FEBRUARY 2012
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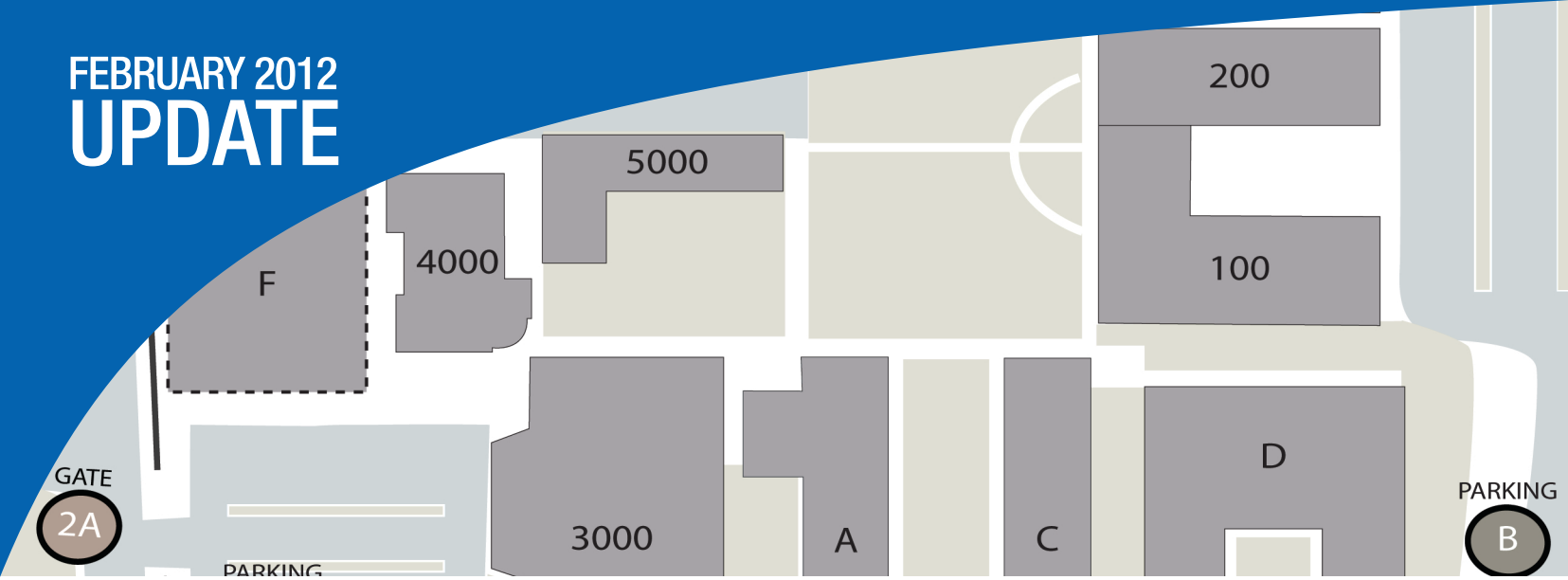

Institutional Strategic MASTER PLAN 2009-2014

GUAM COMMUNITY COLLEGE

GCC
GUAM COMMUNITY COLLEGE
Kulehon Kumunidát Guáhan

Informational sessions on the Institutional Strategic Master Plan (ISMP) were conducted on December 1, 2, and 3, 2008, at the GCC multi-purpose auditorium. We thank all the administrators, faculty, staff, and students who participated in these educational sessions.

The Board of Trustees approved the final ISMP document at its December 4, 2008 meeting.

The Physical Master Plan Update 2011-2015 in Appendix B was developed by Taniguchi Ruth Makio Architects (TRMA) and presented to the GCC campus community for review and feedback on December 30, 2011(for staff and administrators) and January 24, 2012 (for faculty and community stakeholders). The campus community discussion is still ongoing, as of this writing (February 2012).

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Guam Community College Comprehensive Institutional Assessment Plan for Programs, Services, Administrative Units, and the Board of Trustees

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Information Technology Strategic Plan

Guam Community College

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Hafa Adai!

It gives me great pleasure to provide you with the Guam Community College's Institutional Strategic Master Plan (ISMP) – where you will find information on the college's efforts to develop a vision for growth that looks to the 21st century, but also remains grounded to GCC's past.

The ISMP offers information on the college's strategic plan that proposes strong advances in serving three distinct audiences – our students, the community and employers. While recognizing the differences and similarities in serving these diverse segments, we continue to ensure that the students or individuals who seek our services are provided with practical job skills, academic training that integrates the most advanced technology, opportunities to pursue advanced education, and soft skills that include work ethics and cultural sensitivity.

Guam Community College is preparing for what may be the largest and most dynamic period of economic growth and social change in Guam's history. The United States military is planning to invest $15 billion to upgrade and expand its facilities on the island. The planned construction for defense installations, housing, and infrastructure, as well as the maintenance and operation of these facilities for the long term will create an unprecedented need for skilled and certified trade workers. The strategic plan is intended to prescribe defined programs and activities to accommodate the workforce training needs associated with the economic growth anticipated during the pending military expansion on Guam.

Looking at Guam's future and planning for the unprecedented growth of our island over the next few years, we would like to make certain that we have the resources and capacity available to train and educate an expanding workforce. The long-range campus plan contained in the ISMP will translate these strategic goals into the physical development of GCC's campus so that we can grow into the next decade.

While these are exciting times for Guam and the Guam Community College, I ask that we continue to work together to advance the mission and vision of the college. Thankfully, we now have a functional document that will help set the course for the next several years. Knowing the time and effort invested in the ISMP, I would like to thank everyone who has contributed to this process including our Board of Trustees, task groups and members of the Faculty Senate. Guam Community College looks forward to the continuing communication and dialogue with all stakeholders as we move toward refining and implementing our five-year Institutional Strategic Master Plan.

Senseramente,

Mary A.Y. Okada

MARY A.Y. OKADA
President

GUAM COMMUNITY COLLEGE

MISSION STATEMENT

The mission of Guam Community College is to be a leader in career and technical workforce development by providing the highest quality education and job training in Micronesia.

The Chamorro translation reads as follows:

SINANGNAN MISION

I mission I Kulehon Kumunidat Guahan, guiya I ge' hilo' I fina 'fina' che' cho' siha yan I kinahulo' I mamafafa' che' cho' ya guaguaha nu I manakhilo' yan manmoalek na tiningo' yan fina'na' guen cho'cho' siha gi iya Maikronisha.

Amended & Adopted: May 5, 2011 (Chamorro translation)
Re-examined & Adopted: February 9, 2011; Resolution 5-2011
Adopted: March 11, 2009; Resolution 17-2009
Amended & Adopted: September 5, 2008; Resolution: 12-2008
Re-examined & Adopted: January 25, 2007; Resolution 1-2007
Adopted: February 9, 2005; Resolution 3-2005

VISION STATEMENT

Guam Community College will continue to pioneer labor force development within the Western Pacific, Best understanding and meeting the educational, career, and technical training needs of the economy. It will be Guam's premier career and technical institution and finest secondary and post-secondary basic educational institution serving the island's adult community. Its excellence will continue to be recognized because of its service to employers, employees, and the community at large.

Section I

Overview

I. Introduction to the Institutional Strategic Master Plan

The Guam Community College (GCC) is preparing for what may be the largest and most dynamic period of economic growth and social change in Guam's recent history. The United States military is planning to invest $15 billion to upgrade and expand its facilities on the island. During the five-year period of planned investment, the gross receipts of the island's economy will double. The island's population is expected to permanently increase by at least 20% or some 30,000 people, not including expected immigrants from the Freely Associated States of Micronesia, the Commonwealth of the Northern Marianas and the estimated 15,000 temporary H-2 workers that will be brought to Guam during the build-up.

The planned construction for defense installations, housing, and infrastructure, as well as the maintenance and operations of these facilities for the long term, will create an unprecedented need for skilled and certified trade workers. The anticipated need for workers will be so large that the U.S. Congress has lifted restrictions on the number of H-2 visa laborers which can be brought to Guam and the region to meet the need for skilled labor during the period of the build-up. GCC is mandated by Public Law 14-77 to lead the Territory's initiative to train and prepare Guam's workforce to participate in the growth of Guam's economy. As GCC is Guam's most capable adult and technical education resource, the Institutional Strategic Master Plan (ISMP) has been prepared to guide GCC in fulfilling the community's need for technical and adult education training for the next five years.

A. Significance and Purpose

The primary purpose of the Institutional Strategic Master Plan (ISMP) is to serve as a guide to action. It is a strategic plan intended to illustrate long-term goals and initiatives enabling GCC to come closer to realizing its vision. As a public document, it also serves to communicate the College's long-term vision and plan, not only to its staff and student body, but also to the community at large.

B. Scope and Limitation

This strategic plan is intended to prescribe defined programs and activities expected to be relevant for the next five years, from academic year 2009 to 2014, to assist GCC in meeting local workforce training and basic educational needs. In preparing the plan, the Planning Team consisting of faculty, staff, and administrators, envisioned the future long-term needs and opportunities to which the College can and should respond. As a Strategic Plan, the ISMP describes major long-term initiatives. As in the previous master plan (1996-2006), an operational plan must be written each year detailing individual unit objectives in line with the major long-term initiatives described in the plan.

While long-term plans are essential to achieving progress and development, it must be understood that institutions must also change as the times do. Hence, the ISMP is intended to be flexible, supporting progress and change as may be required.

C. Methods

The ISMP was developed through a facilitated process of guided discussions with faculty, staff, and administrators at GCC. The Planning Team reviewed the institution's mission statement and crafted a new vision statement for the College. These statements were devised to embody the core values and provide direction to the mission of the institution. From there, the internal strengths and weaknesses of the organization were reviewed along with external opportunities and threats that existed. Information derived from the self-study process, various reports from the Office of Assessment and Institutional Effectiveness, as well as other secondary sources were used to provide a body of knowledge and data that framed the direction of the plan.

