SUNY BROOME

Facilities Assessment and Master Plan Report

Binghamton, New York
December 2016

Prepared by

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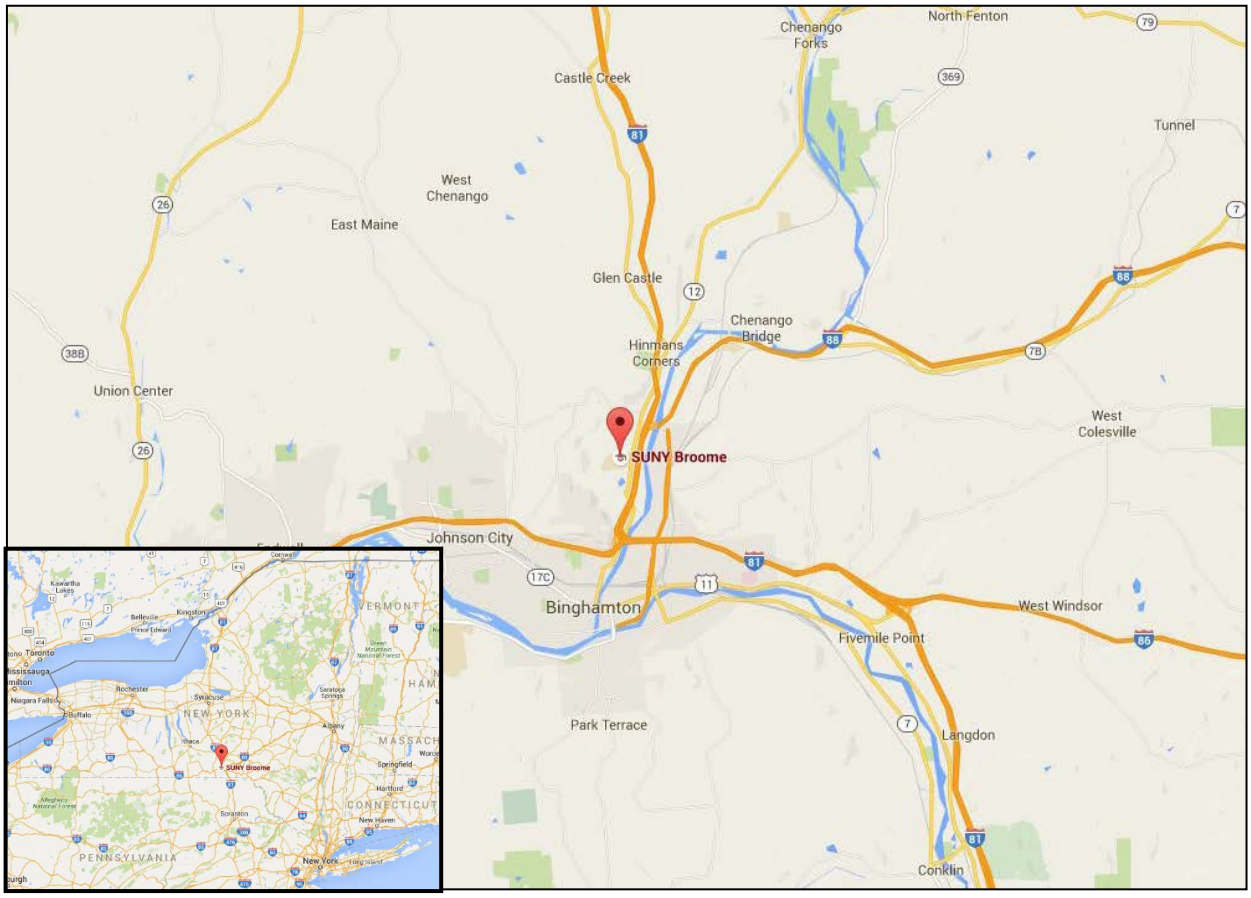
1. Executive Summary

Introduction

In Spring 2015, the master planning team of Passero Associates and Saratoga Associates, in collaboration with Scott Blackwell Page Architect, was selected by SUNY Broome to prepare a Facilities Master Plan (FMP) that would serve as a framework for future planning. The College's goal was to develop a comprehensive master plan to address selective aspects of site and facility planning for the period of 2016-2025.

Campus Profile



> *Community Context*

The SUNY Broome campus is located along Front Street in the Town of Dickinson, in the Susquehanna River Valley, just five minutes from downtown Binghamton and about one hour from Syracuse. The campus is comprised of 15 buildings, athletics fields, and both landscaped and natural green spaces.

> *Campus History*

SUNY Broome can trace its roots to the end of World War II, initially providing educational opportunities for veterans as they returned home. Over the decades that followed, the college developed into a two-year technical institute and then into an official community college. SUNY Broome has grown to offer articulation agreements with four-year schools, opportunities for off-campus and online education, international and study-abroad programs, adult continuing education, programs for high school students, and, now, student housing. It has adapted through the years to serve the needs of its current and future students, as well as those of the community.

Campus Timeline	
1946	NYS Legislature establishes five institutes of arts and sciences, including one in Binghamton, for an experimental 5-year period
1947	Institute of Applied Arts and Sciences opens in the State Armory, under Cecil C. Tyrrell
1950	Master Plan for developing state education facilities approved
1951	State Armory destroyed by fire; college reopens one month later in Kalurah Temple
1953	College renamed Broome County Technical Institute; becomes an official community college
1954	Construction planning begins for campus location on Front Street in Dickinson
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1961	Titchener Hall opens, to house Liberal Arts
1968	Tyrrell Library opens
1971	Business Building constructed; college name changes to Broome Community College
1984	Applied Technology Building
1992	Campus Services Building
1998	Decker Health Science Center
2013	College name changes to SUNY Broome Community College; Natural Science Center opens
2014	Renovation of Wales Center; Opening of Student Village residence hall

Project Understanding

The primary goals of the planning approach were to develop a comprehensive facilities master plan for SUNY Broome that would fulfill specific site and facility planning needs. The plan needed to be flexible to accommodate future needs, take full advantage of opportunities for change and be integrated with SUNY Broome's vision, strategic plan, and educational programs.

Key planning challenges included the following:

- Link enrollment goals to the planning of facilities and infrastructure.
- Enhance the campus environment, open space, landscaping and wayfinding.
- Identify primary sites for the infill of new campus buildings.

- Link the Facilities Master Plan to the Academic Plan.
- Address critical areas, as determined by the campus.

> *Campus Vision*

"Broome Community College strives to be a leader in anticipating and responding to diverse individual, community and global needs for accessible lifelong educational opportunities. We collaborate with others to create high quality, innovative, student-centered learning environments guided by our shared values."

> *Supporting the Strategic Plan*

The Facilities Master Plan supports the following objectives outlined in the SUNY Broome Strategic Plan:

Strategic Initiative 5. *Enhance and sustain the infrastructure and environment for a dynamic living-learning community. Enhance the living-learning environment regarding the campus community's needs.*

Physical Facilities

5.1 Review and update the campus facilities Master Plan to align with the needs of our living learning community.

5.2 Enhance and maintain a physical infrastructure that is safe, accessible, green, and aesthetically appealing.

5.3 Rehabilitate all original 1956 core campus buildings by 2020 (Science, Mechanical, and Student Services).

5.4 Create more gathering places for students to interact socially, academically, and recreationally.

5.5 Create a dedicated space for Continuing Education activities such as open enrollment courses, workforce development or training, corporate training, and/or entrepreneurial initiatives.

5.6 Develop facilities in support of hosting professional conferences, co-sponsored events, and public events.

5.7 Improve physical access to lab instrumentation and equipment.

Residential Life

5.8 Establish and align a comprehensive system of campus services and activities to support a safe and vibrant residential community of learners.

Technology Infrastructure

5.9 Review and update the Technology Plan to support learning with an infrastructure that is current, robust, reliable, and maintains information security.

5.10 Systematically review and update technology hardware to support reliable access to services.

5.11 Improve campus wireless networking and mobile access to college information.

Functional Infrastructure

5.12 Create, update, and communicate a college-wide authenticated virtual library of policies, procedures, processes, and forms that is indexed and easily searchable.

5.13 Provide necessary resources, training, and facilities/maintenance staffing to support and maintain safe, functional, and attractive campus facilities and workspaces.

Supporting the Academic Plan

The Academic Plan, as authored by Strategic Innovation in Education (SIE), works to identify potential areas of growth and development for the SUNY Broome campus. The SIE has identified the following as priorities:

> Digital Facilities such as online course offerings, cyber cafes and wireless networking throughout campus

> Multi-functional Facilities such as general classrooms that are equipped to accommodate multiple disciplines

> Academic Expansion addressing growing opportunities in the digital media and communications, forensics and homeland security fields

> Campus Image Improvements such as designated arrival area and gateway and updated facades

> Sustainable Design and Practices addressing recycling, climatic comfort and energy conservation

> Digital Arts for animation, Computer graphics

> Create a One Stop Facility

The Campus Master Plan addresses the above items through its recommendations for new and renovated buildings that address today's teaching needs, consolidate departments, address current accessibility, safety and energy codes and improve overall campus image. Proposed site renovations will also address campus way finding, safety and aesthetic.

Planning Approach and Process

Approach

The planning team worked collaboratively with SUNY Broome to ensure that an inclusive process would produce a compelling vision, a clear road map of how to get there, and a flexible project implementation plan.

Collaborative participation was gained through a variety of formats including monthly meetings with the Master Plan Steering Committee, interviews with faculty and staff, and a campus-wide planning charrette.

Process

The planning process involved the following phases:

Phase 1: Orientation/Goal Setting

Phase 2: Facilities Assessment

Phase 3: Academic Planning, Space Needs & Programming Phase

Phase 4: Concept Development

Phase 5: Preferred Master Plan & Design Concepts

Phase 6: Implementation Plan/Capital Improvements Phasing

Phase 7: Final Campus Master Plan

Project Schedule

The planning process was initiated in January 2015 and the final plan was completed in October 2015.

Orientation: January 2015

Facility and Site Assessment: February – April 2015

Space Assessment: February – April 2015

Charrette: April 2015

Concept Alternatives: April – July 2015

Implementation Plan: August – September 2015

Final Report: September – October 2015

Key Findings

Academic Space Planning and Program Needs

This section of the Master Plan report focuses on the campus' space inventory – existing space, current and projected need, and how that space relates to the current and anticipated enrollment at the College. This space is divided into academic space – classrooms, faculty offices, teaching labs, and research – and support space. Student residence facilities are covered under another section of the Master Plan.

> *Current Building Space*

…and Current Enrollment

> *Total Projected Space Need*

… and anticipated enrollment

> *Academic Space Need*

> *Support Space Need*

Facilities Assessment

> Building Component

General deferred maintenance on minor repairs

Masonry walls are in good condition, with a few exceptions where cracks and leaking are evident

Windows are primarily single pane glazing and are showing signs of deterioration

Some building entrances are small and difficult to navigate, creating a barrier to handicap accessibility, others are damaged and do not function properly

Roof leaks are apparent in several buildings

Interior finishes of many buildings are outdated and/or damaged

Toilet partitions are showing wear in many buildings

Plumbing fixtures back up in some buildings

> Building Infrastructure Component

Several of the older buildings still have the original boilers that are in poor condition and are in need of upgrade or replacement

The campus is not serviced by a central cooling plant and not all buildings are provided with summer air conditioning

HVAC Controls - The campus is not serviced by a central or standardized HVAC control systems. HVAC system controls vary from original pneumatic systems to a mixture of direct digital control (DDC) systems of varying manufacturers and varying ages. Very few of the DDC systems report to a central facility.

> *Code Compliance*

Inspection of the campus found that some of the facilities do not comply with the Americans with Disabilities Act of 1990 (ADA). While the following areas were found to be noticeably out of compliance, an in-depth ADA audit of all facilities should be undertaken to provide a comprehensive report. Any future renovation projects of existing buildings or construction of new facilities must meet the requirements of ADA. Major areas of current non-compliance are as follows:

> Dimensional clearances of toilet rooms are inadequate for the maneuvering of a wheelchair

> Door hardware having improper closure pressure and door handle configuration

> Drinking fountains at improper heights and not of proper design

> Signage style and design

> Open staircases lacking tactile warning devices.

> Improper ramp grades

> Improper interior and exterior railing design

> Dimensional clearances at building entry vestibules

> Site Utilities Component
Underground natural gas distribution system is reaching the end of its life expectancy Data System

may not support anticipated increase in data requirements

Site Assessment

Campus entries require enhancement to create hierarchy and definition

Several potential parking and vehicular circulation conflicts with pedestrians were identified throughout campus

General deferred maintenance with pavements at various locations

Inconsistent campus-wide signage and site amenities

Overgrown trees and inappropriate plant selections impact aesthetics and, potentially, security

Significant traffic congestion at peak times at south entry to primary parking lot

1. There are poor edges along the campus core - especially along the northern edge of quad near the Student Center.

2. There are many good spaces that need better definition. Direct views to/from parking areas should be minimized. The use of offset pedestrian nodes & plazas can help achieve this while still maintaining sight lines.

3. Buildings should be better "activated" by adding additional entrances to buildings. Many of the buildings face interior quads without an entrance. Facades across campus need to be activated and transparent - remove solid face walls - indoor outdoor visual interface

4. There many good pedestrian spines across campus, as well as opportunity for improvement and unification. Many of these spines should be widened. A hierarchy of pathways and corridors can be created through scale and materials. Access from the main parking areas at the Library and to the west of the Natural Science Center should be assessed and improved.

5. All site furnishings across campus should be unified - old/various styles of lights, benches, paving materials, gazebos, etc.

6. Like the site furnishings, much of the landscape has matured beyond its design intent. A site landscape analysis is recommended to evaluate aging and overgrown plant materials.

7. The campus facilities and grounds should visibly implement and display green and sustainable practices; e.g. incorporate green walls.

8. There is great opportunity with the Student Center, A/T building, Library and Mechanical Building. Public Safety should be re-thought/relocated. The Mechanical Building can be a notable gathering area within the core of the campus. The proposed clean room at the east end of the will be a notable indoor/outdoor design feature - the quad should be designed to respond to the "tech" feel of the clean room.

