Greater Hartford Campus Master Plan

November 2004

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University of Connecticut

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Campus Master Plan

Introduction

The University of Connecticut's Greater Hartford Campus is located in the town of West Hartford, a residential suburb of the Hartford metropolitan area in central Connecticut.

The University of Connecticut (University) established the Hartford Extension Center in 1939. The Hartford regional campus was organized in 1946, and its offerings were extended to meet the increasing demand for education after World War II. In the fall of 1970, the University moved to its present location as the University of Connecticut at Greater Hartford. The Greater Hartford Campus is the largest of the University's five regional campuses and part of the tri-campus system that includes Hartford, Torrington, and Waterbury.

The 58-acre campus is sited within the primarily residential neighborhood of West Hartford. The campus is surrounded by public streets on the northern, eastern, and southern edges, and private residences on the western edge. Campus vehicular entrances are located along the northern and southern edges on Lawler Road and Asylum Avenue. Faculty/staff parking areas are located on campus. Student parking and recreational fields are located across Trout Brook Drive. A detention pond at the center of campus captures runoff and releases it slowly into Trout Brook. Most of the open spaces on campus are maintained as lawn areas.

The campus consists of four academic buildings informally organized along a primary walkway that extends across Trout Brook Drive to the student parking area. The former School of Law building is home to the campus library, campus administration, and program offices. The School of Social Work programs are primarily located within the School of Social Work building, with some graduate student offices located in the former School of Law building. All of the Hartford Academic Programs are located in the Undergraduate Building. The Information Technology Center (IT Center) is the newest building and is the central location for computing facilities. Additionally, there is a small facilities building adjacent to the Undergraduate Building.

Planning Purpose

The purpose of the Greater Hartford Campus Master Plan was to:

- Conduct a space needs analysis to assess existing space utilization and space needs for the Greater Hartford Campus and to project future needs in accordance with the Tri-Campus Academic Plan.
- Develop a facilities assessment to review the physical attributes and conditions of the former School of Law building, School of Social Work building, and Undergraduate Building, and develop recommendations for their use or redevelopment.
- Establish a physical framework for campus development to address the findings of the space needs analysis and facilities assessment, as achievable within the 21st Century UConn Initiative.
- Establish a vision for campus development beyond provisions of the 21st Century UConn Initiative.

Planning Process

The master plan process was initiated in September 2003. Work sessions and interviews were conducted with campus and University representatives to understand current facility issues and future programmatic needs. A campus-wide open house was held to inform faculty, staff, and students on the master plan process and to facilitate a dialogue on priorities, observations, and concerns regarding the campus and its facilities.

For the space needs analysis, a detailed inventory of available spaces within each of the four campus buildings was conducted to assess base year (2003) space needs for current enrollments. A preliminary space needs analysis was developed in response to growth and enrollment projections provided by the University administration for target year 2013. The analysis was presented to the University administration for review and refinement, and a final space needs model was established.

The facilities assessment focused primarily on physical attributes and conditions for the former School of Law building, School of Social Work building, and Undergraduate Building. This review was based primarily on visual observations, random operation of equipment, and partial review of relevant documents. Additional detailed assessments of the campus mechanical systems were derived from interviews with facilities personnel.

Recommendations from the space needs analysis and facilities assessment were reviewed in preparing the preliminary master plan alternatives and scenarios for building reuse and/or new construction and were presented to University representatives in April 2004. Input received from the University and Greater Hartford Campus administration was incorporated in the development of the final campus master plan recommendations.

Campus Assessment

The following sets of studies and observations were instrumental in defining the objectives for the Greater Hartford Campus Master Plan.

Space Needs Analysis

In summary, the Greater Hartford Campus is projected to need approximately 28,000 assignable square feet (ASF) of additional space in target year 2013. This represents a 26 percent increase over currently available space. Of this projected additional space need, the Hartford Academic Programs, library, and recreation/student union space needs are the largest.

For additional information refer to Appendix A: Space Needs Analysis for the Campus Master Plan.

Planning Session in Progress

Space Needs Analysis Summary

	Existing	2013 Needs	Future Add.	Notes
Hartford Academic Programs (subtotal - ASF)	**53,444**	**63,288**	**9,844**	1,512 ASF lab space in Computer Center included in calculations
Social Work (subtotal - ASF)	**19,236**	**22,808**	**5,564**	Consolidate Social Work into a single location
In Social Work Building	*17,244*			
In Old School of Law Building	*1,992*			Backfill vacated area with Academic Support
Academic Support (subtotal - ASF)	**24,235**	**34,087**	**8,100**	Assumes backfill of areas vacated by Social Work in Old School of Law Building
Library	13,154	22,263	9,109	
Assembly/Exhibit (subtotal)	4,617	5,600	983	
In Undergraduate Building	*3,417*			
In Old School of Law Building	*1,200*			
Zachs Community Center	3,664	3,664	0	
Physical Plant	2,800	2,560	-240	Future needs calculation does not include surplus - space not suitable for alternate uses
Auxiliary Space (subtotal - ASF)	**11,361**	**16,078**	**4,717**	
Recreation	1,235	2,029	794	
Student Union	10,126	14,049	3,923	
Campus-wide total (ASF)	**108,276**	**136,261**	**28,225**	
Campus-wide total (GSF - 1.5x)	**162,414**	**204,392**	**42,338**	

Facilities Assessment

The following observations were noted regarding the campus and its buildings:

- Former School of Law – This building is marginally fulfilling its current functions. However, a suitable layout and the ability to have adequately sized rooms make it feasible for redevelopment and reuse.
- School of Social Work – This building is also marginally fulfilling its current function as a classroom and office facility. Significant renovation is required to bring the facility up to modern educational standards, the cost of which may exceed that of demolition and new construction.
- Undergraduate Building – This building is adequately fulfilling its current function. However, its classrooms and offices do not meet current or near future technology requirements and is lacking in terms of overall image. The necessary upgrades will most likely trigger a series of building system improvements, ultimately leading to a full interior gut and renovation to meet current teaching and life safety requirements. The exterior envelope can be economically renewed to extend the useful life of the building.

For additional information, refer to Appendix B: Limited Condition Survey and Usability/Reuse Study.

Pedestrian Approach from Trout Brook Drive

Campus Physical Framework and Environment

The Greater Hartford Campus has developed over three decades into a collection of buildings devoid of a sense of place. Buildings have been sited in response to the location of the main pedestrian walk, avoiding those areas unsuitable for construction such as wetlands or poor soils. As a qualitative assessment of the campus environment, the following observations were noted:

- The campus does not present a powerful image to the community. Buildings are set back on the site, and its presence along Trout Brook Drive and Lawler Road is marginal. Though the former School of Law building is prominently located on Asylum Avenue, it lacks the setting or image evocative of a world class educational institution.
- The student and visitor parking area across Trout Brook Drive is not adequately maintained or aesthetically landscaped. Members of the campus community have also expressed security concerns about walking between the campus and the parking lot.
- The Trout Brook Drive pedestrian crosswalk, though signalized, is still somewhat unsafe as vehicles occasionally miss the signal, and pedestrians enter the roadway without requesting the signal to stop traffic. Physical enhancements are required to improve the visual presence of this pedestrian gateway. This could include landscape enhancements, site walls, site lighting with banners, and utilization of newer technology including LED lighting embedded in the roadway that is triggered when a pedestrian enters the road right-of-way.
- The main campus identification signage at the intersection of Asylum Avenue and Trout Brook Drive is not prominent and does not follow common University design standards.
- Upon arriving at campus from any of its three edges, there is no apparent sense of arrival, nor the notion of entering a collegiate environment.
- The campus is presently divided into programmatic islands. Buildings are informally organized along the main pedestrian walk. However, this arrangement does not create a well-organized campus or vibrant community spaces – a critical component for a commuter campus. Greater opportunities for interaction are vital to enhance academic interaction and sense of community.
- Large areas of the campus open environment, most of which do not have any active uses, are maintained as mowed lawn at a significant expense. The detention pond is not effectively integrated into the campus landscape.

Aerial View of Campus

Objectives

The following key physical planning objectives were established, based on the understanding of the campus physical environment and its programmatic and facilities requirements:

- Establish a more traditional campus setting that reflects the University's expanding four-year degree offerings and mature client base.
  - Expand student life amenities.
  - Expand and upgrade dining services.
  - Enhance facility quality.
  - Improve access to technology.
- Promote a campus setting that encourages inter-departmental collaboration.
  - Maintain a single campus library and student union.
  - Cluster buildings and funnel pedestrian circulation together.
- Promote faculty and student interaction.
  - Integrate faculty offices and classrooms.
  - Provide social areas/niches for informal gathering.
- Strengthen the campus' public image.
  - Consider positioning future buildings to address the campus edge.
  - Enhance the campus' edge landscape and signage treatment.
- Improve campus security.
  - Enhance the pedestrian crosswalk over Trout Brook Road.
  - Incorporate more emergency phones and ensure adequate night lighting.
  - Open up visibility of the commuter/visitor parking lot from Trout Brook Drive.
- Reduce operational maintenance.
  - Reduce higher-maintenance aspects of the landscape.
  - Consider native landscaping.
- Maintain flexibility to accommodate future growth/change beyond the 21st Century UConn Initiative.
  - Develop a long-term framework for growth and phasing.

Planning Recommendations

The following issues will drive campus change:

- The Hartford Academic Program will expand beyond the available space within the existing Undergraduate Building.
- Renovation and retrofitting of the School of Social Work building may not be cost-effective.
- Library and community space is not adequate.
- A stronger campus image is required.

Key master plan recommendations are to:

- Build a new Undergraduate/Multi-Use Building (93,000 GSF) along the western edge of Trout Brook Drive. The location and presence of this new building will help establish a stronger image and provide a welcoming gateway to the campus.
- Develop a new plaza space west of the new Undergraduate/Multi-Use Building to create an outdoor student gathering space organized around and overlooking an expanded and visually improved central pond.
- Relocate all undergraduate programs to the new Undergraduate/Multi-Use Building.
- Renovate the existing Undergraduate Building. Relocate the School of Social Work program and library to the renovated Undergraduate Building.
- Demolish the School of Social Work building and reserve for future campus development needs.
- Improve the safety of the pedestrian crossing at Trout Brook Drive by increasing its visibility and introducing traffic calming measures.
- Develop a landscape maintenance program to prioritize planting and maintenance to specific zones on campus that are closer to buildings or those designed as public spaces for community interaction. For peripheral areas, promote the use of native planting that requires minimal maintenance.

21st Century UConn Plan

Future Campus Development

Beyond the 21st Century UConn Initiative provisions, the master plan establishes a framework for future campus development to allow for the expansion of academic programs, relocation of support facilities across Trout Brook Drive, improvements to vehicular and pedestrian movement, and strengthening campus organization through careful building and walkway placement.

- Relocate the vehicular entry on Asylum Avenue west of the former School of Law building to eliminate present-day vehicular/pedestrian conflicts that occur as people move from this building to the center of campus.
- Develop a new walkway system that engages the detention pond as a central feature, organizes the campus buildings to respond to each other, and provides opportunities for campus interaction.
- Utilize the site of the former School of Social Work building and the area to the northeast of the IT Center for future campus facilities.
- Plan for additions to the new School of Social Work and former School of Law buildings.
- Add additional detention capacity as needed to manage future growth in an aesthetically pleasing manner, and make the detention pond a more prominent central feature.
- Construct a new Facilities Building across Trout Brook Drive at the north edge of the student parking area. Relocate the facilities functions to the new location and demolish the existing Facilities Building.
- Expand the parking areas north of the former School of Law building and at the current location of the Facilities Building for additional faculty, staff, and visitor parking requirements.
- Develop a daycare facility across Trout Brook towards the southeast end of the Trout Brook Drive parking lot, if and when prudent.

Future Campus Development

Appendix A

Space Needs Analysis for the Campus Master Plan
Prepared by Paulien & Associates, Inc.
June 2004

University of Connecticut
Greater Hartford Campus

Space Needs Analysis
for the
Campus Master Plan





June 2004

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SPACE NEEDS ANALYSIS
FOR THE CAMPUS MASTER PLAN
UNIVERSITY OF CONNECTICUT
GREATER HARTFORD CAMPUS

Prepared by
Paulien & Associates, Inc.

June 2004

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1.0 KEY FINDINGS AT A GLANCE

- The utilization of classrooms at the base term, Fall 2002, was 22 hours at 56%. The number was slightly smaller than it might have been because the two classrooms in the Computer Center showed no scheduled use. They are apparently scheduled directly by the Computer Center with faculty. UConn is urged to see that these are in the future dealt with in a way that allows them to be part of campus utilization reporting. Use was highest from 9:00 AM to 1:00 PM, with additional spikes at 2:00 PM and 6:00 PM.

- Teaching labs averaged 10 hours per week at 72% student station occupancy when the rooms were scheduled. The teaching laboratory in the Computer Center again shows no use since it apparently is scheduled directly between the Computer Center and departments. Laboratory utilization was strongest in the afternoon with relatively weak use on Wednesdays and very low use on Fridays.

- This study assumes the move of Hartford-based School of Business Administration programs to Downtown Hartford and the development of the Public Affairs program at this campus.

- The full-time equivalent student target number used for the study is 1,561, which translates to 2,082 headcount students.

- The faculty and staff numbers for the campus show growth similar to the student numbers resulting in needs in the categories of research and offices.

- The library also shows a fairly substantial need for increase for the target year along with student union functions.

- There is a total need projected of over 30,000 ASF of additional space, a 28% increase over current space at the target year. The guideline analysis at the base year showed the campus approximately in balance with a small 3% need primarily driven by needs for the library and offset by a fairly substantial surplus in classroom space.

- The total guideline space shown works out to 89 ASF per full-time equivalent student. The current ratio for this campus is 82 assignable square feet per full-time equivalent student.

2.0 INTRODUCTION

Paulien & Associates, Inc. of Denver, Colorado was contracted in February 2003 to conduct several studies for the University of Connecticut in Storrs; a Classroom & Utilization Study, Classroom Mix Study, and Analysis by Space Type to be used for development of the Campus Master Plan Update, which is being developed under the leadership of SmithGroup JJR, in Ann Arbor Michigan. The study for Greater Hartford was added in the summer of 2003. In February, 2004, University of Connecticut administration provided the consultants with revised student enrollment and staffing information. This report reflects these new parameters for both the Hartford academic programs and the School of Social Work. Other modifications since the preparation of the first draft include the departure of the MBA program from the Greater Hartford Campus and the planned introduction of the Public Affairs program.

As part of the University of Connecticut's umbrella of regional campuses, this study examines the space needs for the University of Connecticut's Greater Hartford Campus in West Hartford, including the School of Social Work. UConn-Greater Hartford is the largest of the five regional campuses. Regional sites in Hartford, Torrington and Waterbury make up the UConn Tri-Campus System. The University's other campuses across the state, including the School of Law in Hartford, are not part of this analysis.

The Greater Hartford campus, at its present West Hartford location since 1970, contains five buildings on 58 acres. The Harleigh B. Trecker Library, which also contains administrative and program offices, as well as research spaces, once housed the Law School before it moved to its present location in the mid-1980's. The Undergraduate Building houses classrooms, laboratories and faculty offices as well as the Gampel Student Center. The School of Social Work building located at the center of campus contains classrooms, offices and support spaces, and the Zachs Community Center. The Computer Center Building was constructed in 2000 with UCONN 2000 funding and houses the campus' computer classrooms and labs. A small facilities structure with garages exists at the edge of campus and houses maintenance personnel. Student and visitor parking are located across the street from Trout Brook Drive.

3.0 PROCESS

Originally, Paulien & Associates was provided with enrollment, course, and staffing data from Fall 2002 by various administrative and academic personnel at the University of Connecticut's Greater Hartford Campus. Upon initial request, it was determined that no official facilities inventory existed for the Greater Hartford Campus. The consultant pulled relevant data from building floor plans to create a facilities database and performed an extensive on-site measurement and verification process in mid-October 2003. The consultant utilized this facilities inventory for the space needs analysis.

On–site work sessions and interviews were conducted on September 11, 2003 with the Associate Vice Chancellor of the Tri-Campus administration, the Greater Hartford Campus Director, Librarian, Dean and Associate Dean of the School of Social Work and several members of SmithGroup JJR, the master planning consultants. A noon open forum for the campus community with the consultants was well attended. These work sessions included discussions of future programs and growth as well as verification of existing course, staffing and enrollment

data. During the consultant's time on site, visits were made to individual campus buildings campus to gain familiarity with the spaces and grounds.

In February 2004, University of Connecticut administration asked the consultants to revise the original space needs analysis study based on Fall 2003 enrollment and staffing information for the base and target years. This study reflects the new information.

The findings contained in this report were reviewed on site with representatives of Tri-Campus administration, the Director of the Greater Hartford Campus, and the Associate Dean for Social Work. A change from Tri-Campus administration increasing the percentage of faculty conducting research on-site at the target year has been incorporated into this document.

In May 2004, the Associate Dean for the School of Social Work requested a change in the number of faculty, both current and projected, for the space needs analysis. In June 2004, the request was approved by the Senior Vice Provost for Academic Affairs. This change involved adding six additional faculty positions to the existing faculty headcount at the base year (total of 33 positions), and increasing the faculty headcount projection to equal the new base year data plus three new positions (total of 36), for the target year.

