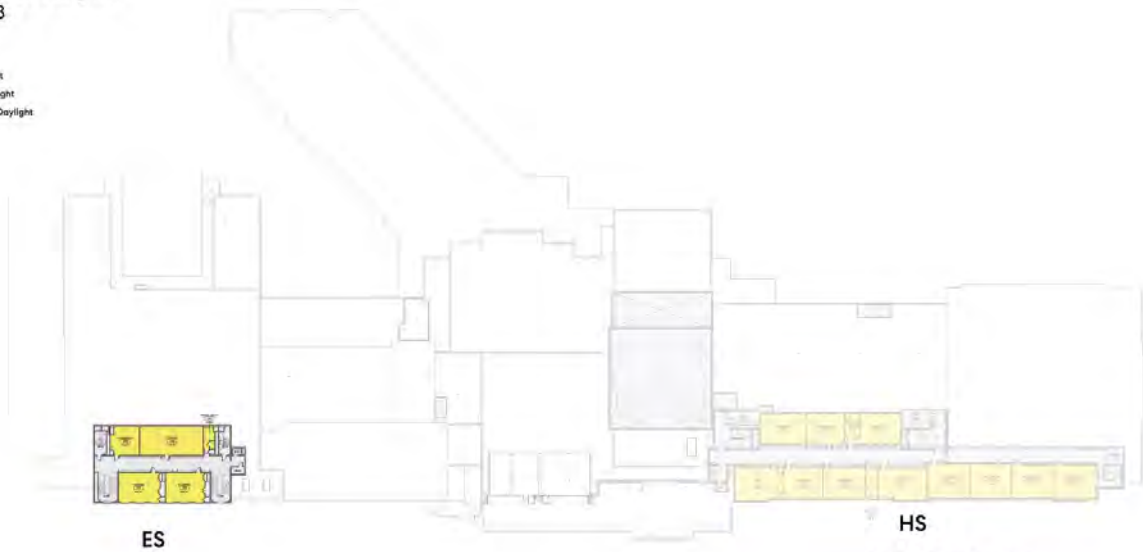
Existing Second Floor Plan



Perkins&Will

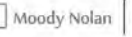
Daylight Analysis
Level 03

- No Daylight
- Some Daylight
- Adequate Daylight



Bexley City Schools District Facilities Plan
Cassingham Elementary School
04/02/2024

Existing Third Floor Plan
0' 6' 12' 24' 48'



Moody Nolan

Perkins&Will



Shared Cafeteria



Book Room/Office/Intervention Space



Typical Classroom



Theater



First Floor Corridor



Windowless Classroom



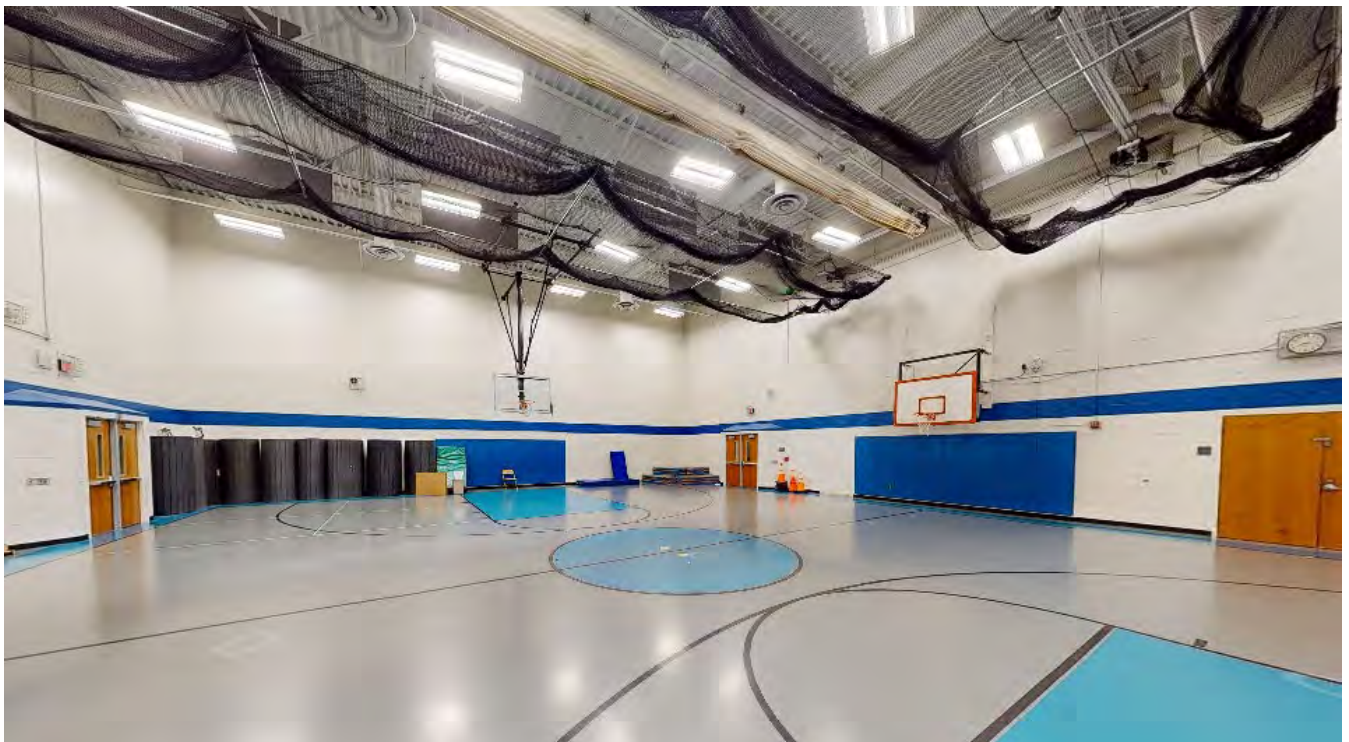
Art Room



Library (Shared with Middle School)



Music Room



Gym (with Suspended Batting Nets)

Summary – Maryland Elementary School

The original one-story (plus partial lower level) Maryland Elementary School was constructed in 1950, making it the youngest Bexley elementary school. It currently serves 335 students, kindergarten through fifth grade. Recent ten-year enrollment projections indicate a nearly flat enrollment. The kindergarten program is full-day.

The 57,981 square foot building has had two rounds of additions over the years in 1993 and again in 2001. In 1993 sections of the east classroom wing were infilled and in 2001 the gym was added and the original gym was converted to cafeteria use.

CHALLENGES - BUILDING

- Some classroom sizes are too small for current educational modalities
- Some classroom proportions are challenging and yield less daylight
- Some special education spaces located in lower level
- Lower-level classrooms have limited daylight and views
- No intentionally designed collaborative spaces
- Some student support spaces are not ADA compliant
- Some student support spaces have no daylight
- Many restrooms are not ADA compliant
- Recently renovated media center
- Many rooms have older, less flexible furniture
- Many offices are non-contiguous and would benefit from consolidation and a secure vestibule at the entry
- Corridors are narrow and doors swing into them
- Gym entry is narrow when used for large community gathering events

CHALLENGES – SITE

- Storm water drainage challenges along south facing lower-level classrooms
- Playfield drainage after rain event
- Limited off-street parking
- No separated bus loading/unloading area
- Some site amenities aging (fence, hardscape)
- While smaller than OFCC standard, site provides reasonable open play space though playfield is often rendered unusable due to lack of drainage
- Play space fenced although gaps occur

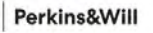
Site Analysis



Bexley City Schools District Facilities Plan
 Maryland Elementary
 04/02/2024



Moody Nolan



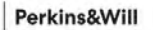
Chronology Diagram



Bexley City Schools District Facilities Plan
 Maryland Elementary
 04/02/2024



Moody Nolan



Adjacency Analysis
Level 01

- LEGEND**
- Classrooms
 - Classroom Support
 - Office
 - Common Area
 - Storage
 - Restroom
 - Support



Bexley City Schools District Facilities Plan
Maryland Elementary
04/02/2024



Moody Nolan | Perkins&Will

Adjacency Analysis
Lower Level

- LEGEND**
- Classrooms
 - Classroom Support
 - Office
 - Common Area
 - Storage
 - Restroom
 - Support



