College of Engineering

Facilities

Master Plan Assessment
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Introduction

The Facilities Master Plan Assessment serves as a comprehensive summary of user opinions and current facility conditions for the College of Engineering at The Ohio State University. This report is a compilation of survey and assessment results that the Facilities Master Planning studio gathered from students, faculty, and staff during a 7-week data collection period.

The report content is divided into three distinct sections: specialized studies, stakeholder engagement, and facilities assessment. Results of the occupancy study, bicycle and transportation surveys, and origin-destination study are in the first section. The stakeholder engagement pages then summarize qualitative data from the photo questionnaires and post-occupancy surveys, which were both useful tools for understanding user perceptions of the engineering facilities and campus context. The final section analyzes the thirteen College of Engineering buildings individually, highlighting opportunities and concerns for each structure.

This report is unique because all of the data was collected electronically, with iPads being the central feature of our technological approach. Each of the six studio teams was assigned an iPad to use for data and photo collection during the semester. All of the iPads had been equipped with the GIS Pro application (app), a Dropbox app for file sharing, Internet capabilities, and a built-in camera. The precision of GIS Pro, in particular, aided the studio in capturing pedestrian and cyclist routes for the transportation assessment. It was also helpful in mapping users’ origins, stops, and destinations around campus to reveal heavily trafficked access points and common destinations.

The advantage to doing this all electronically was that the information could be analyzed and organized very quickly afterwards. The following pages contain the methods, results, conclusions, and indices of each study and building assessment – and this enormous amount of data was compiled in only a few weeks.

Moving forward, the trends observed and opinions displayed within this report will inform design changes and other planning recommendations made for the College of Engineering as an extension of the One Ohio State Framework Plan. The data will drive the creation of an engineering district and support the College of Engineering in establishing its own unique identity and reputation within the larger University. The quantitative and qualitative feedback has been distilled to reveal the most and least favorable features of the current facilities and will allow our studio to respond to the academic, social, special, and environmental needs continually voiced by users throughout the data collection process.
Occupancy

Introduction

As a way of observing the activity level and inhabitant behavior of the College of Engineering facilities, our studio teams conducted occupancy assessments in each building across the college during a three week period. For this assessment, a member of each team visited their assigned building either in the morning, afternoon, or evening and used iPads to document the number of people in every room at that given time. Spaces such as auditoriums, storage rooms, bathrooms, and certain classrooms were omitted from the study to narrow our research focus.

By the end of the assessment period, 13 facilities had been observed 24 times each for a grand total of 27,432 samples.

The data was organized in a series of spreadsheets, tables and charts to express the percent occupancy within a few domains, including the building itself, time of day, day of the week, room type, and department.

Objective

- Documenting the behavior of students, staff, and faculty
- Observing the spatial usage of varying room types
- Locating traffic patterns throughout the week
- Drawing conclusions that will aid the development of future plan renderings

Students learn how to use the iPads in preparation for completing the occupancy assessments in their designated buildings.
During the week, the average percent occupancy rate of the total buildings is 25.5%. Wednesdays appear to have the highest occupancy of 27.4%.

**Occupancy by Day:**

When observing the time of day, the interval presenting the highest average percent occupancy is during the afternoon at 26.9%. The morning observations presented 25.6% percent occupancy. And afternoons show the least average occupancy of 12.6%.
In regards to room types across the 13 buildings, the two room types showing the highest percent occupancy were rooms labeled Scheduled Computer Labs with 55.9% and Activity rooms with 52.5%.

By department, the overall average occupancy is 19.5%. The highest percent occupancy found in the Engineering Administration Department with 26%.
Many results have been drawn after collecting and sorting the data. On a daily basis, Dreese Laboratories presents the highest occupancy. Within the facility, office and office-related uses make up the largest portions of room types at 45 percent. The data shows that these room types also collected the highest occupancy rating, thus the consistently high overall occupancy in Dreese is not surprising. Similar outcomes have occurred in Hitchcock, Koffolt, and Fonatana Laboratories. However, these buildings house a higher percentage of research labs and graduates offices (over 20 percent), which express the highest occupancy as well. On the other side of the spectrum, Bevis Hall showed consistently low occupancy throughout the week. This could be due to the fact that their BME labs are held on the medical campus and a majority of their classes are found on the main campus.

Occupancy during the time of day presented some interesting results, as well. The graphs illustrated similar occupancy patterns on Monday and Wednesday mornings. This could be due to classes being scheduled on Monday/Wednesday/Friday, Tuesday/Thursday arrangement. As expected, evenings rarely displayed occupancy in any of the facilities.

When comparing the occupancy of room types during the morning and afternoon, the data shows that the highest percent occupancy tends to flip throughout the week depending on the day. For example, on Mondays, Wednesdays, and Fridays, offices have a higher occupancy in the afternoon; whereas Tuesdays and Thursdays present higher morning occupancies. The same pattern can be found when observing classrooms, research labs, and computer labs. This, again, could be attributed to the scheduling arrangement, which therefore encourages the highest student/staff/professor interaction.

Looking at the occupancy data across the engineering branches during the week, departments, such as, Engineering Administration, Computer Science Engineering, and Integrated Systems Engineering displayed the highest overall occupancy. Perhaps this is because the students and faculty of these departments have a designated work space in their buildings in which to study, research, and advise computer-related subjects. The departments with the lowest consistent occupancy rates were Biological Engineering and Aviation Studies. This could be attributed to these students needing to travel elsewhere for their schoolwork/research to rooms/spaces, ranging from specified laboratories and classrooms with limited access, to areas off campus. With these concluding thoughts, our teams will use this research to create new designs/plans for the Engineering facilities that address current and future spatial issues.
Transportation Assessment
Transportation

Introduction

A significant portion of the facilities master plan is to understand pedestrian, cyclist, and auto/bus behavior and to identify improvements that can promote safety and improve the efficiency of movement while promoting a positive aesthetic environment.

Various transportation elements that were analysed:
- Survey of cyclists
- Origin Destination Survey and Findings
- Mapping of pedestrian routes through campus
- Bus Traffic Findings

Survey of Bicyclists

Seventy-seven bicyclists were asked eight questions regarding their experience bicycling on campus. The surveys were collected using the iPad by approaching bicyclists as they parked their bike near an engineering building. The surveyor would capture the location where the bicyclist parked and entered their responses to each question on the iPad. Bicyclists were asked about where they enter and exit campus and how many days a week they ride to campus. Riders were asked about their comfort in using shared bicycle/vehicle lanes and their ability to find bicycle parking on campus. 39% felt there is always sufficient bicycle parking on campus and 49% felt there is sometimes parking depending on the building location or time of the day.

The majority of bicyclists report that their daily commute involves riding on sidewalks through campus and more than half said they would be unable to navigate through campus without using the sidewalks. Observations of bicyclists confirmed what was found in the surveys, the majority of bicyclists are using sidewalks to navigate through campus. This is illegal and a safety concern. While many bicyclists reported adequate parking, observations found bicycle racks full, bicycles chained to trees, handrails, benches, and other fixed locations.
Bicycle Parking:
Less than 40% of bicyclists interviewed said there was always sufficient bicycle parking on campus.

Riding on Sidewalks:
The majority of bicyclists use the sidewalks to navigate through campus, which is illegal and therefore a problem which needs to be addressed.
More than 60 people were surveyed as part of an Origin Destination Study to gain a better understanding of both where people enter campus and how they move throughout the university. Surveyors contacted participants near various engineering buildings. The participants were asked for the exact location where they entered campus, any stops they made along their way, and their final destination within the College of Engineering. These locations were coupled with questions covering what type of function their destinations served, their motivations for being on campus, and their transportation modal choice throughout their trip.

This data was collected through on the ground surveys utilizing the GISPro application which captured the location of the survey and the question responses. The northeast side of campus saw the most activity where participants principally entered campus, many at Woodruff and High or Lane and High. Once on campus, 76% chose to walk between their destinations, while 12% used CABS. 58% of the participants were on campus to attend class. These results indicate that there is strong pedestrian activity once on campus, indicating a need to focus on pedestrian access between destinations.
The final map of the Origin Destination Study after collecting more than 60 surveys. The northeast portion of campus, particularly the Lane/High and Woodruff/High intersections had the most activity.
Mapping of Pedestrian Routes

Over the course of a two week period, pedestrians were tracked entering the North Academic core and followed as they traveled to a destination in the core or exited the core, continuing on to another part of campus. Collecting this data allowed for understanding the main pedestrian corridors and pedestrian street crossings. Each pedestrian’s route was mapped showing the individual chosen path, including legal and illegal street crossings. The data was recorded using GPS and correcting where appropriate for the route on the iPad.

The data indicates that pedestrians regularly cross Woodruff using the designated crosswalks; however, there are a few locations near Koffolt Laboratories with significant jaywalking incidences. There is significant jaywalking at 17th, 18th, and 19th avenues. The differences between crossings at designated crosswalks and jaywalking may be due to differences in street design, such as the signalized crosswalk on Woodruff, lack of connection between sidewalks and crosswalks, and low traffic volumes on 17th, 18th, and 19th avenues compared to Woodruff.
Crosswalk Usage in Academic Core North

Legend

- Designated Crosswalk
- Heavy Jaywalking Occurrence
- Pedestrian Route

*Special Note: 18th Ave. east of the traffic gate was closed to automobile traffic at the time of this survey, and the entire path was a pedestrian way. Hence, there are no occurrences of Jaywalking.
Bus Traffic

A
17th Ave. AU11
CABS boarding summary along 17th Ave. for Autumn Quarter 2011

B
17th Ave. AU12
CABS boarding summary along 17th Ave. for first weeks of Autumn Semester 2012

C
Woodruff Ave. AU11
CABS boarding summary along Woodruff Ave. for Autumn Quarter 2011

D
Woodruff Ave. AU12
CABS boarding summary along Woodruff Ave. for first weeks of Autumn Semester 2012

The Campus Area Bus System (CABS) has experienced delays in service along their routes through the North Academic Core due to an increase volume of pedestrian flow. Boarding data for the stops along 17th and Woodruff were collected to understand the differences between Autumn 2011 and Autumn 2012. Ridership is up significantly, with more than 200 additional riders on an average weekday.
The One Ohio State Framework Plan in part focuses on changes to the built environment on campus in order to improve the streetscape to support various modes of transportation. Many results can be taken from the transportation assessment thus far in the College of Engineering facilities master plan that will help identify improvements that can promote safety and improve the efficiency of movement while promoting a positive aesthetic environment.

The data concludes that in many cases there is inadequate infrastructure on campus to support multiple modes of transportation. The bicyclist survey indicated that many bicyclists feel as though there is not enough bicycle parking located on campus. Another key finding from the bicycle survey is that most bicyclists use the sidewalks to navigate through campus. The origin destination survey directed attention to where people are entering and exiting campus and what mode of transportation they are using. Over 60 people were surveyed. The findings indicate that there is significant activity in the northeast area of campus including Lane Ave. and High St. The transportation assessment also includes data from pedestrian behavior within campus as well by means of mapping pedestrian routes.

This data indicated that certain roadways tolerated more jaywalking incidences, like 17th, 18th, and 19th avenues. Observations indicate that differences in street design, traffic volume, and connectivity of sidewalks to crosswalks could result in the differences of pedestrian behavior at various places of campus. Boarding data for the stops along 17th and Woodruff were collected to understand the differences between Autumn 2011 and Autumn 2012. One key challenge with the bus system is the increase in pedestrian traffic due to the change in the schedule for semesters. This means that there are more pedestrians and bus riders at peak moments throughout the day. As a result the buses struggle to stay on schedule.

Observations indicate that there is confusion regarding both pedestrian and bicycling rules and distracted behavior by pedestrians including head phones, texting, etc. which affects the efficiency of the CABS bus system.
Stakeholder Engagement
Introduction

The post-occupancy survey was used to obtain a better understanding of the thoughts and opinions of the people that use the College of Engineering facilities. The statements and questions were designed so that anyone who has used the facility could participate in the survey; whether it be a student, staff member, or faculty member.