The facilitation process identified five key findings:

- There is no comprehensive needs assessment of actual workforce training requirements on Guam. Workforce training requirements have been determined using broad qualitative assessments proffered through informed estimates made by community representatives. However, a formally researched assessment of local workforce training requirements will be most beneficial to the College's effectiveness in meeting the community's needs.
- The career and technical training services offered by the community both in the private and the public sector are uncoordinated resulting with inconsistent quality and in many ways duplicate services that would be more effectively provided through a cooperative and coordinated approach.
- As with any other government agency, the College defends its annual budget before the Guam Legislature. Because of insufficient endowment funding, the College has been affected by the island's fragile and volatile economy further challenging the College in advancing its mission to increase programs and services. However, the resource challenge can be minimized through justifiable tuition increases, federal grant applications and diversified sources of funding.
- Recent accreditation consultations have revealed the Western Association of Schools and Colleges (WASC) requires a new approach for colleges to maintain their accreditation status. All courses, programs and initiatives must be driven by the pursuit of competent student learning outcomes. Although GCC has made significant progress in meeting these new requirements much remains to be done to clearly link student learning outcomes to institutional effectiveness.
- The GCC "brand" and the College's role in the community needs to reflect current endeavors and initiatives in order for employers and the community at large to be sufficiently informed of the College's vision and activities.

The strategic plan was developed to address these issues as quickly and effectively as possible. The resolution of these items and the implementation and continued refinement of initiatives and programs that are prescribed represent a multi-year endeavor.

II. Institutional Overview

Guam is the largest and most developed island in Micronesia, a region of remote small islands and atolls in the western Pacific Ocean spread out over an area that is larger than the contiguous 48 States. Politically, it is an unincorporated U.S. territory located approximately 1,500 miles south of Japan, 1,500 miles east of the Philippines, 1,500 miles north of Papua New Guinea, and 3,800 miles west of Hawaii. It is, therefore, geographically closer to the Asian Pacific Rim than to the United States. The island is surrounded by the Pacific Ocean on the east and the Philippine Sea on the west. The Marianas Trench, the deepest water on Earth, lies just off Guam's east coast. Because Guam is west of the International Date Line, local time is 15 hours ahead of Eastern Standard Time and 20 hours ahead of Hawaii. Thus, the island motto is appropriately: "Where America's Day Begins."

Unique by its mandate, GCC was established in 1977 by Public Law 14-77 to serve both secondary and postsecondary student levels. Guam Community College (GCC) is located on a 22-acre site in the central part of the island in the village of Mangilao. GCC is the only community college on Guam and its primary service area is the island. The College enjoys an excellent reputation for quality career and technical education programs and serves a predominant number of Micronesian and Asian students.

The College is responsible for all career-technical education programs on Guam. It has a significant role in the five public high schools by offering programs in Tourism, Marketing, Visual Communications, Allied Health, Construction Trades, Electronics, AutoCad and Automotive Services with an average enrollment of over 2,000 students at any given time. Thirty-seven full-time GCC faculty members provide the instruction using GCC curriculum and four career counselors guide students through their programs. The relationship between the Guam Public School System (GPSS) and the College is managed through a Memorandum of Agreement and monthly joint meetings. GCC programs are often mentioned as highlights in the accrediting reports for each of the schools. On campus the College also offers Adult Education programs: Adult High School, ESL, GED, Basic Skills, and Family Literacy.

A. Mission & Vision

Mission Statement:

The College periodically revises its mission statement to reflect the changing needs of the College. The most recent version of the mission statement, developed in 2005 and reviewed annually, will be reviewed again in January 2009. The mission statement reads:

> *Guam Community College is a public, open access secondary and post-secondary institution. We serve the diverse communities of Guam as a regional focal point for Micronesia within the Asia-Pacific Rim. We provide education and career-technical training that is premised on lifelong learning. GCC is committed to providing quality learning opportunities in occupational, career-technical, technological, academic, and continuing education reflective of our community and industry needs.*

Vision Statement:
The proposed revision to the College's Vision Statement is as follows:

> *GCC will continue to pioneer labor force development within the Western Pacific, best understanding and meeting the educational, career and technical training needs of the economy. It will be Guam's premier career and technical institution and finest secondary and post secondary basic educational institution serving the island's adult community. Its excellence will continue to be recognized because of its service to employers, employees and the community at large.*

The vision statement was devised to help define the action plan for the College over the near, medium and longer term. It guided the development of the strategic goal initiatives identified in the plan and offers definition to the execution of the mission statement.

B. Commitment Towards its Stakeholders

The ISMP is designed to guide GCC in servicing three distinct audiences in the community. First and foremost will be the delivery of quality career and technical education services as well as basic educational services to its students. The institution will continue to be the premier basic and career and technical education training resource for adults and those students in the GPSS system.

In addition to offering services to students, GCC will be embarking upon the provision of tailored programs for businesses. The ISMP establishes a timeline for Continuing Education to develop a program to offer training services tailored to specific needs of employers. Additionally, partnerships with private training contractors will be established with the goal of facilitating the transfer of sustainable technologies to offer training to the community well after the coming build-up is completed and contractors leave the island.

The ISMP is also designed to fulfill a commitment to the community to offer leadership in the development of local workforce skills. This will be accomplished in three ways. First, the development of an island-wide career and technical training needs assessment has been identified as a component of the Plan. The ISMP identifies a timeline for GCC to facilitate the coordination of all of Guam's educational assets along with the Department of Labor to establish by the medium term, a regular empirical assessment of the community's career and technical training requirements. A comprehensive needs assessment that is regularly updated will provide the means of monitoring skill deficiencies within Guam's workforce and identify areas that require attention as the employment needs of the economy changes. This information will be used to not only assist with refining Student Learning Outcomes but also provide guidance for curriculum development.

Secondly, the ISMP calls for GCC's involvement in facilitating the creation of an island-wide workforce development plan based upon the findings of the needs assessment. The Workforce Development Plan is intended to be a living plan that will guide the coordination of all career and technical training programs currently funded by local and federal resources. It will be designed to guide all of the island's career and technical training resources towards

a single vision and establish consistent educational standards across all of the island's educational assets.

Finally, the ISMP provides guidance on how GCC will reach out to the community offering student enrichment services and better informing students and employers of the opportunities and services available at GCC.

Students

The College's priority is its students. It aims to provide its student body with:

- Job skills
- Academic training
- Civic engagement opportunities
- Opportunities to pursue advanced education
- Soft skills (e.g. Ethics, responsibility, accountability, etc.)

It also aims to answer the following questions:

a. Cognitive: What do students know?
b. Affective: What do students think and value?
c. Behavioral: What can students do?

GCC opens its doors to students regardless of age, gender, ethnicity, or educational background. For students who have dropped out of high school, GCC provides an alternative means to earning a high school diploma (thus improving job opportunities), either through optimal training to pass the GED, or through the adult high school program. For students enrolled in one of the five public high schools, GCC provides an opportunity for career and technical education otherwise not available to them.

Employers

GCC assists the local business community by providing a steady pool of skilled employees, as well as providing additional training services to employers. GCC will seek out training partnerships with companies attracted to Guam during the military build-up that will bring new technologies and training techniques that may be of sustainable use after the buildup is completed. Such partnerships will provide a means of generating revenue for GCC, provide access to technology and expertise not currently available, and assist with better integration of the career and technical training services offered by GCC with the needs of island businesses. This effort will work to keep GCC current with industrial requirements as well as establish and maintain contact with the employer community.

The Community

As the leader in workforce development, GCC aims to accommodate the workforce training needs associated with the economic growth that is anticipated during the pending military expansion on Guam. GCC needs to be able to respond immediately to changing community and economic needs. The leadership that GCC will display in facilitating both an island-wide

adult educational needs assessment, as well as the creation of an island-wide workforce development plan, is evidence of GCC's commitment to meeting the needs of the community's workforce. GCC will also play a key role in community wide projects to enhance and preserve the quality of life of all Guamanians. Through volunteerism and the provision of outreach assistance to organizations and causes which aid the workforce, GCC will remain a visible and important partner in community development.

C. Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

During the planning process, the GCC Planning Team conducted an analysis of the College's strengths, weaknesses, opportunities, and threats (SWOT). Among its strengths were fiscal responsibility and accountability, its responsiveness to student needs, and its resources in terms of staffing and facilities. Also, GCC has a clear vision, partial autonomy, and possesses strong leadership. However at times, its resources are not consistently abundant which creates a challenge to expand its programs and services and the ability to increase its staff. As with all publicly supported educational institutions, it is dependent on the state of the local economy – if the economy is weak, resources become scarce.

However, the institution is not without opportunities. GCC is currently working with public and private agencies to identify needs and demands common for areas of study and for new courses. Guam is expected to experience significant economic growth in the near future due to the military buildup, which should create an increased demand for jobs – and with it, enrollment.

Threats to GCC are average. Shrinking government revenues and increased competition from private sector providers currently challenge the ability of GCC to maintain its leadership role in the creation and implementation of workforce development programs. In addition, recent changes to WASC accreditation requirements require a systemic change in how the College evaluates and monitors its progress. The linking of student learning outcomes to program and institutional effectiveness is a critical accomplishment, which must be met in the near term.

D. Accreditation Standards

The primary goal of the College is to retain its accreditation status within the Accrediting Commission for Colleges and Junior Colleges (ACCJC.) As these standards are going to be referenced occasionally in the following plan, a summary follows. A full copy of the accreditation standards may be found in Appendix I.

Standard I: Institutional Mission & Effectiveness

A. <u>Mission</u>
The institution has a statement of mission that defines the institution's broad educational purposes, its intended student population, and its commitment to achieving student learning.

B. Improving Institutional Effectiveness

The institution demonstrates a conscious effort to produce and support student learning, measures that learning, assesses how well learning is occurring, and makes changes to improve student learning. The institution also organizes its key processes and allocates its resources to effectively support student learning. The institution demonstrates its effectiveness by providing 1) evidence of the achievement of student learning outcomes and 2) evidence of institution and program performance. The institution uses ongoing and systematic evaluation and planning to refine its key processes and improve student learning.

Standard II: Student Learning Programs and Services

The institution offers high-quality instructional programs, student support services, and library and learning support services that facilitate and demonstrate the achievement of stated student learning outcomes. The institution provides an environment that supports learning, enhances student understanding and appreciation of diversity, and encourages personal and civic responsibility as well as intellectual, aesthetic, and personal development for all of its students.

A. Instructional Programs

The institution offers high-quality instructional programs in recognized and emerging fields of study that culminate in identified student outcomes leading to degrees, certificates, employment, or transfer to other higher education institutions or programs consistent with its mission. Instructional programs are systematically assessed in order to assure currency, improve teaching and learning strategies, and achieve stated student learning outcomes. The provisions of this standard are broadly applicable to all instructional activities offered in the name of the institution.