9. Key opportunity areas include the potential development zone along Front Street, the main quad, the Mechanical Building courtyard, and the potential of the Alumni Field space. These could be long-term campus expansion areas.

10. The campus should have a fresh, "innovative" makeover.

MASTER PLAN CONCEPTS

The Concept Phase is when building, infrastructure and site concepts that satisfy the distribution of program needs identified during the Analysis Phase (Facility and Space Needs) are developed, with the intent to improve circulation, capitalize on physical opportunities, react to building and site constraints, and achieve an improved utilization of existing space.

The campus was opened in the mid 1950's, and as the population has increased over the past 50 years, student profiles have changed. The student profile is still dominated by recent high school graduates, but more and more non-traditional students are attending the college. They are older, looking for re-training in a volatile job market or wishing to improve their skills for upward mobility in an evolving service economy. The non-traditional student also includes the disabled and an expanding immigrant population.

Buildings and Facilities Concepts

As new curricula evolve from social requirements and technical advances, new criteria is placed on classroom configuration. Additional types and sizes of classrooms are needed with more demand for specialized labs and dedicated classrooms. The classroom configuration designed 40 years ago often cannot meet the needs of these contemporary requirements.

The goal of this master plan is to create a campus wide user-friendly learning environment that meets the requirements of today's pedagogy, as well as responds to the calculated space needs as dictated by the State University Construction Fund.

> *Improve Space Utilization*

Revise scheduling and class sizes to improve utilization of teaching spaces.

> *Consolidate and Reorganize*

Departments, such as Art, Science and English, are divided over many buildings, and, in some cases, are located partially off campus. When departments are consolidated into one building, redundant facilities can be avoided, and efficiency of space and time can be improved.

> *Code Compliance*

Upgrade the existing campus facilities to acceptable present day code standards. Health, safety, and accessibility code compliance will improve the utilization of buildings; meeting the energy codes will reduce wasted energy and improve efficiency.

> *Deferred Maintenance*

It is important that once new buildings are constructed and existing buildings are renovated deferred maintenance be addressed. Multi-year budget goals should be set for addressing maintenance priorities, and budgeted dollars need to be expended on the projects. A log should be created for projects/priorities and be made available to decision-makers.

> *Total Renovation*

Existing buildings that were constructed in 1956 and are located at the core of the campus require total renovation. Doing so will not only bring the outdated facilities up to current teaching standards, but will improve energy usage and re-establish the aesthetic of the campus.

> *Construct New Instructional Spaces*

Create new, state of the art, teaching spaces that can serve multiple departments' teaching needs and possess amenities that are not possible in renovated buildings due to structural limitations. New spaces do not necessarily mean additional square footage, as many of the existing classrooms are poorly sized will be reconfigured to accommodate current class size standards.

The Master Plan recommends the infill of potential new buildings to reinforce the open space system and campus core. The sites adjacent to the Quad and south of the Student Center provide the strongest opportunities to integrate new buildings into the campus fabric.

> *Student Housing*

SUNY Broome is interested in pursuing additional student housing with the anticipation that it will boost enrollment. Off-campus student housing has the advantage of independent management, but duplicates parking demands on campus. On-campus student housing promotes a heightened sense of campus community, but requires certain facilities, such as student health and dining, to be increased and developed to accommodate on-campus residential occupancy.

(IN - year - (early 2000s?)) Broome retained Anderson Strickler, LLC (ASL) to conduct a feasibility study for on-campus student housing. Through their research, ASL determined that the college could support up to 765 beds of apartment style housing, and recommended that the construction be broken into two phases. By constructing in phases, the college could benefit from initial occupancy, establish procedures, and learn the necessary lessons for a successful second phase.

This original housing master plan included eight buildings, housing approximately 380 beds, and the associated parking on campus. There were two potential sites established for housing: along Front Street and in the northwest corner of campus. Housing was constructed along Front Street as Student Village, which opened in August 2014 and provides beds for 365 students. There is not a dedicated resident parking lot at this time, and no dining facility was constructed as part of the project.

A future phase of student housing could be constructed to complement the existing Student Village as demand allows. Parking could be revised to accommodate the new building, and a current Lot 18 could be transformed into an open quad space.

> *Utility and Infrastructure Concepts*

Repairs, renovations, and modernization of facilities are a campus-wide project, involving the existing buildings, utilities, and distribution systems. The building-related infrastructure and utilities projects recommended in this report would be undertaken as each individual building is renovated. Utility distribution and site related projects recommended in this report would be tied to the building projects wherever possible. The following list represents the general areas of improvement that will take place on campus.

Summary of Infrastructure Improvements

> Bring all buildings and grounds into compliance with health and safety codes and ADA

> Increase energy efficiency of buildings through window and entrance replacement

> Eliminate basement seepage problems

> Complete asbestos abatement program

> Repair exterior building components

> Replace aged and inefficient building mechanical systems.

> Provide centralized campus energy management system for better system control and monitoring.

> Replace natural gas distribution system

Summary of Electrical Improvements

> Replace panelboards that are at the end of their usable life and contain obsolete breakers and/or no additional space

> Add devices, such as ADA compliant strobes, to meet current code requirements

> Provide Annunciation of Fire Alarm System to Campus Operations and provide connections to buildings that don't currently report to Campus Operations

> Add emergency lights to meet current code requirements

> Add exit lights to meet current code requirements

> Replace shorted out and suspect wiring to site lighting

> Replace outdated UPS and provide upgraded reliability for the Computer Center

> Relocate Time Warner Fiber entrance to the Computer Center

> Replace any remaining older T-12 fluorescent luminaries with T-8 lamps and electronic ballasts in the few areas which have not been upgraded

> Space Conclusions

When the Master Plan has been fully executed, the BCC campus will have 12,523 NET SF more than it currently has. The Projected need for the campus in 2015-2016 is 497,595 NET SF, and the master plan has provided for 413,669 NET SF. The initial conclusion that can be drawn is that the master plan has provided a deficit of 83,926 NET SF. However, this deficit can be attributed to the Health, Physical Education and Recreation (HPER) projected space needs of 129,603 NET SF.

When the calculations are run without the space needs for Health, Physical Education and Recreation, the results are quite different. The Projected need for the campus in 2015-2016, not including Health, Physical Education and Recreation (HPER), is 348,551 NET SF, and the master plan has provided for 376,345 NET SF. The conclusion that can be drawn from this is that the master plan has provided a surplus of 27,794 NET SF.

Excluding HPER	
Current (2005-2006) Total of Campus (no HPER)	363,822 NET SF
Total Removed over Master Plan	-41,817 NET SF
Total New Construction over Master Plan	54,340 NET SF
(2015-2016) Total of Campus (no HPER)	376,345 NET SF
Projected (2015-2016) Total of Campus (no HPER)	348,551 NET SF
Difference	27,794 NET SF

The campus, based on the 2005-2006 Space Inventory and Calculated Needs, is currently overbuilt by 48,283 NET SF. The master plan-provided surplus of 27,794 NET SF is nearly half of the current surplus, thus improving the existing overages while still providing for possible enrollment spikes and new programs.

Site and Landscape Concepts

- *Gateway, Arrival and Wayfinding*

  Provide an enhanced entry and arrival entrance sequence at the south campus between the Library and the Natural Science Center, to balance the new entry between Decker Hall and the Natural Science Center.

  Frame primary pedestrian axes from the various arrival points to draw people to the campus core.

  Develop consistent signage to assist in the wayfinding experience. This includes the evaluation and replacement of site and building signage.

- *Circulation and Parking*

  Evaluate circulation improvements and alternate entry ingress and egress options along Lt. VanWinkle Drive to facilitate vehicular movement into the campus and to alleviate congestion and conflicts associated with the main south entry.

  Enhance and move the northern loop road to remove and relocate parking from the loop road to the renovated parking lots.

  Redevelop the western loop road configuration to facilitate potential athletic expansion and associated parking. Complete the internal loop road to connect the north side to the south side of campus.

  Redevelop the primary parking lot to include new landscaped islands, lighting and circulation pattern.

  Continue to maintain existing walking surfaces. If replacement is required, do so with concrete.

Enhance pedestrian connections and develop pedestrian spines between parking, residence halls, and the campus core by eliminating conflict areas between pedestrians and vehicles.

Incorporate additional bicycle racks to promote alternative forms of transportation.

Improve ADA accessibility throughout the campus – widen walkways; improve grades; provide ramps where possible, rather than stairways.

> *Open Space and Landscape*

Maximize green space opportunities along Front Street by minimizing parking and providing views.

Maintain existing quadrangles and provide new quadrangle space that provides opportunities for artistic display and passive and active recreation.

Develop and implement a landscape master plan that identifies plant material to be raised, relocated, removed or replaced.

As mentioned previously, the Master Plan recommends the infill of potential new buildings to reinforce the open space system and campus core. The sites adjacent to the Quad and south of the Student Center provide the strongest opportunities to integrate new buildings into the campus fabric while strengthening open spaces and view corridors.

> *Athletics and Recreation*

Renovate the existing athletic turf field, improving the orientation and creating a significant campus feature while maintaining a direct connection to the existing athletic facilities.

Incorporate a softball field on the SUNY Broome campus.

Add outdoor basketball courts to the campus.

Provide open space for pick-up games and passive recreation throughout the campus.

> *Campus Amenities*

Develop standards for site furnishings that are consistent and cohesive with each other as well as with campus architecture and signage.

Upgrade and replace parking and pedestrian lighting to be dark sky compliant and efficient.

Develop a campus stormwater management plan that meets or exceeds the requirements of New York Department of Environmental Conservation.

Develop a recycling program in conjunction with other sustainable green initiatives, such as other countywide programs and partnerships, green roofs, and overall operational / eco-efficiency practices.

MASTER PLAN FRAMEWORK SUMMARY

An illustrative Master Plan has been developed to depict the major concept recommendations of the FMP. These concepts are summarized as follows:

- New Buildings or Building Additions:
- Building Renovations
- Vehicular Circulation and Arrival
- Pedestrian Node Enhancements
- Open Space Enhancement

The Master Plan framework concepts are further described in Section 6 – Master Plan Concepts and in Section 7 – Implementation to illustrate project sequencing by planning phase and conceptual project costs.

IMPLEMENTATION

The Implementation Phase of the master plan process identifies various building, site, and utility projects and seeks to organize them based on the following four criteria:

> Priority of need, as established by SUNY Broome

> Critical paths, identifying projects requiring completion in order to support initiation of following projects

> Programmatic space distribution, in order to identify a logical "musical chairs" of departmental shifting

> Physical proximity of projects, to establish logical groupings

There is currently no space to provide temporary relocation of departments for facility renovations, as the surplus of square footage on the SUNY Broome campus is largely comprised of oversized classrooms and poorly utilized space. Upon completion of the new building, these departments will be consolidated with minimum disruption to course offerings. Once the existing building is cleared, it can be renovated to accommodate new program. The next cleared building can then be renovated for the next set of program, and so on, eliminating the need for any constructed temporary space.

The following is a breakdown of the proposed Master Plan concept by project. Short-Term Projects includes the work identified by the College to have the highest priority. Mid-term Projects contains projects that are less of a priority and will be completed as funding becomes available.

Master Plan Implementation

Phase 1	***Phase 2***	***Phase 3***
Student Services (Core)	New Business Building	Theater
Old Science (Core)	Business Building Rehab	Field House
LRC (Core)	Applied Technology Rehab	Pool
Controlled Environmental Ag Center	New Parking Lots	
Roadway Modifications (1st phase parking lot solar canopies)		
Tennis Courts/Turf Fields		
$45-50 million	***$35-40 million***	***$40-45 million***

****

On Going Multi Year Plan

Renovate five classrooms per year
Continue to create student study space across campus
Create three small food court areas across campus

****

Capital Improvement Program Projects (Broome County)

HVAC & Roof Critical Replacements
Hazardous Materials Abatement (Business, Student Services, Old Science, Student Center)
Disabilities Access Improvements
CEA – Phase 1 (Market and Feasibility Study)
Roads, Parking and Walkways Upgrades
Safety and Security (Pedestrian & Vehicle Safety, Communication, Access)

- *Project Costs*

CONCLUSION

SUNY Broome has many assets that have provided a strong foundation for its Master Plan. For instance, the existing campus layout has within it a pronounced core that has allowed for the reuse of many buildings and spaces. The campus is also in an ideal location, providing an opportunity to reach not only a local market, but serve the NYC and Pennsylvania areas, as well. On a human scale, the students have an intense willingness to learn, matched only by the passion of the faculty's love of teaching. These attributes offer the groundwork to build on, and this Master Plan takes advantage of each of them.

Overall, the primary campus issues that were identified are:

> Overbuilt space, based on space needs calculations

> Low-tech instructional space with outdated aesthetics

> Accessibility and energy code deficiencies

> Outdated campus image based on dominant building style

> Aging building and mechanical systems

> Departments divided over several buildings

> Lack of Student Socialization and Study space

> Lack of space for the Arts

This Master Plan seeks to address these issues through the following planning approach:

> Consolidation - Bring divided departments together within new construction and existing buildings

> Relocation - Use existing space more efficiently

> Renovation - Update facilities to promote a modern image

> New Construction

SUNY Broome has great potential, and this Master Plan seeks to facilitate its growth and development. The SUNY Broome of today has its challenges and opportunities, and by acknowledging each as what it is, the SUNY Broome of tomorrow can be so much more:

An aesthetically unified, environmentally friendly campus that projects a positive image, employs sustainable design, and is a technological leader with cutting edge instructional space.