Over a span of three weeks, a total of 174 surveys were completed between thirteen of the College of Engineering facilities. The participants range from first year undergraduate students to full time faculty and staff members.

Because of the wide range, we were able to capture the point of views from first time users to frequent occupiers. They were given statements concerning the exterior and interior of each facility and were asked to rate them on various scales. Many of the participants offered their suggestions and comments as well.

These surveys resulted in a broad spectrum of opinions that reflect on the conditions of each facility and offer the chance to visualize what the average user thinks of the designs, spaces, and functionalities of each building.

Objectives

- Gain a better understanding of the wants, needs, and opinions of the common users of each facility.
- Recognize the positive and negative features of various features throughout each facility.
- To give the opportunity to produce further ideas for planning and designing future facilities.
Overall Rate of Facilities

Statistics of the Participants:
Position of Participants:
Student - 90.6%
Staff - 13.2%
Faculty - 3.8%

Major Disciplined in Building:
No - 49.3%
Yes - 50.7%

College of Engineering Facilities Exterior Analysis Chart:
This chart provides a broad overview of the results of all of the facilities. This shows that the general reviews of the exteriors were mixed with both high and low satisfactory percentages.

College of Engineering Facilities Interior Analysis Chart:
The inclusive interior outcome indicates the average rate of satisfaction among the statements of the survey. The reasoning and details are examined more carefully through the reports of each facility.
Conclusion

The Post-Occupancy Survey offers many results that contribute to the future planning and design of The Ohio State University facilities. Concluding from the recorded data, there are frequent comments of likes and dislikes that are common for certain buildings. How these buildings relate to one another can provide information that will further benefit future plans.

Resulting from the comments and charts is information regarding the widespread opinions of the exterior and interior features of the facilities. One interesting aspect, in particular, is the fact that it is common with almost all buildings that if the exterior is rated poorly, the interior is as well; this same result is seen for those rated highly positive. Further inspecting and studying these facilities will give a better understanding of the past mistakes and the possible future successes.

Not all opinions were negative. There are many comments of successful interiors and exteriors. These results are categorized to the right. These results will be inspected carefully and given thought when planning and designing for future buildings.

Upon further researching the given data, conclusions, ideas, and suggestions can be accumulated. These numerous and various results will ultimately benefit the potential research, planning, design, and construction for not just the College of Engineering facilities, but for any facility at The Ohio State University.

Related Facilities

Exterior Dislikes:
- Old, Out of date - Watts, MacQuigg, Koffolt, Fontana, Bolz
- Unwelcoming, Uninvited - Smith, Knowlton, Dreese, Baker

Exterior Likes:
- Landscaping, Courtyard - Watts, Smith, Scott, Bolz
- Accessible, unique entrances - Dreese, Fontana, Hitchcock

Interior Dislikes:
- Lack of adequate seating - Watts, Smith, MacQuigg, Hitchcock, Dreese, Caldwell
- Old, Outdated - MacQuigg, Koffolt, Dreese, Caldwell, Baker

Interior Likes:
- Natural lighting - Smith, Scott, MacQuigg
- Social space, Lounges - Smith, Scott, Knowlton, Hitchcock
- Classrooms, Labs - Scott Lab, Koffolt, Dreese, Caldwell

From the data above, the spaces can be further evaluated and studied to prevent any negative results and to achieve positive impacts in the future.
Photo Questionnaire

Introduction

The goal of this photographic survey was to provide an effective means to elicit evaluative comments about the physical settings across the College of Engineering. The variety of inside and outside spaces evoke different feelings. The survey allowed for an understanding of how the students that occupy these buildings feel about the aesthetics, comfort levels, productivity, functionality, as well as their suggestions for physical improvements of the facilities.

The survey was sent to all students within the College of Engineering at The Ohio State University via email. The responses were collected over a five day period. A total of 954 students responded to the survey. Participants varied in major and academic rank, with 78% of respondents being undergraduates.

Results

This survey asked questions about four different types of spaces: exterior, classroom, laboratory, and informal. For exterior spaces, students favored Scott Lab while Watts Lab was the least favored. Many students found the classroom spaces to be productive and functional, yet boring. The lecture hall in Hitchcock received the most positive feedback. As far as laboratory space, all photos were favored. For informal student space, the two photos that featured comfortable seating and natural lighting received the highest ratings out of the four photos in this category.
Choose the words that describe the photo.

- exciting
- boring
- inspiring
- discouraging
- comfortable
- uncomfortable
- inviting
- unwelcoming

Screenshot:
This screenshot illustrates the word pairs that participants could choose from to describe their impression of the space.

Favorability by Space:
The graph to the left shows the percentage of students that found each type of space favorable, averaged across all images of that type of space.
Comments

Students were asked to offer suggestions for physical improvements to the College of Engineering facilities. Many students commented that the buildings need to feel newer and that this could be achieved by adding more color, painting walls, adding colorful tiles, and adding new furniture. Others commented on the way that classrooms and labs were set up—complaining about the lack of space for students to complete their work. Another complaint was there are not enough tables/desks to accommodate everyone and a common concern for the lack of electrical outlets. Students also felt strongly about the exterior of buildings and pointed towards a preference for facades similar to Scott Lab.

“Brighter colors and more light make a place more inviting. Scott Lab is practically perfect because of the glass outer walls.”

“The picture of the benches on the first floor of Dreese just reminds me how much I hate them. They are uncomfortable to sit on and has nothing that let’s one lend one’s back on. Worst pieces of furniture ever.”

“Can the CRP students please have a lounge in their studio space? A TV with cable, a couch, and a kitchen area. People stay in the building all night and work or have really long schedules and it would be nice to be able to go somewhere for downtime without leaving Knowlton.”

“Ample desks and chairs with nearby power outlets are crucial. Making it pretty is just a nice extra.”

“More informal student space with tables. 4-6 person tables in somewhat quiet areas are the best places to meet to work with groups. Banks of chairs against the wall with end tables in between them don’t make any sense.”

The image to the left illustrates the frequency with which words were used to describe their ideas for improving the College’s facilities.
The following photographs were included in the survey. These photos represent the four different types of spaces students were asked about (exterior, classroom, laboratory and informal).
Based on the results of the survey, certain aspects of building architecture correlate with positive responses. Likewise, similar consistencies occur between photos that received negative results. One material, brick, generally evoked negative emotions from students. According to the comments left on the survey, many students feel that there is an excess of brick on campus, and would prefer campus to retire this building material.

The photos of the exteriors were of Knowlton Hall, Scott Lab, Smith Lab, and Watts Lab. Characteristically and aesthetically similar, both Knowlton and Scott received positive results. These relatively new buildings have a modern yet unique design. While neither building is constructed with brick, students dislike the materials used for Knowlton’s exterior while they appreciate the aesthetics of Scott Lab. Knowlton Hall’s unconventional use of marble shingles is unfavorable among many students with one commenting it makes the building appear dirty.

The photos of the exteriors of Smith Lab and Watts Lab received negative results. These older buildings have small windows that allow only a limited amount of natural light to enter. Although Smith Lab’s historic architecture contrasts with Watts’s exterior, neither building is well received by students because their unfavorable brick construction fails to be visibly distinct from the buildings around them. According to comments, these two buildings should be demolished.

Many students felt that classroom space was productive and functional, yet lacking in visual appeal. The standard classrooms included in the survey received less favorable results than the lecture halls. The lecture halls in Knowlton and Hitchcock both showcased warm colors, soft lighting, and lots of comfortable seating. The classroom shown to students had an inferior appeal with limited seating, uncomfortable chairs, and harsh lights with plain white walls. Though both types of classrooms work well for student learning in a functional environment, it is evident that students would also like to be visually stimulated.
Laboratory spaces in the College of Engineering were the most well received spaces in the survey. Since there are different kinds of labs, it is difficult to note any commonalities in the lab space. However, based on the comments received as well as the percentage of students that responded favorably, it should be noted that laboratory spaces provide everything essential to students’ success in experimentation. Students feel that they are able to accomplish their work more efficiently in these spaces. Two complaints became evident as they recurred in the comments. The first of which criticized the excess of students sharing a limited lab space. The other complaint highlighted the insufficient number of electrical outlets for these students. Though the lab spaces are not visually appealing, this is insignificant to those using the space.

Informal student space received the most comments from this survey - with many students unhappy with the conditions of these areas. The space located in Baker received the most positive responses. Students found it to be productive and functional, while comfortable and inviting. The natural light, comfortable furniture, open space, carpeting and use of warm color are what students liked most. Students appreciate the student lounge in Koffolt, but feel that it isolates them from everyone in the building because of its location behind a metal door with no windows looking into the rest of the building. The space in Knowlton also received positive feedback. Although the space is cement and has no color, the seating is comfortable and the open space has lots of natural light flowing in. The two spaces in Dreese received very negative responses. Students disliked the first photo because they felt the seating was uncomfortable and the space neglected to create a relaxed social or study environment. In the second photo, students felt it appeared rigid and outdated. Many of the issues that students have are aesthetically based. They believe they can function better if a space is visually appealing. As long as there are good qualities in a functional, productive, comfortable space, the space should be a success, space is visually appealing. However, as long as there are good qualities in a space and it functional, productive, and comfortable, the space should be a success.
Stakeholder Engagement

Objectives

- Allow the Facilities Master Plan to best address the wants, needs, ideas and concerns of each facility by communicating with its users.

- Establish a direct connection with students, faculty, and staff to understand the changing dynamics of the College of Engineering.

- To give the opportunity to produce further ideas for planning and designing future facilities.

Introduction

Stakeholder Engagement meetings provided a voice for students and faculty to express their wants, needs, ideas and concerns for the future of the College of Engineering. A wide range of ideas were given which represented a spectrum of different viewpoints of how to shape the Master Plan.

An emphasis was placed on individual and departmental interests based on their position within the college which includes students, faculty, and staff.

The goal of these meetings was to incorporate the voice of those most affected by the plan by addressing current problems and avoiding future mistakes.

Common interests brought forth included aging facilities, infrastructure concerns, outdated technology, design standards, and limited space for students and staff.

Each Stakeholder Engagement meeting specifically targeted groups that are highly involved with the ongoing use of the College of Engineering and its future.

Stakeholder Participants

- Graduate Student Focus Group
- Departmental Facility Needs
- Shop Managers
- Chemical Hygiene Officers
- Information Technology Officers
- Classroom Services
- Engineering Student Services, Career Services, Outreach
- Engineering Education Innovation Center
- Building Coordinators
Conclusion

Stakeholder Engagement Meetings were a series of open-forum discussions designed to provide participants with the ability to discuss any topics bearing relevance to short and long-term College of Engineering improvements. The topics discussed in the meetings can be efficiently categorized as exterior, interior, or academic. Students preferred functionality over aesthetic design, while faculty expressed interest in reducing aesthetic costs and improving building conditions.

The interior discussions often focused on HVAC difficulties in which lab spaces were not just unpleasant, but rather becoming a hindrance to research. There was also a desire to establish a classroom design standard for future construction and renovation. Faculty also expressed interest in installing laptop outlets in classrooms.

Finally, some professors indicated that the increasingly limited classroom space because of an increase in enrolment forced them to teach split section lectures. This can be avoided, as some faculty pointed out, by increasing the number of mid-size lecture halls. By synthesizing the discussions in the Stakeholder Engagement Meetings, common themes can be extracted and analyzed. This will further enhance the final report by allowing those most affected to have a voice in the final analysis.

Most Common Concerns

Exterior:
- Reduce maintenance costs on new buildings
- Fix roof leakage on existing structures
- Reduce landscaping costs

Interior:
- Aesthetic preference towards colorful spaces
- Fix HVAC problems in classrooms
- Improve climate control for lab spaces
- Improve wayfinding
- Improve maintenance request time
- Establish a classroom design standard
- Install laptop outlets in classrooms
- Improve lab space

Academic:
- Reduce split section lectures
- More variation in lecture hall sizes
- Accommodate increased enrollment
- Establish an Engineering Center
- Sufficient Grad Student Space
Facilities Assessment
Baker Systems

Summary

Baker Systems was constructed in 1968 on Neil Avenue near 17th Avenue, adjacent to a green space. The building is home to the Integrated Systems Engineering and Aviation Programs. Computer labs, classrooms, and offices are intermingled inside the building. Corner and central spaces between hallways are the locations for more intense uses, such as administrative offices, graduate spaces, and research labs. Baker Systems has over 150 computers in seven labs, an industrial workshop in the basement, and a new student-designed undergraduate lounge.