4.0 UTILIZATION OF EXISTING CLASSROOMS & TEACHING LABORATORIES

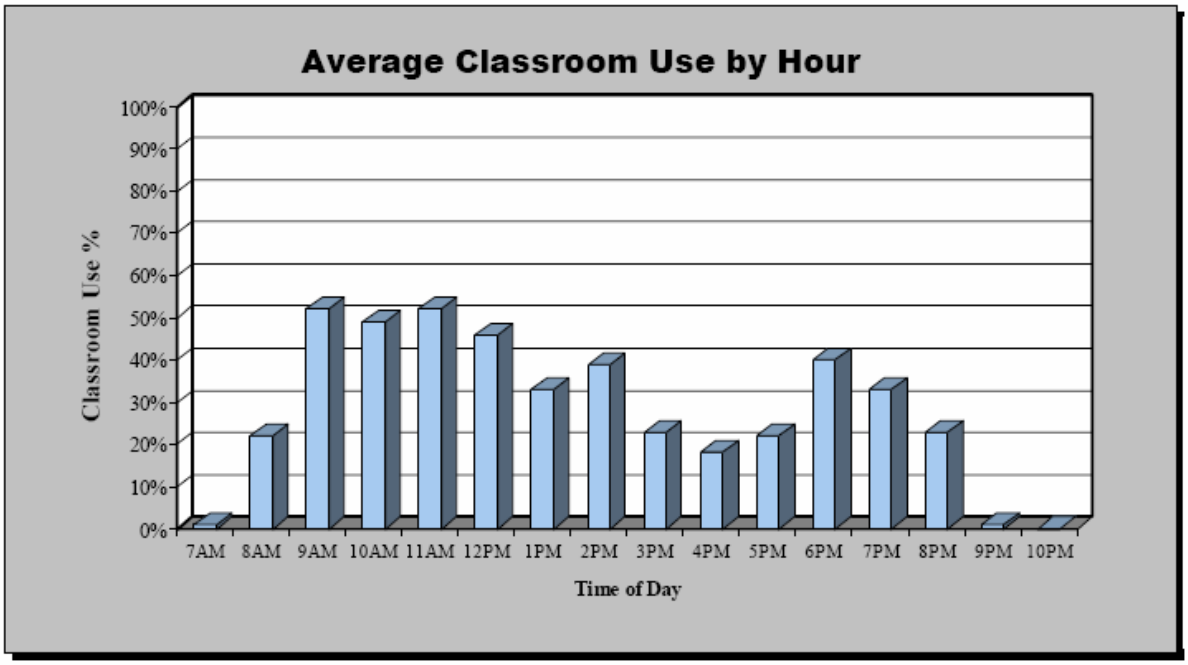
Classrooms

As part of the planning process, Paulien & Associates conducted an analysis of the utilization of classrooms and teaching laboratories for Fall 2002. The first pass of classroom utilization showed an average of 19 hours per week with 56% of the seats filled when classes were scheduled. No utilization was shown for the four classrooms on the fourth floor of the Library. Investigation revealed that Business hand-schedules its courses and, therefore, that information was not added to the computerized records. By adding up the 37 sections shown as taught by Business Administration at Hartford in Fall 2002, this produces an average of 28 hours of use for those four rooms. The two classrooms in the Computer Center did not show any scheduled use in Fall 2002. The consultants note that Computer Science courses continue to be shown as scheduled in the Undergraduate Building. The Registrar notes these rooms are directly scheduled by the Computer Center. It is possible that these rooms should be considered open laboratories, or if courses are actually scheduled into them, the location needs to be added or changed on the course records. This is worthy of a UConn follow up. The findings by building were as follows.

	Number of Classrooms	Weekly Room Hours	Student Station Occupancy %
Computer Center	2	0	0%
Library (Business Administration)	4	28	n/a
Social Work	8	20	57%
Undergraduate Building	18	24	55%
Total or Weighted Average	32	22	56%

The consultants are assuming 30 hours per week at 65% occupancy as a planning goal for the Greater Hartford Campus.

Utilization by time of day showed the heaviest use between 9:00 AM and Noon when more than half the classrooms are in use and relatively strong use from 1:00 PM to 3:00 PM in the afternoon and from 6:00 PM to 8:00 PM in the evening. It should be noted that the four rooms for Business Administration in the Library showed no use under this analysis because all of the courses are marked "to be arranged" rather than listed with a particular room. Therefore, those rooms and the Computer Center classrooms discussed above, were removed from the time of day analysis shown below:



NOTE: Average of Monday through Thursday use.

In looking at time of utilization by day, the consultants adjusted the table so that the six rooms that showed no use in the course records the four used by Business Administration and scheduled by them and the two in the Computer Center where Computer Center staff makes the scheduling arrangements with professors. Even with those six classrooms removed, Greater Hartford has a maximum of 20 out of 26 classrooms scheduled at the peak time. It is interesting to note that there is more utilization on Saturday than there is on Friday.

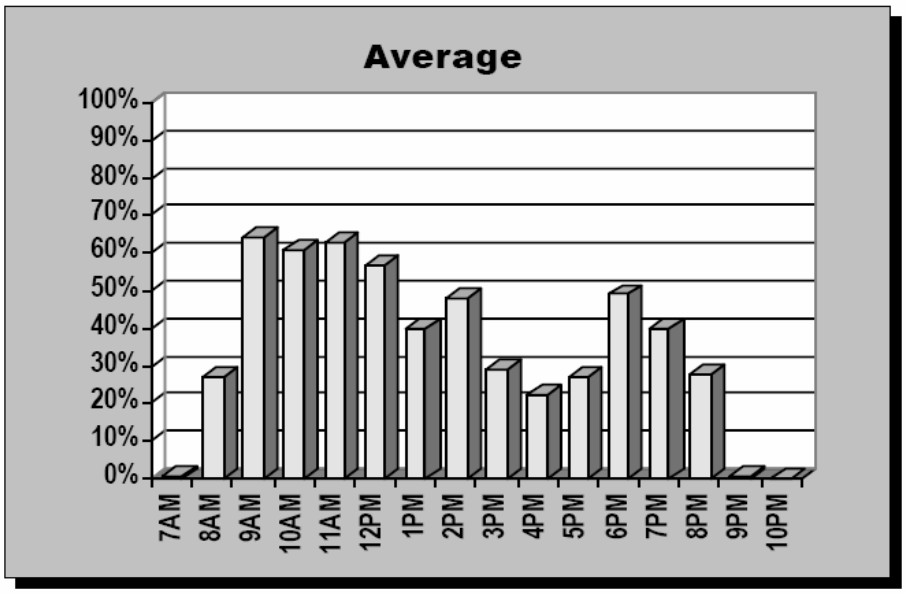
University of Connecticut • Greater Hartford

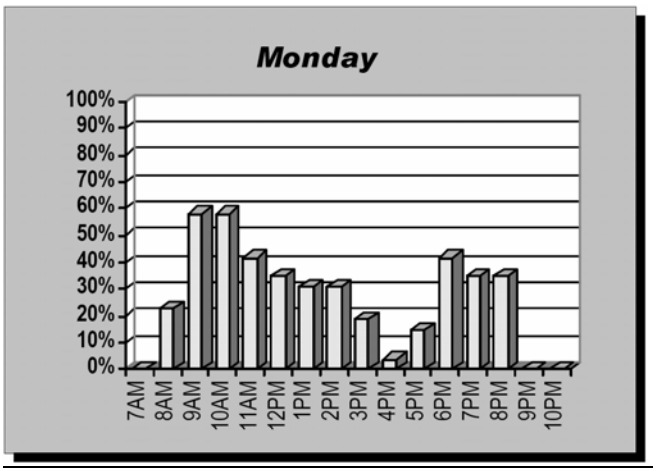
Time of Day	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		Average*	
	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use
7:00 AM	0	0%	0	0%	0	0%	1	4%	0	0%	0	0%	0	0%	0	1%
8:00 AM	6	23%	8	31%	7	27%	7	27%	0	0%	4	15%	0	0%	7	27%
9:00 AM	15	58%	16	62%	20	77%	16	62%	4	15%	7	27%	0	0%	17	64%
10:00 AM	15	58%	14	54%	19	73%	15	58%	4	15%	7	27%	0	0%	16	61%
11:00 AM	11	42%	21	81%	15	58%	19	73%	4	15%	7	27%	0	0%	17	63%
12:00 PM	9	35%	19	73%	13	50%	18	69%	4	15%	7	27%	0	0%	15	57%
1:00 PM	8	31%	12	46%	8	31%	14	54%	3	12%	7	27%	0	0%	11	40%
2:00 PM	8	31%	14	54%	11	42%	17	65%	3	12%	2	8%	0	0%	13	48%
3:00 PM	5	19%	7	27%	8	31%	10	38%	3	12%	2	8%	0	0%	8	29%
4:00 PM	1	4%	9	35%	6	23%	7	27%	3	12%	2	8%	0	0%	6	22%
5:00 PM	4	15%	9	35%	8	31%	7	27%	0	0%	0	0%	0	0%	7	27%
6:00 PM	11	42%	17	65%	13	50%	10	38%	0	0%	0	0%	0	0%	13	49%
7:00 PM	9	35%	14	54%	10	38%	9	35%	0	0%	0	0%	0	0%	11	40%
8:00 PM	9	35%	7	27%	6	23%	7	27%	0	0%	0	0%	0	0%	7	28%
9:00 PM	0	0%	0	0%	0	0%	1	4%	0	0%	0	0%	0	0%	0	1%
10:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

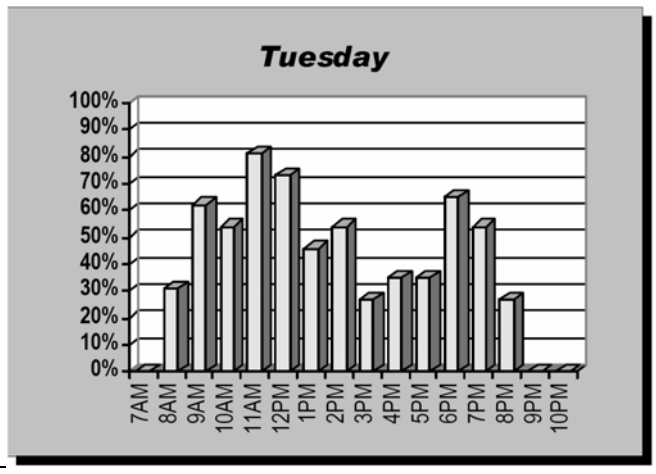
Note: Based on total classrooms of 26

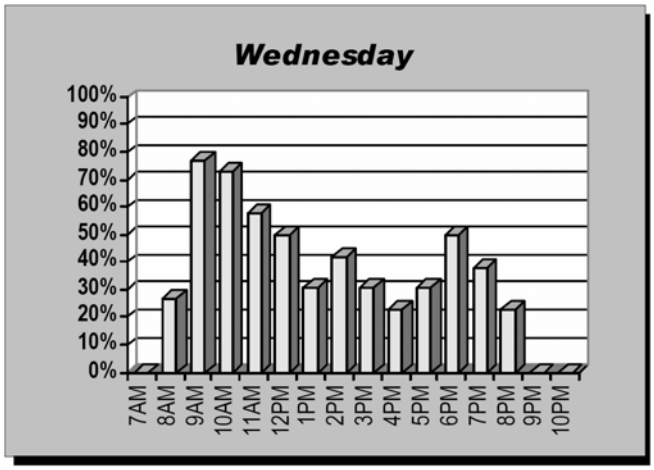
* Based upon the consultant's experience, Friday is typically underutilized, therefore the average is calculated on Monday thru Thursday use.

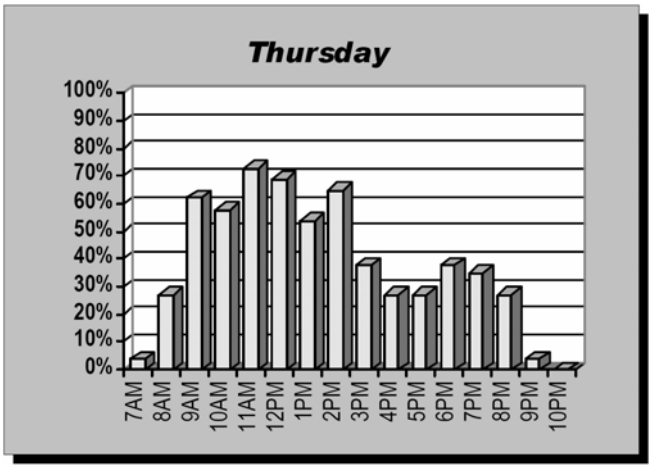
Percent of Classrooms In Use

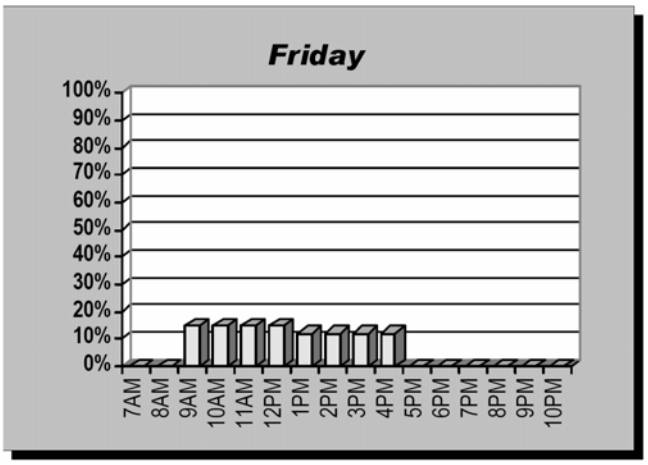


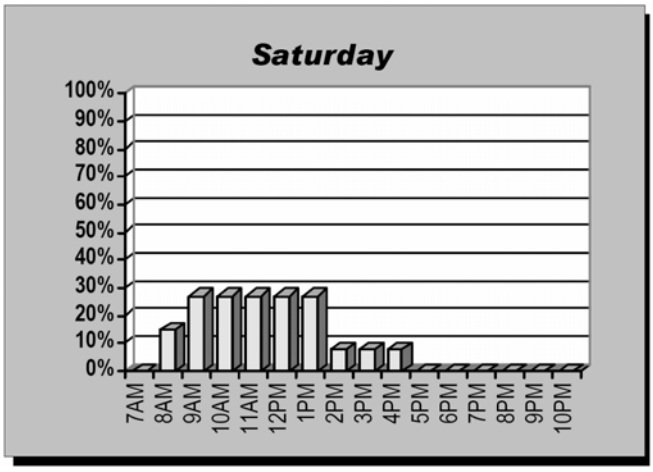












Classroom Utilization Analysis by Department Summary

College/Administrative Unit	No. of Rooms	Average Room Size	Average ASF per Station	Average Section Size	Average Weekly Room Hours	Hours in Use Student Station Occupancy %
Hartford	*18*	722	16	25	24	55%
School of Social Work	*8*	658	23	16	20	57%
AVERAGE		**702**	**18**	**22**	**23**	**56%**
TOTAL	**26**					

Teaching Laboratories

There are five laboratories in the Undergraduate Building which average 12 hours of scheduled use at 72% student occupancy. The laboratory in the Computer Center does not show any scheduled use. This may again be a course file data issue. See the comments under classrooms above. This produces a campuswide average of 10 hours per week for teaching laboratories at 72% occupancy.