Section 2 – Introduction and Planning Process

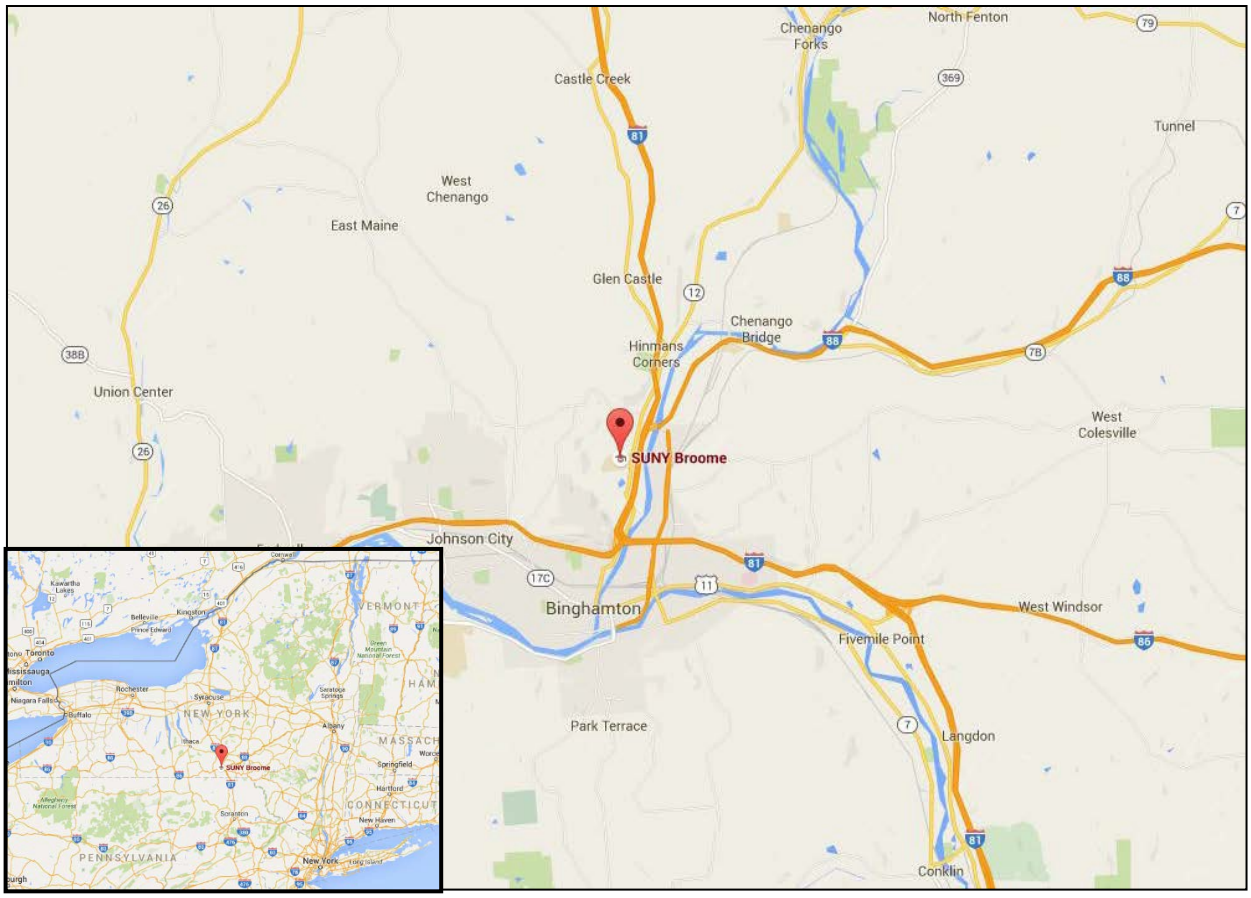
2. Introduction and Planning Process

2.1 Introduction (PA/SA)

Passero Associates and Saratoga Associates, in collaboration with Scott Blackwell Page Architect, were retained by SUNY Broome to assess the current conditions of the campus and plan for the future growth of facilities as part of the master planning process.

The primary goals of the planning approach were to develop a comprehensive facilities master plan for SUNY Broome that would fulfill specific site and facility planning needs while also addressing the needs of the growing student population. The resulting master plan aims cover at least the next decade and incorporate any potential plans for expansion of the college's presence outside the main campus on Front Street, as well as any needed updates to the Academic Plan. The Master Plan needed to be flexible to accommodate future needs, take full advantage of opportunities for change, and be integrated with SUNY Broome's vision, strategic plan, and educational programs.

Community Context



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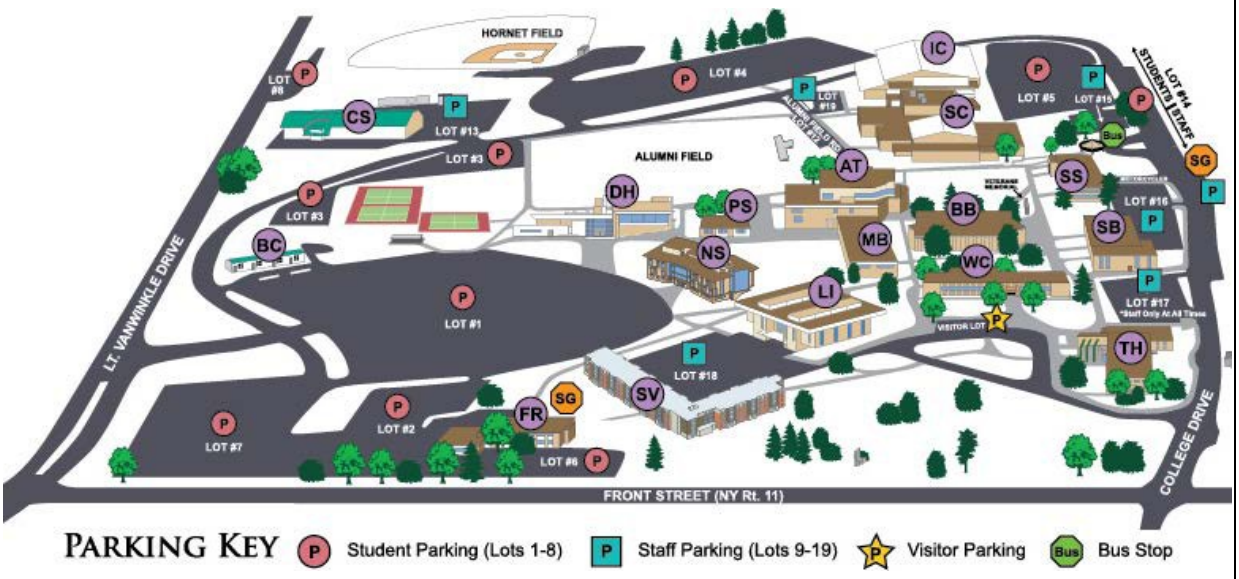
SUNY Broome Parking and Campus Map



Building Key

AT Applied Technology Building
BB Business Building
BC B.C. Center (Child Care)
CS Campus Services Building
DH Decker Health Sciences Center
FR 901 Front Street
IC Ice Center
LI Learning Resources Center (Library)
MB Mechanical Building
NS Natural Science Center
PS Public Safety
SB Science Building
SC Student Center (dining, gyms, bookstore)
SS Student Services
SV Student Village
TH Paul F. Titchener Hall
WC Darwin R. Wales Center

Campus History

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2.2 Planning Process

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Phase 5: Implementation Plan/Capital Improvements Phasing

Phase 6: Final Campus Master Plan

The planning team worked collaboratively with SUNY Broome to ensure that an inclusive process would produce a compelling vision, a clear road map of how to get there, and a flexible project implementation plan. Participation was gained through a variety of formats including monthly meetings with the Master Plan Steering Committee, interviews with faculty and staff, and a campus-wide planning charrette.

Challenges

Key planning challenges included the following:

- Link enrollment goals to the planning of facilities and infrastructure.
- Enhance the campus environment, open space, landscaping and wayfinding.
- Identify primary sites for the infill of new campus buildings.
- Link the Facilities Master Plan to the Academic Plan.
- Address critical areas, as determined by the campus.

Campus Vision

"Broome Community College strives to be a leader in anticipating and responding to diverse individual, community and global needs for accessible lifelong educational opportunities. We collaborate with others to create high quality, innovative, student-centered learning environments guided by our shared values."

Supporting the Strategic Plan

The Facilities Master Plan supports the following objectives outlined in the SUNY Broome Strategic Plan:

Strategic Initiative 5. *Enhance and sustain the infrastructure and environment for a dynamic living-learning community. Enhance the living-learning environment regarding the campus community's needs.*

Physical Facilities

5.1 Review and update the campus facilities Master Plan to align with the needs of our living learning community.

5.2 Enhance and maintain a physical infrastructure that is safe, accessible, green, and aesthetically appealing.

5.3 Rehabilitate all original 1956 core campus buildings by 2020 (Science, Mechanical, and Student Services).

5.4 Create more gathering places for students to interact socially, academically, and recreationally.

5.5 Create a dedicated space for Continuing Education activities such as open enrollment courses, workforce development or training, corporate training, and/or entrepreneurial initiatives.

5.6 Develop facilities in support of hosting professional conferences, co-sponsored events, and public events.

5.7 Improve physical access to lab instrumentation and equipment.

Residential Life

5.8 Establish and align a comprehensive system of campus services and activities to support a safe and vibrant residential community of learners.

Technology Infrastructure

5.9 Review and update the Technology Plan to support learning with an infrastructure that is current, robust, reliable, and maintains information security.

5.10 Systematically review and update technology hardware to support reliable access to services.

5.11 Improve campus wireless networking and mobile access to college information.

Functional Infrastructure

5.12 Create, update, and communicate a college-wide authenticated virtual library of policies, procedures, processes, and forms that is indexed and easily searchable.

5.13 Provide necessary resources, training, and facilities/maintenance staffing to support and maintain safe, functional, and attractive campus facilities and workspaces.

Section 3 – Facilities Assessment

3. Facilities Assessment

The campus facilities assessment consisted of review of available drawings and on-site information gathering, including interviews with appropriate personnel, walk-through building tours, walking the campus grounds, and evaluating related campus documents, plans, and specifications.

3.1 Building Analysis

The SUNY Broome campus is primarily comprised of the original buildings, constructed in the late 1950's, and some additions to the Campus that have been constructed over the years. The Darwin R. Wales Center recently underwent extensive renovations, a new Natural Science Center was constructed, bringing new classrooms to the campus for the first time in 15 years, and housing for 365 residents was created at Student Village.

Overall, many of the buildings and most of the campus grounds have not seen many major renovations or capital improvement projects during their lifespan. Maintenance has been largely limited to replacement of flat roof areas, as capital budgets permit. The buildings appear structurally sound and exhibit deterioration normal with their age. Major deficiencies that are present campus wide fall into the categories of space shortages, energy conservation, code compliance, preventative maintenance, and delayed upgrade of aged systems and finishes.

Exterior Building Components

Interior Building Components

Code Compliance

Aspects of existing buildings that do not conform to current code are not required to be brought into compliance solely for that reason, *so long as buildings were built in compliance with applicable codes at the time of construction*. However, if work within those buildings is instituted, action to update currently non-conforming code items will need to be included (the extent varying with the size and nature of the renovation work). A thorough code analysis of all areas should be undertaken. For the purpose of this report, the code update projects listed below have been derived from noncompliance with the current code, on the belief that current codes represent state-of-the-art safety items which, though not required to be corrected, represent strongly recommended safety improvements.

> *Health, Safety, and Code Issues*

> *ADA Compliance*

Inspection of the campus found that some of the facilities do not comply with the Americans with Disabilities Act of 1990 (ADA). The ADA requires all public facilities to meet and comply with its regulations. While the following areas were found to be noticeably out of compliance, an in-depth ADA audit of all facilities should be undertaken to provide a comprehensive report. Any future renovation projects of existing buildings or construction of new facilities must meet the requirements of ADA.

Major areas of non-compliance are as follows:

> Dimensional clearances of toilet rooms inadequate for the maneuvering of a wheelchair

> Door hardware having improper closure pressure and door handle configuration

> Drinking fountains at improper heights and not of proper design

> Sign style, location and design

> Open staircases lacking tactile warning devices

> Improper ramp grades

> Improper interior and exterior railing design

> Dimensional clearances at building entry vestibules

Utilities

> *Heating*

The campus is not serviced by a central heating plant. Individual gas-fired building boiler plants serve each building. Several of the older buildings such as Mechanical – 1956, and even Applied Technology-1984 have original boilers that are in poor condition and are in need of upgrade or replacement. The campus's underground natural gas distribution system is also original with a history of occasional leaks, indicating that the system is reaching the end of its life expectancy.

> *Cooling*

The campus is not serviced by a central cooling plant and not all buildings are provided with summer air conditioning. Those buildings that are provided with summer air conditioning contain either building chilled water systems, DX air handing systems, or window air conditioners.

> *HVAC Controls*

The campus is not serviced by a central or standardized HVAC control systems. HVAC system controls vary from original pneumatic systems to a mixture of direct digital control (DDC) systems of varying manufacturers and varying ages. Very few of the DDC systems, excluding Decker and the Learning Resources Center systems, report to a central facility.

> *Domestic Water*

Domestic water is provided by the local municipality (Town of Dickinson) and is supplied from two meter pits that are looped together via an underground water distribution system. The water system serves both building domestic water usage and building sprinklered coverage where provided. No issues were identified with regard to the water system and currently there is adequate capacity. Sprinkler system design residual pressures are reasonable. The Campus Services building's residual pressure is 31 PSIG at 589 GPM. Ice Center residual pressure is 45 PSIG at 325 GPM. Decker building residual pressure is 59 PSIG at 341 GPM.

> *Sanitary/Storm*

The campus is provided with separate sanitary and storm systems. All external exterior sanitary lines exiting from buildings are gravity except for Titchener. The campus's sanitary system originally was served by site septic systems and is now tied into the Town of Dickinson sanitary system. Although condition of existing lines is variable no immediate issues were identified with regard to either of the systems.

> *Electrical*

Overall, the Campus Electrical Systems are in good condition and no major problems (such as tripping of circuit breakers or overloading of circuits) were observed or reported.

Section 4 – Space Analysis

4. Space Analysis

4.1 Introduction (PA/SBP)

Before a campus can begin major construction projects, its current facilities must first be evaluated for quantity and quality of usable space. Space needs analysis essentially translates the Physical Space Inventory (PSI) and Building Characteristics Inventory (BCI) into department level space needs for all campus spaces. The net square footage projections for the SUNY Broome Campus were developed using the formulas established by the SUNY Construction Fund guidelines and the SUNY Broome curriculum, credit hours, daytime FTE's, and faculty, as supplied by the College. Full Time Equivalent, or FTE, for each department is derived by taking the student contact hours for a course, multiplying it by the enrollment for the course, adding the products for all courses offered in a department, and dividing that number by 15, the average weekly hours considered to be a full-time course load.

