



KENNESAW STATE UNIVERSITY

EXECUTIVE SUMMARY

The university completed a campus master plan in 2016. The plan has had several minor updates focused on residential life, recreation, athletics, and a new campus gateway. Since that time, there has been significant change. President Whitten has taken office as university president and there has been almost a complete turnover of the cabinet and academic deans. The university has exceeded enrollment projections and consolidation has been a success with record enrollments at the Marietta campus. This update therefore represents an opportunity for the new campus leadership team to assess approaches to developing the campuses' physical environments. Most importantly, it is a statement of near-term capital priorities that will guide both requests to the state, and inform partnership opportunities and fundraising efforts.

The university's overall highest priority is for an interdisciplinary research building on the Marietta campus that will bring together researchers from the STEM disciplines primarily based on the Marietta campus, particularly in the areas of computing, engineering, and architecture/construction management, to tackle university-wide research themes including health, sustainability, computing, applied science, and potentially robotics. The building is envisaged at 100,000 GSF, and this update proposes two potential locations: the first creates a new "front door" and entry experience for the campus; the second consolidates activity around the Engineering Technologies building.

The highest priority for the Kennesaw campus is to significantly improve the student experience through a reimagining, and enlargement, of student activity spaces along the campus "main street" as designated in the 2016 plan. This includes the need for interactive student spaces, student engagement spaces, team rooms, maker spaces, etc. Spaces should act as a complimentary network infusing life throughout the academic core, rather than being consolidated in a single location.

In general, the update confirms the analytical underpinnings and "big picture" organizing ideas of the 2016 plan, and as such, should be read as a refinement of priorities, rather than a restatement of campus organizing principles. This includes reaffirmation for Kennesaw of consolidating academic activity within the academic core; the utility of the historic "block" pattern to support significant infill and development; and the importance of enhancing the central organizing spine or academic "main street". For Marietta, the update recommits to the regeneration of the historic campus core; the need to improve the arrival sequence; and the network of connections between academic and residential zones.

Otherwise, the update details other priorities for each campus. For Marietta, this includes discussions on: the consolidation of architecture and construction management in a single district; growth needs for computing and other disciplines and how best to align these needs in space vacated through the architecture consolidation; and a further commitment to the ongoing renovation strategy.

For Kennesaw, other priorities include: athletics improvements; the ongoing creation of an arts district at Chastain Pointe (as funds allow); and a series of big decisions on potential renovation versus replacement for large facilities like BrandSmart, the KSU Center, and KSU Place.

The information in this update can serve as a roadmap for capital investment over the next two-to-five years, and give the university confidence that its physical environment will continue to develop in a way that maximally supports its students and its growing research agenda.

MARIETTA CAMPUS

OBSERVATIONS AND CAMPUS ENTRY EXPERIENCE

The explorations undertaken during the update validated the core strategies of the 2016 master plan. The Marietta campus has a unique and intimate identity. The historic core has a specific architectural character, and the university has worked hard to reinvigorate and restore the building stock around the quad. Over the last several years, the university has made investments that have substantively advanced the work of simplifying and revitalizing the historic core; and the university should remain committed to this idea. Furthermore, new development should continue this pattern, further reinforcing and vitalizing the campus core. The university should also seek to clarify and transform the primary campus entry which currently delivers visitors into the middle of a parking lot without allowing them to engage with, or appreciate, the campus.



IDEA #1 - RESEARCH FOR MARIETTA DISCIPLINES

The university's primary need is for research space that bridges multiple disciplines, particularly the engineering, computing, and architecture/construction management disciplines located primarily on the Marietta campus, and allows researchers to collaborate on themes the university has identified as focal points in its research agenda. These include topics in health, sustainability, computing, applied science, and potentially robotics, and will likely require approximately 100,000 GSF. The ground floor of the building is anticipated to be a place of convening, including opportunities for students to work and engage the university's research mission, and for collaboration and visible excitement.

The master plan explored multiple locations for this new research building. The first option places the building next to the student center and the administration building. The project would include a realignment of the entry drive, and create a new entry green, thus reimagining the campus entrance. The advantages of this high-visibility location are that it resolves the campus' entry challenges and places the building in an area of the campus not currently associated with any one discipline, reinforcing the message of a collaborative space that encourages interaction.

The second potential location is next to the existing Engineering Technology Center (Q Building). This location reinforces existing infrastructure and will solidify the identity of this campus district.

As part of an initial design and programming study, the university should consider both locations and make a final siting determination.

While the cost of a potential new research building will require careful study, for planning purposes, the university should consider the Center for Engineering and Research at Georgia Southern University as a useful example. This project consisted of a 157,000 GSF building with a final cost estimate of \$60,000,000 in 2017 for an all-in project cost of \$382/sf with a space type breakdown as follows:

- 64% laboratories (including high bay)
- 26% academic/offices
- 3% social
- 2% back-of-house
- 5% miscellaneous

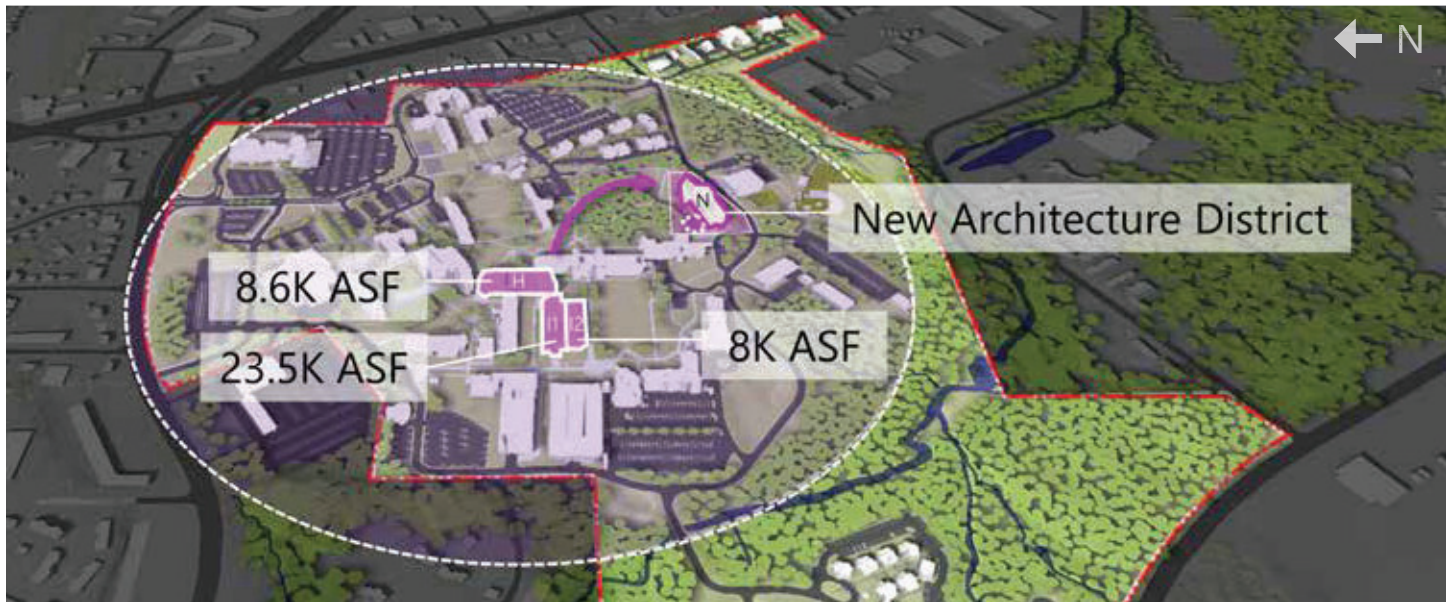
It is likely reasonable for KSU to plan based on a high-level 100,000 GSF at \$400/sf project cost number until such time as a more detailed cost estimate can be developed.



IDEA #2 - CONSOLIDATE ARCHITECTURE AND CONSTRUCTION MANAGEMENT

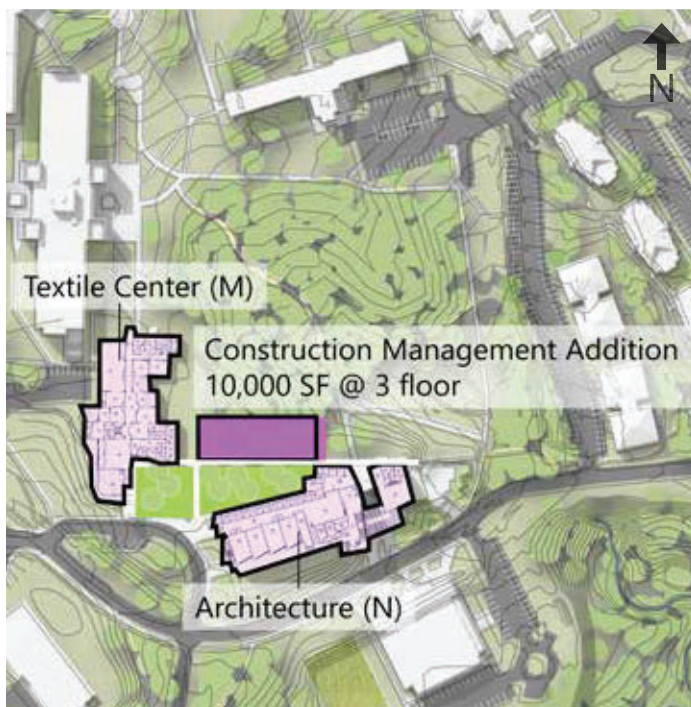
The university should continue to explore options to consolidate architecture and construction management in a new district centered on the Architecture Building (N Building) and Textile Center (M Building). This colocation will allow for better program synergies within architecture and construction management, and the vacated space in the Design Buildings (I Building) and the Academic Building (H Building) will allow for approximately 35,000-40,000 square feet of backfill in the middle of the campus.

The key to the architecture consolidation is the future of the Textile Center (M Building). The university should prioritize the repurposing of this building to meet the needs of architecture and construction management, potentially swapping current uses with space that will be vacated in the Design Buildings (I Buildings) and the Academic Building (H Building). If, after exploring all strategies for the reuse of the Textile Center (M Building), the university determines that there is a legitimate requirement for more construction management space, it should consider design options for a small addition to accommodate those needs. The addition should work in such a way as to reinforce open space and the district's emerging identity.