B. Student Support Services

The institution recruits and admits diverse students who are able to benefit from its programs, consistent with its mission. Student support services address the identified needs of students and enhance a supportive learning environment. The entire student pathway through the institutional experience is characterized by a concern for student access, progress, learning, and success. The institution systematically assesses student support services using student learning outcomes, faculty and staff input, and other appropriate measures in order to improve the effectiveness of these services.

C. Library and Learning Support Services

Library and other learning support services for students are sufficient to support the institution's instructional programs and intellectual, aesthetic, and cultural activities in whatever format and wherever they are offered. Such services include library services and collections, tutoring, learning centers, computer laboratories, and learning technology development and training. The institution provides access and training to students so that library and other learning support services may be used effectively and efficiently. The institution systematically assesses these services using student learning outcomes, faculty input, and other appropriate measures in order to improve the effectiveness of the services.

Standard III: Resources
The institution effectively uses its human, physical, technology, and financial resources to achieve its broad educational purposes, including stated student learning outcomes, and to improve institutional effectiveness.

A. Human Resources
The institution employs qualified personnel to support student learning programs and services wherever offered and by whatever means delivered, and to improve institutional effectiveness. Personnel are treated equitably, are evaluated regularly and systematically, and are provided opportunities for professional development. Consistent with its mission, the institution demonstrates its commitment to the significant educational role played by persons of diverse backgrounds by making positive efforts to encourage such diversity. Human resource planning is integrated with institutional planning.

B. Physical Resources
Physical resources, which include facilities, equipment, land, and other assets, support student learning programs and services and improve institutional effectiveness. Physical resource planning is integrated with institutional planning.

C. Technology Resources
Technology resources are used to support student learning programs and services and to improve institutional effectiveness. Technology planning is integrated with institutional planning.

D. Financial Resources
Financial resources are sufficient to support student learning programs and services and to improve institutional effectiveness. The distribution of resources supports the development, maintenance, and enhancement of programs and services. The institution plans and manages its financial affairs with integrity and in a manner that ensures financial stability. The level of financial resources provides a reasonable expectation of both short-term and long-term financial solvency. Financial resource planning is integrated with institutional planning.

Standard IV: Leadership and Governance
The institution recognizes and utilizes the contributions of leadership throughout the organization for continuous improvement of the institution. Governance roles are designed to facilitate decisions that support student learning programs and services and improve institutional effectiveness, while acknowledging the designated responsibilities of the governing board and the chief administrator.

A. Decision-Making Roles and Processes
The institution recognizes that ethical and effective leadership throughout the organization enables the institution to identify institutional values, set and achieve goals, learn, and improve.

B. Board and Administrative Organization

In addition to the leadership of individuals and constituencies, institutions recognize the designated responsibilities of the governing board for setting policies and of the chief administrator for the effective operation of the institution.

III. Situational Analysis

The Guam Community College is at a critical juncture in its history. The institution has been called upon by the Governor to provide leadership in assisting the local workforce to meet the skill and productivity requirements that projected growth of the economy will require over the next five years and beyond. The economy is just now emerging from the grips of a severe economic recession that lasted for nearly ten years. The economic decline was created by the events of September 11, 2001, repeated super-typhoons, and the Asian economic crisis. Gross receipts in the economy shrank by approximately one third, causing the highest bankruptcy and unemployment rates in the nation. Construction and new development activity dried up and the demand for skilled trade workers on Guam dropped to such a level that many were forced to leave Guam to find employment. In the meantime, the Government of Guam attempted to maintain essential public services with ever diminishing tax resources.

In the face of declining resources and difficulty maintaining training services for employment opportunities that were shrinking, GCC was forced to concentrate on maintaining accreditation. It expanded the College's academic curriculum, building its reputation as an academic institution. In doing so, its image began to change as did its relationship with employers and its students in ways the College did not completely understand. The faculty and the administration became increasingly concerned that GCC's affinity with the community and the private sector was drifting. It became apparent that GCC needed to improve its efforts to respond promptly to the needs of the economy.

In the midst of these challenges, significant changes in the accreditation requirements for GCC were dictated by theACCJC. GCC was now required to link student learning outcomes (SLOs) to program and institutional effectiveness. Measures of institutional effectiveness were required to be broader than simply meeting accreditation requirements.

It was at this time that leadership at the highest levels in the institution changed. Concurrently, the military build-up began in a public way through a planning and public relations process to convince employers and the local government that Guam was on the verge of a huge economic boom. The construction industry expressed frustration with the ability of GCC to provide training, even though competent programs existed. The Guam Contractors Association created its own "trades academy" to compete with services that had been provided by GCC in the past. The business community began discussing the need for alternative private sector training programs to augment the training provided by GCC. It was at this juncture that the current ISMP was embarked upon.

In its broadest sense, the ISMP was designed by the Planning Team to address three over riding issues:

1. The need to refocus GCC's efforts so that it clearly meets career and technical needs as well as the basic educational requirements of the local work force.
2. The need to meet the new and more rigorous accreditation requirements of WASC in such a fashion that the effectiveness of the institution as well as its resource allocations can be directly linked to student learning outcomes.

3. The need to improve its ongoing planning and evaluation processes so that GCC can better evaluate its progress in attaining its vision.

The vision for GCC prescribes four major on-going strategic goal initiatives the plan is designed to address:

1. To lead workforce development on Guam as an example to Micronesia. It is best suited to do so because as an institution, it is the most knowledgeable, has a proven performance record, and the greatest ability to acquire necessary resources. (The Pioneer)
2. To continue to improve upon its reputation and performance as the premier secondary, and postsecondary institution available to the community of Guam. (Educational Excellence)
3. To be judged successful because of the educational services it provides students, the service it provides employers, and the assistance it provides the community in improving the quality of Guam's workforce. (Community Interaction)
4. To maintain success by establishing an institutional planning discipline that is dynamic and responsive to community and the workforce development needs of Guam. (Dedicated Planning)

Section II

Strategic Goal Initiatives

I. Pioneering

Over the past ten years, the economy and the characteristics of the island's workforce have changed dramatically. The loss of employment opportunities caused many skilled trade workers to leave Guam. At the same time, the economy of the Federated States of Micronesia, particularly in Chuuk State began to experience a long and what appears to be interminable decline. The net result was an increase in immigration from Chuuk State to Guam. The increase of Micronesians in the workforce has been large enough that businesses, particularly in the hospitality industry now target Micronesians for entry-level positions as local residents have moved up the employment ladder as the local economy slowly recovers. No one really knows just how the skill levels of the workforce have changed nor has there ever been any systematic attempt to determine what the skill levels of local workers are.

Without a comprehensive needs assessment, policy makers have had limited means of determining what type of training is needed to better prepare Guam for the pending military buildup. The challenges this creates in determining appropriate curriculum or in identifying adult educational needs are obvious. The ISMP calls for GCC to facilitate the development of an annual or periodic employer's workforce needs assessment survey focused on training opportunities and challenges of various industry classifications. The purpose of the assessment is to establish an empirical understanding of the skill levels of local workers and a qualitative understanding of the skill level requirements of key and emerging industries on Guam. Until primary data can be collected, secondary empirical sources along with qualitative data collected among businesses on Guam will be used in the interim. The needs assessment, along with the efforts of the CTE Advisory Council, will be used to refine student learning outcomes and will provide a means of linking the curriculum and programs at GCC to the broader economic requirements of the community.

Upon completion of the employer's needs assessment survey, GCC will use this Plan as a guide to establish training programs. The purpose of the Plan is to establish a coordinated approach to improving career and technical training services among all public and private training services. Additionally, the needs assessment survey results will act as the foundation for providing needed policy adjustments to standardize educational and career and technical education standards across both public and private career and technical training services.

The combination of identifying the community's career and technical as well as basic educational skill requirements and then coordinating the development of a periodic employer's needs assessment survey is what constitutes the ISMP's strategic initiative to be a pioneer and offers an example to other islands in the Micronesia region as it attempts to improve the skill levels and productivity of its own workforce.

SPECIFIC TASKS

A. To coordinate the development of an employer needs assessment focused on training and educational services

GCC must work with the Career-Technical Education (CTE) Advisory Council[1] to conduct an employer's needs assessment on Guam through the organizations it represents. Members of the Advisory Council will be trained on how to establish basic educational and career-technical standards.

GCC will assist in establishing a platform from which to develop an employer's needs assessment survey. Once this plan is completed, GCC will also be able to successfully manage the development and communication of the plan's findings to guide the development of training programs and services.

Once the survey is completed, GCC must prepare a set of recommendations to the Board of Trustees based upon the plan to facilitate GCC's development of curriculum, student enrichment programs, and resource enhancements necessary to fulfill GCC's role in the implementation of the plan.

B. To develop a program to partner with private workforce training providers

Regardless of what may happen in the future, GCC will benefit from the existence of a cooperative solicitation program for existing training programs and those anticipated to be coming to Guam.

To begin with, GCC will develop a business plan for a training services program funded through fees charged to businesses that request training services and students who participate in the programs. The private services training initiative should be supported by the Joint Guam Program Office (JGPO), with the results presented to the Naval Facilities Engineering Command (NAVFAC) and selected prime contractors managing the build-up, and how such results can assist contractors. A statutory requirement for the coordination of private and public career and technical training assets should be developed as well.

To improve collaborative efforts between GCC and the private sector, the College will need to develop program identity and a business plan for the College's contract training function. The plan will provide definition to GCC's contract training services and will identify a marketing effort to increase local employer participation in such programs. As part of this plan, key representatives of GCC will join all of Guam's existing business service organizations such as the Chamber of Commerce, the Guam Contractor's Association, the Guam Hotel and Restaurant Association and the Society for Human Resources Management to network and sell contract training services. Training programs expected to come to Guam will be contracted and training partnerships will be explored. Specific sales targets will be established and regularly reviewed.

[1] See Guam Community College CTE State Plan, 2008-2013. The document is available online at **http://guamcc.edu**, as well as the GCC Planning & Development Office.

II. Educational Excellence

Based on the Accrediting Commission for Community and Junior Colleges (ACCJC), the primary purpose of an ACCJC-accredited institution is to foster learning of its students. An effective institution ensures that its resources and processes support student learning, continuously assesses that learning, and continues to pursue institutional excellence and improvement. According to the standards, an effective institution continues to maintain an ongoing, self-reflective dialogue about its quality and improvement. The institution's mission must demonstrate a strong commitment to placing emphasis on the achievement of student learning. The institution must also demonstrate a conscious effort to produce and support student learning, develop a mechanism to measure learning, assesses how well learning is occurring and make the necessary changes to continuously improve student learning. Additionally, the institution must also assure the quality and improvement of all instructional courses and programs offered in the name of the institution to include collegiate, developmental, and pre-collegiate courses and programs, and continuing education programs. In light of these comprehensive educational standards, GCC is committed to pursuing the following educational excellence initiatives.