Baker Systems is an aging building that is reaching the middle of its life cycle. Students have expressed concern about the comfort of the building, specifically, the lack of lighting and temperature swings. The basement shop lacks adequate HVAC making working conditions uncomfortable and limiting the types of research that can be conducted due to the lack of climate control. The main lobby of the building is congested with vending machines and lacks the proper amount of seating. It is not uncommon to see students sitting on the floor.

“Baker could be improved to look more up-to-date and accommodate more students.”

Building Facts

• 115,025 gross square feet, 105 rooms
• 41,360 Engineering assignable square feet
• 69,829 net assignable square feet
• Facility Condition Index Score of 64.7%
• Departments served:
  » Integrated Systems Engineering
  » Aviation
Lobby: Limited seating in the lobby has led to students sitting on the floor.

Interior: Some repairs have not led to restoration of the space to its original condition.

Computer lab: The computer labs are heavily utilized throughout the building.

The building presents the most occupancy on Wednesdays and Fridays at an average of over 30 percent. The average occupancy rate for the entire week is 22.4 percent.

Baker Systems received mixed reviews such as being outdated, yet clean.
Bolz Hall

Summary

Bolz Hall opened in 1960 and the building is connected to Hitchcock Hall. Bolz serves several engineering departments in a functional way through its lab spaces, faculty offices, and student computer centers. The building is centrally located in the north academic core, at the corner of 19th and Neil Avenues. Though in a densely traveled area, the entrances to Bolz Hall can be missed due to the main entrance orientation and less obvious side doors.

The interior and exterior of Bolz Hall are typical of 1950s construction. The floor plan is navigable but confusion occurs at the narrow main entrance. A complicated series of doors near room 118 also make it difficult to find the aerospace laboratories. Bolz Hall can be described as visually similar to a high school. Recent renovations have brightened the hallways with scarlet and gray paint, but the green flooring reduces the effectiveness. Notwithstanding aesthetic issues, most departmental needs for office and lab space in the building are met. Thoughtful renovation could help utilize currently obsolete space like the explosion chamber, which needs exhaust repairs.

“[The] labs at Bolz hall are very dysfunctional and unwelcoming. It doesn’t motivate anyone to study or perform research.”

Building Facts

- 82,059 gross square feet, 147 rooms
- 47,544 Engineering assignable square feet
- 57,608 net assignable square feet
- Facility Condition Index Score of 56.7%
- Departments served:
  » Aerospace Engineering
  » Civil, Environmental and Geodetic Engineering
  » Computer Science and Engineering
  » Engineering Administration
Entrance: The narrow and nondescript main entrance causes confusion and congestion.

Hallway: The generously wide hallways allow for smooth flow between classes.

Amenities: Bike racks are located at both the main entrance and south side door.

**Occupancy by Time**
The building presents the most occupancy on Thursdays at an average of 36.5 percent. The average occupancy rate for the entire week is 20.4 percent.

**User Evaluation**
Users showed their concerns about Bolz being outdated and unattractive which explains the low percentages of positive reviews.
Caldwell Laboratory

Building Facts

- 101,976 gross square feet, 163 rooms
- 54,850 Engineering assignable square feet
- 64,633 net assignable square feet
- Facility Condition Index Score of 55.1%
- Departments served:
  » Computer Science and Engineering
  » Electrical and Computer Engineering

Summary

Completed in 1959, Caldwell Laboratory currently houses the Electrical Engineering and Computer Science Engineering programs. Caldwell's construction is typical of the time, consisting of reinforced concrete and a steel frame with a brick exterior. The building was combined with what is now known as the Journalism building.

The building contains classrooms and computer labs on the first floor. Faculty offices and laboratory spaces are located on the second and third levels. On the lower level there is the electrical engineering laboratory, machine shop, and storage space.

Caldwell is one of the oldest buildings in the College of Engineering, resulting in space outdated environment. The laboratory space, much of which is highly specialized space, is usable but aesthetically displeasing.

One of the largest needs that presented itself was the absence of comfort throughout the building. From the lack of seating in the hallways, to the absense of thermal control in the basement laboratories, the building as a whole could benefit from improved comfort amenities.

“ The renovation of the ECE open spaces in Caldwell was a great start. Keep going with new labs and new equipment! ”

“ Caldwell, should definitely be one of the next buildings that is tore down and reconstructed. ”
**Basement Laboratory:** Highly specialized lab space for Electrical engineering students.

**First Floor Hallway:** Contains lockers which date back to the construction of the building.

**First Floor Classroom:** Typical first floor classroom in terms of size and layout.

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**User Evaluation**

Caldwell Lab’s unique exterior architecture achieved positive survey responses.

**Occupancy by Time**

The building presents the most occupancy on Mondays at 32.8 percent. The average occupancy rate for the entire week is 18.1 percent.
Dreese Laboratory

Building Facts

- 186,000 gross square feet, 271 rooms
- 83,217 Engineering assignable square feet
- 92,058 net assignable square feet
- Facility Condition Index Score of 68.7%
- Departments served:
  » Computer Science and Engineering
  » Electrical and Computer Engineering

Summary

Dreese Laboratory was constructed in 1969 under the name Electronics Laboratory. Twenty three years later, the building quadrupled in size after the completion of the Dreese Addition. The $70 million, 90,000 square foot addition between Neil Avenue and Milikin Road solidified the building’s name and location on campus. The building size and structure make it a visible landmark on campus. The number sculptures on the west side of the building create a unique gathering location on campus. Dreese Laboratory is home to Computer Science and Engineering and Electrical and building hosts an array of state-of-the-art research labs in a functional environment. Students and faculty are integrated together throughout the building by discipline.

The building lacks a uniform interior color scheme that can create way-finding difficulties for those unfamiliar with the building. The main lobby of the building lacks quality seating and aesthetic appeal. The lobby gives no indication of how to get to the desired location and fails to direct people to the stairs or elevators.

“Student spaces should not ever be relegated to dark corners, but should always have the feel that at any time a professor, supervisor, and colleague may pass by. By putting young, pressured students in isolated spaces (eg, Koffolt), an atmosphere of anonymity and isolation brews … There is very little casual student space.”
Lobby: Lacks seating and aesthetic appeal. Visitors do not feel welcome after entering.

High-tech laboratories such as this one can be found throughout the building.

The numbers sculptures make the exterior stand out among the surrounding buildings.

**Occupancy by Time**
The building presents the most occupancy during the mornings at an average of 34.6 percent. The average occupancy rate for the entire week is 30 percent.

**User Evaluation**
Accessibility was cited as a positive feature of the building.
**Fontana Laboratories**

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**Building Facts**

- 32,604 gross square feet, 69 rooms
- 19,975 Engineering assignable square feet
- 20,620 net assignable square feet
- Facility Condition Index Score of 51.6%
- Departments served:
  - Chemical and Biomolecular Engineering
  - Materials Science and Engineering

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**Summary**

Fontana Laboratories was initially built for the home for Metallurgical and Mineralogical Laboratories, as an addition to the Chemical Engineering Building in 1964. There are five floors of laboratories, administrative and faculty offices, as well as graduate student offices and classrooms.

Fontana has reached the midpoint in the building life cycle and needs significant renovation, both to the interiors and the mechanical systems. There are ongoing issues with the heating and cooling systems, as well as mold. Faculty are concerned over the safety of the wiring connecting throughout the Fontana, Koffolt, McQuigg and Watts complex, as many of the machines used in the laboratories are high-powered. Bathrooms are small and achieve ADA compliance through shower curtains. There is insufficient soundproofing in the louder labs, necessitating signs explaining that the noise is normal and not to be alarmed.

Fontana Laboratories has no public seating or gathering spaces for students. Informational posters are taped across the walls, which add the only visual interest to the hallways, which also receive no natural light.

""" The Watts, McQuigg, Fontana, and Koffolt building set need replaced. The main floor classrooms have had multiple face lifts but the upper floors and basement are very old and uninviting. The labs are poorly laid out and are difficult to clean. There is very little casual student space."""
Hallway: This wide, well-lit hallway allows for easy pedestrian flow at peak class change times.

Lab Space: This lab provides adequate space for students to complete their experiments.

Laboratory: Due to the limited size of teaching labs, students are sometimes crowded in the labs.

User Evaluation
While building users appreciate the functionality of Fontana, they wish it had a more modern appearance and better organization of interior space.

Occupancy by Time
The building presents the most occupancy during Thursday mornings at an average of 27.1 percent. The average occupancy rate for the entire week is 20.8 percent.
Hitchcock Hall

Hitchcock Hall serves as the College of Engineering headquarters. Construction of Hitchcock began in 1965, and the building was opened and dedicated in 1967. Now over 30 years old, Hitchcock Hall continues to function as an academic and administrative hub for the college but does have issues that need to be addressed as well as great potential for the future.

This four-story brick building is dwarfed by the larger scale of Knowlton Hall on the West side, Fisher College of Business to the North, and the Physics Research building to the East. While Hitchcock Hall’s external design and brick buildings in the north academic core, its deteriorating condition is a concern. The simple floor plan allows for relatively easy navigation throughout the building, although not all staircases provide access to every floor, which creates way-finding confusion in some parts of the building. Hitchcock’s interior also offers limited visual appeal. Despite general maintenance, comfort, and aesthetic issues such as lack of natural light and narrow hallways, Hitchcock has a structurally sound skeleton and should be considered for modernization and mechanical upgrades.

Building Facts

- 119,493 gross square feet, 202 rooms
- 110,661 Engineering assignable square feet
- 72,743 net assignable square feet
- Facility Condition Index Score of 61.3%
- Departments served:
  » Civil and Environmental Engineering and Geodetic Science
  » Engineering Administration
  » Engineering Career Services

“Intro to engineering and our primary base of operations should be located (in) an awe-inspiring place, not a windowless computer lab. Look at the business school. To be competitive you have to look competitive.”
Social Space: The elevator lobbies on each floor host the only informal study and lounge space.

Engineering Labs: The configuration of the first-year engineering lab fosters collaboration.

Front Facade: The lack of windows in the upper floors limits natural light in the building.

A

Occupancy by Time
The building presents the most occupancy during the afternoon at an average of 40.8 percent. The average occupancy rate for the entire week is 29.2 percent.

B

User Evaluation
Users reported that the interior of Hitchcock is significantly more favorable than the exterior in numerous ways.
Knowlton Hall

Building Facts

• 173,370 gross square feet, 145 rooms
• 79,176 Engineering assignable square feet
• 94,514 net assignable square feet
• Facility Condition Index Score of 94.9%
• Programs served:
  » Architecture
  » Landscape Architecture
  » City and Regional Planning

Summary

Austin E. Knowlton Hall was completed in 2004, and named after Austin E. Knowlton who is a 1931 graduate in Architecture. Knowlton Hall is a building that is filled with many studio spaces. This allows for students to have room to work on individual and group projects. Knowlton also offers the students their own library where they will find resources and books from their specific area of study. Knowlton's construction is unique for its time, consisting of a concrete and steel frame with a marble shingle skin. The building currently eight years old and is in fine condition.

Some aspects of the building have been criticized for lack of functionality. Professors are frustrated by the fact they are unable to use the projection screen and chalk board at the same time. Other noted issues include internal wayfinding and noise. The big stairs on the first floor offer a great space for large gatherings and individual studying. Although Knowlton makes a grand statement from the outside with its unique marble siding, it is sterile on the inside and lacks color. Knowlton is designed with wide open spaces ideal for design work.

I would love to see some artwork or something done with the Knowlton interior walls. The blankness is very unwelcoming and cold.

"
Seating area: This informal seating area provides a space for students to relax.

Informal Space: The big stairs are used for flexible gatherings, such as midday lunch and lectures.

Studio: The studio space allows students to work individually and collaboratively.