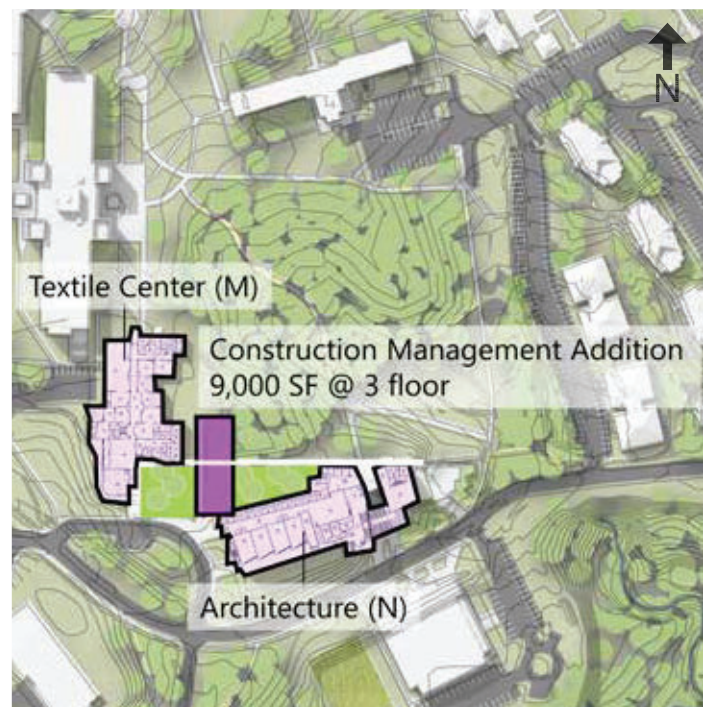


30K GSF ADDITION

OPTION #1

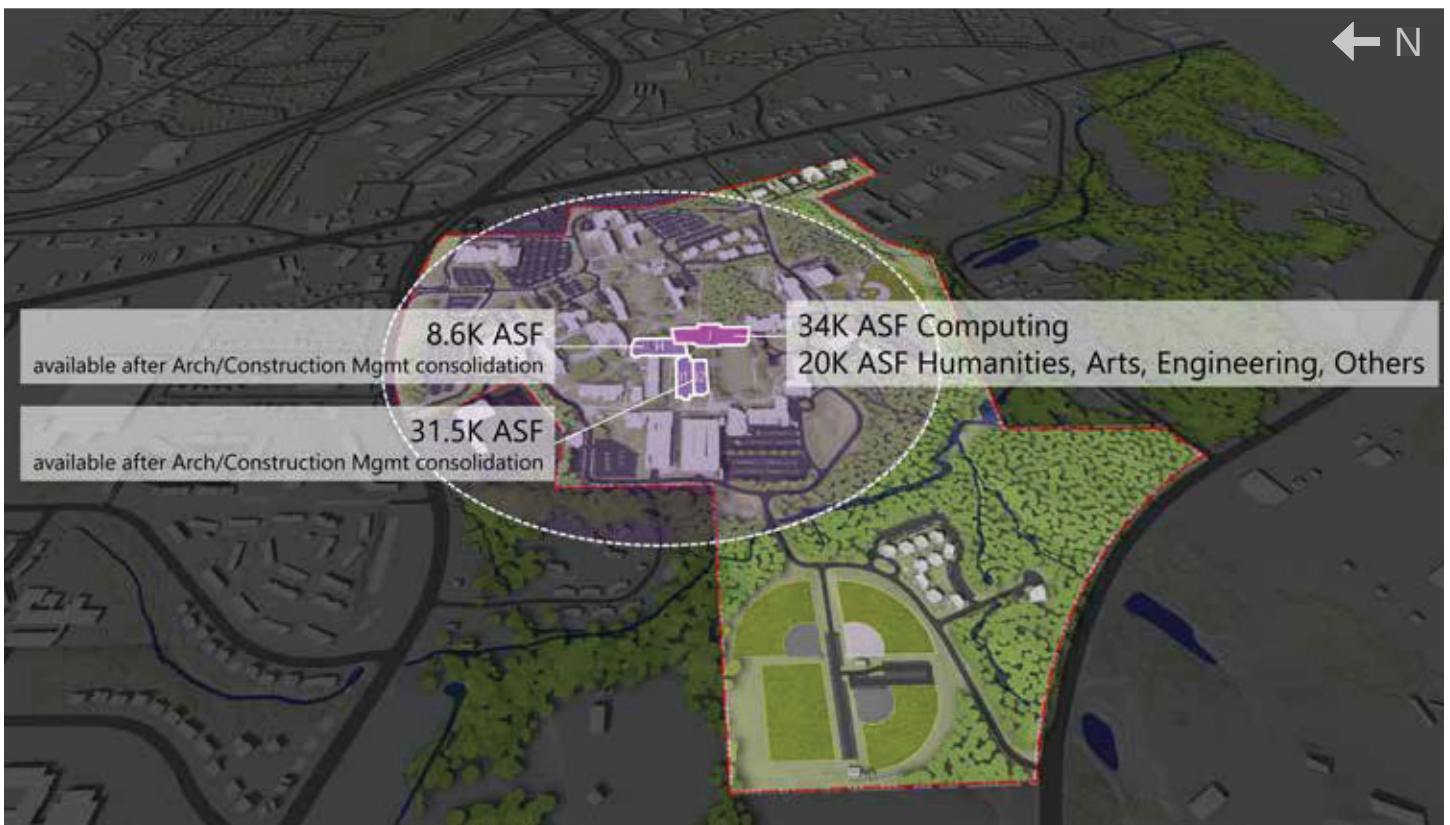


OPTION #2



IDEA #3 - GROW PROGRAMS IN PLACE

Vacating the Design Buildings (I Buildings) and the Academic Building (H Building) will enable several important follow-on actions. Critically, the College of Computing continues to grow and will likely require all of the Atrium Building (J Building) for its future program needs. The Atrium Building (J Building) is currently home to several other important programs and these programs will need good proximate space (they currently occupy about 20,000 assignable square feet in the Atrium Building). The repurposing of the Design Buildings (I Buildings) and the Academic Building (H Building) are ideal for this purpose. In addition, several other colleges, particularly in the sciences and the humanities, have growing needs as they continue to provide core course delivery on the Marietta campus, and these needs should be factored into future space assignments associated with 45,000+ assignable square feet that will become available in the Design Buildings (I Buildings) and the Academic Building (H Building).