Specifically, the ISMP calls upon the faculty senate and the administration to establish student learning outcomes for all of GCC's course offerings. These student learning outcomes are to be evaluated and periodically revised to reflect the changes in economic requirements as identified in the workforce needs assessment. These student learning outcomes would then provide the foundation for evaluating changes in the various programs inclusive of the necessary resources required to assure the attainment of prescribed student learning outcomes.

In addition, the ISMP calls for the expansion of student enrichment programs and to expand the general education curriculum to include more options for students. The expansion and changes to educational services offered at GCC will be presented to students differently in order to breakdown the distinctions between career and technical training and educational skill level attainment. Students will be encouraged to pursue "career paths" which will combine both career and technical educational choices with general educational attainment. These career paths will allow students to take full advantage of GCC's offerings.

Finally, educational excellence at GCC will be defined by its ability to demonstrate that student learning outcomes are being attained. This will be gauged through the formalized process of systematic and rigorous assessments that allows the college to identify, analyze, and deliberate on the strengths and challenges of our programs and courses on a regular basis. Improvements in program effectiveness and the determination of the institution's overall effectiveness will be derived from GCC's success in implementing the *Guam Community College Comprehensive Institutional Assessment Plan for Programs, Services, Administrative Units, and the Board of Trustees* (See Appendix A).

SPECIFIC TASKS

A. To maintain accreditation and enhance student enrichment programs

1. Expand the general education curriculum to include humanities and fine arts, as recommended by the 2006 ACCJC team report.
   a. Seek general input from faculty and Deans; initiate a dialogue with the General education committee regarding the expansion of the Gen Ed curriculum to include courses in the humanities.
   b. Task the Liberal Arts faculty in conjunction with the Deans to develop a proposal to add courses on Humanities and Fine arts to the course catalog.

2. Fully undertake the process of developing student learning outcomes for courses, programs and the institution.
   a. Work with various committees of the Faculty Senate (Curriculum Committee, CCA, and Gen Ed Committee) to establish protocols and processes for addressing needed SLO work in linking program SLOs to course syllabi, and eventual publication in student catalog.
      - Examine all existing TSS/TPS program guides to ensure that student learning outcomes become an integral part of the document and make the terminology consistent throughout the guides.
      - Examine every course in all the existing program guides to ensure that student learning outcomes (SLOs) become an integral part of the syllabus in each course offered at GCC.
      - Require that syllabi with SLOs in all courses are collected from all programs in a systematic and organized manner with a specific timeline attached to this process.

3. Expand the College's program level approach to assessment to gradually include course level assessments. Delineate variations between course and program level assessments so that the faculty is properly guided in the transition. Formulate a comprehensive training plan that would expand the faculty's level of comfort in using TracDat to cover course level assessment.
   a. Continue faculty training and staff training for TracDat version 4. Pilot course Level assessment with pre-selected courses.
   b. Identify course level changes at the end of each assessment cycle for each of the programs inputted in TracDat, as required by the 2007 ACCJC template. Develop a template to collect the course level changes necessary to comply with this requirement.
   c. Systematize the mapping of programmatic SLOs to all the courses in each certificate/AS/AA program, as required by the 2007 ACCJC new template.
   d. Systematize the documentation of programs using particular methodologies (by academic year) to comply with the requirements of the annual SLO reporting format at the end of each academic year.
   e. Explore the course assessment feature of TracDat to document assessment activities at the course level.
   f. Design and implement faculty training in TracDat especially in course-level assessment.
   g. Review the existing program guides and their respective student learning outcomes with the view that it will be published in the student catalog. Publish completed SLOs of all Associate and Certificate programs in the student catalog.

h. Develop a systematic and integrated assessment and monitoring plan for Gen Ed at the College and oversee its implementation.

B. Link program effectiveness, institutional effectiveness and resource allocation to student learning outcomes.

1. Utilize the ACCJC assessment template to incorporate program effectiveness, institutional effectiveness, and resource allocation to show linkage of SLO in each category.
   a. Work with Curriculum Committee to organize and publish an institutional booklet that defines SLOs at both program and course levels.
   b. Provide training to faculty and staff on how to utilize the ACCJC template and continue training to faculty and staff on how to link program effectiveness, institutional effectiveness and resource allocation.

2. Require the linkage of SLOs to program effectiveness, institutional effectiveness, and resource allocation in TracDat, under the leadership of the Committee of College Assessment and the Office of Assessment and Institutional Effectiveness.

3. Devise and maintain the consistent and accurate application of a measurement rubric linking SLOs to program performance, to institutional effectiveness, to resource allocation and the attainment of GCC's vision.
   a. Utilize the ACCJC template as means of measuring SLOs to program performance, institutional effectiveness, and resource allocation.

III. Community Interaction

The planning team believed that awareness of and affinity for GCC had drifted over the past few years. Stagnant enrollment and increasing private sector competition was deemed in large part a result of not adequately communicating with the community about what GCC has to offer. Towards these ends, three specific initiatives are included in the ISMP.

1. Develop the GCC brand: As part of an overall marketing campaign GCC would launch a branding campaign designed to reacquaint the public with the services offered by the College. The campaign will be designed to coordinate all communication channels currently utilized by the College including the My GCC website, advertising and collateral materials to communicate a unified message reflecting GCC's brand attributes. In addition, the services and attributes of the brand would be communicated internally to make sure that all in the College understands and promotes the qualities that GCC offers.

2. Create an employer outreach program: In addition to communicating with the general public a specific program designed for employers on Guam will be created. The program will be designed to inform businesses of the services GCC offers, provide specialized training services for a fee, and establish partnerships with private training efforts who provide training services or technologies deemed to be sustainable beyond the current economic surge. These partnerships would be designed to develop fees for the College and at the same time facilitate technology transfer to improve GCC curriculum offerings. These partnerships would help to take advantage of under capitalized training facilities at GCC that could be upgraded at a lower cost than building new ones, a distinct benefit to training companies with short term business plans for Guam. Such partnerships may be eligible for Federal funding through the Carl Perkins Act, which is administered by GCC. In addition these partnerships could increase the utilization of GCC faculty, and thus provide distinct cost savings for companies that might wish to train existing faculty instead of importing trainers from other locations. The program will provide tangible direct benefits to businesses to cooperate with GCC in improving the career and technical training services available either through the public or private sectors on Guam.

3. Enrollment Campaign: A formal recruitment campaign will be developed and launched to increase enrollment at GCC. Based upon the branding strategy an overall marketing campaign will be designed and launched specifically to increase enrollment. Currently the facilities at the College are capable of accommodating increased student enrollment and activities.

These efforts are intended to improve awareness of the College and increase public support for its vision. Such actions also are intended to reduce GCC's financial dependence on the Government of Guam. Along with increasing enrollment and increasing private partnerships the ISMP also prescribes establishing a more aggressive grant-writing capability to bring more federal and private funds to GCC. In a similar fashion, the plan calls for more vigorously pursuing the endowment program for the College. For all of these projects, specific performance metrics are to be established to measure success in improving public awareness for GCC,

increasing private employer involvement with the College, and increasing outside funding through offering specialized training services, grant-writing, increased enrollment and endowment fund raising.

SPECIFIC TASKS

A. To develop a marketing plan which helps to enhance GCC's brand identity

One of the main goals of GCC is to become a household name. However, while the GCC image is generally satisfactory, there is a misperception that it exists primarily as a trades institution and its role as an academic provider is not as well recognized. The marketing plan hopes to consolidate positive perceptions of the College, better conveying the College's actual activities and objectives to the public.

The brand identity GCC will develop must be targeted to the general public, the business community, and the College's stakeholders[2]. Further, it must have these other recognizable and measurable characteristics. It must be:

- Clear
- Meaningful
- Consistent
- Recognizable, and;
- Actionable.

To do this, it will be necessary to:

1. **Conduct baseline consumer and business research** – Targeted research of the College's primary audiences must be conducted to identify awareness of, and affinity for the services GCC offers. The study should provide both empirical and qualitative measures of the community's feelings towards GCC.

During the planning meetings, it was suggested that this study needs to be outsourced. As an alternative approach to conducting the research, this can be a prospective project of the College's post-secondary marketing students giving them the opportunity to learn from the experience. At any rate, whatever funding is required for the project should be supplied by the communication/promotion budget. However, to effectively implement any marketing plan, as well as retain effective internal communications, it will be necessary to increase the communications budget significantly based upon the average communication budget of similar institutions and factoring in the increased communications needs of the upcoming military buildup.

2. **Design a branding campaign–** A multi-channel branding campaign will be devised to refresh the existing brand and increase public awareness for the services at GCC.

[2] The College plays a significant role in achieving the future goals of its stakeholders. In addition to improving the College's image, the marketing plan should also help its stakeholders identify and recognize these goals.

3. **Incorporate all existing communication devices into the new brand** – Changes to internal communications must be made to reflect the new marketing strategy. Particular attention should be given to the MyGCC web portal.

B. To increase enrollment and improve student retention at GCC

GCC needs to develop a targeted sales campaign among GPSS students and employees accessed through GCC's association with business service organizations. The campaign must be ready with television, print, radio and internet messaging.

It should also set enrollment targets based upon financial requirements of the institution and its service capabilities.

An enrollment plan must be geared primarily towards secondary students (including, but not limited to, students from the GPSS). In addition, adult education, postsecondary as well as continuing education students and special populations will be targeted in the campaign.

The enrollment plan must utilize above-the-line advertising activities, such as broadcast and print media. It should also make use of below-the-line direct sales techniques as well including promotions and public appearances. Outreach activities to the villages to inform the community-at-large about GCC's programs and services should also be planned. In similar manner, retention efforts will need to be strengthened.

The Communications and Promotions Office working in concert with the Admissions and Registration Office will be integral to this segment of the Institutional Master Plan. The College is currently in the process of creating a staff position, which will be under the Admissions and Registration Office to assist and coordinate recruitment and retention activities. In addition, the assistance of the Institutional Researcher, the Assessment Team, and the CTE Advisory Council will be required.

IV. Dedicated Planning

The ISMP will build upon GCC's current ongoing planning activities. The ISMP is intended to be a living plan, providing a means to measure progress towards attaining the vision for the College each year through a systematic review process that is integrated into to the regular administrative functions of the College. The planning team recognized that for this to happen, a number of enhancements to the current process must be adopted.