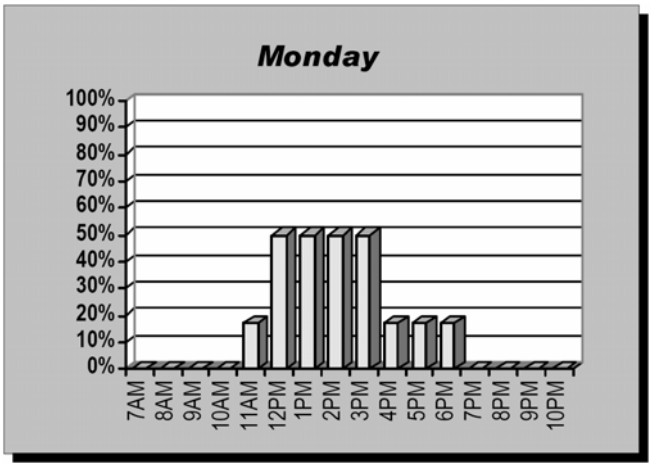
Teaching Laboratory Utilization Analysis by Department

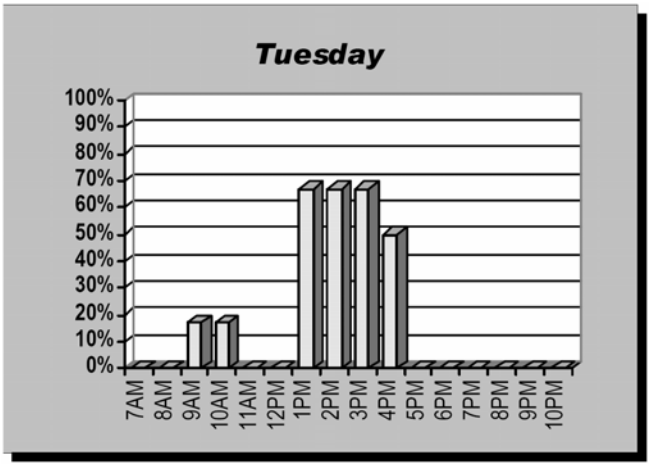
Room Id	Room Use Code	Assignable Sq. Ft.	No. of Stations	Assignable Sq. Ft. Per Station	Average Enroll-ment	Weekly Student Contact Hours	Weekly Room Hours	Hours in Use Student Station Occupancy %
Art								
Ugr-H 309	210	759	15	51	14	84	6	93%
Biological Sciences								
Ugr-H 206	210	1,050	24	44	15	145	10	60%
Chemistry								
Ugr-H 201	210	1,440	24	60	15	324	21	64%
Computer Lab								
CC 116.1	210	1,064	32	33	0	0	0	0%
Geology & Geophysics								
Ugr-H 214	210	1,200	24	50	23	210	9	97%
Physics								
Ugr-H 203	210	1,280	24	53	15	183	12	64%
AVERAGE		**1,132**	**24**	**48**	**14**		**10**	**72%**
TOTAL ASF		**6,793**						
NO. OF ROOMS		**6**						

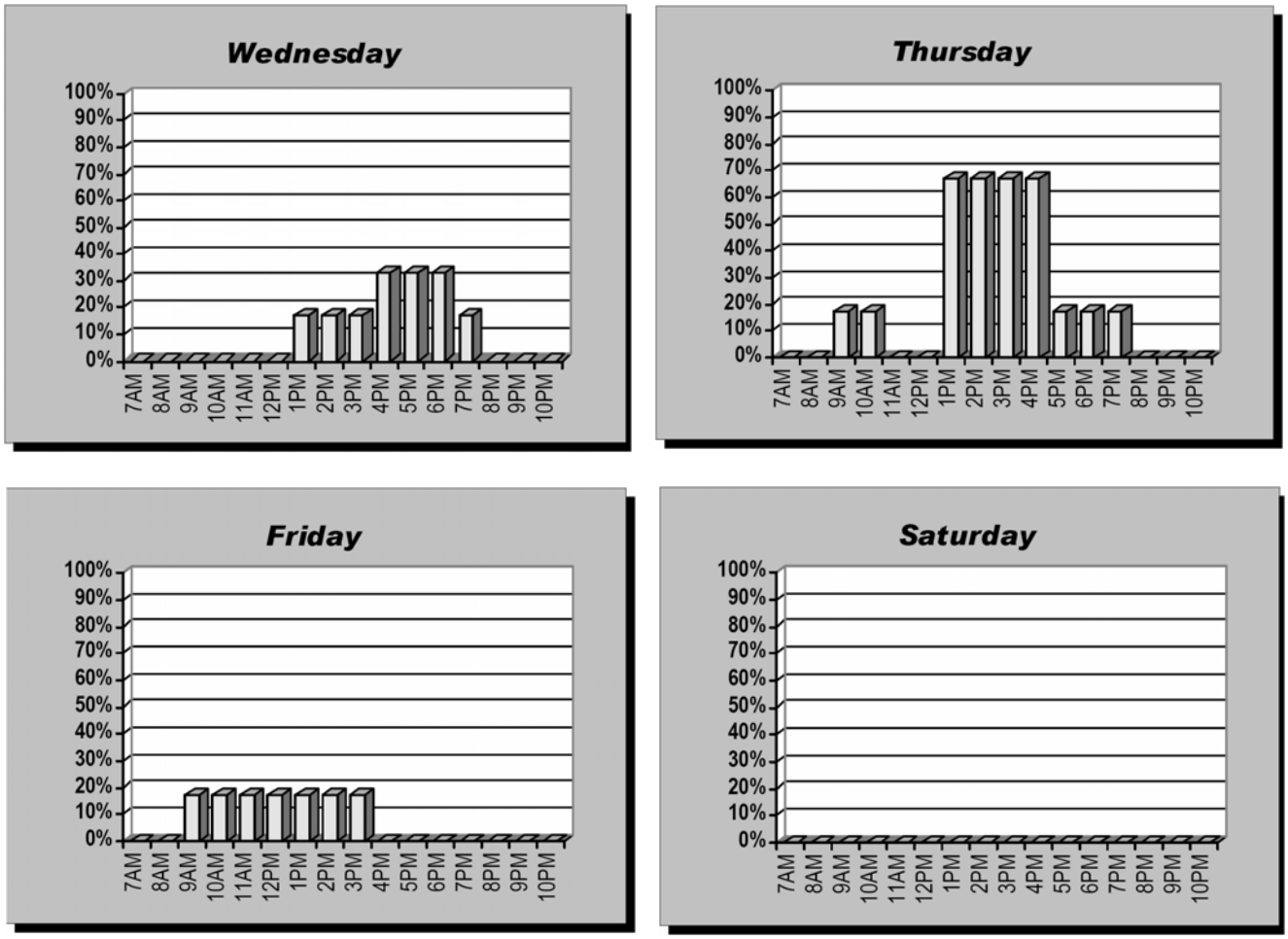
NOTE: Does not include related lab service space

An average of 20 hours at 75% is the lowest widely used planning goal.

A teaching laboratory analysis by time of day shows the majority of the laboratory use in the afternoon, as would be expected. At no time are more than four of the six laboratories in use.







5.0 FUTURE ENROLLMENT & STAFFING ASSUMPTIONS

While the School of Social Work is part of the Greater Hartford Campus, their student enrollment, courses, and staffing data are independent of the other undergraduate and graduate programs on the campus. As a result, future enrollment and staffing assumptions will be analyzed separately; first by the academic programs under the Greater Hartford Campus administration and second, by the School of Social Work.

Hartford Academic Programs

Over the 10 year span to the target year for this analysis of space needs, the University of Connecticut's Greater Hartford Campus anticipates modest growth in student enrollment, and minor growth in faculty and staffing. The consultants were provided with detailed enrollment data. Enrollment growth for the Hartford academic programs is projected at 7% for Fall 2004, 5% for Fall 2005, and 9% for Fall 2006. From Fall 2006 through Fall 2013, student enrollments are projected to be stable. Headcount and FTE for the Teacher Certification Program for College Graduates (TCPCG) and the Public Affairs program were projected at 60 student headcount each at target year.

Three undergraduate programs are currently offered at the campus as well as some classes for the MBA plus the M.Ed. for the Teacher Certification Program for College Graduates.

In analyzing the growth of academic programs under the Hartford umbrella, the overall projection in enrollment was from a Fall 2003 student headcount of 1,187 to a projected student headcount of approximately 1,519 for the Fall 2013 term, an increase of 28% over the planning period. During the Fall 2003 semester, the Greater Hartford Campus generated 883 full-time equivalent (FTE) students. The consultants projected Fall 2013 FTE of 1,130 based on the current FTE /HC ratio. To make this assumption, the consultants projected no change in the full-time/part-time student mix.

Fall Semester Term	Total Headcount Enrollment
1996	995
1997	904
1998	916
1999	1,009
2000	963
2001	990
2002	1,124
2003	1,187

From an historical perspective, between Fall 1996 and 2003, student enrollment increased certain years and decreased in others but has remained relatively steady as noted in the Hartford Campus Enrollment table. For the last seven years, the campus has averaged enrollments of 1005 students each fall semester with a growth rate of 15% over the eight year period.

Justification of modest growth in target year enrollments includes several programs in the planning stages. Bachelor's degrees are being planned in Psychology, Human Development & Family Studies, and in American Studies. Several master's degrees (Public Affairs, Liberal Studies, Survey Research) are also in various stages of development.

The following table exhibits enrollment and staffing projections:

University of Connecticut - Greater Hartford Campus
Actual and Projected Enrollments & Staffing - Fall 2003 to Fall 2013

Enrollment

Campus/College	Total Headcount Enrollment Fall 03	Total FTE - Fall 2003	Ratio FTE/HC	Fall 2004 - 7% Growth HC Enrollment	Fall 2005 - 5% Growth HC Enrollment	Fall 2006 - 9% Growth HC Enrollment	Fall 2007-2013 - Stable HC Enrollment	Fall 2013 FTE Projection
Hartford Academic Programs	1,142	842	0.74	1,222	1,283	1,399	1,399	1,031
TCPCG	45	41	0.90	48	51	55	60	54
Public Affairs Program	0	0	0.75	0	0	0	60	45
Total Hartford Programs	**1,187**	**883**		**1,270**	**1,334**	**1,454**	**1,519**	**1,130**
School of Social Work	563	431	0.77	563	563	563	563	431
Hartford Campus Enrollment Totals	**1,750**	**1,314**		**1,833**	**1,897**	**2,017**	**2,082**	**1,561**

Staffing (Headcount)

Campus/College	Full-time Faculty 2003	Part Time Faculty Fall 2003	Non-Faculty Staff Fall 2003	Total Faculty and Staff 2003	Full-time Faculty 2013	Part Time Faculty Fall 2103	Non-Faculty Staff Fall 2013	Total Faculty and Staff 2013
Hartford Academic Programs	28	82	25	135	34	100	28	162
College of Continuing Studies			4	4			5	5
Urban & Community Studies			1	1			1	1
Information Technology Center			3	3			4	4
Trecker Library (See Note 3)				-				-
Business Programs	2			2	3			3
Connecticut Small Business Dev. Center			4	4			4	4
Global Training and Development Institute	1			1	1			1
Hartford County Extension Center	2		15	17	2		15	17
UConn Co-Op Bookstore (See Note 3)				-				-
Hartford Facilities/Physical Plant			9	9			10	10
TCPCG	2	6	1	9	3	8	1	12
Public Affairs Program		0	0	0	12	8	13	33
Hartford Subtotal	**35**	**88**	**62**	**185**	**55**	**116**	**81**	**252**
School of Social Work	33	20	57	110	36	20	57	113
Hartford Campus Staffing Total	**68**	**108**	**119**	**295**	**91**	**136**	**138**	**365**

Notes:
1) Students in the TCPCG program are predominately attending full-time
2) It is anticipated that 50% of the students in the Public Affairs program will be full time and 50% will be part time.
3) Office space for Library staff is included in the Library Guideline while office space for UConn Co-Op employees is generated under the Student Union category.

Staffing levels will increase 23% over the planning period as noted in the aforementioned Enrollment & Staffing Table. Full and part time faculty growth was based on the change in student FTE growth. The consultants assumed faculty growth based on maintaining the current faculty to student ratio with no change in the full-time to part-time faculty percentages. In most cases, staff growth was projected at approximately 50% of the student growth percentage. While not specifically included in the Enrollment & Staffing Table, space for student workers and graduate assistants was considered in the Office Space Guideline Application.

During the analysis, consultants were informed that a School of Public Affairs program would be established at the Greater Hartford Campus. At the same time, the MBA program, previously on the Hartford campus, has been relocated to downtown Hartford. In addition, two research centers are proposed to relocate to the Greater Hartford Campus. These enrollment changes and assumptions were used to drive both base and target year analysis.

School of Social Work

The School of Social Work currently offers two graduate programs; the master's of social work (MSW) and a recently developed doctoral degree (Ph.D.). The consultants were provided data from University of Connecticut administration noting that the School of Social Work, with a student headcount of 563 and 431 FTE for Fall 2003, will remain at these levels through the planning period.

University of Connecticut administrators noted that the School of Social Work is not anticipating significant staffing changes over the planning period. The 33 full-time faculty will increase to 36 at the target year. The 57 staff at base year will not increase over the planning period, with the same number being projected for the Fall 2013 target year. The number of part-time faculty will also remain steady at 20.

The current research emphasis is on applied service related activities such as program evaluation under contract with foundations, municipalities, and state & federal agencies. The School of Social Work is in the midst of growth in funded research. For fiscal year 2002, research and development (R&D) expenditures totaled $884,954. This number is expected to grow to $2,000,000 by 2012. Currently, 15-20 professional staff (most part-time) are housed in the first floor of the Library Building.

In 2002, the School generated $4.5 million in training grants and expects these numbers to increase slightly to $4.75 million during the planning period. These training grants are administered off-campus, employing approximately 30 research professionals. This number of research professionals is expected to double in the next several years. There are no plans to bring these employees or the training grants to the Greater Hartford Campus and as a result, they are not included in this study.

6.0 SPACE NEEDS ANALYSIS ASSUMPTIONS

In order to apply the various guidelines and run the space needs analysis, several assumptions were made in this report. The more general assumptions are listed in this section. Those more specific to a space category are listed in the *Space Needs and Guideline Application* section of this report.

While the Greater Hartford Campus will introduce additional graduate courses over the planning period, it is assumed that the mix of classes will remain the same. The application of the guideline is based upon student full-time equivalents (FTE). No differentiation between graduate and undergraduate student headcount was made in the analysis.

The enrollment projection, plus current and projected staffing were provided and reviewed by both the Tri-Campus administration and representatives of the University of Connecticut central administration. These numbers were provided in February 2004 as the most appropriate ones for this planning study.

7.0 SUMMARY OF SPACE NEEDS

Due to the different organizational structures of programs on the Greater Hartford Campus, the space needs analysis was divided into three components. The first component includes programs offered under the Tri-Campus umbrella, consisting mostly of undergraduate courses leading to the bachelor's degree and some graduate programs, as delineated in the TCPCG and Public Affairs programs. This component will be labeled "Hartford Academic Programs."

The second component is the School of Social Work, consisting of graduate programs leading to the M.S.W. and the doctoral degree in Social Work. In terms of space needs, this analysis treats all academic space categories (Classroom & Service, Teaching Laboratories & Service, Open Laboratories & Service, Research Space, Offices & Service, and Other Departmental Space) separately for each component.

The third component includes Academic Support Spaces (Library, Assembly & Exhibit, Zachs Community Center, and Physical Plant) as well as Auxiliary Space (Student Union and Recreation). The categories include spaces that will be shared by the academic programs. The space needs analysis for these components includes a determination of the amount of current and future physical space needed for the campus.

Greater Hartford Campus

Campuswide Space Needs Analysis

Space Category	Fall 2003 Base Year Student FTE = 1,314 Existing ASF	Guideline ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)	Fall 2013 Target Year Student FTE = 1,561 Existing ASF	Guideline ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)
Academic Space								
Classroom & Service	23,481	19,001	4,480	19%	23,481	23,262	219	1%
Teaching Laboratories & Service	8,093	8,140	(47)	(1%)	8,093	8,140	(47)	(1%)
Open Laboratories & Service	1,803	1,971	(168)	(9%)	1,803	2,342	(539)	(30%)
Research Space	3,289	3,349	(60)	(2%)	3,289	7,400	(4,111)	(125%)
Offices & Service	33,685	33,890	(205)	(1%)	33,685	43,900	(10,215)	(30%)
Other Departmental Space	2,329	2,628	(299)	(13%)	2,329	3,122	(793)	(34%)
Academic Space Subtotal	*72,680*	*68,979*	*3,701*	*5%*	*72,680*	*88,165*	*(15,485)*	*(21%)*
Academic Support Space								
Library	13,154	17,855	(4,701)	(36%)	13,154	22,306	(9,152)	(70%)
Assembly & Exhibit	4,617	5,600	(983)	(21%)	4,617	5,600	(983)	(21%)
Zachs Community Center	3,664	3,664	0	0%	3,664	3,664	0	0%
Physical Plant	2,800	2,012	788	28%	2,800	2,602	198	7%
Academic Support Space Subtotal	*24,235*	*29,131*	*(4,896)*	*(20%)*	*24,235*	*34,172*	*(9,937)*	*(41%)*
Auxiliary Space								
Recreation	1,235	1,708	(473)	(38%)	1,235	2,029	(794)	(64%)
Student Union	10,126	11,826	(1,700)	(17%)	10,126	14,049	(3,923)	(39%)
Auxiliary Space Subtotal	*11,361*	*13,534*	*(2,173)*	*(19%)*	*11,361*	*16,078*	*(4,717)*	(42%)
INSTITUTION TOTAL	**108,276**	**111,644**	**(3,368)**	**(3%)**	**108,276**	**138,416**	**(30,140)**	**(28%)**

ASF = Assignable Square Feet

For this analysis, the space category labeled Academic Space includes the combined analysis of Hartford Academic Programs and the School of Social Work. Together, the space needs analysis found the Greater Hartford Campus to have an overall space surplus in Academic Space of 3,701 ASF when comparing base year guidelines with actual space. When compared to target year guidelines, a deficit in the Academic Space category is projected of 15,485 ASF by the Fall of 2013.

Components shared by Hartford Academic Programs and the School of Social Work include Academic Support Space and Auxiliary Space. This analysis assumes that the Zachs Community Center will remain in the Social Work Building and the space will be sufficient at the target year. The space needs analysis generated an overall space deficit of 4,896 ASF in the Academic Support Space Category when comparing guidelines with actual space. As delineated in the table, a large portion of this deficit is being generated by the need for library space. At target year enrollments, the same guidelines show an Academic Support Space deficit of 9,937 ASF by the year 2013.