Bexley City Schools District Facilities Plan
Maryland Elementary
04/02/2024



Moody Nolan | Perkins&Will

Circulation Analysis
Level 01

-  Circulation
-  Stairs
-  Elevator



Existing First Floor Plan

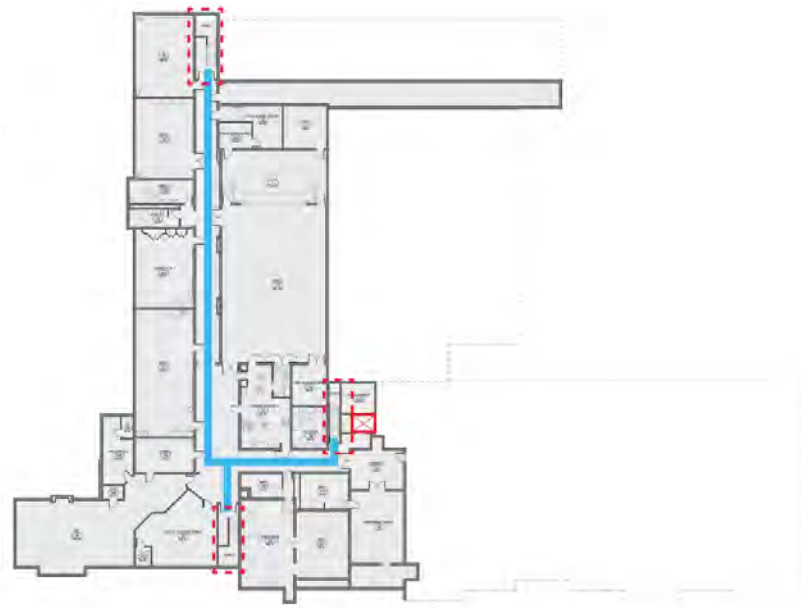


Bexley City Schools District Facilities Plan
Maryland Elementary
04/02/2024

Moody Nolan | Perkins&Will

Circulation Analysis
Lower Level

-  Circulation
-  Stairs and Elevators
-  Elevator



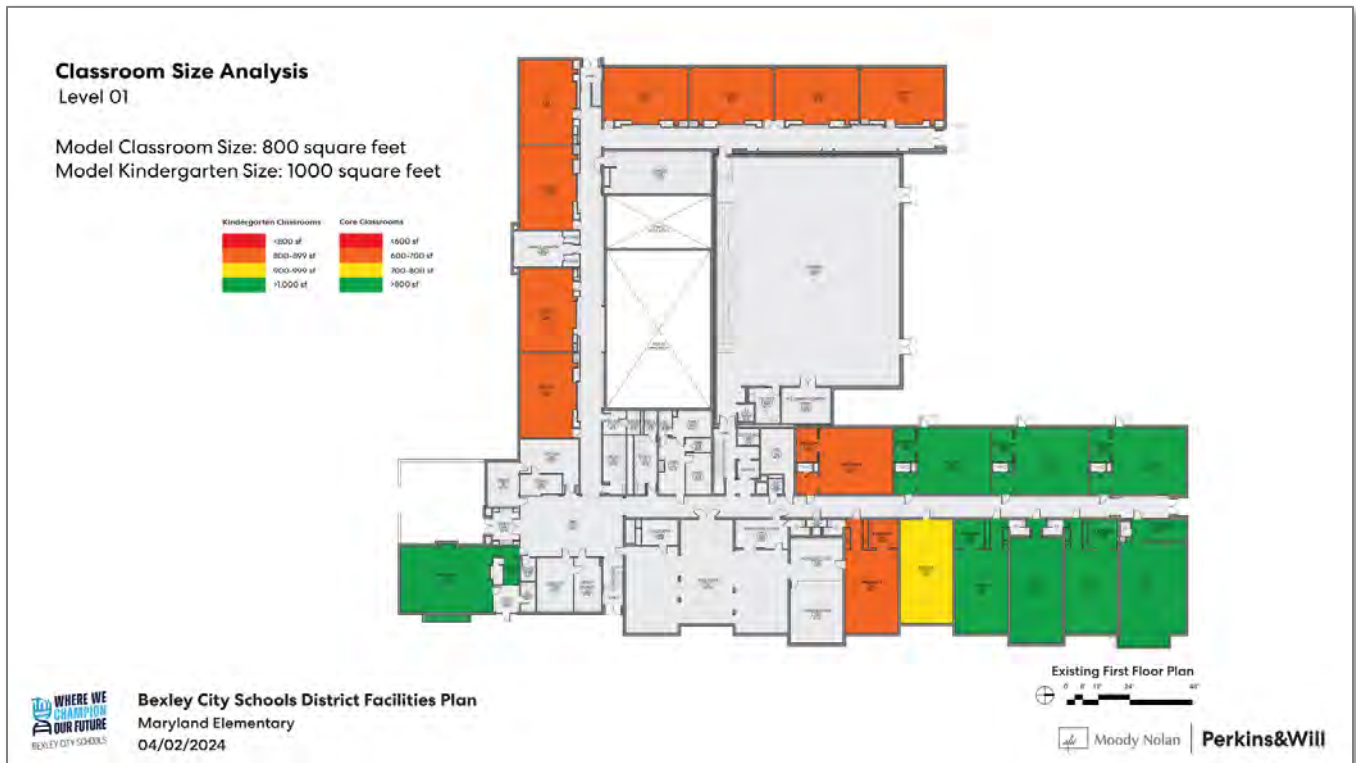
Existing Lower Level Floor Plan



Bexley City Schools District Facilities Plan
Maryland Elementary
04/02/2024

Moody Nolan | Perkins&Will

Note: The model classroom sizes are a best practice size where classrooms are located adjacent to extended learning areas/collaboration space and small group spaces. Model classroom sizes for elementary school are indicated for homerooms only. For middle and high school, model classroom sizes are indicated for regularly scheduled core academic classrooms. The model science lab size is based on a 24-student lab from NSTA standards using 60 square feet per student.



Daylighting

Daylighting has been linked to “better performance of students – as much as 20% improvement in math and 26% in reading on standardized tests”
(Heschong Mahone Group, 1999)



Daylight Analysis
Level 01

- No Daylight
- Some Daylight
- Adequate Daylight



Existing First Floor Plan
0 6 12 24 48

Moody Nolan | Perkins&Will



Bexley City Schools District Facilities Plan
Maryland Elementary
04/02/2024

Daylight Analysis
Lower Level

- No Daylight
- Some Daylight
- Adequate Daylight



Existing Lower Level Floor Plan
0 6 12 24 48

Moody Nolan | Perkins&Will



Bexley City Schools District Facilities Plan
Maryland Elementary
04/02/2024



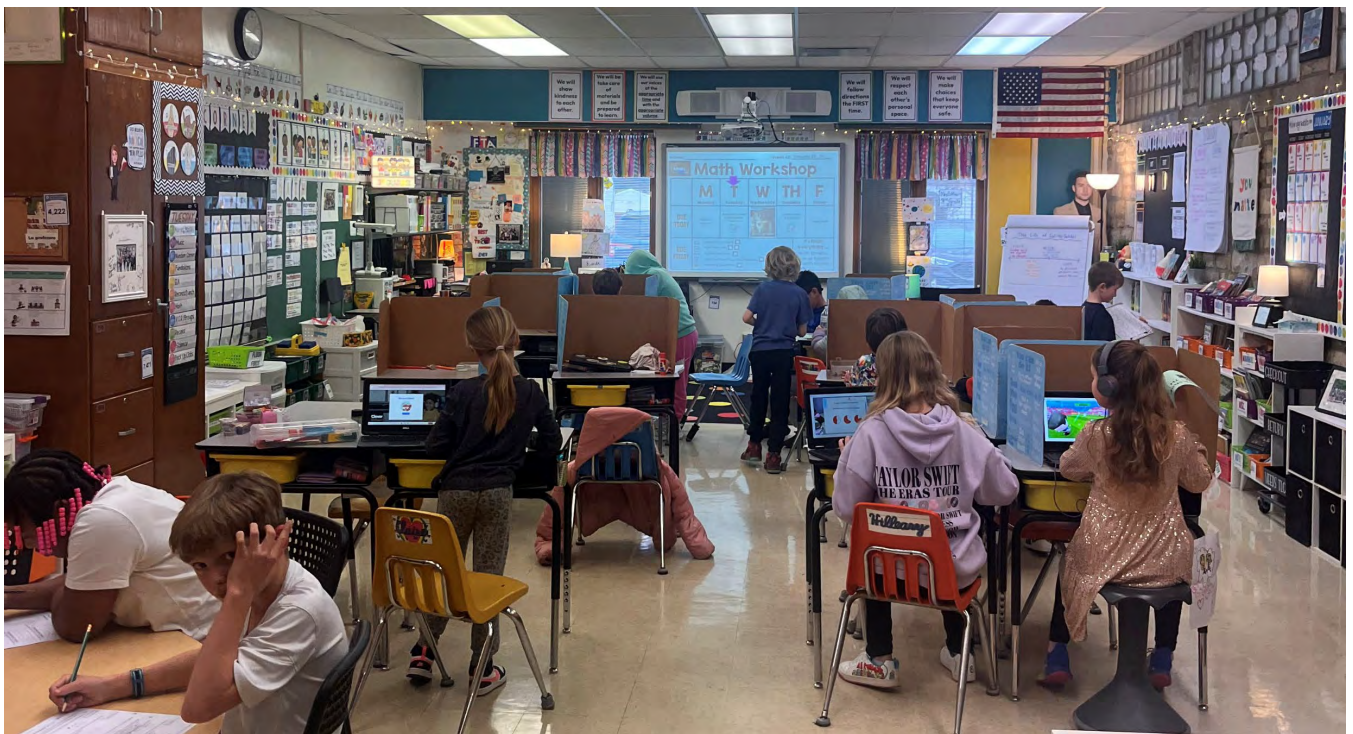
Lobby



Library



Classroom (Small Size) – Level One



Classroom (Narrow Proportion) – Level One



Art Room – Lower Level



Cross-Cat Room – Lower Level



Gym



Typical Corridor

Summary – Montrose Elementary School

The original two-story (plus lower level) Montrose Elementary School was constructed in 1921, making it the oldest Bexley school. Having started as a high school, it was later converted to elementary use after the construction of the current Bexley High School. Between 1924 and 1929, Bexley Public Library occupied space in the building until the construction of its own facility was completed in 1929. Montrose Elementary School currently serves 330 students, kindergarten through fifth grade. Recent ten-year enrollment projections indicate a nearly flat enrollment. The kindergarten program is full-day.

The 69,458 square foot building received additions in 1993 that expanded academic space and added a new gym.

CHALLENGES - BUILDING

- Most classrooms, while adequate in size from a total square footage standpoint, have a triangular shaped area making some of the room less usable, therefore, usable space is small for current educational modalities
- Most classrooms, have small windows, limiting daylight opportunities
- Cafeteria is undersized and uses adjacent circulation space to meet capacity
- Music room has no natural light
- No intentionally designed collaborative spaces
- Some student support spaces have no daylight
- Many restrooms are not ADA compliant
- Many rooms have older, less flexible furniture
- Main entry is not ADA compliant – individuals who use mobility aids need to use a side door
- Many offices are non-contiguous and would benefit from consolidation
- Stair circulation is cramped

CHALLENGES – SITE

- Site repairs necessary for railings and existing concrete steps
- Limited off-street parking
- No separated bus loading/unloading area
- While smaller than OFCC standard, site provides reasonable open play space

Site Analysis



Bexley City Schools District Facilities Plan
 Montrose Elementary
 04/02/2024



Perkins&Will

Chronology Diagram



Bexley City Schools District Facilities Plan
 Montrose Elementary
 04/02/2024

Existing First Floor Plan
 0' 10' 20' 40'