The process of determining the net square footage for the campus began by selecting the appropriate Instructional Department Space Factors (as established by the State University Construction Fund) corresponding to the SUNY Broome departments. These factors accommodate the differences in physical spaces required for each type of department in relation to each other.

The State University Construction Fund has broken down the types of spaces on SUNY campuses into the following categories:

> General Instructional Space – Classrooms, lecture halls and seminar rooms. Calculated by multiplying the department FTE by the space factor.

> Special Instructional Space – Class labs, specialized by departmental needs. Calculated by multiplying the department FTE by the space factor.

> Individual Study Labs – Small practice or study spaces, specialized by departmental needs. Calculated by multiplying the department FTE by the space factor.

> Research and Support Space – Individual study or research space, often with highly specialized equipment, and teaching assistant offices. Generated only by graduate students and faculty in University Centers and Colleges of the Arts. Calculated by multiplying the department FTE by the space factor.

> Office and Administration Space – Department heads' offices, faculty offices, clerical offices, administrative workrooms, and departmental conference rooms. Calculated by multiplying the number of FT/PT Faculty by a set square footage.

> General Use Space – Areas used by a whole department, such as shops, greenhouses, special equipment rooms, glass or chemical storage, etc. Calculated by adding Research & Support Space and Office & Administration Space and then multiplying the sum by the percent factor.

> Instructional Resource Centers – Campus-wide educational communications services, such as those that allow for the production audio-visual materials related to television, photography, graphics and computer-assisted instruction. Calculated based on campus FTE.

> Electronic Data Processing – Campus network and IT departments, including office and workrooms. Calculated based on campus FTE.

> Library – Broken down into collection, seating/study and administrative subcategories. Calculated by applying space factors to the collection size and campus FTE.

> Health Physical Education and Recreation – Indoor and outdoor activity space, associated classrooms and offices. Calculated based on campus and major/minor FTEs, space factors assigned to specific facilities.

> Student and Faculty Activity Space – Student lounges and common areas not in dormitories or dining halls, student organization offices and faculty lounges. Calculated based on campus FTE.

> Student Health Services – Infirmary and clinical facilities. Calculated based on student head count and the number of resident students.

> Exhibition and Assembly Facilities – Exhibition facilities include the primary space used to exhibit scientific, historic or artistic collections and the associated service spaces. Assembly facilities are spaces designed to house large gatherings, such as auditoria, theaters or recital halls. Calculated based on campus FTE.

> General Administrative Services Space – Central executive and administrative offices and related facilities not included in other departments or categories. Calculated based on campus FTE.

> Central Service Space – Storage, maintenance shops, vehicle facilities, commissaries and administration. Calculated based on campus FTE.

> Building Service Space – Spaces required for building maintenance and operation, not including public toilets, mechanical or circulation space. Calculated based on campus NET SF.

> Special Facilities – Additional spaces approved based on research and negotiation.

Refer to Appendix B for department listings, space factors and calculations for many of the above categories.

4.2 Calculated and Projected Space Needs (PA/SBP)

Total Projected Space Need

Section 5 – Site Assessment

5. Site Assessment

5.1 Introduction

The SUNY Broome campus is located along Front Street in the Town of Dickinson, and it includes 15 buildings, athletics fields, and both landscaped and natural green spaces.

The site analysis for the College included physical and planning assessment. From a physical site perspective, the campus is generally in fair to good condition, though some pavement sections are uneven, and small areas of ramps and walls were in need of repair. Analysis revealed a few issues associated with general deferred maintenance and landscape concerns associated with plant selection and pruning techniques.

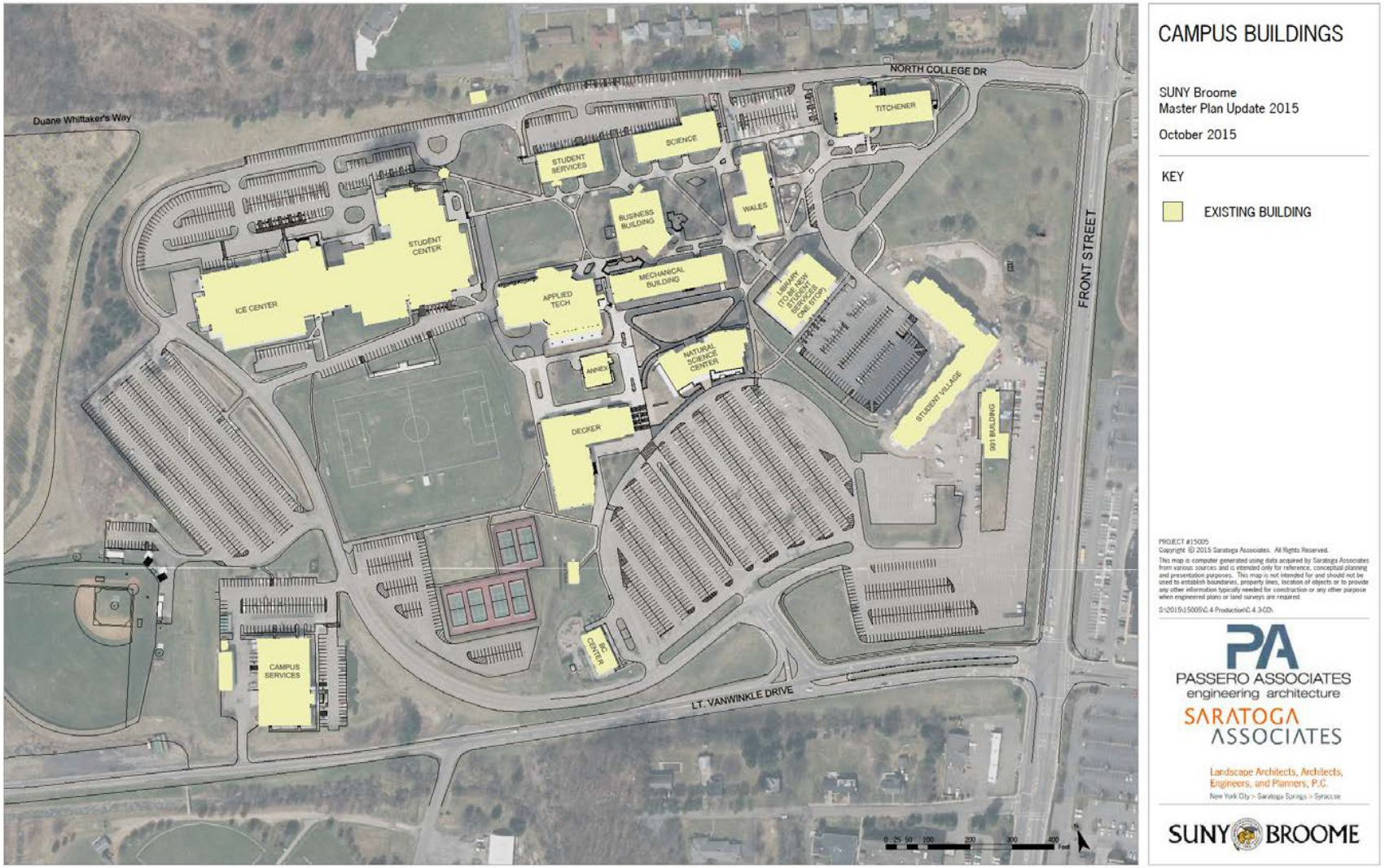
The site planning assessment included inventory and analysis of existing site context, vehicular circulation, parking, pedestrian circulation, and open space. Overall, the campus is functional; however, areas of conflict were identified that portrayed potential safety and security concerns and the need for an improved design aesthetic.

Upon the College's review of the assessment, a composite analysis was developed to identify potential opportunities and constraints for the campus that builds and becomes the framework for emerging concepts.

5.2 Existing Buildings

The SUNY Broome campus can be thought of in three districts, each approximately one-third of the overall campus – western, central, and eastern. The western part of campus contains the indoor and outdoor athletic facilities (Ice Center, Gym, soccer, tennis, baseball), along with the Student Center (dining, theater, bookstore). The Campus Services building is located at the southern edge of the western part of campus. The central portion of campus contains the primary academic buildings, as well as the Student Services building. The eastern third of the campus contains the Wales administration building, the Library, Tichener Hall, and the new Student Village residence hall.

The existing buildings on the SUNY Broome campus can be seen in the graphic that follows.


Duane Whittaker's Way
NORTH COLLEGE DR
FRONT STREET
LT. VANWINKLE DRIVE
STUDENT SERVICES
SCIENCE
TITCHENER
BUSINESS BUILDING
WALES
STUDENT CENTER
ICE CENTER
APPLIED TECH
MECHANICAL BUILDING
LIBRARY TO THE NEW STUDENT SERVICES ONE STOP
ANNEX
NATURAL SCIENCE CENTER
STUDENT VILLAGE
901 BUILDING
DECKER
BIG CENTER
CAMPUS SERVICES
CAMPUS BUILDINGS
SUNY Broome
Master Plan Update 2015
October 2015
KEY
EXISTING BUILDING
PROJECT #15005
PASSERO ASSOCIATES
engineering architecture
SARATOGA ASSOCIATES
Landscape Architects, Architects, Engineers, and Planners, P.C.
SUNY BROOME

5.3 NATURAL RESOURCES

The main part of the SUNY Broome campus consists of buildings, parking and circulation, and generally cleared landscape spaces. To the west of the College Drive, however, the campus is more natural. Generally wooded, this area contains nature trails as well as research spaces used by students and faculty. The neighboring Broome County Public Safety operations have used a portion of this open space for a training obstacle course.

South of the campus, toward Front Street, is Cutler Pond. It is located within the 100-year floodplain (the area with a 1% chance of flooding in any given year), which extends onto the eastern portion of the campus. The 500-year floodplain narrowly borders the 100-year area, primarily at the far eastern edge of the campus. In recent years, flooding on campus significantly impacted the parking area in front of the library, with water penetrating the library's lower level.


Previously Abated Site
Obstacle Course
Broome County Public Safety Complex
Broome County Soil and Water Conservation Org.
Parcel 128.19-1 Broome County 6.2 Acres
SUNY Broome Nature Trail Area
BAGSAI Softball Complex
Broome County Dog Shelter
Broome-Tioga ARC
Cutler Pond
PROPERTY LINE & NATURAL RESOURCES
SUNY Broome
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October 2015
KEY
PROPERTY LINE
100-YEAR FLOODPLAIN
500-YEAR FLOODPLAIN
NATURE & RESEARCH AREAS
Parcel # 128.18-1-1 Town of Dickinson
Total Acreage Per 2014 Tax Assessment: 238.95± AC.
Note: Public Safety property included in parcel.
Estimated 16.81± acres.
Note: Aerial was flown in the spring of 2014, and does not accurately depict any improvements or expansions undergone since that time.
Flood information taken from 1977 FEMA Flood Insurance Rate Maps.
PASSERO ASSOCIATES engineering architecture
SARATOGA ASSOCIATES
Landscape Architects, Architects, Engineers, and Planners, P.C.
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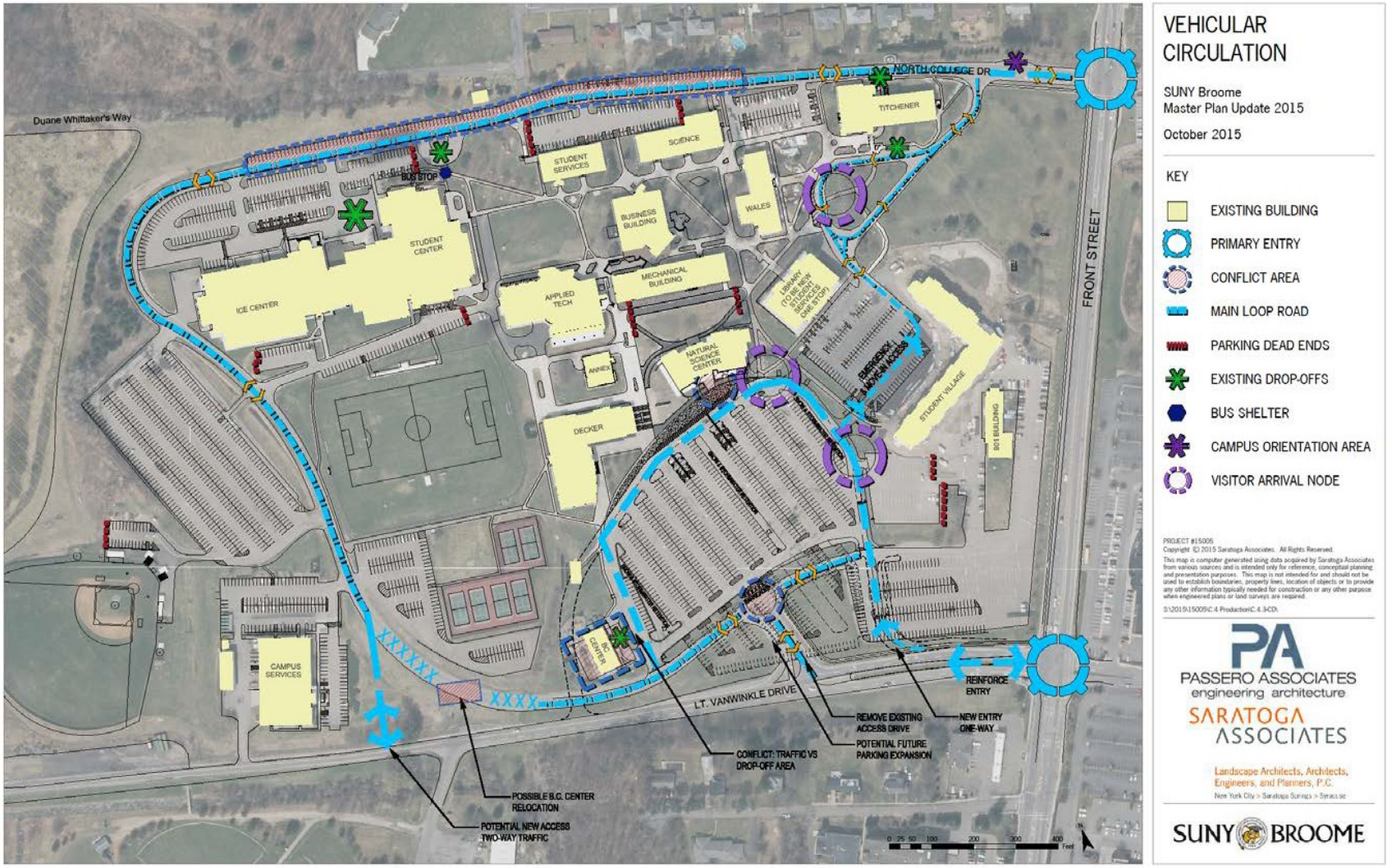
5.4 Vehicular Circulation and Parking

Primary entry to campus is from the east, from Lt. Vanwinkle Drive, a public street which connects to the southern edge of the campus, or from North College Drive, which directly intersects Front Street. A visitor arrival stop is located just inside the North College Drive entrance. Internal campus vehicular circulation is along College Drive, which begins at the northeastern corner of campus and loops into the western portion, finally connecting to Lt. Vanwinkle Drive. The loop road, however, is not continuous within the campus; it current ends as it passes Lot 1. There is a connection to Lot 18 to the east, but it is used only for emergency, service, and move-in access. The vehicular connection to Lot 18 is via a one-way loop from that connects North College Drive to the visitor parking at Wales and to the Library. The internal campus roads lack pedestrian accommodations such as lighting, sidewalks, and marked crosswalks; however, there is an opportunity to enhance these areas for pedestrians while still accommodating vehicles.

