Millersville University  Campus Facilities Master Plan
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A.1 BACKGROUND FOR PLANNING

Millersville University of Pennsylvania is a Public University located in Millersville, Pennsylvania, one of the fourteen state universities that comprise the Pennsylvania State System of Higher Education (PASSHE). The University is known for its strong academic reputation and supportive environment. Millersville students take advantage of the abundant resources of the University to grow as scholars and find their potential as leaders. Millersville University is a place of limitless possibilities.

Millersville students take advantage of the abundant resources of the University to grow as scholars and find their potential as leaders. Millersville University is a place of limitless possibilities.

A university’s greatness comes from its people. But the physical campus is the environment in which the people live, work, play, pursue individual goals, and come together for common purposes. The campus can aid or hinder these activities. We now know that how we interact with our physical environment determines how that environment serves future generations. University campuses decline and lose their identity without a clear path to the future. Periodically university’s must pause to assess where they are and where they are going, particularly in a time of scarce resources. Planning is the means to secure future success.

Millersville University has a tradition of planning that is in sync with its culture of maximizing its resources. A successful Master Plan is a flexible instrument that will guide future development. This Plan contains recommendations for near-term and long-term capital improvements required by the University’s Strategic Plan.

The last Facilities Master Plan was completed in 1999. The University determined that a new master plan is needed to continue the strategic development of the campus. A Request for Proposal (RFP), issued to select a master plan consultant team, states that the general objectives for this master planning work are:

• To develop a comprehensive, flexible, long-range plan for effective use and reuse of existing land, facilities, and infrastructure.
• To ensure interface between campus facilities and the University’s mission, goals, and academic and strategic plans.
• To prepare a plan which divides renovations and new construction into phases consistent with the Commonwealth’s funding pattern.
• To prepare a plan which distributes academic and support functions to buildings to improve interaction, communication, workflow and usage.
• To develop architectural, engineering, and related design themes and standards that support the heritage and beauty of the campus, enhance the image of the University and provide for more standard operations and maintenance.
• To provide a master plan that complies with the requirements of the System’s University Master Planning guidelines.

Millersville University organized the master planning process into four tasks or phases:

Task 1: Orientation / Inventory / Assessment of Needs and Requirements
Task 2: Master Planning Concept Development
Task 3: Master Plan Development
Task 4: Final Report

The master plan consultant team visited the campus to meet with the University’s 26-member Master Plan Committee on approximately three week intervals from July 2008 through February 2009. Campus-wide workshops were held with students, faculty, and staff. The consultants interviewed a wide variety of stakeholders including Deans, Department Heads, faculty, staff, student organizations, and Borough representatives. This collaborative process led to consensus decision-making on all aspects of campus development.

A.2 MILLERSVILLE UNIVERSITY TODAY

Founded as Lancaster County Normal School in 1855, Millersville University today is a community of 8,500 students, 500 faculty, and over 600 staff. The University is located in the heart of historic Lancaster County, Pennsylvania. Its central location affords easy access to major East Coast cities such as Baltimore, Philadelphia, Washington, D.C., and New York City.

The evolution of the campus followed the changing mission of the institution. Founded as a county normal school to provide teacher training, it later became a state teachers college, and finally a state university. All the facilities of the institution were contained in one building, Old Main, between 1855 and 1890. Old Main continued to be the campus centerpiece until its demolition in 1965. The campus was entirely on the southwest corner of George and Frederick Streets until it crossed George in 1900. Little campus development occurred in the periods surrounding World War I and the Depression. Like many other campuses, Millersville University rapidly grew in student population and facilities development in the ‘50s and ‘60s. Land was acquired in the north, west, south, and east to accommodate expansion.

Today the campus features a mix of historic buildings and modern structures, shady lawns and busy streets. The campus grew organically over 150 years but campus zoning—two academic districts with central lawns, north and south residential districts, a central main library across the street from a central student center, athletic districts east and west—are clear and coherent. Despite its growth the University is still an integral part of Millersville Borough, with houses on both sides of George Street marking the small town ambience of both communities.

Old Main

Osburn Hall
A.3 THE CAMPUS MASTER PLAN

The collaborative planning process led to consensus on the following Master Plan goals:

• Propose changes to the Millersville University campus in phases—0 to 5 years and 5 to 10 years.
• Accommodate growth in graduate student population and specific undergraduate programs.
• Provide a variety of housing choices and living/learning opportunities.
• Improve campus identity.
• Improve the visibility and identity of the campus in the Millersville region.
• Address traffic and parking issues.
• Improve athletic and recreation facilities to address current and future needs.
• Address deficiencies in facilities infrastructure and propose improvements to create a sustainable campus.

To achieve these goals, the Master Plan makes the following recommendations:

Create a pedestrian campus where walking is the preferred mode of travel between campus destinations.

Establish green spaces of character that are linked to other green spaces, connecting the North and South Residence Quads to academic, recreational, and athletic destinations.

Create a safer pedestrian experience by minimizing the frequency of pedestrian-vehicle conflicts. Change the George/Frederick intersection from a “+” to a “T” by closing East Frederick Street to vehicles. Encourage crossing students to use the pedestrian roundabout at the intersection. Create pedestrian pathways on desire lines in green spaces in order to minimize pedestrian movement in parking lots.

Close Frederick Street to vehicle traffic in phases and create a pedestrian mall from George Street to Pucillo Drive. The Frederick Mall will be the pedestrian spine of the East Academic Commons. The tree-lined Mall will have spaces for gathering and socialization at critical intersections. Construct the Mall to carry vehicle loads so that it can be used in the event of an emergency, to service adjacent facilities, and for move-in/move-out days.

Improve the living-learning environments of the North and South Residence Quads. Replace the high-rise residence halls, Lenhardt and Burrowes, with new living-learning Residence Halls either/or on James Street, Prince Street, or the current location of Lenhardt and Burrowes. Improve dining in Lyle Hall in response to the increased number of residents in the West Academic Commons. Improve the environment of the South Quad with landscaping around the informal playing field and adding recreational courts to the buildings.

Accommodate growth in academic programs by constructing two new academic buildings in the East Academic Commons. Show building volumes that are the largest reasonable size for each site considering campus context, even if the floor areas exceed current program requirements. The additional floor area can accommodate long-term growth. Locate the buildings to respond to campus vehicle and pedestrian routes, and to frame open space.

Preserve and maintain houses for University use on George and West Cottage Streets. These houses mark the interface of the University with the Borough and mitigate the difference in scale between University buildings and the houses of the town. The houses are an iconic edge to the University campus. Houses not on the edge of campuses on University roadways, may accede to University programs, but are not critical to University—Borough identity.

Create a Visitors Center at the George-Cottage intersection. Using the scale of the houses on the two streets, create a “T” shaped structure that will be a visual backdrop to the gateway sign at this primary campus entrance. The Visitors Center will include visitor orientation functions and Public Safety. Adjacent parking will be easily accessed by and reserved for visitors.
Mission, Objectives, and Assumptions

B.1 UNIVERSITY MISSION

Millersville University recognizes excellence in teaching and learning as its reason for being and is committed to offering students a high quality, comprehensive university experience of exceptional value. Dedicated to providing nationally recognized programs that embrace the liberal arts, the University provides academic opportunities which are supported by outstanding faculty who are also accomplished scholars, artists and practitioners and are supported by a talented and dedicated professional staff.

The University provides an extensive range of academic and professional programs to meet the interests and needs of both undergraduate and graduate students. To better prepare students for a diverse society and workforce, the University embraces diversity of people, cultures, ideas and viewpoints. By balancing traditional and innovative learning environments both inside and outside of the classroom, this inclusive campus community enhances learning outcomes and better equips students for their chosen professions.

By preparing students to become well-rounded individuals for productive roles as civic and community engaged leaders and citizens, Millersville University contributes to the public good. The University stimulates intellectual and creative energy that fosters the growth of our students, faculty and staff and contributes to the social, political and economic advancement of the Commonwealth and the wider world. The Millersville University community pledges itself to academic freedom and encourages imagination and curiosity, unfettered discourse, the exchange of divergent and controversial opinion, and multicultural awareness and understanding within an environment of civility, mutual respect and cooperation.

Approved by University Planning Council on April 10, 2008
President’s Cabinet on May 13, 2008
MU Council of Trustees on June 18, 2008

B.2 MASTER PLAN OBJECTIVES

Millersville University (MU) of Pennsylvania is a Public University located in Millersville, Pennsylvania. It is one of the fourteen state universities that comprise the Pennsylvania State System of Higher Education (PASSHE).

A Facilities Master Plan was completed in 1999. MU has determined that a new master plan is needed to continue the strategic development of the campus. A Request for Proposal (RFP) was issued by MU to select a master plan consultant team. The RFP states that the general objectives for this master planning work are:

A. To develop a comprehensive, flexible, long-range plan for effective use and reuse of existing land, facilities, and infrastructure; and, to consider possible expansion of campus facilities to meet identified shortfalls and possible future needs.

B. To ensure interface between campus facilities and the University’s mission, goals, and academic and strategic plans.

C. To prepare a plan which divides renovations and new construction into phases consistent with the Commonwealth’s funding pattern.

D. To prepare a plan which distributes academic and support functions to buildings to improve interaction, communication, workflow and usage.

E. To develop architectural, engineering, and related design themes and standards that support the heritage and beauty of the campus, enhance the image of the University and provide for more standard operations and maintenance.

F. To provide a master plan that complies with the requirements of the System’s University Master Planning guidelines.

The Campus Facilities Master Plan must be prepared in compliance with Volume VI-C: University Master Planning of the System’s Facilities Manual. The Campus Facilities Master Plan should address the efficient and effective use of University facilities, improvement of existing University conditions and future growth. The master plan document should address facilities components and issues in two phases of planning: short-term (0 to 5 years) and mid-term (5 to 10 years).

B.3 MASTER PLAN ASSUMPTIONS

The master plan should show the development of the Millersville University campus over two phases: short-term (0 to 5 years) and mid-term (5 to 10 years).

The master plan should assume incremental growth in graduate programs and no growth in undergraduate programs.

The master planning process should engage the campus community and key stakeholders from the communities of Millersville Borough and Lancaster County.

The master plan should illustrate recommended development within the University’s boundaries, including property controlled by the Millersville University Student Services and Student Lodging.

The master plan should provide recommendations regarding usage of University-owned houses.

Millersville University’s pond and gazebo.
C.1 MASTER PLAN PROCESS AND SCHEDULE

Millersville University organized the master planning process into four tasks or phases:

Task 1: Orientation / Inventory / Assessment of Needs and Requirements
Completed September 3, 2008

Task 2: Master Planning Concept Development
Completed November 19, 2008

Task 3: Master Plan Development
Completed February 4, 2009

Task 4: Draft Final Report
Council of Trustees March 11, 2009

The master plan consultant team visited the campus for two days on approximately three week intervals during the entire process. A slide presentation summarizing work since the last visit was given on each visit for the Master Plan Committee. A draft report was submitted three weeks prior to the final Task Report submission for Tasks 1, 2, and 3 on the dates listed above.

Please see the Appendix for:
• Scope and Schedule Timeline
• Meeting Chronology—List of on-campus meetings and attendees

C.2 MASTER PLAN TEAM

The master planning process was highly interactive with all parts of the campus community providing input and feedback. The Master Plan Committee included representatives from the faculty, staff, administration, and the Millersville community. In addition to the regular Master Plan Committee meetings there were student forums and faculty/staff forums.

Master Plan Committee
• Edward Arnold - Millersville Borough Manager
• Aminta Breaux - Vice President, Student Affairs
• Roger Brzeszewski - Vice President, Finance & Administration
• Barry David - Professor/Chair, Industry & Technology
• Kenneth Dearstyn - Associate Vice President, Finance & Administration
• Victor DeSantis - Dean, Graduate Studies
• Arthur Dickinson - Director of Capital Construction, Contracting & Design
• Abram Diffenbach - Board of Trustees member
• Jerry Eckert - Vice President, University Advancement
• Rich Frerichs - Retired Faculty member/Alumnus
• Charles Geiger - Assoc. Professor, Geography
• Chip German - Vice President, Information Technology
• Peg Kaufman - Director, Intercollegiate Athletics
• Mindy Lefever - Secretary, Capital Construction & Contracting
• James McCollum - Executive Assistant to the President
• Jan Mindich - Penn Manor High School Principal
• Dick Moriarty - Mayor, Millersville
• Mike Ondisco - Director, Communications & Network Services
• David Patterson - Pharmacist/community member
• Vilas Prabhu - Provost/ Vice President for Academic Affairs
• Edward Shone - Dean, Science & Mathematics
• Delray Schultz - Professor/Asst. Chair, Mathematics
• Ruth Sheetz - Contract Specialist
• Lisa Shibley - Asst. Vice President for Planning, Assessment & Analysis
• Robert Slabinski - CEO/General Manager, Student Services, Inc.
• Greg Szczyrbak - Instructor, Library

Consultant Team
• WTW Architects - Master Plan Coordination, Housing Master Plan
• Brailsford & Dunlavey - Housing Master Plan, Housing Financial Plan, Non-Academic Space
• Comprehensive Facilities Planning (CFP) - Academic Space, Safety and Security
• Entech Engineering - Campus Utilities Assessment
• Pennoni Associates - Land Use Planning, Parking/Transportation, Landscape
C.3 HISTORY OF THE DEVELOPMENT
OF THE CAMPUS

INTRODUCTION

This brief history addresses the development of the buildings and grounds of what is today Millersville University. Much of what is recorded here is extracted from We Sing to Thee, A History of Millersville University, by Dennis B. Downey, Millersville University of Pennsylvania, 2004. Historic maps and photographs were obtained from the Ganser Library Archives.

The Millersville University Master Plan looks to the future. The present in which we prepare this document is just a moment separating the future from the institution’s history. How the campus came to be what it is today guides us in preparing for the future.

EARLY YEARS

Millersville University was established in 1855 as the Lancaster County Normal School. The origin of the school was closely related to the normal school movement as it grew and developed throughout the Commonwealth of Pennsylvania.

Prior to the second half of the nineteenth century there was no systematic education or certification for teachers. On the eve of the Civil War champions of the normal school movement looked to Lancaster County where educators and public officials had been promoting a countywide institute for the training of teachers. A Lancaster County Educational Association (LCEA) was founded in October 1850 to promote educational reform in the State. A series of workshop-style teachers institutes was established in the summer of 1853 with the belief that a cadre of well-trained teachers was the key to improving education.

LCEA leaders learned that a group of Manor Township landowners and businessmen had organized to build a private academy in Millersville, then still known as Millerstown. The site near the Conestoga River just three miles from Lancaster was surrounded by fields and farmlands. In 1855 the borough had several stores and shops, and at least two hotels and public houses. Twice a day stage coaches passed through the borough, carrying passengers to and from Lancaster. In 1854 the academy’s trustees purchased a seven-acre tract along the turnpike that coursed through the borough and erected a three-and-a-half story building at what is now the intersection of George and Frederick Streets. The wood-framed structure faced south to Frederick Street and the Conestoga River beyond.

Millersville Academy’s principal approached leaders of the LCEA and suggested the use of the nearly completed Academy building as a permanent home for the teacher training institute. The bargain they struck effectively put an end to any discussion of a private academy in Millersville. On April 17, 1855 the Lancaster County Normal Institute opened in Millersville. That same year a 70-room addition to the former Academy building was begun facing east along the turnpike at a right angle to the existing structure. The older portion became the “Gentlemen’s Building,” and the newer portion became the “Ladies Building.”

In May 1857 the Pennsylvania General Assembly enacted what is known as the “Normal School Act.” The Commonwealth was divided into twelve geographic districts, with directions for the placement of a single state normal school in each. (A thirteenth district was added in 1874 and a fourteenth in 1930.) Thus the Pennsylvania State System of Higher Education (PASSHE) was born.

By the late 1850s there was a campaign to transform the Lancaster County Normal School into the first Pennsylvania state normal school. In 1859 the School’s trustees purchased additional acreage along George Street. With plans to double student population to over 400, the existing building was enlarged for a second time. Originally named the Normal Building, it was eventually called “Old Main.”

Until the first building program commenced in 1890, Old Main was the only instructional and lodging facility, dominating the physical and intellectual landscape of the small and somewhat isolated normal school. Not only the administrative and academic routines, but the social world of normal education was played out in this solitary structure.

All the classrooms and recital areas, the dining
hall and chapel, faculty and student lodging, administrative offices, the board and book rooms, and the libraries were contained within its walls. The entire model schools program was also housed within its crowded corridors. Despite four expansions in four decades—the most important in 1875 on its twentieth anniversary—Old Main never kept up with the demand for space. (Downey, 2004, p.26)

Faculty and staff from the Normal School left campus to volunteer for service in the Civil War. In November 1867 the campus community dedicated the marble obelisk commemorating 32 officers and soldiers who “perished in the fearful struggle to crush the rebellion, 1861-1865.”

In 1874 coach service to Lancaster City was replaced with a trolley line. Commuting students could take advantage of the trolley while others boarded on campus or in the borough. A growth of boarding houses in the borough was opposed by the trustees because of concern about the use of alcohol or other deviations from the school’s strict code of personal behavior.

The 1875 addition to Old Main included a bell tower and 42-room central block, providing space for administrative offices, new library and dining facilities, a bookstore, and a chapel. The new structure filled in between the existing gentlemen’s and ladies’ buildings. The chapel could seat as many as a thousand people and featured 14 stained glass windows. Today these windows can be found in the Ganser Library, Bolger Conference Center, Biemesderfer Center, Capota Hall, and McCullough Communications Complex.

In 1880 the trustees purchased ten building lots across George Street form the entrance to Old Main. By 1888 enrollment had grown to nearly 900 students. Other normal schools were starting up across the state, making the inadequacies of Old Main—lack of a physical education facility, poor quality of the laboratories, and the need for a modern library—became more evident.

The first building erected independent of Old Main was a gymnasium (present-day Dutcher Hall) completed in 1890. Basic improvements were made to Old Main itself: indoor plumbing, a new sewer line, painting, and new furnishings.

With a funding allocation from the state, two buildings were planned—a library (present-day Biemesderfer Center), and a Science Hall—both designed by Philadelphia architect James Warner and completed by 1895. A lake or pond was dug out on the site of a former brickyard. With the new state funding, Old Main was again enlarged with a 65-foot extension on the women’s side, and a mansard roof was added.

**MIDDLE YEARS**

By the turn of the century the campus was enlarged to twenty acres straddling both sides of George Street. A model school built in the neoclassical style was erected across the street from the Old Main entrance in 1900. An athletic area with baseball and football fields and tennis courts was built on farmland to the west of Old Main. Students boated on the lake in the summer and skated in the winter. (College Principal and alumnus Eliphalet O. Lyte wrote the tune “Row, Row, Row, Your Boat.”)

With the prosperity of the 1920s, enrollment grew with women outnumbering men five to one. There was no building expansion in the 1920s but electrical service was brought to campus buildings, residential students had single beds, and a public toilet was added to the Science Hall. In 1929 the rickety wooden balconies...
1968 Campus Plan, Millersville State College
were removed from Old Main. Following the change in institutional status to Millersville State Teachers College in 1928, the trustees purchased additional land on the east side of George Street.

In spite of difficult economic times in the 1930s, a new training school (present-day Byerly Hall) and a new gymnasm and health education center (present-day Brooks Hall) were ready for use in 1939.

**POST-WAR EXPANSION**

Returning World War II veterans caused a jump in the student population to 700. The physical plant of the University was aging and could not meet the demand for dormitories and academic space, particularly in the industrial arts. The trustees acquired land just north of the pond and an additional parcel on the east side of George Street, and a new building program was underway. A women’s dorm with attached cafeteria, Lyle Hall, and a men’s dorm, Roddy Hall (present-day Gilbert Hall), were occupied in 1935. A new auditorium building, Lyte Hall, opened the same year.

As the University approached its 100th anniversary in 1955, there was increasing interest in replacing the deteriorating Old Main. The oldest part of the building dated to 1854 and even the newest section was 70 years old. The demolition of Old Main was delayed, however, until 1965. Meanwhile enrollment continued to grow. Mainly because of a limited supply of housing, the trustees imposed a temporary 1,400-student enrollment cap.

A campus modernization program was first proposed in 1955 and refined in 1960 as the ten-year College Development Plan. A separate corporation, Student Services, Inc., was founded in 1956 as a means of expediting contracts. In the early 1960s the old Science Hall was taken down to make way for Dilworth Administration Building. The Osburn Industrial Arts Building, Roddy Science Center, and a special education building, Gerhart Hall, were completed by 1965. Five new dormitories were opened in the first phase of the plan in the South Residence Quad, each housing approximately 300 students. Student Services, Inc., began topurchase or lease houses adjacent to campus, which were initially used for overflow student lodgers.

Student population more than doubled between 1955 and 1965 to 3,680. The second phase of the plan (1965-1972) brought Gardner Dining Hall and the Student Memorial Center. The Stayer Learning and Research Center (present-day Jefferson Hall) was opened in 1964. Ganser Library was constructed in 1967 to replace the antiquated Biemesderfer. By 1970 two major classroom buildings were added to the campus, McComsey Hall and Breidenstine Hall. Pucillo Fieldhouse opened in 1973. Geise Hall dormitory was added the same year.

Automobile traffic and parking stressed town-gown relationships in the 1960s as student population grew. Borough officials pressured the University and the state to build a southerly bypass that would divert cars from congested streets. A 1968 campus plan shows a limited access road along the Conestoga River, as well as the closing of East Frederick Street and portions of North and South George Street to create pedestrian malls. (See 1968 Campus Plan, Millersville State College).

**BUILDING TODAY’S CAMPUS**

A five year capital campaign (1993-1998) resulted in a series of capital improvements. The old model school building now named Hash Building/Bassler Hall was renewed with the addition of the McCullough Communications Complex. The Brosam Science Annex was completed in 1993. McComsey and Osburn Halls were improved and expanded. A multipurpose science and technology center, Caputo Hall, was constructed adjacent to Roddy Hall. Improvements continued in the 21st century with the completion of a parking structure on North Prince Street and a new baseball stadium nearby.

The Campus Master Plan for 1998 to 2008 generated several important facility developments. Renovations/ expansions were completed to McComsey, Osburn, Roddy, Dutcher, and Wickersham Halls. A new Stayer Hall and an Athletic Training Center in Carpenter-Trout was completed. Several athletic facilities enjoyed major upgrades. Biemesderfer Stadium was outfitted with a new track, visitor seating, and an artificial surface to support intercollegiate athletics as well as intramurals. A new baseball stadium was built by Jefferson Hall, and the women’s softball stadium was upgraded with a new press box, lighting, scoreboard, and warning track. A new 368 space parking garage was completed at the corner of Prince Street and Cottage Avenue to provide badly needed parking for students and athletic events. This plan called for an expansion of the Student Memorial Center and expansion/renovation to Lyte Auditorium, Alumni Hall, and Ganser Library. All of these projects are underway at the current time.

This current master plan continues in the proud tradition of planning at Millersville University to meet the ever-changing needs of this dynamic institution.
D.1 MILLERSVILLE UNIVERSITY’S LOCATION AND SIGNIFICANCE

Millersville University is located in Millersville, PA, in Lancaster County. The University is about five miles southwest of Lancaster and about six miles east of the Susquehanna River. The University and the town are situated on high land above the Conestoga River which feeds into the Susquehanna.