User Evaluation
Users felt Knowlton does not fit well with surrounding buildings.

Occupancy by Time
The building presents the most occupancy during the afternoons at an average of 37.2 percent. The average occupancy rate for the entire week is 21.4 percent.
Koffolt Laboratories

Summary

Koffolt Laboratories was opened in January of 1960 under as “The Chemical Engineering Building.” In 1964, there was an addition built on the east side of the building, but it is now considered a separate structure, named Fontana Laboratories. The building currently houses The William D. Lowrie Department of Chemical and Biomolecular Engineering who plans to move to another place by 2015, opening it up for a new occupant. Koffolt is in poor condition, however. Building users cite issues of leaking pipes and air conditioning units, as well as faulty heating and cooling systems. Further concerns include the presence of mold, asbestos and insects. There are no direct handicap accessible entrances into Koffolt. Bathrooms are small and substandard. Restrooms for women are not available on every floor. There is no public seating in the hallways, although the third floor houses a lounge for the use of students. Aesthetically, students find the building to be “depressing.” Walls and doors are covered with scuffs and dents, bulletin boards are falling apart, and lighting is dim in the hallways.

Building Facts

- 91,080 gross square feet, 137 rooms
- 54,786 Engineering assignable square feet
- 58,574 net assignable square feet
- Facility Condition Index Score of 55%
- Departments served:
  » Chemical and Biomolecular Engineering

“Student spaces should not ever be relegated to dark corners, but should always have the feel that at any time a professor, supervisor, and colleague may pass by. By putting young, pressured students in isolated spaces (eg, Koffolt), an atmosphere of anonymity and isolation brews … There is very little casual student space.”
Hallway: The machine shop is located in the basement, isolated from other uses.

Third Floor Lounge: This room provides a quiet area for students to relax and study.

Third Floor Study Area: This homework/study room allows students to collaborate in a group setting.

**Occupancy by Time**

The building presents the most occupancy Monday through Thursday at an average of 35.2 percent. The average occupancy rate for the entire week is 28.9 percent.

**User Evaluation**

Users felt Koffolt’s exterior is dated and plain.
Building Facts

• 78,604 gross square feet, 117 rooms
• 43,096 Engineering assignable square feet
• 48,796 net assignable square feet
• Facility Condition Index Score of 48.3%
• Departments served:
  » Materials Science and Engineering

Summary

MacQuigg Laboratory was originally constructed in 1966 and originally occupied in December of 1967 by Materials Engineering and Science disciplines with a gross area of 73,329 square feet. The six-story building was originally built for classrooms, offices, laboratories and a foundry. This building was built as the “Materials Engineering and Science Building,” and was described by the Board of Trustees as an “addition to the Metallurgical and Mineralogy Laboratory.” MacQuigg Laboratory was originally built with the ground floor open so that pedestrians could walk under the building. This area was enclosed in 1987 and four classrooms were constructed on the first floor. There are four air handler systems providing ventilation and air conditioning.

The way in which this building is connected with adjacent buildings is confusing. The hallways and classrooms lighting is poor. The ceilings on several floors are in poor condition and need replacement. The basement is in relatively good condition with appropriate lighting which gives a sense of safety.

“Some renovations such as those on the first floor of MacQuigg are in a very good direction. I think the two most important factors when considering facilities are functionality and simplicity.”
Large specialized materials lab: workspace for MacQuigg students.

Typical classroom: glass walls allow for adequate natural lighting and architectural interest.

Typical lab space: well organized spatially with adequate overhead lighting.

A

User Evaluation
MacQuigg Lab obtained very mixed results stating that it’s outdated, yet contains sufficient space for activities.

B

Occupancy by Time
The building presents the most occupancy on Tuesdays at an average of 37.1 percent. The average occupancy rate for the entire week is 18.4 percent.
Scott Laboratory

Building Facts

- 262,805 gross square feet, 310 rooms
- 110,611 Engineering assignable square feet
- 128,541 net assignable square feet
- Facility Condition Index Score of 97%
- Departments served:
  » Mechanical Engineering
  » Aerospace Engineering
  » Nuclear Engineering

Summary

Peter L. and Clara M. Scott Laboratory is the newest of the College of Engineering Facilities. Opening in September of 2006 and costing approximately $68.5 million, Scott Lab replaced Robinson Labs which had occupied that site since 1908.

Being one of the newest of the College Engineering buildings, Scott Lab is well maintained and very clean. It was designed with the other North Campus buildings in mind, as its height and materials match up well with the buildings surrounding it. It is made with brick (a dominant material throughout North Campus), but was modernized with steel, aluminum, and many glass windows. Natural lighting in Scott Lab is fantastic in large part because of these windows. The building’s courtyard is good in helping to mix the outside world with the building, serving as a north-south connection through campus.

The majority of the building is office and lab space, but it also houses 18 University pool classrooms. The quality of the classroom acoustics was often cited as a positive by users, but persistent complaints regarding the lecture hall seating being uncomfortable and squeaky.

“Make more buildings like Scott Lab. I love it there.”

“Please update the chairs in Scott Lab. Please.”
Typical Classroom: Chairs are broken, tilted, squeaky, and uncomfortable.

Basement Hallway: Natural lighting effectively brightens the space.

Courtyard: Students walk through, sit, study, and socialize in the courtyard.

Occupancy by Time
The building presents the most occupancy on Wednesdays at an average of 35.3 percent. The average occupancy rate for the entire week is 24.8 percent.

User Evaluation
Scott Lab achieved very positive comments on both the interior and exterior.
Smith Laboratory

Summary

Smith Laboratory was originally constructed in 1949 with 70,875 square feet of space. The original design included the option to add a fifth floor in the future. In 1957, a building addition of 39,610 square feet was added on the north side. In 1967 a second addition of 110,004 square feet was added to house additional classrooms, labs, and the Astronomy Department on the fifth floor. When the second addition was added, the air conditioning was upgraded. Renovation to the HVAC system is planned in the coming year to parts of Smith Laboratory. An informal student lounge space is under construction on the first floor.

Approximately half of engineering’s space is dedicated to research labs. The remainder is used for staff offices. There are pool classrooms and four lecture halls located in Smith laboratory. The large number of students circulating in the first floor creates wear and tear on the corridors, doors, and restrooms. The building lacks seating in the hallways. Because of the additions, students reported that it is confusing to find classrooms. The ceiling is old and broken and requires replacement. The building needs aesthetic updates to help create a more appealing atmosphere.

Building Facts

- 220,489 gross square feet, 361 rooms
- 17,454 Engineering assignable square feet
- 133,738 net assignable square feet
- Facility Condition Index Score of 72.2%
- Departments served:
  » Physics
  » Anthropology
  » Engineering Experiment Station
  » Film studies
  » Astronomy

“Smith Lab Physics Lounge was my second home during my undergraduate years. We need a functional, yet comfortable, group study space like that in Knowlton.”
Informal Student Space: It offers students the opportunity for private and group study.

Hallway: Lack of seating throughout the hallways leads to students sitting on the floor.

Hallway: The ceiling tiles throughout the building are in disrepair.

User Evaluation
Smith Lab received negative comments stating that it is unwelcoming and confusing to find where to go in the building.

Occupancy by Time
The building presents the most occupancy during the mornings at an average of 19.8 percent. The average occupancy rate for the entire week is 13.8 percent.
Summary

Watts Hall was constructed in 1955 with three stories and a basement floor. In 1960, there was a fourth floor addition to the building which brought the total square footage to 40,622. The building was originally designed to house offices and a library for Chemical Abstracts. After the relocation of Chemical Abstracts in 1965, the University purchased the building. A limited remodeling of Watts Hall was undertaken at the time MacQuigg Laboratories was built.

Watts Hall is home to the Department of Materials Science and Engineering, which focuses on six major classes of materials: Metals, Ceramics, Polymers, Composites, Semiconductors and Biomaterials. The building consists of mainly lab space and offices. There are classrooms within the building, but are used mainly as pool classrooms.

The building is easily identified as one of the most outdated on Ohio State’s campus. Watts Hall lacks the design features of more modern architecture. Because of the overwhelming space used for offices and labs, there is a lack of student work space.

Watts should be pulled down, give it six more months and maybe it will just fall apart by itself.”

Building Facts

- 40,622 gross square feet, 64 rooms
- 19,331 Engineering assignable square feet
- 20,910 Net assignable square feet
- Facility Condition Index Score of 44.2%
- Departments served:
  » Materials Science and Engineering
Women's Restroom: undersized, creating inconveniences for students and faculty.

Ceiling: delayed maintenance leads to unsightly conditions within the building.

User Evaluation
The users expressed their concerns stating that it is run-down and unsuited to its current function.

Occupancy by Time
The building presents the most occupancy on Wednesdays at an average of 31.3 percent. The average occupancy rate for the entire week is 19.5 percent.
Appendix

Post Occupancy Comments

Baker Systems:

Exterior
Like: “It is functional. Not in need of major repair.”
“Brick fits in with rest of campus”
“The mirror window”
“Design.”
“It is consistent with the surrounding buildings”
“Clean”

Dislike: “Construction”
“Doesn’t stand out”
“It connects to others and it’s confusing”
“Dated. Doesn’t fit the style of the OSU.”
“The overall structure of the building.”
“Limited seating.”
“It’s very generic”
“Hard to get in, always near construction”
“The entrance is not welcoming”

Interior
Like: “Easy to navigate”
“Nice”
“Bathrooms”
“It is functional. Not in need of major repair.”
“Space”
“Clean”
“The YooHoo machine,”
“It is sufficient”

Dislike: “Boring”
“Old”
“Not enough public seating / gathering space.”
“Heating/Cooling”
“It looks old”
“Lighting”
“It doesn’t work.”
“We have cockroaches in our water fountains”

Suggestions
“Obvious distinction between building”
“More public gathering space.”
“Waste baskets always full, seldom emptied”
“I wish we had classrooms to hold our classes... Collaborator ism is nice but pretty useless.”
Bolz Hall:

Exterior
Like: “landscaping around it”
“Workable”
“Ample bike racks”
“Clean brick outside”

Dislike: “It looks like its from the 1920s. It needs modernized”
“location on entrances/exits”
“it’s just really drab”
“Old and. Ugly”
“Looks ancient”
“Ugly”

Suggestions
“More Lighting. It’s do dark in the hallways”
“Need total facelift”
“Make it not ugly.”
“Change the floor color from sea green”

Caldwell Lab:

Exterior
Like: “Brick”
“Entrance emblem”

Dislike: “Plain”
“Brick”

Interior
Like: “Lab”
“Computer lab”
“Quiet”

Dislike: “Old”
“No seating”
Dreese Lab:

Exterior
Like:  “Exit/enterance accessibility”  
       “The concrete appeal”  
       “The glass windows that encompass the first floor”  
       “bike rack”  
       “Glass exterior, fits in with other campus buildings”
Dislike:  “Outdated 70s brick”  
         “The lawn”  
         “Not inviting”  
         “Height”

Suggestions
“Refurbishing/update. Smoking area for grad students”  
“Update bathrooms”  
“Add seating on the first floor. Make the building more inviting by adding benches outside.”