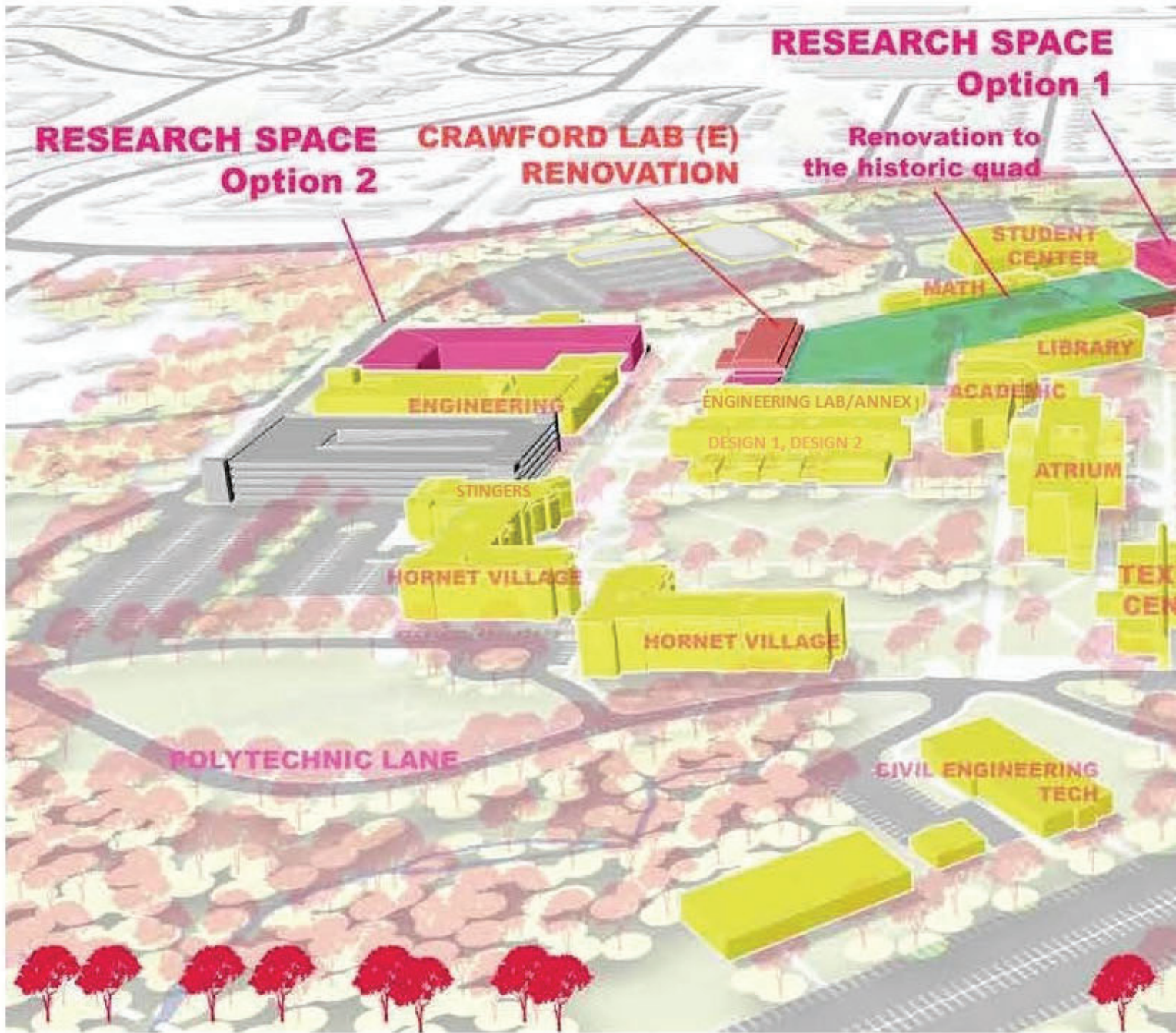


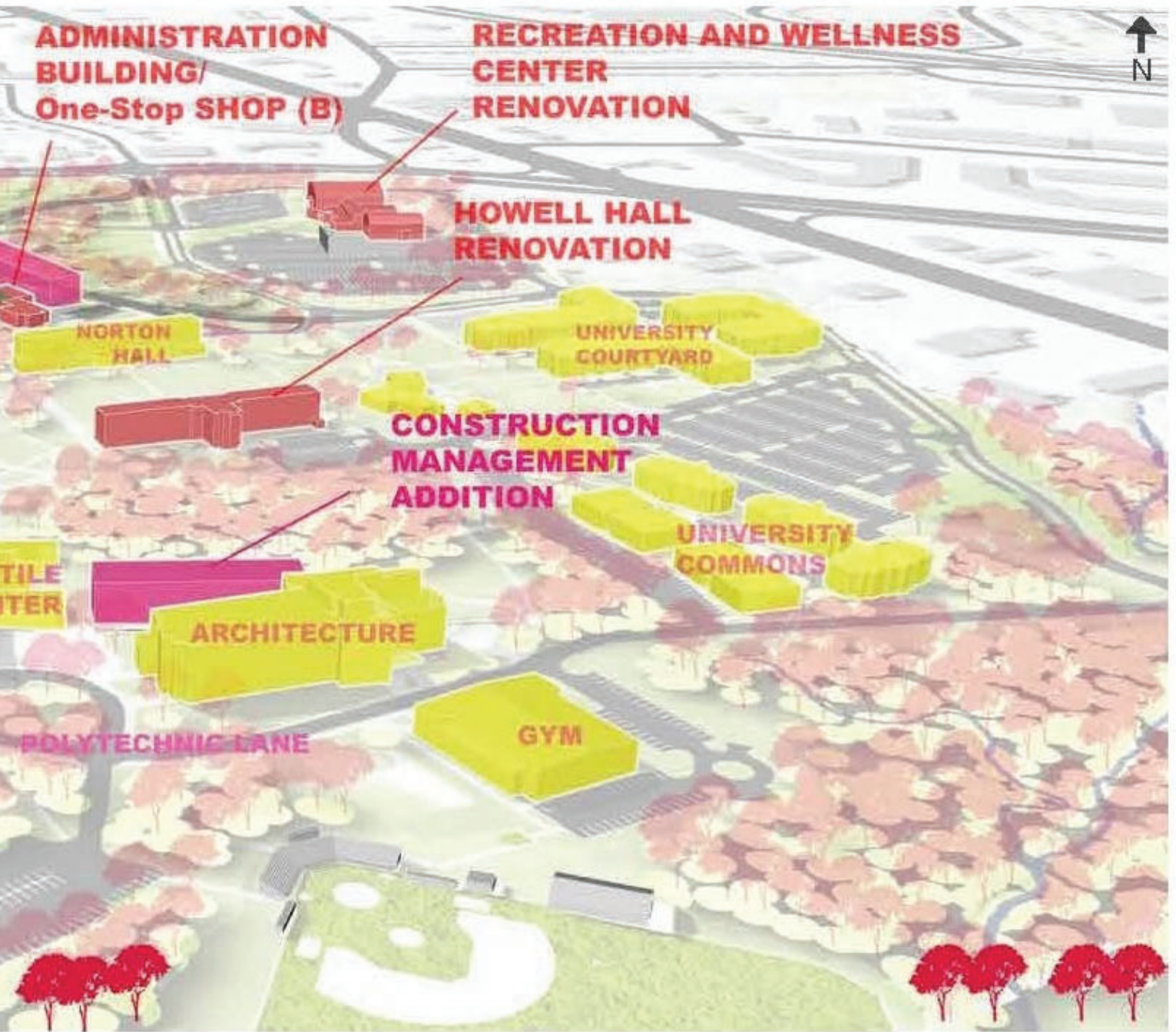
IDEA #4 - ENHANCE STUDENT EXPERIENCE

While the potential for a new Marietta research center is the university's first priority, KSU also believes strongly in the need to enhance the student experience on the Marietta campus. This includes a continued commitment to the renovation strategy outlined in the 2016 master plan and its subsequent refinements. Renovations along the original quad have proceeded in strong alignment with the 2016 plan, and one building—Crawford Lab (E Building)—remains to be renovated. This should be a high priority. Unfortunately, efforts to relocate recreation have proved too costly, and so the university now focuses on an update to the existing recreation center. From a student life perspective, the renovation of Howell Hall is a major priority, followed by the creation of a one-stop shop for student services; potentially, this could be located in the Administration Building (B Building). The university will also soon add a Starbucks to the Marietta campus.



MARIETTA CAMPUS OVERVIEW





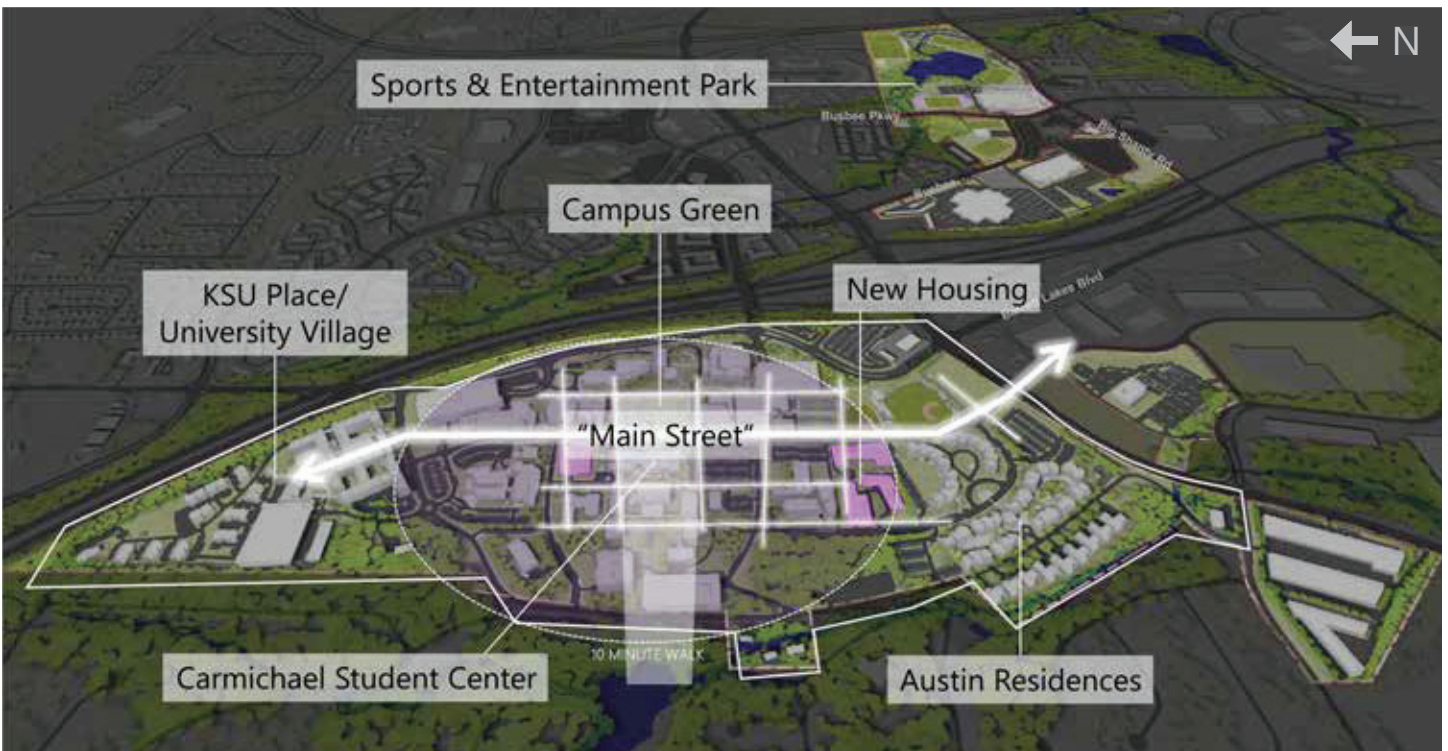
KENNESAW CAMPUS

OBSERVATIONS

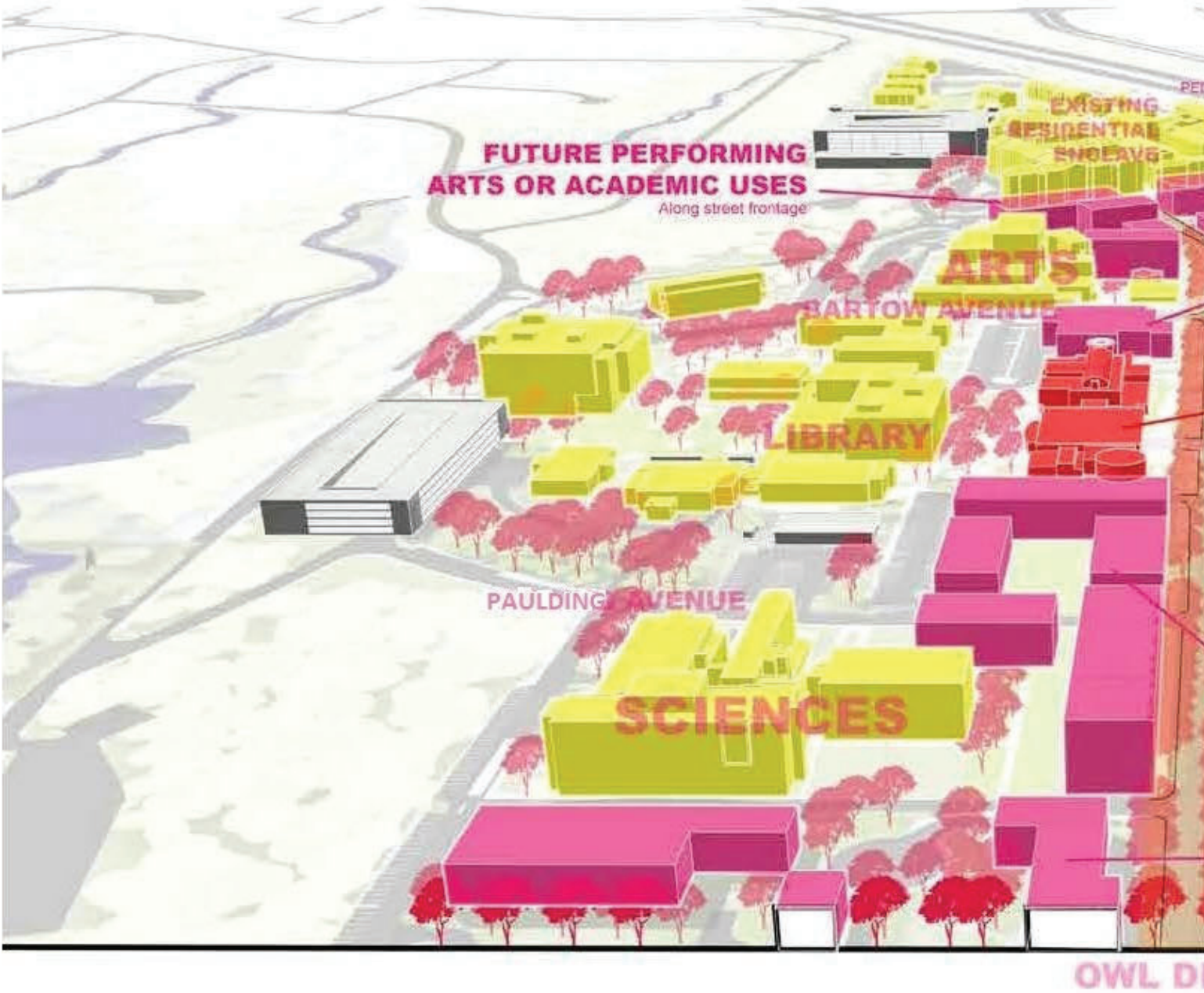
Since the completion of the 2016 master plan, the campus has broken ground on the Academic Learning Center. It also commissioned a separate design study completed by Collins Cooper Carusi Architects for a new residential village in the southern portion of the campus. Design work on the first phase of this new housing is complete, and the university anticipates that construction will begin shortly. This update incorporates these concepts.