Land uses surrounding the University are residential to the east and north, with some recreational (a golf course) to the south, and agricultural land to the west.

Roads in Lancaster County generally radiate out of the City of Lancaster. Route 999 connects Millersville to Lancaster. Route 741 runs north-south to the east of the campus and connects to Route 30, the Lincoln Highway, to the north. The Pennsylvania Turnpike is readily accessible.

The village of Millersburg was founded in 1761 by John Miller who, during the middle of the 18th century, operated a blacksmith shop and hardware store. The village’s name was changed in the 1820’s to Millertown, and finally became known as Millersville in the mid-1850’s. The original Miller homestead, built in 1763, is now used by Millersville University to house its Honors College.

Millersville was incorporated as a borough in 1932. Prior to this time, Millersville was the largest village in Manor Township. Millersville’s significant growth began after 1855 with the founding of the first Pennsylvania Normal School, which has grown to become Millersville University. (History source: Millersville Borough web site)

The population of Millersville Borough is about 8,000, not including students. Relations between the University and the Borough are generally good. In recent years there have been discussions about the protection of houses owned by the University and deemed historically significant by the Borough. The Borough has expressed concerns about traffic, parking, and pedestrian safety in the University district.
D.2 REGIONAL TRANSPORTATION

Millersville University is located on the west side of the regional roadway network that radiates like spokes from the City of Lancaster. This radial pattern is typical of older cities and has the potential for major congestion during peak hours of travel. Based on the County Comprehensive Plan the public perception is that congestion in the area is on the rise. Only two major roadways have been built in the county since 1985 while the number of registered vehicles has gone from 252,311 in 1980 to 396,847 in 2000. There has also been an increase in commuter traffic over the last decade with approximately 80% of the work force commuting by car.

The region is dependent on the private automobile and roadways for transportation. Public transportation is utilized by students and available through the Red Rose Transit Authority (RRTA) http://www.redrosetransit.com/. Students who do ride the RRTA can access the MU Xpress, MU Park City Xpress and Route 16 but in general the RRTA is not preferred in comparison to the private automobile for sake of convenience. The RRTA routes are also affected by the local traffic congestion.

There are alternative modes of transportation used in the region including walking, horses, bicycling, and other miscellaneous non-motorized methods but they are limited in connectivity by existing land uses and lack of accommodation in the design of new developments. The automobile is the primary mode of travel in order to work and live in this region.

The main roads leading to Millersville include Routes 283, 30, 462, 741 and 999. Once in Millersville there is an interconnected network of streets and alleys that traverse neighborhoods and offer motorists alternative ways to move around where the majority of new housing subdivisions tend to have road networks with a single point of access to existing roads. The Borough road network pattern forces motorists into collector and arterial streets and requires them to drive on roads that are not designed to handle the increased volume and results in traffic congestion.

Improving mobility and at the same time providing for safe pedestrian travel in the Millersville area is of the utmost importance. Most traffic traveling to Millersville University uses the George Street corridor to get to the heart of the campus. Most of this traffic originates from the Route 741 and Route 999 corridors. Route 741 is also a relief route primarily for traffic encircling Lancaster City. As the region continues to grow, these routes will become more congested unless new relief routes are created to disperse traffic flow or alternative modes of transportation are developed and encouraged.

PennDOT Twelve Year Program/TIP

A review of the 2009 Twelve Year Program reveals just a couple of highway projects associated within the transportation network in and around Millersville that have been programmed. These projects are as follows:

- Millersville Pike (SR 0999) resurfacing
- Slackwater Road (SR 3032) bridge restoration

Both projects are in the first four-years of the Program. While these funded projects are important to improving the current condition the roadway system in and around Millersville, they are relatively minor in view of potential regional transportation needs.

D.3 SOILS, TOPOGRAPHY, AND GEOLOGY

Soils

In Pennsylvania, soils information is maintained at the County level, typically by individual County Conservation Districts. Soil surveys prepared by the conservation districts are entered into a statewide Soils Survey Geographic Database, which is then certified and managed by the United States Department of Agriculture, Natural Resources Conservation Service, and National Survey Center. The information was developed using a database called “SURGO” (Soil Survey Database). SURGO is the most up-to-date soil survey information available at the time this Plan. The Existing Soils Map indicates the soil types and slopes. Two of the soils types on campus may indicate potential difficulties for future development. These soils include the Clarksburg silt loam (CkA) and Pequea silt loam (PeE). Clarksburg silt loam indicates potential seasonal wetness and Pequea silt loam is found in areas with high slopes.

Geology

The campus is located within the Piedmont Upland Section of the Piedmont Physiographic Province of Pennsylvania, which is characterized by broad rounded to flat-topped hills and shallow valleys with low to moderate relief. The structural geology in this area indicates that the bedrock is extremely complexly folded and faulted.

Rock outcropping on campus
Available geological data indicates that the center of campus near Ganser Library is underlain by the Conestoga Formation. The Conestoga Formation consists of a medium gray, phyllitic limestone with a conglomeratic base. Fracturing in this rock is poorly formed, moderately abundant, and widely spaced. This formation is moderately resistant to weathering, weathered to a shallow depth. Weathering results in large, irregularly shaped fragments. Rock pinnacles are characteristic of this formation.

Since the Conestoga Formation is susceptible to sinkhole development, it is recommended that a thorough geotechnical investigation be done for any proposed new structures. The geotechnical investigation would include, at the minimum, a combination of test borings, test pits, and/or geophysical testing.

**Topography**

Millersville University covers approximately 250 acres of land. As shown on the Existing Topography Map, the highest point in elevation at 400+ feet is close to the water tower near Jefferson Hall. This section of campus east of Prince Street slopes from the high point towards the parking garage and the baseball field along North Prince Street. The older more historic area of campus slopes eastward away from the campus boundaries of George Street, Prince Street and Cottage Avenue towards the centrally located ponds and continues to slope towards a concentrated area along Frederick Street near Boyer Hall. The rest of campus slopes in opposite directions from a “U” shaped ridge that runs from the softball field near Pucillo Gym, westerly towards Chryst Field, continuing southerly to the intersection between George and James Streets, through Gordinier Hall, across the Common Space between the resident halls towards the a high point along the Conestoga River. From this ridge the campus slopes to two separate drainage ways to the river. The campus east of the “U” ridge which includes the area around the Student Memorial Center slopes towards a low point in the southwest corner of campus near the river. The rest of campus grounds within the “U” shaped ridge slope towards a low point at the river behind the Bishop and Palmer Buildings. Most of the topography on campus does not hinder future development.

**Flood Plain**

A 100-year flood plain is located along the Conestoga River on the eastern edge of Campus. A 100-year flood plain is designated by the Federal Emergency Management Agency (FEMA) and is defined as the part of a valley floor over which a river spreads during seasonal or short term floods at least once every 100 years. Building construction is prohibited in the flood plain by the Borough. Uses permitted in flood plain by zoning would be closely similar to nature preserves, publicly-owned recreation, golf courses, picnic grounds, boat launches, swimming areas, trails and fish hatcheries, parking areas meeting the setback requirements, open yard areas, crop farming, plant nurseries, necessary utilities, road and driveway crossings, and agriculture and forestry.
LEGEND

- CnB - Conestoga silt loam, 3 to 8 percent slopes
- CkA - Clarksburg silt loam, 0 to 5 percent slopes
- HfC - Hollinger silt loam, 8 to 15 percent slopes
- LdB - Letort silt loam, 3 to 8 percent slopes
- LdC - Letort silt loam, 8 to 15 percent slopes
- PeC - Pequea silt loam, 8 to 15 percent slopes
- PeD - Pequea silt loam, 15 to 25 percent slopes
- PeE - Pequea silt loam, 25 to 50 percent slopes
- Uc - Urban land
- W - Water
- 100 Year Flood Plain
E.1 MASTER PLAN GOALS

Based upon our meetings and workshops with faculty, staff, and students; review and analysis of planning reports/feasibility; and observation of existing conditions, the following Master Plan goals were established:

1. Propose changes to the Millersville University campus that meet the requirements of the Strategic Plan over 0 to 5 years and 5 to 10 years.
2. Accommodate growth in graduate student population and specific undergraduate programs over the two master plan phases.
3. Provide a variety of housing choices and living/learning opportunities in student housing in order improve quality of residential life and to attract and retain new students.
4. Improve campus identity by clarifying the unique characteristics of each quad and district. Improve orientation and wayfinding.
5. Improve the visibility and identity of the campus in the Millersville region.
6. Address traffic and parking issues on campus and in the surrounding district.
7. Improve athletic and recreation facilities to address current and future needs, both indoor and outdoor.
8. Address deficiencies in facilities infrastructure and propose improvements to create a sustainable campus.

E.2 CAMPUS ANALYSIS

The 250 acre campus of Millersville University is on gently rolling land that slopes from a high point in the northwest at the Water Tower down to the Conestoga River in the southeast. The land rising from the river is steeply sloped and naturally wooded.

The historic green space most associated with the identity of Millersville University is the pond and surrounding green space. Brooks Field is an informal athletic space but also serves as a scenic greenward adjacent to the pond. Smaller green spaces link the pond area to the other large green space serving the south residential quad.

The campus is bounded by the Borough of Millersville on the east and north and by rural development and farmland on the west. George Street and Cottage Streets are the boundaries between the University and Borough with houses on both sides of the streets. Administrative functions or faculty offices are in many of the houses controlled by the University. The houses are generally well-maintained and adapted to their current uses, but there are unavoidable inefficiencies in the scattering of these functions. The backyards of many of the houses are ambiguous and under-used open spaces.

Most motorists from Lancaster or other population centers approach the campus southbound on George Street. The primary campus gateway is the intersection of George and Cottage Streets, and it is appropriately marked by a masonry sign.

Parking is interspersed among all the campus zones. The University’s two parking structures are appropriately located to serve the east and west parts of campus.

As shown on the Campus Analysis Plan, most of the campus could be traversed on foot in ten minutes in a straight line. Of course buildings, roadways, and walkways divert the pedestrian. The walking experience is not always desirable because of traffic on roadways, greenways separated by parking, and narrow sidewalks on busy streets.

The architecture or campus buildings reflects its 150 year history. The original campus building, Old Main, was removed in the 1960s but historically significant structures from the late 19th and early 20th century remain. Considerable campus expansion occurred in the ‘50s, ‘60s, and ‘70s so a majority of the built campus is from this era.

E.3 UNIVERSITY DISTRICTS

An essential element in creating a sense of place and a feeling of ownership of a place, i.e. territoriality, is the identification of campus districts. The Master Plan Committee identified nine districts as named on the adjacent campus map.

The word “Commons” is used for academic areas:
- West Commons
- East Commons

The word “Complex” is used for the primary athletic areas:
- Jefferson Complex
- Pucillo Complex

The word “Quad” is used for the main residential district:
- South Residence Quad

The remaining areas are identified by their defining characteristics:
- Campus Gateway
- Historic Greens
- Student Memorial Complex (SMC)
- Student Lodging

The campus sign system should use these district names for wayfinding or directional signs.
E.4 MASTER PLAN CONCEPTS

The following concepts for the strategic development of the Millersville University campus are in response to the Objectives outlined in the Master Plan RFP (See Section B.2.), and the Goals listed above:

1. Create a pedestrian campus where walking is the preferred mode of travel between campus destinations. Establish green spaces of character that are linked to other green spaces, connecting the North and South Residence Quads to academic, recreational, and athletic destinations.

2. Create a safer pedestrian experience by minimizing the frequency of pedestrian-vehicle conflicts. Change the George/Frederick intersection from a “X” to a “T” by closing East Frederick Street to vehicles. Encourage crossing of Frederick Street away from the George/Frederick intersection to the Shenks Lane intersection with a pedestrian island on and strong pedestrian pathways north and south of the street. Close George Street south of James Street to allow for a pedestrian path and plaza that connects the South Residence Quad to the center of campus. Locating some parking lots in George and Cottage Streets—behind houses. Create pedestrian pathways on desire lines in green spaces in order to minimize pedestrian movement in parking lots.

3. Close East Frederick Street to vehicle traffic in phases and create a pedestrian mall from George Street to Pucillo Drive. The Frederick Mall will be the pedestrian spine of the East Academic Commons. The tree-lined Mall will have spaces for gathering and socialization at critical intersections. Construct the Mall to carry vehicle loads so that it can be used in the event of an emergency, to service adjacent facilities, and for move-in/move-out days.

4. Improve the living-learning environments of the North and South Residence Quads. Replace the high-rise dormitories, Lenhardt and Burrowes, with new living-learning Residence Halls on James Street and Prince Street. Improve dining in Lyle Hall in response to the increased number of residents in the West Academic Commons. Improve the environment of the South Quad with landscaping around the informal playing field and adding recreational courts between the buildings.

5. Accommodate growth in academic programs by constructing two new academic buildings in the East Academic Commons. Show building volumes that are the largest reasonable size for each site considering campus context, and enhance long-term growth. Locate the buildings to respond to campus vehicle and pedestrian routes, and to frame open space.

6. Preserve and maintain houses for University use on George and West Cottage Streets. These houses mark the interface of the University with the Borough and mitigate the difference in scale between University buildings and the houses of the town. The houses are an iconic edge to the University campus.

7. Create a Visitors Center at the George-Cottage intersection. Using the scale of the houses on the two streets, create a “T” shaped structure that will be a visual backdrop to the gateway sign at this primary campus entrance. The Visitors Center will include visitor orientation functions and Public Safety. Adjacent parking will be easily accessed by and reserved for visitors.

8. Strengthen east and west athletic areas to serve intercollegiate and recreational programs. Relocate the recreational tennis courts to the Jefferson Complex and create an intercollegiate tennis facility in that location. Replace the grass fields in the Pucillo Complex with turf, and provide lighting and bleachers to allow more continuous use. Renovate Pulillo, Jefferson, and Brooks Halls to respond to current program requirements.

9. Incorporate current Capital Projects—SMC Addition/Renovation, VPAC, and Library Renovations—into the framework of master plan recommendations. Create a plaza between the SMC and Gordinier Hall at this critical juncture of student life activities. Create a courtyard and an outdoor classroom in the West Academic Commons to complement the Arts activities in the VPAC and in the living-learning spaces in the proposed Prince Street Residence Hall. Incorporate a drop-off and improved pathways in the vicinity of the improved entrance to the Ganser Library.

10. Recommend options for sustainable energy use. Propose the phased conversion from electric to gas, and the construction of a central heating/cooling plant.
**E.5 MASTER PLAN PHASES**

Master plan changes will be implemented in phases. Phase 1 - 0 to 5 years - includes projects that are either funded and in design, or have well-defined scopes and funding is being pursued. Phase 2 - 5 to 10 years - includes projects that are needed to accomplish the goals and strategic direction of the university. Projects beyond ten years would allow additional growth.

**Phase 1 - 0 to 5 years:**
- a. SMC Renovation and Addition (2011)
- d. James Street and Prince Street Residence Halls or other appropriate combination
- e. Tennis court facility and practice field at Jefferson Complex
- f. George-Frederick-Shenks Intersection Upgrade (2009)
- g. Central portion of East Frederick Pedestrian Mall
- h. Renovation of Brooks Hall
- i. Renovation of Jefferson Hall—Phase 1, mechanical systems
- j. Electrical Utilities Infrastructure Upgrade

**Phase 2 - 5 to 10 years:**
- k. Renovation of Jefferson Hall—Phase 2, interior fit-out
- l. Renovation of Pucillo Hall
- m. New Academic Building 1
- n. New Academic Building 2
- o. West and east to Pucillo portions of East Frederick Pedestrian Mall
- p. New surface parking and greenway in north campus
- q. Visitors Center at George-Cottage Streets intersection
- r. Athletic fields improvements at Pucillo Complex
- s. Athletic Practice Facility at Biemesderfer Stadium/Chryost Field

**Beyond 10 years:**
- t. Centennial Drive Residence Halls (to accommodate future growth)
- u. Centennial Drive road alignment changes and surface parking

See Section J: Housing for the alternate housing phasing plan.
PHASE ONE: 0-5 YEAR PLAN
E.6 CAMPUS DESIGN GUIDELINES

These Design Guidelines are established to support the mission of the Millersville University, to aid in the orderly and creative development of the Master Plan, and to assure the quality of physical additions and improvements to the campus. The Guidelines are tools for those entrusted with creating a campus environment for living, learning, and creative inquiry.

1. The campus-like nature of Millersville University’s open space is a strong component of its physical environment. Campus green space shall be protected and its quality shall be enhanced.

   Campus design shall recognize that landscaping is an essential contributor to the campus ecology. Campus design shall show respect for existing topography: slopes, watersheds, natural viewpoints, and level areas for activities.

   Outdoor activity areas shall be designed for a variety of uses and accommodate flexible use wherever possible. Activity spaces shall be complemented by passive watching areas.

   Open spaces shall be designed with consideration of size, proportion, access and circulation, views, and opportunities for activities. Links between open spaces shall be designed as transitions from one space to the next.

   Campus entrances and boundaries shall be clearly defined.

2. Spaces and informal spaces for casual use shall be planned and promoted.

   Buildings and plantings shall be designed as definers of outdoor spaces.

   Buildings and plantings shall relate to the qualities of the open space they face in size, scale, and formality.

3. Transportation routes through and around the campus shall facilitate the movement of pedestrians, vehicles, and materials to their destinations. Where pedestrians and vehicles conflict, pedestrian needs take priority.

   Parking areas and service drives shall be designed to minimally interrupt pedestrian movement and the visual continuity of the campus.

   Campus design should assume and accommodate a multi-modal approach to transportation: car, pedestrian, shuttle, and public bus.

4. Existing campus circulation patterns shall be enhanced, and new paths created, to provide clear orientation and sense of place.

   Pedestrian and vehicular routes shall be separated.

   Pedestrian paths shall be designed to have pedestrian scale, continuity, richness, and functionality. Appropriate signage shall assist in orientation along pathways.

   The continuity of pedestrian circulation paths, both interior and exterior, shall be maintained and enhanced. Pedestrian paths shall connect destinations so that walking is a desired mode of transportation within the campus.

   Bicycle use shall be supported by the provision of bicycle pathways, signage, and storage.

5. Sites for future buildings and open spaces shall be identified and preserved for the most appropriate use.

6. Campus building design shall reflect the innovative spirit of Millersville University while respecting the context of existing buildings in the district.

   Buildings shall contribute to the overall coherence of the campus and maintain consistency in scale, materials, and articulation with existing buildings. Buildings shall be designed as part of a larger fabric, rather than as independent objects.

   Brick is the defining exterior material of the Millersville University campus. It should be consistent in color and texture with neighboring structures.

   Opaque exterior wall panels shall not be used, or their use shall be considered an exception.

   Building fenestration can vary considerably from building to building to respond to internal functions, and to occasionally allow views of those functions from the exterior.

   Roof forms—flat, sloped, hipped, dormered—shall be designed to respond to function and context. Sloped roofs will be considered for buildings with a narrower width, such as residence halls.

   Entrances shall be designed to be visible from a distance, to be welcoming and safe, and to protect visitors from the weather.

7. Campus buildings and open space shall be designed with regard to their environmental impact.

   Buildings shall be constructed of materials that are efficient in their use of resources, and cause minimal harm to the environment in their manufacture, installation, or disposal.

   Building environmental systems and building envelopes shall be designed to conserve energy.

   Site design shall consider storm water management in the extent and types of paving, and in the use of landscaping.

   Millersville University will strive for LEED certification for all new buildings, additions, and/or renovations when and where appropriate. Millersville University is committed to a sustainable campus. Design and construction teams will be directed accordingly at the commencement of a project so that LEED and sustainable goals can be incorporated at each phase of the project process.

8. The design process for additions and changes to the campus should marshal the innovative spirit of the university in making campus spaces and facilities that perform at the highest technical and functional standards for human need and comfort.

   Campus buildings shall avoid deep sections and occupied basements to ensure access for building occupants to the natural environment and to campus activities.

9. The campus is for the use and enjoyment of all members of the campus community. All improvements to the physical environment shall adhere to the concept of universal design.

   Building entrances and boundaries shall be planned and promoted.

   Buildings and plantings shall be designed as definers of outdoor spaces.

   Buildings and plantings shall relate to the qualities of the open space they face in size, scale, and formality.

10. The campus environment shall be enhanced by quality public art.

    Public spaces in buildings, quadrangles, and smaller garden spaces provide opportunities for appropriately scaled art.
Public art shall represent the creative energies of the campus community with the potential to make connections between the past and the future.

11. Campus improvements shall be designed to respect and enhance the character of the neighboring communities of Millersville Borough.

Campus development shall contribute to the quality of life in adjacent neighborhoods in areas including traffic, parking, real estate values, and aesthetics.

Campus development shall enhance the perception of Millersville Borough as an attractive community in which to live and work.

Campus development shall contribute to the strengthening of the university’s intellectual, social, and commercial ties with neighboring communities.

12. The design of changes and additions to the campus shall reflect a spirit of enlightened long-term fiscal responsibility.

13. The master planning and building design processes shall implement these Campus Planning Guidelines, and engage campus and community constituencies in meaningful discourse.

E.7 UNIVERSITY IDENTITY

The Master Plan recommends a graphically unified system of signs for campus gateways, wayfinding/directional signs, roadway signs, traffic and parking signs, and building identification. Signs which incorporate the Millersville University graphic standards emphasize the University’s brand and identity. The descriptions and photographs herein describe the aesthetics, scale, and the structural character of each sign type, but are not definitive. The photo examples should serve as a departure point for discussion and an examination of options before the University commits to a single sign style.

An effective campus-wide sign system is an essential component of the overall safety and security of the University. Signage can contribute to:

- Territoriality—instilling ownership of the space by the desired users, and conveying a message to the undesired user, that people care and take notice of what happens in their environment. Posting the rules and regulations, clear definition of the transition from public to semiprivate and then private space, distinctive architectural elements and signage assist in supporting this principle.
- Natural Access Control—directing the desired users of the campus grounds and buildings to their destination, while making undesired users, possibly intent on performing a crime, become more obvious by their behavior. The proper use of architectural elements, clear access points, directional signage, fencing, shrubbery and lighting, reinforce this principle.