Interior:
Like:  “Vending machine”  
       “Maintained”  
       “Classrooms”  
       “accessibility”  
       “Room layout”
Dislike:  “Dimness/dinginess”  
         “Restrooms”  
         “Out dated interior look”  
         “No seating, confusing”  
         “No seating on the first floor”
Suggestions
“I hope some of the lab rooms or lab facilities could be well arranged”
“Move the noisy labs to other buildings”

Hitchcock Hall:

Exterior
Like: “Not much, seem pretty drab”
“Antique look”
“Front is easy to distinguish”
“Ramp entrance”
“Many entrances”
“Stairs going up to the building with flower pots”
“Bricks and glass”

Dislike: “No windows”
“Similar to every other building”
“Very plain”
“Not impressive from the front”
“The rear entrance doesn’t feel like a real entrance”
“Too much cement/concrete/no grass”

Interior
Like: “Large atrium/social space”
“Design”
“Technology”
“Benches and large lecture rooms”
“Main lobby space is unique”
“Some recent improvements in the lobby are appreciated.”
“The terazo floor”
“Roomy lobby space/Big Video Screens”

Dislike: “Horrible seating, main benches are to big front to back and no other swatting or power outlets”
“Stairwell hidden”
“Only one stair way”
“The lighting in the lecture classroom is bad for taking tests.”
“Directions could be better”
“How everything looks old and needs replaced”
“Boring and little natural light”
“Difficult for visitor to find their way”
“It’s dark in the 1st floor hallways and there is inadequate seating”
“Not much seating for students to relax/study/talk in lobby”

Suggestions
“More stair ways”
“More smaller student study areas on the upper floors”
“Entrance to Dean’s area is not well structured for visitors to find their way or have a positive impression.”
“Lighting in the first floor needs to be upgraded. Basement is pretty dreary and labs need renovation”
“Could use a makeover, especially in lobby”
Knowlton Hall:

**Exterior**

Like:
- “I liked it very much”
- “Attention grabbing”
- “Marble”
- “Design”
- “It looks unique”
- “White shingles”
- “Large”
- “Unique qualities”
- “It is very modern and sharp looking.”
- “It looks impressive and different”
- “Building profile”
- “The difference of materials and the small landscape park by michael van value burg”
- “The uniqueness”
- “Uniqueness”

Dislike:
- “How much it stands out”
- “The façade”
- “Doesn’t fit well with campus”
- “Location”
- “Weird”
- “Uninviting feeling”
- “It is very cold and distancing.”
- “It looks uninviting and out of place”
- “Material”
- “No outdoor space by the cafe to sit”
- “Have to ride bike on sidewalk to get here”
- “Impossible to find entrances”
- “Plan to reconnect Neil Ave”

**Interior**

Like:
- “Openness”
- “Library”
- “Big stairs”
- “The large open area of the entrance floor”
- “Open space”
- “Openness”
- “It is skeletal and artsy.”
- “It has an energetic feel”
- “Large multifunctioning space”
- “Having access to computer facilities”
- “The industrial look”
- “Classroom spaces”
- “Large open space on 1st floor, big steps, lots of windows, openness”

Dislike:
- “Concrete”
- “Navigation”
- “No seats”
- “No color”
- “The ramps”
- “Confusing”
- “Wayfinding”
- “Cold/ uninviting, loud”
- “It provides no comfort at all.”
- “It has a cold feeling and not very inviting”
- “Not enough space for crp students”
- “Some what impractical, strange floor plan”
- “Building is loud”
- “Wayfinding is a disaster”
Suggestions
“Wall art
“More color”
“The temperature is always cold in the building. It also doesn’t have the most accessible bathrooms or other areas.”
“It needs to have softness added to it. It also needs to have more signs for easier navigation.”
“The temperature is bad in this building”
“Better chairs”
“There are none that wouldn’t involve a redesign of the building. The interior can be a bit impractical at times.”
“I think it’s in fantastic shape.”

Koffolt Lab:

Exterior
Like:
“Architecture”
“Clean”
“Entryway symbols in the stone”
“Fits with rest”
“The sculpture of chem equipments”
“Easy to spot with “chemical engineering” on side”
“The concrete entrance that says Chemical Engineering”

Dislike:
“Plain, no design”
“Looks old”
“No handrail”
“Greenspace lacking”
“Looks like prison”
“Not modern looking”
“Looks old”

Interior:
Like:
“Computers are nice”
“Nice big room on third floor for how”
“Space”
“Computer lab”
“Updated computer labs”

Dislike:
“Plain, no design, old”
“Womens restroom location”
“Looks old”
“Curtains in the bathroom, lighting needs replaced”
“The research area and classrooms are not separated.”
“Colors”

Suggestions
“Handrails and better lighting. Ultimately restrooms for both sexes on each floor.”
“Put labs in a certain area with no classroom”
“Knock it down”
### MacQuigg Lab:

<table>
<thead>
<tr>
<th>Exterior</th>
<th>Interior</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Like:</strong></td>
<td><strong>Like:</strong></td>
</tr>
<tr>
<td>“The entrance wea’s courtyard-like appearance”</td>
<td>“Classrooms are decent”</td>
</tr>
<tr>
<td>“Author benches”</td>
<td>“Classroom space is open and bright”</td>
</tr>
<tr>
<td>“Seats beside trees”</td>
<td>“Large classrooms”</td>
</tr>
<tr>
<td></td>
<td>“like the labs, they have a lot of equipment and are much nicer than the building”</td>
</tr>
<tr>
<td><strong>Dislike:</strong></td>
<td><strong>Dislike:</strong></td>
</tr>
<tr>
<td>“Looks dated doesn’t fit rest of campus”</td>
<td>“Flow between eng buildings. Where does one start end?”</td>
</tr>
<tr>
<td>“The building is a bit boring”</td>
<td>“Looks old and a bit dirty, needs more seating area”</td>
</tr>
<tr>
<td>“Ketro glass bricks”</td>
<td>“Hallways have melancholy atmosphere”</td>
</tr>
<tr>
<td>“Crowded”</td>
<td>“Small hallways”</td>
</tr>
<tr>
<td>“Dull boring”</td>
<td>“Narrow hallway”</td>
</tr>
<tr>
<td></td>
<td>“Really big and there are two other buildings I think and it took a while to get it right”</td>
</tr>
<tr>
<td></td>
<td>“No posters dull”</td>
</tr>
</tbody>
</table>

**Suggestions**

“Lighting in hallways, modernize.”
“A cafe or something would be nice, it’s so big anyways”
“Posters cartoons to make it more attractive and more lights”
Scott Lab:

**Exterior**

**Like:**
- “Pretty, sharp, modern”
- “Swipe access”
- “It complement other building on campus”
- “Beautiful”
- “The windows”
- “The design fits the engineering atmosphere and it serves its’ purposes at the same time”
- “It is contemporary looking”
- “Courtyard, the benches, and the skywalk”
- “The green space”
- “Courtyard”
- “Looks different, better than brick”
- “More appealing than brick”
- “Courtyard space in the middle”
- “Looks new/nice”
- “the green space”

**Dislike:**
- “Get so confused about where to enter”
- “Swipe access not at all doors”
- “Bicycle lock area”
- “It doesn’t fit in with the surrounding buildings, seems too futuristic compared to other buildings”
- “There aren’t enough benches outside. The east side of the building has no outside seating.”
- “Better exterior main entrance”
- “Lack of obvious or grand entrance”
- “lack of usability of the outside space”

**Interior**

**Like:**
- “It is very good”
- “New feel”
- “Good lab space”
- “Study area on 1st floor, inviting”
- “Computer lab”
- “It has a lounge for the engineering students and lockers to facilitate at the students’ convenience,”
- “Plenty of open space and I like the large desks in some of the rooms”
- “The open area with the high ceilings in the main entrance.”
- “Ample lighting”
- “It’s modern”
- “Graduate locker room/coffee”
- “Well lit”
- “Easy to get to classrooms”
- “Natural lighting”

**Dislike:**
- “Chairs don’t move and confusing room numbers”
- “Not much toilets at west side”
- “Bathrooms are in poor condition”
- “Classroom seat”
- “It’s easy to get lost if we are new to the building.”
- “The chairs in the basement rooms could use some WD40”
- “Confusing layout. Chairs are squeaky and loud. The flush toilets are inefficient.”
- “Better direction”
- “1st floor east wing classroom seats”
- “Confusing”
- “Unwelcoming chairs”
- “Cant access part of building”
- “lack of public table space”
Suggestions
“Change room numbering”
“Better restroom maintenance”
“Add more team room with computers”
“More maps”
“NEW CHAIRS. A lobby area.”
“The chairs in the lecture rooms are annoying”
“New classroom seats in 1st floor east wing”
“more benches, tables inside and outside”

Smith Lab:

Exterior
Like: “It looks old”
“Red brick”
“Seating on the side of buildings”
“Lots of entrances”
“Placement & shape, across from McPherson”

Dislike: “Unmemorable”
“Has no defining entrance really, just a cube”
“Water drips”
“The new physics building makes this look like a toy”
“Doesn’t look as nice as surrounding building”
“Old brick, not welcoming”

-exterior

Interior:
Like: “well-lit”
“lounge is great addition”
“Lounge”
“Has all required facilities, nice classrooms”

Dislike: “you have to walk all the way around to get to the other side, not enough space in classrooms”
“not enough seating, hard to navigate”
“not friendly to disabled people”
“It’s confusing to find classes and can be hot”
“It’s a maze rooms are freezing, not enough space in lecture halls, nowhere to sit in hallways”

Suggestions
“More seating in hallways”
“New heating/cooling-physics labs, seating in hallways”
Watts Hall:

Exterior
Like: “I like the older style of architecture”
“Landscaping/seating”

Dislike: “It hasn’t been kept up very well so it looks a little shabby”
“Looks very run down”
“Everything - It is old, dilapidated, and shabby”

Interior:
Like: “I like the old office space that I work in. It is well organized and spacious”

Dislike: “The women’s bathroom only has one stall and there is always a line”
“The women’s bathroom only has one stall and there is always a line”
“Everything seems to be a little cramped. The restroom stalls are just sheets”
“Old/lack of lighting”
“Totally unsuited to its function, and falling to pieces”

Suggestions
“Make it as nice as physics building. More windows. Better layout.”
“Pull it down ASAP”

Photo Questionaire Comments

Baker Sysytems
“There needs to be more attention brought to the facilities of Baker Systems Engineering. Sorry to self-endorse, but ISE is a growing field, and its facilities are ignored. Look into making improvements there please.”

“Within Baker Systems, the heating/cooling systems need a complete overhaul and the roach infestation problem must be addressed!”

“Baker could be improved to look more up to date and accommodate more students. Computer labs can be crowded.

“Baker Systems Lobby - Overhaul - We don’t need 7 vending machines. Furniture updates in general would be appreciated.”
Bolz Hall

“Bolz and Hitchcock Halls are architectural abominations and reflect poorly on the school’s esteem for the engineering program. Please demolish these structures before they fall down by themselves.”

“It would be nice to have a relatively large student space with comfortable seating and some coffee tables near the engineering buildings. The SEL is always packed so it sometimes takes an entire break to find a seat. The lounge in Bolz for Civil students is uncomfortable and always dirty. It is filled with spare furniture that function well as a work space, but very poorly as an actual lounge. The labs in the basement of Hitchcock are also sad and old, and they could use some updating.”

“Get the BME building ready for main campus ASAP. Get some better free space in Hitchcock/Bolz if possible. There’s some room near the stairs between both Bolz and Hitchcock that could be utilized. The freshman just spend most of their time sitting on the floor outside because the areas outside the elevators are always full of people between classes.”

“Improvements of the civil facilities especially Bolz hall would be very much welcomed.”

“Get rid of Hitchcock and Bolz. Very sad to claim to OSU as an engineering college with such dysfunctional (and hideous) primary buildings. Intro to engineering and our primary base of operations should be located an awe-inspiring place, not a windowless computer lab. Look at the business school. To be competitive you have to look competitive.”

“Basement Labs at electrical engineering building and labs at Bolz hall are very dysfunctional and unwelcoming. It doesn’t motivate anyone to study or perform research. Hitchcock Hall needs renovation ASAP.”

Caldwell Lab

“caldwell labs is a dump. ECE computer labs are crowded and dirty.”

“The CSE department, by title, should have some of the best computing facilities on campus. However, this is not the case. The open labs in Caldwell are open to others not in the CSE major and the student lounge is extremely
small and uninviting. At OSU, we should set the precedence for what computing facilities should look like for CSE majors, but they’re truly awful here.”

“Caldwell and Bolz could both use some improvements/renovation.”

“The renovation of the ECE open spaces in Caldwell was a great start. Keep going with new labs and new equipment!”

“Caldwell needs some classroom remodeling or at least some updating”

“The ECE Caldwell computer needs to be cleaner and warmer. It would be nice to have that lab in a room with windows because the room it’s in now is cold and unwelcoming. The white walls and tile floors could use some updates. It would be great if the lab looked like an academic learning space and not a prison.”

“CSE majors lab needs improvement”

“Renovate Caldwell.”