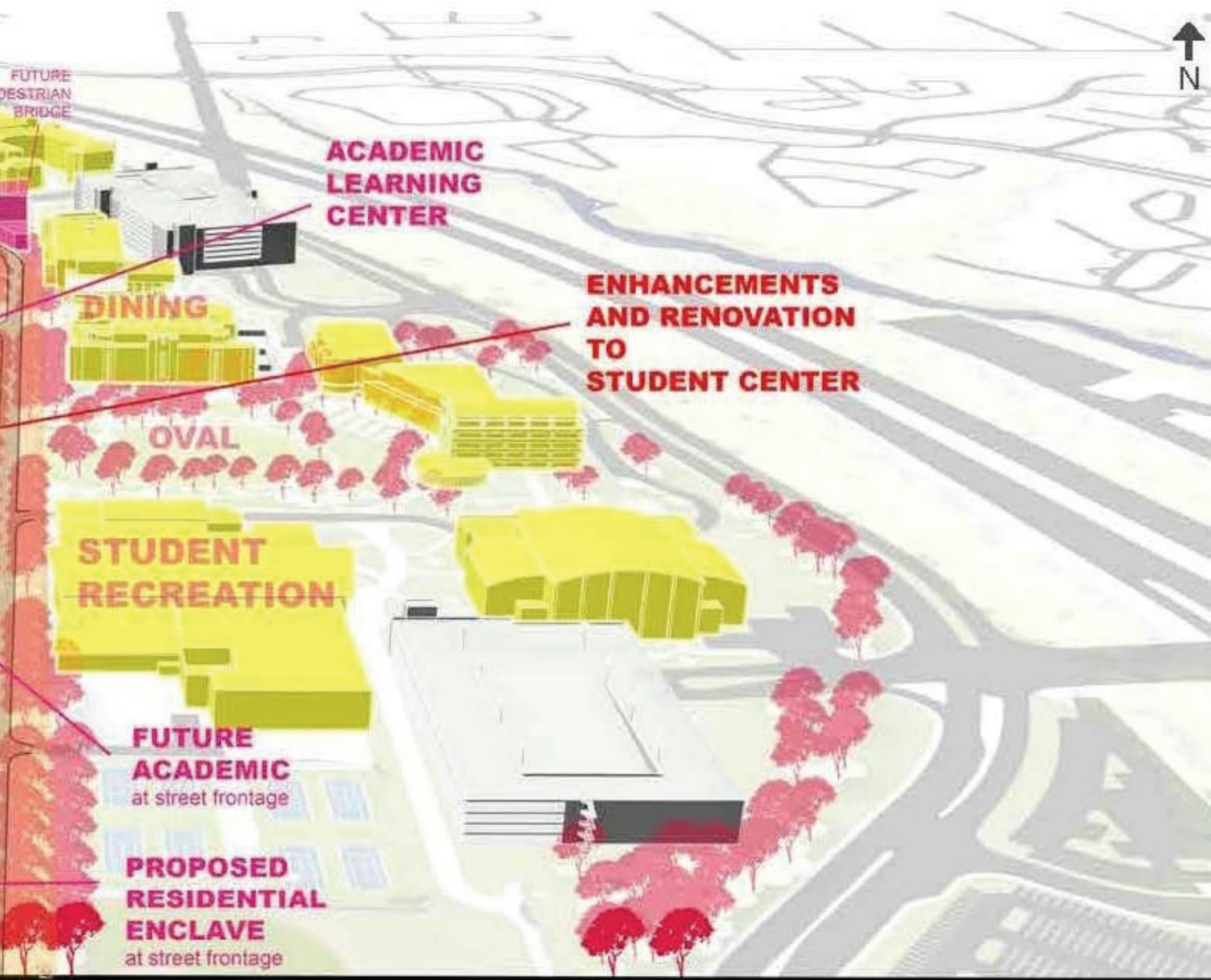


As with the Marietta campus, our work in this study confirmed the analysis and conceptual approach as outlined in the 2016 master plan for the Kennesaw campus. The primary idea is to stop the previous pattern of dispersal, and to recognize the great potential for academic growth within the existing 10-minute academic core. To support this, the historic structure of the campus provides an excellent framework for increased campus density. In particular, the master plan concept of an academic "main street" and campus spine is a crucial organizing idea for the Kennesaw campus, and this combined with the effective network and block pattern of the original historic campus core provide strong guidance to direct future development.



ACTIVATED CAMPUS MAIN STREET SHOULD BE THE LOCUS FOR STUDENT LIFE

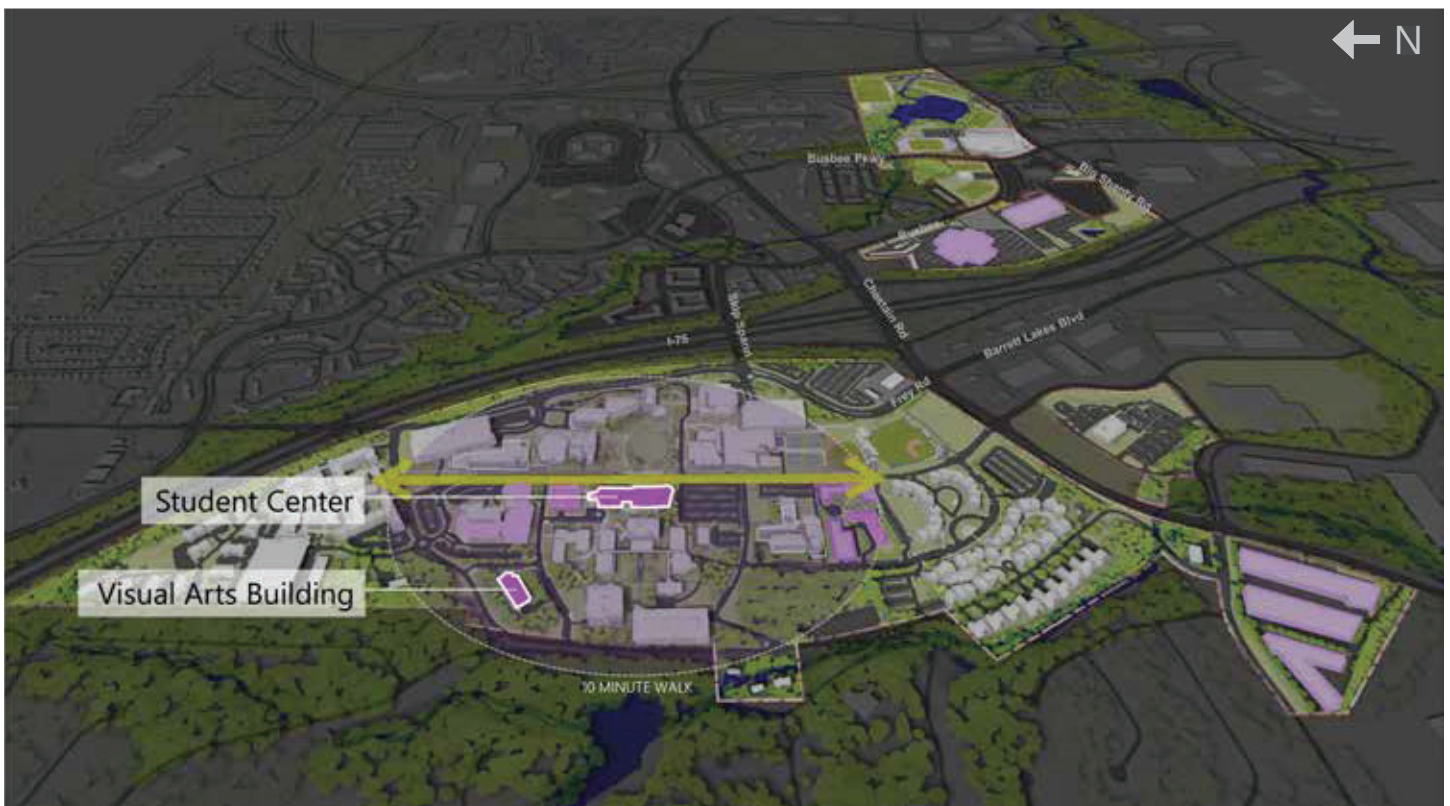




RIVE

IDEA #1 - STUDENT EXPERIENCE

The primary need for the Kennesaw campus is to better support the student experience by improving opportunities for collaboration and interaction. While a long-term reinvention or replacement of the student center is desirable, funding constraints suggest this is not likely in the foreseeable future. Instead, the university should focus on a distributed network of spaces in the academic core that infuse vitality, life, and collaboration with the students' formal classroom experiences. The academic "main street" is the best possible nexus for these activities, and so interactive student spaces, student engagement spaces, team rooms, maker spaces, and the like, should be added along this spine. The university should consider moving the bookstore as part of this sequence, and converting the current bookstore space into a 24/7 study area, perhaps with an accompanying Starbucks (the current Starbucks location could potentially also transform into a student or maker space). Longer term, if the Visual Arts building should be vacated as part of a general Arts move (see Idea 3 below), this would provide an excellent space for student organizations and/or student maker spaces.



IDEA #2 - ATHLETICS

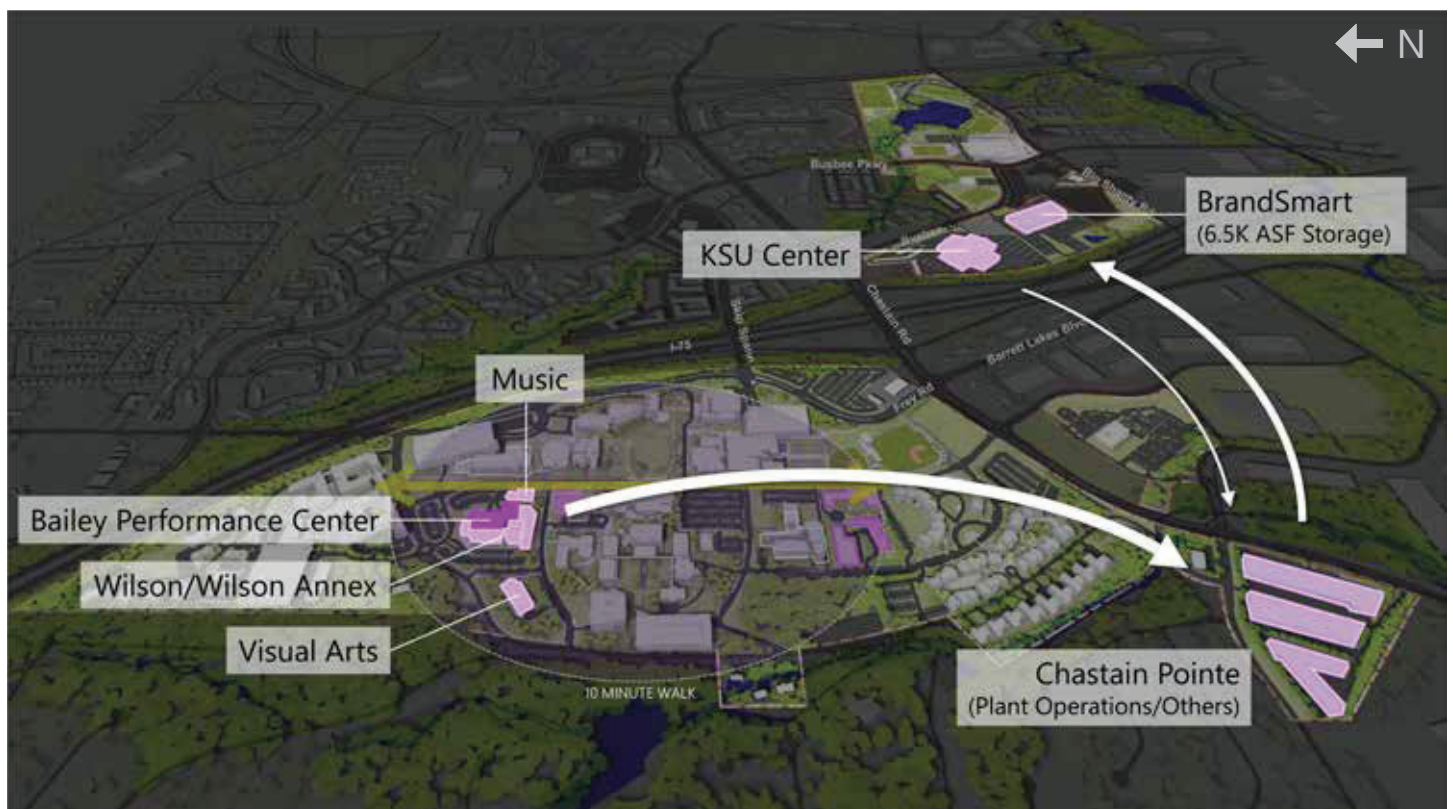
As discussed at length in the 2016 master plan, athletics occupies significant portions of the campus' landholdings, and are an important contributor to the university. After significant study, the 2016 proposed move of the baseball stadium has proved cost-prohibitive, and the university has therefore decided to renovate the existing baseball stadium in-place. Other moves should follow based on athletics fundraising activities. The highest priorities are to replace the track and to expand the football stadium so as to introduce high-revenue club seating and consolidate activities like the football exercise room and potentially student success venues in one location to limit the amount of travel student athletes need to complete back-and-forth across the campus.