CAMPUS GATEWAYS

- Purpose: A gateway provides a distinct edge to the campus. Visitors to the campus become aware that they are departing from the public realm and entering the campus realm as they pass through a gateway. Clarifying the edge of campus at gateways not only reinforces campus identity but is also an important element in campus safety.
- Structure: Gateways at Millersville University incorporate curved brick masonry walls with stone copings. A cast stone sign is mounted into the walls. Behind the walls are ornamental trees or evergreens. In front of the walls are seasonal colorful low planting beds. Smaller scale versions of the primary gateway sign should be used at the secondary gateways.
- Locations: Gateways are proposed at five entry points to campus:
  - George and Cottage Streets intersection—existing sign, primary entrance
  - Duke and Cottage Streets intersection
  - Prince and Cottage Streets intersection
  - Frederick Street near Boyer Hall
  - Shenks Lane and Centennial Drive

WAYFINDING/DIRECTIONAL SIGNS—PEDESTRIAN SCALE

- Purpose: Pedestrian wayfinding signs are the primary source for visitors seeking directional information and also reinforce the University identity that began at the gateways. There can be a hierarchy of directional signs:
  - Precinct signs direct visitors to areas of the campus, e.g., West Commons or South Residence Quad.
  - Directional signs direct visitors to a specific destination or list of destinations.
WAYFINDING/DIR ECTORAL SIGNS—VEHICULAR SCALE

• Purpose: Vehicular wayfinding signs are the primary source for motorists seeking directional information and also reinforce the University identity that began at the gateways.
• Structure: Wayfinding signs are constructed of metal with silk-screened letters that can withstand weather and vandalism. Wayfinding signs can incorporate the MU logo and use MU colors. Lighting is either incorporated into the structure of the sign or is set into the landscaping. Lighting and correct font size are critical for 24 hour visibility. Wayfinding signs are surrounded by pedestrian-scaled landscaping.
• Locations: Wayfinding signs are located at primary roadway intersections and at entrances to parking facilities.

KIOSK SIGNS

• Purpose: An outdoor campus map can orient visitors to the entire campus at one time. Kiosks can provide information about campus events and exhibit the vitality of campus life.
• Structure: Maps are silk-screened onto metal panels. The maps could be sloped and mounted at a height to serve a visitor seated in a wheelchair or standing. Directional information may be incorporated into the kiosk. The MU logo should be included in the graphics.
• Locations: Kiosks are located at primary outdoor gathering places. A map should be located in the vicinity of the proposed Visitors Center.
BUILDING IDENTIFICATION

- **Purpose:** Building identification signs identify each campus building, since buildings are the destinations of most visitors.
- **Structure:** Building identification signs are either:
  - Cast metal letter attached to the building wall. Careful coordination with Facilities staff is essential to minimize damage to the building wall.
  - Free-standing signs of low height set in the lawn in front of buildings.
- **Locations:** Building identification signs are adjacent to each public entrance to a building.

BANNERS

- **Purpose:** Banners reinforce University identity and can be used to announce events. Banners can illustrate campus history or can honor prominent alumni.
- **Structure:** Banners are made of weatherproof semi-permanent fabric attached to struts which are attached to light poles.
- **Locations:** Banners should be located along any campus roadway or pedestrian path.
F.1 OVERVIEW

The Physical Plant of Millersville University consists of over 90 buildings (including University occupied houses) on approximately 250 acres of gently rolling land adjacent to the Borough of Millersville. Since the Lancaster County Normal School occupied the Millersville Academy Building in 1855, there has been a general growth of the campus outward from the intersection of George and Frederick Streets. Construction of new buildings has been intermittent over the 154 year history of the University with a few notable building campaigns. (See Section C. 3. History of the Development of the Campus.)

F.2 LAND AND BUILDING USES

Millersville University owns and operates approximately 2 million square feet of buildings. Distribution of building uses across the campus is coherent and logical.

Academic life in the nineteenth century was centered in the vicinity of Old Main. Today academic activities revolves around two commons—the West Commons/ Historic Greens and the East Commons. The Master Plan recommends improved linkages between the two Academic Commons through pedestrian greenways and safe crossings of George and Frederick Streets. Renovations to the Ganser Library will reinforce its importance as the centerpiece of academic life.

The two residential quads are in the north and south parts of campus. Each cluster of dormitories is supported by a dining hall. The proposed James Street Residence Hall is appropriately situated on the edge of both the East Commons and the South Residence Quad. The proposed Prince Street Residence Hall strengthens the smaller North Residence Quad.

Three athletic zones support varsity and recreational activities. Varsity Athletics are centered around Chryst Field. Varsity, intramural, and rec activities occur at the Jefferson Complex and the Pucillo Complex. The enlarged Student Memorial Center will greatly improve recreational opportunities.

The Student Memorial Center is advantageously located in the academic zone and between the larger residential quad and the two academic commons.

Each boundary of the campus has a distinct character. The campus is bounded on the north and east by the Borough of Millersville, on the south by the Conestoga River and expanding residential development, and on the west residential and agricultural land.

In general, the zoning of uses on the Millersville campus meets the criteria of adjacency, walkability, and aesthetics.

F.3 BUILDING CONDITIONS

A building condition inventory for the years 2008-2009 puts each University building into one of four categories. The chart below summarizes the number of buildings in each category.

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
<th>Number of Buildings</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfactory</td>
<td>Suitable for continued use with normal maintenance.</td>
<td>45</td>
<td>46</td>
</tr>
<tr>
<td>Remodeling - A</td>
<td>Requires restoration to present acceptable standards without major room use changes, alterations, or modernization. Last restoration was 12 to 17 years.</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Remodeling - B</td>
<td>Requires major updating or modernization of the building. Last major updating was 18 to 34 years.</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Remodeling - C</td>
<td>Requires major remodeling of the building. Last major remodeling was greater than 34 years.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Demolition</td>
<td>Should be demolished or abandoned.</td>
<td>6</td>
<td>6.5</td>
</tr>
<tr>
<td>TOTAL NUMBER OF BUILDINGS</td>
<td></td>
<td>94</td>
<td>100</td>
</tr>
</tbody>
</table>
F.4 RECOMMENDATIONS BY DISTRICT

The recommendations herein implement the Goals listed in Section E.1 above. See Section G.2 for campus landscape recommendations. See Sections G.2 and G.3 for athletics space recommendations.

North and West Campus Recommendations

The Campus Gateway, the West Commons, and the Historic Greens are in this part of the campus.

The focus of the Campus Gateway will be the proposed Visitors Center. University Police are currently located in Lebanon House near the George and Cottage Streets intersection. A Visitors Center is proposed that will be a perpendicular addition to Lebanon House. The street fronts of the proposed structure will be of a residential scale in the context of adjacent houses. The wings of the Visitors Center will frame the existing masonry campus gateway sign. Parking is proposed adjacent to the Visitors Center with easy access off of Cottage Street for visitors unfamiliar with the campus. A pedestrian path through a proposed greenway will link the Center to the Historic Greens and all campus destinations beyond.

The Visual and Performing Arts Center (VPAC) addition to Alumni Hall will anchor the West Commons. Parking and a visitor drop off will be served from Cottage Street. The main entrance to the VPAC will be on the east side of the building with a secondary west entrance connected by a through lobby. The proposed Prince Street Residence Hall will form the west edge of a new courtyard serving the residents of the four residence halls of the West Commons and students of the arts. A proposed outdoor performance space in the courtyard will complement the activities in the VPAC. Visitors to the VPAC arriving by car have the option of the Prince Street Parking Garage followed by a short walk across the courtyard to the west entrance to the VPAC. Tractor-trailer trucks have access to the VPAC loading/receiving area from Prince Street.

If Admissions relocates to Duncan House, a tree-lined pedestrian mall is proposed connecting Duncan House to an art feature on the east side of the VPAC, near to the main entrance. This feature could be incorporated into the wall of the building, or be centered in a small courtyard serving VPAC visitors, marking the VPAC as a destination.

Surface parking lots in the north part of campus will be re-constructed closer to the houses on Cottage and George Streets, in the former backyards of the houses. The Visual and Performing Arts Center (VPAC) addition to Alumni Hall will anchor the West Commons. Parking and a visitor drop off will be served from Cottage Street. The main entrance to the VPAC will be on the east side of the building with a secondary west entrance connected by a through lobby. The proposed Prince Street Residence Hall will form the west edge of a new courtyard serving the residents of the four residence halls of the West Commons and students of the arts. A proposed outdoor performance space in the courtyard will complement the activities in the VPAC. Visitors to the VPAC arriving by car have the option of the Prince Street Parking Garage followed by a short walk across the courtyard to the west entrance to the VPAC. Tractor-trailer trucks have access to the VPAC loading/receiving area from Prince Street.

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Surface parking lots in the north part of campus will be re-constructed closer to the houses on Cottage and George Streets, in the former backyards of the houses.

The houses will continue to be maintained and used by the University while they serve as the historic edge to campus, facing the Borough residential neighborhoods.

A new pedestrian walk is proposed connecting Lyle Hall and the pond area to the Gilbert-Bard residential area, replacing a dirt path.

Brooks Field will be better connected visually to the pond by relocating the bleachers from the north side of the field to the south side.

Some parking will be removed from the loop road serving Dutcher Hall in order to restore the campus lawn, but sufficient accessible parking will remain. A terrace in front of the Dutcher Hall entrance will be sized to allow drop-offs and short term parking by panel trucks.

A small parking lot is proposed to replace the tennis courts just to the north of Brooks Hall. (A new tennis facility is proposed adjacent to Jefferson Hall.)

The Singing Needles building behind Brooks Hall has been removed. The site can be used for a community park.
East Campus Recommendations

The centerpiece of the East Commons will be the Frederick Street pedestrian mall. The Master Plan recommends the closing of East Frederick Street to vehicles, which will be implemented in two phases. Ultimately, a pedestrian mall will extend from George Street to the Pucillo Hall entrance. The mall will primarily be used by pedestrians in the busy East Commons, but it will have occasional use by emergency and service vehicles. The pedestrian mall will be open for all vehicles on move-in and move-out days.

The existing paving will be used as the mall surface. Curb's will be removed and the paving cut back to a 22' width. The pedestrian paving pattern should be consistent with the red brick "ladder" configuration that has been used for walkways in the Historic Green. As illustrated on the plans, gathering spaces with seating and artwork or water features will occur at intersections with other walkways. Special features must remain outside of the clearances needed for emergency and service vehicles.

Existing trees in the vicinity of the pedestrian street will remain and be supplemented with new trees to create a tree-lined street. The verges of the pedestrian mall will be re-graded and planted in the areas where curbs have been removed.

The first phase of implementation of the Frederick Street pedestrian mall will be between High School Street and Creek Drive. The second phase will be the two remaining sections—George Street to High School Street, and Creek Drive to the Pucillo Gym. The slope up to the Pucillo Gym entrance will require steps and ramps for universal accessibility.

New Residence Halls are proposed between the Frederick Street pedestrian mall and James Street. The two "U" shaped buildings will form a courtyard which will serve as a landscaped amenity for residents. The courtyard will also be a passage for students from the South Residence Quad on their way to classes in the East Commons. This project requires the demolition of four houses: Dauphin, Allegheny, Armstrong, and Luzerne.

Two new Academic Buildings are proposed along the Frederick Street pedestrian mall. The buildings will be three stories to be in the context of adjacent structures. Their main entrances will face the pedestrian mall.
Aerial view of the proposed James Street Residences and Academic 1
Academic 1 will be situated north of the James Street Residence Halls. The buildings on the north and south sides of the mall will have equal setbacks which will allow space for street trees. There is the potential to create an outdoor classroom or social space to be set into the slope on the north side of Academic 1. This project requires the demolition of Gerhart Hall and Perry House.

Academic 2 will be situated to the south of Caputo Hall. The footprint is “L” shaped to allow Nichols House to remain, and to avoid the headwall for the spring that feeds into the biological research pond.

The six tennis courts south of McComsey Hall will be re-built in the Jefferson Complex. The two basketball courts will be re-built in the Residence Quad. The courts area will be replaced with a new surface parking lot.

A new surface parking lot to serve the Bolger Conference Center will be built to the west of the proposed James Street Residence Halls and in the former backyards of houses on George Street. This project requires the demolition of Cambria House.

South Campus Recommendations

The addition to the Student Memorial Center (SMC), currently under design, will include additional student center space and recreational athletics space. The south extension of the building is on an existing surface parking lot, so new parking will be built to the south, to Centennial Drive. The closure of George Street south of James Street allows for the east addition to the SMC and a courtyard between the SMC and Gordinier Hall. This courtyard will not only be a pathway for students from the Residence Quad to the academic areas of campus, but it will also be a stopping point and social gathering space. It will include seating, trees for shade, and seasonal landscaping.

Two new residence halls will replace the mid-rise Lenhardt and Burrowes Halls. Recreational basketball and volleyball courts will be built adjacent to the two halls to serve the entire Residence Quad.

Centennial Drive will be re-aligned to take out the kink. This allows additional parking to be built southeast of the Drive. The northeast portion of Centennial Drive will improved to consolidate parking spaces on either side of the roadway and remove the unusually wide paved areas in front of Hull and Hobbes Halls.
F.5 ATHLETIC FACILITIES

Overview
Nationwide, colleges and universities recognize the important role that athletic, recreation and wellness plays in enhancing campus life. On many campuses, these facilities are being utilized as strategic assets, helping achieve enrollment goals by increasing student recruitment and retention, and raising the level of satisfaction among students, thus developing a comprehensive campus community. Understanding the benefits associated with these facilities, Millersville University has taken steps to make improvements with respect to its athletics and recreation facilities. Most recently, Millersville has addressed the needs of athletics that included the construction of a new baseball stadium, addition of a dedicated strength and conditioning center, upgrades to the varsity softball field, and major renovations to the Chryst Field. The University is now in the process of addressing recreation needs with the expansion of Student Memorial Center that will provide students significantly more dedicated recreation spaces. These changes provide opportunities to utilize existing space more efficiently, and provide additional resources to enhance other program needs. More specifically the existing indoor facilities, Pucillo and Brooks, are being evaluated to determine how best to satisfy existing needs of wellness and athletics. These programs share not only space, but also services that benefit each, and needs to be addressed in any future recommendations.

The following text summarizes the current utilization and condition of indoor and outdoor spaces utilized by athletics, recreation, and wellness managed by the University. The three indoor facilities include Pucillo Gymnasium/Natatorium, Brooks Gymnasium, and Jefferson Hall. The assessment also includes a brief discussion of outdoor spaces.

Indoor Spaces
Pucillo Gymnasium is a facility that serves the diverse needs of a number of constituents, including athletics, recreation, wellness and sports sciences, and other academic needs. As one of the largest venues on campus (capacity 3,000), Pucillo also host to large campus events such as concerts, campus functions, community events, and other special events. The facility is the competition venue for men’s and women’s basketball, volleyball and wrestling teams, and serves as the individual and team workout facility for men and women’s lacrosse, field hockey, baseball and football. Pucillo also contains a 25M, 8-lane pool used for intercollegiate competition, recreation, physical education, wellness, and limited community use. The building also has a small indoor walking track overlooking the gymnasium available to all students, except when there are special events. Wellness and Sports Sciences, and Recreation are also tenants in the facility with offices, locker facilities, classrooms, training space, and weight and fitness space. The major concern, as noted by the respective departments, with Pucillo is the quantity of available spaces and general condition of the facility. Part of this was addressed during 2006, with renovations to replace the roof. The ability to serve the diverse and growing needs of athletics, recreation, and wellness and sports sciences is limited by the spaces available. In addition, the amalgamation of all of these components and multiple uses creates acute challenges with respect to programming, operations, and scheduling.

Brooks Gym is located on the east side of campus, and operates as a multipurpose facility serving the needs of athletics, recreation, wellness and sports sciences, and physical education. Brooks is about half the size of Pucillo Gymnasium, and serves as more of
a teaching and practice venue versus a competition venue. The main components of Brooks include a one-court gymnasium and 25-yard pool. According to recreation and wellness staff, the pool is heavily utilized, serving the needs of the University and Millersville community. Users of Brooks noted that the facility is in need of renovation to provide spaces suitable for its current use as a multipurpose facility. The facility also includes a limited number of offices, classroom spaces, and fitness-related spaces. Brooks has the capacity to serve the Millersville community more effectively with a series of renovations to convert the facility into a more functional space.

Carpenter Trout Strength Center is one of the newest additions to the Millersville campus. Built in 2006, the Center provides approximately 4,500 square feet of dedicated strength and conditioning space to varsity athletes. Strength and conditioning plays an important role in the development of intercollegiate athletes, and many schools have developed state-of-the-art facilities. Athletics indicated a need to expand this space in the future that would add more storage.

Jefferson Hall is new to the athletic department, and currently houses offices for coaches and administration. Current University plans call for this facility to undergo a total renovation into an athletic complex. It was noted during conversations with athletic representatives that the location is not ideal, as all "functional pieces" are elsewhere on campus.

Utilizations
Below is a summary of utilization of each facility and the major components.

Pucillo Gymnasium
- Athletics comprises the most space within Pucillo, with approximately 35,000 square feet. There are no dedicated athletic locker rooms within Pucillo, as varsity athletics share space with general users except on game days. The wrestling room is located in the basement and storage space is spread throughout the facility.
- Wellness has approximately 8,200 dedicated square feet for administrative, education, training, and support spaces. There are eleven administrative and faculty office spaces to support the wellness and sports sciences program. Most of the offices are clustered on the first floor with limited access to classrooms, locker rooms and training spaces. The training room is located near the locker rooms and includes a whirlpool, rehab room, and other support functions. Wellness also has access to a fitness room located on the north side of the gymnasium that includes weight and fitness equipment for training purposes.
- There are three classrooms within Pucillo on the second floor that is classified as Registrar space. The remaining space is comprised of public restrooms, storage, and general support space for the facility.

Brooks Gymnasium
- Brooks is used by a number of programs and is designated in most part as an athletics facility, serving as a practice space for varsity sports. Track and Field stores their equipment in this facility, and there are two weight and fitness spaces for training purposes on the ground floor. The aquatic area serves athletics, recreation, education, and community use. The size of the gymnasium floor does not meet NCAA requirements for game use and is used more for training and educational purposes. Wellness and Sports Sciences occupies the majority of offices with the other spaces mostly vacant.
Outdoor Spaces

- Chryst Field at Biemesderfer Stadium is the competition venue for football, track and field, men and women’s soccer, men and women’s lacrosse, intramurals, club sports, and other university and community events. The locker rooms should be expanded to the visiting side underneath the bleachers. The press box is out of date and inadequate for current needs. There is a severe lack of storage.
- A new baseball stadium was built in 2007, and was well received by the athletic department and university. Renovations were made to the softball field that included upgrades to the press box, a new scoreboard, and new warning track.
- Spoils Field is a sand-based grass field and is currently the practice field for men and women’s soccer, men and women’s lacrosse, intramurals, and club sports.
- Brooks Field is the practice field for field hockey and is also utilized for intramurals.
- Tennis Courts are located near McComsey Hall and used for both men’s and women’s varsity as well as general recreation.

Facility Priorities

Based on data gathered in visioning sessions with key staff members, priorities for Athletics, Recreation, and Wellness were determined and became the basis of the Master Plan recommendations.

Athletics

Priorities
1. New Fields for Soccer, Field Hockey, Lacrosse
2. New Press Box at Beimesderfer Stadium
3. New Locker Rooms at Beimesderfer and Pucillo
4. Renovated Pool

Specific Needs
- Resurfacing of Spoils Field to synthetic turf to allow for expanded use
- Biemesderfer Stadium Upgrades
  - Locker rooms
  - Replace press box
  - Additional storage space for equipment
- Pucillo Gym
  - Renovate and potentially expand existing pool area
  - Renovate and existing locker spaces
  - Renovate and expand weight and fitness space

Recreation

Priorities
1. Move department to SMC at completion of renovations
2. Expanded fields space for club sports
3. Lights for outdoor fields

Most of the needs of Recreation will be addressed with the eventual expansion of the SMC. Plans call for major upgrades to the facility that will provide students with expanded recreation spaces and activities.

Wellness and Sports Sciences Department

Priorities
1. Six classrooms
2. Twelve faculty/staff offices
3. Renovated/expanded weight and fitness room
4. Dedicated research space
5. Multipurpose space

Recommendations

The Master Plan recommends the consolidation of certain functions in Pucillo and Brooks to alleviate pressures placed on the respective facilities. In discussions with the Wellness and Sports Science staff, it was their desire to have dedicated spaces to support program needs that would ideally be located in one facility. The department currently occupies approximately 8,000 square feet of dedicated space in Pucillo. This space includes an office suite, training space, fitness room, and storage space. Wellness’s use of classrooms and the gymnasium in Pucillo is predicated on the schedule of Athletics, Recreation, and other campus needs. The Master Plan recommends the move of Wellness into Brooks, which frees up space in Pucillo to meet the needs of Athletics. With the completion of the SMC expansion, Recreation will move out of Pucillo freeing up more space for other needs. Note that Wellness will continue to require a presence in Pucillo in order to meet its program needs. Specifically the training and rehabilitation program should remain in Pucillo with some improvements to the space.

- Brooks Renovations – The majority of needs for Wellness and Sports Sciences could be accommodated in Brooks Hall through a series of renovations. The facility currently has thirteen offices, space for weight and fitness, multipurpose space, and two classrooms, which meets the specific needs of the program. However, Wellness requires six classrooms and there are only two within Brooks. To accommodate more classrooms would require either conversion of existing spaces or the assignment of classrooms in another facility. This option creates an ideal scenario for Wellness, as it consolidates its functions into one primary location with dedicated space (gymnasium, pool, multipurpose space) that does not compete or conflict with other programs. In order to achieve this scenario, the athletics programs currently using the facility would need to relocate to Pucillo.

- Pucillo Renovations – With Wellness moving to Brooks, this would free up significant square footage to address the needs of Athletics. Athletics priorities included the need for additional locker rooms, expanded weight and fitness, and additional storage space for equipment. This could be accomplished within the existing framework of the facility with Wellness relocating to Brooks. The office suite for Wellness provides approximately 1,200 square feet that could accommodate the track and field training space currently located in Brooks. The fitness room with Pucillo needs to be renovated and would become additional training space for athletes to take pressure off Carpenter Trout. The locker rooms also need to be updated and expanded to address the needs of the various varsity sports. The offices and classrooms on the second floor could either remain to address the needs of Wellness or be converted into other athletics spaces.
EXISTING LAND USE PLAN
F.6 DINING FACILITIES

APPROACH
Below are recommendations on the two main dining issues:

The first issue concerns the effects of proposed expansion of housing proximate to the future Visual and Performing Arts Center on Lyle Hall. The principal concern with dining is whether the all-you-care-to-eat facility should remain, or be converted to more of a retail à la carte operation. Additionally, the University needs to understand if Lyle will need to be expanded to accommodate the greater number of students on this side of campus.

The second issue concerns Gordinier Hall and issue of whether it is adequately sized to support campus catering for the entire campus. Gordinier is the principal catering support facility on campus, handling storage, preparation, production, assembly, staging and transport to catering locations around the Millersville campus.

OVERVIEW
Consideration is being given by Millersville to review different types of dining/meal plan options from the all-you-care-to-eat format. Students like more flexible meal plans with a busy college experience. It is important for the University to balance all the dining and retail options in order to provide high customer service to its students.

The current total square footage dedicated to food services at Lyle Dining Hall, although serving a smaller customer base than what is projected for the future, exceeds the estimate of what is needed for dining, serving, kitchen and support areas. This is due in large part to the building’s age – constructed in 1949 – and the design and layout of the kitchen, storage and back-of-house support spaces, which date back several decades. Improvements have been made industry-wide in the ensuing decades to operations, equipment productivity, and raw and processed food products available in the marketplace. These changes have reduced the requirement for kitchen, storage and back-of-house spaces.

While the scale of behind-the-walls kitchens has been downsized in university dining halls in recent years, preparation and serving areas – in full view of the customer – have been upized. This brings menu item ordering and meal preparation to the front, where activity is on display and interaction occurs between students and chefs. While the total footprint of food services at Lyle Dining Hall is ample, the dining and serving areas must expand.