Perkins&Will

Adjacency Analysis
Lower Level

LEGEND

- CORE ACADEMIC CLASSROOMS
- SPECIAL CLASSROOMS / SUPPORT
- OFFICES
- COMMUNAL
- CIRCULATION
- TOILET
- SUPPORT



Bexley City Schools District Facilities Plan
Montrose Elementary
04/02/2024

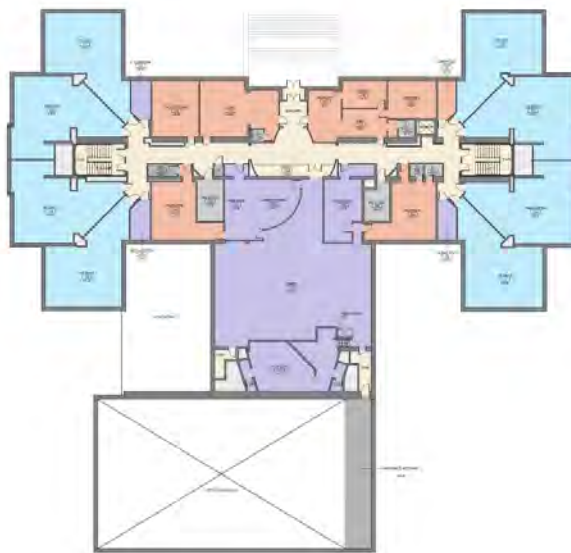


Moody Nolan | Perkins&Will

Adjacency Analysis
Level 01

LEGEND

- CORE ACADEMIC CLASSROOMS
- SPECIAL CLASSROOMS / SUPPORT
- OFFICES
- CIRCULATION
- TOILET
- SUPPORT



Bexley City Schools District Facilities Plan
Montrose Elementary
04/02/2024



Moody Nolan | Perkins&Will

Adjacency Analysis
Level 02

- LEGEND**
- CORE ACADEMIC CLASSROOMS
 - SPECIAL CLASSROOMS / SUPPORT
 - OFFICES
 - CIRCULATION
 - TOILET
 - SUPPORT



Bexley City Schools District Facilities Plan
Montrose Elementary
04/02/2024



Moody Nolan | Perkins&Will

Circulation Analysis
Lower Level

- Circulation
- - - - - Stair
- ☒ Elevator



Bexley City Schools District Facilities Plan
Montrose Elementary
04/02/2024

Existing Lower Level Floor Plan



Moody Nolan | Perkins&Will

Circulation Analysis
Level 01

-  Circulation
-  Stair
-  Elevator



Existing First Floor Plan






Moody Nolan

Perkins&Will



Bexley City Schools District Facilities Plan
Montrose Elementary
04/02/2024

Circulation Analysis
Level 02

-  Circulation
-  Stair
-  Elevator



Existing Second Floor Plan



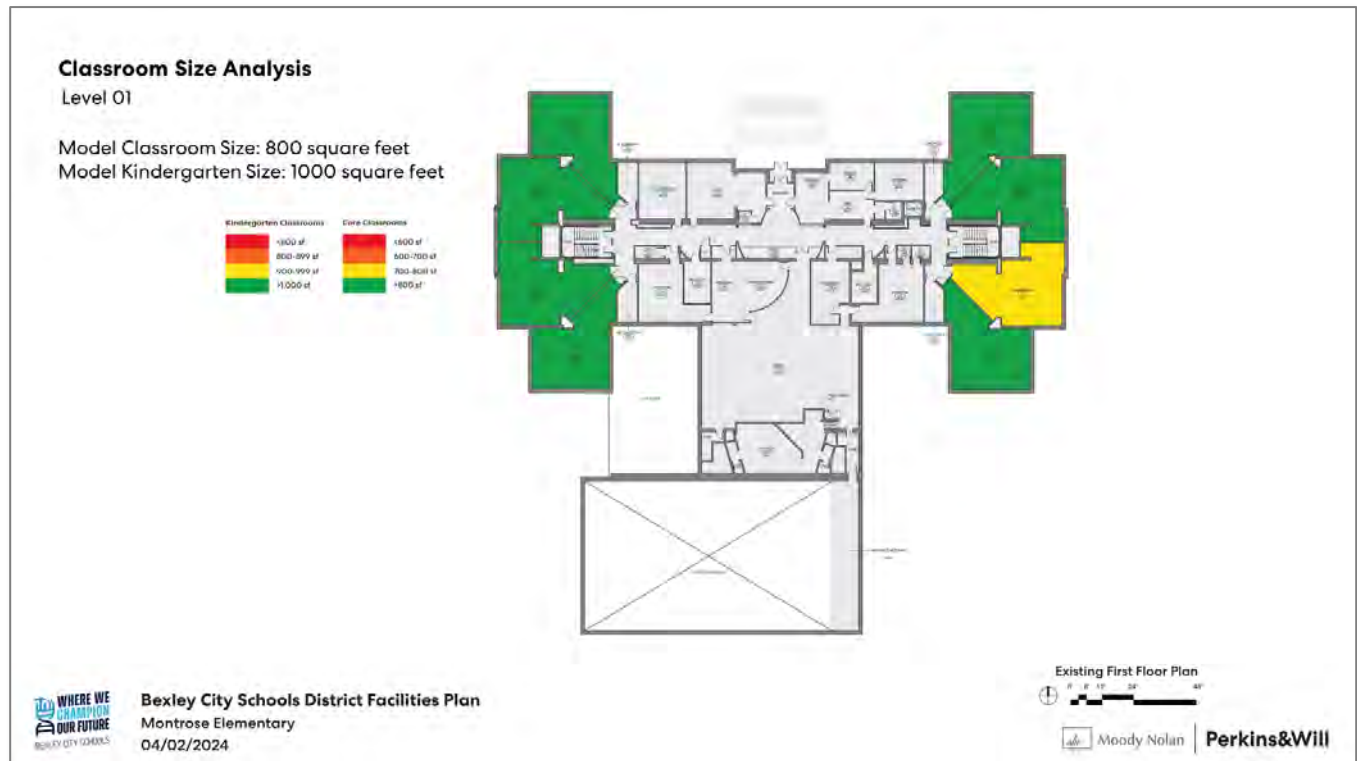
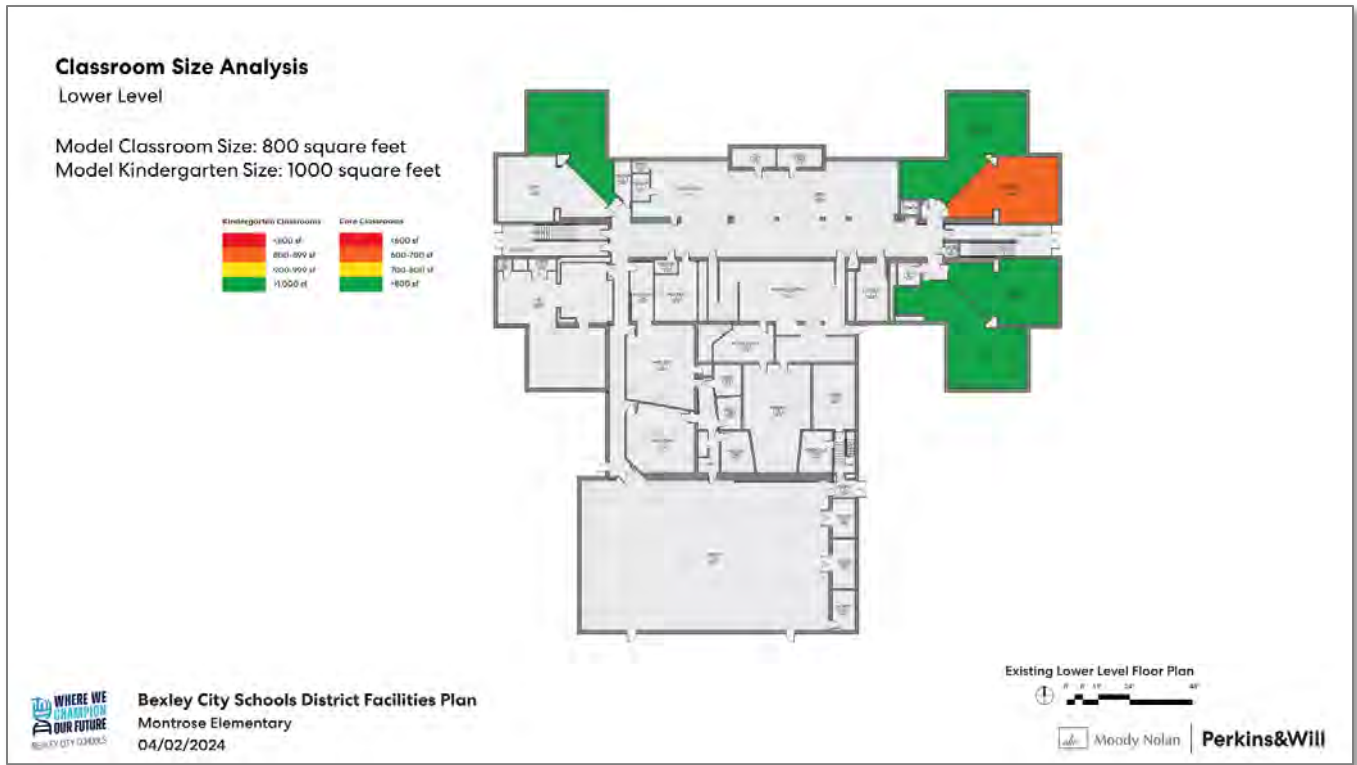
Moody Nolan

Perkins&Will



Bexley City Schools District Facilities Plan
Montrose Elementary
04/02/2024

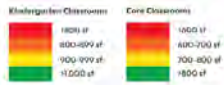
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Classroom Size Analysis

Level 02

Model Classroom Size: 800 square feet
 Model Kindergarten Size: 1000 square feet



Existing Second Floor Plan



Moody Nolan

Perkins&Will



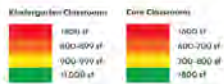
Bexley City Schools District Facilities Plan
 Montrose Elementary
 04/02/2024

Note: The following diagrams indicate the usable classroom area (non-triangular area) for the rooms in which the triangular space is not usable as part of the main teaching area (less contiguous, less visible).

Classroom Size Analysis - Usable Area

Lower Level

Model Classroom Size: 800 square feet
 Model Kindergarten Size: 1000 square feet



Existing Second Floor Plan



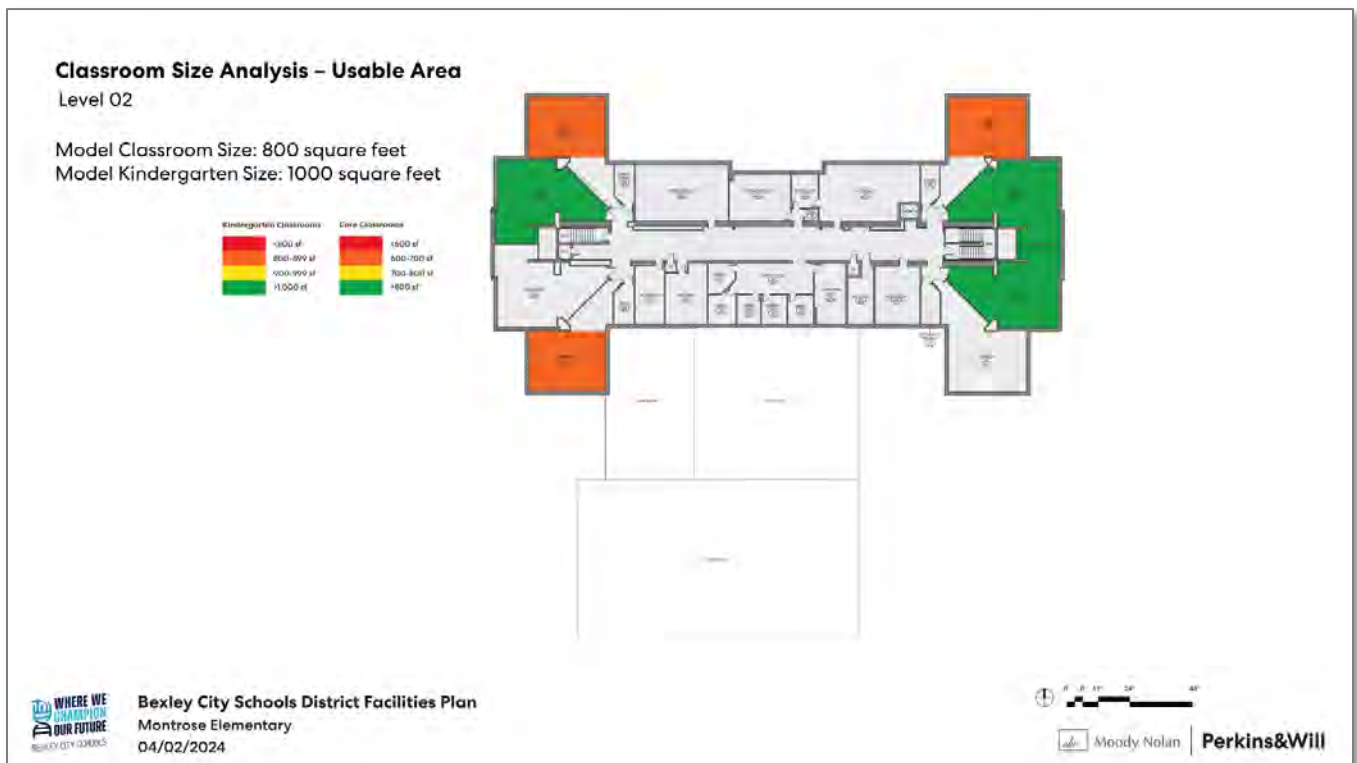
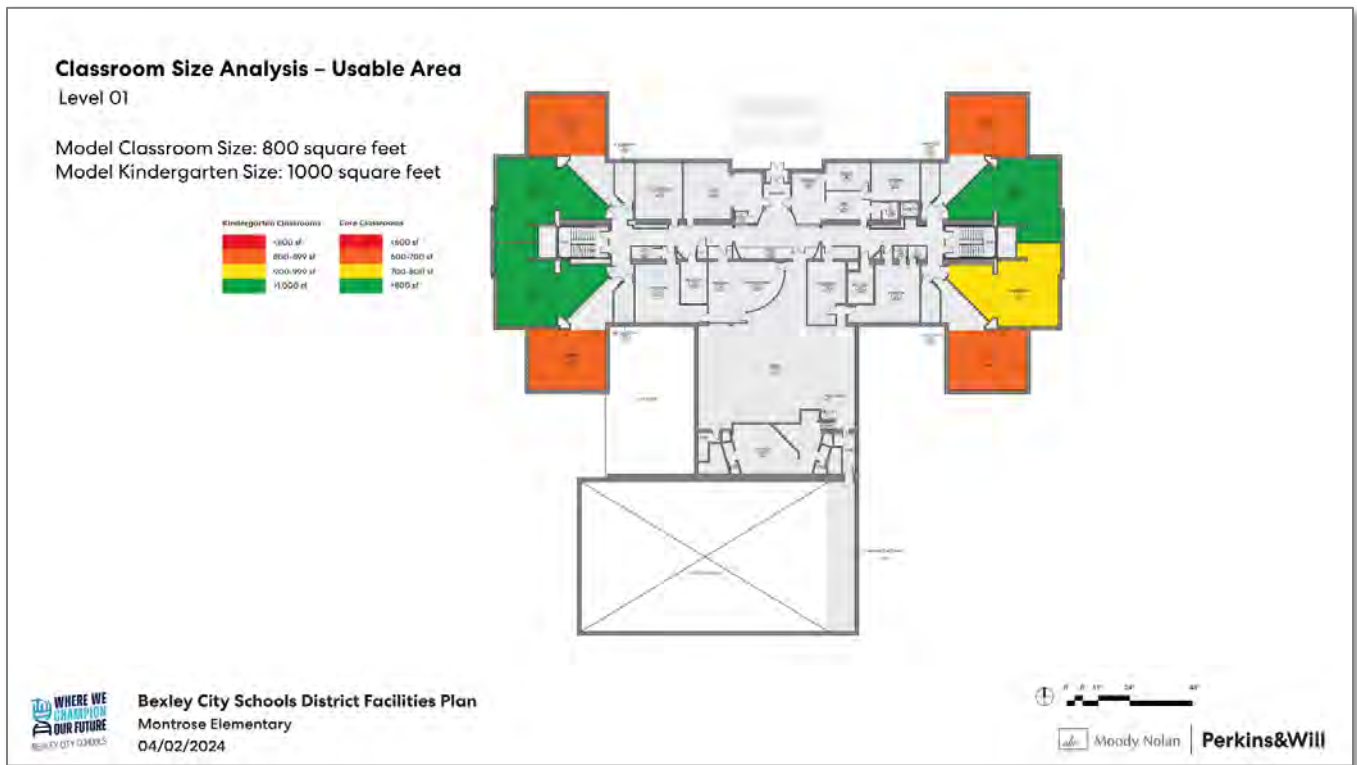
Moody Nolan