Parking on campus is primarily located around the periphery, but internal to College Drive. The exception to this is the large lot at the western edge of campus, Lot 4, which is for student parking. The largest campus parking lot, Lot 1, is centrally located on campus, just off of Lt. Vanwinkle Drive, and is also used for student parking. Additional student parking lots are at the northwest corner of campus (Lot 5, part of Lot 14), adjacent to the baseball field (Lots 8 and 9), west of the tennis courts (Lot 3), and at the southeast corner of the campus (Lots 2, 6, and 7). The northern lots (Lots 14, 15, 16, and 17), the parking areas adjacent to the soccer field (Lots 12, 19, and 20), Lot 13 around Campus Services, and Lots 10 and 18 adjacent to the Student Village are for staff parking. In total, there are nearly 2000 student spaces and almost 500 staff spaces. The only visitor parking is an 8-space lot outside of Wales.

The parking lots are generally open, with little vegetative screening, which can create significant “heat islands” and contribute to increased stormwater runoff, as the pavement is traditional asphalt rather than a permeable pavement. Lot 14 creates a circulation conflict for both vehicles and pedestrians, as it is along a main access way – North College Drive, and the parking spaces are perpendicular to the roadway, without any separation. This arrangement contributes to congestion and creates a safety issue for both drivers and pedestrians. A number of campus parking lots are “dead end” lots – these include Lots 15, 19, 12 and 20 along the Student Center, Lot 16 to the north of Student Services and Science, Lot 2 to the south of Student Village, and Lot 9 to the north of the baseball field.


VEHICULAR CIRCULATION
SUNY Broome
Master Plan Update 2015
October 2015
KEY
EXISTING BUILDING
PRIMARY ENTRY
CONFLICT AREA
MAIN LOOP ROAD
PARKING DEAD ENDS
EXISTING DROP-OFFS
BUS SHELTER
CAMPUS ORIENTATION AREA
VISITOR ARRIVAL NODE
Duane Whittaker's Way
NORTH COLLEGE DR
FRONT STREET
LT. VANWINKLE DRIVE
BUS STOP
STUDENT SERVICES
SCIENCE
TITCHENER
STUDENT CENTER
ICE CENTER
BUSINESS BUILDING
WALES
APPLIED TECH
MECHANICAL BUILDING
NATURAL SCIENCE CENTER
ANNEX
DECKER
CAMPUS SERVICES
B.C. CENTER
STUDENT VILLAGE
901 BUILDING
REINFORCE ENTRY
REMOVE EXISTING ACCESS DRIVE
NEW ENTRY ONE-WAY
POTENTIAL FUTURE PARKING EXPANSION
CONFLICT: TRAFFIC VS DROP-OFF AREA
POSSIBLE B.C. CENTER RELOCATION
POTENTIAL NEW ACCESS TWO-WAY TRAFFIC
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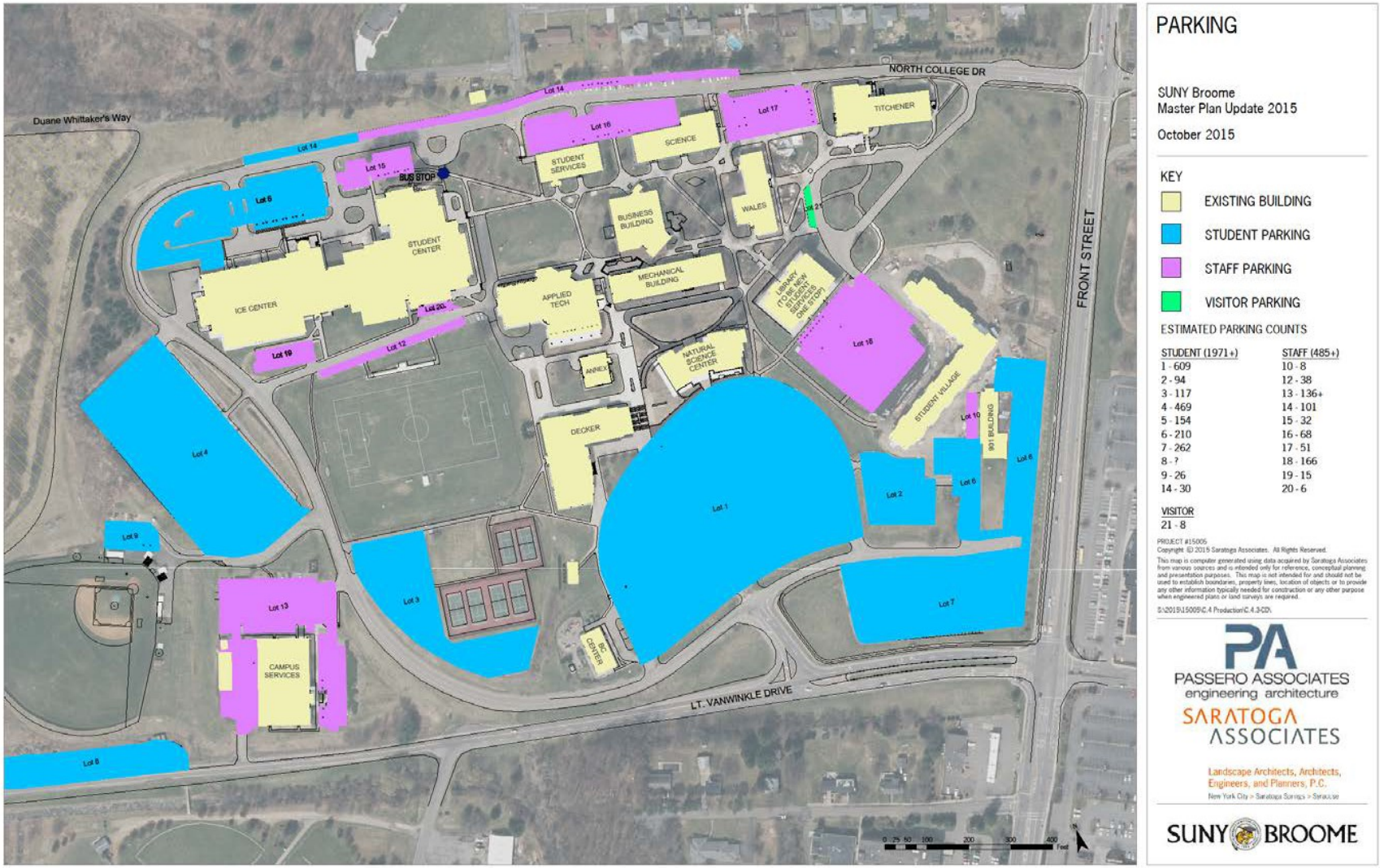
SUNY BROOME



PARKING

SUNY Broome
Master Plan Update 2015

October 2015

KEY

- EXISTING BUILDING
- STUDENT PARKING
- STAFF PARKING
- VISITOR PARKING

ESTIMATED PARKING COUNTS

STUDENT (1971+)	STAFF (485+)
1 - 609	10 - 8
2 - 94	12 - 38
3 - 117	13 - 136+
4 - 469	14 - 101
5 - 154	15 - 32
6 - 210	16 - 68
7 - 262	17 - 51
8 - ?	18 - 166
9 - 26	19 - 15
14 - 30	20 - 6

VISITOR
21 - 8

PASSERO ASSOCIATES
engineering architecture

SARATOGA ASSOCIATES
Landscape Architects, Architects, Engineers, and Planners, P.C.
New York City > Saratoga Springs > Syracuse

SUNY BROOME

5.5 Pedestrian Circulation

Primary entrance points for pedestrians coming to the campus are from Lot 1, from the Student Village, and at the visitor parking lot at Wales. Lot 1, however, does not currently contain a designated drop-off/pick-up area. Vehicles currently stop near the Natural Science Center and Decker, but do not have an area to pull off and stop that provides separation from the main parking lot circulation. Alternate drop-off areas exist at Titchener, at the bus circle north of the Student Center, and outside the northern entrance to the Ice Center/Student Center. Drop-off also occurs at the daycare located within the BC Center, at the southern edge of the campus, off of Lot 1 parking.

The primary pedestrian generators within the campus are the Student Center, Titchener Hall, and the Student Village. Primary pedestrian spines extend from the largest parking lots – Lot 1 and Lot 4 – and from the Student Village into the core of the campus. Within the campus core, primary circulation is among the northern academic buildings, from the bus stop, and to the Student Center. The northern and southern paths from the Student Center do not appear to be wide enough, as there is significant wear along the edges of the pavement. These could be widened to better accommodate pedestrian traffic.

Secondary circulation areas include the path between Student Services and the Science Building, the paths outside of Wales, the space between Applied Technology and Decker, and the space between the Mechanical Building and the Natural Science Center. Tertiary circulation paths are along the soccer field, south of Decker, west of Student Services, and east of the Science Building.

The eastern edge of Lot 1 presents an area of conflict for pedestrians, as there is no continuous sidewalk present at the edge of the pavement. Pedestrian crossing points are areas of conflict as well: between the soccer field and Campus Services; between Lot 4 and the campus core; and at the northern and southern edges of the Student Center. These areas could be improved with crosswalks and signage.

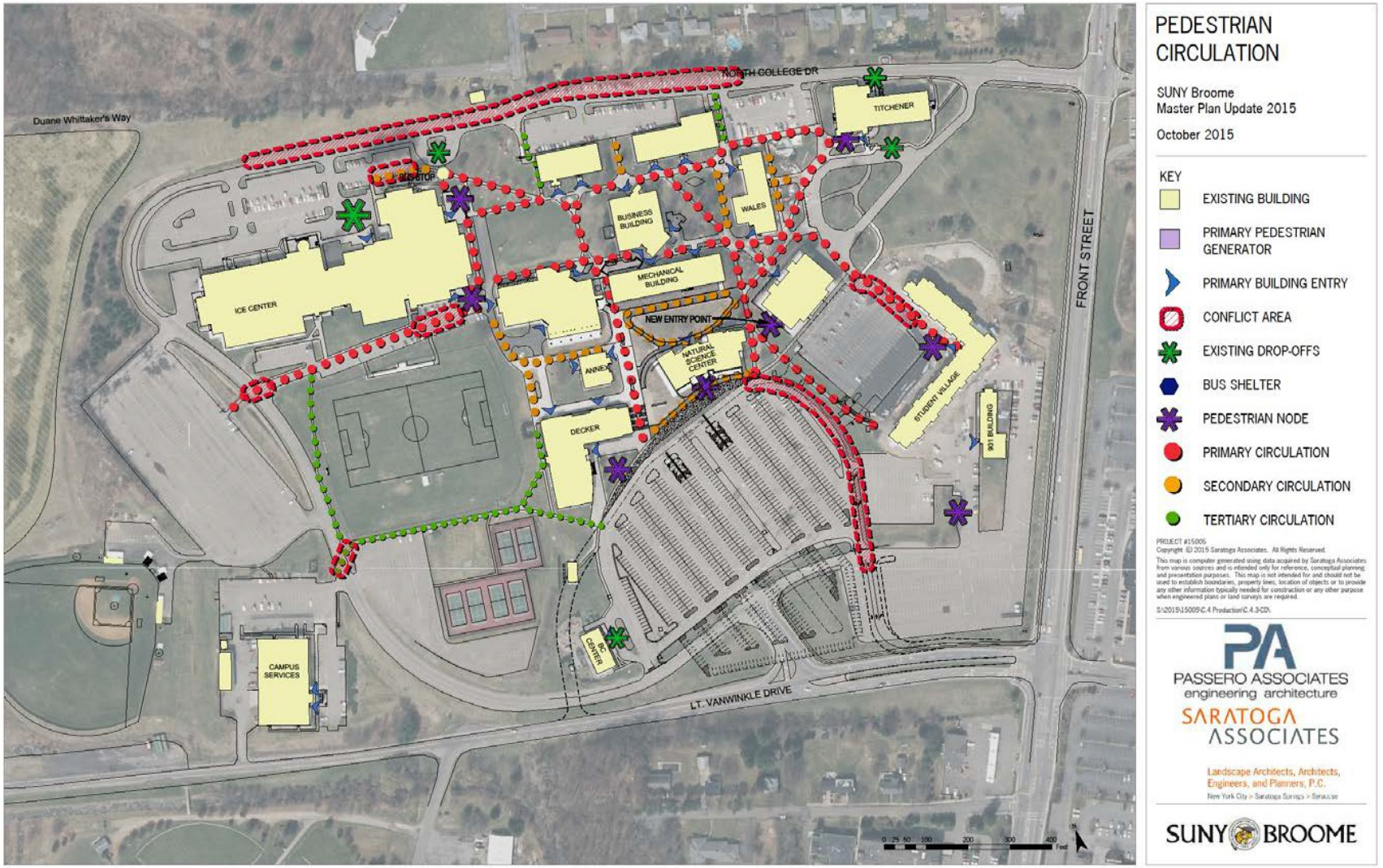
Wayfinding and Signage

The free-standing signage within the campus is a mix of freestanding campus maps, freestanding directional panels, and departmental listings outside of select buildings. Building identification is primarily through large lettering affixed to the building facades above entries. There is an opportunity to improve wayfinding by adding additional directional panels outside of primary pedestrian generators and at main intersections.