Despite the similarity in square footage figures – 14,463 currently vs. 14,000 needed with the addition of meal plan students – the configuration and floor levels of the existing 14,463 square feet make it inefficient, at least by current operational and design standards. If the campus decides to move forward with new beds on this side of campus, the University should consider renovating existing space to accommodate this expansion.

Catering Production and Support at Gordinier
It appears that the current back-of-house spaces at Gordinier – kitchen, storage (dry, refrigerated, frozen), assembly and plating, beverage support, cart staging – are ample to support catering now and well into the future. Emphasis must be maintained on students’ daily meal requirements, while also meeting needs of staff, faculty and University visitors. Catering can contribute real income to the department and play an important role in enhancing and supporting University programs but natural ‘governors’ exist at Millersville that prohibit catering from growing as it might in a commercial setting.

<table>
<thead>
<tr>
<th>Dining/Seating area</th>
<th>Existing Lyle Dining Hall (per MU building space inventory listing)</th>
<th>Calculated Requirements</th>
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</thead>
<tbody>
<tr>
<td>Dining/Seating area</td>
<td>4885</td>
<td>6500</td>
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<tr>
<td>Serving area</td>
<td>2442</td>
<td>3600</td>
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<tr>
<td>All back-of-house</td>
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<td>3900</td>
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<tr>
<td>Kitchen</td>
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<td></td>
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<tr>
<td>Storage (dry, refrigerated, frozen)</td>
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<td></td>
</tr>
<tr>
<td>Dishwash + pot wash</td>
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<td></td>
</tr>
<tr>
<td>Employee locker rooms + rest rooms</td>
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<td></td>
</tr>
<tr>
<td>Offices</td>
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</tr>
<tr>
<td>Subtotal</td>
<td>14463</td>
<td>14000</td>
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<tr>
<td>The Cove c-store/grab ’n go</td>
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<td>0</td>
</tr>
<tr>
<td>(Includes counter area, seating and storage closet)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total area – Lyle Dining Hall</td>
<td>15791</td>
<td>14000</td>
</tr>
</tbody>
</table>
F.7 PROPOSED DEMOLITION AND NEW CONSTRUCTION

Proposed Buildings and Additions

In addition to the proposed residence halls, the following new buildings, additions, and renovations are proposed:

1. Visual & Performing Arts Center Renovation and Addition
   - 23,000 ASF/35,000 GSF - Addition to Alumn Hall
2. Ganser Library Renovation and Entrance Addition
   - 4,000 GSF - Renovations and Addition
3. SMC Renovation and Addition
   - 66,000 GSF - Addition to the Student Memorial Center
4. Other Proposed Relocations
   - Education

The Visual & Performing Arts Center (VPAC) and the SMC Renovation and Addition are in the design phase. An early package for the SMC project began May, 2009 for the parking lot addition and utility relocation. The Ganser Library Renovation is currently in programming.

The master plan drawing shows two proposed Academic Buildings which could be built in phases:

Academic Building 1
- 24,500 GSF/floor x 3 floors = 73,500 GSF
Academic Building 2
- 17,500 GSF/floor x 3 floors = 52,500 GSF

These buildings are shown to accommodate planned and unplanned growth in academic programs. They are not assigned to specific programs. Their footprint size and massing show the logical maximum size for academic buildings in the East Commons. Each proposed building’s configuration responds to vehicular and pedestrian routes, and respects the open space objectives in this district.

Buildings to be Removed

In addition to the two dormitories, Lenhardt and Burrowes Halls, other buildings recommended for removal over time include:

- Two houses on the east side of Prince Street south of Gaige Hall - to allow the construction of a proposed residence hall: Mifflin and Potter.
- Two houses on East Frederick Street near Gerhart Hall - to allow the creation of a pedestrian mall and the construction of proposed academic building and residence hall: Perry, Dauphin, Allegheny, Armstrong, and Susquehanna.
- Cambria House - to allow the construction of a parking lot to serve Gardiner Hall and the Bolger Conference Center.

Historic Designation

The Millersville Borough Zoning Ordinance, Section 309.C, designates structures by Historic Class. The table, Current Use of Buildings to Be Removed, includes the Historic Class for each structure proposed for demolition.

<table>
<thead>
<tr>
<th>Proposed Buildings and Additions</th>
<th>Class I</th>
<th>Class II</th>
<th>Class III</th>
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<tbody>
<tr>
<td>Dauphin House 7 offices</td>
<td>English</td>
<td>Franklin</td>
<td>McComsey</td>
</tr>
<tr>
<td>Moffry House 10 offices, 1 lab</td>
<td>Soc/Arth</td>
<td>Byerly</td>
<td>Business</td>
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<td>Armstrong House Greek organizations</td>
<td></td>
<td>Byerly</td>
<td>Earth Scien</td>
</tr>
<tr>
<td>Susquehanna House 10 offices and 1 lab</td>
<td>Soc/Arth</td>
<td>Byerly</td>
<td>Science &amp; Math, Earth Sciences</td>
</tr>
<tr>
<td>Luzerne House 6 offices</td>
<td>CD/ME</td>
<td>Jumile</td>
<td>Vacant</td>
</tr>
<tr>
<td>Cambria House 5 offices</td>
<td>Music, marching band</td>
<td>Vacant</td>
<td>Rocky/Kaputo Hall</td>
</tr>
<tr>
<td>Mercer House Lancaster Partnership</td>
<td></td>
<td>Chester</td>
<td>Facilities Mgmt, Athletics</td>
</tr>
<tr>
<td>Mifflin House 11 offices, 1 conf. rm.</td>
<td>Migrant Educ</td>
<td>Mercer</td>
<td>Lancaster Partnership</td>
</tr>
<tr>
<td>Potter House Unassigned</td>
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Proposed Relocations to Allow Additions

<table>
<thead>
<tr>
<th>Proposed Relocations to Allow Additions</th>
<th>Existing Location</th>
<th>Proposed Relocation</th>
<th>Permanent Location</th>
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</thead>
<tbody>
<tr>
<td>Existing Building</td>
<td>Space Needing to be Replaced</td>
<td>Proposed Relocation</td>
<td>Facility</td>
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<tr>
<td>Buildings on site of James Street Residence Hall</td>
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<tr>
<td>Dauphin House 7 offices English</td>
<td>Franklin House Music</td>
<td>McComsey Hall Business Admin</td>
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</tr>
<tr>
<td>Moffry House 10 offices, 1 lab Soc/Arth</td>
<td>Byerly Hall Music, Psychology</td>
<td>Brossman Hall Science &amp; Math Earth Sciences</td>
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<tr>
<td>Armstrong House Greek organizations</td>
<td>Byerly Hall</td>
<td>Vacant</td>
<td></td>
</tr>
<tr>
<td>Susquehanna House 10 offices and 1 lab Soc/Arth</td>
<td>Byerly Hall Music, Psychology</td>
<td>Brossman Hall Science &amp; Math, Earth Sciences</td>
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<tr>
<td>Luzerne House 6 offices CD/ME</td>
<td>Jumile House Vacant</td>
<td>Rocky/Kaputo Hall Earth Sciences</td>
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<tr>
<td>Buildings on site of James Street Parking Lot</td>
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<td>Cambria House 5 offices Music, marching band</td>
<td>Vacant</td>
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<td>Buildings on site of Academic Building 1</td>
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<td>Perry House 6 offices Psychology</td>
<td>Washington House VP Student Affairs</td>
<td>Byerly Hall Music, Psychology</td>
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<td>Gerhart Building Vacant</td>
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<tr>
<td>Buildings on site of Prince Street Residence Hall</td>
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<tr>
<td>Mifflin House 11 offices, 1 conf. rm.</td>
<td>Migrant Educ</td>
<td>Mercer</td>
<td>Lancaster Partnership</td>
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<tr>
<td>Potter House Unassigned</td>
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Proposed reopenings

Other Proposed Relocations

<table>
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<th>Other Proposed Relocations</th>
<th>Existing Location</th>
<th>Proposed Relocation</th>
<th>Permanent Location</th>
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<tbody>
<tr>
<td>Existing Building</td>
<td>Space Needing to be Replaced</td>
<td>Proposed Relocation</td>
<td>Facility</td>
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<tr>
<td>Lyle Hall 7200 Admissions</td>
<td>Duncan House Alumni Relations</td>
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<tr>
<td>Dilworth Hall 9000 Institutional Research</td>
<td>Lyle Hall, 3rd Floor Academic Services</td>
<td></td>
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<tr>
<td>Mercer House Lancaster Partnership</td>
<td>Chester House Facilities Mgmt, Athletics</td>
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<td></td>
</tr>
<tr>
<td>Puchot Hall 6 classrooms, 12 faculty/staff offices, expanded weight/fitness room, research space, multi-purpose space Wellness &amp; Sports Science</td>
<td>Brooks Hall Recreation</td>
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<td></td>
</tr>
<tr>
<td>Puchot Hall Recreation</td>
<td>IMAC New Addition</td>
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</tbody>
</table>

Buildings for new academic programs

Academic Building 1
- Lyle Hall, 3rd Floor Academic Services
- Dilworth Hall Institutional Research
- Mercer Hall Lancaster Partnership
- Puchot Hall Wellness & Sports Science
- Puchot Hall Recreation
Utilities Overview

Campus utilities—water, sanitary sewer, storm sewer, gas, and electrical power—were evaluated for their existing conditions, and their capacity to meet the current needs of the campus. Existing conditions are documented in the attached plans. Then the changes proposed in the Master Plan were analyzed and recommendations were made to meet future demand. Sustainability issues such as energy consumption and maintenance, as well as the changing regulatory climate, were considered in making recommendations.

Domestic Water

Existing

Domestic and fire protection water is supplied to the majority of the campus via a private well owned by Millersville University. Several homes which are utilized by the University are fed from the city public water distribution system. Water is distributed to University buildings via private water mains that range in size from 3 to 16 inches. Notable public water mains in the vicinity of campus include an eight (8) inch main that runs along North George Street and West Cottage Avenue, and a six (6) inch main that runs along South George Street, East Frederick Street and North Prince Street. Significant facts surrounding the water system are noted below:

1. A 1.1 million gallon water tank was constructed in 1984 by MU to service the campus.
2. This University owned water tank serves all the buildings on campus with the exception of the Student Memorial Center, Jefferson Hall and the homes previously mentioned.
3. The City of Lancaster owns the public water system.
4. The MU system has three inter-connects to the City system. Two additional inter-connects have been shut-off but not capped and abandoned as desired by the City.
5. MU has not experienced a water leak in two years.
6. The inter-connects were installed when the water tank was out of service for painting.
7. One 214’ deep well located adjacent to Boyer Building pumps approximately 107,000 gal/day. Water goes from the well to a salt room then to a booster pump needed to completely fill the water tank. The City system does not have the pressure to completely fill the water tank.
8. City water is only used when the well runs dry (has happened once in the last 30 years) or the water tower is down for service.

Based on the information provided by Millersville University, it appears that the existing private and public domestic and fire protection water system is adequate to service the needs of the University. No major improvements to the existing system are anticipated above normal system maintenance.

Proposed

The Master Plan will have several impacts on the existing water system primarily through the construction of new facilities and the demolition of other facilities:

• The proposed replacement structure for Burrowes and Lenhardt will be located on top of an existing 8” water main which currently serves a dead-end fire hydrant. This project will require the relocation of this main and fire hydrant. This work has been rated as a minor impact.
• The proposed addition to Alumni Hall (currently under design by an outside consultant) will impact an existing 8” water main which currently serves Gaige Hall. This project will require the relocation of this service. This work is currently in process and is considered outside the scope of the master plan.
• The proposed addition to the Student Memorial Center (currently under design by an outside consultant) will impact an existing 10” water main which is part of the private fire protection loop on campus. This project will require the relocation of this service. This work is currently in process and is considered outside the scope of the master plan.

Additional proposed buildings will require new service connections to the existing private University water system or the public water system.

Sanitary Sewer

Existing

The majority of the sanitary sewer system within the campus is collected and conveyed through gravity sewer lines of various sizes (6 to 10 inches). These lines are owned and maintained by Millersville University personnel and empty into the Borough system at various points. In addition, there are also a few Borough owned lines located within the campus. Significant facts surrounding the sanitary sewer system are noted below:

1. There are three metering manholes on the campus plus one on the Borough’s interceptor near Brooks Hall.
2. Not all the buildings on campus are metered.
3. Existing pipes are cast iron, terra-cotta and ductile iron.
4. MU uses PVC pipe for new projects.
5. MU has not had many problems with this system.
6. There is a Borough pump station and force main located near Palmer Building.

Based on the information provided by Millersville University, it appears that the existing private and public sanitary sewer system is adequate to service the needs of the University. No major improvements to the existing system are anticipated above normal system maintenance.

Proposed

The Master Plan will have minor impacts on the existing sanitary sewer system primarily through the construction of new laterals to service proposed facilities and capping of existing facilities to be abandoned or removed.

The need for additional sanitary sewer capacity is projected to be minimal, as most new buildings will replace existing buildings or be intended to service a student population that is fairly consistent with current numbers.
Storm Sewer

Existing

Storm runoff is collected by a storm sewer system which is owned and maintained by Millersville University. The campus storm system consists of inlets, catch basins, detention facilities and pipes of various sizes (4 to 30 inches). Significant facts surrounding the storm sewer system are noted below:

1. Two MU underground stormwater basins exist near Palmer and under the parking lot off James Street.
2. MU now uses HDPE pipe.
3. MU has not had many problems with this system.
4. The outfall from the pond is undersized for the total inflow and surface flooding has occurred in this area and across the Boyer Parking lot.

Based on the information provided by Millersville University, it appears that the existing private storm sewer system is adequate to service the needs of the University. One major improvement to the existing system is anticipated above normal system maintenance. Any work proposed in the area of Brooks Hall and Brooks Field, or adjacent to the Boyer Parking lot should evaluate the potential of the replacement of the pond outfall from the pond to the Ann Street parking lot.

Proposed

The Master Plan will have several impacts on the existing storm sewer system primarily through the construction of new facilities and the demolition of other facilities:

- The proposed replacement structure for Burrowes and Lenhardt will be located on top of an existing storm water management facility. This project will require the replacement of this existing facility and possible expansion to accommodate the new construction. This work has been rated as a minor impact.
- Additional proposed buildings will require new storm water management facilities to address both water quantity and water quality issues. Consideration should be given to the siting of these facilities as space is limited in most locations. It is likely that underground detention systems will be required for most projects.
- The replacement of the pond outfall will constitute a major infrastructure upgrade project. Based on information contained in the Brooks Field SSEC Conceptual Study, a 22” x 4’ box culvert will be necessary to adequately convey the outfall in accordance with current Millersville Borough requirements. The installation of the box culvert will require the relocation of several other utilities, including water, primary electric, and telecom.
- Relocated and additional parking in the area between Stayer Hall and the houses along both Cottage and North George Street will require new storm water management facilities to address both water quantity and water quality issues. An existing surface storm water detention basin will be replaced with an underground detention system or systems to accommodate the new parking lots. Pervious paving should be considered in this area to reduce the need for underground detention systems.

Heating and Cooling

General

After the University removed the campus coal-fired heating plant many years ago, the campus converted to electricity for heating campus-wide. In the early 1990’s the University began to switch some of its heating load to natural gas in order to reduce energy costs. While the University has converted some of the building domestic water heating from electric to natural gas-fired heaters, most of the campus continues to use electric heating equipment.

Approximately 94% of the annual energy cost for the campus is attributed to electricity.

While there was a period of significant price fluctuations for natural gas after Hurricane Katrina disrupted the gas supplies from the Gulf, electricity has been historically a more costly form of energy for heating. In the coming year there will be a significant electric rate increase when the rate caps are eliminated in 2010, with rates expected to increase 35%-50%. Such an increase will increase the campus
energy costs from approximately $3 million per year to approximately $4 million per year unless other changes are made.

Heating

It is estimated that with the expected rate increases, electricity will cost twice as much as what it costs to heat with natural gas. In addition to gas-fired equipment, there are other forms of heating that are less costly. For example, some Universities in Pennsylvania use coal, but it is very costly to install a central coal-fired boiler plant with the necessary pollution control equipment and campus distribution piping. Such a plant also requires a high amount of labor to operate and maintain the equipment.

There are other heating methods, such as geothermal heat pumps. Geothermal heat pumps use the constant temperature of the Earth to provide heating and cooling through a water source heat pump. However, the capital costs to install such systems are higher, mostly because a well field must be installed. Because wells are drilled into the ground, geology can have significant impact to the feasibility of geothermal systems. The economic feasibility for such technologies must be made on a case by case basis. However, because all the HVAC equipment inside a building must be replaced when converting to ground source heat pumps, it can be assumed that it is not cost effective to convert an existing building to use geothermal heat pumps unless the building is scheduled for a total HVAC replacement.

If a building is not scheduled for renovation, it may still be cost effective to convert the heating system to use natural gas. Buildings with electric boilers are strong candidates for conversion to natural gas heat because only the boiler needs to be changed to make the switch. Boilers can also use fuel oil, but it is not recommended because the price for oil is normally more expensive and more volatile than the price for natural gas.

The cost of various forms of heating is shown in the graph below. The comparison assumes the higher electric rate after the rate caps are removed, and assumes natural gas is priced at $12/mcf.

As part of this utility evaluation, a preliminary analysis showed that converting from electric heat to gas-fired equipment will be cost effective in many of the campus buildings. After completing a preliminary review of the buildings, the buildings listed below appear to be good candidates for converting to gas-fired heating equipment.

- Dillworth Hall
- Hash/Bassler Hall
- Gordinier Dining Hall
- Breidenstein Hall
- Reddy Science
- Pucillo Gym
- Lyle Hall
- Wickersham Hall

It is estimated this conversion can result in $300,000 to $350,000 energy savings per year, yielding a 3 to 4 year simple payback period. Further analysis of each building should be performed to determine in more detail the necessary changes to make the conversions in the buildings, and the potential cost savings.

There are other buildings that are scheduled for upgrade and renewal, which present an opportunity to convert those buildings from electric resistance heat. These buildings include Ganser Library, Jefferson, Brooks, Boroughs and SMC, which is already being converted to gas-fired equipment.

Heat pumps are another method of heating which is a more efficient heating system than electric resistance heat. The University has already installed water-source heat pumps in several buildings. Geothermal heat pump systems are similar, but use thermal wells in the ground, which makes them more efficient. When buildings with water source heat pumps reach the end of their operating life, converting to geothermal heat pumps should be evaluated. When totally renovating a building, geothermal heat pumps are another option that should be considered.

When converting to gas-fired equipment, or heat pumps, the electric load on campus will decrease. In addition to reducing energy costs, the change will allow...
the campus electric distribution system to decrease in size. As the campus moves forward with the proposed electrical distribution system upgrade, the heating conversions should be factored into those plans. Presently the peak electric load is during the winter as a result of the electric heat. If buildings switch to other heating methods, the electric distribution system requirements will decrease, reducing the cost of the electric distribution upgrade project.

Constructing a new heating plant to serve a portion of the campus, or perhaps the total campus, was another option evaluated as part of this campus master plan. However, it was found that this option had considerably higher construction cost, and the added benefits associated with a central plant did not justify the added expense. It still may be more cost effective to install a small heating plant that serves a group of buildings from a boiler room at one of the buildings, or at a smaller remote plant. This should also be considered when evaluating new buildings, or converting buildings from electric to gas heat.

Air Conditioning
The campus buildings are cooled using a variety of cooling technologies. In general chillers are more efficient, especially with larger buildings, and there are chillers in many of the buildings. Water source heat pumps are more efficient than air source heat pumps because milder weather the building can use much of the heat generated from air conditioning required in one space to heat another area of the building requiring heat. Geothermal heat pumps are also more efficient because the system is exchanging heat with the earth, which is approximately 50 degrees, rather than the air, which is much higher in the summer months. PTAC units are installed in the residence halls and they are less efficient, but there are the benefits of lower equipment costs and individual room control that the University finds attractive.

A central chilled water plant is probably the most efficient form of cooling available to the University because very efficient equipment and controls can be installed with a large system. Like the central heating plant option, a few larger chillers would be installed in a central building, and a chilled water distribution system connected to the buildings. The benefits are also similar to the central heating system option: more reliable, better efficiency, less equipment and cost for new or renovated buildings. However, the energy cost savings are significantly less with cooling, and most of the existing buildings on campus have efficient equipment that is in good condition. In this case, the benefits of a central cooling system do not warrant the cost to install such a system.

Air conditioning should continue to be evaluated on a case by case basis for each building. Energy efficiency should heavily influence the selection of cooling equipment, even if the equipment is more costly to install.

Natural Gas
The natural gas distribution system on campus will have to expand as the University relies more heavily on natural gas as its fuel source. Where new pipes must be installed will depend on the course of action the University selects for heating system changes. If the distributed heating option is selected, more gas piping will be required depending on which buildings are converted to gas heat. If a central heating plant is constructed, the piping installation will be simpler. In either case, we believe that if the University commits to a strategy shifting a significant part of its heating load to gas, the gas utility will absorb much, or all, of the cost their infrastructure in place. We recommend the gas utility be approached with a long term plan rather than on a building-by-building approach in order to give the University the best leverage with the utility company.

With a larger gas load, the University will be in a better position for purchasing its natural gas in a more competitive manner. With a deregulated market, there are many ways that gas can be purchased. The University can pursue this on its own, or contract with a firm that specializes in purchasing energy.

Electricity
The majority of the present underground electrical distribution system and switchgear were installed on the campus in the 1962 time frame. Therefore, much of the current distribution system is reaching an age where it is prudent to plan for its replacement. Also, a couple of wire failures experienced in the last few years would indicate the system soon needs to be replaced. The current system is a radial feed system which consists of 12 main feeders which power each building on campus. Several buildings are fed by each circuit. When work needs to be done on an individual building, the entire circuit needs to be de-energized which then interrupts power to several campus buildings.
Survey work was done in March through May, 2008 to document the physical condition of the campus underground electrical distribution system. This work was part of a study being done by Century Engineering to plan for the eventual replacement of all the electrical switchgear on the campus. An earlier study was done of the campus underground electrical system in 2002 to document the system with a single line diagram and a campus radial feed drawing. This work consisted of tracking the twelve circuits and spare conduits from the main distribution switchgear at the south end of campus and the seven sub-distribution circuits originating in the Tin Shop. The results of this work were recorded on schematic drawings as prepared by Century Engineering. The original single line diagrams done in 2002 were updated to include field conditions that were uncovered during the survey and the new structures that were added to the campus in the last several years.

One option that is being considered for the electrical upgrade is a double-ended loop feed distribution system which will improve the reliability of the system and increase flexibility and make maintenance procedures easier. The double loop feed system will provide redundancy in case one feeder should fail.

It is planned for each building to have its own load breaking loop feed switch. With these switches, only one building will need to be removed from service in contrast to the present radial feed system where several buildings are connected to each circuit.