IDEA #3 - ARTS TRANSFORMATION

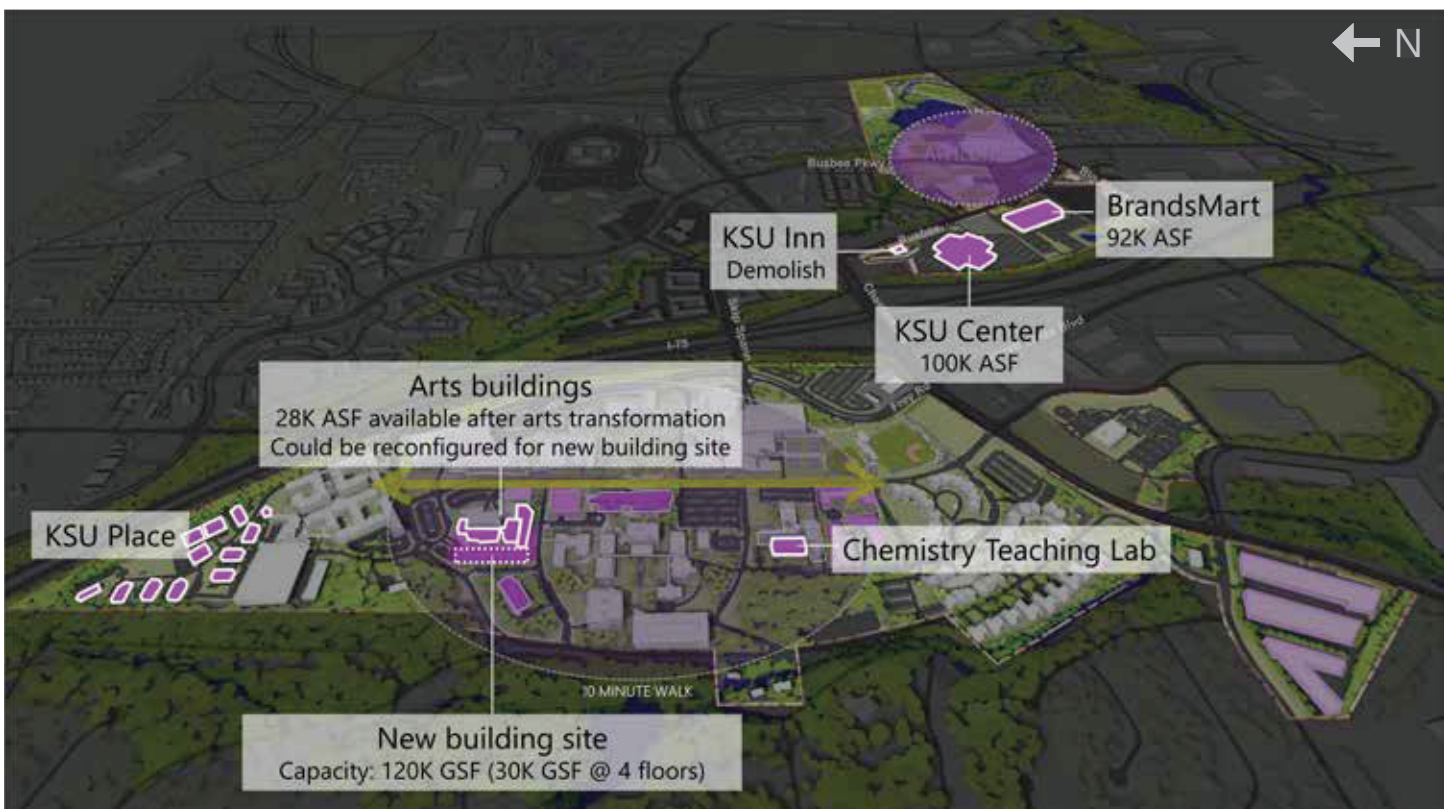
The 2016 master plan presented a bold plan to create a new arts district through a phased strategy at Chastain Pointe. The idea was to leave the performance venues in place (approximately 23,000 ASF), but to move all other arts programs (approximately 54,000 ASF) to Chastain Pointe over time through a series of small-cap projects. The university has implemented several phases of this work, and this update leaves open the possibility to continue the sequence, while noting that funding constraints may limit the speed at which the moves occur. Given several other needs for small capital projects, the university expects that further progress will not depend on state funding, but rather COTA's work raising private dollars. When moves are possible, the overall vision for Chastain Pointe as a "cool" and "funky" arts district as presented in the 2016 plan remains valid. Note that, from a sequencing perspective, it may be desirable (or necessary) for the university to move current (mostly) back-of-house operations from Chastain Pointe to make room for the arts programs. Plant Operations are the most obvious candidate, and a potential move of these uses to the BrandsMart building is a logical solution. The university should likely use approximately half the BrandsMart building for Plant Operations and half for athletics.

Arts to be moved	ASF	Performance Venue	ASF
Visual Arts	18,605	Bailey Performance Center	17,669
J.M. Wilson Building	14,868	J.M. Wilson Building	5,437
Wilson Annex	9,014	Grand Total	23,106
Music Building	5,505		
Bailey Performance Center	4,059		
KSU Center	1,565		
Grand Total	53,616		



IDEA #4 - LIKELY RENOVATION AND REPLACEMENT NEEDS IN TEN YEARS

Arguably, the biggest challenge for the Kennesaw campus is to reinvest in or replace several large older facilities. The three most prominent renovate-or-replace decisions are for BrandsMart, the KSU Center, and KSU Place. The university should evaluate all financial, market, programmatic, campus land use, and other relevant considerations, and quickly arrive at final decisions. The KSU Inn should be demolished as soon as practicable. Separately, the university is working with the system office to advance a chemistry teaching laboratory project, and this renovation should be accomplished as soon as possible. To help in this regard, the university recently completed a hotel and conference center feasibility study on replacing the KSU Center. The study suggested favorable conditions are in place.

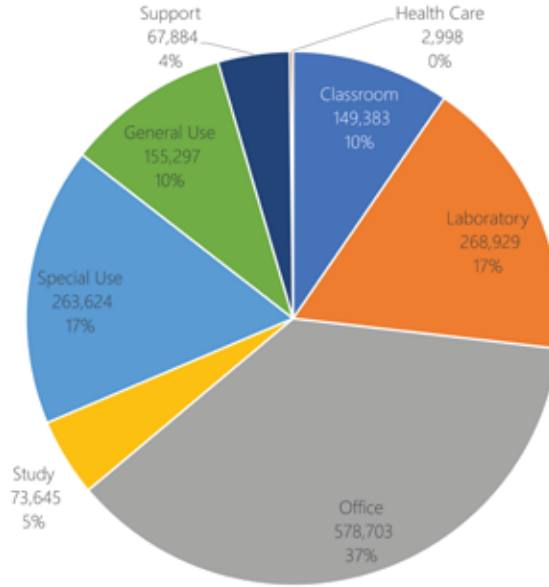


APPENDIX

SPACE UTILIZATION ANALYSIS - KENNESAW CAMPUS

Assignable Square Footage by Space Type

Kennesaw Campus – Total: 1.56 mil ASF

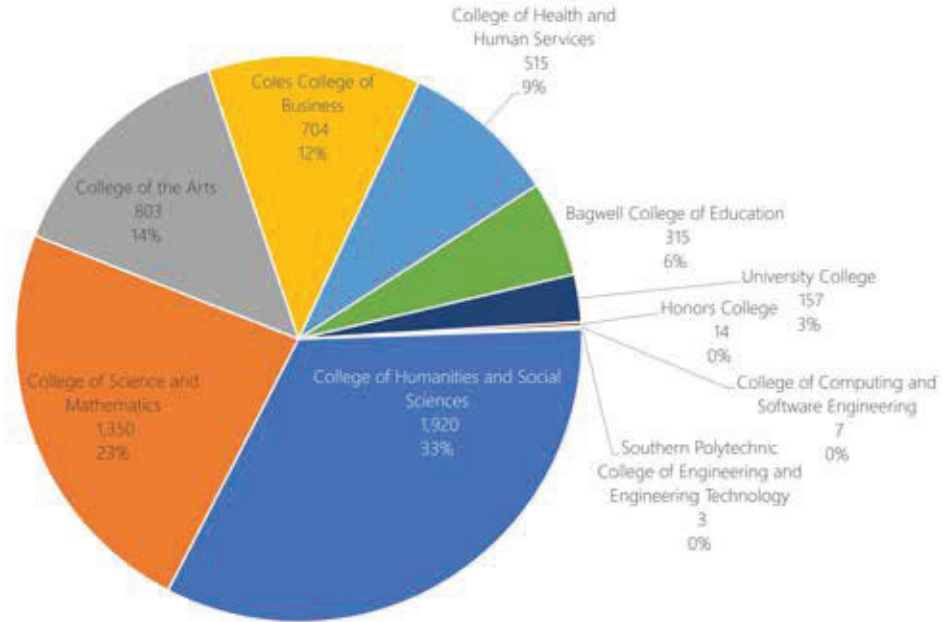


Note: Excludes residential (FICM 900 – 1.36 mil ASF) and parking (FICM 700 – 2.1 mil ASF)

The above chart shows the distribution of assignable square feet across various space types at the Kennesaw campus. The university maintains just over one and a half million square feet at this campus, with the space distributed across several categories, including classrooms, laboratories, offices, study, special use, general use, support, and health care facilities. The university's distribution patterns are appropriate for a large public research university. Note the significant percentage of spaces dedicated to office uses, which underlines the importance of efficiency gains in this space category.