In a similar fashion, the space needs analysis generated a modest space deficit of 2,173 ASF in the Auxiliary Space Category when comparing guidelines with actual space. The deficit exists mainly in the amount of Student Union space. At target year enrollments, application of the same guidelines produced an Auxiliary Space deficit of 42% or 4,717 ASF over the planning

period. This deficit is being produced by growth in the number of students attending the campus.

7.1 BASE YEAR – FALL 2002

At Fall 2002 enrollment and staffing levels, the University of Connecticut's Greater Hartford Campus showed an overall need for an additional 3,368 ASF of space. This is a modest three percent deficit in square footage when comparing guideline assignable square feet to existing assignable square feet at the campus. The largest deficit (4,701 ASF) is in the Library category while the largest surplus (4,480 ASF) is in the Classroom & Service category.

Assignable square footage is defined as the usable space inside classrooms, laboratories, offices, etc. It does not include circulation and building service space or the thickness of walls. For most types of space, gross square footage is 25% to 40% more than assignable square feet.

7.2 TARGET YEAR – FALL 2012

At projected target year enrollment and staffing levels the Greater Hartford Campus shows a campus-wide need for 30,140 ASF. This is a 28% increase over the amount of existing space at the target year. Given projected student enrollment growth at 28%, the target year guideline increases the campus proportionally. The greatest deficits can be found in the Offices and Service and Library categories. The larger deficits are divided between the Academic Space and Academic Support Space categories.

The focus of this report will shift to space needs with the Hartford Academic Programs, followed by the space needs for the School of Social Work.

Hartford Academic Programs

The space needs analysis calculated the Hartford Academic Programs to have an overall surplus of 6,098 assignable square feet (ASF) when comparing base year guidelines with actual space. At target year enrollments, the same guidelines generated a deficit of 10,204 ASF or 19% by the year 2013. This includes space for the TCPCG and Public Affairs programs. Space needs analysis for the Hartford Academic Programs is summarized in the table below, which displays space as assigned to current programs in the Library Building, Computer Center and the Undergraduate Building. The research and office space occupied by the School of Social Work on the first floor of the Library building is not included in the Hartford Academic Programs analysis.

Hartford Academic Programs

Space Needs Analysis

Space Category	Fall 2003 Base Year *Student FTE = 883* Existing ASF	Guideline ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)	Fall 2013 Target Year *Student FTE = 1,130* Existing ASF	Guideline ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)
Academic Space								
Classroom & Service	17,985	15,232	2,753	15%	17,985	19,493	(1,508)	(8%)
Teaching Laboratories & Service	8,093	8,140	(47)	(1%)	8,093	8,140	(47)	(1%)
Open Laboratories & Service	1,803	1,325	479	27%	1,803	1,695	108	6%
Research Space	2,464	2,464	0	0%	2,464	5,400	(2,936)	(119%)
Offices & Service	21,760	18,420	3,340	15%	21,760	26,660	(4,900)	(23%)
Other Departmental Space	1,339	1,766	(427)	(32%)	1,339	2,260	(921)	(69%)
INSTITUTION TOTAL	**53,444**	**47,346**	**6,098**	**11%**	**53,444**	**63,648**	**(10,204)**	**(19%)**

ASF = Assignable Square Feet

School of Social Work

The space needs analysis found the School of Social Work to have an overall space deficit of 2,397 ASF when comparing guidelines with actual space. Since student enrollment and will remain stable over the planning period, there was no change in Classroom & Service, Open Laboratories & Service, and Other Departmental Space categories through the target year. Anticipating greater research awards and needed office space for Ph.D. students and three additional full time faculty in the target year generated a deficit of 5,315 ASF in the Office & Service category. An overall target year deficit of 5,282 ASF was generated. Space needs analysis for the School of Social Work is summarized in the following table, which displays space for programs offered in the School of Social Work building and selected spaces on the first floor of the Library building.

School of Social Work

Space Needs Analysis

Space Category	Fall 2003 Base Year *Student FTE= 431* Existing ASF	Guideline ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)	Fall 2013 Target Year *Student FTE = 431* Existing ASF	Guideline ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)
Academic Space								
Classroom & Service	5,496	3,769	1,727	31%	5,496	3,769	1,727	31%
Open Laboratories & Service	0	647	(647)	n/a	0	647	(647)	n/a
Research Space	825	885	(60)	(7%)	825	2,000	(1,175)	(142%)
Offices & Service	11,925	15,470	(3,545)	(30%)	11,925	17,240	(5,315)	(45%)
Other Departmental Space	990	862	128	13%	990	862	128	13%
SOCIAL WORK TOTAL	**19,236**	**21,633**	**(2,397)**	**(12%)**	**19,236**	**24,518**	**(5,282)**	**(27%)**

ASF = Assignable Square Feet

The consultants listed the community room and all support spaces for the Zachs Community Center, a meeting place for campus and community functions, under the "Greater Hartford Campus" heading. This space is not reflected in the space needs analysis for the School of Social Work or Hartford Academic Programs. It must also be noted that the Social Work Program is using 1,992 ASF of space (research and office) in the Library Building due to

the lack of space in the Social Work Building. During work sessions with Social Work administration, it was noted that all School of Social Work functions (research and offices) should be in close proximity to one another. If an addition was to be added to the School of Social Work building to consolidate the Social Work functions (or if a replacement building were built), the need would have to include office and research space now located in the Library Building.

8.0 SPACE NEEDS AND GUIDELINE APPLICATION

This section summarizes the current and projected space needs by functional space category. The Fall 2002 course files, along with the facility inventory file, as generated by the consultants, and Fall 2003 staffing data were assembled for use in projecting base and target year space needs. When appropriate, the consultants used standards established by the Council of Educational Facilities Planners, International (CEFPI) and supplemented with space standards used in previous work of Paulien & Associates, Inc. The specifics for each space type are discussed in the following sections.

8.1 CLASSROOM GUIDELINE APPLICATION AND SPACE NEEDS

Classrooms are defined as any room generally used for scheduled instruction requiring no special equipment and referred to as general purpose classroom, seminar room, or lecture hall. Classroom service space directly supports one or more classrooms as an extension of the classroom activities, providing media space, preparation areas, or storage. The classroom station size is considered as including the classroom service area space. However, additional service space can be justified on a program or classroom basis.

A classroom utilization goal of 30 hours of use per week at 65% student station occupancy for lecture courses was specified. A guideline of 20 ASF was used as the average classroom station size. Classroom space requirements were determined by a formula which takes the target utilization of 30 hours per week, multiplies it by the average student occupancy target of 65%, and divides the result into the 20 ASF per student station. This calculation produces a guideline of 1.03 ASF per weekly student contact hour (WSCH) for classrooms.

The example below illustrates how the guideline is used to calculate guideline square footage for classrooms.

Classroom Guideline Application Example

Step 1 Space per Student Station (20 ASF)

Weekly room use target (30 hours) x Average student station occupancy (65%) = 19.5
= (1.03) Assignable square feet per weekly student contact hour

Step 2

Enrollment (20) x Weekly room hours (3) = Weekly student contact hours (60)

Step 3

Weekly student contact hours (60) x ASF/WSCH (1.03) = Guideline square footage (61.8)

Hartford Academic Programs

Guideline application for Hartford Academic Programs classroom space for the base year shows a surplus of 2,753 ASF of classroom space over existing space. For the target year the space analysis indicates a deficit of 1,508 ASF in classroom and service space. The guideline application takes into account the FTE generated by the TCPCG and the Public Affairs program.

School of Social Work

Guideline application for the School of Social Work classroom space for the base year shows a surplus of 1,727 ASF classroom space compared with existing space. For the target year the space needs analysis indicates the same surplus of 1,727 ASF in classroom and service space.

Greater Hartford Campus

Guideline application for all the Greater Hartford Campus classroom space for the base year shows a surplus of 4,480 ASF of classroom space compared with existing space. This surplus is largely represented of space in the Hartford Academic Programs. For the target year, the space analysis indicates a small surplus of 219 ASF of classroom and service space. The substantial reduction in the deficit is indicative of space needs for Hartford Academic Programs to accommodate projected student enrollment growth.

8.2 TEACHING LABORATORY GUIDELINE APPLICATION AND SPACE NEEDS

Hartford Academic Programs

Teaching Laboratories are defined as rooms used primarily by regularly scheduled classes that require special purpose equipment to serve the needs of particular disciplines for group instruction, participation, observation, experimentation, or practice. Station sizes in teaching laboratories vary by discipline. The CEFPI space per student station guideline has approximately 50 different subject areas for which it provides teaching laboratory modules. In all cases, these are expressed as a range. The consultants used the figure within the range deemed most appropriate. Unlike the classroom guideline calculation, there are not enough scheduled laboratory weekly contact hours to justify complete laboratories for some disciplines. There the consultants produced guideline needs by using the desired number of students to be taught in the various labs and multiplied by the recommended guideline. The consultants assumed that the types of labs needed through the planning period would not change.

If at some point a major renovation or replacement of the undergraduate building is considered, there should be a hard look at whether four science labs are justified or whether three would be adequate since only the chemistry lab achieves the utilization expectations at the current time. Computer lab utilization is currently not logged through the Registrar. This should change so that the Registrar has this in the course records, if courses are put into this laboratory for a full term. This should not be done with single session meetings where a class still has another room as their primary semester-long home.

The guideline space per station in each discipline includes service space for laboratories and takes into account the need for enough space for new paradigms in teaching methodology

requiring collaborative learning environments such as mediated laboratories. The guideline amount of space per student station used for each discipline for the Hartford programs is listed in the table below.

Hartford Academic Programs

Teaching Laboratory Space Analysis

			Fall 2003 Base Year					Fall 2013 Target Year				
	ASF per Student Station	No. of Student Stations	Guide line	Guideline ASF	Existing ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)	Guide line	Guideline ASF	Existing ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)
Art Lab	60	15	1	900	759	(141)	(19%)	1	900	759	(141)	(19%)
Biology Lab	60	24	1	1,440	1,390	(50)	(4%)	1	1,440	1,390	(50)	(4%)
Chemistry Lab	75	24	1	1,800	2,400	600	25%	1	1,800	2,400	600	25%
Computer Lab	35	32	1	1,120	1,064	(56)	(5%)	1	1,120	1,064	(56)	(5%)
Geology Lab	60	24	1	1,440	1,200	(240)	(20%)	1	1,440	1,200	(240)	(20%)
Physics Lab	60	24	1	1,440	1,280	(160)	(13%)	1	1,440	1,280	(160)	(13%)
TOTAL			**6**	**8,140**	**8,093**	**(47)**	**(1%)**	**6**	**8,140**	**8,093**	**(47)**	**(1%)**

ASF = Assignable Square Feet

Guideline application for the Hartford campus teaching laboratory space for base year shows a need for 8,140 ASF of space, a deficit of less than 1% or 47 ASF. As enrollments increase at the target year, teaching laboratory space needs analysis show that current labs should be able to accommodate future enrollment growth.

School of Social Work

At the time of the analysis, the School of Social Work did not have any dedicated teaching labs. On limited occasions, faculty will request the use of a computer lab on a space available basis.

8.3 OPEN LABORATORY GUIDELINE APPLICATION AND SPACE NEEDS

The category of open laboratory space consists of rooms that are open for student use and are not used on a regularly scheduled basis. These rooms provide equipment to serve the needs of particular disciplines for group instruction in informally or irregularly scheduled classes. Alternatively, these rooms are used for individual student experimentation, observation, or practice in a particular field of study. The size of these laboratories is based on equipment size and/or on the station size and student count desired and should be determined on an individual basis.

The types of rooms usually included in this category are computer laboratories, language laboratories, music practice rooms, and tutoring and testing facilities.

In recent benchmarking and consulting work with several statewide systems, the consultant found between five and ten square feet per full-time equivalent student allocated for space in this category. The consultants believe that a reasonable guideline for the Greater Hartford Campus open laboratory space is 1.5 square feet per student FTE. This is a number less than the benchmark range, yet slightly higher than the 1.4 ASF of space the campus as a whole currently provides in this category.

Hartford Academic Programs

Base year open laboratory space needs analysis show a surplus of 479 ASF. This surplus reflects recently constructed open labs in the new Computer Center Building. At the target year open laboratory needs show a slight surplus at 108 ASF.

School of Social Work

Currently, School of Social Work students use the open computer lab in the Computer Center Building. During work sessions, administration expressed a need for an open lab dedicated to the School. Using the 1.5 ASF per FTE guideline, a 647 ASF deficit was calculated at the base year. At target year, stable FTE created the same 647 ASF deficit in the Open Laboratory and Service category.

Greater Hartford Campus

Guideline application for the Greater Hartford Campus open laboratory space for base year shows a deficit of 168 ASF. As enrollments increase at the target year and the needs of the Social Work Program are met, the space needs analysis in the Open Laboratory & Service category shows the need for an additional 539 ASF of labs. This guideline provides for a small lab or the expansion of existing open labs.

8.4 RESEARCH LABORATORY GUIDELINE APPLICATION AND SPACE NEEDS

Most guidelines used to evaluate research space needs have been developed for large research universities and are not applicable for Greater Hartford Campus needs. However, since research is a growing part of the academic function, especially in the School of Social Work, it was included in this analysis.

Determining research space needs is a complex issue. The consultants have utilized methods based on individual researchers, research teams and research dollars. The methods used at the Greater Hartford Campus are discussed below.

Hartford Academic Programs

A total of 2,464 ASF of space on the first floor of the Library Building during base year was being used as research space for psychology faculty in Hartford programs. It is anticipated that this space will continue to be research oriented through the planning period.

The guideline used was based on the Higher Education Facilities Planning and Management Manuals, as published by the Western Interstate Commission for Higher Education (WICHE). This guideline uses the number of faculty and graduate students involved in research as the most appropriate indicator of research space. Research spaces vary significantly among academic programs and disciplines. A general criterion for research space is noted in the tables below.

Planning Criteria for Reseach Space

Academic Program	ASF per Faculty Member	ASF per Extra Grad Student
Group 1	**900-1,300**	**200-250**
Agriculture and Natural Resources		
Engineering		
Biological Sciences		
Physical Sciences		
Group 2	**600-900**	**150-200**
Architecture		
Fine Arts		
Psychology		
Communications		
Group 3	**150-200**	**20-25**
Education		
Business		
Computer Sciences		
Foreign Languages		
Letters		
Library Science		
Mathematics		
Public Affairs		
Law		
Theology		

The ASF guideline for faculty includes up to four graduate students working with each faculty member. With the University of Connecticut's focus on research productivity, the consultants assumed that full time faculty at the Greater Hartford Campus would be expected to engage in some type of research endeavor.

Analysis by Tri-Campus administration estimated that 65% of the Tri-Campus full time faculty would be conducting research at the target year. The consultants were told that many of the faculty will continue to utilize wet labs and other types of research labs at the University of Connecticut's main campus in Storrs.

The research guideline, as applied by the consultants, which best illustrates the type of research programs expected at the target year, is Group 3 in the adjacent table. The consultants allowed 150 ASF per full-time faculty. Given the small number of graduate students at the campus, the consultants did not apply the graduate student guideline as noted in the table. Again, the 150 ASF guideline assumed up to four graduates assistants per faculty.

The analysis resulted in a calculation of need for 5,400 ASF of research space in the target year, a deficit of 2,936 ASF over the existing amount of space. This deficit can provide space for a call center and additional research space for the incoming Public Affairs program faculty.

School of Social Work

All of the research space for the School of Social Work is located on the first floor of the Library Building. This space provides office and specialized space to research professionals and graduate students conducting studies under various grants. After viewing the spaces, the consultants decided to split the space between the Research Space category and the Office and Service category, creating 825 ASF of existing research space.

Using the sponsored research expenditures approach to establishing a guideline, the consultants used 100 ASF per $100,000 in R&D expenditures for Social Work. For fiscal year 2002, research and development (R&D) expenditures for the School of Social Work totaled $884,954. This number is expected to grow to $2.0 million by 2013.

Guideline application for the School of Social Work Research Space category for base year shows a need for 885 ASF of space, a deficit of seven percent or 60 ASF. As R&D expenditures increase toward target year, the deficit increases to 1,175 ASF compared with actual space. No space was generated for the $4.5 million in training grants since these grants and accompanying personnel are administered off campus.

8.5 OFFICE AND SERVICE GUIDELINE APPLICATION AND SPACE NEEDS

For this analysis, offices used to conduct administrative or academic activities are categorized as office and service space. Office space guidelines are based on CEFPI standards. The CEFPI guideline determines office space needs based on major categories of staff and application of space amounts for office service and conference space needs. Tri-Campus administration provided Greater Hartford Campus staffing information at base year for each category of staff. These were reviewed by members of the University of Connecticut central administration and approved for use in this study.

Hartford Academic Programs

Full and part time faculty target growth was based on the change in student FTE growth. The consultants assumed faculty growth based on maintaining the current faculty to student ratio with no change in the full-time to part-time faculty percentages. In most cases, staff growth was projected at approximately 50% of the student growth percentage. The consultants then applied appropriate guidelines to each major category. The amount of office space allotted to each position is based on the status and duties of the employee as noted in the Office Space Guideline Application Table.

At base year, the guideline analysis for Hartford Academic Programs showed a surplus of 3,340 ASF in the academic office space category. One reason for the surplus in the base year is removal of MBA teaching faculty, program directors and staff from the staffing file. The consultants were informed during the analysis that the MBA program had moved to a downtown Hartford location.