In the final design of the electrical upgrades, alternate concepts and compromises can be made to reduce the initial investment cost. Changes to the present concept can be made to reach a balance between cost and the reliability and capacity of the future system. With ongoing decisions being made regarding campus heating systems, additional construction cost savings may be available. By far, the largest electric load on campus is the space heating load. By converting to gas or other more efficient forms of heating, the electric load will decrease. With a planned decrease in electrical load may come the possibility of reducing the number of feeders required for the campus. This savings could be redirected to make other system improvements or help cover the costs for heating conversions.

A high priority for this campus is to provide each building with a load monitoring meter as well as having a central meter at the main distribution gear. These meters will enhance energy savings opportunities and provide the capability for load shedding across the campus. All the meters can be easily tied into the existing central Building Automation System.

The new underground electrical upgrade project is scheduled to begin design in 2009-10 with installation of the new system anticipated to occur from 2010 to 2012.

The University is beginning to move towards creating a Graphical Information System (GIS). This system combines campus utility drawings with equipment data. This system is intended to include not only the electrical distribution system but other utilities such as natural gas, water, sewer, phone and data. This computerized system will make it easier to operate and maintain the utility systems, improve maintenance, reduce outages, maintain updated documentation, and provide valuable input to engineers and contractors. The implementation of the GIS will be an ongoing project but it is recommended as changes are made to utility systems that these changes are immediately documented on the GIS to aid in the timely completion of the system. Much of the underground electrical system is already documented on the GIS and this will aid in the design and replacement of the underground electrical system.

In this environment of limited funding, alternative strategies are presently being reviewed. It is believed changes to the design can be made which will significantly reduce the cost without jeopardizing the integrity and reliability of the system. With the decisions made regarding the heating system, additional construction cost savings may be available. By far, the largest electric load on campus is the space heating load. By converting to gas or other more efficient forms of heating, the electric load will decrease. With a decrease electric load, it will be possible to reduce the number of feeders. This savings can be used to make other system improvements, or help cover the costs for the heating conversions.

Conclusions

All the utilities discussed above are affected by one another, and therefore should be evaluated together in a utility plan. This utility plan must be more detailed than is possible to prepare in this campus master plan. With this utility plan the University can proceed in a more coordinated and logical fashion as it proceeds with implementing the recommendations of this campus master plan.

In general, the conclusions made in this campus master plan regarding campus utilities are as follows:

Utility Recommendations:

Complete a detailed feasibility study to developing a plan to shift from electric heat to natural gas or geothermal heat pumps.

Complete an engineering study of the electrical distribution system. In this study identify the electric loads for each building, including new buildings proposed in the campus master plan. Also identify the new, lower electrical requirements resulting from the heating conversion described above.

Complete an electric load study which will measure the actual electric load for each building. With this data, more accurate equipment sizing can be developed for the electrical distribution system.

Utility metering is critical for providing an energy efficient campus. The campus should install electric meters proposed by physical plant as early as possible. Eventually each major building should have meters and recorded data on electricity, gas/heat, and water.

With a heating plan developed, a plan for the natural gas system can be developed. With this plan, the University should negotiate with the Utility for their level of contribution to the system upgrades which will be required to convert to gas heat.

Continue to install distributed cooling. As electric rates change to more time of day rates, options for load shifting or thermal storage should be considered as options for shifting cooling load away periods in the day when electricity is most expensive.

Complete some geotechnical exploration and geothermal conductivity testing on campus. This data can be used to better evaluate the cost and limitations of geothermal heat pumps on future buildings. Geothermal heat pumps should be one of several energy friendly HVAC strategies considered for new projects. Other energy efficient HVAC technologies should be evaluated, as well.
EXISTING SANITARY SEWER PLAN

Legend
- Private Sanitary Sewer
- Borough Sanitary Sewer
EXISTING GAS PLAN
PROPOSED SANITARY SEWER PLAN

Legend
- Private Sanitary Sewer
- Borough Sanitary Sewer
- Proposed Sanitary Sewer

SEWER MAIN TO BE RELOCATED UNDER ALUMNI HALL PROJECT

RELOCATION/REMOVAL OF LOCAL CONVEYANCE PIPING FOR PROPOSED BUILDING (MINOR IMPACT)

RELOCATE EXISTING SEWER MAIN (MODERATE IMPACT)

BOROUGH PUMPING STATION (CREEK DRIVE)

NEW BUILDING LATERAL

NEW BUILDING LATERAL

NEW BUILDING LATERAL

NEW BUILDING LATERAL
PROPOSED WATER PLAN

Legend

- Campus Water Line
- Municipal Water Line
- Fire Hydrant
- Proposed Water Line

- 10" METER PIT INTER-CONNECTION
- 100,000 GALLON ELEVATED TANK
- Water Service to be Relocated under Alumni Hall Project
- Proposed Buildings on Campus Fire Protection Main, 12" Dia. - To Be Relocated (Major Impact)

TO BE ABANDONED
6" METER PIT
INTER-CONNECTION

Inter-connection located in Pump House

ABANDONED 8" METER PIT

6" WATER MAIN TO BE RELOCATED UNDER SMC PROJECT

NEW BUILDING SERVICE
NEW 8" FIRE HYDRANT LINE

NEW BUILDING SERVICE

NEW BUILDING SERVICE

NEW BUILDING SERVICE

NEW BUILDING SERVICE

NEW BUILDING SERVICE

NEW BUILDING SERVICE

NEW BUILDING SERVICE

NEW BUILDING SERVICE

NEW BUILDING SERVICE

NEW BUILDING SERVICE
PROPOSED ELECTRICAL POWER

- Relocate ductbank and circuit to new residence hall
- Extend ductbank and circuit to new academic building
- Relocate ductbank and 4 circuits
- Relocate ductbank and 7 circuits

PROPOSED BUILDING LOADS

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G.1 EXISTING CAMPUS LANDSCAPE

Landscaped open space on campus is abundant with a good variety of large deciduous and evergreen specimen trees. The trees create a relaxing atmosphere and a seasonal cover from the elements. The landscaping in general is plentiful with a variety of plantings which adds interest to the campus. However, most of the landscaped spaces throughout campus seem fragmented and isolated from one another due to over-mature plant growth that obstructs potential vistas.

There are three primary green spaces on campus. The first is the Historic Greens (Pond/"lake" and Library Area). The second area is that the large lawn in the South Residence Quad. The third area is the Green Space between East Frederick Street and Byerly Hall in the East Academic Commons. Each area has its own unique feel and each area has its own separate issues. One consistent issue is the existing trees, especially evergreens, tend to fill and clutter the open spaces and block sight lines from building to building.

The Historic Greens is aesthetically pleasing and tranquil. This area is considered a “sacred” space on campus. However, some problems exist. The gabions that protect the sidewalls of the lake detract from the overall natural look of the area.

The lake may be in need of dredging. It is likely that sedimentation is entering the pond through the storm drainage system. The lake has two swans (Miller & S’Ville) and a large number of geese and ducks living nearby. The geese and ducks in the lake area cause maintenance challenges. The old iron bridge that crosses the lake is in deteriorated condition.

Brooks Field appears to be a separate area from the historic green space despite its close proximity to the lake. Brooks Field is utilized for field hockey practice, camps and non official recreation use. Brooks Field is fenced and has bleachers which inhibit views between the field and the pond. This field floods periodically. Drainage runs under Brooks Field as well as a utility duct bank.

The trees in this area create a wonderful canopy which enhances the relaxing atmosphere. Some of the largest trees on campus are located in this area. A few of these large trees are shown on the 1937 Tree Map of Campus and should be considered historic.

The lawn in the South Residence Quad is showing signs of overuse, the lawn and is sometimes referred to as the “mud bowl”. The turf gets used year round with camps in the summer, residents informal recreation during the school year, and vehicles driving on it for various functions. The oaks in the common space appear to be in decline probably due to soil compaction from overuse.

The Green Space between East Frederick Street and Byerly Hall is a sloped open area framed by academic buildings of a common scale. However, it seems to be under utilized as an open space. The space is disconnected from the other areas on campus.

Other secondary green spaces on campus include the area east of Bard Hall and Gilbert Hall (used as an informal recreation area by the residents); the area between Gaige Hall and Stayer Hall; and the area between McComsey Hall and Breidenstine Hall that is split by East Frederick Street.

The site amenities (trash receptacles, benches, post & chain, bollards) throughout all of campus are fairly similar if not identical and help give the campus a unified sense of place.

There are a few special landscape features that provide visual interest throughout campus such as the Garden at Wickersham Green (garden and waterfall) west of Lyle Hall; the water channels feeding the lake; the water fountains and civil war monument along North George Street across from McCollough Street; Alumni Bell Court north of the Student Memorial Center; the John Frederick Steinman Courtyard at Caputo Hall; and the Spirit Garden at Stayer Hall. Some of these spaces lack consistent maintenance.
G.2 CAMPUS LANDSCAPE RECOMMENDATIONS

Overall Campus Landscape Recommendations

In general, the campus has an abundant variety of large, mature trees that give Millersville University a unique character. To understand and maintain the campus grounds, it is recommended that a tree inventory and evaluation study be conducted by an International Society of Arboriculture (ISA) certified arborist. The tree study should consist of identifying the mature trees to be preserved, problematic trees (in decline) and over-mature trees that should be removed, and potential tree hazards with recommended solutions. A tree replacement program can be developed based on the tree study to maintain the long term visual character of campus. The certified arborist involved with tree maintenance should also assist with some of the design goals by pruning trees to open vistas from green space to green space around campus. Select evergreens should be identified for removal to open vistas around campus to visually unite the green spaces on campus. Trees that are found to be in good health and stature should be identified for preservation and incorporation with landscape improvements. In many cases throughout campus there are areas of overgrown shrub beds (i.e. weedy) that encroach onto walks or create dark spaces. The overgrown shrubs should be removed and replaced with lawn or low ground cover plantings to visually open walk corridors and improve safety.

A tree replacement program can be developed based on the tree study to maintain the long term visual character of campus. Select evergreens should be identified for removal to open vistas around campus to visually unite the green spaces on campus. Trees that are found to be in good health and stature should be identified for preservation and incorporation with landscape improvements. In many cases throughout campus there are areas of overgrown shrub beds (i.e. weedy) that encroach onto walks or create dark spaces. The overgrown shrubs should be removed and replaced with lawn or low ground cover plantings to visually open walk corridors and improve safety.

North and West Campus Recommendations

The Campus Gateway is the first area that visitors experience when visiting the campus. This area is recommended to be a campus showcase to make a good first impression and function as a pedestrian link to the picturesque Historic Greens. This link is intended to be a winding path beneath a canopy of shade trees. A tree-lined linear pedestrian mall from the Visual Performing Arts Center (VPAC) to the Duncan Alumni House will cross the link and offer views to other places of the campus beyond. The parking areas in the Campus Gateway are to be visually screened from the green space with mass shrub plantings.

The West Commons area should be developed with a strong connection to the Historic Greens. This connection should be both visual as well physical. Pedestrian access should be created from Gaige Hall to the Historic Greens on either side of the VPAC. Due to the close proximity of the VPAC, art installations should be considered for inclusion along walks as focal points of interest. Outdoor seating areas should be developed and incorporated near the entrances to the residence halls as well as near the VPAC.

The Historic Greens area is the heart of the campus and is comprised of the pond and surrounding green spaces including Brooks Lawn, Alumni Hall Lawn, the President’s House, the Dilworth Lawn, and the monument area beside Ganser. The large trees in the Historic Greens need to be preserved, maintained and considered when future improvements are planned.

The pond is the focal point and a sacred element of the Historic Greens. It is home to the University swans - who rarely leave the water. Despite the general picturesque appeal of the pond there is need for aesthetic improvements to enhance the natural look and character of the area. The existing gabion pond edge should be modified or removed and replaced with a new pond edge. The simplest solution would be to cut off the exposed wire cage of the gabions and add larger stones/builders. The more complex approach would be to completely remove the gabions and replace them with a new edge treatment to blend with the more natural character of the surroundings and water channels. Removal of the gabions would only be practical if the pond was to be studied in more detail and determined to need dredging. Improved water circulation also should be considered. A circulation system is needed, in addition to the existing fountain, to promote water flow particularly on the east end of the pond.

A Millersville Borough ordinance requires stormwater basins to accommodate a 100 year storm. The existing pond overflow/outlet culvert can accommodate only a 2 year storm event. To improve the pond overflow/outlet culvert would be a costly project, and needed only if a building was to be constructed on Brooks Field, and that is not a recommendation in the Master Plan. As long as the occasional flooding of Brooks Field is acceptable, the existing overflow and outlet pipes can remain “as is.”

The old iron bridge feature that crosses the pond should be restored. A detailed study is recommended to further analyze the condition of the bridge and to determine the specific repairs needed.

From a wildlife perspective, geese and ducks have overrun the pond and cause many maintenance problems. To deter the use of the pond by the ducks...
and geese, a planting scheme of small shrubs, ornamental grasses, and perennials should be incorporated around the perimeter of pond. The perimeter planting should be about 6 feet in width and about approximately 20’ to 30’ in height. This planting will discourage geese and ducks from using the pond. The existing swan feeding area and the eastern island Swan Sanctuary should remain. Several students suggested that the pond be incorporated into some of the educational programs, if possible.

Areas surrounding the pond should be both physically and visually connected to that centerpiece. Brooks Lawn can be visually connected to the pond by pruning the trees along the northern edge of the lawn. The physical connection to the pond will be enhanced by removing the fence and the bleachers, or relocating them to the south side of the field. To further enhance and define the space, added trees along Brooks Drive will help buffer the large parking area to the south.

The Alumni Hall Lawn within the Historic Greens should be preserved as an open, passive, green space. Vistas in the area could be enhanced by eliminating a few selected evergreens within the lawn space thereby creating views to the pond and the other areas. Views of the water channels should be maintained as focal points within landscape. The President’s House (Tanger House) is located within the south end of the Alumni Hall Lawn. The landscape around the President’s House should be conservatively improved to create a minor buffer and better define the residence yard area.

The Historic Greens landscape from the Dilworth Lawn to the monument area (Civil War monument and water fountains) at Ganser Library should be improved with a new unifying landscape design since this view of campus is very important from George Street. Views into campus can also be enhanced by raising the tree canopies via select pruning of the large mature trees.

East Campus Recommendations

The East Commons will be anchored by a pedestrian mall on the former East Frederick Street corridor (from George Street to Pucillo Gymnasium). This pedestrian mall will be a tree lined spine through the green space connecting the hub of campus to most of the academic buildings within the East Commons. The green spaces along the mall should be opened up visually by removing the sporadically located evergreens throughout the lawns. Outdoor seating areas for studying, as well as congregating, should be provided. Artwork and other features can create points of interest at key locations at the intersection of pathways. A strong pedestrian connection between the East Commons and Historic Greens can be developed by the improvement of the George/Frederick Street intersection. The East Commons has a secondary connection to South Campus by way of pedestrian corridors though and adjacent to the proposed James Street Residence Halls.

South Campus Recommendations

The South Residence Quad is a residential area with a large population of students. Since the lawn space is heavily used throughout the year for various functions, the trees, especially the oaks, should be replaced due to soil compaction. The replacement trees should be located on the perimeter of the lawn and between the loop walk and the buildings so that the lawn can be used as a flexible space for student events, concerts and informal recreation. The green space around the main lawn should be opened up visually by removing the sporadically located evergreens.

New landscape plantings in this area are recommended to highlight the entrances to the resident halls and enhance and define the space.
to screen mechanical and service areas around the buildings. New plantings need to be massed in lieu of small individual shrub planting. The landscaping recommendations established in past project number MI-951 should be considered when designing and implementing landscape improvements in the Quad.

Other amenities should be added to the area such as outdoor seating, bicycle racks and recreation courts. Outdoor seating areas should be included near the resident hall entrances as well as near the recreation courts.

Improved walkway connections between the South Residence Quad and the surrounding campus are recommended for the purpose of enhancing the pedestrian experience, and to create safe routes to the proposed Student Memorial Center (SMC) plaza and the East Commons.

The Student Memorial Center (SMC) is a key element within the campus open space because of its central location between a residential district and the academic campus, and its adjacency to Gordinier Dining Hall. The new SMC plaza to be constructed on the east side of the SMC has the potential to create an outdoor gathering place and pedestrian hub for the large number of students who will pass by each day. Paved areas with generous amounts of seating complemented by trees and colorful seasonal plantings are called for.

The Varsity Softball is a NCAA Women’s Softball field complete with dugouts, press box, scoreboard, warning track, ADA accessible bleachers and two batting cages. The facilities are in good condition.

The Varsity Baseball is a NCAA Baseball field complete with dugouts, press box, scoreboard, warning track, ADA accessible bleachers and two batting cages. The facilities are in good condition.

The Stadium consists of a lighted artificial turf multi-use field and an all weather 8-lane running track. The D-shaped areas between the field and track are also all weather paved. The artificial turf field accommodates varsity football, soccer, field hockey and lacrosse games as well as band practice and some evening shared use with the high school. Pole vault and high jump events occur in the D-shaped areas of the stadium. The home side bleachers of the stadium are not ADA accessible.

The Athletic Field (North of the Stadium) is a natural turf multi-use field area used for football practice, hammer/discus, javelin, shot put and long jump/triple jump events. The baseball facilities, softball facilities, and the stadium artificial turf multi-use field / 8-lane all weather track are in very good condition but the remaining outdoor athletic fields and courts are either inadequate to fully accommodate the needs of the programs or are so over scheduled that there is no time for the fields to recover from the excessive use. The intramural activities occur nightly on existing lighted fields from 9 PM to 12 PM.

The Varsity Baseball is a NCAA Baseball field complete with dugouts, press box, scoreboard, warning track, ADA accessible bleachers and two batting cages. The facilities are in good condition.
jump. The field is in fair condition but not large enough for regulation football. There is also a hammer throw practice area located off site on the south side of the Centennial Drive and Shenks Lane intersection; it is in poor condition.

Pucillo Field is a sand-based, irrigated and lighted multi-use natural turf athletic field programmed for Men’s/Women’s (M/W) soccer and M/W lacrosse practices, M/W club rugby, intramurals (every day), flag football, ultimate Frisbee, band practice and other uses. The field is physically unable to accommodate the level of demand, and is “impossible to maintain.”

The Brooks Tennis Courts consists of three paved tennis courts. The courts are in poor condition and are not used for varsity tennis programs. The courts get some general student use for roller blading and skateboarding but not much for tennis.

The Brooks Tennis Courts

The Spoils Field is a lighted natural turf multi-use field used to accommodate some over functions. The field is under utilized because of its poor soil and turf condition.

Brooks Field is a natural turf athletic field utilized for field hockey practice, some club sports and camps. The field is fenced and has some bleachers. It is reported that the field floods periodically.

The Tennis/Basketball Complex consists of two groups of three tennis courts separated by a retaining wall. A concrete rebound wall separates the tennis courts from two basketball courts. There are insufficient courts and support facilities to have tennis tournaments. The tennis courts are in fair condition and the basketball courts are in poor condition. The perimeter ball control fencing is scheduled for replacement. There is a need for additional outdoor tennis and basketball courts.

A Ropes Challenge Course is located to the east of Pucillo Field in a wooded area. The course provides a unique teaching environment, where diverse groups can experience varying levels of physical, mental, and/or emotional risks. The Challenge Course consists of 10 high elements and 10 low elements. These non-traditional games and activities offer a different series of cables and ropes suspended in the air between 1 and 50 feet.

There are several other recreation areas on campus such as the Frisbee Golf Course in very good condition around Pucillo, the informal rugby area in fair condition adjacent to the Water Tower, the South Quad lawn in fair condition used for leisure recreation, and a sand volleyball court in good condition beside Harbold Hall.

G.4 OUTDOOR ATHLETIC SPACE RECOMMENDATIONS

- **Baseball Field on North Prince Street**
  - Existing: NCAA natural turf baseball field with dugouts, press box, scoreboard, warming track, ADA accessible bleachers and two batting cages. Field is in good condition.
  - Proposed: No change, maintain

- **Field North of the Stadium**
  - Existing: Natural turf multi-use field area used for football practice, hammer/discus, javelin, shot put and long jump/triple jump. Field is in fair condition.
  - Proposed: No change, maintain

- **Running Track at Stadium**
  - Existing: 6-lane all weather running track. Good condition although first two lanes showing wear. “D” areas between the end of the field and track radii are also ALL weather surfaced and used for pole vault and high jump events. Track includes steeplechase area.
  - Proposed: No change, maintain

- **Chryst Stadium Field**
  - Existing: Artificial turf field accommodating football, soccer, field hockey, lacrosse, band practice, etc. Also shared use with a high school during evenings. Field is in good condition.
  - Proposed: No change, maintain

- **Pucillo Field**
  - Existing: Irrigated and lighted sand based multi use athletic field used for M/W soccer and lacrosse practice, M/W club rugby, intramurals, M/W softball (every day) flag football ultimate Frisbee, band practice, etc. Field is heavily overused and “impossible to maintain”. Former uses at the baseball field site were moved to this field and Spoils Field.
  - Proposed: Convert to artificial turf for soccer, intramural softball and multi-use activities. Upgrade bleachers.

- **Spoils Field (South Pucillo Field)**
  - Existing: Natural turf and lighted multi-use field (spoils field) used for M/W club rugby, Band practice and intramurals described as virtually unusable because of its poor condition.
• Proposed: Convert to artificial turf for lacrosse/field hockey/multi-use activities. Add bleachers.

Pucillo Softball Field
• Existing: The newly renovated NCAA natural turf women’s softball field is in very good condition with dugouts, press box, warning track, scoreboard, and lights for night use. Batting cage upgrades are needed.
• Proposed: Upgrade batting cage

Basketball Courts at James Street
• Existing: Two asphalt paved, lighted basketball courts with concrete rebound wall at one end. Courts are in generally poor condition.
• Proposed: Remove existing. Provide three new basketball courts adjacent to Brooks Hall and four new basketball and/or sand volleyball courts at the South Residence Quad.

Tennis Courts at James Street
• Existing: Two sets of three tennis courts separated by a retaining wall. A concrete rebound wall separates the tennis courts from the basketball courts. There are insufficient courts and support facilities to host tennis tournaments. The courts are in fair condition. The perimeter ball control fencing is scheduled for replacement. There is a need for additional outdoor tennis and basketball courts.
• Proposed: Remove existing. Provide a new nine tennis court complex south of Jefferson Hall for tournament use.

Proposed tennis and rugby area by Jefferson Hall

Brooks Field
• Existing: Natural turf field used for field hockey practice, club sports, and some sport camps.
• Proposed: Maintain natural lawn for club sports and practice rugby. Relocate field hockey use to new artificial turf Spoils Field (South Pucillo Field).

Brooks Tennis Courts
• Existing: Three tennis courts in bad condition. Not used for varsity programs. Courts get some general student recreation use but not for tennis.
• Proposed: Remove the courts and convert into a small parking area for activities at Tanger and Brooks. Move tennis activities to the proposed new Jefferson Hall Tennis Complex.