WRH of Scheduled Instruction by Unit

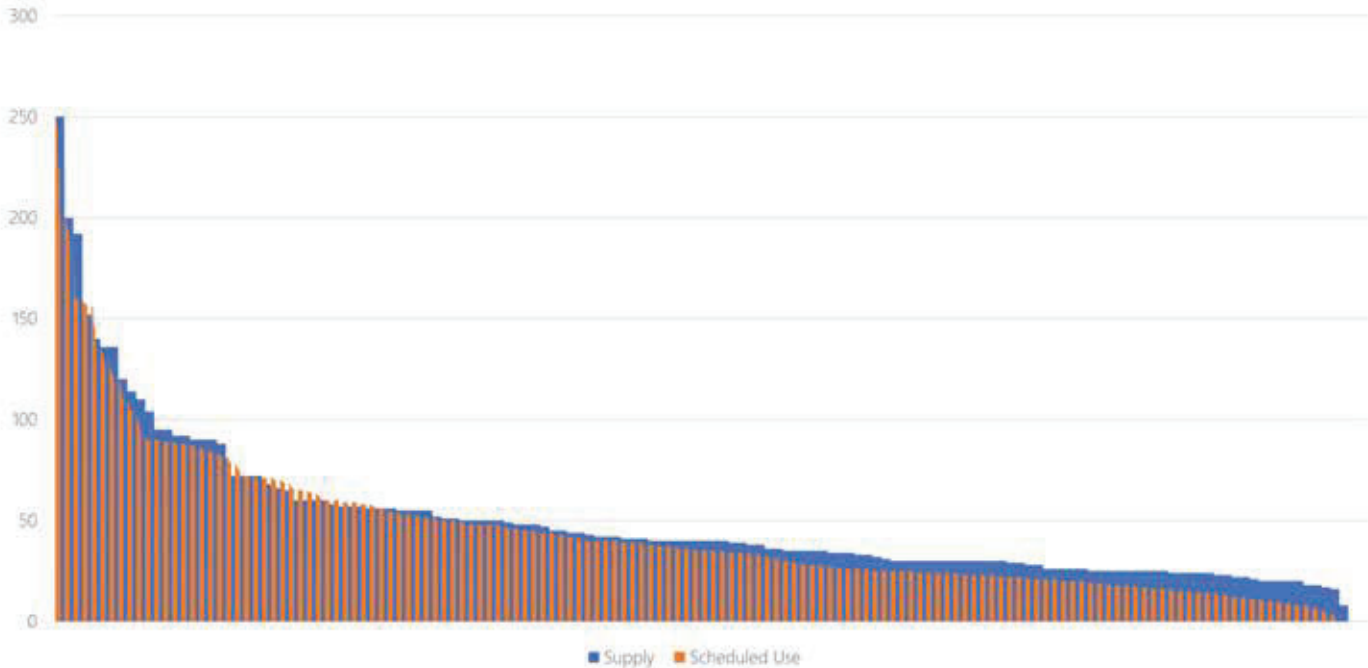
Kennesaw Campus – Instruction taking place in classrooms and class laboratories



This chart shows the distribution of weekly room hours (WRH) of scheduled instruction taking place in classrooms on the Kennesaw campus, by unit, during the busiest week of the Fall 2019 semester. The diagram highlights the distribution of WRH across units, with over half of all classroom instructional activity taking place in the College of Humanities and Social Sciences and the College of Science and Mathematics.

Classroom Metric

Kennesaw Campus – Score: 0.519



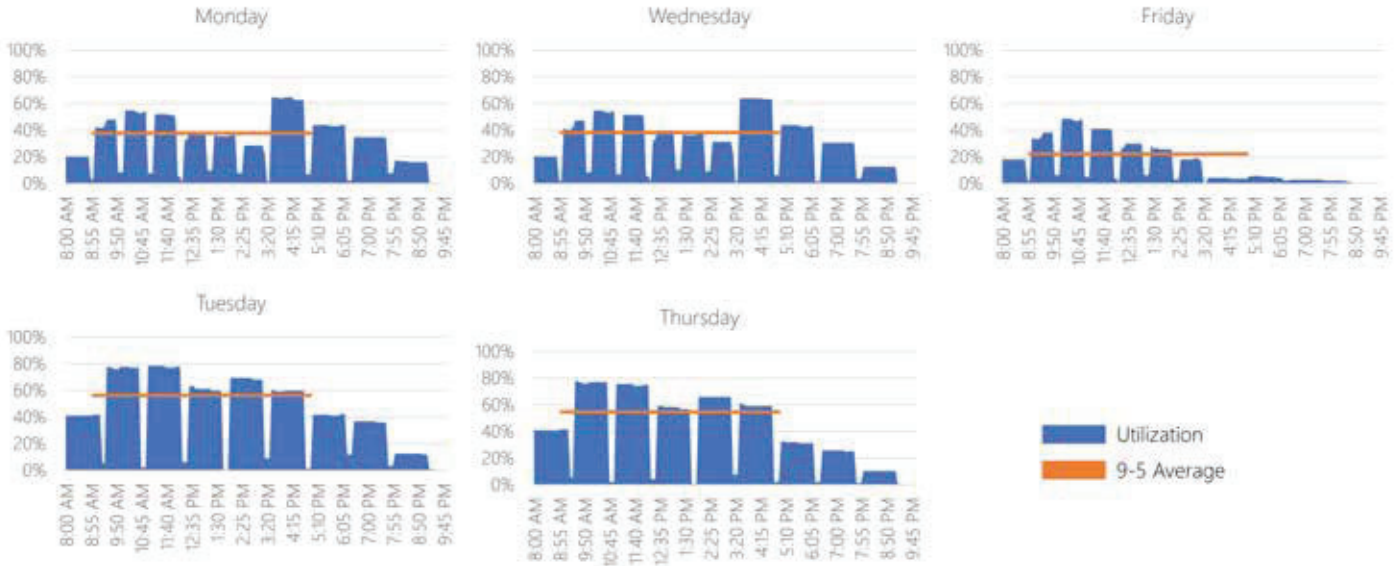
To best understand classroom utilization, we use a technique developed for the University System of Georgia (and hence adopted in several other states). The goal is to represent the two most important aspects of classroom utilization—how often in a week a room is used and a sense of the overall fit between the range of classroom sizes and section enrollments—in a single diagram.

In the above diagram, the blue area shows Kennesaw campus classroom supply—each classroom is represented by a blue rectangle, the height of which is determined by the number of seats in the room and the width by the number of weekly hours a room can be scheduled for instruction (for these purposes we set a target of 40 hours of scheduled instruction, per USG guidelines). The orange area represents all scheduled classroom instruction during the busiest week of the Fall 2019 semester on the Kennesaw campus. The number of students enrolled determines the orange bar's height while the number of weekly hours a course is scheduled determines its width. Courses are not necessarily placed in their actual classrooms, but are distributed evenly across the x-axis, arranged from largest to smallest enrollment. The graph gives a sense of how many empty seats are in a room while a class is in session (any blue area that lies above an orange block) and how often rooms are vacant and available for use (any blue area that lies between orange blocks). This diagram can be concisely summarized using the classroom metric score, which is the proportion of the orange area (demand) to the blue area (supply).

The Fall 2019 classroom metric for the Kennesaw campus was 0.519. For context, the USG recommends attainment of a score in the range of 0.500 to 0.700. This analysis suggests that the Kennesaw campus has a healthy classroom utilization profile, but no need for additional classroom capacity at this time.

Classroom Utilization Histograms

Kennesaw Campus



In the above charts, the blue area represents the percentage of classrooms in the inventory at the Kennesaw campus that have instruction taking place in them during the busiest week of the Fall 2019 semester, with this use shown throughout the day. The orange line is the average percentage of classrooms being utilized on that day from 9 am to 5 pm. At peak times (typically Tuesday and Thursday mornings), utilization hovers just under 80% of the classroom space portfolio. The analysis shows there is opportunity for increased utilization throughout the day. Many large research universities show a similar utilization profile of their classrooms at peak times.

Class Laboratories

Kennesaw Campus – Science/Engineering Disciplines – 25 laboratories in use

College of Computing and Software Engin	Department of Computer Science	3											
College of Health and Human Services	School of Nursing	38											
College of Science and Mathematics	Dean (College of Science & Mathematics)	52	38	33	31	28	19	19	17	17	8	6	3
	Department of Chemistry and Biochemistry	61	52	44	41	41	25	22	11				
	Department of Physics	36	17										
Southern Polytechnic	Mechanical Engineering	3											

Class Laboratories

Kennesaw Campus – Other Disciplines – 61 laboratories in use

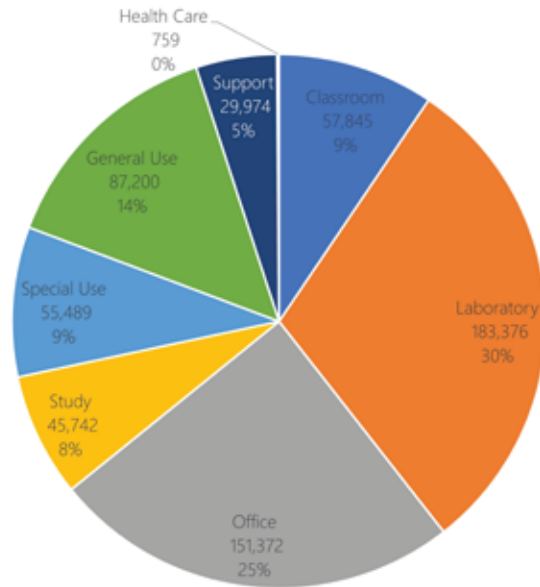
Bagwell College of Education	Elementary and Early Childhood	29	28	28	26	23						
	Secondary and Middle Grades Education	23	23									
Coles College of Business	Information Systems	36										
College of Health and Human Services	Health and Physical Education	20	19	14	8	8						
College of Humanities and Social Sciences	Anthropology & Geography	21										
	English	33	26	24	22	18	18	18	11			
	Foreign Languages	23										
	Political Science and International Affairs	29										
	Psychology	8										
	School of Communication and Media	31	27	18								
	School of Conflict Management, Peacebuilding and Development	20										
	Technical Communication and Interactive Design	6										
College of Science and Mathematics	Statistics and Analytical Sciences	8										
College of the Arts	Dance	23	20	13	10							
	School of Music	26	25	23	20	18	13	12	7			
	Theatre, Performance Studies, and Dance	25	23	23	8							
	Visual Arts	57	50	50	49	44	41	40	33	28	27	22
University College	Culinary Sustainability and Hospitality	7	6									

To understand the utilization of the Kennesaw campus' class laboratories, we explored the weekly use of each space on a discipline basis. The pictures above record our findings. Each small rectangle represents an individual room, the number in the rectangle is the number of hours in the week the room was used for scheduled instruction during the busiest week of the fall 2019 semester, and the rectangle is colored using a heatmap (red indicates high utilization, green indicates lower utilization) based on identified targets for weekly room use. Science and engineering-intensive wet labs (shown in the top diagram) typically have a target of 20 hours of weekly use for scheduled instruction (this is lower than the target utilization of classrooms to allow for project work and setup time); other types of labs (shown in the lower diagram) have a target of around 30 weekly room hours of scheduled instruction. Usually, the most pressure is seen in the intensive introductory sciences, primarily biology, chemistry, and to an extent, physics. At Kennesaw, this holds true.