Perkins&Will



Bexley City Schools District Facilities Plan
 Montrose Elementary
 04/02/2024

Note: The following diagrams indicate the usable classroom area (non-triangular area) for the rooms in which the triangular space is not usable as part of the main teaching area (less contiguous, less visible).



Daylighting

Daylighting has been linked to “better performance of students – as much as 20% improvement in math and 26% in reading on standardized tests”
(Heschong Mahone Group, 1999)



Daylight Analysis Lower Level

- No Daylight
- Some Daylight
- Adequate Daylight



Existing Lower Level Floor Plan



Bexley City Schools District Facilities Plan
Montrose Elementary
04/02/2024

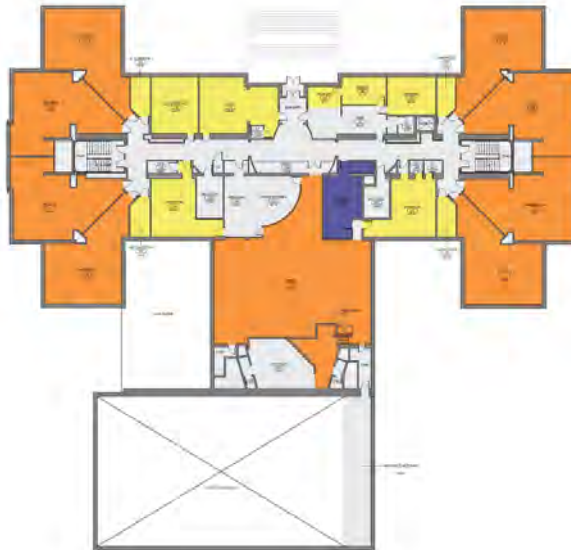


Moody Nolan



Daylight Analysis
Level 01

- No Daylight
- Some Daylight
- Adequate Daylight



Existing First Floor Plan

Moody Nolan | Perkins&Will



Bexley City Schools District Facilities Plan
Montrose Elementary
04/02/2024

Daylight Analysis
Level 02

- No Daylight
- Some Daylight
- Adequate Daylight



Existing Second Floor Plan

Moody Nolan | Perkins&Will



Bexley City Schools District Facilities Plan
Montrose Elementary
04/02/2024



Cafeteria



Library



Typical Classroom



Music Room



Gymnasium



Art Room



Stairway and Hallway



Hallway



Stairway

Summary – Bexley Middle School | Bexley High School

Sharing the Cassingham Complex with Cassingham Elementary School, the original two-story (plus partial basement) Bexley Middle School and three-story (plus partial basement) Bexley High School were constructed in 1969 and 1931 respectively. The construction of Bexley Middle School connected Cassingham Elementary School to Bexley High School which had previously stood apart. Both the Middle School and High School were subsequently modified and added to with the last additions taking place in 2001. Recent ten-year enrollment projections indicate a nearly flat enrollment.

Jointly, the Middle and High School buildings total 290,267 square feet and share select program areas.

CHALLENGES - BUILDING

- Some classroom sizes are too small for current educational modalities
- Many classrooms and student support spaces have no daylight
- Difficult to support interdisciplinary instruction
- Shared cafeteria presents challenges for all grade levels
- Corridors are narrow and wayfinding is challenging
- No intentionally designed collaborative or informal learning spaces
- Many restrooms are not ADA compliant
- Inclusive restrooms are limited and not centrally located for ease of access
- Many rooms have older, less flexible furniture
- Many offices are non-contiguous and would benefit from consolidation
- No intentional teacher collaboration spaces, makes sharing classrooms challenging
- Middle School Media Center use conflicts with adjacent Elementary School use
- Technology not standardized

CHALLENGES – SITE

- Constricted site – the site, in general (all schools) has limited open outdoor space for play areas, athletic venues, outdoor learning areas, etc.
- Limited parking for staff only
- No separated bus loading/unloading area
- School secure entry is distant from administrative offices

Site Analysis

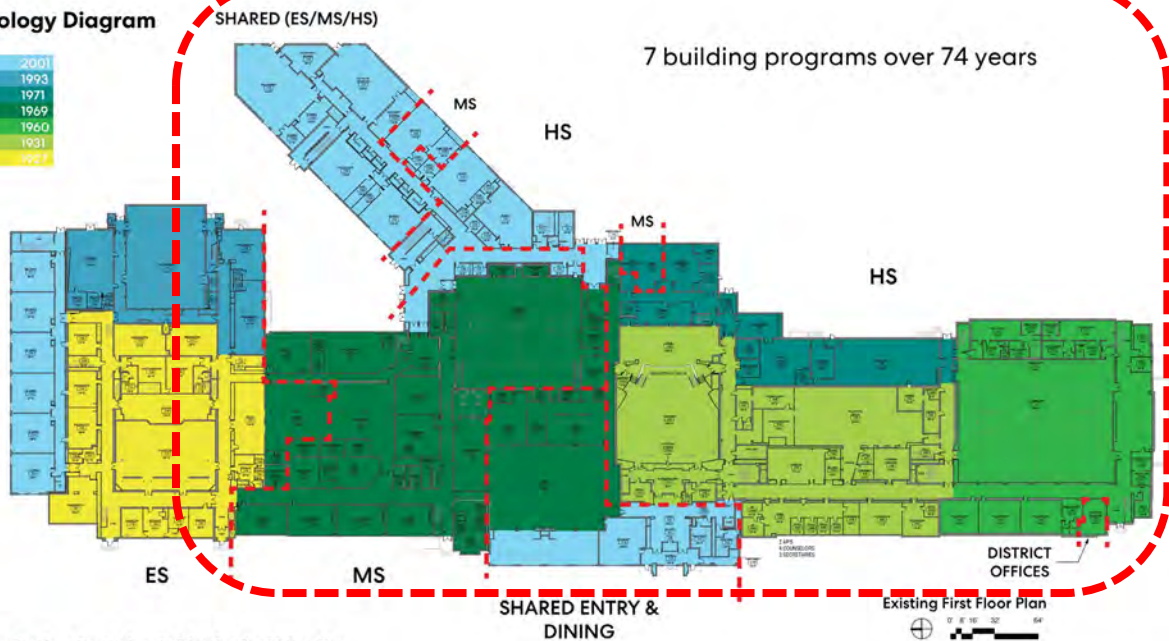


Bexley City Schools District Facilities Plan
 Cassingham Elementary School
 04/02/2024



Moody Nolan | **Perkins&Will**

Chronology Diagram

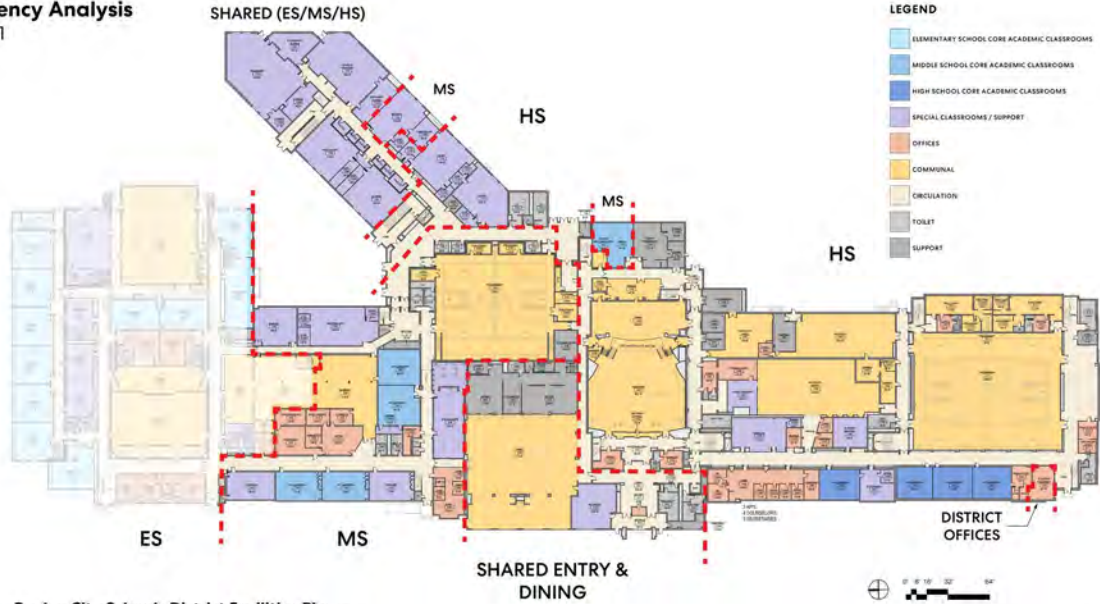


Bexley City Schools District Facilities Plan
 Bexley Middle School & High School
 04/03/2024 - 04/04/2024