All of the various departments involved in the implementation of the ISMP will be evaluated regularly based upon the metrics that have been established to measure progress in completing their various projects and initiatives. The President will provide each of the self study groups that currently exist a listing of agreed upon benchmarks that will determine success for each department. Reviews of how well each of the prescribed benchmarks will result from reviews by each self study group. A schedule of those reviews are included as part of that plan. The planning team believes that three distinct initiatives would be required to meet the overall planning needs of the College.

1. Improved Data Collection: Dedicated planning is intended to convey a commitment to documented progress towards meeting GCC's vision. For this to occur it is essential that student learning outcomes be established for all curriculum and also specific metrics be established for the College's Pioneering, Educational Excellence, and Community Interaction strategic goal initiatives. These metrics will be a combination of qualitative and empirical measures that will be determined as part of the implementation process. A standardized system of measures will be utilized and added to the existing TracDat measurement system to encompass the activities currently not included. Of particular concern is information needed that must come from GPSS.

2. Support from the Board of Trustees: Progress made by the College in attaining its vision is a primary concern of the Board of Trustees. It is critical that the board be made fully aware of the ISMP and the possible changes it prescribes for the ongoing administration of the College and its role in the overall economic development of Guam. A new orientation and selection process for the Board has been developed and is a part of the ISMP. Additionally the Board will be provided orientations on the nature of the ACCJC, changes to the accreditation process and on the measures of the College's success in meeting not only accreditation standards, but also in implementing the ISMP.

3. The Use of an Overall Measure of Institutional Effectiveness: To be in compliance with expectations of the Western Association of Schools and Colleges (WASC), the Office of Assessment and Institutional Effectiveness (AIE) will utilize the ACCJC-developed Rubric for Evaluating Institutional Effectiveness which incorporates the levels of implementation and the characteristics of institutional effectiveness in program review, characteristics of institutional effectiveness in planning, and characteristics of institutional effectiveness in student learning outcomes, as identified by WASC. This template will be utilized to incorporate the activities and project objectives of the revised ISMP and also measure the progress in meeting both accreditation standards and in completing the strategic goal initiatives identified in the ISMP. This rubric may also

be used as model for developing a more suitable instrument (if necessary) to assess the ISMP's identified initiatives.

SPECIFIC TASKS

A. Create a Dedicated Planning Taskforce to Develop a Measurement Orientation Program

A joint taskforce of faculty and the administration will be convened to agree upon specific metrics of performance for each of the strategic goal initiatives. The key components of each initiative will be assigned a measure indicating progress towards completion and progress in meeting targeted achievements.

Administrators and faculty directly involved in the implementation of the ISMP will be provided an orientation by the planning taskforce as to how each metric was devised and will be applied to their projects and initiatives. The measures based upon qualitative assessments for each of the projects need to be standardized so that comparisons between departments and within departments can be provided for. The Dedicated Planning Taskforce in addition to assigning metrics for success for each of the strategic goal initiatives, will establish a standardized measurement technique so that departments can be assessed individually and with other departments based upon a consistent set of metrics. This will also impact how the information that will constitute the metric should be collected. As the measures are standardized so will the data collection techniques required to create those measures.

B. Utilize the existing Two-year Assessment Planning Cycle

The Planning Team will publish a scheduled timetable for the collection of evaluation data and the submission of metrics for evaluation. The planning cycle will span two years and will culminate with a two-year measure of institutional effectiveness that will be presented to the Board of Trustees.

The overall measure of institutional effectiveness will be an algorithm of the scores obtained in meeting student learning objectives as well as in the College's progress towards attaining its vision. In addition, the matrix of scores that will be combined will provide a means of determining how resource allocation within the College will be made going forward.

Appendix A

Guam Community College Comprehensive Institutional Assessment Plan for Programs, Services, Administrative Units, and the Board of Trustees

Guam Community College

Comprehensive Institutional Assessment Plan for Programs, Services, Administrative Units, and the Board of Trustees[1]

*(with the integration of TRACDAT, an assessment data management tool since 2003)

The purpose of this document is to provide guidance to assessment and evaluation processes at Guam Community College for the expressed purpose of marking accomplishment and informing institutional planning. Though institutional assessment is the responsibility of the Office of the Vice President for Academic Affairs, its implementation falls under the Office of Assessment, Institutional Effectiveness and Research (AIER)[2]. The AIER office reports its findings in the *Guam Community College Annual Institutional Assessment Report.* In this regard, assistance to AIER is provided by the Committee on College Assessment (CCA), made up of a representative body of faculty, staff and administrators as established in a provision of the Board of Trustees-GCC Faculty Union contract in 2000 then in 2005, and further strengthened in the 2010-2016 Agreement Between the Guam Community College Faculty Union Local 6476 AFT/AFL-CIO & the Board of Trustees Guam Community College. A policy document passed by the Board of Trustees (*Policy 306, Comprehensive Assessment of Instructional Programs, Student Services, Administrative Units and the Board of Trustees*) is the institutional mandate that drives all campus-wide assessment activities. Furthermore, effective fall 2004 and henceforth, CCA added a student representative to its membership.

There are numerous assumptions about Institutional Assessment:

- The process is messy and inexact, but must be done as precisely as possible
- The curriculum is the process, not the outcome
- The process should be minimally intrusive for both faculty and students
- Outcomes measures should be as direct as possible, although indirect methods, such as industry perceptions, must be included
- Assessment should somehow use existing artifacts or examples of student work
- Industry-specific professional testing measures of competence may be applied
- Student grades may not be used as evidence of student outcomes
- Assessment must inform the curriculum, policy, and planning
- Decisions arising out of assessment results are not meant to be punitive; rather, they are to be used for program and service improvements

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[1] Updated February 2011, Revisited January 2009, Revisited December 2005, Revisited March 2004, Revisited September 2002, Revisited December 2001, Original document approved October 2000.

[2] The Office of Assessment and Institutional Effectiveness (AIE) was renamed the Office of Assessment, Institutional Effectiveness and Research (AIER) to include the research component of the assessment process. Effective October 1, 2010, the name change was officially implemented when the Board of Trustees approved the current organizational chart at its September 2010 meeting.

The College "borrowed" James Nichols' 5-Column Model for assessing and reporting the vitality of academic programs and institutional services; including as a major component, the assessment of student outcomes. The five-column model essentially provides the framework that all programs and units must use in designing their assessment plans. The first three columns consist of the Institutional Mission (Column 1), Intended Student Learning Outcome (Column 2), and Means of Assessment & Assessment Criteria (Column 3). The assessment plan is laid out in these 3 columns. The last two columns, Data Collection Status/Summary of Results (Column 4) and Use of Assessment Results/Implementation Status (Column 5), primarily complete the assessment report. For review of the program and/or course-level reports, CCA runs the Unit Assessment Report - Four Column and Unit Course Assessment Report - Four Column due to redundancy of the Assessment Report showing how each assessment unit is supporting the goals of the institution.

Following an institutional decision to automate the assessment process, the college purchased the site license of the software called **TracDat** in 2003, and began its limited implementation through sustained training of users in that same year. With its campus-wide implementation in fall 2004, TracDat has greatly helped in managing the entire assessment process, at the course, program, and institutional levels. Although careful attention was made in mapping the existing assessment process with the new system, the transition from the hard copy to the online environment for assessment also necessitated certain adjustments that required the revisiting of existing templates for assessment plans and reports, as well as Assessment committee artifacts. The protocols that follow are descriptions of the assessment hard copy process, and are retained here, but followed by a note about its relevant TracDat application (Version 4 implemented January 2008), whenever necessary and appropriate.

Portions of the report on academic programs provide descriptive information about the program goals, faculty and their respective role in assessment, advisory committees, and courses offered in the program, as well as the currency of the courses. In TracDat, these can be found in the Unit Definition Setup for each of the individual programs, services and administrative units. The report also includes program outcomes (usually three or more), as well as tools that measure such outcomes. The core component of the report includes the assessment of student learning outcomes, reflecting the emphasis of the ACCJC accreditation standards. Portions of the report on student or administrative services provide descriptive information about service or administrative outcomes, tools for measuring outcomes, and staff members and their respective roles in assessment. The Unit Definition Setup in TracDat contains all this information, and must be inputted by the responsible staff member in the department or unit. Assessing the quality of academic support services as they impact student learning outcomes are also included in the report.

For Academic Programs, Services and Administrative Units
Preparing for the Annual Instructional Program Assessment Plan and Report

There are two distinct components of the Annual Instructional Program Assessment Plan and Report: I. Assessing Program and Course Level Student Learning Outcomes and, II. Program

Review. Program review is a process analyzing the effectiveness of an educational program with the intent of improving institutional effectiveness and student learning. Regular program review involves the review of a degree or certificate program and comprehensive program review involves the review of a coherent educational experience (i.e., Work Experience program).

Comprehensive Program Reviews should examine a broad range of indicators and it is a periodic, detailed report on the historical development, current activities and performance, goals and needs of a specific program – qualitative, quantitative and financial – and a statement of how that program's content and activities related to the College Mission and Goals. The Deans decide on program review assignments and timelines depending on program or institutional need.

Program review through the systematic assessment process is an institutionalized process on a two-year cycle. The process includes four steps: planning, data collection, reporting, and use of results. Student Learning Outcomes identified at the program level are the primary focus of this type of systematic review. Tools, criteria of success are all identified at the outset.

Preparing for Program Review

Each academic program, service environment, and administrative division or unit in the College will be reviewed on an ongoing basis. The Office of Assessment, Institutional Effectiveness and Research will report findings to the Vice President for Academic Affairs, which is responsible for institutional assessment as a whole. Each academic program will input into TracDat their program assessment plan, collect and summarize data collected, report the results, address/report how results will be used for improvement, and discuss implementation of program improvement governing the measurement of programmatic success and benchmarks of satisfactory performance. If results show constancy or improvement each year, the program or service will need no further review. If however, key results record a decline or abnormality, then a more comprehensive review will be instituted. Administrative and student services units will implement a client satisfaction survey, as well as other relevant measures, on various categories identified in the assessment plan. A program review will be a necessary complement of the other identified assessment measures.

These components are similar for non-instructional programs, student services and administrative units. The only difference is that student services and administrative units are "administrative unit outcomes (AUOs)" and "student services unit outcomes (SSUOs)"as the equivalent of "SLOs" in order to delineate the distinction between a direct impact to student learning (as instructional programs are bound to have on students, hence the term, SLO) and **indirect** impact on student learning, as student services and administrative units are meant to induce.