At the target year, a 4,900 ASF or 23% deficit is generated in this category. The largest need at target year will be for adjunct faculty offices and the 25 faculty and staff that are anticipated for the Public Affairs program. At target year, the Public Affairs program will house one department head, three program directors, 12 full time faculty, four research project directors, eight adjunct faculty, six graduate assistants, and three administrative support staff. The consultants have assumed that each full-time faculty member will have an office.

In addition, office space has been provided for one public safety supervisor. It is assumed that several public safety officers can share office space since their main duty is to patrol the campus and parking lots. Additional space may be needed if the Public Safety Office is linked with the issuance of student ID's and/or parking permits.

A large need at target year will be for "open office" areas where part-time faculty can meet with students and access email and voicemail systems. The consultants assumed that adjunct faculty would be housed four to an office. An alternative could be an Adjunct Resource Center where computers, meeting space, mail, copying and supplies are available on an as needed basis. Such an approach could house the target adjunct population in slightly less space but it suggests having a student worker available to staff the Center during key class times.

Hartford Academic Programs

Office Space Guideline Application

STAFFING TYPE	Office Guideline ASF per Headcount	Fall 2003 Base Year Head-count	Fall 2003 Base Year Total Guideline ASF	Fall 2003 Base Year Existing ASF	Fall 2013 Target Year Head-count	Fall 2013 Target Year Total Guideline ASF	Fall 2013 Target Year Existing ASF
Director	200	1	200		1	200	
Managerial - Confidential	180	2	360		2	360	
University Faculty	140	35	4,900		55	7,700	
Adjunct Faculty	35	88	3,080		116	4,060	
Non-Faculty Administrative	120	17	2,040		28	3,360	
Administrative Clerical	110	28	3,080		34	3,740	
Graduate Assistants	60	3	180		12	720	
Facilities Director	140	1	140		1	140	
Maintenance Services	0	8	0		9	0	
Protective Services Office	140	1	140		1	140	
Protective Services - Shared Office	70	2	140		3	210	
Protective Services	0	2	0		2	0	
Total Office Space			**14,260**	**18,849**		**20,630**	**18,849**
Total Service Space			*2,990*	*2,198*		*4,240*	*2,198*
Total Conference Room Space			*1,170*	*713*		*1,790*	*713*
TOTAL		**188**	**18,420**	**21,760**	**264**	**26,660**	**21,760**
Surplus/(Deficit)			***3,340***			***(4,900)***	

School of Social Work

Initially, the consultant was advised by UConn central administration that target year faculty and staff positions will remain at base year levels. The Associate Dean of Social Work asked for a revision of the faculty numbers to reflect the Fall 2004 number of full time faculty at the base year (total of 33 headcount faculty) and project an increase in the number of faculty at the target year by three positions, for a total of 36 faculty headcount positions. The changes were approved by the UConn central administration in June 2004.

Space for Ph.D. students was included in the target year analysis. At base year, the guideline analysis for the School of Social Work showed a deficit of 3,545 ASF in the Academic Office space category. The shortage of office space is illustrated by several Social Work staff sharing office space. At target year, the guideline analysis showed a deficit of 5,315 ASF in the Academic Office and Service space category.

School of Social Work

Office Space Guideline Application

Staffing Type	Office Guideline ASF per Headcount	Fall 2003 Base Year Head-count	Fall 2003 Base Year Total Guideline ASF	Fall 2003 Base Year Existing ASF	Fall 2013 Target Year Head-count	Fall 2013 Target Year Total Guideline ASF	Fall 2013 Target Year Existing ASF
University - Exempt	200	3	600		3	600	
Managerial - Confidential	180	4	720		4	720	
University Faculty	140	33	4,620		36	5,040	
Adjunct Faculty	35	20	700		20	700	
Non-Faculty Administration	120	21	2,520		21	2,520	
Research Specialist	70	20	1,400		20	1,400	
Administrative Clerical	110	9	990		9	990	
Ph.D. Students/Grad Assistants	60	0	0		20	1,200	
Total Office Space			**11,550**	**11,275**		**13,170**	**11,275**
Total Service Space			*2,500*	*320*		*2,590*	*320*
Total Conference Room Space			*1,420*	*330*		*1,480*	*330*
TOTAL		**110**	**15,470**	**11,925**	**133**	**17,240**	**11,925**
Surplus/(Deficit)			***(3,545)***			***(5,315)***	

ASF= Assignable Square Feet

Greater Hartford Campus

The office and service needs for the Greater Hartford Campus are the sum of the Hartford program and the School of Social Work. The space needs analysis generated an overall deficit of 205 ASF in the Office and Service space category when comparing guidelines with actual space. When compared to target year guidelines, a deficit is projected of 10,215 ASF over the planning period. Again, this deficit is being produced by the need for part time faculty office space and the 25 faculty, directors, and staff associated with the Public Affairs program.

8.6 Other Department Space Needs

The space classified as other department space includes all other space assigned to an academic department that has not been included in the other classification of classrooms, teaching laboratories, open laboratories, or offices. These areas consist of a variety of spaces. They can include departmental study rooms, greenhouses, animal facilities, and lounges. Due to the diversity of these spaces and the different ways various campuses might classify these spaces, these spaces are not specifically addressed by the published guidelines. In recent benchmarking studies the consultant found other department space to be a wide range between one and 18 square feet per full-time equivalent student. The consultants believe that a reasonable guideline for this campus is two square feet per student FTE in this category.

Hartford Academic Programs

Other department space for the Hartford programs includes a multi-media room, writing center, server room and a meeting room in the library for a total of 1,339 ASF. The base year guideline application shows a space deficit of 427 ASF. At the target year this deficit increases to 921 ASF.

School of Social Work

The School of Social Work has its own student and faculty lounges totaling 990 ASF. At base year, the School of Social Work guideline analysis for Hartford showed a slight surplus of 128 ASF in the Other Departmental Space category. At the target year, the surplus remains at 128 ASF as student FTE remains stable.

8.7 LIBRARY GUIDELINE APPLICATION AND SPACE NEEDS

Most of the guideline systems for library space utilize one set of factors for collections, another for readers, and a third for service space. This approach was used by the consultants.

The library analysis is based on collections data reported by the Greater Hartford Campus librarian and shared with the consultants. The guideline applied assumes that 0.10 ASF per volume is used for the collection space in the Harleigh B. Trecker Library, located within the Library building.

Until recently the reader space calculations have generally been based on seating for 25% of the student body for residential campuses. Published sources suggest that if a college or university has less than 50% housed on site, it would be calculated at one for every five students or 20%. Because many students now do research electronically from non-library locations this percentage of students has begun to lower. The consultant chose to apply a 15% factor to all student FTE and five percent to the total full-time equivalent faculty.

The consultant believes the 25 square feet per reader station recommended by CEFPI is not adequate because of increasing use of electronic library carrels. The 25 ASF per reader station was used for regular study stations but 35 ASF per station was used for electronic study stations. For the Trecker Library, 35% of the stations were considered as electronic seats for this analysis. This is due the large number of students who will use electronic stations to access on-line serials via the Homer Babbidge Library in Storrs.

CEFPI suggests 25% of the total collection and reader station space for service and staff space. The consultant used a 12.5% figure for the Trecker Library based on more recent analysis by the Association of College and Research Libraries. Lounge space is allotted at three assignable square feet per study station. The Library Guideline Application is outlined in the following table.

Library Guideline Application

						Fall 2003 Base Year	Fall 2013 Target Year
VOLUME GENERATION	**Current Items**	**Conversion Factor**	**Fall 2003 Volumes**	**Volume Growth**	**Fall 2013 Volumes**		
Books/Serials (Volumes)	95,348	1.00	95,348	28%	122,437		
Manuscripts & Archives	0	1.00	0	0%	0		
Unbound Serials (Display)	0	0.50	0	0%	0		
Microforms	70,000	80.00	875	0%	879		
Audio/Visual Materials	800	5.00	160	170%	432		
					TOTAL VOLUMES	**96,383**	**123,749**
	No. of Volumes						
COLLECTION SPACE	**0 - 150,000**	**150,001 - 300,000**	**300,001 - 600,000**	**600,001 - 4,500,000**	**4,500,001 and above**		
ASF per Volume	*0.100*	*0.090*	*0.080*	*0.070*	*0.035*		
Fall 2003 Collection Space	9,638	0	0	0	0		
Fall 2013 Collection Space	12,375	0	0	0	0		
					TOTAL COLLECTION SPACE	9,638	12,375
STUDY SPACE	**Percent of Headcount**	**Fall 2003 FTE**	**Fall 2003 Stations**	**Fall 2013 FTE**	**Fall 2013 Stations**		
Student FTE	15%	1,314	197	1,561	234		
FT Faculty FTE	5%	62	3	82	4		
		Total Study Stations	**200**		**238**		
Regular Study Stations	*65% @ 25 ASF/Station*		3,250		3,875		
Electronic Study Stations	*35% @ 35 ASF/Station*		2,450		2,905		
					TOTAL STUDY SPACE	5,700	6,780
					TOTAL COLLECTION & STUDY SPACE	**15,338**	**19,155**
					Service Space *(12.5% of Total Collection and Study Space)*	1,917	2,394
					Lounge Space *(3 ASF per Study Station)*	600	714
					TOTAL LIBRARY SPACE	**17,855**	**22,263**

Overall, the library space needs analysis at the base year shows a guideline of 17,855 ASF of space. Subtracting 13,154 ASF of actual space creates a deficit 4,701 ASF in the base year. At the target year, the guideline produces a library with 22,263 ASF of total space, increasing the deficit to 9,109 ASF.

After touring the current Trecker Library facility, the consultants believe that the ASF generated by the space guideline is credible. First, several of the anticipated programs being planned for the campus could be resource intensive. Currently, stack space is very limited. For every book added to the collection, one must be discarded or placed in storage. The library conference room recently was renovated to open stack and study space, eliminating the final area for group study. Often students queue in line to use the library's on-line terminals for Internet access to the Homer Babbidge Library in Storrs.

8.8 ASSEMBLY & EXHIBIT GUIDELINE APPLICATION AND SPACE NEEDS

The assembly and exhibit space is defined as any room designed and equipped for the assembly of large numbers of people. This includes theaters, auditoriums, meeting rooms, arenas, and chapels. Exhibit spaces are used for exhibition of materials, works of art, or artifacts intended for general use by students and the public.

For this category of space CEFPI has four options. Option "A," deemed most appropriate by the consultants, uses 5,600 ASF as a minimum core requirement. This option is most appropriate for a small college or university of up to 2,000 students. Application of guidelines at the base and target year shows a deficit of 983 ASF in the assembly and exhibit category. The consultants assume that the auditorium attached to the Library building will serve the needs of the college over the planning period while exhibit and gallery space will grow in proportion to the student population and academic programs.

8.9 PHYSICAL PLANT GUIDELINE APPLICATION AND SPACE NEEDS

Most guidelines suggest a percentage of from seven to eight percent of all square footage on campus, with the exception of existing physical plant space, be used to drive master plan needs in this category. The consultants have found in most cases that this percentage generates greater amounts of space then typically exists on campus. Many physical plant departments are increasing the outsourcing of many typical shop functions and using just-in-time purchasing methods to decrease warehousing needs.

From previous studies the consultants have found that the average percentage actually devoted to physical plant space is approximately four to six percent. The consultants have applied only two percent of all square footage on campus to drive the base and target year needs for space in this category at the Greater Hartford Campus. This is because of the suburban location which allows certain services to be purchased from vendors in the community. At base year guideline analysis shows a surplus of 788 ASF. At the target year, the guideline almost equals the existing space, generating a small surplus of 198 ASF.

8.10 STUDENT UNION GUIDELINE APPLICATION AND SPACE NEEDS

The Gampel Student Center, located in the Undergraduate Building, contains a study-lounge, game room, dining area with serving line, and bookstore. A large portion of the space supports the informal dining function. The CEFPI recommends a formula of nine square feet per student FTE and the Association of College Unions International (ACUI) recommends a formula of 10 square feet per student for each graduate and undergraduate student for generating student union space. These guidelines for space application provide space for the various functions and the room use code designations that are typically found in a comprehensive student union including bookstore, food service, lounge, meeting space, student government/club space, and other student service type space categories. This formula has been applied by the consultant using nine assignable square feet per student for student union space at the Greater Hartford Campus.

At the base year the application of space guidelines shows a deficit of 1,700 ASF. At the target year, the deficit increases to 3,923 ASF.

8.11 RECREATION

While the Greater Hartford Campus does not provide organized team sports, the university has fields and open areas to support intramural sports such as golf, volleyball and baseball across the street from the campus. A weight training room and fitness center with limited locker and shower facilities is located in the Undergraduate Building. In calculating the need for indoor Recreation space, a minimal guideline of 1.3 assignable square feet per student FTE was used. At campuses with a full recreation program as much as 12 square feet per undergraduate student are utilized to project need. Application of the guidelines showed a deficit of 473 ASF of indoor Recreation space at the base year, increasing to a deficit of 794 ASF at the target year, when compared to existing ASF. This does not develop the indoor recreation spaces that may be needed if the campus grows its full-time undergraduate student population substantially. However, it does allow the fitness center to be expanded, which has proved very popular with students attending the Storrs campus.

8.12 RESIDENCE LIFE

The Greater Hartford Campus has no student housing and does not anticipate construction of student housing during the 10 year facilities planning timeframe.

9.0 LIMITATIONS OF ANALYSIS

The consultant utilized campus data provided by the University of Connecticut – Greater Hartford Campus for staffing, courses, and facilities information. Fall 2003 data were used for the base year. Target year enrollment and staffing data were provided by the UConn central administration with input from Tri-Campus administration.

Space needs analysis for the purpose of master planning is a process through which estimates are made of space amounts likely to be needed by various units of an institution at current and projected enrollment, staffing, and activity levels. Based on the enrollment assumptions and data provided by UConn representatives, findings at the campus level can be considered to be reliable estimates of space needs. While the application of normative guidelines is a good general indicator of relative need, they are not a substitute for facilities programming. Refinement of space needs can be done at the program level. Programming will most accurately determine specific needs and building fit. Further, this study analyzed space needs but did not evaluate the quality of existing space.

Appendix B

Limited Condition Survey and Usability/Reuse Study
Prepared by Svigals + Partners
September 2003

UNIVERSITY OF CONNECTICUT
GREATER HARTFORD CAMPUS
West Hartford, Connecticut

LIMITED CONDITION SURVEY
AND USABILITY/REUSE STUDY

September 10, 2003

SVIGALS + PARTNERS

UNIVERSITY OF CONNECTICUT
GREATER HARTFORD CAMPUS
West Hartford, Connecticut

LIMITED CONDITION SURVEY
AND USABILITY/REUSE STUDY

September 10, 2003

SVIGALS
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I. EXECUTIVE SUMMARY

Use and Reliance Restriction

Svigals + Partners, LLP (Svigals) has produced this document under an agreement with the Smith Group/JJR and the University of Connecticut (UConn). All terms and conditions of that agreement are included within this document by reference. Other than to UConn, Svigals disclaims any obligations to any other person with respect to any material presented in this document, and no person may rely upon this document without advance and express written consent from Svigals and such person's written agreement is to be bound by the limitations, qualifications, terms, conditions, and indemnities to Svigals set forth in that agreement. Svigals specifically states that its review of the property in question is subject to monetary restraints and scope limitations. Given those limitations and conditions, it has made what in its opinion, is a reasonable investigation. It has also relied upon interviews and documents with the understanding that independent verification of their factual content is beyond the scope of Svigals' work. The materials presented in this document are "to Svigals' knowledge" where such phrase means to Svigals' actual knowledge of the subject matter after such inquiry as Svigals considered reasonable in light of the qualifications and limitations upon the scope of work.

The extent of the physical observation for the production of this report has been limited by Contract to a walk-around visual inspection of the property, random operation of equipment, interviews, and a cursory review of documents. Assumptions regarding the overall condition of the property have been developed based upon observation of representative areas of the buildings. As such, the development of conceptual methods and associated costs for the correction of identified deficiencies is based upon the overview observation and is also limited with respect to completeness.

General Overview

Svigals was retained to review the present building conditions of the three main academic buildings located on the Greater Hartford Campus located in West Hartford, Connecticut. Our review focused mainly on physical attributes and conditions, and opportunities for the re-use or redevelopment of the existing facilities. We have also included observations and comments on the mechanical systems derived from our interviews with the Facilities Director, Mark O'Neil, who accompanied us on our walk through. Code related items noted herein are from incidental observations only as their review was not the focus of this study.

II. UNDERGRADUATE BUILDING

A. General Overview:

This 67,400 gross square foot building is located along the North side of the main pathway as you enter the Campus from the student parking lots across Trout Brook Drive. The building was constructed in 1971± and there are no additions. The building consists of three stories above grade and a partial basement. The cast-in-place concrete frame and waffle slab floors are somewhat unique for the period and appear to be performing as intended. The exterior façade is composed of large expanses of brick veneer with exposed concrete "trim" elements, both of which appear to be in good condition; however, the concrete is beginning to spall in a few areas. The windows are single pane and are at the end of their useful life. A complete replacement of all caulking and sealants for the exterior should be considered at this time to extend the useful life of all building elements. The building has a flat ballasted built-up roof which also appears to be at the end of its useful life and should be replaced. The building is fully occupied.