Moody Nolan | **Perkins&Will**

Adjacency Analysis
Level 01



Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024

Moody Nolan | Perkins&Will

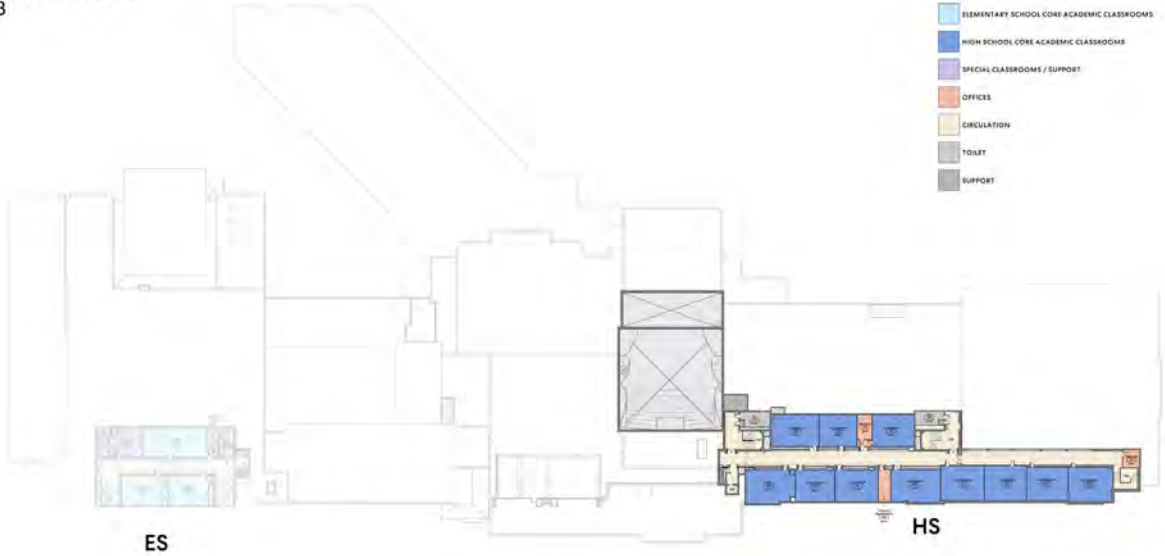
Adjacency Analysis
Level 02



Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024

Moody Nolan | Perkins&Will

Adjacency Analysis
Level 03



- LEGEND**
- ELEMENTARY SCHOOL CORE ACADEMIC CLASSROOMS
 - HIGH SCHOOL CORE ACADEMIC CLASSROOMS
 - SPECIAL CLASSROOMS / SUPPORT
 - OFFICES
 - CIRCULATION
 - TOILET
 - SUPPORT

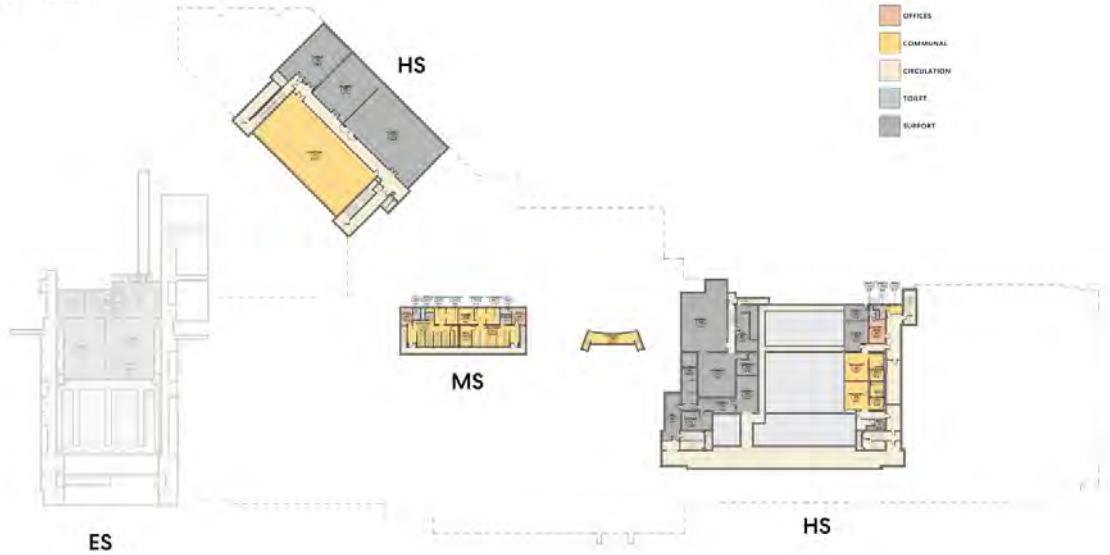


Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024



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Adjacency Analysis
Basement



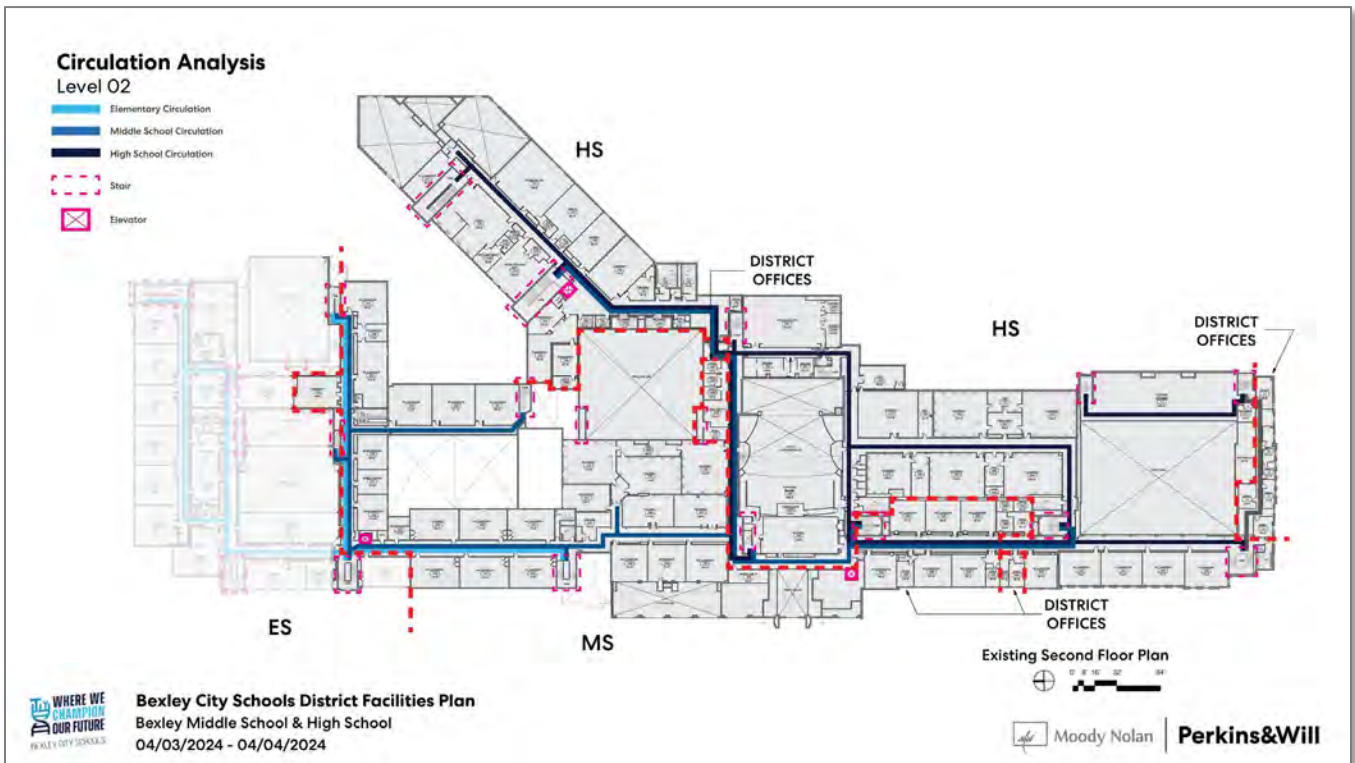
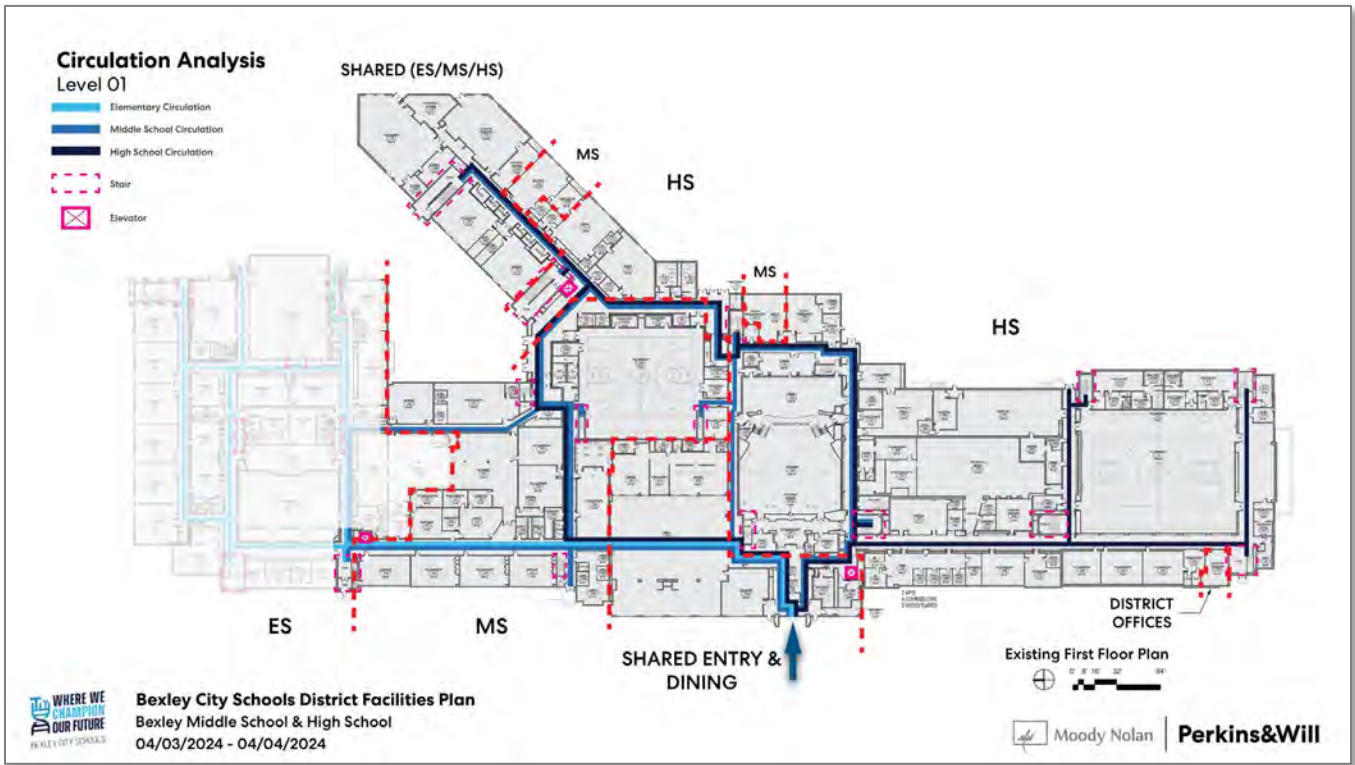
- LEGEND**
- OFFICES
 - COMMUNAL
 - CIRCULATION
 - TOILET
 - SUPPORT