“Caldwell, should definitely be one of the next buildings that is tore down and reconstructed.”

Dreese Lab

“The picture of the benches on the first floor of Dreese just reminds me how much I hate them. They are uncomfortable to sit on and has nothing that let’s one lend one’s back on. Worst pieces of furniture ever.”

“Add more cool exciting things to Dreese please”

“Dreese could use more good and comfortable places to sit and study.”

“Better student lounge facilityes for undergraduate students. The Electrical engineering undergraduate lounge is pretty small. It could use a little more chairs or couches. Also the computer labs in Dreese for Electrical students are small, cramped and dull. During the middle of the semester, its hard to find a computer in the lab were you can peacefully sit and work.”
“Dreese Lab could use some enhancements to classrooms and student work areas.”

“A number of the buildings feel dark and discouraging such as Dreese and Caldwell. I never like being in them.”

“(Daddy) Dreese could use some renovations to the lobbies. Caldwell HAS to go!”

“I hope there will me more signs in the connected buildings. I always get lost in the two connected parts of Dreese lab.”

“Get a subscription to Science, Nature, and CS academic journals for the 8th floor DL lounge and throw out all the old dentist office magazines.”

“Chairs/benches with backs in hallways are vastly preferred. Using corridor seating to read/study is uncomfortable using the Scott Lab basement and Dreese Lab 1st floor seating. Although interesting architecture makes the campus aesthetically interesting, buildings should lean toward function.”

“Dreese Labs is in really bad need of updating and renovations. The classrooms are very old and outdated, which does not make sense for the engineering resources it houses. I feel like newer classrooms would allow for easier learning as you are not fighting your environment.”

**Fontana Lab**

“The Watts, McQuigg, Fontana, and Koffolt building set need replaced. The main floor classrooms have had multiple face lifts but the upper floors and basement are very old and uninviting. The labs are poorly laid out and are difficult to clean. There is very little casual student space.”

**Hitchcock Hall**

“Hitchcock hall could use some upgrades to show off our engineering department. Needs to be made more modern and up to date comparable to the rest of campus.”

“Making Hitchcock look more modern”
“Since Hitchcock is the main engineering building, it’s a personal peeve that the building itself isn’t all that nice. The labs are very nice, but it would be nice to have a well designed, welcoming main engineering building.”

“More outlets and seating in Hitchcock would be nice.”

“The swipe access study space for civil engineering could be improved. I understand that this is a very tall order and I have also heard rumors that Hitchcock may be getting a face lift or even completely redone in the near future, however the mechanical engineering students have a very nice setup and study space for themselves complete with lockers, coffee machines, and large computer labs. I would greatly appreciate it if some action was taken to improve the facilities in which the civil engineering students get to use.”

“Better lighting in Hitchcock Hall!”

“I would right more but my keyboard is giing me issues... I pologize! The main lecture Hall in Hitchcock Hall needs better lighting. also the outside needs to Have more Greenery! Fisher looks so good while the College of Engineering looks ....not as attractive.”

“I personally approve of the College of Engineering facilities. I think there really should be more comfortable areas to sit and study. Hitchcock’s got a few but they are mostly in the computer labs. Buildings like Smith and Koffolt have almost no areas to study and seem very drab.”

“Replace the letters on the sign for Hitchcock, it looks hideous and it is embarrassing that the business school looks nicer than the engineering school. Also, more windows/more natural light. Additionally pipes sticking out inside classrooms is extremely aesthetically displeasing.”

“Hitchcock hall is incovenient□□”

“We need a coffee machine in Hitchcock Hall. Scott Labs has several vending machines and the one at Hitchcock only dispenses pop. As the main building for COE, the central hub for freshmen, and the building for Civil and Environmental Engineering, I think that it deserves a good coffee machine.”

“Hitchcock and Bolz need to be renovated badly.”

“Hitchcock Hall is a very depressing, windowless building. I think the first year engineering students deserve a better looking facility.”
“Hitchcock and Bolz are among the most degraded buildings on campus.”

“Change the seating in the basement rooms of Hitchcock. The chairs are in an awful state. Half of them are broken! Also choose to do windows. Natural lights is so much more welcoming and inviting than a room that feels like you’re in a basement. Students will be more alert and awake knowing that it is light outside. Engineering facilities as they are are way too dark. They’re just depressing. It does not make anyone want to come and learn in them. Knowlton is amazing. The high ceilings create a much more open environment. Also tables are better than desks. Desks are so tiny that hardly one sheet of paper fits on them. In addition, please consider us taller students. We like to have leg room. In the upstairs of Bolz my knees hit the back of the chair in front of me. I know boys that cannot even sit facing forward in their chair due to this tight squeeze.”

“Hitchcock Hall could use some bathroom renovations, especially in the ground floor men’s room. The first year engineering computer room is nice and useful.”

“Hitchcock is the epitome of unwelcoming and uncomfortable. There are no windows and it makes for a seriously depressing experience when learning there. Smith, Hitchcock, and Scott usually are over heated in the winter and over cooled during the Summer. OSU sets temperature standards of 68 during the winter and 75 during the spring/summer. Rarely, do I see the COE follow these standards when I look at the thermostats throughout the buildings. I don’t understand why. It wastes energy, which wastes money and unnecessarily hurts the environment - neither of these two things align with the principles of the COE. The COE should encourage building managers to follow these standards and regularly check that the thermostats are correctly set. I try to set them to the correct temperature but they are locked. Scott is a fantastic facility, I’m so thankful to have it as my major’s building.”

“A new Hitchcock building that look sick would be cool, the university is already in massive debt, why not at least have an awesome building to introduce the college of engineering, hitchcock is old and lame. something showy and cool would be awesome for one of the 2 best colleges at OSU (with Fisher)”

“Replace Hitchcock Hall!!”

“I love Hitchcock but there are not enough seats do do work in while waiting and plugs to go around on the benches. Also, the benches are awkward because you want to lean against the wall, but can’t. Basically, more seats for waiting outside of classes and more outlets would be nice.”

“Hitchcock needs more seating space outside classrooms and outlets for computers. It is very difficult to meet with teammates”
in Hitchcock 346 the computer monitors are too big and the desks are too tall so it is hard to see the lecturer.

“On a whole, the facilities aren’t really that bad. Yes having a lab with no windows isn’t the most inviting, and some classrooms are cramped but this is a large university that is obviously working towards improving its facilities and it won’t happen over night. On things that is bothersome is the lack of left handed desk in several halls. About one tenth of the population is left handed and there are some lecture halls with over 100 seats that have zero left handed desks. That is somewhat uninviting and dysfunctional. The labs in Hitchcock are very nice.”

“Hitchcock and Bolz Halls are in serious need of improvement. They represent two of the most unwelcoming buildings on campus, and they’re the first buildings where freshman engineers spend a lot of time.”

“Especially in Hitchcock there is never enough seating when I want to stay in the lobby to work. Also, the first year engineering computer lab is much too small for it’s demand.”

**Knowlton Hall**

“Putting marble on the outside of a building in central Ohio is not wise. Marble is beautiful in columns, it is beautiful for many things, but certainly not shingles! Seems a cheap way to use marble, when you could have used a much cheaper material that could have lasted longer. I personally would have made a marble lecture hall. But, to each their own.”

“Updated sitting areas with tables for studying. Better lit study areas. Better Wi-fi connections inside of knowlton.”

“Please make some comfortable lounge space in Knowlton!”

“Can the CRP students please have a lounge in their studio space? A TV with cable, a couch, and a kitchen area. People stay in the building all night and work or have really long schedules and it would be nice to be able to go somewhere for downtime without leaving Knowlton. Really, this space could be anywhere in the building, but it is rather uninviting to go to the other spaces with couches when all the architects are sleeping on them already and since the different sections do extremely limited mingling, I don’t think planners want to go down there. I feel like Knowlton is oriented mostly towards architects and landscape architects and we are just stuck there with them as an ugly step child. I don’t know if a better fit for CRP would be in public affairs or geography but architecture seems an odd placement since there aren’t many design classes for planners. I also have heard students wish that the east end of the CRP studio was completely closed off with solid walls and doors so it would be quieter from the rest of the studio area. Considering the limited space in the KSA cafe, I don’t know why they don’t
expand the space. I think more students would eat there if they had more variety and daily choices of food. I think an outdoor balcony/deck with outdoor seating would be nice by the cafe. There is plenty of room for an overhang out of the east side of the building. The desks we have in the classrooms are generally felt to be uncomfortable and too small to be functional. They are my least favorite on campus. Business, public health, public affairs, ag campus all have more comfortable and functional desks/seating. Expensive does not always equal high quality or livability."

“Do not get inspiration from anything related to the architecture building. Productive and relaxing rooms should be kept separate. A chalk/dry-erase board is great in group meeting areas.”

“Oh, where do I start? Not with any of this shown. For interior function, start with the Union interior and add outlets. Let me say that again for emphasis: OUTLETS. All your engineers live off of mobile devices, and they all need somewhere to plug in. The less we can plug in, the more we have to hog up a lab. You know what I hate about lecture halls? Too few outlets. You know why I cried Spring Quarter after Math 568? Because my class was in Schoenbaum Hall, which has outlets at every seat, and I had to leave. I go to Bolz Hall, and...no. A building formerly for Computer Science, still largely used by them, and not nearly enough outlets for a 30-person class. And, no, plugging in shouldn’t involve the cord stretching across a hallway with the light from a window glaring on your laptop screen. For exterior, you have the worst shot imaginable of the exterior of Knowlton Hall. Not that I’m entirely enamored with the place’s exterior - the marbling tile looks like it’s dirty 100% of the time - but you got the squared off end with moss growing above. The angles of Knowlton are a start - I recommend putting some students to work on the look. From there, you have enough brick on campus already and those tiles are a no - think of something else.”

“Modernization would go a long way. Interior design (like Knowlton)”

“Knowlton needs some work. Most of the computers in the CRP lab are broke in some way or another. The printer never works, and I feel like it never gets clean. There is dust and dirt everywhere all over KSA. It is also always freezing cold in the labs.”

“I adore the Knowlton Hall library and would love if it were open later at night.”

“I would love to see some artwork or something done with the Knowlton interior walls. The blankness is very unwelcoming and cold.”
Koffolt Lab

“Student spaces should not ever be relegated to dark corners, but should always have the feel that at any time, a professor, supervisor, colleague may pass by. By putting young, pressured students in isolated spaces (eg, Koffolt), an atmosphere of anonymity and isolation brews high levels of interpersonal conflict, disrespect, and unprofessional behavior.”

‘Can’t wait for the new Chem E building, a lot of the labs in Koffolt are pretty nasty. Looks like whoever took the picture of the Koffolt labs found the one decent lab in Koffolt, and skipped over the rest.”

MacQuigg Lab

“I think the newer buildings such as Scott are without a doubt a huge step in the right direction. Older buildings such as Watts are not in the greatest shape. The computer lab for example has updated equipment; however, the building itself is very old, loud, and distracting. Some renovations such as those on the first floor of MacQuigg are in a very good direction. I think the two most important factors when considering facilities are functionality and simplicity. I rated some of the lab spaces as dysfunctional or unproductive simply due to clutter and not a lot of work space. The new computer labs in Koffolt (the labs with the large TVs), for example, have very nice equipment but lack enough room to spread out, write, be productive, or really do anything other than type. I think simple, open, well-lit spaces with plenty of room to spread out are the most conductive to productivity without a designer “trying too hard” to be “artsy” or “contemporary”.”

Scott Lab

“Scott Lab needs more study rooms that allow eating/drinking. The computer’s in E200 always go to “sleep” and need to be restarted to “wake-up” the screen; this needs to be fixed. Java also needs to be updated on the computers because the reminder is always going off.”