Ropes Course
• Existing: Challenge Course consists of 10 high elements and 10 low elements. These non-traditional games and activities offer a different series of cables and ropes suspended in the air between 1 and 50 feet. Very good condition.
• Proposed: No change, maintain

Informal Rugby Area at Water Tower
• Existing: Used for practice only.
• Proposed: Improve site to accommodate a new NCAA 9 court tennis complex and band practice field. Relocate Rugby practice to Brooks Field

Frisbee Golf Course
• Existing: Used for recreation and in good condition.
• Proposed: No change, maintain

South Residence Quad Lawn Area
• Existing: Natural lawn area used for informal recreation and in poor to fair condition.
• Proposed: Renovate and improve natural lawn surface

Hammer Throw Practice
• Existing: Used for practice only and in poor condition.
• Proposed: Remove existing and construct a new practice area within the Pucillo Complex

Sand Volleyball Court
• Existing: NA
• Proposed: Construct new courts in the South Residence Quad with new student housing project.

New Basketball Courts
• Existing: NA
• Proposed: No change, maintain
H.1 PEDESTRIAN CIRCULATION

The Millersville University campus is a pedestrian-friendly environment in some areas and not in others. The scale of the campus encourages walking. The Existing Pedestrian Circulation map shows a five minute walking circle centered on the intersection of George and Frederick Streets. The radius of the circle is the distance that an adult walks at a normal pace in a straight line in five minutes. One can walk across the entire circle, or most of the campus, in ten minutes.

Recurring problems for pedestrian circulation across campus are:

- Pedestrians and vehicles are often in the same space. Pedestrians usually take the shortest distance between two points, and that is often through parking lots. Over time parking lots have been built in opportunistic locations that may not consider pedestrian pathways.
- Many sidewalks throughout campus are too narrow to handle class change and other campus events. Narrow sidewalks are immediately adjacent to the street edge, with no grass verge between sidewalk and curb, creating the potential for students to spill out into the street.

Some particular pedestrian issues are noted on the Existing Pedestrian Circulation map:

- This high-volume mid-block pedestrian crossing at George Street near the Civil War Monument is marked by pedestrian right-of-way signs.
- The George—Frederick intersection is the busiest on campus, particularly during class changes. There are many vehicle turning movements at this intersection which makes crossing for pedestrians more difficult.
- The Frederick Street—Shenks Lane intersection is unsignalized with a high volume of pedestrian crossing between the SMC and the Historic Greens. Most motorists approaching Frederick from Shenks are turning, further complicating pedestrian crossing.
- High School Street has a high volume of pedestrian traffic which shares the roadway with cars because of the narrow width of sidewalks.
- Other high volume pedestrian crossings are on Frederick Street and James Street as students circulate between the East Commons and the South Pedestrian Quad.

The pedestrian experience will be improved by the enhancement and connection of greenways and the separation of pedestrian and vehicular circulation.

The Master Plan recommends the following specific improvements to walkways:

- As walks are replaced in the general maintenance/renewal sequence, the walk widths should be increased to 10 feet on minor walks and 15 to 20 feet on major walks. Wider major walks will allow better access for facilities vehicles throughout campus.
- The standard paving material for minor walks should be concrete. The standard paving material for major walkways is recommended to be a combination of brick and concrete to achieve a human scale for pedestrians similar to the existing walks along Dilworth Drive.

Some particular pedestrian improvements are noted on the Proposed Pedestrian Circulation map:

- In addition to pedestrian right-of-way signs, alternative paving such as brick or concrete pavers in the crossing path should be considered for these locations on George and James Streets.
- The following improvements to the George—Frederick intersection will be undertaken in summer 2009:
  1. Re-grade George—Frederick Street intersection, widen sidewalks and improve curb cuts.
  2. New curb radii at the intersection corners of the George—Frederick Street intersection.
  3. Resurfacing of Frederick Street from just west of Shenks Lane east to the intersection of High School Avenue.
  4. New traffic signal control equipment.
  5. Replacement of pedestrian signals to include pedestrian countdown timers and vocals for the hearing impaired.
  6. Timing and phasing modifications to the traffic signal at George Street and Frederick Street (including an all-red pedestrian scramble phase).
  7. New paved crosswalks, architecturally appropriate traffic signal poles, and roadway lighting.

- The following improvements to the Shenks Lane—Frederick intersection will be undertaken in summer 2009:
  1. New northbound right-turn lane.
  2. Striping of a westbound left-turn lane.
  4. New paved crosswalks.
H.2 VEHICLE CIRCULATION

Roadway Recommendations

The intersection of George Street and Frederick Street is the point of greatest traffic congestion and pedestrian hazard. Closing Frederick Street east of George Street was proposed in the 1999 Campus Master Plan and has been recommended in a recent study by Pennoni Associates. The current plan concurs with these recommendations. Southbound traffic on George Street will continue to James Street.

The plan also recommends the closing of George Street south of James. This relieves a point of vehicle—pedestrian conflict. Improvements to the Student Memorial Center and the addition of the Recreation Center is expected to increase pedestrian congestion in this vicinity.

These two street closings allow the implementation of pedestrian plazas in two of the busiest pedestrian concentrations on campus.

Additional notes on traffic conditions appear on the campus map below.

Vehicle Circulation Recommendations

The potential traffic/vehicular circulation improvements and issues related to the campus Master Plan concept in development are indicated by number and description below. The description numbers correspond to the map legend numbers.

1. Creek Drive to SR 0741 connection – in order to provide relief to the SR 0999 and George Street corridors, a potential connection from Creek Drive to SR 0741 should be considered by additional future feasibility study. This roadway would provide an alternate route for traffic traveling from the southern Lancaster County area and would also provide commuters that park on the southeast section of the campus a viable alternative to use.

2. Shenks Lane and Centennial Drive intersection – if a roadway is constructed that connects Creek Drive to SR 0741 (item no. 1 above), this intersection may see an increase in traffic volumes. This intersection would need to be studied at that point to determine the impacts.

3. Shenks Lane and West Frederick Street intersection – as noted in recent studies, the proposed partial closures of East Frederick Street and South George Street, south of James Street, will lead to increased volumes along Shenks Lane. As these closures progress and with the potential for regional housing growth, it is recommended that this intersection be monitored so that impacts of the planned development and planned roadway projects can be adequately assessed. Depending on the impacts of these planned developments and roadway projects, a traffic signal, coordinated with the George Street and Frederick Street intersection (item no. 8 below), may be warranted.

4. West Frederick Street and Duke Street intersection – to eliminate the current offset intersection and increase capacity, a realignment and roundabout are under consideration at this intersection.

5. North Prince Street – in order to provide an alternative route for the western section of the campus and to provide some relief to the George Street corridor, the University should work with the Borough on a possible plan to open North Prince Street to two-way traffic. The University would undertake a traffic study to examine the potential impact of such a plan.

6. North George Street intersection and Cottage Avenue – with the proposed partial closures of East Frederick Street and South George Street, the conversion of North Prince Street to two-way traffic, and the potential connection from Creek Drive to SR 0741, there is a potential for a redistribution of traffic volumes at this intersection. This may lead to signal timing changes and possible signal coordination with the Frederick Street and George Street intersection in order to create a progressive movement of traffic along George Street.
H.3 PARKING

Proposed Parking

The concept campus master plan shows the following parking spaces:

- Number of existing spaces: 3,456
- Number of removed or modified spaces: 1,586
- Number of new spaces: 1,666
- Net number of spaces gained: 80

Parking Needs Calculation

Fall 2007 Parking Data

\[ P \times W \times A = \text{Total Parking Space Need} \]

- \( P = \text{Total Campus Population} \) 9383
  (Source: MU Institutional Research & online Fact Book)
- \( W = \text{percentage of total population expected to arrive at peak hours} \) 57.97%
- \( A = \text{percentage of total population arriving as individual auto drivers} \) 48.04%

\[ \frac{P \times W \times A}{9383 \times 57.97\% \times 48.04\%} = \frac{2613}{9383} = 0.278 \text{ parking spaces per person} \]

Design Standard Range: 0.15 to 0.60
Design Standard Average: 0.35
(Statistical Data Accepted by the ENO Transportation Foundation)

Conclusion

There are approximately 3,456 existing parking spaces on campus and at the peak hour a calculated 2,613 parking spaces are needed to accommodate the peak hour population. This indicates that there are approximately 800 extra spaces to accommodate special events that may be scheduled during the same peak hour.

Parking Recommendations

The proposed parking strategy for the Millersville University Campus is to meet the following criteria:

- Parking quantities should be maintained at the current number of spaces based on the "no growth" approach for enrollment. Ongoing monitoring of available parking should continue by the University and the development of additional new parking spaces should be considered on a new project by new project basis with coordination between the University and Borough.
- Parking for students, faculty, and staff should be within a comfortable walking distance of destinations.
- Pedestrian friendly campus green space should be provided for people to walk from their vehicles to desired point of designation.
- Parking should be located both inside the core of campus and on the perimeter edges for function, ADA, and convenience.
- Parking for visitors should be available for events, and should be easy to find, with proper signage, for those unfamiliar with the campus.
- Parking should serve all members of the campus community, including those with limited mobility.
- The parking environment should not only be safe, but it should also feel safe.
- Parking should have a reasonable cost for the user.
- Parking should not be detrimental to the visual quality of campus open space.
CIRCULATION AND PARKING | WTW ARCHITECTS

REMOVED ROADWAYS AND PARKING PLAN

Legend

<table>
<thead>
<tr>
<th>Key</th>
<th>Designation</th>
<th># Of Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>RES</td>
<td>Resident Student</td>
<td>724</td>
</tr>
<tr>
<td>CM</td>
<td>Commuter Student</td>
<td>1652</td>
</tr>
<tr>
<td>ST</td>
<td>Faculty / Staff</td>
<td>806</td>
</tr>
<tr>
<td>CAR</td>
<td>Carpool</td>
<td>11</td>
</tr>
<tr>
<td>HP</td>
<td>ADA Accessible</td>
<td>76</td>
</tr>
<tr>
<td>TM</td>
<td>30 Minute Parking</td>
<td>18</td>
</tr>
<tr>
<td>MLV</td>
<td>Millersville Vehicle</td>
<td>79</td>
</tr>
<tr>
<td>VIS</td>
<td>Visitor</td>
<td>9</td>
</tr>
<tr>
<td>BAND</td>
<td>Band</td>
<td>1</td>
</tr>
<tr>
<td>ENT</td>
<td>Enterprise Vehicle</td>
<td>7</td>
</tr>
<tr>
<td>UNMK</td>
<td>Unmarked</td>
<td>62</td>
</tr>
<tr>
<td>POLICE</td>
<td>Police</td>
<td>11</td>
</tr>
</tbody>
</table>

Total Spaces 3456 plus on street parking

Parked Spaces Removed or Modified (Minimum to be replaced) 1586

- Yellow: Parking to Remain
- Light Blue: Existing Parking to be Modified
- Red: Parking to be Removed

78 CIRCULATION AND PARKING | WTW ARCHITECTS
Legend

New Parking Spaces 1666
Existing Parking Spaces 1870
Total Spaces 3536

Proposed Parking Lots & Roads
PROPOSED VEHICLE CIRCULATION PLAN
I.1 PROJECT SCOPE

Comprehensive Facilities Planning, Inc (CFP) was retained by Millersville University to conduct a space needs assessment of its academic and administrative campus facilities in collaboration with WTW Architects, Inc. as part of the campus master plan. This project involved the collection and analysis of data on a departmental level for most units housed on the Millersville campus.

This study is a critical step in developing space requirements, i.e. departmental space deficiencies and surpluses for establishing capital planning priorities to be used in creating the master plan. This study:

• Provides base data to inform short and long term decision making concerning the reprogramming and/or construction of new space, the renovation and the appropriate utilization of existing space.
• Provides the tools necessary to develop a comprehensive planning approach to assist the University in setting capital project priorities.
• Provides projected space needs calculations and compares calculated needs with available facilities.

Space excluded from the model includes building service space and corridors, residence halls, food facilities and athletic performance and seating venues.

I.2 BASIC DATA AND PLANNING ASSUMPTIONS

The basic data used in this study provided by the university included:
• Modified space inventory including planned capital projects
• Fall 2007 personnel by department
• Fall 2007 class file
• Fall 2007 credit hour data

The projected need assumes undergraduate enrollment will remain stable and an increase of graduate students will occur on the main campus. Increases in future faculty and staff were provided by senior administration.

I.3 SPACE NEEDS CALCULATION METHODOLOGY

The methodology used included measuring the quantitative space needs that may impact the delivery of services. This quantitative process calculates space needs based on a series of interactive work steps. Data and programmatic information from various user groups were gathered, analyzed, and documented. The data and assumptions developed from these initial steps were verified and adjusted to customize the space needs model for each department, including space criteria (modules) for the type of space being analyzed. A modified version of the PASSHE space planning guidelines has been used in developing these calculations. Exceptions to the Pennsylvania State System of Higher Education (PASSHE) factors have been made for teaching and research labs needs as the state guidelines are generic and are not discipline specific. The space need requirements, including the square footage amounts of each room type were determined by the discipline, equipment used in the area, utilization rates (i.e., station area, station occupancy ratios, and room utilization rates), number of persons occupying the space, etc. The results derived from the space needs calculations were then compared to the current assigned space to determine surpluses or deficiencies of space.

The CFP space needs calculation methodology differs from the PASSHE process in that CFP calculates the space need at the department level and rolls the results to the college or division level and finally to the campus level. The PASSHE calculations provide a campus wide “allocation” of space by space type (classrooms, instructional lab, offices, etc.) using aggregated personnel and enrollment data multiplied by an appropriate “space factor”. While this provides useful data at the State and campus level for capital planning, it does not provide details as to which units have surpluses or deficits of space that can be used in determining future capital priorities.

While the CFP method essentially uses the similar “space factors” as the PASSHE model, the input data, personnel, enrollment etc. is at the department level and is based on the current or proposed operating practices. This results in a profile of square feet surpluses or deficits by space type at the department level based on actual conditions.
I.4 GENERAL PLANNING ASSUMPTIONS

- The study includes spaces located on the Millersville Campus but excludes building support facilities (e.g., mechanical rooms, corridors, etc.), residence halls, dining operations, athletic venues, and non-university operations. The downtown Lancaster satellite location is also excluded.
- The primary focus of this analysis is on the quantity of space by type and its use.
- The space needs calculations are based primarily on the PASSHE planning guidelines with modifications in the calculation for teaching and research laboratory space.
- The PASSHE guidelines allocate an office module of 190 square feet per Full Time Equivalent (FTE) faculty and executive, administrative, and managerial employees. This module includes an allocation of 40 square feet for office space and conference area. A module of 150 square feet is allocated for clerical and secretarial.
- The consultants, Comprehensive Facilities Planning (CFP), generally provide separate modules for executive and administrative employees and provide a detailed calculation for office service and conferencing space for each department.
- However, comparisons of the PASSHE method to the CFP method resulted in a difference of less than 5 square feet per personnel FTE, hence a detailed calculation using the PASSHE method was applied.
- Since the PASSHE method for calculating instructional laboratory space is not discipline specific, it does not provide sufficient detail of laboratory space shortages or surpluses at the department level. Therefore, instructional laboratory space is calculated based on discipline specific factors developed by CFP and modified by the actual methods of instruction of the department.
- The research laboratory need is calculated using discipline specific guidelines for research space. For this calculation it is assumed that 100% of the faculty and graduate students in lab-based research departments are engaged in research activities. Furthermore, a research space allocation for departments that require undergraduate research as part of the academic requirements is provided if required.
- The base calculation for classroom space uses the PASSHE guidelines: a weekly room utilization rate of 37.5 hours per week; station occupancy rate of 67%; and station size of 20 square feet with a service factor multiplier of 1.1.

I.5 SPACE NEEDS FINDING SUMMARY

The Millersville University space needs have been assessed based upon a review of recent facility planning efforts that have been undertaken by the University, as well as through the formula-based process described above. The needs by major space type identified below have been grouped into three areas: a) Planned/know capital projects; b) Proposed demolitions/inventory adjustments; and c) formula-based calculated needs. A narrative with supporting tabular data for each of these categories is presented in the following pages. The planned or proposed new construction fits three capital projects that are currently in the design process to meet needs already identified by the University, or are proposed to meet new academic program initiatives that would not necessarily be identified in a formula-based space calculation. The Inventory Adjustments identify space proposed to be taken off line through demolition, mostly houses. The Future Space for Office Needs category depicts an estimated future space inventory and space need from a blending of the changes outlined through the first two categories along with a formula-based calculation developed for all other areas of the University not affected by planned capital projects or demolitions. Table 1 identifies the net impact of these needs by space type.

<table>
<thead>
<tr>
<th>Space Type</th>
<th>New Construction</th>
<th>Inventory Adjustments</th>
<th>Future Space Needs</th>
<th>Difference</th>
<th>Difference After Academic Building #</th>
<th>New Earth Sciences Building #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Type</td>
<td>Modified Existing Space</td>
<td>Visual and Performing Arts Center (Maus)</td>
<td>Subtotal</td>
<td>Proposed Demolition</td>
<td>Subtotal After Demolition</td>
<td>Future Space Needs</td>
</tr>
<tr>
<td>100 Classrooms</td>
<td>83,424</td>
<td>1,105</td>
<td>84,529</td>
<td>585</td>
<td>83,544</td>
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<tr>
<td>210 Instructional Laboratories</td>
<td>131,215</td>
<td>13,871</td>
<td>145,086</td>
<td>529</td>
<td>345,467</td>
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<td>250 Research Laboratories</td>
<td>17,550</td>
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<td>17,550</td>
<td>17,550</td>
<td>30,913</td>
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<tr>
<td>300 Offices</td>
<td>235,159</td>
<td>5,486</td>
<td>240,645</td>
<td>15,497</td>
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<tr>
<td>400 Library Space</td>
<td>73,746</td>
<td>872</td>
<td>74,618</td>
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<td>500 Special Use Facilities</td>
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<tr>
<td>520 Athletic/PE/Recreation Space**</td>
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<td>600 Other General Use Space</td>
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<td>650/660 Lounge/Merchandising Space</td>
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<td>700 Support Facilities</td>
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<td>1,185</td>
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<td>58,397</td>
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<td>800 Health Care Facilities</td>
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<td>5,558</td>
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<td>3,119</td>
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<td>Unassigned</td>
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<td>5,930</td>
<td>2,614</td>
<td>2,216</td>
</tr>
</tbody>
</table>

Total: 1,224,651 | 27,101 | 1,251,752 | 18,356 | 1,233,596 | 1,226,337 | 7,219 | 31,950 | 39,249 | 36,220 | 75,499 |
There are four planned or proposed capital projects that are included in this assessment that when implemented will impact space needs for various academic or academic support units at the University. One, the Visual and Performing Arts Center, is already in the design phase while a second, the Ganser Library Renovation, has had an extensive pre-planning and feasibility assessments completed. Note: although the Ganser Library project is limited in terms of providing additional space and has not been factored into Table 1 above, a description of the proposed scope is presented below as it will address part of the Library’s calculated space deficit. Two other projects, a School of Business facility and an Earth Sciences facility, are proposed new construction projects that address significant programmatic initiatives which have been conceptually developed by the University with needs that might otherwise not be addressed by a formula-based needs calculation. Descriptions of these capital projects are presented below.

Visual and Performing Arts Center

The VPAC project includes a renovation of the Alumni Hall/Lyte Auditorium facility plus a new addition. This project will address most of the space needs of the Department of Music and the theater arts program in the Department of Communication and Theater for the foreseeable future. In addition an new art gallery area will be developed as a replacement for the space currently located in the Ganser Library. Based on the most recent information regarding the scope for this project, the new addition will include approximately 27,000 assignable square feet (ASF) for Music. The upgrading of existing space in Alumni Hall/Lyte Auditorium for theater arts will meet their future needs.

The Music Preparation Program currently housed in the York House should continue to be housed there as the proposed project scope does not include any space for this program. Also, the large unmet need for Music that should be addressed will be for storage space for the marching band instruments and uniforms, which will not be accommodated by the project. Approximately 1,500 ASF is needed.

Note: Unless the Theatre Props are able to continue being stored in the Trolley Barn, new space will be needed for this large group of items.

When this project is completed, the Music Department will vacate about 5,100 assignable square feet in Byerly Hall that will be available for other needs. Another 1,500 square feet will be released in Cambria House, however, this facility is one proposed for demolition.

Ganser Library

The Ganser Library project includes an extensive renovation to the existing facility including the repurposing of the existing mechanical floor for library functions, along with a new addition of approximately 4,000 ASF. The scope of this project used in this assessment includes a minor expansion of the library facility. The renovation phase of the project is intended to upgrade the infrastructure components of the building along with some interior space renovations and space reprogramming. The feasibility study, completed in fall 2008, presented three options for the library renovation: basic, shell, and addition. The basic approach is essentially an infrastructure upgrade with no other changes. The shell, or middle option, upgrades infrastructure and also makes significant internal space usage changes. The addition option upgrades infrastructure, demolishes the current addition to the tower structure and replaces it with a new 3 story addition. Another possible option discussed is to upgrade the tower significantly and include plans for demolition of the current addition and completion of a new addition in the master plan.

Following conversations with MU Finance & Administration staff, it recommended that the shell option is best route to take. As outlined in the feasibility study, this approach replaces all HVAC, electrical, plumbing, ceiling and lighting fixtures. Renovations include major interior upgrades and code/life safety upgrades such as fire protection, fire alarm, security, and site/civil. A minor addition of 4,000 square feet for a new entry is the only additional space included with this project, and therefore no significant changes to the overall inventory will result from this project.

Academic Building #1 - School of Business and Others

A major academic program initiative for the University in the future is to upgrade its business administration and economics offerings. This initiative will likely be in the form of the creation of a new School of Business, which will require the construction of a new facility to house these operations. This facility will provide space for a Dean’s suite, faculty offices, classrooms, teaching labs, computer labs and other support spaces. Based on information provided by the department, the new facility will contain approximately 32,000 ASF. With the relocation of these programs from McComsey Hall about 6,680 ASF will be vacated and can be reprogrammed for other uses.

Academic Building #2 - Earth Sciences and Others

One of the premier academic programs in the University is meteorology and related programs in the Department of Earth Sciences. This department is currently housed in three facilities, which negatively impacts the programs. The proposed new Earth Sciences facility will address the consolidation issue as well as provide for a significant programmatic upgrade including a new masters degree program. The new facility will provide faculty offices, replacement of the existing teaching labs as well as adding a new integrated laboratory suite including a visualization lab to expand offerings. A larger Weather Station, adequate field research storage, rock collections storage and space for the Center for Environmental Sciences will be included. A facility of approximately 36,000 ASF is envisioned. About 6,500 ASF currently occupied by the department in the Caputo/Roddy complex would be vacated and could be reprogrammed for other uses.

The proposed net assignable space by type for each of the planned projects as listed in Table 1 has been added into the Current Space.
I.7 PROPOSED DEMOLITIONS AND INVENTORY ADJUSTMENTS

The Campus Master Plan proposes the removal of several buildings over time. These include:

- Mifflin House and Potter House on the east side of Prince Street south of Gaige Hall to allow the construction of a proposed residence hall.
- Eight houses on east Frederick Street for the creation of a pedestrian mall and the construction of a proposed academic building:
  - Perry House
  - Gerhart Hall
  - Susquehanna House
  - Armstrong House
  - Allegheny House
  - Dauphin House
  - Luzerne House
  - Cambria House
  - Nichols House – to provide space for a possible new academic building.