The existing building has the following characteristics:

Levels	3 floors plus partial basement
Clear Height to Structure	12' – first floors 10' – upper floors
Total Area	67,400 sq.ft. (from campus literature)
Zoning District	Not Applicable
Use Type:	Non-separated Mixed Use B – Business and A3 – Assembly
Construction Type:	Undetermined
Egress Components:	Exit stairs are remote enough and appear wide enough to meet current requirements. The stair treads and handrails do not meet current Code requirements. Neither stair has direct access to the exterior. Code requires at least 50% of the required stairs to have direct access to the exterior. The present configuration, with minor modifications, could be considered complying. The exit stairs appear to have the required 2 hour rated shafts; however the doors do not have rating labels.
Elevator:	Suitable size for ADA upgrade

B. Structural System:

The building consists of cast-in-place concrete columns and cast-in-place concrete waffle slab floors. The system appears to be in excellent condition and more than adequate for present loads. With an estimated 30' x 30' column spacing and a clear height of 12' (10' at upper levels) to the bottom of the waffle slab structure, there is adequate room for the introduction of updated mechanical and life safety systems.

C. Plumbing Systems:

There were no obvious problems associated with the central plumbing systems; however several areas of concern were noted. Toilet rooms are in very poor condition and many fixtures need replacement. The acid resistant glass waste piping serving the labs needs a total replacement due to failure of the joint seals. The water supply and waste systems serving the cafeteria are undersized and most likely do not meet current Health Department requirements.

D. Fire Protection Systems:

This facility does not have fire sprinklers and the existing fire alarm system does not appear to meet current Fire Code or ADA requirements. Due to the extensive use of this facility and its large population, further investigation and implementation of code required upgrades is highly recommended.

E. Heating, Ventilating, and Air Conditioning Systems:

The capacities and condition of the mechanical systems should be reviewed by a mechanical engineer. As observed, the system is currently running adequately, but most likely does not meet current ASHRAE standards for fresh air or energy efficiency. Control system is DDC. Original systems are in poor condition due to their age and require continual repairs and maintenance. Most of the cooling systems were added in later years and represent additional control and maintenance issues. All systems are well beyond their useful life and represent significant energy costs.

The through-wall HVAC unit ventilators that occur in many of the exterior classrooms have condensate drains piped directly to the outside of the building and drip down the façade and onto the sidewalks.

The three science labs have fume hoods, proper ventilation requirements could not be determined, but given the age of this building, most likely do not meet current lab ventilation requirements.

F. Electrical Systems:

The capacities and condition of the electrical system should be reviewed by an electrical engineer. Buildings of this period usually were not designed to support the electrical loads needed for today's modern teaching facilities. The intense use of computers and upgraded mechanical systems to provide cooling will likely strain the existing system. Light fixtures have been upgraded to energy efficient T-8 lamps. Emergency lighting fixtures appear inadequate. Re-use or redevelopment of this facility will most likely require an upgrade to the building's main service and distribution system.

G. Tel/Data Systems:

The entire control and distribution for the tel/data systems have been installed well after the original construction of the building and as such reflect the compromises required to meet today's needs. The head-in equipment for the building shares space in the electrical room, service to connections are run exposed in occupied spaces, and access for new or replacement wiring is difficult. Distribution equipment shares space in the janitor's closets on the upper floors. Re –use or redevelopment of this facility will require planning for an all new tel/data infrastructure.

Classrooms have very limited data infrastructure, usually only one drop per room. Technology use appears to be limited to overhead projectors and television/VCR on moveable carts. One high tech classroom was observed with video projection and additional data connections.

H. Interior Finishes:

Original interior finishes in most of the facility consisted of exposed concrete floors, painted concrete block walls and exposed concrete structural ceilings. Limited mechanical systems were either exposed or concealed in dropped gyp. bd. ceilings and lighting was suspended from the exposed structure above. Through various upgrades to the building, vinyl or carpet flooring has been installed throughout and lay-in ceilings have been added to conceal new mechanical distribution. Several special purpose spaces in the building have received significant finish upgrades.

Existing signage does not meet current ADA requirements.

I. Exterior:

The exterior façade is composed of large expanses of brick veneer with exposed concrete "trim" elements, both of which appear to be in good condition. A few areas of brick need repointing and a few areas of the concrete trim are beginning to spall. Installation of new, and replacement of old through-wall HVAC units is apparent in the brickwork. The windows are single pane and are at the end of their useful life. The exterior plaster soffit at overhands also appears in good condition. A complete replacement of all caulking and sealants for the exterior should be considered at this time to extend the useful life of all building elements.

The low slope built-up roof with gravel ballast appears to be near the end of its useful life. Evidence of ponding water, no provision for emergency overflow and limited roof drains was observed. Metal flashing appears to be in good condition allowing for proper roofing replacement. No evidence of adequate roof insulation.

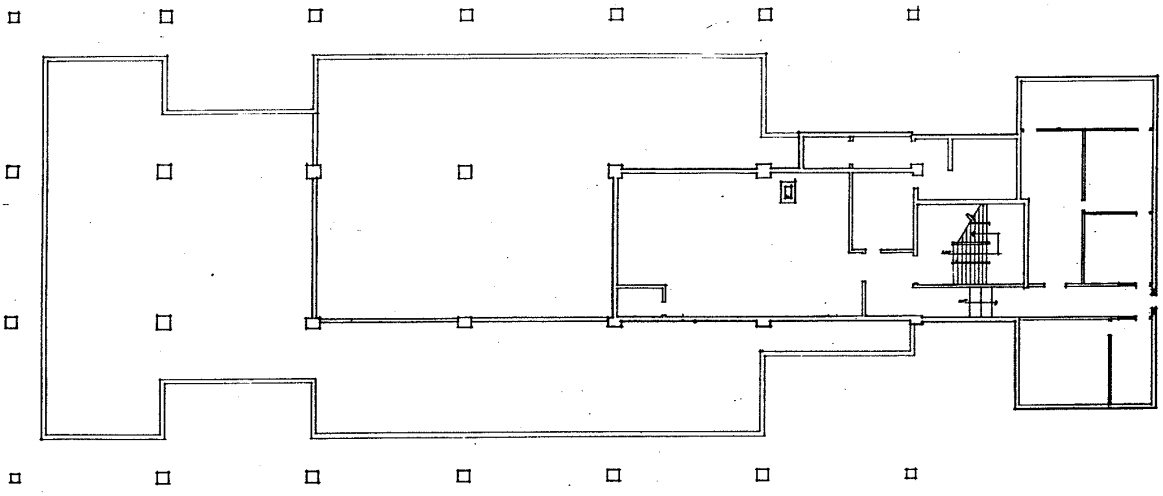
Site improvements are very limited and are in poor condition. The concrete finishes on the front plaza require significant repairs to restore this area to a friendly campus gathering area. The loading area and trash dumpsters are directly adjacent to the major entry from the rear of the building near the access to the parking lot.

J. Usability and Re-use Potential:

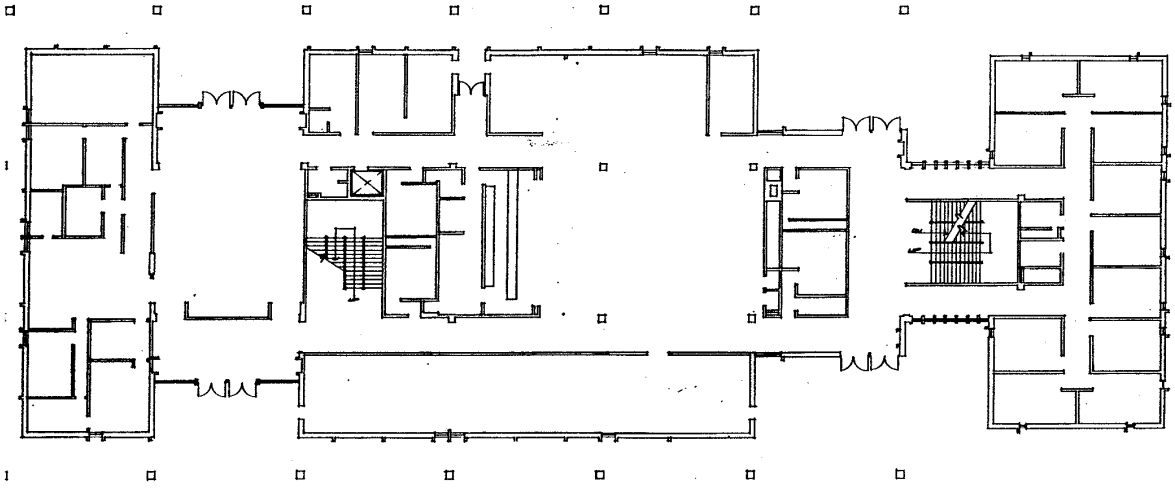
Our impression of this building during our walk-through indicates that it is adequately fulfilling its current function as a classroom and office building. The basic layout, with adequate room sizes and floor to floor heights are similar to new buildings being designed today. The most serious concern is that the existing classrooms and offices do not meet current and near future technology requirements. Upgrading to meet more a modern level of technology will most likely trigger a series of building system improvements, ultimately leading to a full interior gut and renovation. For example, bringing in more power for computers will require replacing the entire HVAC system to meet the added heat loads.

The facility does not adequately meet the campus needs for gathering space and food service. The cafeteria does not have adequate loading, storage or food prep areas to meet the student population. The areas for tables and casual gathering also need more space. The exercise area in the basement also appears to be undersized and overused.

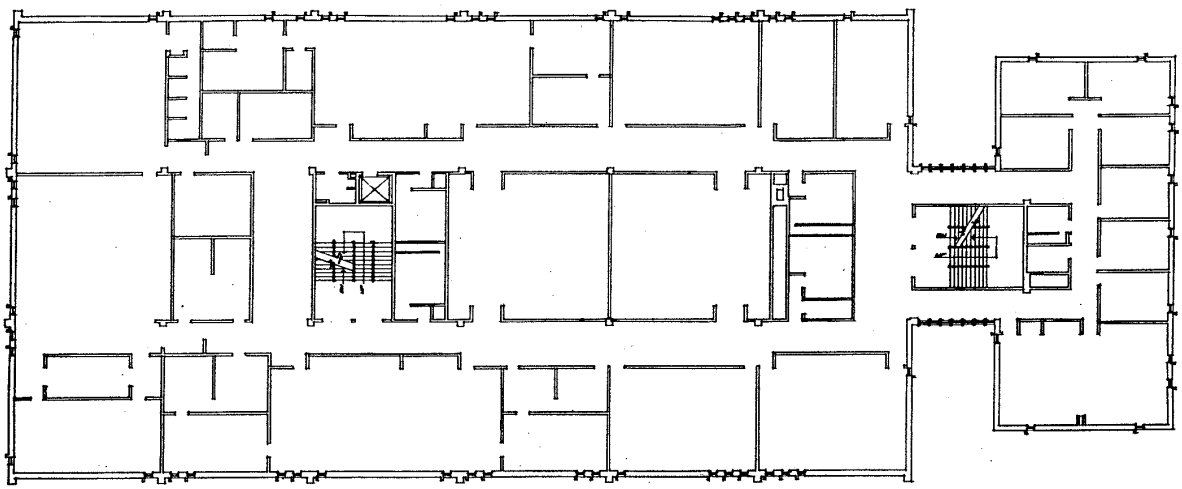
As our observations indicate above, most interior finishes and mechanical systems also require extensive repairs or complete replacement to meet current teaching (data and AV infrastructure) and life safety requirements. Should a complete interior renovation occur, the exterior enclosure, with masonry repairs and window replacement, could economically be renewed to extend the useful life of this building.

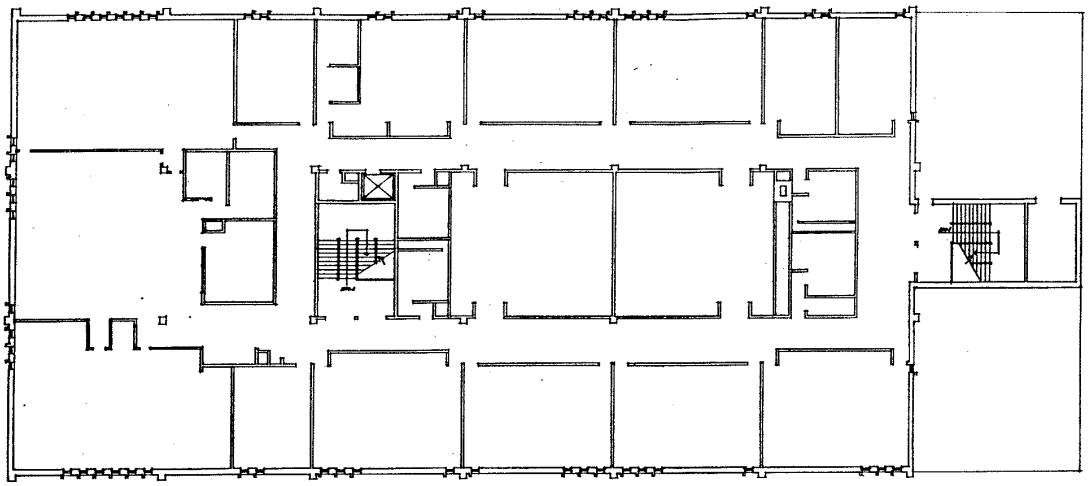


BASEMENT LEVEL PLAN UNDERGRADUATE 85 LAWLER

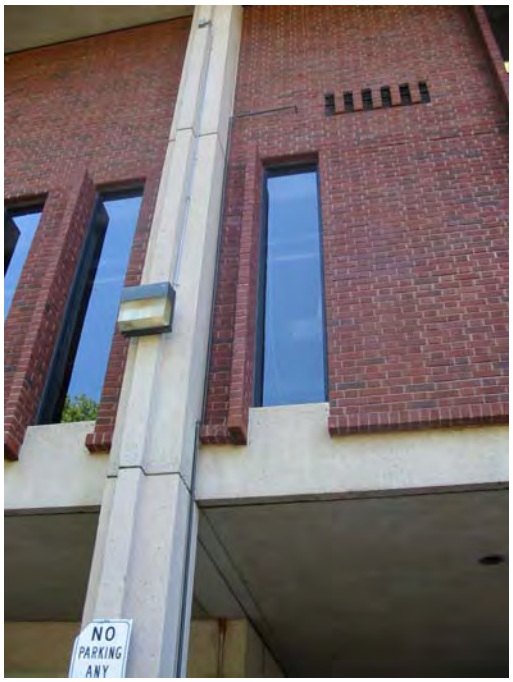


FIRST FLOOR PLAN UNDERGRADUATE 85 LAWLER

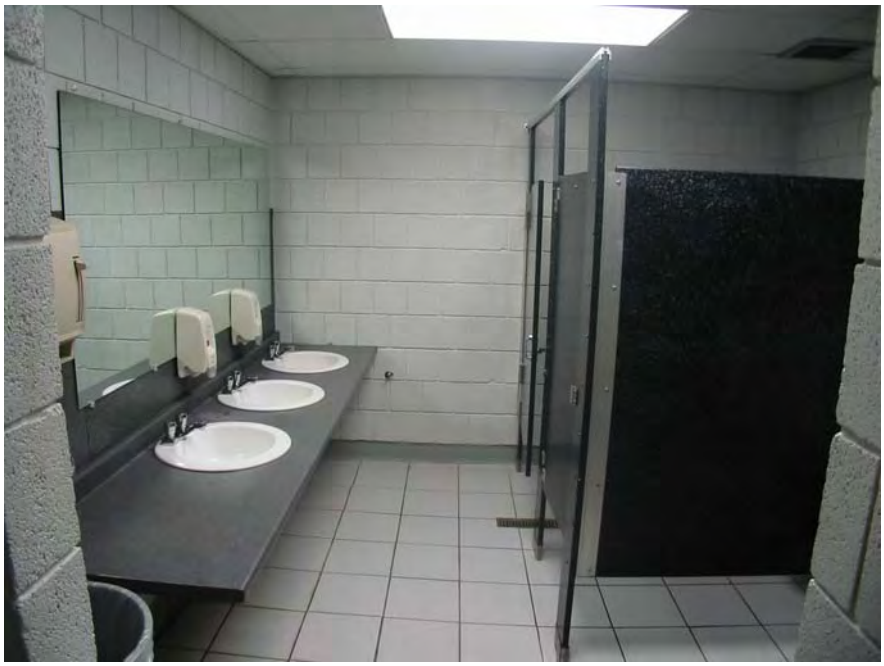

SECOND FLOOR PLAN UNDERGRADUATE 85 LAWLER


THIRD FLOOR PLAN UNDERGRADUATE 85 LAWLER

Typical Exterior Façades



Food Service Area on 1st Floor



Typical Toilet Room

Science Classroom

Typical Classroom

Upgraded Lounge on 3rd Floor

Typical Stair – Handrails and accessible openings do not meet current Codes.