For academic programs:
For academic programs, departmental committees convened for this purpose will input all the necessary information for a program assessment plan using TracDat. Once this process is completed a TracDat Data Input Memo available for download in TracDat under the Documents

tab is to be submitted to the CCA via aier@guamcc.edu. CCA review teams assigned to various instructional programs will review and critique the assessment plans and reports and recommend improvement strategies to the CCA general membership for final rating. A CCA Checklist and Consolidated Feedback Sheet (or CFS), a form created by the CCA, serves the purpose of reporting the CCA's rating to the department. Deadline to input the recommended changes to the plans and reports are addressed in the CFS.

For student services:
For the student service areas, departmental or unit assessment plans will be the responsibility of the unit's head to convene and agree on the unit's plan inputted into TracDat. Plans will undergo review and critique by the CCA, and prompt feedback will be communicated to the departments before they can begin implementing their assessment activities for the year. The process of review by CCA is the same as indicated for the academic programs.

For administrative units:
An Administrative Unit Assessment Plan will be the responsibility of the unit administrator in formulating their unit's respective administrative objectives/outcomes. The CCA review process is the same as the academic program above.

For the Board of Trustees:
Though the Chairperson of the Board of Trustees (BOT) will have primary responsibility for the assessment of Board activities, the CCA will lend assistance to the Board in the administration of surveys and other measures deemed necessary to assess the effectiveness of the college's Board. The integration of outside voices will form an integral part of BOT assessment processes. Assessment protocols are consonant with the rest of the constituents undergoing systematic and regularized assessment at the college. Review of the BOT's assessment submission by CCA is the same. A similar process will be followed in the assessment of Foundation Board of Governors.

This is the GCC assessment model which combines both outcomes assessment and program review in order to regularize campus-wide evaluation of educational programs and services on an annual basis, instead of the traditional 5-year cycle for program review or evaluation. The reports generated from the various departments and units subsequently form the basis for the annual publication of the Guam Community College *Annual Institutional Assessment Report (AIAR),* which is distributed at the beginning of each academic year. Each department, service area or administrative unit will incorporate assessment findings into their yearly planning routine.

It is important to note that the College has an established review process for all assessment plans and reports entered into TracDat. First, assessment authors submit a TracDat Data Input Memo to AIER. The AIER staff then advises the CCA Review Team via email to review the plan/report and adds the program or unit to the CCA agenda for deliberation. CCA then deliberates on the plan/report and rates it as either *approved* or *resubmit*. After an assessment plan or report is rated, the CCA Review Team prepares a CCA Checklist and Consolidated Feedback Sheet (CFS) with comments and suggestions and submits a copy to AIER. A copy of

the CFS is then forwarded to the assessment author. The assessment author then makes changes in TracDat based on the CFS and discussions with the review team. After changes are made, the author then submits another TracDat Data Input Memo to CCA no later than the deadline indicated on the CFS indicating that the changes have been made.

Preparing to Assess Student Learning Outcomes

The Fundamental Questions

What evidence can the department provide that demonstrates an accurate appraisal of how well students are learning what we said we would teach?

As each student reaches a programmatic milestone in their education he or she must be able to demonstrate the tenets of their education in two distinct areas: General Education Outcomes and Discipline-Specific Outcomes.

General Education Outcomes

Recognizing the necessity for its students to succeed in the complex and rapidly changing workplace, Guam Community College offers a general education curriculum that introduces students to major areas of knowledge and methods of inquiry. All degree programs require an interdisciplinary general education component that promotes the development of intellectual skills that enable students to become effective learners and informed citizens. Critical thinking, the use of language and computation, appropriate social skills, global awareness, and respect for diverse opinions are among the learning outcomes provided in the general education requirements of each degree program.

Guam Community College believes that general education provides the academic foundation necessary for students to achieve their life goals. General education is intended to offer students a breadth of quality student learning experiences, encourage their respect for cultural heritage, promote their ethical and responsible social behavior and facilitate their life-long learning.

The General Education program strives to foster student learning and skill development in civic engagement, critical thinking, understanding of the relationship between the individual and society, information literacy, oral communication, quantitative reasoning, and written communication.

Guam Community College believes that high quality general education opportunities for all citizens are necessary for democratic principles and practices to exist and for a sound economy to flourish. The College continually scrutinizes the general education curriculum in order to assure that all degrees and certificates granted by the College support this vision of general education and that it serves as a means to inspire hope, opportunity and responsibility in all its constituencies.

Institutional Learning Outcomes (ILOs)

In keeping with its mission that Guam Community College be a leader in career and technical workforce development by providing the highest quality education and job training in Micronesia, the College community has established the following Institutional Learning Outcomes[4]. During academic year 2008-2009 the General Education Committee facilitated the development of GCC's six (6) Institutional Learning Outcomes (ILOs) which derived from the previously-existing 28 GenEd SLOs and was approved by the Board of Trustees on December 9, 2009. To align the original 28 SLOs, the ILOs were categorized with an acronym as follows:

Guam Community College students will acquire the highest quality education and job training that promotes workforce development and empowers them to serve as dynamic leaders within the local and international community. Students will demonstrate:

Use of acquired skills in effective communication, and quantitative analysis with proper application of technology

Ability to assess, assimilate and use information ethically and legally

Mastery of critical thinking and problem-solving techniques

Collaborative skills that develop professionalism, integrity, respect, and fairness

Civic responsibility that fosters respect and understanding of ethical, social, cultural, and environmental issues locally and globally

Two-Year Assessment Cycle Schedule

The schedule for formulating instructional program assessment plans and completing assessment reports in TracDat is listed in an annually-produced poster, GCC's Two-Year Assessment Cycle Schedule. In this two semester cycle, a semester goal always guides any assessment activity, as follows:

1st semester: Review existing plan and incorporate modifications; TracDat input required
2nd semester: Gather data continuously; input status of data collection in TracDat
3rd semester: Prepare and submit assessment report; TracDat input required
4th semester: Implement use of assessment results; input status of implementation in TracDat

Attached is the Assessment Review Flow Process which describes the above assessment activities.

[4] Recommended by the Faculty Senate, approved by the President, and adopted by the Board of Trustees (December 2, 2009)

This cycle repeats every two-years, which means that a full cycle is comprised of four semesters. For better management of this whole cycle, the Committee on College Assessment (CCA) divided the programs[6], services and administrative units into four distinct groups which came to be known as the college's Assessment Taxonomy. These groups include the following:

Group A: Associate Degree Programs
Group B: Certificate Programs
Group C: Student Services and Administrative Units
Group D: Special Programs (includes secondary, GE, developmental courses that do not have specific programs, and federally-funded programs)

Each of these groups is at different stages in the assessment cycle, and has different requirements every semester. Likewise, in order to establish a rhythm to the assessment schedule, there is only one assessment deadline during each semester. This occurs in March and October of each year. Programs or services that are out of sync with the schedule are also given assistance by the CCA to get back on track whenever possible.

Discipline-Specific Program Outcomes

Each department establishes discipline-specific outcomes. Measurement methods may include activities embedded in different course assignments, capstone course, real world experiences, a departmental exit exam created locally or using industry standards, or any method the department may devise that demonstrates and documents measurement.

TracDat has specific tabs that address each of these components, such as Assessment Plan and Task/Implementation Status, and requires careful input of information by the user.

For Student Services
Preparing for the Annual Student Services Assessment Plan and Report

Criteria for assessing non-academic student services revolve on needs assessment and client satisfaction measures on existing student services. TracDat is used to set up the components of an assessment plan, as well as the alignment of student services outcomes to higher level outcomes. For example, each student services outcome must be related to the division level goal (e.g. Academic Affairs), to the school goal (e.g. Technology and Student Services or Trades and Professional Services), Board of Trustees, President/CEO goal, Program, Student Services or Administrative Unit goal, then to the institutional level (e.g. college goal), and finally, to the external unit level (e.g. WASC standard). The set up of an assessment report begins with

[6] In response to ACCJC's requirement to assess courses as well as programs, CCA approved a temporary four-year assessment cycle schedule in order for programs to identify and assess course level SLOs. Once course SLOs have been identified and assessed for all courses, the institution will continue to use the two-year assessment cycle schedule where program and course SLOs will alternate. CCA approved a motion to have all instructional programs assess fifty percent of their technical requirements for each associate degree and certificate program. At least one SLO per selected course must be assessed. This requirement was made effective Fall 2010. During the November 19, 2010 CCA meeting, CCA approved a motion to combine the deadline for the Data Collection Status and the Assessment Report.

inputting information into the Data Collection Status/Summary of Results (N=?) tab, and the Use of Assessment Results & Implementation Status field/box. Documents, like student artifacts and other relevant materials, can also be uploaded in the Related Document Link so that the assessment evidence is immediately accessible to anyone with TracDat user access.

For Administrative Units
Preparing for the Administrative Unit Assessment Plan and Report

The assessment of administrative units focuses on four thematic areas. These are support for instructional programs, quality of service, interaction with other departments/units and planning/budgeting processes. All of these components of an assessment plan and report are addressed by the various tabs available in TracDat, as discussed in an earlier section of this document.

For the Board of Trustees
Preparing the Annual Assessment Plan and Report

As stipulated in the BOT Policy 306, the Board of Trustees must also complete an assessment plan and report, as well as follow the college's assessment cycle, in consonance with the other constituents undergoing assessment at the college. The Office of Assessment, Institutional Effectiveness and Research (AIER) provides guidance to the Board in its articulation of administrative outcomes, data collection and consequent data analysis. Although portions of the results may be included in the AIAR, a separate report is written by AIER which is largely focused on Board concerns and other issues. The Foundation Board of Govenors is also subject to regular assessment processes so that board functions can contribute significantly to institutional effectiveness.

Reporting Assessments Results

Reporting format for programs, services and administrative units will be guided by the TracDat formatting of reports. Though several formats are available, the most common and most popular is the Unit Assessment Report – Four Column. Following the comprehensive assessment plan outlined above, two components – student learning outcomes and program review – will comprise the assessment report. All three areas – programs, services and administrative units – will report their assessment findings to the Committee on College Assessment utilizing the five-column model, as developed by Dr. James Nichols, former Director of the University Planning and Institutional Research of the University of Mississippi. The software TracDat is capable of simulating this given format because it was mapped with then-existing processes at the college to minimize confusion during the transition from the hard copy to the online environment.