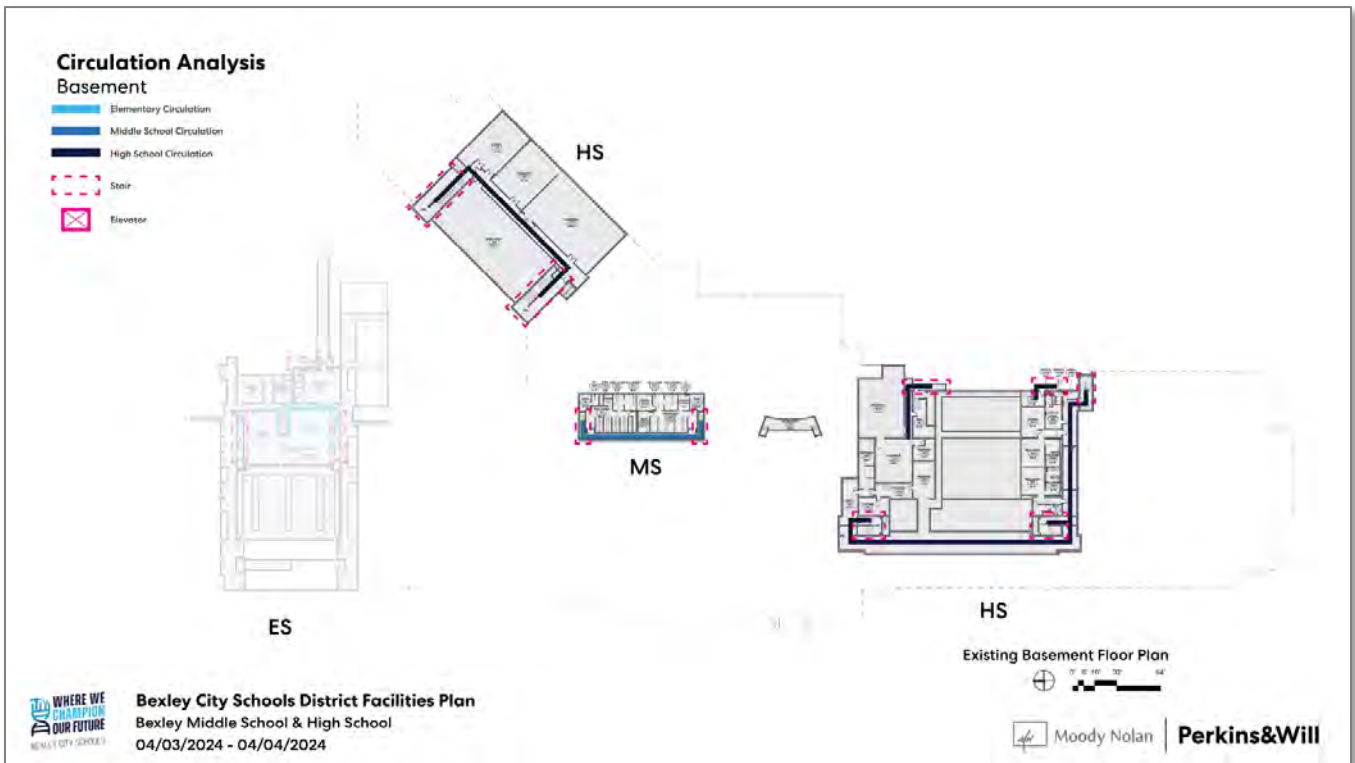
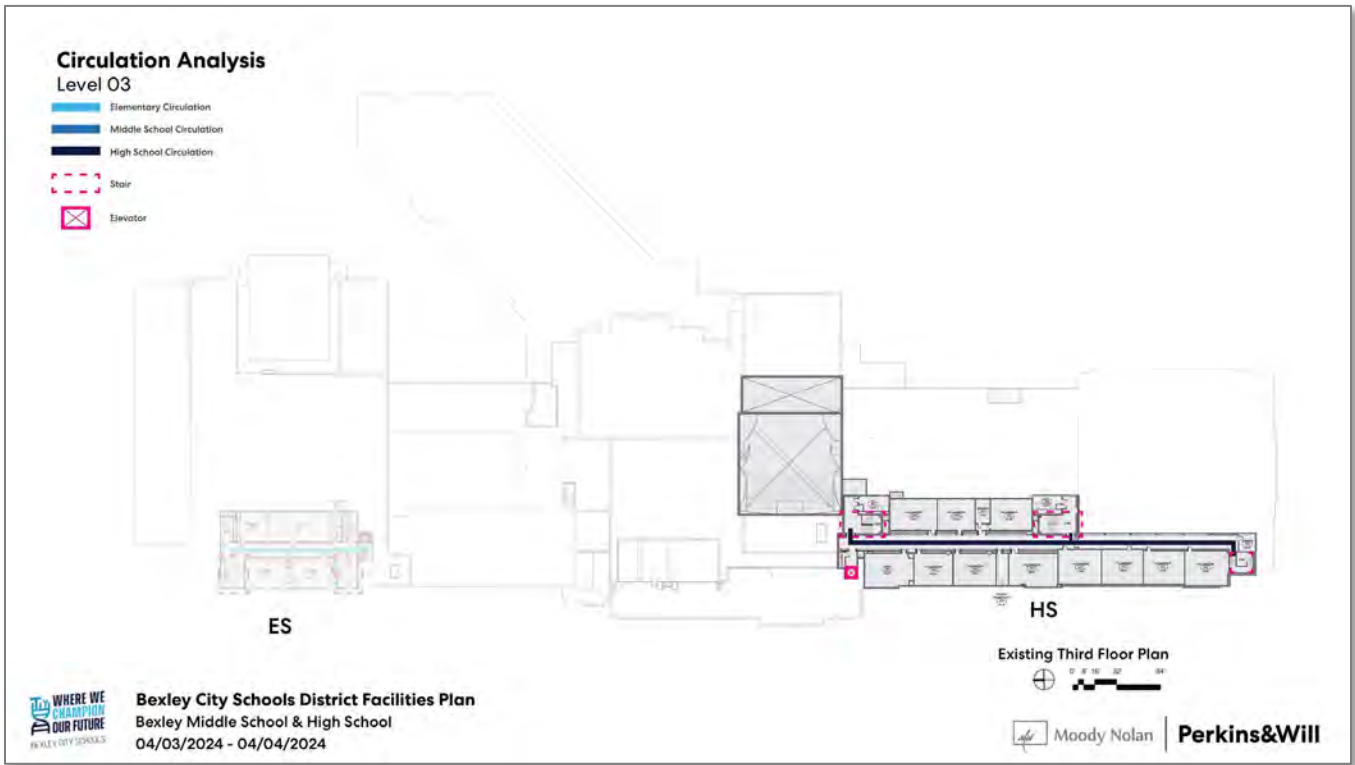


Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024

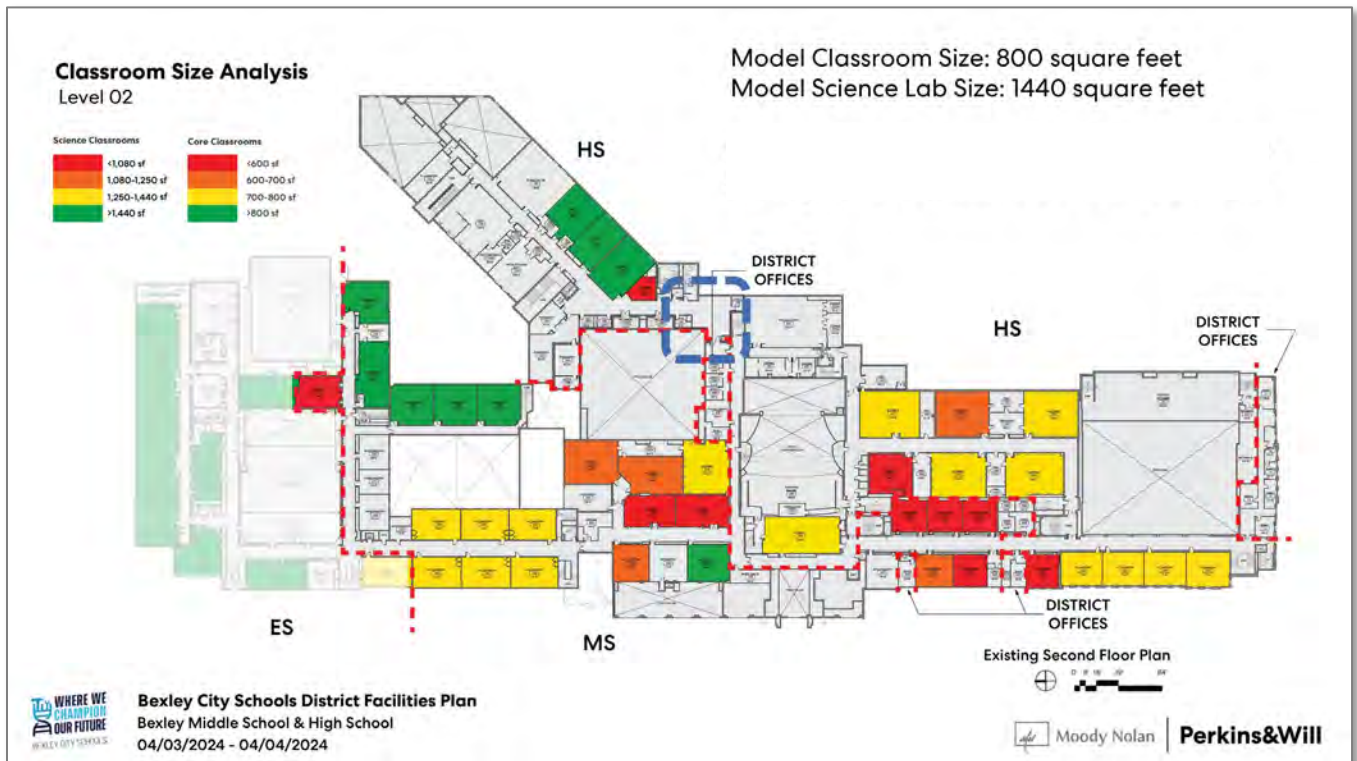
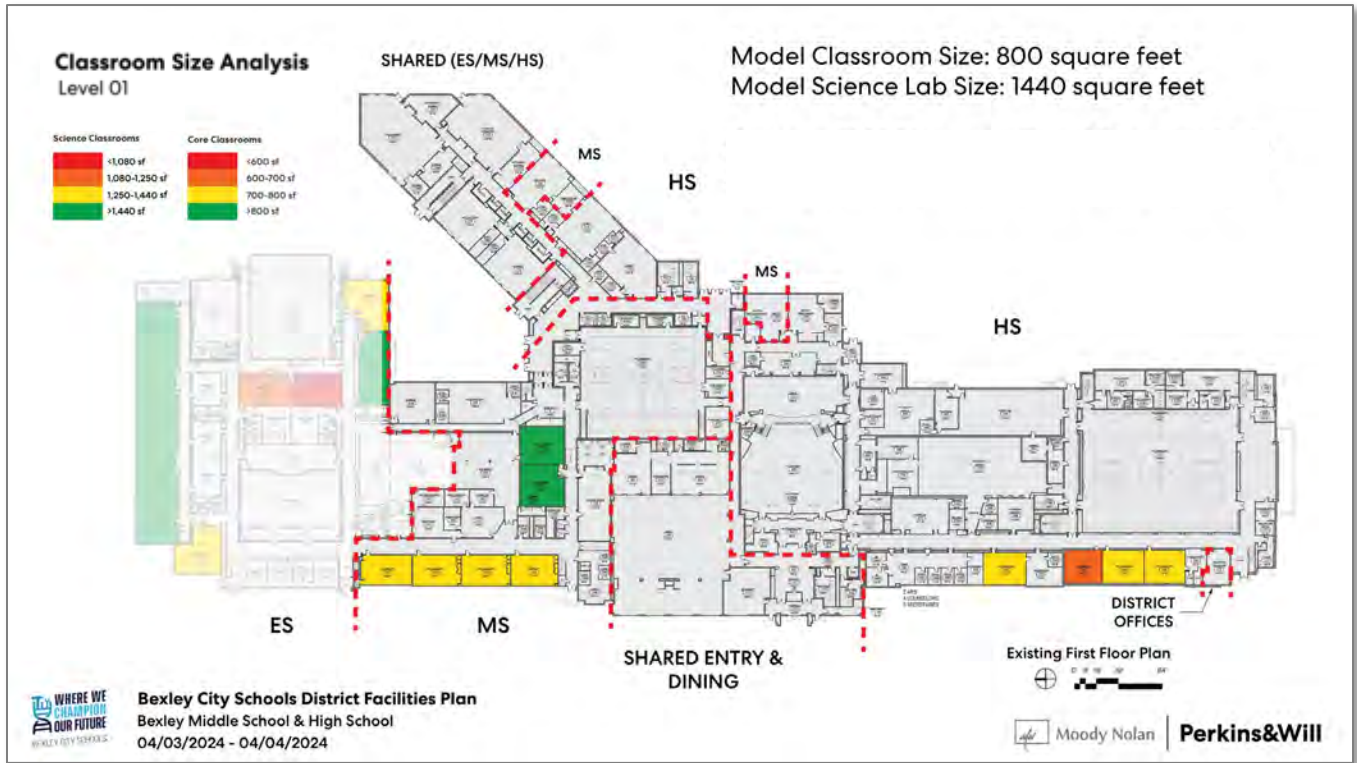