The University will work closely with the appropriate Millersville Borough entities to explore the demolition of these buildings and the potential impact on the Borough’s Historic Planning. It is important for the University and the Borough to come to a common understanding in order to make this plan work.

Table 2 summarizes the current use of these buildings and the assignable square feet that will be released with implementation of the demolitions.

With the exception of the approximately 7,100 square feet that is unassigned or vacant the functions housed in these facilities will need to be relocated. Potential locations for these and other operations are reviewed in a latter section of this report.

The proposed demolition projects listed above have been deducted from the modified space inventory (Current Space plus the Planned Capital projects) to derive the Future Space Inventory in Table 1.

Table 2: Proposed Demolitions by Building and Assignment

<table>
<thead>
<tr>
<th>Building</th>
<th>Biology</th>
<th>Data, SSE</th>
<th>Earth Sciences</th>
<th>English</th>
<th>Migrant Education</th>
<th>Music</th>
<th>Psychology</th>
<th>Sociology and Anthropology</th>
<th>Unassigned</th>
<th>Vacant Sq ft</th>
<th>Total Sq ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegheny House</td>
<td>1,396</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,396</td>
</tr>
<tr>
<td>Armstrong House</td>
<td></td>
<td>2,066</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,066</td>
</tr>
<tr>
<td>Cambria House</td>
<td>1,516</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,516</td>
</tr>
<tr>
<td>Dauphin House</td>
<td>1,395</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,395</td>
</tr>
<tr>
<td>Gerhart Hall</td>
<td>2,763</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,763</td>
</tr>
<tr>
<td>Luzerne House</td>
<td>1,031</td>
<td>1,044</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,075</td>
</tr>
<tr>
<td>Mifflin House</td>
<td>2,099</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,099</td>
</tr>
<tr>
<td>Nichols House</td>
<td>120</td>
<td>943</td>
<td>980</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,053</td>
</tr>
<tr>
<td>Perry House</td>
<td>282</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,002</td>
</tr>
<tr>
<td>Potter House</td>
<td>1,107</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,107</td>
</tr>
<tr>
<td>Susquehanna House</td>
<td>2,597</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,597</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>130</td>
<td>1,031</td>
<td>943</td>
<td>980</td>
<td>1,677</td>
<td>2,099</td>
<td>1,516</td>
<td>720</td>
<td>1,107</td>
<td>6,043</td>
<td>20,109</td>
</tr>
</tbody>
</table>
1.8 CALCULATED SPACE NEEDS BY ACADEMIC SCHOOL

This section summarizes and reviews the space needs calculations for the three existing academic schools and for the other academic departments not addressed in the sections above. Space needs by academic or administrative and support divisions are also summarized in the following pages.

School of Education
The School of Education is currently located in four buildings: Stayer Hall, Osburn Hall, Pucillo Gym and Byerly Hall. The calculated space needs for the departments in this School are displayed below in Table 3:

- The four departments currently housed in Stayer Hall (Dean’s Office, Education Foundations, Special Education and Elementary and Early Childhood Education) are adequately housed, and should accommodate their needs into the future even with the expected growth in graduate enrollments in these programs.
- Although the Department of Industry and Technology indicates a deficit of about 3,500 ASF, about one-third of the deficit is due to small office sizes when compared with the PASSHE planning module. The remainder of the need is related to research space needs that can be met in existing labs.
- The Department of Psychology is housed in Byerly Hall and has a projected unmet need of about 4,500 ASF, primarily research type space. With the inclusion of the 720 square feet occupied by the department in Perry House, the need would increase to just over 5,200 square feet. The future relocation of Music to the new VPAC facility will release about 5,100 square feet in Byerly that may be reprogrammed to meet Psychology’s needs. Because of the age and condition of Byerly Hall, a major renovation of this facility should be considered.
- The Department of Wellness and Sports Sciences is currently located in Pucillo Hall. The department has a need for about another 3,700 ASF of lab space. Because of the age and condition of Byerly Hall, a major renovation of this facility should be considered.

- Note: The Master Plan proposes the future demolition of Mifflin House. The Migrant Education Program (MIED) is housed in Mifflin House and would need to be relocated. The space needs calculations show a need of 1,830 square feet for this program.

<table>
<thead>
<tr>
<th>Department</th>
<th>Current Space</th>
<th>Projected Need</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean, School of Education</td>
<td>5,846</td>
<td>5,964</td>
<td>1,188</td>
</tr>
<tr>
<td>Educational Foundations</td>
<td>4,146</td>
<td>5,363</td>
<td>1,217</td>
</tr>
<tr>
<td>Elementary and Early Childhood Education</td>
<td>4,836</td>
<td>8,460</td>
<td>3,624</td>
</tr>
<tr>
<td>Industry and Technology</td>
<td>38,838</td>
<td>43,104</td>
<td>4,266</td>
</tr>
<tr>
<td>Migrant Education Program</td>
<td>2,099</td>
<td>2,820</td>
<td>721</td>
</tr>
<tr>
<td>Psychology</td>
<td>8,420</td>
<td>12,899</td>
<td>4,479</td>
</tr>
<tr>
<td>Special Education</td>
<td>2,937</td>
<td>2,981</td>
<td>44</td>
</tr>
<tr>
<td>Wellness and Sports Sciences</td>
<td>2,925</td>
<td>6,235</td>
<td>3,310</td>
</tr>
<tr>
<td>Totals Education</td>
<td>74,047</td>
<td>83,806</td>
<td>9,759</td>
</tr>
</tbody>
</table>

School of Science and Mathematics
The School of Science and Mathematics is currently located in five buildings: Caputo Hall, Roddy Hall, Nichols House, Brossman Hall and Wickersham Hall. The calculated space needs for the departments in this School are displayed below in Table 4. This table excludes Earth Sciences whose needs are expected to be addressed in a new facility.

- Most departments in the School are adequately housed in the aggregate. There are a few areas of need such as research lab space in Chemistry, Physics and Biology. There is a misalignment of space types for some of the departments but the quantity is sufficient.
- Assuming a new facility is developed for Earth Sciences, then about 6,500 ASF currently occupied by the department in the Caputo/Roddy complex would be vacated and could be reprogrammed for other uses. These include meeting the modest needs for Nursing as well as relocation of the college operations currently housed in Nichols House. Additional research space might also be developed.
- With the relocation of Earth Sciences, approximately 6,900 ASF will be released in Brossman Hall that may be reprogrammed to meet other needs.

<table>
<thead>
<tr>
<th>Department</th>
<th>Current Space</th>
<th>Projected Need</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>12,202</td>
<td>23,354</td>
<td>11,152</td>
</tr>
<tr>
<td>Chemistry</td>
<td>17,944</td>
<td>17,641</td>
<td>303</td>
</tr>
<tr>
<td>Computer Science</td>
<td>6,606</td>
<td>4,609</td>
<td>1,997</td>
</tr>
<tr>
<td>Dean, School of Science and Mathematics</td>
<td>7,527</td>
<td>3,734</td>
<td>3,793</td>
</tr>
<tr>
<td>Mathematics</td>
<td>6,323</td>
<td>4,742</td>
<td>1,581</td>
</tr>
<tr>
<td>Nursing</td>
<td>2,441</td>
<td>2,115</td>
<td>-326</td>
</tr>
<tr>
<td>Physics</td>
<td>9,194</td>
<td>7,730</td>
<td>1,464</td>
</tr>
<tr>
<td>Totals Science and Mathematics</td>
<td>83,237</td>
<td>64,694</td>
<td>18,543</td>
</tr>
</tbody>
</table>
School of Humanities and Social Sciences

The School of Humanities and Social Sciences is currently located in five buildings: McComsey Hall, Byerly Hall, Hash/Bassler Hall, Dutcher Hall, and several houses. The calculated space needs for the departments in this School (excluding Music) are displayed below, in Table 5.

- The Department of English has the greatest need of any other department in the College aside from those accommodated by the VPAC facility. With the suggested removal of several of the houses along Frederick Street, a number of offices for English would be displaced that would exacerbate the existing space shortage by almost another 1,700 square feet. With the proposed relocation of Business Administration into its own facility, space in McComsey Hall will be vacated that could be reprogrammed for English to meet most of this need. This will permit English to consolidate into a single location.

- The space needs for Sociology and Anthropology will also need to be addressed in other facilities if the Frederick Street houses are removed.

- With the exception of Social Work which indicates a modest need, the other departments housed in McComsey Hall are adequately housed.

- Part of the calculated surplus space under the Dean is due to space located in Somerset House assigned to the Latino Studies, African-American Studies and Women’s Studies programs. This space provides a second office location for the program directors and others.

Provoct/Vice President for Academic Affairs

The Provost/Academic Affairs division also includes fourteen other departments that provide academic support functions to the campus and occupies almost 110,800 square feet. The calculated space needs for these departments are summarized below, in Table 6.

- The one area identified with a deficit need is the Ganser Library of about 10,350 square feet.

- There are several units that have calculated surplus space. Reasons for each vary. The surplus in Admissions is due mostly to average office sizes in the existing space exceeding the PASSHE planning module being applied. Units like the Global Education Partnership and Lancaster Partnership Program are assumed to have space that is used by non-University personnel that are not part of the permanent staffing needs. The difference in the Learning Services areas may be attributed to a space inventory classification issue whereby student study space is classified as an office space type.

Table 5: School of Humanities and Social Sciences Calculated Space Need

<table>
<thead>
<tr>
<th>Department</th>
<th>Current Space</th>
<th>Projected Need</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>29,220</td>
<td>25,808</td>
<td>3,412</td>
</tr>
<tr>
<td>Communication and Theatre</td>
<td>23,788</td>
<td>24,139</td>
<td>-351</td>
</tr>
<tr>
<td>Dean, School of Hum. and Social Sciences</td>
<td>7,145</td>
<td>4,342</td>
<td>2,803</td>
</tr>
<tr>
<td>English</td>
<td>7,252</td>
<td>9,280</td>
<td>-2,023</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>4,603</td>
<td>3,309</td>
<td>-1,296</td>
</tr>
<tr>
<td>Geography</td>
<td>2,813</td>
<td>3,318</td>
<td>-525</td>
</tr>
<tr>
<td>Government and Political Affairs</td>
<td>1,311</td>
<td>1,973</td>
<td>-662</td>
</tr>
<tr>
<td>History</td>
<td>5,024</td>
<td>5,189</td>
<td>-165</td>
</tr>
<tr>
<td>Military Science/Army ROTC</td>
<td>2,787</td>
<td>3,725</td>
<td>-938</td>
</tr>
<tr>
<td>Philosophy</td>
<td>1,568</td>
<td>1,742</td>
<td>-174</td>
</tr>
<tr>
<td>Social Work</td>
<td>1,963</td>
<td>4,062</td>
<td>-2,099</td>
</tr>
<tr>
<td>Sociology and Anthropology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals Humanities and Social Sciences</td>
<td>90,475</td>
<td>86,128</td>
<td>4,347</td>
</tr>
</tbody>
</table>

Table 6: Provost/VP Academic Affairs Space Needs

<table>
<thead>
<tr>
<th>Department</th>
<th>Current Space</th>
<th>Projected Need</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Advisement</td>
<td>700</td>
<td>380</td>
<td>320</td>
</tr>
<tr>
<td>Academic Student Development</td>
<td>367</td>
<td>0</td>
<td>367</td>
</tr>
<tr>
<td>Admissions</td>
<td>7,314</td>
<td>4,438</td>
<td>2,876</td>
</tr>
<tr>
<td>Aim for Success</td>
<td>1,223</td>
<td>1,330</td>
<td>-107</td>
</tr>
<tr>
<td>Community and Acad. Partnerships</td>
<td>1,382</td>
<td>2,007</td>
<td>-625</td>
</tr>
<tr>
<td>Global Education Partnerships</td>
<td>1,472</td>
<td>101</td>
<td>1,371</td>
</tr>
<tr>
<td>Graduate Studies</td>
<td>2,484</td>
<td>1,670</td>
<td>814</td>
</tr>
<tr>
<td>Honors College</td>
<td>881</td>
<td>150</td>
<td>731</td>
</tr>
<tr>
<td>Institutional Research</td>
<td>820</td>
<td>760</td>
<td>60</td>
</tr>
<tr>
<td>Lancaster Partnership Program</td>
<td>2,318</td>
<td>530</td>
<td>1,788</td>
</tr>
<tr>
<td>Learning Services</td>
<td>2,567</td>
<td>520</td>
<td>2,047</td>
</tr>
<tr>
<td>Provost/VP for Academic Affairs</td>
<td>9,516</td>
<td>6,961</td>
<td>2,555</td>
</tr>
<tr>
<td>Registrar</td>
<td>4,799</td>
<td>3,955</td>
<td>844</td>
</tr>
<tr>
<td>University Library</td>
<td>14,892</td>
<td>85,247</td>
<td>-10,355</td>
</tr>
<tr>
<td>Totals Provost/VP Academic Affairs</td>
<td>110,795</td>
<td>108,240</td>
<td>2,545</td>
</tr>
</tbody>
</table>

Table 7: Vice President for Finance and Administration Space Needs

<table>
<thead>
<tr>
<th>Department</th>
<th>Current Space</th>
<th>Projected Need</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>1,607</td>
<td>1,140</td>
<td>467</td>
</tr>
<tr>
<td>Budget</td>
<td>409</td>
<td>370</td>
<td>-39</td>
</tr>
<tr>
<td>Business</td>
<td>2,764</td>
<td>1,241</td>
<td>1,523</td>
</tr>
<tr>
<td>Dining and Conference Services</td>
<td>3,842</td>
<td>5,311</td>
<td>-1,469</td>
</tr>
<tr>
<td>Facilities Management</td>
<td>7,754</td>
<td>5,887</td>
<td>1,867</td>
</tr>
<tr>
<td>Human Resources</td>
<td>2,246</td>
<td>1,621</td>
<td>625</td>
</tr>
<tr>
<td>Payroll</td>
<td>1,014</td>
<td>570</td>
<td>444</td>
</tr>
<tr>
<td>Purchasing</td>
<td>2,426</td>
<td>1,200</td>
<td>1,226</td>
</tr>
<tr>
<td>University Services</td>
<td>516</td>
<td>760</td>
<td>-244</td>
</tr>
<tr>
<td>VP for Finance and Administration</td>
<td>2,497</td>
<td>950</td>
<td>1,547</td>
</tr>
<tr>
<td>Totals VP Finance and Administration</td>
<td>23,575</td>
<td>19,331</td>
<td>4,244</td>
</tr>
</tbody>
</table>
Vice President for Information Technology

The Vice President for Information Technology is housed in just over 13,700 square feet of space. For analysis purposes the various units have been rolled up to the division level. Note: only the office space needs are reflected in the table below. Non-assignable spaces managed by this area (i.e., communication closets) are not included.

- The division appears to adequately housed in its assigned space based on PASSHE Standards.
- Because of the specialized nature of many IT spaces, no conclusion has been drawn about the adequacy of space for this division based on the limited data collected in this study.

President

The President’s Office consists of two departments occupying approximately 4,400 square feet as indicated below, in Table 9.

- Both departments are adequately housed. There are two more offices in Delaware House assigned to Social Equity than positions, which accounts for some of their surplus.

Vice President for Student Affairs

The Vice President for Student Affairs division consists of ten departments assigned to about 41,300 square feet as indicated below, in Table 10. A number of these departments are indicating a calculated space surplus. Explanations of some of these conditions are identified in the bullets below.

- Career Services has administrative offices that average 306 square feet and clerical offices that average 299 square feet, both well above the PASSHE guidelines.
- Counseling and Human Development has administrative offices that average 218 square feet and clerical offices that average 187 square feet, both well above the PASSHE guidelines. There are also two more offices than current positions.
- Financial Aid has administrative offices that average 210 square feet and clerical offices that average 205 square feet, both well above the PASSHE guidelines. There are also ten more offices reported than positions.
- The University Police have several rooms assigned to them that are required as part of that type of operation classified in the inventory as office service space. These areas are specialized support space that is not provided for in the PASSHE model.

Student Services

The Student Services, Inc. operations are housed in 19,530 square feet, which is summarized below, in Table 11. The department is assigned a sufficient number of offices to house its personnel as well as the calculated amount of space is adequate.

These calculated needs have been integrated with the planned capital projects and proposed inventory adjustments to develop a hybrid space needs as identified as “Future Space Needs” in Table 1, above.

---

### Table 9: President

<table>
<thead>
<tr>
<th>Department</th>
<th>Current Space</th>
<th>Projected Need</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of the President</td>
<td>2,746</td>
<td>2,491</td>
<td>255</td>
</tr>
<tr>
<td>Social Equity</td>
<td>1,630</td>
<td>720</td>
<td>900</td>
</tr>
<tr>
<td>Totals President's Office</td>
<td>4,366</td>
<td>3,211</td>
<td>1,155</td>
</tr>
</tbody>
</table>

### Table 10: Vice President for Student Affairs

<table>
<thead>
<tr>
<th>Department</th>
<th>Current Space</th>
<th>Projected Need</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Services</td>
<td>2,169</td>
<td>330</td>
<td>1,839</td>
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<tr>
<td>Counseling and Human Development</td>
<td>2,102</td>
<td>1,812</td>
<td>1,280</td>
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<td>Financial Aid</td>
<td>2,419</td>
<td>1,290</td>
<td>1,129</td>
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<tr>
<td>Intercollegiate Athletics</td>
<td>22,315</td>
<td>14,109</td>
<td>8,243</td>
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<tr>
<td>Intramural and Recreation</td>
<td>1,045</td>
<td>1,224</td>
<td>1,821</td>
</tr>
<tr>
<td>Student Health Services</td>
<td>620</td>
<td>961</td>
<td>-341</td>
</tr>
<tr>
<td>Student Programs</td>
<td>3,588</td>
<td>3,939</td>
<td>-351</td>
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<tr>
<td>University Police</td>
<td>3,223</td>
<td>2,630</td>
<td>1,593</td>
</tr>
<tr>
<td>Vice President for Student Affairs</td>
<td>1,054</td>
<td>530</td>
<td>524</td>
</tr>
<tr>
<td>Wellness/Women’s Center</td>
<td>1,038</td>
<td>340</td>
<td>1,288</td>
</tr>
<tr>
<td>Totals VP Student Affairs</td>
<td>43,271</td>
<td>26,363</td>
<td>16,906</td>
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</table>

### Table 11: Student Services

<table>
<thead>
<tr>
<th>Division</th>
<th>Current Space</th>
<th>Projected Need</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Services</td>
<td>19,530</td>
<td>17,754</td>
<td>1,776</td>
</tr>
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---
I.9 BACKFILL RECOMMENDATIONS AND POSSIBLE SEQUENCING

The development of the campus based on the scenario described above will initiate a number of department relocations that will also release space in existing facilities to be repurposed for other uses and to meet unmet needs. Many of these moves are predicated on the completion of one of the capital projects outlined in the previous section. The sequencing and backfill recommendations presented below assume the completion of these projects as noted.

**Visual and Performing Arts Center**

With the completion of the Visual and Performing Arts Center about 5,100 ASF will be released by the Music Department in Byerly Hall. Note: this space may be used for interim housing of functions displaced by the removal of the Frederick Street houses. The Psychology Department currently occupies Byerly Hall and has a need for about 5,200 square feet to meet its current requirements as well as provide a location for space to be displaced with the removal of Perry House. The vacated Byerly Hall space should therefore be reassigned to Psychology to address their long term needs.

**School of Business Facility**

The construction of a facility for a new School of Business will house the existing Departments of Business Administration and Economics, both currently located in McComsey Hall.

- Approximately 6,700 ASF will be released in 35 offices in McComsey Hall after these units move out.
- Therefore, there are adequate number of offices in McComsey Hall to consolidate all of the English faculty and staff from Chryst Hall, Hash/Bassler Hall, Dauphin House and Perry House.
- Two future location options exist for the Writing Lab and Tutoring Center that are currently in Chryst Hall.
- The first would be to retain them in Chryst, which may not work functionally with the faculty in a separate facility.
- Because of the 8,000 square feet of new classrooms in Academic Building I, a second option is to repurpose three existing classrooms in McComsey Hall, consolidating the entire department.
- The space needs developed through this assessment indicate with improved classroom utilization the University will have a surplus of classrooms, thereby making some of the classrooms available to meet other needs.

With the relocation of the English offices and the writing/tutoring facilities out of Chryst Hall, approximately 4,700 ASF will be released. The Migrant Education Program, which requires about 2,000 square feet, may also fill some of the unmet needs.

**Earth Sciences Building**

The construction of a new facility to house Earth Sciences will vacate about 6,500 ASF currently occupied in Caputo/Roddy and almost 6,900 square feet in Brossman Hall with the relocation of Earth Sciences into the new facility. The Caputo/Roddy space may be backfilled with the displaced Biology and Dean’s Office functions out of Nicholls Hall.

**Possible Sequencing for Facilities Proposed for Facility Demolitions**

The Campus Master Plan proposes the removal of eleven structures primarily along East Frederick Street. The removal of these structures will eliminate approximately 12,700 ASF of space that is currently occupied by University units. The sequencing for the removal of these structures follows the proposed sequence of construction presented in the plan. Based upon the phasing of new facilities, the removal of these structures will require the temporary relocation of the current occupants until the permanent locations recommended above are available. These phases and the impact on the sequencing of the demolition and relocation of current occupants are presented in the expected timeline of the plan and are outlined below.

**New Residence Halls**

Two new residence halls are being proposed as part of the master plan to be located south of East Frederick Street and west of Prince Street during the first five-year period of the master plan. The proposed site will require the removal of eight existing houses: Armstrong, Allegheny, Cambria, Dauphin, Luzerne, Susquehanna, Mifflin, and Potter. Potter is vacant and Cambria houses Music functions that will be relocated to the new Visual and Performing Arts Center that is assumed to be completed prior to the construction of the new residence halls. Therefore, the occupants in the other six houses, which totals approximately 10,700 ASF, will need to be at least temporarily relocated until the recommended permanent facilities are available.

The Cambria House functions will move to both the VPAC facility and Jefferson Hall. This will be a permanent move. The Sociology/Anthropology program should be relocated into the vacated Music space in Byerly Hall. The English faculty in Dauphin Hall may be moved into Franklin Hall, while the Center for Disaster Education program may use Juniata House which is currently vacant.
J.1 RESIDENCE LIFE MASTER PLAN

OVERVIEW

Several working sessions were conducted with the Director of Housing and Residential Programs, along with key University administrators and Student Lodging, Inc. to review existing constraints and opportunities related to on- and off-campus student housing. To provide the University with a strategy for addressing existing and future housing needs, the project team conducted a series of analyses to evaluate the market position of Millersville versus identified competitors and the positioning of their housing facilities versus alternatives available to students. The team toured existing housing managed by the University and Student Lodging Inc., and tested various scenarios with current students to understand their opinions, observations, and recommendations regarding the future of Millersville’s student housing facilities. Finally, to project specific levels of demand for student housing, a comprehensive survey was administered to all students that provided a variety of unit types to choose from. A detailed review of the survey and market analysis can be located in the Appendix of this report.