Student Services
SUNY BROOME
Student Services Building


DARWIN R WALES CENTER
Titchener Hall
Wales Administration
Library
901 Front


SUNY BROOME
CAMPUS MAP & DIRECTORY


NORTH COLLEGE DR
Duane Whittaker's Way
TITCHENER
BUSINESS BUILDING
WALES
MECHANICAL BUILDING
ICE CENTER
NEW ENTRY POINT
FRONT STREET
NATURAL SCIENCE CENTER
ANNEX
DECKER
STUDENT VILLAGE
901 BUILDING
CAMPUS SERVICES
BIC CENTER
LT. VANWINKLE DRIVE
PEDESTRIAN CIRCULATION
SUNY Broome
Master Plan Update 2015
October 2015
KEY
EXISTING BUILDING
PRIMARY PEDESTRIAN GENERATOR
PRIMARY BUILDING ENTRY
CONFLICT AREA
EXISTING DROP-OFFS
BUS SHELTER
PEDESTRIAN NODE
PRIMARY CIRCULATION
SECONDARY CIRCULATION
TERTIARY CIRCULATION
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5.6 Open Space and View Corridors

The SUNY Broome campus is over 200 acres and includes a range of open spaces, a variety which includes the defined space of the Main Quad, informal open spaces such as that outside the Library, land dedicated to athletics, and forested and natural areas.

The spatial and visual quality of the campus relates to the open space system, sight lines, visual axes between important buildings and space, positive and negative views, and distinctive buildings. The spatial quality of the existing campus open spaces varies and, in some cases, could be better defined.

Key visual axes and sight lines that should be recognized in the planning process are the east-west views between the Student Center and Wales; the corridor between Applied Technology and the Library; the north-south view along the eastern edge of the Student Center; the north-south corridor from between the Mechanical Building and Applied Technology toward Lot 1 parking with views to the northern hills; the north-south view from the Science building toward the Natural Science Center; the diagonal view between the Library and the Science building; the diagonal view between the Library and the Annex, and the views from the campus core toward the natural areas and hills to the west.

Positive views from Front Street are important to the visual image of the campus and should be maintained and enhanced, as Front Street serves as an arrival corridor. Current negative views into the campus are primarily impacted by parking. One negative edge is the intersection of Lt. Vanwinkle Drive and Front Street, where the landscape is dominated by a parking lot, and the view includes the 901 Building. This character continues as visitors arrive into campus from Lt. Vanwinkle Drive, with a view across the largest campus parking lot, Lot 1. Additionally, the proximity of Parking Lot 14 to the campus perimeter, and along a main thoroughfare, creates another negative edge.

Well-defined open spaces that play an important visual role include the Main Quad, between the Student Center, Applied Technology, the Business Building, and Student Services; the quad space between the Mechanical Building and the Natural Science Center; the smaller quad space framed by the Business Building, the Science building, Wales Center, and the Mechanical Building; and the space outside the upper entrance to the Library.

Open spaces that could benefit from additional definition and enhancement include the corridors to either side of the Annex, the corridor between Applied Technology and the Mechanical Building, and the Main Quad. Many of the east-west axes on campus could be reinforced with additional trees. The corridor between Applied Technology and the Mechanical Building could be improved with the removal of the one-story portion of the Mechanical Building, which is currently planned by the College. The main quad could be reinforced with the additional of a building between the Student Center and Student Services, while the views from the campus core to the west could be reinforced with the removal of the Annex and the addition of new buildings along these sight lines, creating additional quad space. Analysis of each of the main open spaces on campus follows.


NORTH COLLEGE DR
Duane Whittaker's Way
TITCHENER
SCIENCE
STUDENT SERVICES
BUSINESS BUILDING
WALES
STUDENT CENTER
ICE CENTER
APPLIED TECH
MECHANICAL BUILDING
LIBRARY (TO BE NEW STUDENT SERVICES ONE STOP)
FRONT STREET
ANNEX
NATURAL SCIENCE CENTER
STUDENT VILLAGE
DECKER
901 BUILDING
CAMPUS SERVICES
BIC CENTER
LT. VANWINKLE DRIVE
OPEN SPACE & VIEW CORRIDORS
SUNY Broome
Master Plan Update 2015
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KEY
EXISTING BUILDING
CAMPUS CORE OPEN SPACE
CAMPUS QUAD OPEN SPACE
CAMPUS ARRIVAL OPEN SPACE
NATURAL OPEN SPACE
ATHLETIC OPEN SPACE
UNPROGRAMMED OPEN SPACE
PLAZA OPEN SPACE
SIGNIFICANT CAMPUS VIEW
PRIMARY VISUAL AXIS
NEGATIVE EDGE
POSITIVE EDGE
PROJECT #15005
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Library Entry

The space outside the northern entrance to the Library is a popular area with a lot of pedestrian traffic. This location serves as a gateway into the campus core from the Student Village dorms and the main parking lot.

View looking south toward Library entrance

The Library space is filled with mature deciduous trees and shrubbery. A central area contains picnic and chess tables, which are popular among students, as well as a digital clock. There are multiple sidewalks within the space, with varying materials. The picnic and chess tables sit within a lawn area and are framed by a walkway which is separate from the main path system, raised slightly above it.

View from between Mechanical Building and Library, looking north toward Wales Center

The large shrubs in the space could be removed or replaced with lower-growing vegetation to open sight lines. A significant amount of pedestrian traffic comes from the Student Village dorms. Students commonly walk along the northeastern edge of the Library building, which has been characterized as a dark space. This edge has a roadway which connects Lot 18 to the loop in front of Wales; however, sidewalks and lighting for pedestrians are lacking.

View along northeast edge of Library building, looking toward Student Village and Lot 18

This space could be designed to showcase future demonstration clean room which is planned for the eastern end of the Mechanical Building.

View from outside Natural Science Center, looking toward Mechanical Building and Library

Natural Science Center-Mechanical Building Quad

View looking along the quad toward the Natural Science Center, with the Annex Building and hills beyond

To the west of the Library entry is the recently developed quad space between the Natural Science Center and the Mechanical Building. The area was designed with aesthetically pleasing new site materials, such as concrete-edged porous asphalt and porous pavers at the Natural Science Center building entry. This space, however, serves mainly as a pass-through space, as there is no seating provided. There is also no entry to the Mechanical Building from the quad.

View looking east along the quad toward the Library, showing the lack of entry into the Mechanical Building

This quad can be accessed from Lot 1 via a pathway between the Natural Science Center and the Library, or via the new stairway between the Natural Science Center and Decker. The large stairway, however, does not incorporate any ADA access. As pedestrians ascend the staircase, they arrive on a wide double

walkway that creates a boulevard at the western edge of the quad. This boulevard ends at the loading dock of the Applied Technology building, where it is edged by a guide rail. At the southwestern corner of this space is the Annex building.

Boulevard at the western edge of the quad, looking past the Annex toward Applied Technology and Mechanical

Main Quad

The Main Quad is framed by the Student Center, Applied Technology, the Business Building, and Student Services. This open space is often used by students for pick-up games or for college events.

View from Student Center patio across the picnic area, toward Student Services and the Business Building

The buildings which surround the quad do not open directly onto it. The entry to the Student Center is just off of the quad, accessed via a stairway or ramp from the northwest corner, but the entry faces north toward the bus stop rather than onto the quad. This edge of the quad is formed by an asphalt drive located in front of the Student Center. There is an opportunity for outdoor dining space to be created near this entrance to the Student Center, since dining services are located within the building. The existing picnic tables and benches outside the Student Center, just north of the main quad, are very popular with students.

View from the Student Center patio toward Business and Applied Technology

The Applied Technology building is located along the southern edge of the quad; whoever, there is no entry door into the building from the walkway, and the northern edge of the building actually cantilevers over the walkway, creating a space which can be uncomfortable for pedestrians.

The eastern side of the quad is formed by the Business Building. This facade has no door to the quad or to the walkway adjacent to it. Instead, mechanical equipment is located along this edge of the building, surrounded by brick and vegetation. The walkway through the eastern part of the quad is just off-center from the entrance to Applied Technology, and provides access toward Student Services via a pathway which forks around the Veterans Memorial. This walkway could be redeveloped to provide improved access from the corridor between Applied Technology and Mechanical toward Student Services.

View of mechanical equipment at the Business Building

A new building located between Student Services and the Student Center would complete the northern edge of the quad. The edges of the quad could be further reinforced through the planting of new shade trees along the north and south walkways. Overall, there is significant wear and salt damage along the edges of the sidewalks, indicating that wider walkways are needed. The addition of seating areas and casual gathering areas along the quad perimeter would further enhance the space.

Business-Wales Quad

View along the northern edge of the quad, looking past the Science Building toward Wales

East of the main quad, there is a smaller space framed by the Science, Business, Mechanical, and Wales buildings. There are walkways along the northern and eastern edges, as well as one that runs diagonally from the northwest to the southeast, toward the Library. This space is popular for its shaded gazebo along the southern edge. The northern pathway is heavily traveled by pedestrians, as it leads toward Titchener Hall, which is a popular academic building. Students would like to see a bus stop provided near Titchener.

View looking south toward the Mechanical Building and gazebo

This space has a protected feeling, with tall mature trees. Students and staff have expressed interest in the construction of a labyrinth on campus, which may be well-suited to this space. The buildings along the edges of this quad all have entry doors which help to activate the space. Outside the eastern entrance to

the Business Building is a sunken plaza with planters. Though this space provides a more intimate area for gathering, it is in need of repair and, due to the stairs, is not an accessible entrance for the building.

Sunken plaza with planters outside the east entrance to the Business Building

The site furnishings within this quad vary – there are different styles of picnic tables and benches, as well as multiple styles of pedestrian lighting, include square-top post fixtures and multi-globe fixtures. Along the southern edge of the space, a corridor connects this quad back with the main quad. This corridor is framed by the Business and Mechanical buildings, and includes a pedestrian bridge with connects the second floors of both buildings. Beyond the Business Building is a raised area with planters which leads to the Applied Technology building. The Business Building can be accessed from this area via a sunken entrance.

View looking east between the Business and Mechanical Buildings back toward the quad

Western Entry to Applied Technology

Western entrance to Applied Technology

The western entry to the Applied Technology building opens onto a large paved asphalt area with benches along either side which overlooks Alumni Field. A wind turbine, somewhat iconic on the campus, is also located here, in a lawn area just outside the entry.

Looking north from Decker past Alumni Field, toward the wind turbine and western wing of Applied Technology

Just to the south of the entrance to Applied Technology, west of the Annex, is a rock garden.

Rock garden behind the Annex

The entry to Applied Technology is framed on the eastern side by a large retaining wall. The southeastern side of Applied Technology is a large cantilever that overhangs a drainage area. This slope is topped by guide rail which edges the pedestrian walkway along the Annex walkway and the Natural Science Center quad.

Cantilever over the drainage area, north of the Annex

Athletics

Aerial photo of campus, showing the existing Athletic Facilities

Formal athletic spaces on the SUNY Broome campus include the Ice Center, Alumni Field, the tennis courts, Hornet Field, and the gymnasiums inside the Student Center. Student Village also provides a fitness center.

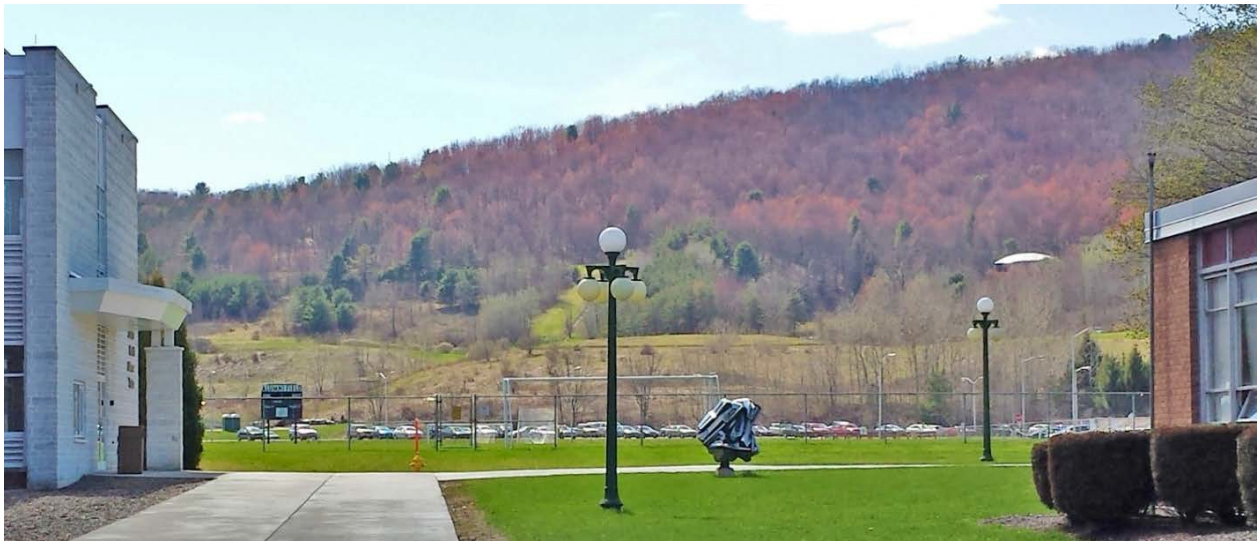
The Ice Center is a large building at the northwest corner of the campus. It is connected to the Student Center building; the gym spaces are between the dining area in the Student Center and the Ice Center.