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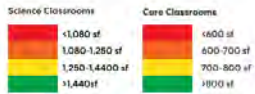




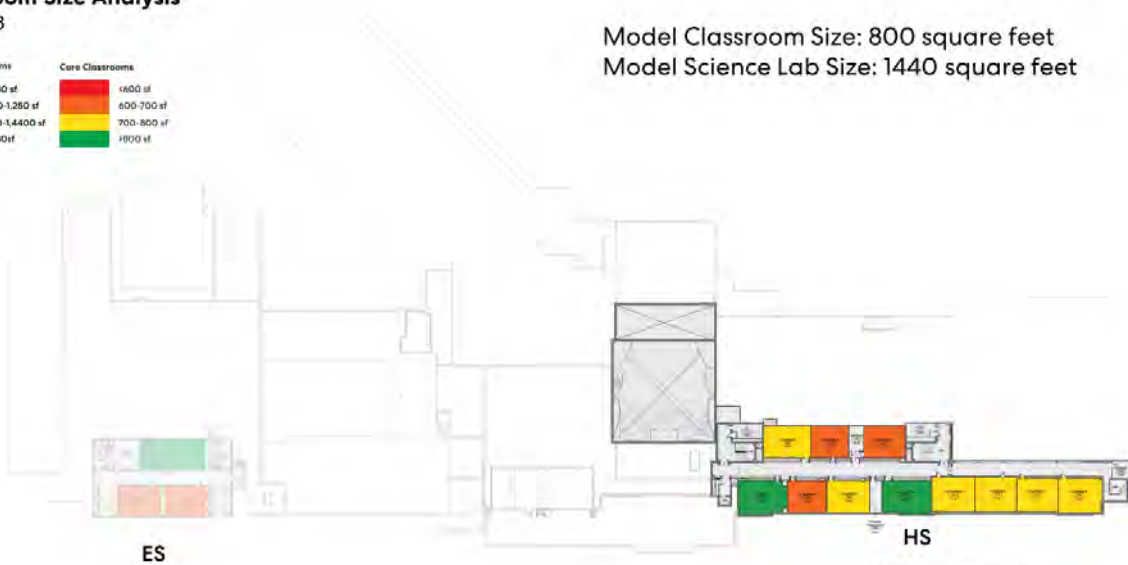
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Classroom Size Analysis
Level 03



Model Classroom Size: 800 square feet
Model Science Lab Size: 1440 square feet



ES

HS

Existing Third Floor Plan



Moody Nolan



Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024

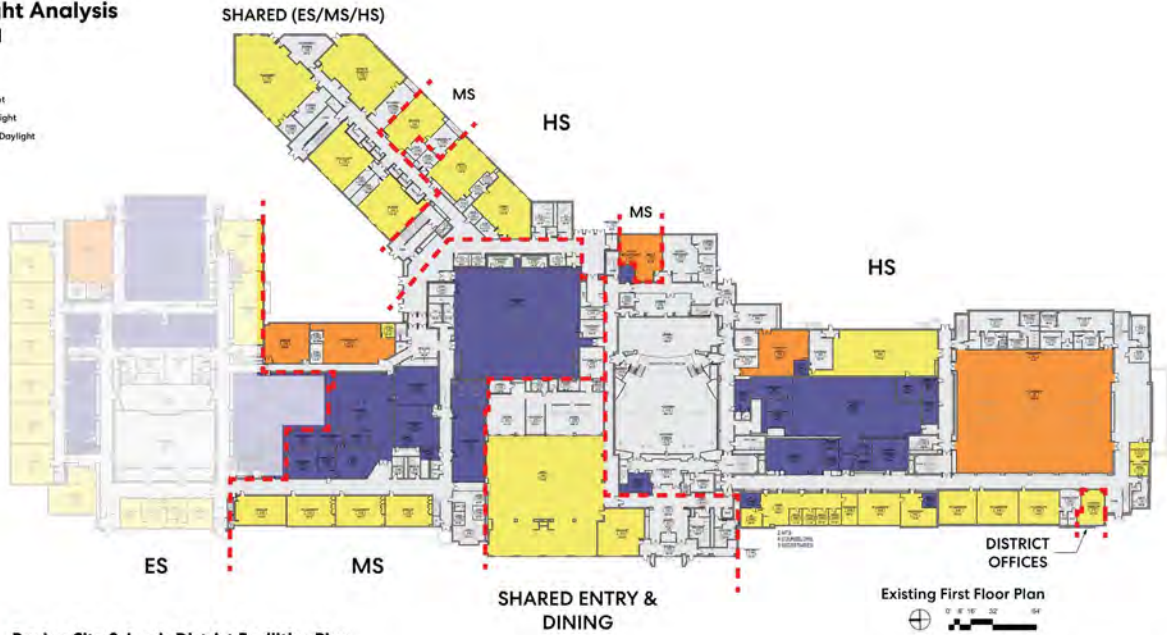
Daylighting

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(Heschong Mahone Group, 1999)



Daylight Analysis
Level 01

- No Daylight
- Some Daylight
- Adequate Daylight



Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024

Moody Nolan | Perkins&Will

Daylight Analysis
Level 02

- No Daylight
- Some Daylight
- Adequate Daylight

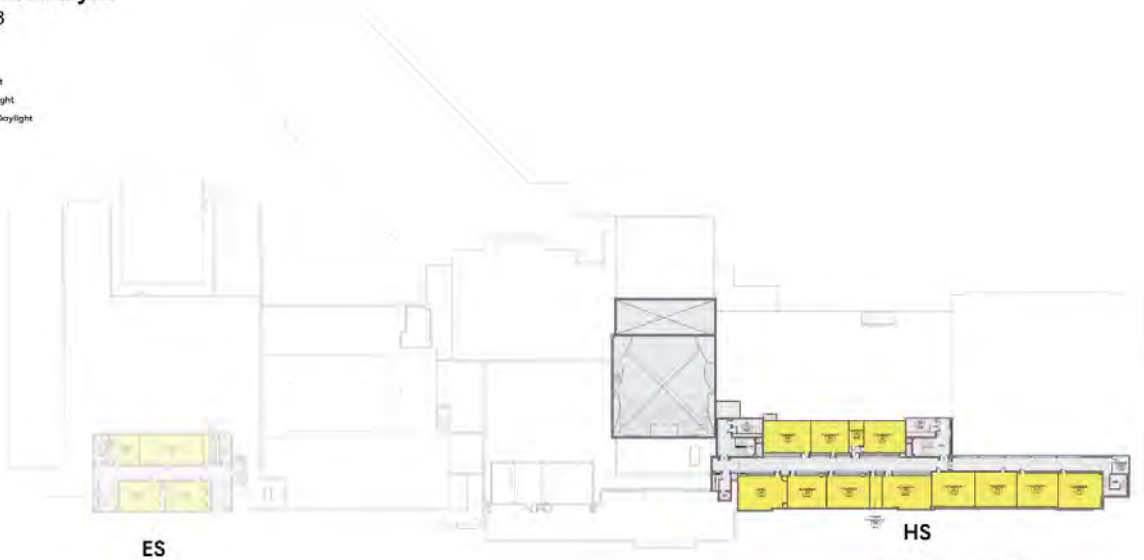


Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024

Moody Nolan | Perkins&Will

Daylight Analysis
Level 03

- No Daylight
- Some Daylight
- Adequate Daylight



Existing Third Floor Plan



Moody Nolan

Perkins&Will

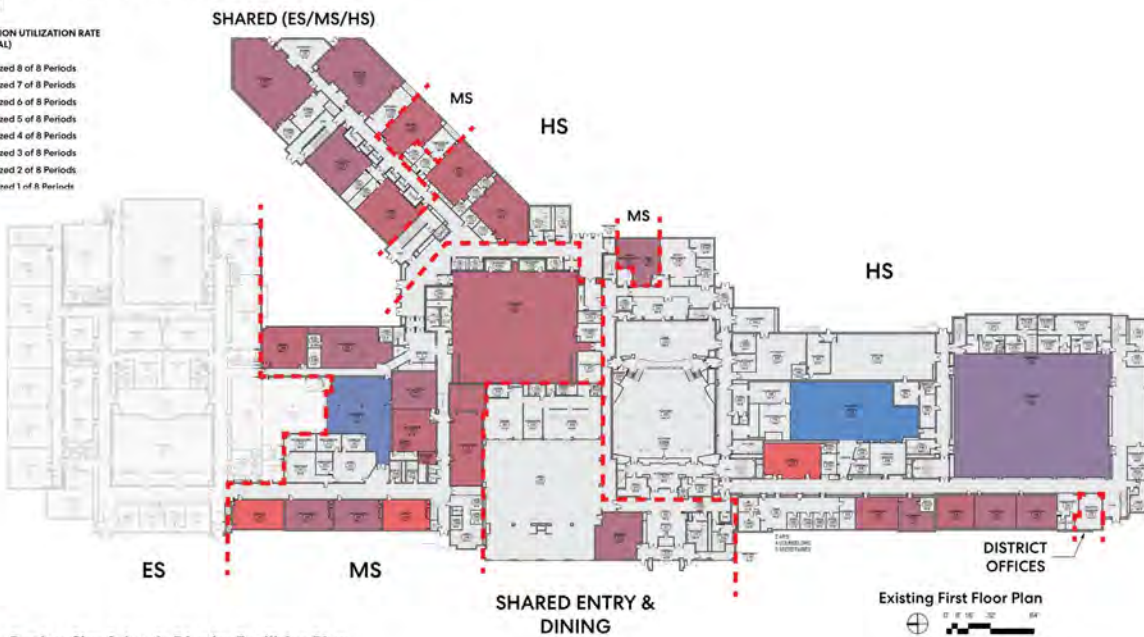


Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024

Classroom Utilization 'Heat Map' Analysis
Level 01

TEACHING STATION UTILIZATION RATE
(8 PERIODS TOTAL)