This five-column model format will cover the results of the student learning outcomes or SLOs, as well as administrative and student services outcomes, in various departments and units at the college. All the hard copy templates that have been developed early on in the assessment process have been essentially replaced by TracDat, but are kept posted at the AIER website for historical purposes. The website dedicated to GCC assessment (http://www.guamcc.edu/aie)

serves to document the development and evolution of the college's assessment initiative, and also houses TracDat, the data management tool available for use by all GCC constituents who are responsible for assessment.

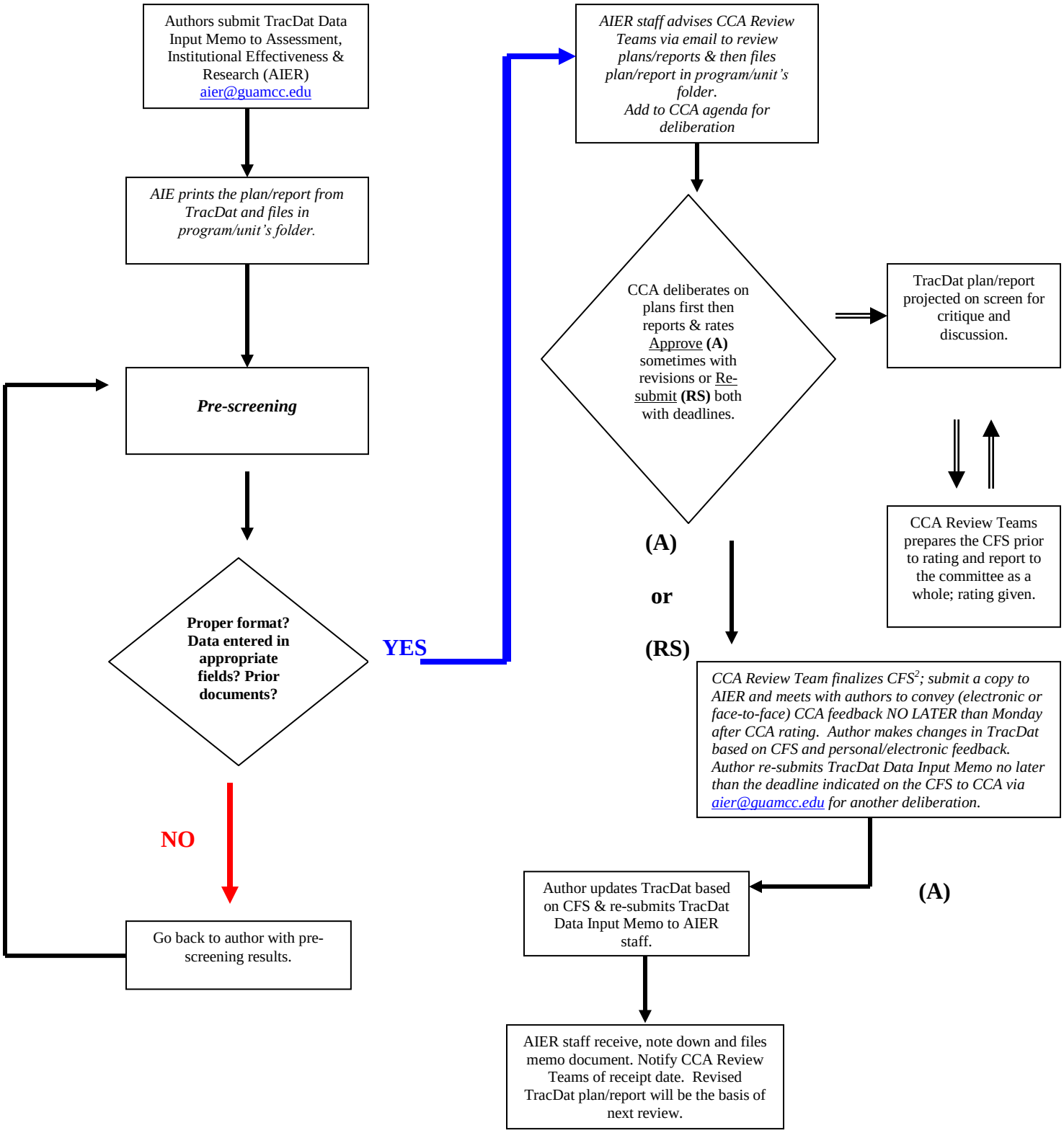
Submission of departmental/unit assessment reports will follow the schedule set by the committee for this purpose. Although the cycle is continuous, assessment reporting will be done in a two-year cycle, each at the program, administrative, student services level and course level. The reports submitted at any given semester are harvested in TracDat and are used as valuable aggregate data in preparation of the annual report. This consolidated report is released to the campus community as the *Guam Community College Annual Institutional Assessment Report* (AIAR) at the beginning of each academic year. This report is then utilized as one critical document to guide and inform relevant divisions, departments, or units so they can be guided in their annual planning activities, as reflected in the Data-Driven Dedicated Planning (3DP) Framework (see Attachment B).

Central Repository

The **Office of Assessment, Institutional Effectiveness and Research** serves as the central repository office that systematizes assessment data collection and analysis efforts of the college's comprehensive assessment initiative. In close collaboration with the Vice President of Academic Affairs, this office's Assistant Director is primarily responsible for ensuring that findings from assessment activities will be used to improve and strengthen instructional programs, student services and administrative units.

***

Attachment A:
CRITIQUING PLANS/REPORTS by the CCA:
ASSESSMENT REVIEW FLOW PROCESS
Revised October 2010



Appendix B

Physical Master Plan

GCC

GUAM COMMUNITY COLLEGE

Kulehon Kumunidát Guáhan

Physical Master Plan 2011-2015

TRMA

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EXECUTIVE SUMMARY

The Guam Community College has grown significantly over the last six years, necessitating continued upgrade and improvement to campus facilities and infrastructure. Student enrollment is increasing at an exciting rate—approximately 50-percent—from 1,800 students in 2006 to 2,500 students in 2011. GCC continues to maintain this momentum with new building projects to provide learning space to support quality academics and work force training. The Allied Health Center, The Learning Resource Center, the Student Center, and the Foundation Building projects are a few of the realized steps in the execution of the Physical Master Plan that address the College's needs. The 2011 Update includes plans for campus expansion and new buildings that will increase the physical capacity of the College over the next few years.

The Master Plan update is based on a projected growth rate of approximately 9-percent, which is a reasonable projection over the next five years based on the College's recent growth trend. Enrollment from 2006 to 2008 was approximately 1,800 students. Enrollment eclipsed 2,000 students in 2009. In 2011 the College reached the 2,500-student mark. While enrollment has increased at a high rate, it is reasonable to project that the rate tapers down over the next few years.

EXECUTIVE SUMMARY

The Master Plan is updated with new projects that will support the College's mission and academic goals. The College's sustainable mission is the driving force for the design of the new projects in addition to programmatic goals for academic programs that have evolved since the Master Plan. These projects include the renovation of existing buildings, the construction of new buildings, and improvements to campus infrastructure. The Master Plan also considers expansion of the campus boundary based on recent property acquisitions and the potential acquisition of other neighboring properties.

Building Renovation

- Conversion of the Building 1000 Technology Center into a Green Data Center.
- Administration Building.

Campus Infrastructure Upgrades

- Utilizing of building management systems.
- Generator Power
- Domestic Water
- Fire Protection
- Campus network
- Campus safety improvements

Campus Expansion

- Forensic Lab Acquisition
- Sesame Street Reintegration
- Government Land Acquisition
- Private Land Acquisition

New Buildings

- Forensic DNA Lab
- Multi-level Parking Structures
- New Multi Purpose Auditorium
- GCC Clock Tower

The new projects will be done in conjunction with projects that remain part of the Master Plan from the previous update, including the new Maintenance Building and renovation of Buildings 100, 200, 300, 500 & 600.

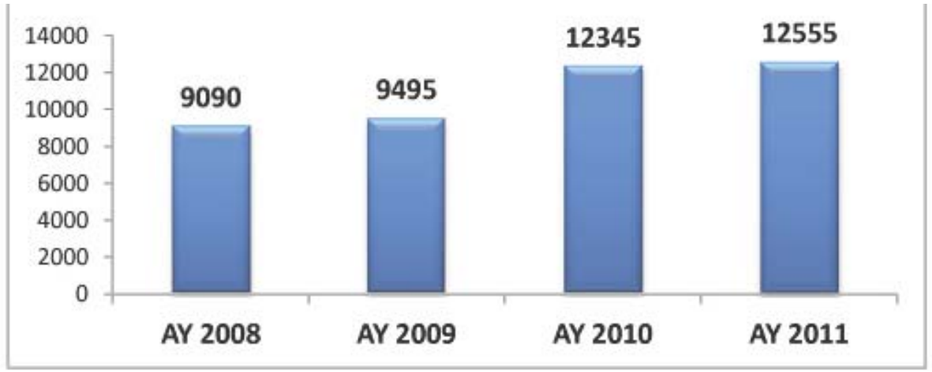
EXECUTIVE SUMMARY

Six phases comprised of two parts outline the Master Plan work. The projects added to the Master Plan modify the work phases from the previous update.

Phase	Key Projects
Phase 1A	Building 200 Renovation; Forensic DNA Lab
Phase 1B	Founder's Square; PV Walkway Canopy
Phase 2A	LRC-Foundation Building-Student Center Generator Building
Phase 2B	Building B Renovation
Phase 3A	Maintenance Building
Phase 3B	Building 100 Renovation
Phase 4A	Building 300 Renovation
Phase 4B	Multi-Use Auditorium
Phase 5A	Buildings 500 & 600 Renovation
Phase 5B	Parking Structure A
Phase 6A	Parking Structure B

The organization of the work phases remains the same, but the components of each phase are modified to account for project completion such as the Learning Resource Center; and new projects such as the Forensic DNA Lab Facility. Modification of the phased work also reflects programmatic revisions and building project priorities—the shifting of Building 200 renovation to Phase 1 work for example.

Guam Community College's Physical Master Plan continues to map campus growth with the broad goal of maximizing the College's capability to serve the residents of Guam and the region. Improved facilities will enhance continued learning and work force training, constantly improving the caliber of the College's graduates and the high standard that can be expected of them. The College's sustainable mission will aid in Guam's effort to protect our environment and strive for improved quality of life; and this mission serves as the basis for planned campus projects. Continued realization of proposed Physical Master Plan projects will enhance the Guam Community College's standard of academic quality and the capabilities of Guam's work force.