Exterior view of the northern side of the Ice Center *(image via SUNY Broome website)*

Ice Center main entry from Parking Lot 5

The Ice Center is accessed from the north via a large raised patio with a central staircase and a ramp off to one side. The building lacks an inviting arrival space. The sidewalk in front of the patio feels narrow and is directly adjacent to the parking in Lot 5, a large student lot. The entrance to the Ice Center could be improved with the addition of a ground-level plaza adjacent to a drop-off area, and with the addition of a wider sidewalk accompanied by vegetation to soften the building façade.

Alumni Field, generally used for soccer and lacrosse, is currently oriented east-west, which is not ideal due to sun interference with sports play. The field could be reoriented to run north-south, which would open up space outside of Applied Technology. A warm-up space should be provided near the field, as well. This space could then be used for a new building, which could potentially provide a designated home for arts and music programs.



Alumni field, seen between Decker and the Annex building, with Lot 4 parking beyond

Hornet Field, the baseball field, is located at the southwest corner of campus. Due to its position at the base of a hill, occasional flooding occurs on the north edge as water runs off of the slope. Students and staff have indicated that Hornet Field needs improved seating for spectators. Despite being separated from Hornet Field by Lot 4 parking, the Ice Center roof, which is white, creates glare for the shortstop on the baseball field. Screening – either vegetative or a fixed installation – should be provided to improve the play experience. When standing at home plate, the view across Hornet Field is toward the county safety complex. The softball fields used by SUNY Broome are not located on campus. Softball players used the fields located across Lt. Vanwinkle Drive at the county-owned BAGSAI Complex.

Hornet Field with County Public Safety Complex beyond *(image via bcchornets.com)*

The indoor gymnasiums – Baldwin Gym and West Gym – are located within the Student Center and are frequently used for basketball and volleyball. These dimensions of these gyms, however, do not meet NCAA standards. The gymnasium space is often used for campus events, as well, creating competition for space for pick-ups games or practice.

A basketball game held in Baldwin Gym *(image via SUNY Broome Facebook page)*

Additional athletic facilities on campus include the outdoor tennis courts located southwest of Decker, weight training rooms for athletes and a fitness center located in the Student Center, and an additional fitness center in the Student Village. Additional outdoor space is needed for intramural, club, and recreational activities, particularly with the shift to a residential campus. With the limited flexible outdoor space that currently exists, completion arises; eg. flag football competes for use of the single field with soccer and lacrosse. While tennis courts are present on the campus, a strong desire for outdoor basketball courts has been expressed. Additionally, students and staff have voiced a desire to have a softball field located on the campus and more space for activities such as dance classes oryoga.

5.7 Analysis of Site Constraints, Needs, and Opportunities

Composite Analysis:

The SUNY Broome campus is ready for a fresh, innovative makeover to both its built structures and its open spaces. The graphic which follows displays a composite site analysis, outlining current open space, opportunities for future development, significant views and pedestrians spines, vehicular arrival nodes, as well as positive and negative edges and conflict points within the campus.

There are a few poor edges along the campus core - especially along the northern edge of the main quad near the Student Center. Future enhancements to the Quad need to be able to accommodate campus events and activities and not adversely affect the quality of this important space.

There are many good spaces throughout the campus that need better definition. Direct views to and from parking areas should be minimized. The use of offset pedestrian nodes and plazas can help achieve this while still maintaining sight lines.

Buildings should be better "activated" through the addition of entrances that provide access from the popular open spaces. Many of the buildings face interior quads without an entrance. Facades across campus need to be activated and transparent - solid face walls should be modified to provide an indoor-outdoor visual interface.

There many clear pedestrian spines across campus, as well as opportunity for improvement and unification. Many of these spines should be widened. A hierarchy of pathways and corridors can be created through scale and choice of materials. Access from the main parking areas at the Library and to the west of the Natural Science Center should be assessed and improved.

All of the site furnishings across campus should be unified in order to present a cohesive design vocabulary. This would include streamlining the various styles of lights, picnic tables, and benches, the variety of paving materials, and additional elements such as gazebos. Like the site furnishings, much of the landscape has matured beyond its design intent. A site landscape analysis is recommended to evaluate aging and overgrown plant materials. The campus facilities and grounds should visibly implement and display green and sustainable practices such as the incorporation of green walls.

The campus was analyzed to determine the best opportunities to accommodate the infill of new buildings. Important to this analysis was the goal of enhancing the pedestrian campus, defining open space in a positive manner and focusing on the reinforcement of the central campus vs. spreading future development to the periphery. Each site requires evaluation to determine the appropriateness of the location relative to adjacent campus functions, utility infrastructure, circulation, and spatial quality factors.

The infill sites that have the highest level of benefit to the campus are the potential development zone along Front Street, the main quad, the Mechanical Building courtyard, and the Alumni Field space. These could be long-term campus expansion areas.

There is great opportunity with the Student Center, the Applied Technology building, the Library and the Mechanical Building. Public Safety should be re-thought/relocated from its current location in the Annex building. The Mechanical Building could become a notable gathering area within the core of the campus.

The proposed clean room at the east end of the building will be a notable indoor/outdoor design feature - the quad should be designed to respond to the “high-tech” feel of the clean room.

Future development within the campus core should carefully consider how the infill of new buildings can reinforce and positively define spaces, avoiding placing freestanding buildings with undefined outdoor spaces near the periphery of the campus. It is also important to consider how the landscape can be reinforced at the edges with both buildings and high-canopy deciduous trees.

SITE ANALYSIS

SUNY Broome
Master Plan Update 2015

May 2015

KEY

- ARRIVAL NODE
- PEDESTRIAN SPINE
- CONFLICT POINT
- NEGATIVE EDGE
- POSITIVE EDGE
- FUTURE DEVELOPMENT OPPORTUNITIES
- SIGNIFICANT VIEW

SARATOGA ASSOCIATES
Landscape Architects, Architects, Engineers, and Planners, P.C.
New York City > Saratoga Springs > Syracuse

SUNY BROOME

Section 6 – Interviews and Charrette

6. Interviews and Charrette

The planning team worked collaboratively with SUNY Broome to ensure that an inclusive process would produce a compelling vision, a clear road map of how to get there, and a flexible project implementation plan.

Collaborative participation was gained through a variety of formats including monthly meetings with the Master Plan Steering Committee, interviews with faculty and staff, and a campus-wide planning charrette.

6.1 Interviews

Questionnaires were distributed electronically to academic and administrative staff in early March 2015 to gather feedback about SUNY Broome's strengths and challenges, both on a campus-wide level and in a department-specific context. Interviews were then held on the SUNY Broome campus on March 18 and 19, 2015. Common themes that resulted from faculty and staff interviews included:

- There is competition for classroom space: credit vs. non-credit/continuing education/groups.
- Lack of larger conference room size spaces (~60 people)
- Lack of flexible space (a space for moveable tables and chairs, for events)
- Lack of large event space (to accommodate a few hundred people)
- Turf field priority is shared.
- Dining is undersized – the need exists for separate faculty vs student spaces.
- It is a challenge to accommodate residential students – dining, casual gathering space, outdoor space/recreation – the campus was designed for commuters.
- We need a clear vision for the future of the Carnegie Library downtown. How will it effect on-campus programs?
- The Binghamton Advantage Program has been successful so far, but its future long-term stability is unclear (what happens when Binghamton University fills its dorms?).

6.2 Charrette

A day-long Master Plan charrette was held on campus at the Student Center in April 2015. During the day, Saratoga Associates met with the SUNY Broome faculty, staff, students, and administration to discuss what they saw as the strengths and weaknesses of the campus. It is estimated that there were over 300 participants, with 207 student sign-ins and 46 faculty and staff. Participants responded to twenty questions on topics ranging from campus assets and needs to their favorite study and outdoor spaces.


Natural Science Building... Wales Center... Student Village... What's Next?
SUNY BROOME
Wednesday, April 29th
8 am - 7 pm
Student Center Lobby
Use Your Voice to Influence
SUNY Broome's Campus Plan!
Master Planning Charrette


BALDWIN
GYMNASIUM
Food Court

The following comments were received in response to the question "What are the most critical facility needs at SUNY Broome?" and represent common themes throughout the charrette feedback:

- Technology…… Wi-fi/cell reception, computers, classroom equipment
- Social/Student Life…….. Student union/activity space, intercultural space
- Transportation…… Parking, buses, shuttle
- Student Services aspects…… New building, advising, counseling, learning assistance
- Music-related……. Practice spaces, studios, performance space
- Athletic……. Fitness facilities/hours, locker rooms, outdoors, pool
- Dining…….. Size (overcrowded), options, pricing, faculty vs. student space
- Building Renovations…… Bathrooms, older buildings
- Cleanliness, Air Quality, HVAC

Additional feedback from participants included:

- Improve accessibility; ADA access (walks, ramps); buildings (internal and external)
- Create quiet, safe spaces
- Create additional/larger theater and meeting spaces; auditorium
- Media programs could share a space
- Art/art history, theater, visual communication, studio, and graphics need space
- Improve outdoor open space, recreation, and landscaping
- Need for better social and study spaces, indoor and outdoor
- Add a bus stop near Titchener
- Need "open" fitness facilities
- Safety: older buildings; walkways and parking lots at night

The majority of responses focused on the poor quality of instructional space and the need for increased athletic and recreational space. Site-related responses focused on vehicular circulation, parking, and bus stop concerns, and the lack of outdoor gathering, social, and recreational space on campus.

6.3 CONCLUSION

Based on the observations made during campus tours, comments made by College students and staff, and the results of the space needs analysis, it is apparent that SUNY Broome is not lacking quantity of space, but quality of space. The following sections of this report will explain these findings further and outline a plan of action for rectifying the space needs on campus.

Section 7 – Master Plan Concepts

7. Master Plan Concepts

7.1 INTRODUCTION

The Concept Phase is when building, infrastructure and site concepts that satisfy the distribution of program needs identified during the Analysis Phase (Facility and Space Needs) are developed. The concepts are developed with the intent to improve circulation, capitalize on physical opportunities, react to building and site constraints, and achieve an improved utilization of existing space.

SUNY Brome: Existing Campus Conditions Site Map

The campus was opened in the mid 1950's and, as the population has increased over the past 50 years, student profiles have changed. Recent high school graduates dominate the student profile while more and more non-traditional students are attending SUNY Broome. They are older, looking for retraining in a volatile job market, or wishing to improve their skills for upward mobility in an evolving economy.

As new curricula evolve from social requirements and technical advances, new criteria is placed on classroom configuration. Additional types and sizes of classrooms are needed with more demand for specialized labs and dedicated classrooms. The classroom configuration designed 40 years ago often cannot meet contemporary requirements.

The Implementation section that follows will identify specific action items and their priorities, mitigating the surplus of space and providing the opportunity for the campus to expand current resources.

7.2 Planning Goals and Framework

Supporting the Academic Plan

- description of academic plan priorities
- how do concepts tie in/support it?

The Academic Plan, as authored by The Education Alliance, works to identify potential areas of growth and development for the BCC campus. The SIE has identified the following as priorities:

> Digital Facilities such as online course offerings, cyber cafes and wireless networking throughout campus

> Multi-functional Facilities such as general classrooms that are equipped to accommodate multiple disciplines

> Academic Expansion addressing growing opportunities in the digital media and communications, forensics and homeland security fields

> Campus Image Improvements such as designated arrival area and gateway and updated facades

> Sustainable Design and Practices addressing recycling, climactic comfort and energy conservation

The Campus Master Plan addresses the above items through its recommendations for new and renovated buildings that address today's teaching needs, consolidate departments, address current accessibility, safety and energy codes and improve overall campus image. Proposed site renovations will also address campus way finding, safety and aesthetic. The Plan will provide an environment that can support not only the current SUNY Broome curriculum, but expanded programs as well, promoting campus growth and development.

7.3 Building Space Concepts

The analysis and assessment portion of the project established that there is a surplus of physical space on campus. This conclusion combined with the perception that the primary flaw of the campus is not a lack of space, but the poor quality of existing space provides the opportunity to set a primary master plan goal to create a campus wide user-friendly learning environment that meets the requirements of today's pedagogy, as well as responds to the calculated space needs as dictated by State University Construction Fund. This can be achieved through a combination of the following:

> *Consolidate and Reorganize*

Departments, such as Art, Science and English, are distributed over many buildings and, in some cases, are located partially off campus. When departments are consolidated into one building, redundant facilities can be avoided and efficiency of space and time can be improved.

> *Improve Space Utilization*

Revise scheduling and class sizes to improve utilization of teaching spaces.

> *Code Compliance*

Upgrade the existing campus facilities to acceptable present day code standards. Health, safety, and accessibility code compliance will improve the utilization of buildings; meeting the energy codes will reduce wasted energy and improve efficiency.

> *Deferred Maintenance*

It is important that once new buildings are constructed and existing buildings are renovated deferred maintenance be addressed. Multi-year budget goals should be set for addressing maintenance priorities, and budgeted dollars need to be expended on the projects. A log should be created for projects/priorities and be made available to decision makers.

> *Total Renovation*

Existing buildings that were constructed in 1956 and are located at the core of the campus require total renovation. Doing so will not only bring the outdated facilities up to current teaching standards, but will improve energy usage and re-establish the aesthetic of the campus.

> *Removals*

Buildings beyond their useful life or programmatic need, house instructional space and are located far from the campus core, or are more costly to renovate than to rebuild should be removed in order to condense the campus and make services more efficient.

> *Construct New Instructional Spaces*

Create new, state of the art, teaching spaces that can serve multiple departments' teaching needs and possess amenities that are not possible in renovated buildings due to structural limitations. New spaces do not necessarily mean additional square footage, as many of the existing classrooms are poorly sized will be reconfigured to accommodate current class size standards.