- Utilized 8 of 8 Periods
- Utilized 7 of 8 Periods
- Utilized 6 of 8 Periods
- Utilized 5 of 8 Periods
- Utilized 4 of 8 Periods
- Utilized 3 of 8 Periods
- Utilized 2 of 8 Periods
- Utilized 1 of 8 Periods



Existing First Floor Plan



Moody Nolan

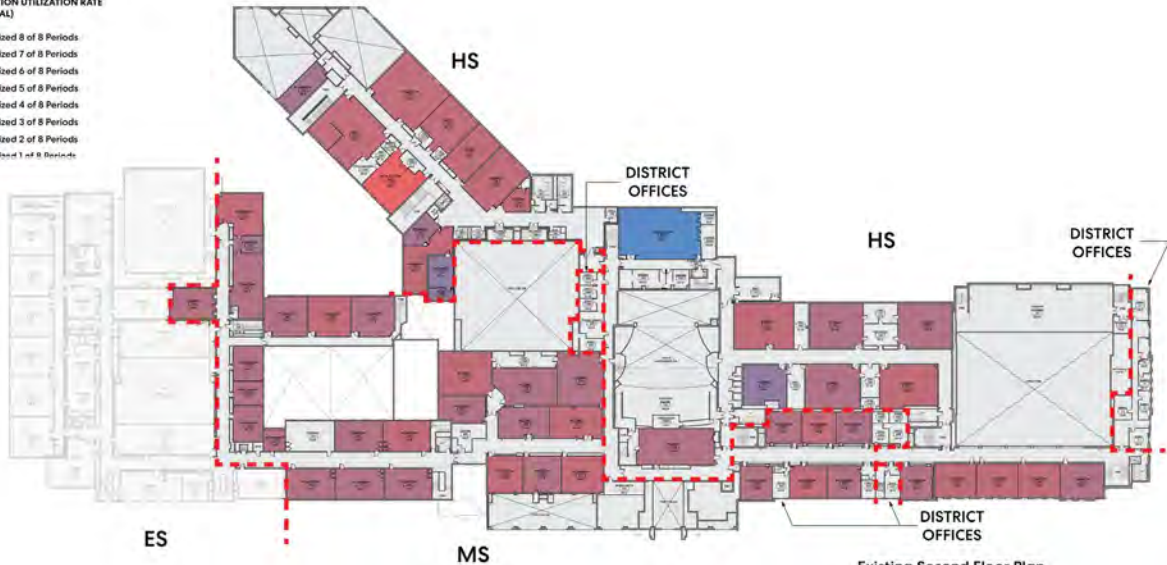
Perkins&Will



Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024

Classroom Utilization 'Heat Map' Analysis Level 02

TEACHING STATION UTILIZATION RATE
(8 PERIODS TOTAL)



Existing Second Floor Plan



Moody Nolan

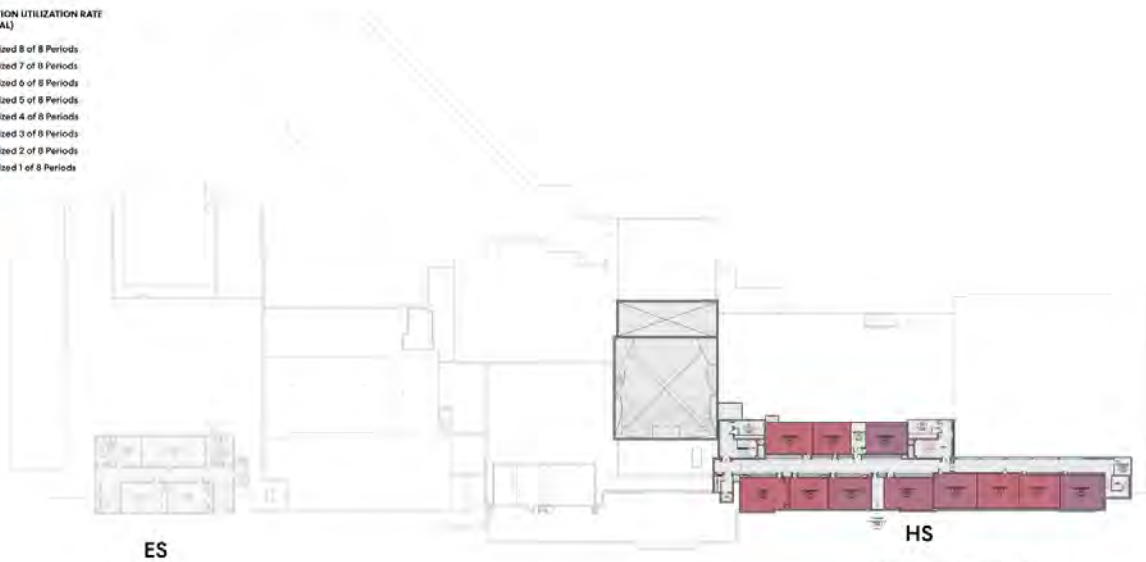
Perkins&Will



Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024

Classroom Utilization 'Heat Map' Analysis Level 03

TEACHING STATION UTILIZATION RATE
(8 PERIODS TOTAL)



Existing Third Floor Plan



Moody Nolan

Perkins&Will



Bexley City Schools District Facilities Plan
Bexley Middle School & High School
04/03/2024 - 04/04/2024



Typical Classroom



Typical Classroom



Typical Science Classroom



2nd Floor Informal Collaboration Area



Shared Cafeteria



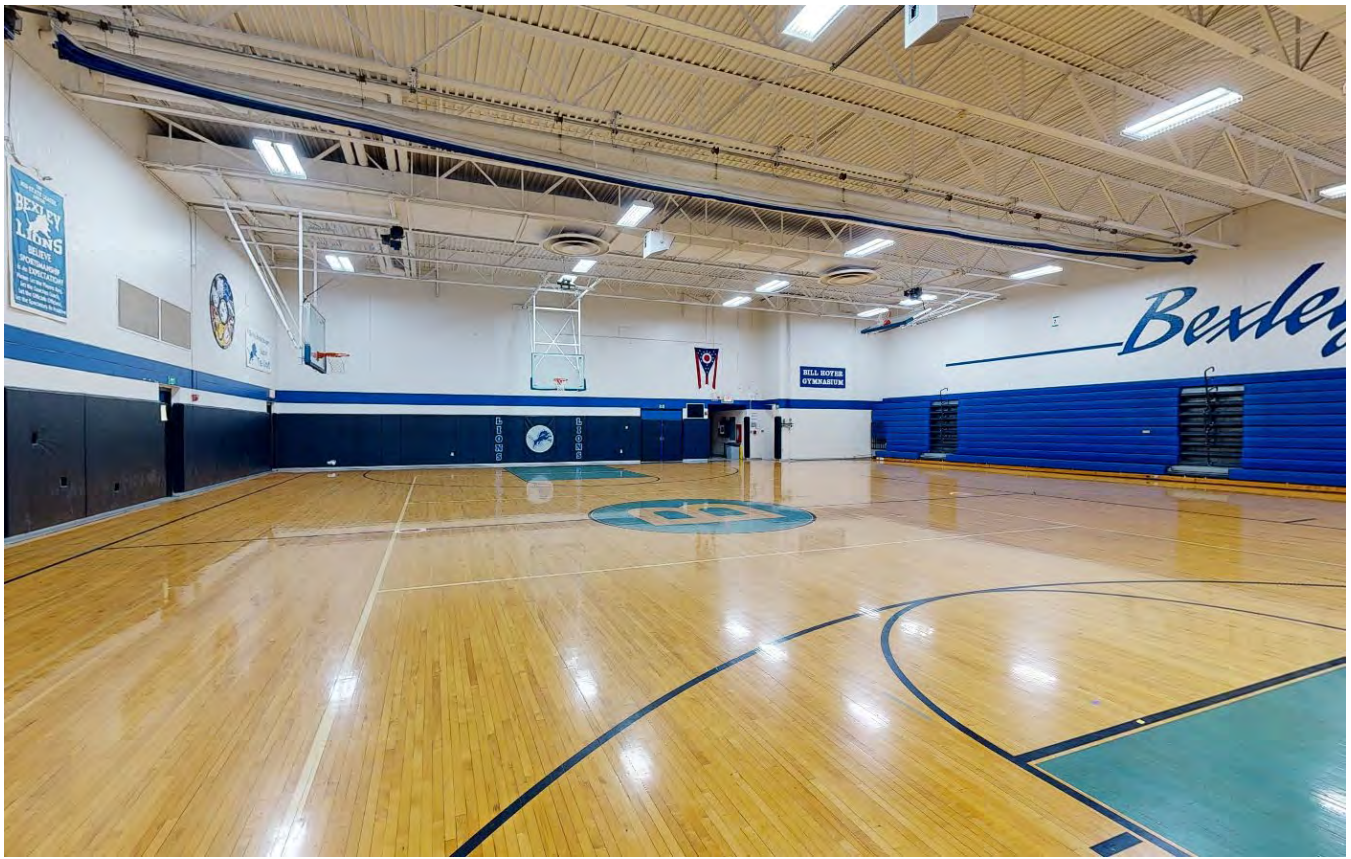
High School Library



Theater



Black Box Theater



Middle School Gym



High School Gym



Middle School Library (Cassingham library beyond orange shelves)



Middle School Library

Why do today's schools need more space?

- Technology integration
- Increase in programs / classes offered
 - PE/Athletics provided for all students (Title IX)
 - Smaller class sizes
- Americans With Disabilities Act (ADA/accessibility)
- Special education services
- Student services support spaces (counseling, psychologist etc.)
- Full-day kindergarten
- Change in concept of food service / cafeterias
- Space for adult programs and community use
- Project based learning / collaborative learning
 - Flexible furniture
 - Flexible space



Athletics: Then and Now



1935

Boys Golf
Boys Tennis
Girls (Club) Tennis
Boys Basketball
Girls (Club) Basketball
Boys Swimming
Boys Baseball
Boys Football
Boys Track
Girls (Club) Volleyball

2024

Boys Golf
Girls Golf
Boys Cross Country
Girls Cross Country
Boys Soccer
Girls Soccer
Boys Tennis
Girls Tennis
Boys Basketball
Girls Basketball
Boys Swimming
Girls Swimming
Boys Lacrosse
Girls Lacrosse
Boys Baseball
Girls Softball
Boys Football
Girls Field Hockey
Boys Bowling
Girls Bowling
Boys Wrestling
Girls Wrestling
Boys Track
Girls Track
Co-Ed Cheer
Girls Volleyball