“Please add more individual study rooms, like the 1st floor in Scott Lab. And use hard board to divide the computer Lab in order to reduce the noise and enhance the personal privacy”

“Update more of the engineering buildings (similar to how Scott Labs is now)”

“make more buildings like Scott Lab. I love it there.”
“SEL needs more comfortable chairs. Make all the buildings look like scott labs”

“Any lecture hall built primarily for Engineering students should be designed based off of the average size lecture halls in the basement of Scott Lab. The long tables with separate chairs are very nice and the rooms are generally inviting. I always try to schedule classes in this building. I would not advise the setup in Scott Lab E0001. It is simply too crowded, has flip desks and you sit on top of your neighbor. Also, the lecture halls in the basement of Hitchcock are decent as far as design and functionality - desks are large enough and don’t flip, there is a reasonable amount of room around chairs and you can see from most seats. Obviously the rooms are outdated and worn though, but are functional. The large 131 Auditorium upstairs has nicely spaced seating but the desks are small and it is pretty hard to see if you are trying to take notes. In general Hitchcock and Bolz Halls are adequate and functional but could use a few aesthetic updates (ex: hallway decor in Bolz: 1st & 4th floors, new furnishings). In Bolz I have noticed the classroom updates (new floors, wall colors, desks) throughout the years they are definitely positive! Also, a larger CEGE Lounge would be nice and beneficial for students and design teams.”

“Air conditioning in all the buildings. Scott Lab’s computer chairs are excellent. The chairs in the basement classrooms, however, are terrible. Just use regular chairs, not ones that are attached under the desk. Thank you for asking though.”

“Brighter colors and more light make a place more inviting. Scott Lab is practically perfect because of the glass outer walls.”

“More bike racks desperately needed around Scott lab!”

“PLEASE UPDATE THE CHAIRS IN THE BASEMENT OF SCOTT LAB. PLEASE”

“I suggest that the Engineering department can add more comfy sofa in the Scott Lab.”

“Scott lab ventilation systems are very noisy. Do not use them as a model for future buildings.”

“Please take care of maintenance issues quicker. At Scott Lab the sink has been clogged for a while, the coffee machine broken, and the general level of cleanliness has gone down immensely this year in particular.”

“more lounge/comfortable spaces in Scott, there’s no place to hang out and relax, it’s all working space”
“We need a lot more study rooms especially in Scott if they would just open their rooms at night it would be better because the study room is way too loud”

“They’re ugly, run down, uncomfortable, and dirty. And our nice spaces (Scott Lab) are still intimidating and uncomfortable. The nice areas need to be swiped into, which can’t happen unless you’re a mechanical engineer.”

"The Glass in Scott lab is ridiculously inefficient and it doesn't even look that nice. Most of the glass wall is not transparent and therefore neither performs well as glass nor as a wall. The overall space used in scott lab is poor. On top of the Arch building being the ugliest building I have ever seen, it probably has the worst workable space per footprint of any building. I hope the new buildings on campus are more efficient with their use of space and energy they use.”

“The use of energy in the COE buildings, namely Scott lab, is ridiculous. For a new building to use energy so inefficiently is a real shame. Both the operation and the design of these buildings should take energy into account and as an engineering College, this should be made much more important.”

Smith

“Update to a more modern classroom/lecture hall setting, similar to what is being done in Smith Hall.”

“Maybe a Lab for Engineering Physics majors, right now we just have a lounge in Smith with a couple computers and one printer.”

“Smith Lab Physics Lounge was my second home during my undergraduate years. We need a functional, yet comfortable, group study space like that in Knowlton.”

Watts Hall

“THERE NEEDS TO BE MORE ATTENTION BROUGHT TO THE FACILITIES OF BAKER SYSTEMS ENGINEERING. Sorry to self-endorse, but ISE is a growing field, and its facilities are ignored. Look into making improvements there please.”
General Comments

“Tables are never a bad idea for study areas.”

“CoE needs more soft space with carpet. The PRB is pretty much the only place to get that. The ME lounge has 6 chairs and a couch, but right in a noisy work area/through-fare. This isn’t nearly adequate for a huge dept. The halls in Scott are distinctly uncomfortable and not good for anything other than waiting for a class. The new lounge space in Smith is great, and I’m hoping that the renovations produce something similar. I’m dissapointed and dismayed by the lack of soft space on north campus (CoE, specifically). We need more quiet areas (carpeted) with soft chairs and couches. Please?”

“I feel that in general the engineering building are fairly productive spaces but they are not as inviting as other buildings on campus.”

“they’re fine”

“It is a good idea to add more power plugs in Science and Engineering Library.”

“Comfy chairs!”

“N/A”

“Revamp the classrooms and lecture halls, and make the buildings look less plain. Make them cooler (we are engineers).”

“Make the environment look more inviting, rather than just wooden seats and uninviting colors. Make the environment look more up to date with today’s society.”

“More sufficient seating in hallways, lobbies, etc. Bright, comfortable colors in buildings.”

“Large lecture halls with the flip-up desktops are good for lecture but not for taking exams. Computer labs are great.”

“More study spaces with tables”

“Get a coffee machine in the lounge that doesnt break all the time.”
“A lot of our labs and especially electrical engineering buildings are old and dysfunctional and could use an upgrade.”

“Where is the first picture for informal student space taken? It looks awesome.”

“Create 24/7 study lounge adjacent to FYE computer lab. It will improve collaborative efforts between undergraduate students as well as nurture a better learning community.”

“More human scale places with quality and functionality greater than what can be provided from the comfort of my home.”

"Design a space that is as functional as it is productive that is also comfortable, going by your use of vocabulary. Yes, students need a welcoming space, but if you meet the needs the first three maybe students will actually utilize the areas that are available to them.”

“Over all, the facilities are functional and that is all that is required. However, the students’ academic efficiency may be improved if a few more comfortable chairs are introduced.”

“Some buildings and classrooms are quite “old” and might merit renovation. Of course, if funding is an issue, we should focus on making the current facilities work for students, researchers, et al.”

“Overall, very good. Some of the labs are very old and could use some updating, but overall very productive space.”

“improve the windows computers in the SEL...they are EXTREMELY slow. Get more comfortable chairs in SEL as well. The engineering classroom buildings are good, though. They’re easy to navigate, and they’re not super old looking (except Caldwell and Bolz). As always, though, more comfortable chairs would be welcomed in every engineering classroom building.”

“Update them, they are old and very uncomfortable. More tables/desk workspace would be ideal. It is very difficult and distracting to do work on your lap.”

“More tables in front of the available seats please.”

“Give Civil engineers more study space.”
“Light student areas with sunlight when possible. Plush chairs increase comfortable/inviting feelings, but likely decrease productivity.”

“I’d like to see some chalk/white boards in the student computer labs next to the empty tables so group work can be done more easily and in a more collaborative way.”

“add some couch”

“Most of the facilities are just old and run down. They need remolded or replaced. I would put Caldwell Lab, the Mcquigg-Fontana-Koffolt-Watts complex, and Hitchcock/Bolz Hall on the top of the list of buildings that need work.”

“Surfaces to place work on are always a bonus, as are windows that let in natural light”

“Moves should be made to have less of the old wooden look everywhere. Get modern. “

“College of engineering should have a more open, comfortable, welcoming and communication encouraging informal space for students.”

“More study space that includes tables.”

“Use post-modern designs. Innovative new ideas such as ‘sleep pods’ and other unique concepts. try to seem more ‘futuristic’.”

"More open area. Room to breathe. The Reading Room in Thompson Library is a good idea of a functional, well-organized space that uses light spacing while making it sense densely packed. The student is comfortable because they can feel the open breathing room around them yet still have the illusion of a very study-oriented environment, the combination of which makes the perfect studying environment in my opinion.”

“Provide more comfortable informal study spaces like the top picture - I would be more productive between classes with areas like that.”

“Any work area or classroom needs to have plenty of room for a student to do their work. If there is no desk, it is hard to be productive.”

“More tables and chairs in wide open spaces”
“can we improve the conditional for the restrooms?”

“More large tables and group study spaces.”

“For almost all of the facilities, I suggest more comfortable chairs. Most of the seats are worn down, hard, creaky, and uncomfortable. Having a nice place to sit always makes a place seem more inviting and comfortable.”

“Sometimes I feel like I don’t belong in certain buildings or in certain places. I feel foolish going anywhere that I don’t know for sure I am supposed to be”

“The main way to make the classrooms seem more inviting would be to make more seating closer to the professor. Being far away makes a student feel to far from the class and makes it harder to feel involved or learn. I realize this is hard in many of the lecture rooms, but any improvement to help the back of the room still feel involved would be a good one.”

“please add more place for study in the midnight and provide some places to have a nap or sleep.”

“There is not a good balance of updated learning space. Some majors have exponentially better facilities than others.”

“N/A”

“If you want to hear what students think of engineering spaces, give us a more open-ended type survey format. This survey, in my opinion, is to restrictive to get any real input.”

“More group work space (and make the current space more visible)”

“The facilities are about half functional and inviting and the other half not. The ones that are inviting and functional are the best ones to use and the most used by students.”

“Make the buildings and study spaces more modern(also more room to be able to get in and out of seats)”

“N/A”

“This isn’t an aesthetic request, but I know that I am much more productive when I don’t have to keep my hands in my pockets to keep warm- having been in many of these places, all I can think about is how cold I’ve been in all of
them!

“most of the chairs are uncomfortable, a lot of the desks are too small to properly hold note-taking materials, and the temperature variations between buildings sometimes gives me a headache while also necessitating the availability of multiple clothing options throughout the day in order to be comfortable enough in class to pay attention and focus.”

“Students are all different and will work with whatever is provided to them. I for one am perfectly content and happy with the facilities of the College of Engineering”

“Desks that are bigger then a sheet of paper that can fit formula sheet, exam, scrape paper and calculator at one time comfortably. Whiteboards instead of chalkboards (I hate the dust / sound of scraping on board). New padding on seats. Please fix the heating / cooling so rooms are comfortable”

“Needs more decor. Slight architectural improvements such as less squares and more soft things (i.e. carpet; colors other than yellow, grey, black, white; rounded edges on things) would give many of the buildings a less industrious and more welcoming-learning-environment sort of energy.”

“Bean bag chairs would be a large improvement.”

“Much of the interior of the older buildings feels dirty, dark, and ironically not modern.”

“study spaces need work”

“Unfortunately, most of my ISE classes are now all the way in Parks Hall, so I rarely spend time in the engineering buildings this semester. This may only be a result of the semester switch.”

“This has to be the most transparent survey on architecture and interior design I’ve ever seen. The fact that you only offer dual, opposing options, instead of a spectrum of five options (three at LEAST), is an astounding simplification. You ought to just ask us to explain how we feel about the appearance, usefulness, and comfort of these various spaces. I won’t take too much space here, because you didn’t offer me much, but I’ll say this: there isn’t an issue with any of the lecture halls you’ve presented, organizationally. The only problems might be the seat comfort itself and too little space between rows. The exteriors of the buildings presented are not necessarily what I would’ve designed, but they are by no means offensively unattractive. I do have to raise issue with, ironically, the architecture building. It’s a dramatically disorganized arrangement of largely wasted space, not exactly showing off OSU’s architectural prowess. Frankly, the PRB is a much better expression of
functionality, and the spirit of what the building would ultimately be used for, than Knowlton is to its respective purposes."

“More power supply for laptops..”

“Some of the buildings can be rather intimidating so maybe make them more welcoming."

“Larger group study spaces”

“Just...repaint the walls. Something to freshen up the hallways. Or add more lighting.”

“Include tables or chairs with desks. Align seating near wall outlets.”

“Add some soft sofa in the first floor as people may need them in their leisure time”

“The printers in the FE Computer Lab, though functional, overheat often. This often results in slow (2 pages per minute or less) printing, especially when a lot of students need to print.”

“I think that we could use more, modern study areas. Comfortable chairs, but with tables are always really nice for studying!”

"Color variation, less dull. Make more comfortable to increase productivity and create a welcoming atmosphere where people want to spend time doing work.”

“Many of the informal student spaces are outdated, uncomfortable and don’t support effective studying practices. Some labs/buildings are crammed, unclean, and messy - this is not conducive to learning.”

“I feel this survey would be better to if it included a greater variety of buildings and included areas that often are used by students such as computer labs.”

“Some facilities need updating.”

“A more modern surroundings with classic feeling furniture would feel productive, functional, comfortable, and inviting all in one.”