Millersville operates nine on-campus residence halls constructed between 1950 and 1973, with capacity for approximately 2,300 students, or 31% of the undergraduate population. Current demand for housing exceeds the supply, requiring the University to create temporary triples and quads to accommodate this demand. Freshmen and sophomore students to live on campus, and all the residence halls are traditional units with two person shared bedrooms with common toilets located on each floor. There are a limited amount of single rooms within each residence hall as well as double rooms that share a single bathroom. The University is in the process of renovating Bard and Gilbert halls, to address life/safety issues, improve common space areas, and upgrade individual rooms to attract future students. The general condition of the residence halls has improved with recent renovations however; the housing director indicated that the University needs to implement a better maintenance plan to alleviate the need for future major renovations. It was noted that existing halls need more common space for students, as there are very few lobbies or lounges for the students to congregate.

In addition to the 2,300 beds managed by the University, Student Lodging Inc. maintains an additional 1,100 beds in close proximity to campus. These beds are considered to be part of the housing system with a variety of suite-style and apartment style units that address are more appealing to upperclassmen seeking independence. The four facilities managed by Student Lodging are in good to excellent condition and are very popular with students. This housing is considered a critical component of Millersville’s housing options.

### J.2 PROJECT GOALS

Our team conducted a comprehensive student housing survey that tested interest and demand for a variety of housing options. In addition to this survey, a workshop was conducted with students to solicit feedback on various housing scenarios. A market analysis was conducted and consisted of reviewing the off-campus housing market and the competitive housing market for Millersville’s peer institutions. These activities have allowed our team to develop recommendations for an integrated living/learning student housing program. These recommendations include the following goals:

1. Provide affordable on-campus housing options and choices that will attract, foster, and maintain students throughout the educational continuum.
2. Create sustainable living/learning communities with responsive technology and inviting, interactive indoor and outdoor amenities.
3. Create more common space for students to socialize within each of the existing residence halls.
4. Create an environment that will encourage students to stay connected with Millersville University.
5. Provide a financially viable phased plan that will provide students with desired unit types and provide flexibility in the phased plan to account for changes in market conditions.

### Table: Residence Hall Information

<table>
<thead>
<tr>
<th>Building</th>
<th>Bed Count</th>
<th>Year Built</th>
<th>Sq. Ft</th>
<th>Sq. Ft/Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bard</td>
<td>106</td>
<td>1957</td>
<td>37,500</td>
<td>350</td>
</tr>
<tr>
<td>Burrowes</td>
<td>172</td>
<td>1970</td>
<td>52,500</td>
<td>310</td>
</tr>
<tr>
<td>Dunham</td>
<td>244</td>
<td>1966</td>
<td>62,500</td>
<td>250</td>
</tr>
<tr>
<td>Geiger</td>
<td>244</td>
<td>1973</td>
<td>73,500</td>
<td>300</td>
</tr>
<tr>
<td>Gilbert</td>
<td>183</td>
<td>1957</td>
<td>39,000</td>
<td>213</td>
</tr>
<tr>
<td>Harbord</td>
<td>236</td>
<td>1961</td>
<td>62,000</td>
<td>263</td>
</tr>
<tr>
<td>Hobbs</td>
<td>246</td>
<td>1957</td>
<td>58,400</td>
<td>237</td>
</tr>
<tr>
<td>Hull</td>
<td>242</td>
<td>1966</td>
<td>66,000</td>
<td>236</td>
</tr>
<tr>
<td>Lenhardt</td>
<td>320</td>
<td>1971</td>
<td>85,500</td>
<td>280</td>
</tr>
<tr>
<td>Totals</td>
<td>2,375</td>
<td></td>
<td>551,500</td>
<td></td>
</tr>
</tbody>
</table>
Concept floor plans and photographs of living/learning facilities with suite style options were tested and well received by Millersville students. The floor plans contain a variety of common spaces that will encourage student interaction and foster the development of a residential community. Given the reported shortage of interaction and study spaces that occur throughout the campus, these spaces will be highly utilized by students. The floor plans can be further enhanced to contain other special housing amenities, such as for an Honors College, Educational or Community Service Programs, Multicultural, Wellness/Recreational, Undeclared Majors, etc.

Concept Typical First Floor Plan: The First Floor is entered via a secured vestibule with an adjacent control desk, elevator and stair access to the residential floors. This floor contains lounges, study lounges, recreation, multipurpose, kitchen, mail room and trash/recycling areas. It also contains residential support staff and service areas. Exterior areas for interaction will be created around the facility, including lawn areas for recreation, reflection and study with wireless access, lighted walkway, benches, picnic areas, walking trails, etc.

Concept Typical Floor Plan: Each wing is accessed via an elevator as well as stairs and can accommodate 50 students with a variety of suite-style living options. Common areas per wing include a lounge area, study lounge, laundry and trash/recycling areas.

Unit Options and Choices

While approximately 24.4% of students indicated that they would prefer living off campus, the vast majority expressed interest in on-campus living/learning communities with a variety of unit options and choices.

Eleven different unit types were tested ranging from traditional double occupancy units to four bedroom apartments. Based upon the student survey results, the most popular unit options for on-campus living are depicted below.

- To have more privacy (52%)
- To have a kitchen (48%)
- To have a living room space (48%)
- Lower cost (48%)
- To live with friends (41%)
- To have a washer/dryer in the unit (37%)
- Better study atmosphere/less noise (36%)
Two-Person Semi-Suite (1 Double Occupancy Bedroom)
Approximately 325 square feet: Two Person Semi-Suite with furniture and closets for each student with a bathroom and outboard sink. 8.6% of the students expressed interest in renting this unit. Double occupancy cost per bed: $3,010 - $3,260 per semester.

Two-Person Private Semi-Suite (2 Single Occupancy Bedrooms)
Approximately 385 square feet: Two Person Semi-Suite with single bedrooms, furniture and closets for each student, private bathroom and outboard sink, living room, and a small kitchenette/dinette area. 11.5% of the students expressed interest in renting this unit. Single occupancy cost per bed: $3,290 - $3,540 per semester.

Two-Person Suite with Private Bedrooms
Approximately 825 square feet: Two Person Suite with single bedrooms, furniture and closets for each student, a bathroom and outboard sink and a small kitchenette/dinette area. 9.8% of the students expressed interest in renting this unit. Single occupancy cost per bed: $3,925 - $4,175 per semester.

Four-Person Suite with Private Bedrooms
Approximately 1,034 square feet: Four Person Suite with single bedrooms, furniture and closets for each student, two bathrooms and outboard sink, living room, and a small kitchenette/dinette area. 10.6% of the students expressed interest in renting this unit. Single occupancy cost per bed: $3,600 - $3,850 per semester.
Development of Suite Style Enhanced Living/Learning Communities

Development of enhanced living/learning communities at the new suite style residence halls can occur:

- Within the residential units
- Within the residential wings
- Within the typical residential floors
- Outside of residential facilities

Potential themed living/learning communities could include the following:

- Academic Pursuits
- Recreational Pursuits
- Class Communities
- Lifestyle Communities
- Social Pursuits
- Cultural Communities
- Other Options to be considered

The facility will include both hard wired and wireless access. Security cameras will be provided to monitor public corridors and interaction areas.

Development of Enhanced Living/Learning Communities Within the Residential Units

Suite style options are provided per input from administrators, students, the market survey, and the demand analysis. Card access will be provided at the entry door to each unit and to each bedroom door. Gathering area amenities that promote interaction outside of the bedroom are provided at kitchenette/dinette areas and at kitchenette/living room areas.

Development of Enhanced Living/Learning Communities Within the Residential Wings

Residential wings will include the following central common areas that encourage interaction outside of the unit:

- A small open lounge area with seating for 6 and a TV
- An enclosed small study/lounge area with seating for 6 and glass lites at the corridor

The RA unit, secured janitorial, electrical, and teledata closets are to be located near these interaction areas. Card access will be provided at the wing entry doors.

Development of Enhanced Living/Learning Communities Within the Typical Residential Floors

The central core area at the typical residential floor will include the following areas to promote interaction:

- An open lounge area with seating for 8 and a TV
- An enclosed study/lounge area with seating for 8 and glass lites at the corridor
- An enclosed small kitchen area with seating for 8 and glass lites at the corridor
- An enclosed laundry area with washers/dryers/tub sink/counter and glass lites at the corridor

Support functions at the central core will include:

- Two oversized elevators with 4’ wide doorway, high cab and stainless steel finishes
- An enclosed trash/recycling area (to be confirmed)
- A janitor closet/storage area
- One or two fire stairs per code
- An ADA accessible non-gender toilet

Development of Enhanced Living/Learning Communities Within the Residential Facilities

The central core area at the residential first floor will include the following areas to promote interaction:

- An open lounge area with TV, fireplace, and seating for 12
- A multipurpose room with seating for 20 classroom style with glass lites at the corridor
- A multipurpose room with a pool, ping-pong table, TV and seating for 8 with glass lites at the corridor
- A computer/lounge area with seating for 12 and glass lites at the corridor
- An enclosed study/lounge area with seating for 12 and glass lites at the corridor
- An enclosed kitchen area with TV, seating for 12 and glass lites at the corridor

Support functions at the central floor core will include:

- Two oversized elevators with 4’ wide doorway, high cab and stainless steel finishes
- A janitor closet/storage area
- One or two fire stairs per code
- ADA accessible men and women’s toilet rooms
- One large mailroom area in one building to serve each housing complex
- A break room with kitchenette

Other support functions at the first floor will include:

- Residential Director Apartment with 2 bedrooms
- Areas for mechanical/electrical/teledata infrastructure
- An enclosed receiving trash/recycling area
- A bicycle storage area
- Card access will be provided at identified areas

Development of Enhanced Living/Learning Communities Outside of the Residential Facilities

Safe and well lighted landscaped walkways, drives, courtyards, and recreational areas will be provided including:

- Porch and patio areas will moveable and fixed seating, with fixed seating areas at major walkways
- Open lawn areas for recreational uses and landscaped areas for study
- Basketball courts and sand volleyball areas
- Limited areas for staff and visitor parking, with ADA accessible parking as needed
- Wireless access to be provided at identified areas

Site design layouts to accommodate:

- Identified walkways to be used for move-in requirements and emergency vehicle access
- Receiving areas to be screened
Typical Floor
- Residential: student units, residence hall assistants
- Common space: lounges, living/learning space, shared facilities, circulation

First Floor
- Residential: student units, residence hall assistants, residence hall directors
- Common space: lounges, living/learning space, shared facilities, circulation
- Non-Residential Life Use: Conference, Academic, Honors College
- Service/Mechanical

Lower Level
- Residential Life Offices
- Common space: lounges, living/learning space, shared facilities, circulation
- Non-Residential Life Use: Conference, Academic, Honors College
- Service/Mechanical

Elevation of the proposed James Street Residences along James Street

Aerial view of the proposed James Street Residences
PRINCE STREET RESIDENCE

Typical Floor

- Residential: student units, residence hall assistants
- Common space: lounges, living/learning space, shared facilities, circulation

First Floor

- Residential: student units, residence hall assistants, residence hall director
- Common space: lounges, living/learning space, shared facilities, circulation

Lower Level

- Residential Life Offices
- Common space: lounges, living/learning space, shared facilities, circulation
- Non-Residential Life Use: Academic
- Service/Mechanical
J.4 FINANCIAL OVERVIEW

Our team has prepared a financial model for the implementation of the student housing master plan. This model utilizes inputs provided by the University regarding financial transactions related to the housing projects, such as anticipated operating costs and funding of debt for any existing housing facilities that will no longer be on-line. Hard and soft costs regarding project construction and suggested rental rates have been developed. In order to secure project bond funding, the financial model or pro forma provides a minimum 1.2 ratio of revenues to expenses. The model examines multiple scenarios with respect to the size and phasing of each project.

J.5 COMPARISON OF ALTERNATE MODELS

The recommended student housing master plan for Millersville University allows development opportunities for both public/private partnerships and private partnerships. Based upon our team’s experience with a variety of similar student housing projects within the PA State System of Higher Education (PASSHE), the public/private partnership model for on-campus student housing projects can be less costly and more efficient than the public procurement process. The public procurement model process is hampered by PASSHE institutional procedures, policies and time frames. The public/private partnership model, wherein a University Affiliated 501-C-3 engages a private developer to design, construct and guarantee project costs, is not hampered by such requirements. As has occurred at other PASSHE University and University Affiliated 501-C-3 Partnerships for recent successful student housing projects, formal agreements would be developed by these parties to address financial and other related legal issues regarding the implementation of the student housing master plan.

Development of on-campus student housing require Davis-Bacon wage rates. To date, The PA Department of General Services has approved Davis-Bacon residential rates for wood framed student housing up to 4 stories. Such construction systems and related residential rates have been assumed for the Millersville University student housing plan.
J.6 PHASING OPTIONS

The two mid-rise (10-story) residence halls, Lenhardt and Burrowes, will be removed. Some combination of the proposed James Street Residence Halls, the Prince Street Residence Hall, and the Centennial Drive Residence Halls will replace the lost beds according to the phasing options described below. The goal is to marginally increase the bed count within the 10-year master plan period, with additional growth beyond 10 years. The remaining seven residence halls have had maintenance investment in recent years, and will be further renovated to provide living-learning spaces on ground floors and study lounges on upper floors. These renovations will result in the loss of a number of beds.

Currently there are 2,275 beds in the residence hall system.

**PHASING OPTION A—Phase 1 (0 to 5 years)**
- Construct James Street Residence Halls (4 floors) 628 beds
- Construct Prince Street Residence Hall (4 floors) 244 beds
- Remove or take off-line Lenhardt Hall -320 beds
- Remove or take off-line Burrowes Hall -337 beds
- Remove beds for living-learning space in existing halls - 55 beds
- Net Additional Beds 160 beds

**PHASING OPTION A—Beyond 10 Years**
- Construct Centennial Drive Residence Halls (4 floors) 476 beds to accommodate future growth

(See Section E: The Campus Master Plan for complete campus phasing plans.)

Phasing Option B allows for three-story residence halls in lieu of 4-story. It also allows Mifflin and Potter Houses to remain on Prince Street for an indefinite period of time.

**PHASING OPTION B—Phase 1 A (0 to 5 years)**
- Construct James Street Residence Halls (3 floors) 449 beds
- Remove Burrowes Hall -337 beds
- Net Additional Beds 112 beds

**PHASING OPTION B—Phase 1 B (0 to 5 years)**
- Construct Centennial Drive Residence Hall 1 (4 floors) 238 beds
- Remove Lenhardt Hall -320 beds
- Net Additional Beds - 82 beds
- Phase 1 Total Net Additional Beds 30 beds

(Can begin renovation of living-learning space in existing halls)

**PHASING OPTION B—Phase 2 (6 to 10 years)**
- Construct Centennial Drive Residence Hall 2 (4 floors) 238 beds
- Remove beds for living-learning space in existing halls - 55 beds
- Net Additional Beds 183 beds

**PHASING OPTION B—Beyond 10 years**
- Construct Prince Street Residence Hall (4 floors) 238 beds to accommodate future growth
## K.1 CAPITAL PROJECTS OVERVIEW

The attached Capital Projects List includes estimates of probable costs for projects recommended in the Master Plan. Projects are listed by Phase:

- **Phase 1**: 0 to 5 years
- **Phase 2**: 5 to 10 years
- **Phase 3**: 10 years and beyond

Projects are then listed by type: Academic, Administration, Athletic, Green Space, Roads/Parking, Residential, Student Support, and Utilities.

Estimates of probable cost were generated in various ways:

- If the University has already created a budget for a project, that budget estimate was used.
- Cost estimates for new and renovated housing were prepared by Brailsford & Dunlavey (B & D).
- Costs/gross square foot of proposed buildings were used for remaining projects.
- Cost estimates for relocations and building maintenance projects are not included.

### Phase 1 (0 - 5 Years)

<table>
<thead>
<tr>
<th>NO.</th>
<th>PROJECT NAME</th>
<th>PROJECT TYPE</th>
<th>YEAR</th>
<th>COST / UNIT</th>
<th>PROJECT COST</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>Allegheny House demolition</td>
<td>Academic</td>
<td>0 to 5</td>
<td>20 / gsf</td>
<td>1,366</td>
<td>27,320</td>
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<td>2</td>
<td>Armstrong House demolition</td>
<td>Academic</td>
<td>0 to 5</td>
<td>20 / gsf</td>
<td>1,505</td>
<td>30,100</td>
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<td>3</td>
<td>Ganser Library Improvements</td>
<td>Academic</td>
<td>0 to 5</td>
<td></td>
<td>20,137,700</td>
<td>budgeted project</td>
</tr>
<tr>
<td>4</td>
<td>Susquehanna House demolition</td>
<td>Academic</td>
<td>0 to 5</td>
<td>20 / gsf</td>
<td>2,597</td>
<td>51,940</td>
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<tr>
<td>5</td>
<td>Visual &amp; Performing Arts Center</td>
<td>Academic</td>
<td>0 to 5</td>
<td></td>
<td>25,940,000</td>
<td>budgeted project</td>
</tr>
<tr>
<td>6</td>
<td>Brooks Hall Renovation</td>
<td>Athletic</td>
<td>0 to 5</td>
<td></td>
<td>7,850,000</td>
<td>budgeted project</td>
</tr>
<tr>
<td>7</td>
<td>NCAA Tennis Facility</td>
<td>Athletic</td>
<td>0 to 5</td>
<td></td>
<td>2,308,828</td>
<td>inc. Concessions, Grandstands</td>
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<tr>
<td>8</td>
<td>Pucillo Gymnasium Renovation</td>
<td>Athletic</td>
<td>0 to 5</td>
<td>180 / gsf</td>
<td>65,000</td>
<td>11,700,000</td>
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<tr>
<td>9</td>
<td>Spolis Field Artificial Turf</td>
<td>Athletic</td>
<td>0 to 5</td>
<td></td>
<td></td>
<td>732,954</td>
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<tr>
<td>10</td>
<td>Brooks Field Improvements</td>
<td>Green Space</td>
<td>0 to 5</td>
<td></td>
<td>14,636</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Frederick Mall—Phase 1</td>
<td>Green Space</td>
<td>0 to 5</td>
<td></td>
<td>2,926,381</td>
<td>High School Street to Creek Dr</td>
</tr>
<tr>
<td>12</td>
<td>Lake Improvements—material cost only</td>
<td>Green Space</td>
<td>0 to 5</td>
<td></td>
<td>15,048</td>
<td>High School lake</td>
</tr>
<tr>
<td>13</td>
<td>Landscaping and outdoor classroom</td>
<td>Green Space</td>
<td>0 to 5</td>
<td></td>
<td>236,811</td>
<td>west of VPAC in West Commons</td>
</tr>
<tr>
<td>14</td>
<td>Residence Quad renovation</td>
<td>Green Space</td>
<td>0 to 5</td>
<td></td>
<td>360,663</td>
<td>landscaping and walks</td>
</tr>
<tr>
<td>15</td>
<td>Bard Hall living-learning renov.</td>
<td>Residential</td>
<td>0 to 5</td>
<td></td>
<td>492,798</td>
<td>B &amp; D pro forma</td>
</tr>
<tr>
<td>16</td>
<td>Cambria House demolition</td>
<td>Residential</td>
<td>0 to 5</td>
<td>20 / gsf</td>
<td>2,185</td>
<td>43,700</td>
</tr>
<tr>
<td>17</td>
<td>Deihm Hall living-learning renov.</td>
<td>Residential</td>
<td>0 to 5</td>
<td>20 / gsf</td>
<td>708,012</td>
<td>B &amp; D pro forma</td>
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<tr>
<td>18</td>
<td>Gaige Hall living-learning renov.</td>
<td>Residential</td>
<td>0 to 5</td>
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<td>243,616</td>
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<td>23</td>
<td>Luzerne House demolition</td>
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<td>20 / gsf</td>
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<td>24</td>
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<td>20 / gsf</td>
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<td>25</td>
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<td>20 / gsf</td>
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<td>27</td>
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<td>28</td>
<td>Frederick Street Improvements</td>
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<td>30</td>
<td>Parking Lot—former tennis courts</td>
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<td>670,665</td>
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<tr>
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<td>Roads/Parking</td>
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<td>32</td>
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<td>Entech estimate</td>
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### Phase 3 (10+ Years)

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<th>COST CALCULATION</th>
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<th>NOTES</th>
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<td>54</td>
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<td>Athletic</td>
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<td>58</td>
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<td>GRAND TOTAL</td>
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<td>266,517,435</td>
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</table>
M.1 OVERVIEW

The Campus Master Plan is a framework or guide for decision making over the next ten years and beyond. The Master Plan considers all aspects of the physical campus at one time, and sees each recommendation as a contribution to the larger whole. Generally, improvements to one component of the campus are planned to enhance the quality of other components, and of the entire campus. For example, the size and position of new residence halls are planned to meet the requirements of the residence life program, but they also form the edges of quality open spaces which improve the pedestrian experience. Similarly, unintended negative consequences are avoided in comprehensive planning. For example, increasing the quantity of parking in the center of campus for the convenience of motorists decreases space for pedestrians. Motorists become pedestrians, so a comprehensive, rather than a project by project approach, is needed.

Some of the Plan’s recommendations are specific, such as the alignment, dimensions, and materials for the East Frederick pedestrian mall. Other recommendations are more general, such as replacing parking lots with tree-lined lots over time. Generally more near-term initiatives are more specific, allowing more flexibility in the detailed planning of those projects further in the future.

The Master Plan not only provides recommendations for change, but also the rationale for change. So when a project comes up for implementation, administrators and designers have a framework for more detailed planning.

M.2 LEVELS OF PLANNING

The Campus Master Plan, as described and illustrated in Section E, establishes the overall intent of Millersville University in developing the campus. It is built on the background information and regional context outlined in previous sections. The Campus Master Plan confirms the network of land and building uses that will evolve to meet the programmatic needs of the University. Section E includes Campus Design Guidelines which, if referred to by designers retained by the University, will serve to achieve the Master Plan Goals over time.

In subsequent sections, analysis and recommendations are broken down by topics:
- The Built Campus
- The Outdoor Campus
- Circulation and Parking
- Academic Space
- Housing

Recommendations are also organized by geographic areas in both The Built Campus, Section F, and The Outdoor Campus, Section G, by:
- North and West Campus
- East Campus
- South Campus

These sections serve as a guide as projects in each of these areas arise.

M.3 PROCESS

Project Initiation

The campus changes through the implementation of projects, some of which are currently underway, and others which are anticipated in this Campus Master Plan. Other projects, not yet known, may arise even during the 10 years covered in this Plan. These projects will not be disruptive if they recognize the Master Plan Goals and are executed to align with the Campus Design Guidelines.

Projects are initiated within the University. Project goals, an initial program, and a budget are established before outside consultants are retained. Design or programming consultants may complete a more detailed program.

Design Management

The President’s Cabinet has the responsibility of implementing the approved Campus Master Plan. The publication of the Campus Master Plan will serve as criteria to evaluate proposed projects and changes to departmental spaces and/or maintenance projects. This Plan will assist in defining future projects and their scope. Working with the Vice President for Finance and Administration and the Department of Capital Construction, Contracting & Design, the Cabinet will review changes to the campus public realm, new buildings or additions, outdoor space projects, changes to interior spaces and updates of the Campus Master Plan. The Cabinet, as in the past, will discuss and review large projects that have significant impact on the campus to ensure University standards have been met.