III. SCHOOL OF SOCIAL WORK

A. General Overview:

This 34,000 gross square foot building is located along the north side of the main pathway between the Undergraduate and Library buildings. The building was constructed in 1968± and there are no additions. The building consists of three stories above grade and a partial basement. A small one storey wing serves as the main entryway. This building has a structural steel frame with steel floor deck and concrete infill. The exterior façade was originally plaster veneer, but has been covered over with a "Dryvit" veneer system. The windows are single pane and are most likely near the end of their useful life. The roof is a series of barrel vaults with a spray-on foam insulation and finish system which appears to have numerous leaks and flashing problems. The building is fully occupied.

The existing building has the following characteristics:

Levels	3 floors plus partial basement
Floor to Floor Height	11'-4"
Total Area	34,000 sq.ft. (from campus literature)
Zoning District	Not Applicable
Use Type:	Non-separated Mixed Use B – Business and A3 – Assembly
Construction Type:	Undetermined
Egress Components:	Exit stairs are remote enough and appear wide enough to meet current requirements. The stair treads and handrails do not meet current Code requirements.
Elevator:	ADA upgrades have occurred.

B. Structural System:

The building consists of a structural steel frame utilizing steel floor decks with concrete infill. The system appears to be in good condition. Structural loads could not be determined and should be computed should re-configuration of the existing be anticipated. Column spacing is adequate, but the clear height to the bottom of the steel beam structure may pose challenges to the integration of new mechanical and life safety systems.

C. Plumbing Systems:

There were no obvious problems associated with the plumbing systems; however ADA upgrades to the toilet facilities will be required and the toilet room finishes and fixtures are in poor condition.

D. Fire Protection Systems:

This facility does not have fire sprinklers and the existing fire alarm system does not appear to meet current Fire Code or ADA requirements. Due to the extensive use of this facility and its large population, further investigation and implementation of code required upgrades is highly recommended.

E. Heating, Ventilating, and Air Conditioning Systems:

The capacities and condition of the mechanical systems should be reviewed by a mechanical engineer. As observed, the system is currently running adequately, but most likely does not meet current ASHRAE standards for fresh air or energy efficiency. Control system is DDC. Original systems are in poor condition due to their age and require continual repairs and maintenance. Most of the cooling systems were added in later years and represent additional control and maintenance issues. All systems are well beyond their useful life and represent significant energy costs.

Vertical shafts were installed to provide ventilation air to the floors from the main mechanical units located in the basement. Each floor has a dedicated air handler with horizontal distribution. All systems are well beyond their useful life and there are numerous temperature and control related complaints throughout the building.

The existing system was not designed to meet the current occupant loads. Numerous renovations have occurred in the building without properly upgrading the HVAC services. Also, the addition of computers has added significant heat load to the building, further stressing the mechanical systems.

F. Electrical Systems:

The capacities and condition of the electrical system should be reviewed by an electrical engineer. Buildings of this period usually were not designed to support the electrical loads needed for today's modern teaching facilities. The intense use of computers and upgraded mechanical systems to provide cooling will likely strain the existing system. Light fixtures have been upgraded to energy efficient T-8 lamps. Emergency lighting fixtures appear inadequate. Re-use or redevelopment of this facility will most likely require an upgrade to the building's main service and distribution system.

G. Tel/Data Systems:

The entire control and distribution for the tel/data system have been installed well after the original construction of the building and as such reflect the compromises required to meet today's needs. The head-in equipment for the building shares space in the electrical room, service to connections are run exposed in occupied spaces, and access for new or replacement wiring is difficult. Distribution equipment shares space in the electrical closets on the upper floors. Re –use or redevelopment of this facility will require planning for an all new tel/data infrastructure.

Classrooms have very limited data infrastructure, usually only one drop per room. Technology use appears to be limited to overhead projectors and television/VCR on moveable carts.

H. Interior Finishes:

The interior finishes in most of the facility consist of VCT flooring, painted concrete block walls and lay-in acoustical ceilings. Ceilings have been added in most areas to conceal the HVAC upgrades. A few special purpose spaces in the building, most notably the large meeting room on the first floor, have received significant finish and mechanical upgrades. Floor plan re-configurations, mostly limited to the office areas, have been constructed of metal studs with painted gypsum wallboard. Significant water infiltration in the basement has rendered many spaces there unusable. Continual water infiltration will increase the potential for mold growth which will negatively impact the air quality in the building.

Existing signage does not meet current ADA requirements.

I. Exterior:

The exterior façade is composed of a "Dryvit" veneer finish system applied in recent years over the original plaster exterior. The windows are single pane and are at the end of their useful life. Numerous problems with air and water infiltration exist. The new veneer finish system appears to be suitable for most of the façade; however, serious problems are apparent where the roof meets the wall. There does not appear to be adequate flashing to properly prevent water infiltration at this critical juncture and failure of the veneer system is readily apparent. There is also damage to the veneer system adjacent to the ground, due to either water infiltration and/or landscape maintenance operations.

We could not access the roof to determine its condition. It is a series of barrel vaults with a spray on insulation and finish system. There was considerable evidence of past failures. As noted above, the failure of the roof to wall intersection would most likely create failure of the roof system at these locations.

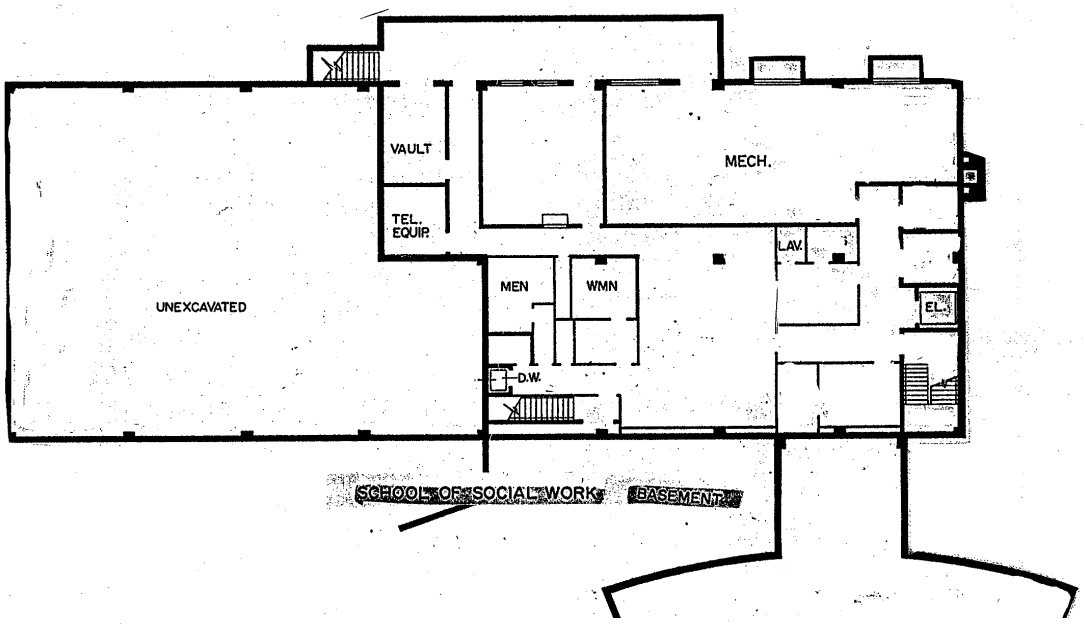
Site improvements are limited and appear in poor condition. There are numerous areas around the perimeter of the building with very poor drainage which may be advancing the deterioration of the exterior skin and basement water infiltration.

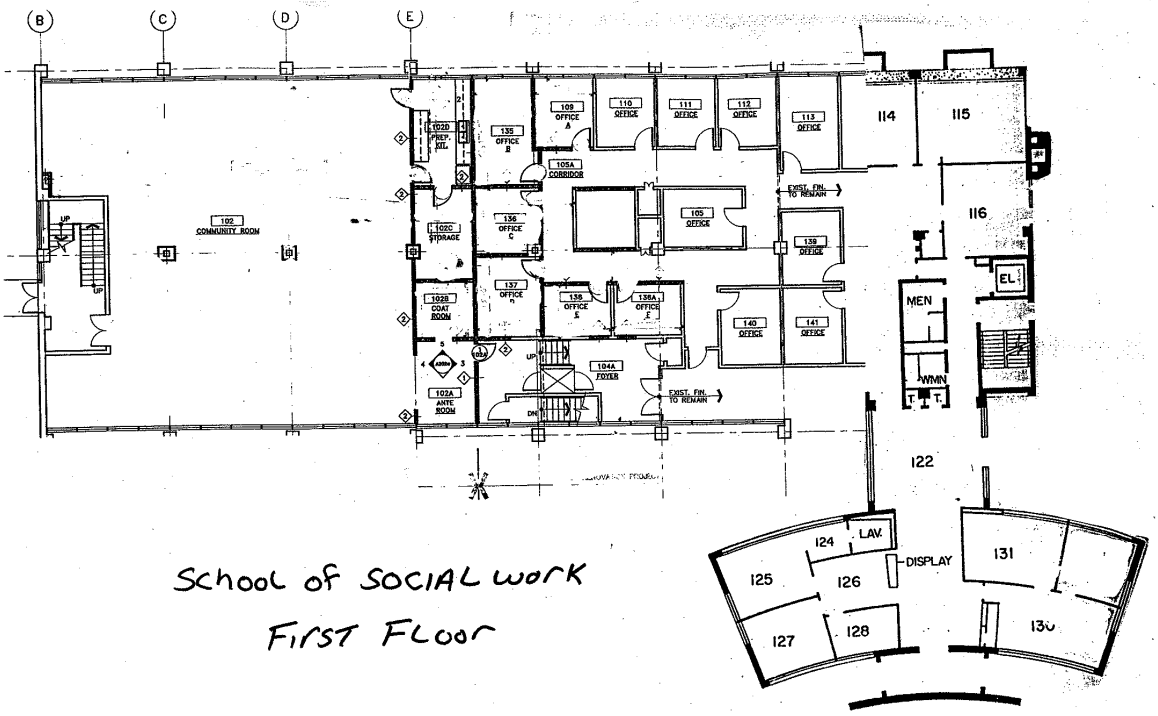
J. Usability and Re-use Potential:

Our impression of this building during our walk-through indicates that it is marginally fulfilling its current function as a classroom and office facility for the School of Social Work. The basic layout, less than adequate room sizes and low floor to floor heights would most likely restrict an interior finish and mechanical system upgrade to this building. Therefore, a complete interior gut and renovation would be required to bring this facility up to modern educational standards.

The repair of the exterior façade and roof will present a significant challenge for any facility reuse. We would anticipate a complete removal of the existing exterior enclosure and design of a new roof and skin which would address the water infiltration and flashing issues addressed above.

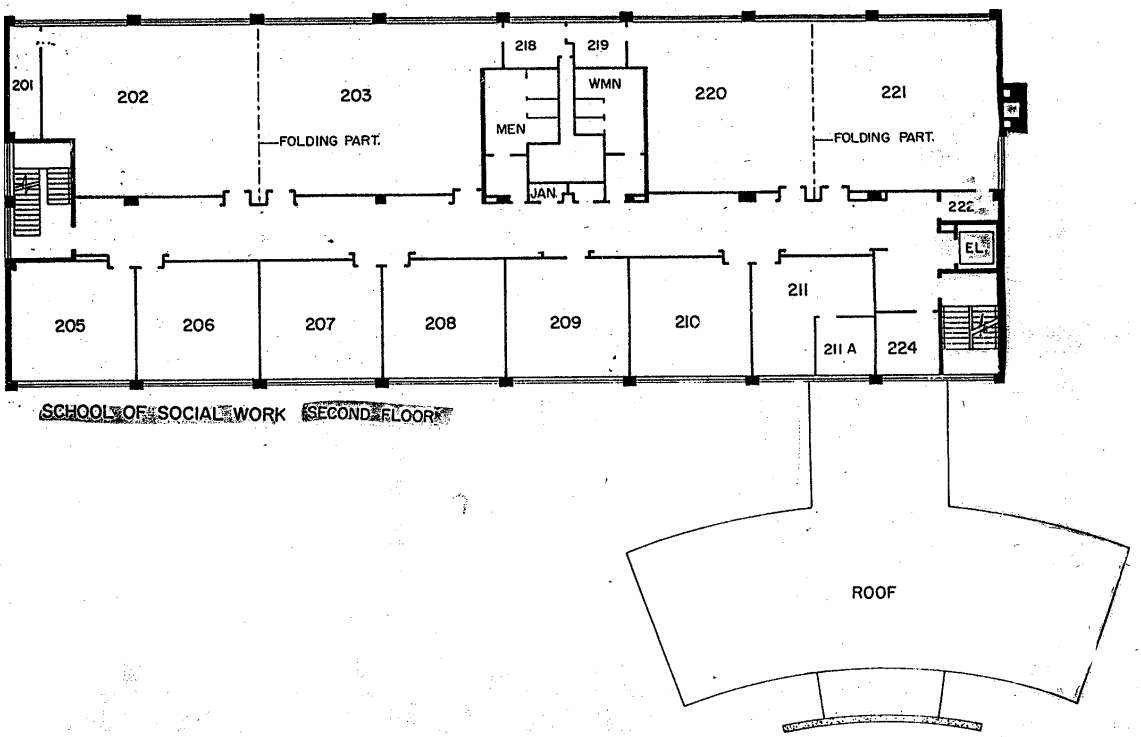
A renovation of this magnitude, both interior and exterior, would most likely exceed the cost of demolition and new construction, the latter of which could yield a much more functional and flexible modern educational facility.





School of SOCIAL work

First Floor


201
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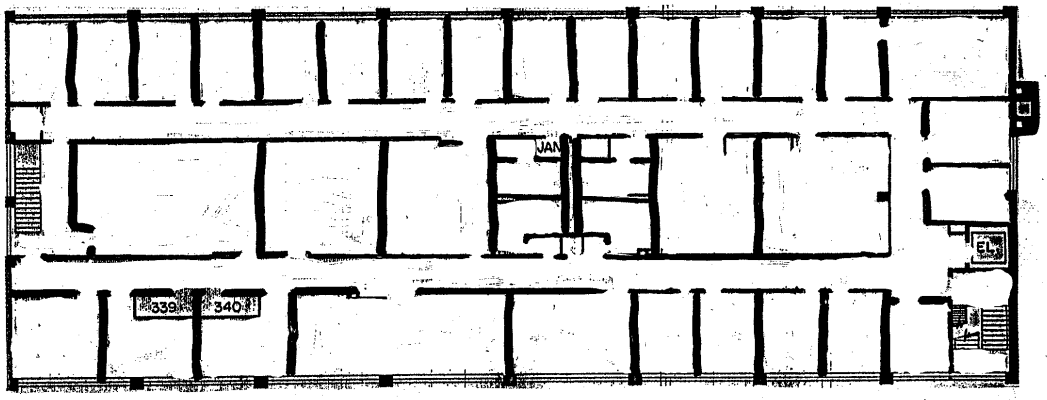
SCHOOL OF SOCIAL WORK SECOND FLOOR
ROOF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One Storey Entrance Building Facade

Lobby Interior

Exterior Façade Deterioration

Typical Corridor

Renovated Lower Level Meeting Facility

IV. LIBRARY BUILDING

A. General Overview:

This 67,700 gross square foot building is located at the terminus of the main pathway from the Student Parking lot and is adjacent to Asylum Road. Originally constructed for the University of Connecticut Law School, the building was erected in 1962± with a later one storey auditorium addition. The building consists of three stories above grade and a full basement, which in the rear of the building is exposed for its full height. The exterior façade is masonry veneer with pre-cast concrete trim elements. The windows are single pane and are at the end of their useful life. The roof is a built-up system with gravel ballast and appears to have numerous leaks and flashing problems. The building is fully occupied.

The existing building has the following characteristics:

Levels	3 floors plus full basement and one story auditorium
Floor to Floor Height	11'-4"
Total Area	67,700 sq.ft. (from campus literature)
Zoning District	Not Applicable
Use Type:	Non-separated Mixed Use B – Business and A3 – Assembly
Construction Type:	Undetermined
Egress Components:	Exit stairs are remote enough and appear wide enough to meet current requirements. The stair treads and handrails do not meet current Code requirements. Some stairs are not enclosed which may be required to meet current codes.
Elevator:	Minor upgrades for ADA

B. Structural System:

Due to the nature of the concrete block interior walls and inaccessible ceilings, the structural system could not be determined. The system appears to be in good condition with no known serious structural problems. Structural loads could not be determined and should be computed should re-configuration of the existing be anticipated. Column spacing is adequate, but the clear height to the bottom of the structure may pose challenges to the integration of new mechanical and life safety systems.

C. Plumbing Systems:

There were no obvious problems associated with the functioning of the interior plumbing systems; however ADA upgrades to the toilet facilities will be required and the finishes and fixtures are in poor condition. Fixture counts are also below required minimums.

There is a significant drainage problem during heavy rain storms. At these times the downstream storm drainage cannot handle the flows and water may back-up into the basement of the building.

D. Fire Protection Systems:

This facility does not have fire sprinklers and the existing fire alarm system does not appear to meet current Fire Code or ADA requirements. Due to the extensive use of this facility and its large population, further investigation and implementation of code required upgrades is highly recommended.