“outdated facilities vs. renovated facilities - there’s a strong contrast”
“N/A”

“Make the facilities feel ‘new’. Don’t use materials that look outdated quickly. For building exteriors, think about using a timeless, classic, and durable option--brick. I think the Fisher College of Business and The Ohio Union are some of the best looking building exteriors on campus. The buildings are ‘solid feeling’ and have architecture that won’t go out of style like many other buildings on campus. Don’t mess up your opportunity to give the College of Engineering a new, warm look by making the new CHBE building ugly.”

“As one of the biggest department in Engineering, Civil Engineering Students have the worst facilities available and we should improve on that.”

“more tables in front of the chairs, not side tables”

“The questions are a bit too polarizing I think. I believe the wrong questions are being asked because personally I did not really “feel” any of the answers a whole lot. Wish I could offer advice as for what a better survey question would be, but I don’t know.”

“The buildings that I’m in for classes really have no comfortable, or inviting study areas for students to collaborate in. The little study area there is, is just a table and few chairs crammed into a corner.”

“We could use more quiet study spaces.”

“Add some tables on the outside of engineering buildings. Update computers.”

“Overall, they seem to be rather bland and outdated, which affects the atmosphere and contributes to the unwelcoming feeling in some cases.”

“Better maps and directories, both outside and inside buildings, about where specific rooms and labs are located would be a nice improvement.”

“More color. Engineers don’t have to always use brown and bare walls. Like blues and greens, they are relaxing yet you still want to get stuff done.”

“If there’s a chair or seat, a table should be readily available. Nothing is more obnoxious than being stuck at a random armchair, trying to juggle all your books and papers in your lap.”
“Couches, sunlight, color!”

“No suggestions”

“The newer more lit facilities always seem to be more inviting or comfortable seeming.”

“I think it’s better to add some soft couches and some white boards on the wall on every floor.”

“I think comfy seats and desks promote learning. Do not worry about the structure of the room but the furniture within it. Windows are always good though. Put pictures up of Ohio State memories EVERYWHERE. We love that stuff, hell put pictures of students up there having fun. People have more fun when they see fun.”

“I skipped a majority of the questions because choosing between 8 predetermined descriptive words seems pretty silly, especially since these are addressing only the visual appeal of the space/building. Further, showing people using the spaces is going to further skew the way the person taking the survey thinks. Of course, someone sleeping in a common space looks comfortable. I think that CoE facilities should spend a large amount of effort on making the facilities SAFER instead of more visually appealing. Work harder on creating a notification system for student workers in lab buildings so that they know when hazardous air flow conditions exist, or when electrical failures may have disrupted their measurements. Safety should be addressed first and foremost by CoE facilities.”

“Create a modern warm enviroment with lots of light and windows with a modern feel.”

“Please make the facilities more visually appealing and unifying.”

“Away from high traffic areas.”

“we need spacious rooms for study, work and research.”

“The biggest thing that bothers me is the lighting in many classrooms and lecture halls. They usually have can lights, which are obnoxious unless you find just the right spot to sit. Because there’s no diffusion of light, if you sit under one the light come straight down at the back side of my glasses, reflecting back into my eyes. To make matters worse: In order to make the screen easily visible, the instructor must turn the front lights off, generally leaving other lights on. If you are in the interface between the light and dark zone, it’s pretty easy to get a headache because of the contrast. I think the addition of study spaces should be considered as well.”
“need to be much more comfortable.”

“Make them a little bit more modern.”

“There not much you can change in the older buildings, but the lighting is very unwelcoming in many of the room. For example: It feel more welcome/warm when you have a dim orange light then a bright white one. While I look at the picture I started to think there a thing call too comfortable. I see people sleep in a few building that have sofa.”

“Update the seating (chairs, benches, lecture hall seats) to be more comfortable and modern.”

“N/A”

“It would be awesome if the free printing we, as COE students, received in Hitchcock, could be used in the SEL. Currently, we can print for free in Hitchcock, but we have to pay in the SEL.”

“Tables with outlets near them are extremely awesome for people with big chunky laptops with crappy batteries who want to study between classes. Lab spaces are best when they are packed full of random junk and have lots of blackboards/whiteboards to write ideas on and invite people to work together and do cool things.”

“Student Rest Space is needed in most of the buildings on campus. Commuter students especially are displaced”

“Keep the buildings clean and modern. Student study spaces/ informal student spaces need to have tables, whiteboards and things to help collaborative work. Lab space should look inviting and collaborative- not cube farms of people who never speak to each other- that isn’t how research or work is carried out these days.”

“No comment.”

“More computer labs are needed; at peak hours, nearly every lab on campus is full.”

“Grad student cubicles should be redesigned to be more productive and encourage place for conversation while leaving private work areas for quiet contemplative work.”

“more light = awesome”

“Most student spaces smell horrible. The rooms need cleaned and the students should shower more frequently as well.”
“More informal student space with tables. 4-6 person tables in somewhat quiet areas are the best places to meet to work with groups. Banks of chairs against the wall with end tables in between them don’t make any sense.”

"n/a"

“There are many really groundbreaking spaces but there are a few uncomfortable and unproductive spaces to work where I believe I wouldn’t get much work done. I would avoid those areas and head to a more productive space to study.”

“Please provide more tables for workspace. Most engineering assignments require at least a textbook for reference of a laptop to complete, making all of the random seating areas dysfunctional. It would be a great improvement to have a dedicated lunch area for commuter/off-campus students. I hate having to eat my lunch in random hallways and foyers everyday.”

“We desperately need a building upgrade for all engineering students. We are by far the hardest working students at Ohio State and have the worst facilities. I avoid my Engineering building like it’s the plague.”

“remodel the older looking classrooms and add more windows”

more lab space would be the most helpful change that I believe could be made.

“We need more efficient and modern space. Some of the facilities are so outdated and uncomfortable. We are the school that focuses on innovation and advancement, yet we can’t even find a nice place to study.”

“Everything is good. If all seats had little cushioning in them it’ll be great.”

“more student study space spread out over campus (mostly north campus for engineering)”

“Better lighting, most lights are either very bright or very dim. A warm, yet bright light is best (more natural light)”

“I think they aren’t all the best, but consider that maybe physical improvements are not the best place to spend money.”

“Make the chairs a little more comfortable”

“none”
“Some of the places are just outdated. A lot of the newer & updated buildings are really great but you can definitely tell the lab spaces and lecture rooms that have not been. The lab spaces usually feel cluttered or dysfunctional and when we do labs for classes, it can really be a problem with space.”

“Furniture needs to be chosen based on the planned use. Seating is very important in a classroom, lab space, and study space.”

“Keep it simple and stick to brick.”


“Table space is much preferred over simply comfortable chairs. We need table so that we can work together on our homework, and rolling chairs could help. Chairs with arms are uncomfortable and I’d much prefer more work space over an informal lounge area.”

“Need more seating inside lobby areas of some buildings. Better entrance ways to buildings. Lobby needs more natural light in most buildings.”

“Thank you”

“Certain engineering building have been redone and look great while others have been forgotten and are stuck in the 60s.”

“More comfortable student spaces”

“Updated colors and styles to make spaces seem more functional and welcoming”

“I would appreciate more outlet space in both the informal and formal student areas to plug in electronics.”

“Electrical engineering student lounge is in a very bad shape”

“Most desks and lecture hall seats are uncomfortable to sit in and promote bad posture. The writing space provided on most seats is unbearably small and hurts my arm”

“Newer furniture”
“I feel that Hitchcock should be a much more exciting building. Engineering represents the future and the official college of engineering building should reflect that. The architecture building, Knowlton, displays an exciting environment and shows off the architectural skill of the university. The engineering building should do this too. It should showcase engineering skills and feats to inspire the students not just be a boring brick structure.”

“more larger tables, more power outlets for laptops, more places to get coffee.”

“Just from having seen all the activity of updating/renovating around campus, which has made great improvements, it seems the engineering facilities are overdue. Also, the photos don’t capture the atmosphere of the campus when there are people around.”

“The spaces marked “uncomfortable” or “unwelcoming” were generally darker or crowded. The second Informal Student Space is hilariously dark, ugly, and yellow/brown, and looks like it’s still in the 70s. The pipes don’t help. The first Informal Student Space is the best, minus the minor detail of the ugly floor.”

“More tables in the informal student spaces to facilitate use for studying.”

“More lounge spaces that are equal to all engineering majors. Right now, I think the Mechanical Engineering students have it the most comfortable with such a huge lounge space. Computer labs with larger or dual screens too. Constantly update lab equipment is appreciated. Also, more classrooms with actual tables is more productive for me, rather than chairs with side tables e.g. more classrooms like Dreese 0113 or Bolz 216. For theater style classrooms, like Scott Lab E0001, the chairs are way too comfortable. It decreases productivity and induces sleep. Just ask any professor who teaches in that classroom or even students who have class there. Consider having a few ‘open labs’ just like the ones for the First Year Engineering students or even a lounge space for all engineering majors - but more specifically for students already in their respective engineering majors instead of pre-major students. This promotes inter-engineering-major collaboration and helps build connections within the college of engineering. Helps get people interested in things like the Multidisciplinary Capstone in their senior year too.”

“Overall. College of Engineering facilities are old and unwelcoming”

“We need more group study rooms.”

“N/A”

“New chairs in the computer labs.”
“Modernization of study spaces and interior and exterior designs as well as accommodations”

“I fell we need more informal student spaces. Places to get away be comfortable and study.”

“Many of the areas shown looked outdated, cold, and uninviting.”

“More seating with tables and outlets. Or classrooms that have schedules when we can use them. Possibly the pharos printers system (like dorms use) where we can still get our free printing but we don’t have to be on a lab computer.”

“I hope we can have more student lounges”

“Chalk boards in large lecture halls are difficult to read. I prefer projectors and screens in larger lecture halls.”

“Air conditioning and comfortable desks/seating would be a massive improvement.”

“A combination of comfortable seating, open spaces, large tables, and available media and tools (printers, computers or places to plug in laptops, dry erase boards) would make productive, functional, comfortable, inviting group and individual study/learning spaces.”

“Please, can there be beds for napping? Also, I had no idea some of those informal spaces existed.”

“New is not always better, but a good combination of functionality and comfort seem to be more welcoming or “inviting” which can result in productive learning environments that offer a balance to achieve the intended purpose.”

“Lighter colors make spaces more inviting.”

“Ample desks and chairs with nearby power outlets are crucial. Making it pretty is just a nice extra.”

“Study rooms that encourage group work and conversations. More rooms like those on the north end of Scott’s 2nd floor.”

“Newer more comfortable seating. LARGER DESK SPACE”
“Brick exteriors are good! Take informal student space #1 and fill with tables and chairs like #2 instead of couches and you’d have a good one.”

“More table/chair space is definitely needed for department facilities, regardless if any type of engineering major is using them. The libraries are often crowded and sometimes it really isn’t feasible to go to my department’s “study lounge” based on space.”

“Large desk space and large computer screens have always helped me be productive. Group study rooms with 2 computers such as thoes in scott have been the best study spaces, and knowlton is ugly.”

“Most of them are super dirty, smelly, and otherwise unsightly. It’s somewhat embarassing, especially when placed next to Fisher.”

“Large tables and supportive chairs are the best for studying. Our studying often requires a laptop, drawing space and a textbook simultaneously. Chairs w/o tables are mostly useless for academic work, but convenient for taking a break or resting. As for the exterior, I don’t mind the modern look of our newer buildings, but make sure that the architecture reflects quality not just design. Some of the initial furniture in Scott laboratory often looked nice, but felt very fragile. With all of the cold weather in Ohio, lots of glass can appear “cold”. In general though I am excited about all of the new developments and I think it projects the correct message to incoming students.”

“Random halls with chairs/benches are not “informal student space”, student just wait for classes there. Building exteriors don’t matter much for current students. The ME student machine shop needs some love or maybe just some new/replaced stuff.”

“Needs some table to talk with other classmates and do homework”

“bike racks: More of them with rain cover would be good.”

“Improve the Civil Engineering Computer Lab”

“Install charging stations at each table in SEL.”

“Add more soft surfaces.”