Student Housing Plan – current/future

SUNY Broome is interested in pursuing additional student housing with the anticipation that it will boost enrollment. Off-campus student housing has the advantage of independent management, but duplicates parking demands on campus. On-campus student housing promotes a heightened sense of campus

community, but requires certain facilities, such as student health and dining, to be increased and developed to accommodate on-campus residential occupancy.

Broome retained Anderson Strickler, LLC to conduct a feasibility study for on campus student housing. ASL determined through their research that the college could support up to 765 beds of apartment style housing, and recommended that the construction be broken into two phases. By constructing in phases, the college could benefit from initial occupancy, establish procedures, and learn the necessary lessons for a successful second phase.

This original housing master plan included eight buildings, housing approximately 380 beds, and the associated parking on campus. There were two potential sites established for housing, along Front Street and in the northwest corner of campus. Housing was constructed as Student Village, along Front Street, and provides beds for students. There is not a dedicated resident parking lot at this time, and no dining facility was constructed as part of the project.

mention future phase of housing here

Repairs, renovations, and modernization of facilities are a campus wide project, involving the existing buildings, utilities and distribution systems. The building related infrastructure and utilities projects recommended in this report would be undertaken as each individual building is renovated. Utility distribution and site related projects recommended in this report would be tied to the building projects wherever possible. The following list represents the general areas of improvement that will take place on campus. Refer to Appendices A and B for detailed improvements recommended for each building.

- *Summary of Infrastructure Improvements*
  - > Bring all buildings and grounds into compliance with health and safety codes and ADA
  - > Increase energy efficiency of buildings through window and entrance replacement
  - > Eliminate basement seepage problems
  - > Complete asbestos abatement program
  - > Repair exterior building components
  - > Replace aged and inefficient building mechanical systems.
  - > Provide centralized campus energy management system for better system control and monitoring.
  - > Replace Natural gas distribution system

> *Summary of Electrical Improvements*

> Replacement of panelboards that are at the end of their usable life and contain obsolete breakers and/or no additional space

> Add devices such as ADA compliant strobes to meet current code requirements

> Provide Annunciation of Fire Alarm System to Campus Operations and provide connections to buildings that don't currently report to Campus Operations

> Add emergency lights to meet current code requirements

> Add exit lights to meet current code requirements

> Replace shorted out wiring, and suspect wiring to site

> Replace outdated UPS and provide redundant power with generator backup for the Computer Center

> Relocate Time Warner Fiber entrance to the Data Center

> Provide T-8 lamps and electronic ballasts in the few areas which have not been upgraded

7.4 Site Concepts

In July 2015, the master planning team held a design workshop on campus to present identified assessment needs and to develop alternative ideas for the master plan. The purpose was to explain design options related to entry gateways and arrival, circulation and parking, open space and landscape, athletics and recreation, and campus amenities. Evaluation of the options with the Master Plan Advisory Committee provided the basis from which to develop the "preferred" Master Plan.

> *Gateway, Arrival and Wayfinding*

Enhance the North College Drive and Lt. VanWinkle Drive entrances from Front Street to be the primary gateways to the campus with signage and landscaping.

Develop arrival areas at the exterior of the campus academic core to facilitate drop-offs and transition between parking and open space – these could be located within Lot 1, outside of Titchener, outside of Wales, and at the Ice Center.

Develop consistent signage to assist in the way-finding experience from campus entries to parking and then to buildings. This includes the evaluation and replacement of site and building signage, and the addition of directional signage at main pedestrian intersections.

> *Vehicular Circulation and Parking*

Evaluate to potentially develop a secondary entrance on Lt. VanWinkle Drive to facilitate vehicular movement to the western portion of the campus. This will also allow the consideration of alternate ingress and egress options associated with the main south entry, such as providing a one-way entry from Lt. VanWinkle Drive into Lot 1.

Enhance and move the northern loop road to remove and relocate parking from Lot 14 to the renovated parking lots to the south of the road. Redevelop the western loop road configuration to

facilitate potential athletic expansion and parking. Construct an eastern portion of the loop road to internally connect the north side to the south side of campus.

Redevelop the primary and secondary student parking lots to include new landscaped islands, lighting, and an improved circulation pattern with a drop-off area.

> *Pedestrian Circulation*

Concepts for the pedestrian circulation system involve the enhancement of pedestrian nodes at key points, enhancement of some existing walkways and the incorporation of new walkways.

Enhance pedestrian connections between parking and the campus core and develop pedestrian spines by adding new walks, crosswalks, and landscaping, and relocate parking to eliminate conflict areas between pedestrians and vehicles.

> *Open Space and Landscape*

Maximize green space opportunities along Front Street by enhancing campus views, which influence first impressions.

Maintain existing quadrangles adjacent to the Business Building and provide new quadrangle space where the Mechanical Building and Arts Annex buildings exist that provide opportunities for passive and active recreation, as well as artistic display.

Develop and implement a landscape master plan that identifies plant material to be rejuvenated, relocated, removed or replaced. Care should be taken to define the interior open spaces with trees to allow for a mass/void visual experience, and not block views between the ground and the lower portions of tall trees. The addition of new plantings should incorporate native species and avoid short-lived ornamentals and species that have significant disease and insect problems.

Consider the development of a plant material database to monitor plant health and location and to be used for educational purposes.

> *Athletics and Recreation*

Renovate existing athletic turf field to a preferred orientation to become a more significant campus feature while maintaining a direct connection to the existing athletic facilities.

Evaluate topography and stormwater for the potential development of additional fields along the loop road for campus, intramural, and community use.

Develop a new athletics center, containing basketball courts, new fitness facilities, locker rooms, classrooms, and multi-purpose rooms. Utilize freed space in the Student Center for needed academic and assembly space.

> *Campus Amenities*

Develop standards for site furnishings (benches, trash receptacles, etc.) that are consistent and cohesive with each other as well as with the architecture and signage.

Upgrade and replace parking and pedestrian lighting to be efficient and dark sky compliant.

Develop a campus stormwater management plan that meets or exceeds the requirements of New York Department of Environmental Conservation.

Develop a recycling program in conjunction with other sustainable green initiatives, such as other countywide programs and partnerships, green roofs, and overall operational / eco-efficiency practices.

7.5 Space Conclusions

7.6 Overall Master Plan

Short overall description of both site and building details

- Maintain circulation and view corridors
- Reinforce open space and strengthen edges
- Locate possible building areas
- Provide additional athletic facilities
- Improve space for music/theater/arts programs
- Possible interior loop road creation


NORTH COLLEGE DR
Duane Whittaker's Way
FRONT STREET
LC VANWINKLE DRIVE
CAMPUS SERVICES
FUTURE PARKING
FUTURE BUILDING
MASTER PLAN CONCEPT
SUNY Broome
Master Plan Update 2015
July 2015
KEY
EXISTING BUILDING
PROPOSED BUILDING
PROPOSED EXPANSION OR MODIFICATION
1. MODIFICATION OF NORTH COLLEGE DR TO ELIMINATE DANGEROUS PARKING
2. NEW PARKING/BUS STOP LOOP AT WALES
3. FUTURE BUILDING ACROSS FROM WALES
4. LABYRINTH BETWEEN BUSINESS & WALES
5. CONNECTION BETWEEN S.S. AND SCIENCE (WILL BE FUTURE LIBRARY AND RESOURCES)
6. NEW CULINARY BLDG
7. STUDENT CENTER/ACE CENTER EXPANSION AND CONVERSION FOR THEATER ARTS
8. REORIENTED TURF FIELD; NEW SOFTBALL FIELD AND BASKETBALL; NEW PHYS ED BLDG
9. NEW ARTS/MUSIC BLDG
10. REMOVAL OF ANNEX BUILDING
11. PLAZAS AT DINING, THEATER, & A.I. BLDG
12. NEW LIBRARY/ONESTOP ENTRY ON WEST SIDE
13. REMOVAL OF STAFF LOT 18 FOR QUAD SPACE OUTSIDE DORMS
14. FUTURE NEW DORM AND REVISED PARKING
15. FUTURE COUNTY BLDG AT VANWINKLE
PASSERO ASSOCIATES
engineering architecture
SARATOGA ASSOCIATES
Landscape Architects, Architects, Engineers, and Planners, P.C.
SUNY BROOME

Section 8 – Implementation

8. Implementation

8.1 Introduction

The Implementation Phase of the master plan process identifies various building, site, and utility projects and seeks to organize them based on the following four criteria:

> Priority of need, as established by SUNY Broome

> Critical paths, identifying projects requiring completion in order to support initiation of following projects

> Programmatic space distribution, in order to identify a logical "musical chairs" of departmental shifting

> Physical proximity of projects, to establish logical groupings

The Implementation Plan then schedules individual projects based on priorities, potential funding, and the sequence of previous projects.

There is currently no space to provide temporary relocation of departments for facility renovations, as the surplus of square footage on the SUNY Broome campus is largely comprised of oversized classrooms and poorly utilized space. Biology and Chemistry are among the departments that are currently spread over many buildings on campus and require consolidation. It is impractical and cost prohibitive to create temporary science lab space, so new efficient and modern lab spaces will be constructed. Upon completion of the new building, these departments will be consolidated with minimum disruption to course offerings. Once the existing science building is cleared, it can be renovated to accommodate new program. The next cleared building can then be renovated for the next set of program, and so on, eliminating the need for any constructed temporary space. The Arts Annex building will serve as a temporary location for administrative offices and classroom space for renovations to buildings not receiving new program.

Appendix A of this report identifies the existing program of each building on campus. Refer to Appendix E for a detailed breakdown of the transfer of existing program from its current location to its proposed location on campus.

8.2 PROJECT SEQUENCING

The following is a breakdown of the proposed Master Plan concept by project. Due to available funding and scheduling requirements, projects will be phased as outlined below. Short-Term Projects includes the work identified by the College to have the highest priority. Mid-term Projects contains projects that are less of a priority and will be completed as funding becomes available.

8.3 Implementation Plan

The Implementation Plan identifies individual projects and schedules projects based on priorities, potential funding and the sequence of previous projects. The Implementation Plan is divided into three phases: short-term, mid-term and long-term .

A summary of the individual projects within the phases and related budgets are shown on the following pages. It is recommended that these budgets be updated on an annual basis.

Capital Planning Project Costs

Project costs consist of "hard" probable construction costs at 75% plus "soft" costs at 25% - approvals, surveys, testing and design plus fixtures and equipment (FF&E). Figure 1.6 has been utilized to establish probable costs based on various intensity levels of renovation and new construction. Annual inflation, which has been averaging 3% a year for the last three years, is not factored into the Figure 1.7 costs. The Implementation Plan tables for the planning periods include projected escalation costs.

Project budgets are comprised of basic construction costs, furnishings, and professional fees. The statements of probable construction costs for buildings are based on 2007 dollars per gross square feet (gsf) or lump sum (ls) units, which vary depending on the extent of renovation and/or type of new construction. A summary percentage breakdown of total square foot of a typical new project budget is:

Basic Construction	86%
Furnishings	5%
Professional Fees	9%
Total Project Budget	100%

The Implementation Plan in the following spreadsheet includes new construction, renovation building projects and site projects. When preparing an Implementation Plan the rate, or schedule of expenditure, is determined in order to accomplish the identified projects. Once the project scope and budget is determined, then time becomes the variable in the planning tool. BCC's Implementation Plan is divided into phases that consist of Short-Term, Mid-Term, and Long-Term. Each term consists of projects, or tracks. Individual tracks are further broken into sub-groups (A-1, A-2. etc.). Each sub-group is given a project designation and project budget. All projects within a group should be completed once initiated to ensure continuity.

Phases are indicated horizontally on the spreadsheet with the entries denoting probable year of expenditure. The entries are shown in, with annual column totals indicating escalated dollars at 4 percent per year shown in italics.

8.4 CONCLUSIONS

SUNY Broome has many assets that have provided a strong framework for its Master Plan. The existing campus layout has a distinct core that has provided reuse opportunities for buildings and landscape spaces. The campus is also in an ideal regional location, providing an opportunity to reach not only a local market, but serve the NYC area and Pennsylvania, as well. On a human scale, the students have an intense willingness to learn, matched only by the passion of the faculty's love of teaching. These attributes offer the foundation to build on and the Master Plan takes advantage of each of them.

Overall, the primary campus issues that were identified:

> Overbuilt space, based on space needs calculations

> Low-tech instructional space with outdated aesthetics

> Accessibility and energy code deficiencies

> Outdated campus image based on dominant building style

> Aging building and mechanical systems

> Departments divided amongst several buildings

This Master Plan seeks to address these issues through the following planning initiatives:

> Consolidation - Bring divided departments back together in new construction and renovated buildings

> Relocation - Use the space that exists more efficiently

> Renovation - Update facilities to promote a contemporary image

> Removal - Eliminate underutilized and insufficient facilities

SUNY Broome has great potential and this Master Plan seeks to facilitate its growth and development. The SUNY Broome of today has its challenges and opportunities and, by acknowledging each as what it is, the SUNY Broome of tomorrow can be so much more: an aesthetically unified, environmentally-friendly campus that projects a positive image, employs sustainable design, and is a technological leader with cutting-edge instructional space.

Section 9 – Appendices

9. Appendices

Appendix A – Facility Analysis

Facility Analysis

The 218-acre campus is primarily comprised of the original buildings, constructed in the late 1950's, and some additions to the Campus that have been constructed over the years. The Darwin R. Wales Center recently underwent renovations, a new Natural Science Center was constructed, and student housing was created at Student Village.

Overall, many of the buildings and most of the campus grounds have not seen many major renovations or capital improvement projects during their lifespan. Maintenance has been largely limited to replacement of flat roof areas, as capital budgets permit. The buildings appear structurally sound and exhibit deterioration normal with their age. Major deficiencies that are present campus wide fall into the categories of space shortages, energy conservation, code compliance, preventative maintenance, and delayed upgrade of aged systems and finishes.

The following catalog documents the observations made of each building and the overall grounds on campus. The recommendations made for each of the buildings do not reflect the proposed master plan and are intended to reflect only the individual renovation requirements for each building.