SPACE UTILIZATION ANALYSIS - MARIETTA CAMPUS

Assignable Square Footage by Space Type

Marietta Campus – Total: 612k ASF

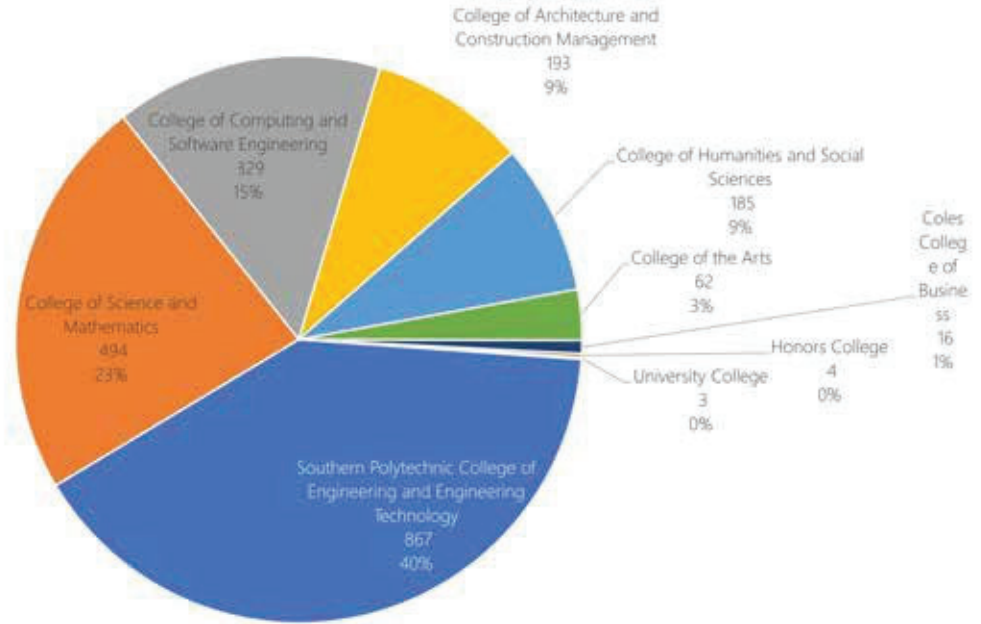


Note: Excludes residential (FICM 900 – 420k ASF) and parking (FICM 700 – 268k ASF)

The above chart shows the distribution of assignable square feet across various space types at the Marietta campus. The university maintains just over six hundred thousand square feet at this campus, with the space distributed across several categories, including classrooms, laboratories, offices, study, special use, general use, support, and health care facilities. Note the significant percentage of laboratory spaces, which emphasizes the Marietta campus' focus on engineering and technology disciplines, as well as being a center for increasing research activity.

WRH of Scheduled Instruction by Unit

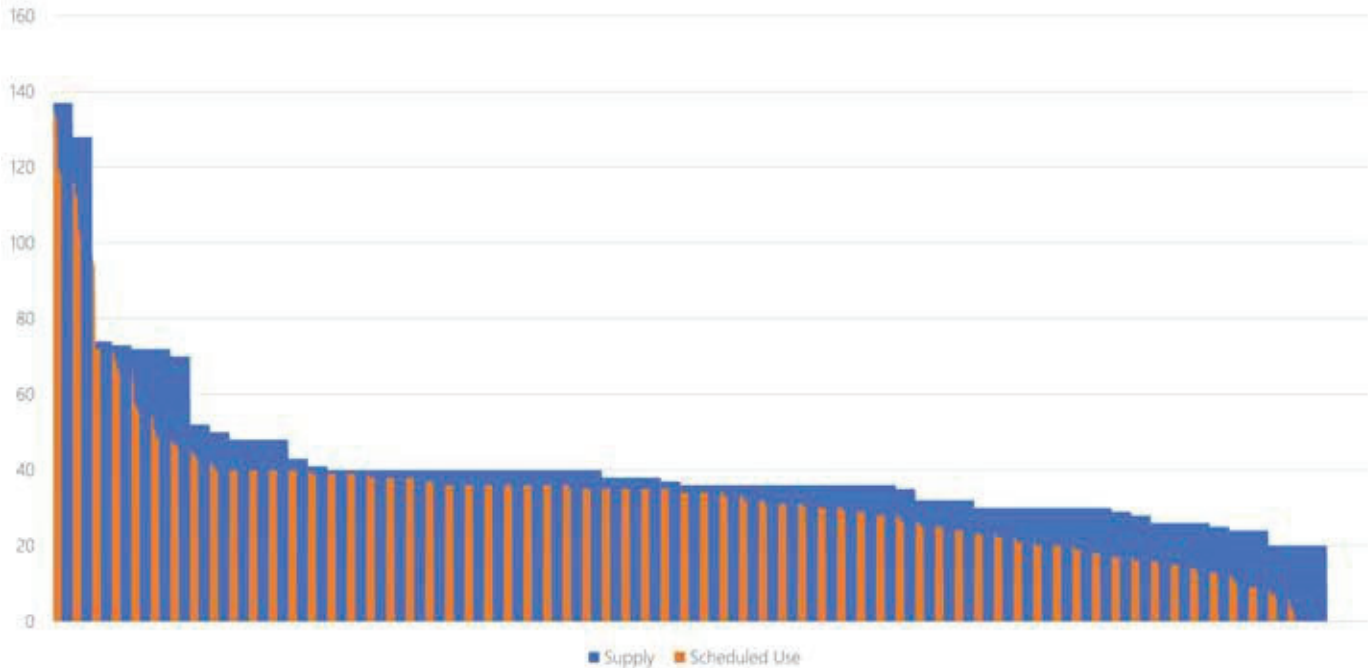
Marietta Campus – Instruction taking place in classrooms and class laboratories



This chart shows the distribution of weekly room hours (WRH) of scheduled instruction taking place in classrooms on the Marietta campus, by unit, during the busiest week of the Fall 2019 semester. This diagram reinforces a key observation from the previous chart showing space type distribution. With nearly 80% of all classroom instructional activity on the Marietta campus belonging to the Southern Polytechnic College of Engineering and Engineering Technology, the College of Science and Mathematics, and the College of Computing and Software Engineering, this only serves to solidify Marietta as a science, technology, and research-focused campus.

Classroom Metric

Marietta Campus – Score: 0.349



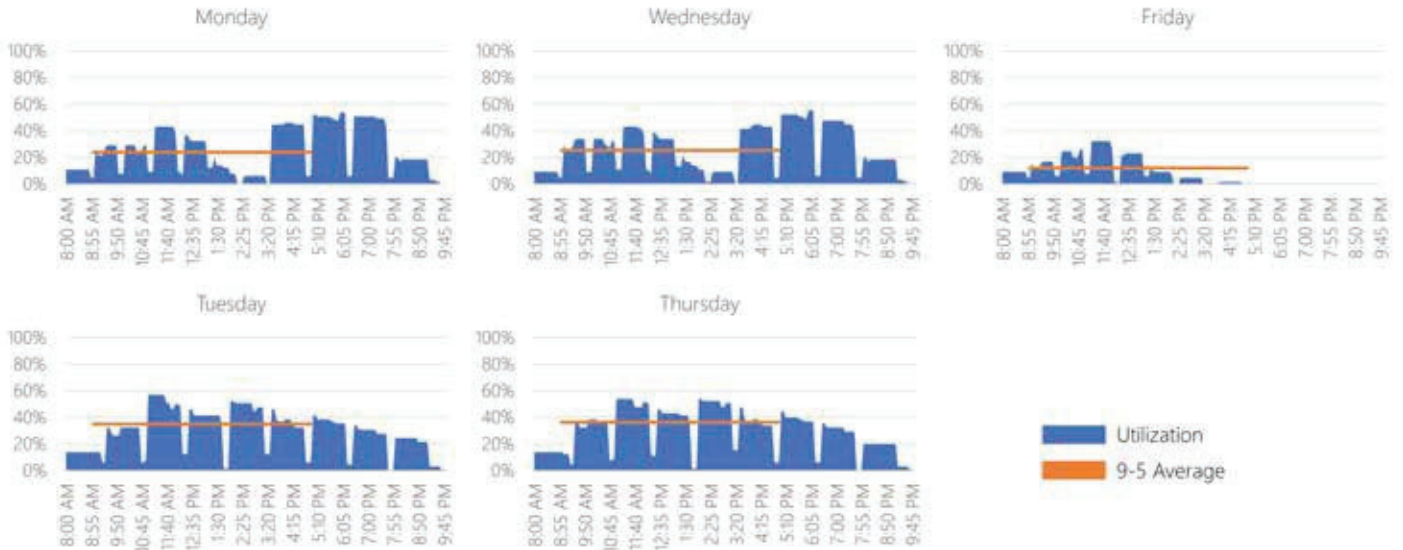
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The Fall 2019 classroom metric for the Marietta campus was 0.349. For context, the USG recommends attainment of a score in the range of 0.500 to 0.700. This analysis suggests that the Marietta campus has surplus classroom capacity and opportunities for increased utilization.

Classroom Utilization Histograms

Marietta Campus



In the above charts, the blue area represents the percentage of classrooms in the inventory at the Marietta campus that have instruction taking place in them during the busiest week of the Fall 2019 semester, with this use shown throughout the day. The orange line is the average percentage of classrooms being utilized on that day from 9 am to 5 pm. At peak times, utilization comes in just under 60% of the classroom space portfolio. The analysis shows there is significant opportunity for increased utilization throughout the day.