E. Heating, Ventilating, and Air Conditioning Systems:

The capacities and condition of the mechanical systems should be reviewed by a mechanical engineer. As observed, the system is currently running adequately, but most likely does not meet current ASHRAE standards for fresh air or energy efficiency. Control system is DDC. Original systems are in poor condition due to their age and require continual repairs and maintenance. Most of the cooling systems were added in later years and represent additional control and maintenance issues. All systems are well beyond their useful life and represent significant energy costs.

Humidity control for the Library is an ongoing problem. Current systems do not adequately control humidity levels in the summer months which has allowed mold to grow and affect the collections. This problem should be addressed now to prevent further deterioration.

F. Electrical Systems:

The capacities and condition of the electrical system should be reviewed by an electrical engineer. Buildings of this period usually were not designed to support the electrical loads needed for today's modern teaching facilities. The intense use of computers and upgraded mechanical systems to provide cooling will likely strain the existing system. Light fixtures have been upgraded to energy efficient T-8 lamps, except in the library. Emergency lighting fixtures appear inadequate. Re-use or redevelopment of this facility will most likely require an upgrade to the building's main service and distribution system. The main transformer vault has serious water infiltration problems and is usually underwater.

G. Tel/Data Systems:

The entire control and distribution for the tel/data system have been installed well after the original construction of the building and as such reflect the compromises required to meet today's needs. The head-in equipment for the building shares space in the electrical room, service to connections are run exposed in occupied spaces, and access for new or replacement wiring is difficult. Distribution equipment shares space in the electrical or janitor closets on the floors. Re –use or redevelopment of this facility will require planning for an all new tel/data infrastructure.

Most classrooms have very limited data infrastructure, usually only one drop per room

H. Interior Finishes:

The interior finishes in most of the facility consist of VCT flooring, painted concrete block walls and concealed spline or direct applied acoustical ceilings. Lay-in acoustical ceilings were mostly added for the HVAC upgrades. The original library spaces have the original upgraded finishes including wood and decorative block walls. Floor plan re-configurations have been constructed of metal studs with painted gypsum wallboard. Water infiltration in the basement has rendered many spaces there unusable.

Existing signage does not meet current ADA requirements.

I. Exterior:

The exterior façade is masonry veneer with pre-cast concrete trim elements. There are also some areas of stone veneer at the front entrance. The windows are single pane and are at the end of their useful life. A few areas of the precast concrete trim and panel areas have experiences severe deterioration due to water infiltration and the resulting freeze-thaw damage. Other areas have been damaged by vines which, while now removed, have caused damage. There is considerable damage to the concrete areaways on all sides of the building. The brick veneer on the auditorium addition also has considerable spalling of its outer surface. Water infiltration is also evident on the interior around the windows in many of the spaces.

The roof, estimated at 18 years old, is a built-up system with gravel ballast and appears to have numerous leaks and flashing problems. There was considerable evidence of past failures. The portion of the parapet above the roof line is an area with considerable damage and may require removal and rebuilding to achieve proper useful life.

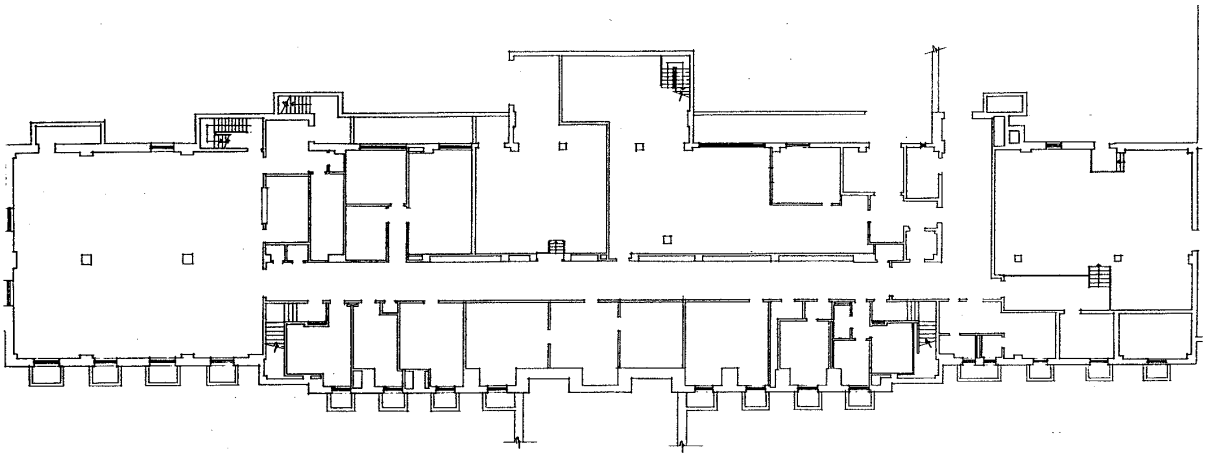
Site improvements are limited and appear in extremely poor condition. Of particular not is the front entrance area where the paving is spalling and heaving, and the site walls are loosing their pre-cast concrete veneers.

J. Usability and Re-use Potential:

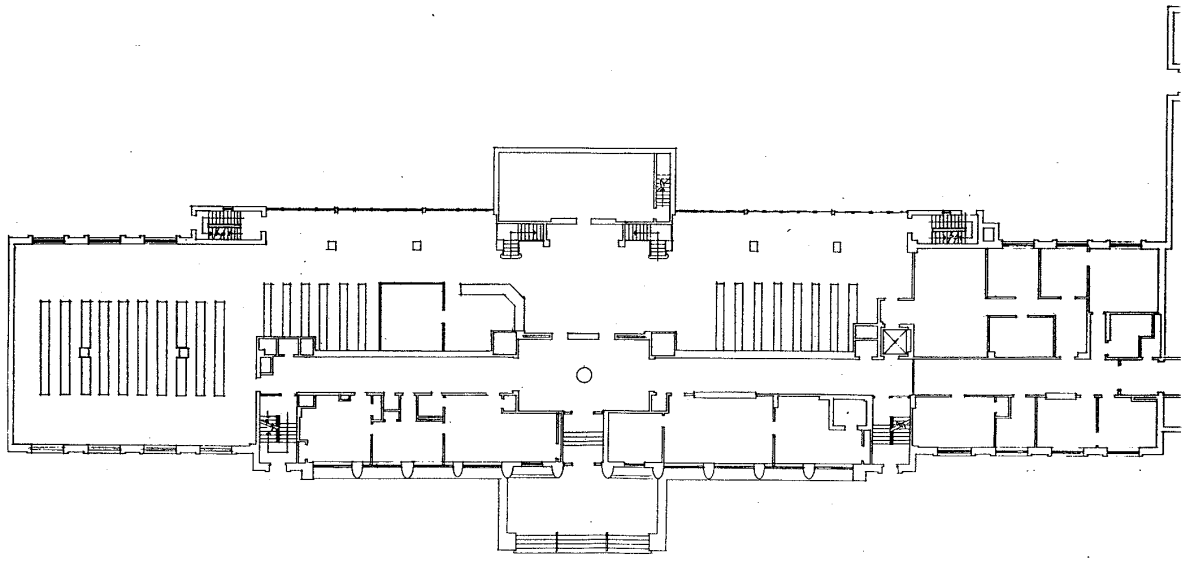
Our impression of this building during our walk-through indicates that it is marginally fulfilling its current function as a classroom and office facility. The basic layout and adequate room sizes would be suitable for re-development and re-use of this building. Floor to floor clear heights will present challenges to the integration of a new mechanical infrastructure. A complete interior finish replacement and infrastructure renovation would be required to bring this facility up to modern educational standards. The repair of the exterior façade and roof will also require significant costs; but due to the historical nature and location of this building, it would seem appropriate.

Re-configuration of this building would need to address issues of pedestrian entry and loading access. The current configuration and relationship to other campus buildings brings all traffic into the rear of the building at the lower level, adjacent to the parking lot, loading area and mechanical equipment.

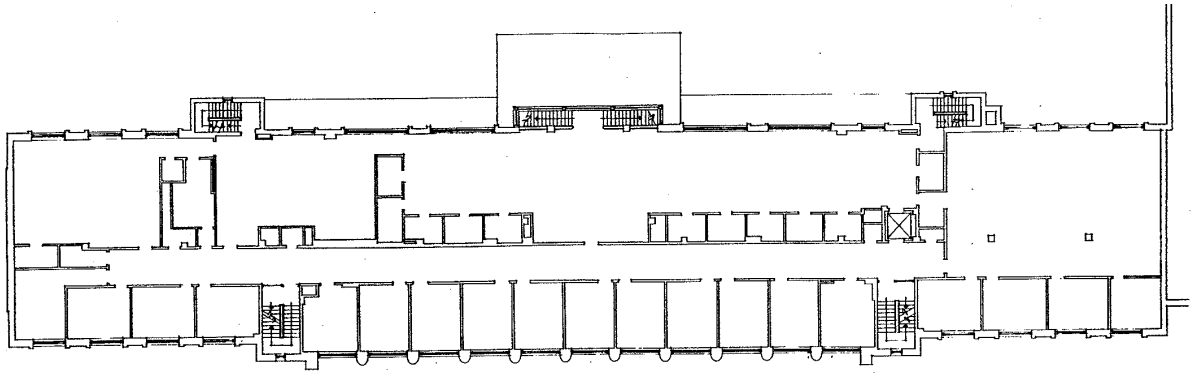
Main entrance to the building



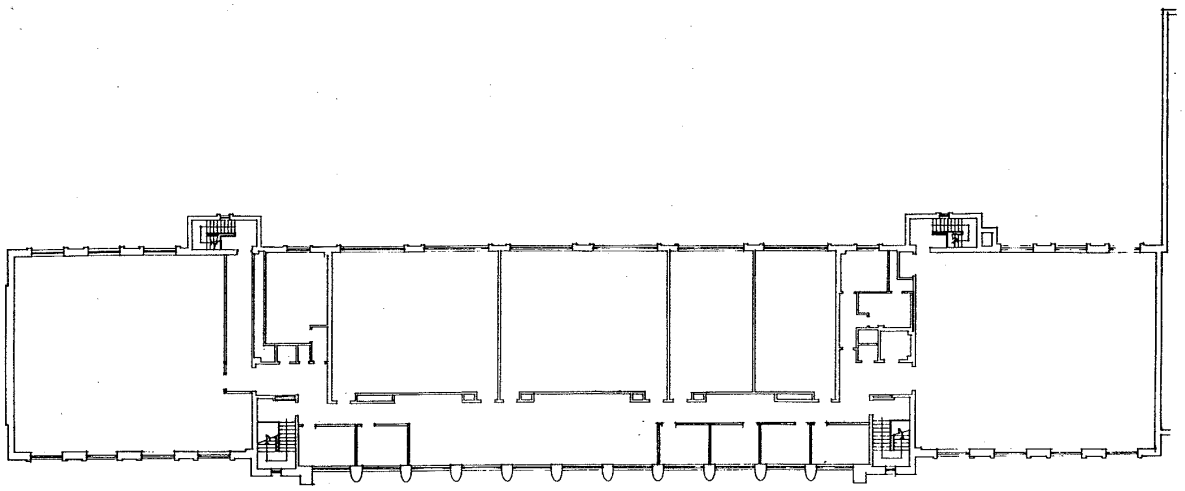
FIRST FLOOR 1800 ASYLUM



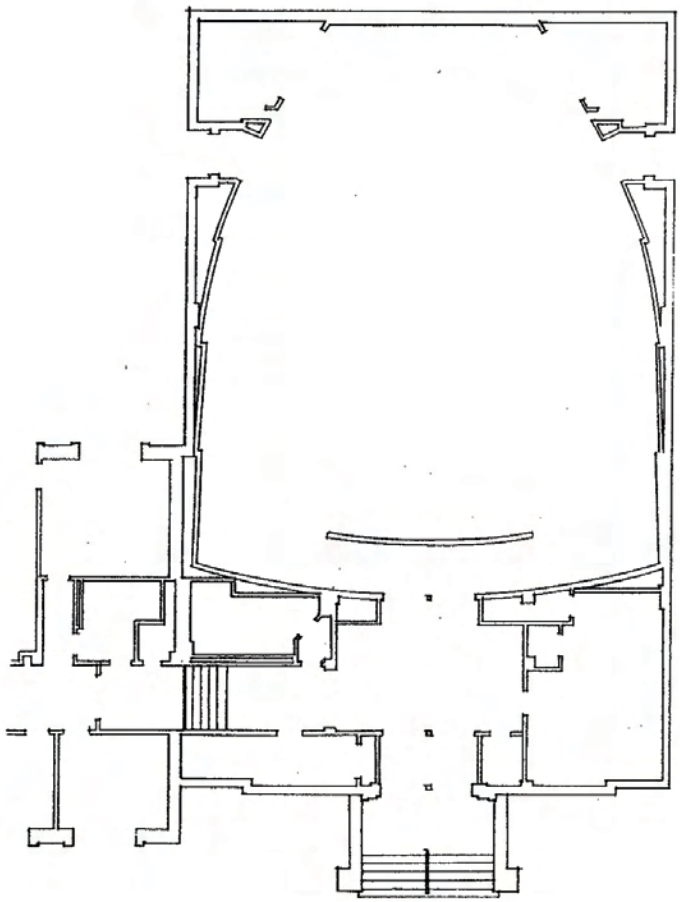
SECOND FLOOR 1800 ASYLUM



THIRD FLOOR 1800 ASYLUM



FOURTH FLOOR 1800 ASYLUM



1800 ASYLUM

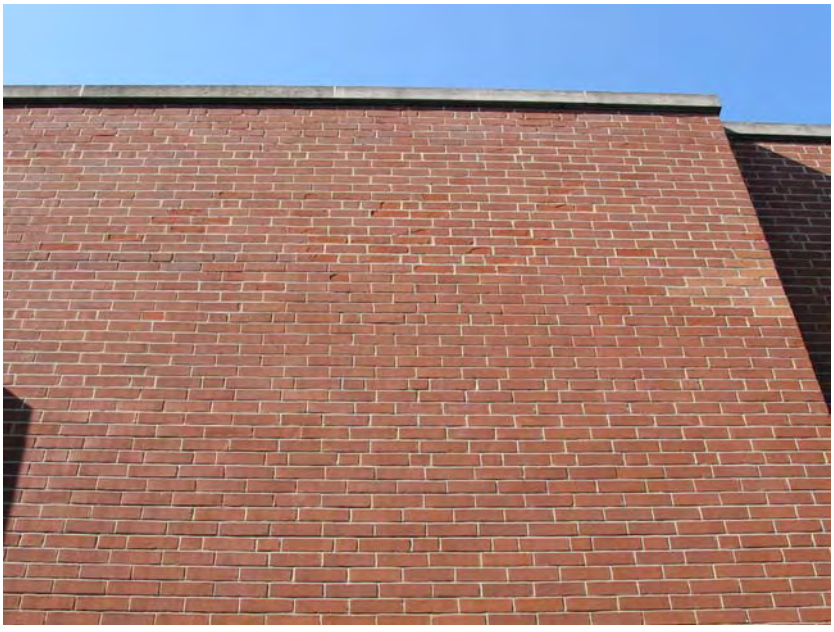
SECOND FLOOR - AUDITORIUM

Exterior Façade Facing Asylum Road

Exterior Deterioration

Interior of Library

Water Damage at Window Head



Spalling Bricks on Auditorium Addition

V. ASHRAE Life Expectancy Table

Equipment Item	Median Years
Air conditioners	
Window unit	10
Residential single or split package	15
Commercial through-the-wall	15
Water-cooled package	15
Heat Pumps	
Residential air-to-air	15[b]
Commercial air-to-air	15
Commercial water-to-air	19
Roof-top air conditioners	
Single-zone	15
Multi-zone	15
Boilers, hot water (steam)	
Steel water-tube	24 (30)
Steel fire-tube	25 (25)
Cast iron	35 (30)
Electric	15
Burners	21
Furnaces	
Gas- or oil-fired	18
Unit heaters	
Gas or electric	13
Hot water or steam	20
Radiant Heaters	
Electric	10
Hot water or steam	25

Equipment Item	Median Years
Air terminals	
Diffusers, grilles, and registers	27
Induction and fan coil units	20
VAV and double-duct boxes	20
Air washers	17
Ductwork	30
Dampers	20
Fans	
Centrifugal	25
Axial	20
Propeller	15
Ventilating roof-mounted	20
Coils	
DX, water, or steam	20
Electric	15
Heat Exchangers	
Shell-and-tube	24
Reciprocating compressors	20
Packaged chillers	
Reciprocating	20
Centrifugal	23
Absorption	23
Cooling towers	
Galvanized metal	20
Wood	20
Ceramic	34

Equipment Item	Median Years
Air-cooled condensers	20
Evaporative condensers	20
Insulation	
Molded	20
Blanket	24
Pumps	
Base-mounted	20
Pipe-mounted	10
Sump and well	10
Condensate	15
Reciprocating engines	20
Steam turbines	30
Electric motors	18
Motor starters	17
Electric transformers	30
Controls	
Pneumatic	20
Electric	16
Electronic	15
Valve actuators	
Hydraulic	15
Pneumatic	20
Self-contained	10

UCONN

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