Class Laboratories

Marietta Campus – Science/Engineering Disciplines – 20 laboratories in use

College of Science and Mathematics	Dean (College of Science & Mathematics)	19																	
	Department of Chemistry and Biochemistry	39	39																
	Department of Physics	40	31	3															
Southern Polytechnic College of Engineering and Engineering Technology	Department of Civil and Construction Engineering	50	41	11	3														
	Department of Computer Engineering	8																	
	Electrical Engineering	19	14	14	3	3	3												
	Mechanical Engineering	14	14																
	Mechatronic Engineering	19																	

Class Laboratories

Marietta Campus – Other Disciplines – 17 laboratories in use

College of Architecture and Construction Management	Construction Management	18	13																
	Department of Architecture	13	10																
College of Computing and Software Engin	Software Engineering and Game Development	23																	
College of the Arts	Visual Arts	22																	
Southern Polytechnic	Department of Engineering Technology	28	24	22	17	14	9	6	6	6	3	2							

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OFFICES

Offices

University-wide

3,373 Total Offices

4,132 Total Stations

527,617 assignable square feet (FICM 310)

140 ASF average size for a single-station office

137 ASF average station size overall

Largest single-station office is 719 ASF (2007 Kennesaw Hall)

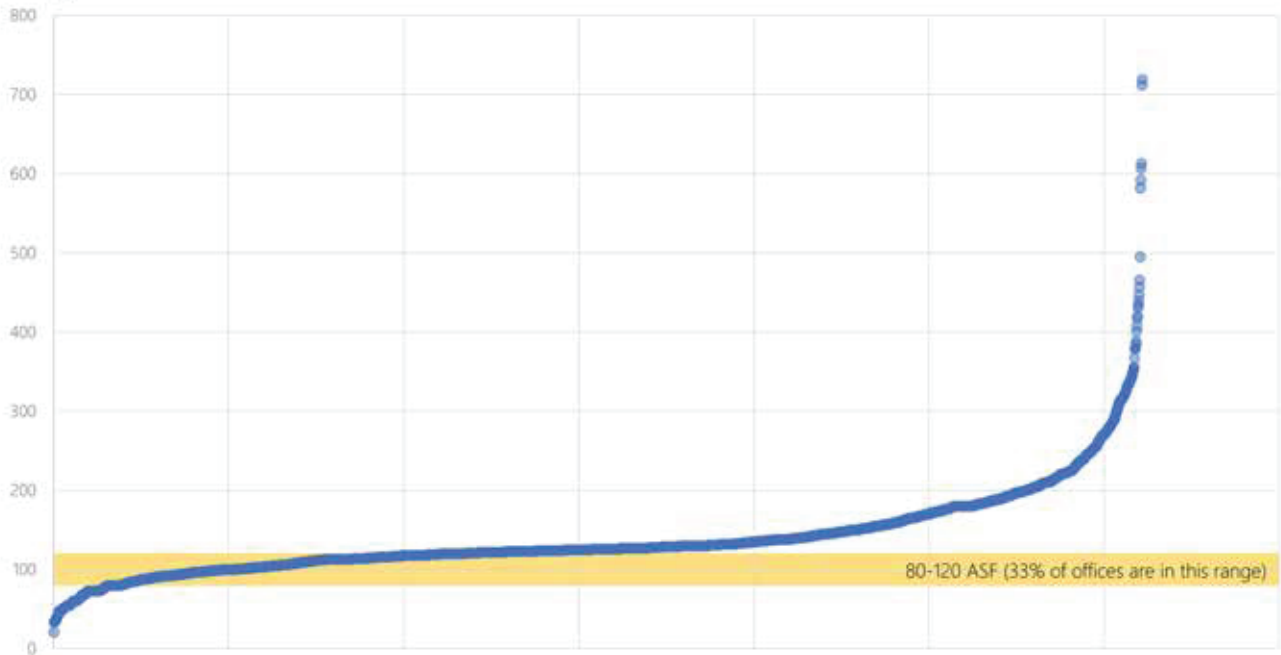
8,294 Total Employee Headcount

5,601 Employee FTE

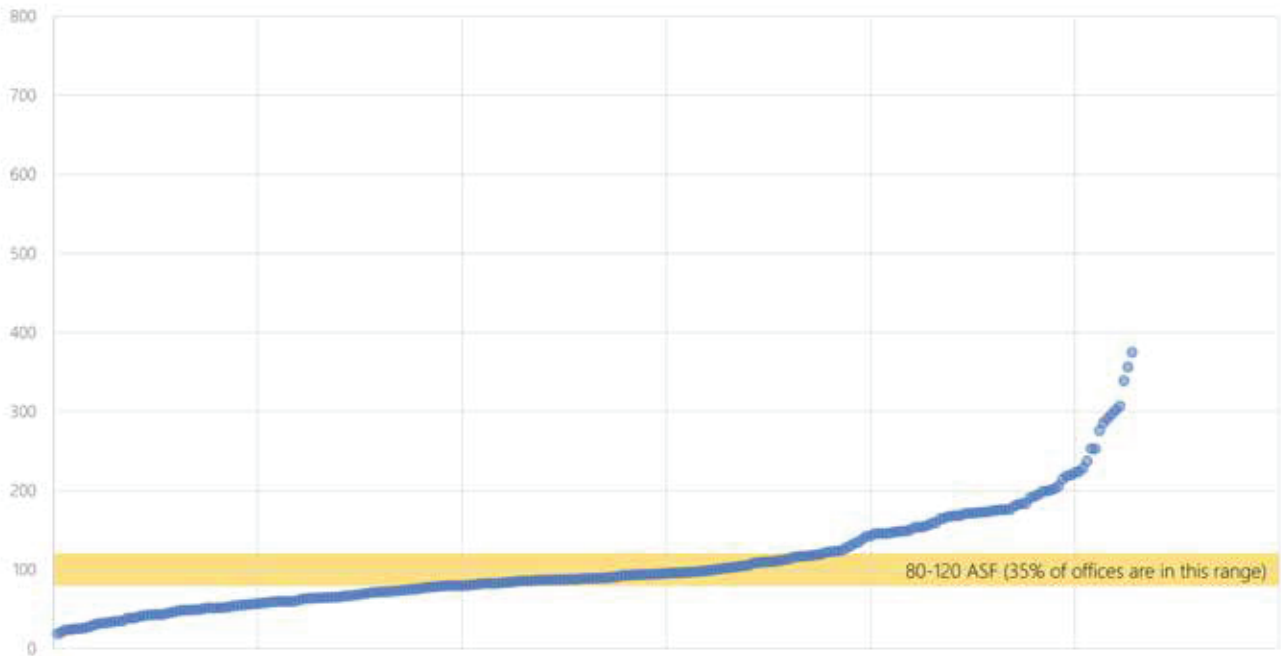
0.74 Stations per FTE

The above shows some basic statistics for office space across the entire university. The main takeaways from this analysis are that, on average, office station sizes are larger than the USG recommendation of 120 ASF and that with a ratio of 0.75 office stations per FTE, there is likely sufficient office capacity to meet demand. Concerns over office capacity are instead likely due to space condition or physical location.

Single-Station Offices ASF



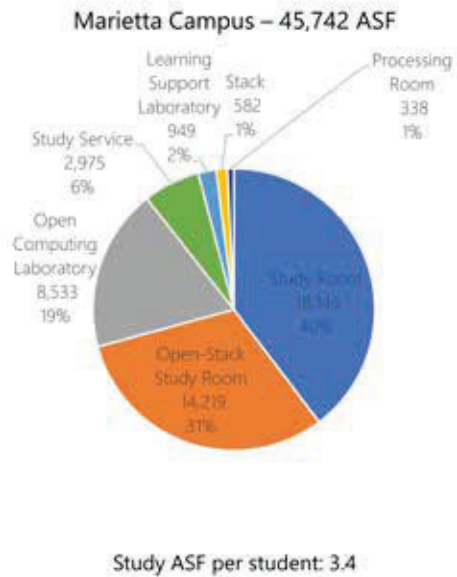
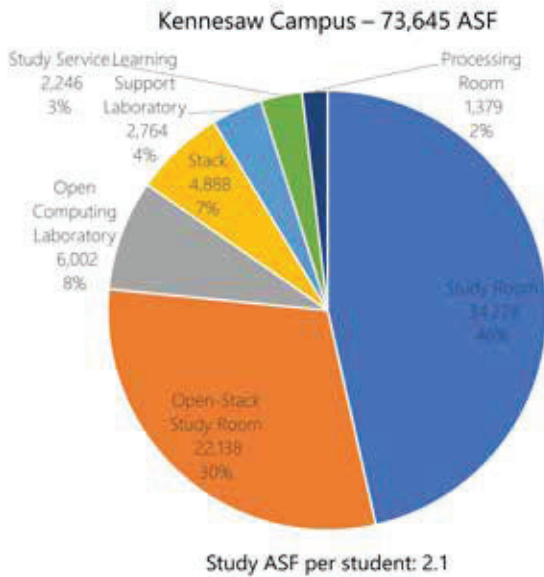
Multi-Station Offices ASF/Station



The above charts show the distribution of office station sizes across the university, arranged from smallest to largest along the x-axis. The top chart shows station sizes for single-station offices while the bottom shows those for multi-station offices. For both office classifications, only about a third of all offices fall in the range of a reasonable station size of 80-120 assignable square feet. These charts serve to further reinforce the point made on the previous page that office station sizes tend to be larger than necessary.

STUDENT LIFE SPACES

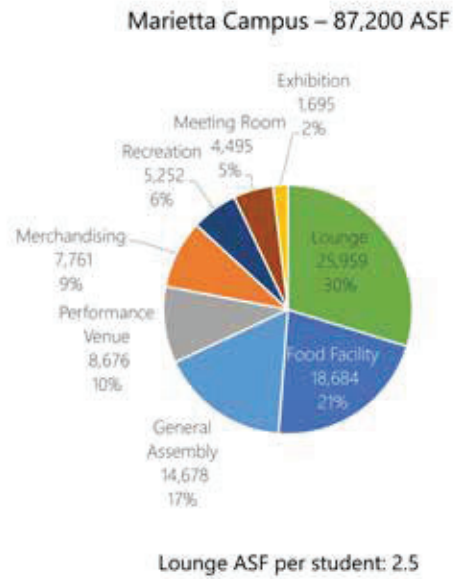
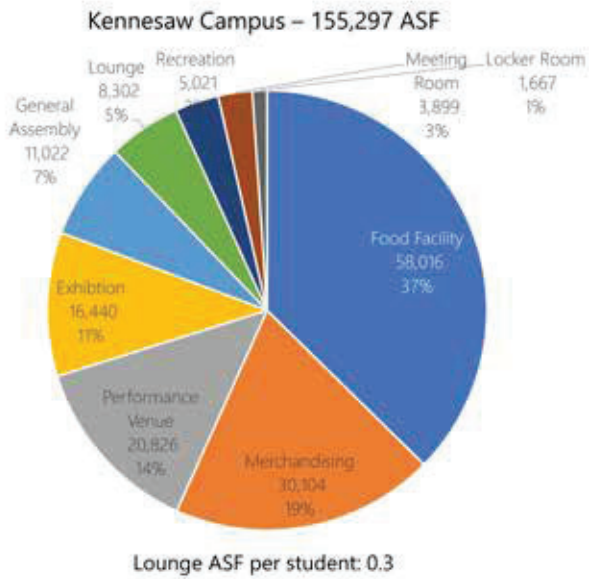
Study Facilities



Note: Relative size of pies indicates total amount of assignable square footage. Study ASF per student calculation includes Study Rooms, Open-Stack Study Rooms and Study Service

The university has approximately 120,000 assignable square feet in study space categories. The breakdown of more specific space types within this category are shown for both the Kennesaw and Marietta campuses above.

General Use Facilities



Note: Relative size of pies indicates total amount of assignable square footage.

The university has approximately 240,000 assignable square feet in general use space categories. The breakdown of more specific space types within this category are shown for both the Kennesaw and Marietta campuses above. The analysis supports the need for additional student-oriented collaboration spaces, particularly on the Kennesaw campus.



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