Adult Education Fall 2010 Enrollment (ACTUAL)	Total Enrolled	Total Hours
Adult Basic Education (ABE)	283	14327
Adult Secondary Education (ASE)	62	4005
English as a Second Language (ESL)	66	3277
Grand Total	411	21609
Projection	**448**	**23554**

CONTINUING EDUCATION Enrollment (ACTUAL)	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	PROJECTION (15%)
OCT-DEC	1766	1932	2074	2400	2668	3068
JAN-MAR	1814	1632	3549	3309	2797	3217
APR-JUN	2554	2033	2080	2527	2954	3397
JUL-SEP	2906	2230	2711	2441	2624	3018
GRAND TOTAL	9040	7827	10414	10677	11043	12700

CAMPUS GROWTH

PROJECTED ENROLLMENT

Accommodating GCC's projected student enrollment is a primary consideration for updating the Physical Master Plan. The College's total post secondary instructional hours per academic year has increased from 9,090 hours in 2008 to 12,555 hours in 2011. GCC's basis for the Physical Master Plan update is a 9-percent growth projection from the 2010 enrollment for Secondary Education, Adult Education, Associate and Certificate programs. GCC is also using 15-percent growth project for Continuing Education enrollment.

The 2005 Physical Master Plan anticipated a student population of 2253 students. The projected enrollment for the 2011 update now anticipates 3,318 students by the 2016 academic year. Continuing education enrollment is projected to be approximately 3,000 students per each bimonthly session.

There is a notable campus population shift during a single day. A majority of the GCC population is primarily transient, i.e. on campus for a fraction of the day. A population peak usually occurs during the late afternoon through the early evening Monday through Thursday, which corresponds with the scheduling of GCC classes. The majority of GCC classes occur Monday through Thursday and class times range from 8am through 10pm, and most are scheduled for the afternoon and evenings.

ADDITIONAL CLASSROOMS

Guam Community College is focused on the continued improvement of classroom facilities. The Master Plan projects will increase the total amount of instructional space from 99,000 SF to 126,000 SF. This is an approximate 27-percent increase in campus instructional space that can be utilized as general classrooms, labs, or lecture rooms. Classrooms upgrades include provisions for smart boards, wireless and internet access. Facility design will consider the provision of informal and formal learning opportunities along with the design of interior environments to foster learning. Classrooms will be designed for increased daylight, better indoor environmental quality, and furnished to allow multiple classroom configurations. The Building 200 Renovation will serve as a model for the utilization of smart building systems that automates building functions that GCC intends to utilize for future building projects.

ADDITIONAL FACULTY & STAFF FACILITIES

The Master Plan projects are planned to meet the evolving needs of GCC faculty and staff. The provision of faculty office space is planned with each building renovation project. A new 6,000 SF building is planned to house the GCC Facilities & Maintenance Department. A new Faculty Center is planned to be housed in a second-story addition to Building B. Additional office space will be developed with the new parking structure as well that can be utilized for other GCC staff or grant-based programs. The provision of a workout room is also being considered in the planning for the Building 200 Renovation for student, faculty, and staff use.

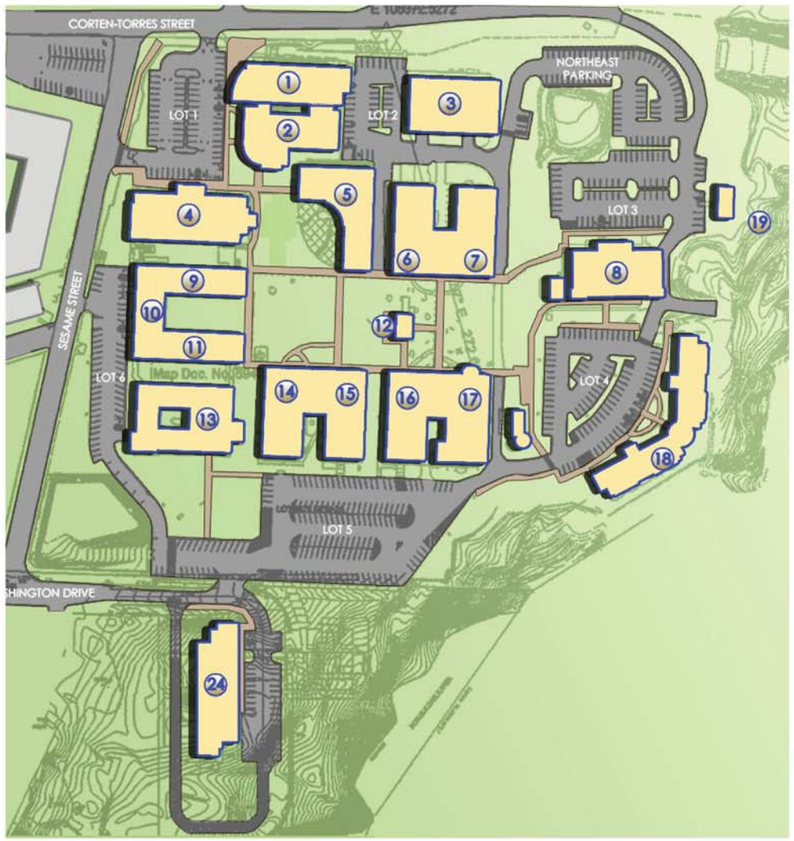


TABLE 2

Classroom Type	Capacity
Type A	30 students
Type B	24 students
Type C1	16 students
Type C2	12 students

TABLE 1

Existing Buildings	Classrooms
1. Foundation Building (Building 6000)	7-Type B
2. Learning Resource Center (Building 4000)	1-Type B
3. Building 900	3 -Type C
4. Anthony A. Leon Guerrero Allied Health Center (Building 3000)	6-Type A 8-Type B 1-Type C
5. Student Center (Building 5000)	0
6. Building 600	3-Type C
7. Building 500	1-Type B 2-Type C
8. Technology Center (Building 1000)	3-Type A 9-Type B 1-Type C
9. Building A	10-Type A
10. Building B	0
11. Building C	10-Type A
12. Café	0
13. Building D	5-Type A 3-Type B
14. Building 100	6-Type A
15. Building 200	3-Type B 1-Type C
16. Building 300	3-Type B
17. Multi Purpose Auditorium (Building 400)	1-Type B
18. Administration Building (Building 2000)	0
19. Temporary Building	0
20. Forensic Lab	0

PROGRAMMING DATA

CLASSROOM SPACES

Table 1 identifies the classroom space available at each Campus building. There are three general room sizes utilized by GCC:

1. Type A 900 – 1000 SF (40 total)
2. Type B 600 – 800 SF (36 total)
3. Type C 300 – 500 SF (11 total)

The majority of GCC classrooms and labs are Type B. Type A rooms are used for classrooms, computer labs, and / or lecture halls. There are only a few Type C classrooms throughout the campus. The number of students that can be accommodated by each room type is shown in Table 2. The number of students per classroom type is derived from a typical 676 SF (26'x26') classroom prototype that can accommodate 30 students, which amounts to approximately 22 SF per student. To provide for flexible seating configurations a slightly larger area per student is used for the GCC classroom types, which is approximately 29 SF per student. The larger square foot factor also aids in the configuration of classroom layouts for GCC's building renovation projects where classroom size is dictated partly by the limitations of the existing building structure.

Based on the available classroom space, the number of general classes that can be accommodated by each building can be determined using the following factors:

- 2-hr class sessions
- 75% classroom use (8 hours use)
- Instructor to student ratio of 1:30 for classroom type A.
- Instructor to student ratio of 1:24 for classroom type B.
- Instructor to student ratio of 1:16 for classroom type C greater than or equal to 400 SF.
- Instructor to student ratio of 1:12 for classroom type C less than 400 SF.

These factors provide general criteria to guide the assignment of available classroom space.

Note: Faculty - Student Ratio is Program / Course driven.
Design ratios identified above are intended to guide classroom space assignments based on the number of students in a class.

PROGRAM ENROLLMENT-Associates & Certificates	Fall 2010 Enrollment	Projection-9% or estimate
Accounting	99	108
Automotive Service Technology	92	100
Computer Aided Design & Drafting	2	*20
Computer Networking	40	44
Computer Science	100	109
Construction Technology	18	20
Cosmetology	40	44
Criminal Justice	186	203
Culinary Arts	92	100
Early Childhood Education	140	153
Education	132	144
Emergency Management	7	*15
Fire Science	27	*75
Food & Beverage Management	14	*50
Hotel Operations & Management	14	*50
Liberal Arts	148	161
Marketing	28	*50
Medical Assisting	107	117
Medium/Heavy Truck Diesel Technology	0	*50
Office Technology	35	38
Practical Nursing	37	40
Pre-Architectural Drafting	7	8
Pre-Nursing	148	161
Supervision and Management	78	85
Surveying Technology	3	*20
Tourism & Travel Management	58	*75
Visual Communications	48	52

*Estimate provided by department.

SECONDARY Program Enrollment-SY 2010-2011 (ACTUAL)	GWHS
Allied Health	64
Automotive	164
Carpentry/AutoCADD	74
Early Childhood Education	89
Electronics	69
Marketing	59
Tourism (Lodging Management)	55
Tourism (ProStart)	74
Visual Communication	66
Grand Total	714
PROJECTION (9%)	**778**

PROGRAMMING DATA

DEPARTMENT PROJECTIONS

Programming data gathered from GCC is one consideration used in the update of the Master Plan phases. Surveys were also distributed to the various College departments and the collected data was synthesized with information from project planning discussions to outline the campus development with the goal of supporting the GCC Mission and Vision.

There was consensus for utilizing a 9-percent growth projection. Some programs deviated from this growth rate and provided projections based on alternative planning factors.

APPRENTICESHIP ENROLLMENT:

Enrollment (January – March 2012)

Apprentices	Female	Male	Total
PUBLIC	25	65	**90**
PRIVATE	41	232	**273**
Total	**66**	**297**	**363**

ADULT EDUCATION: ENROLLMENT AND COMPLETION BY PROGRAM:

Adult Basic Education (ABE): Six-Year Trend

ABE	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010	FALL 2011	Total
ENROLLED	604	593	724	382	267	450	3020
COMPLETERS	235	271	204	128	79	197	1114

Adult Secondary Education (ASE): Six-Year Trend

ASE	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010	FALL 2011	Total
ENROLLED	327	365	306	166	22	36	1222
COMPLETERS	111	145	110	5	12	20	403

English as a Second Language (ESL): Six-Year Trend

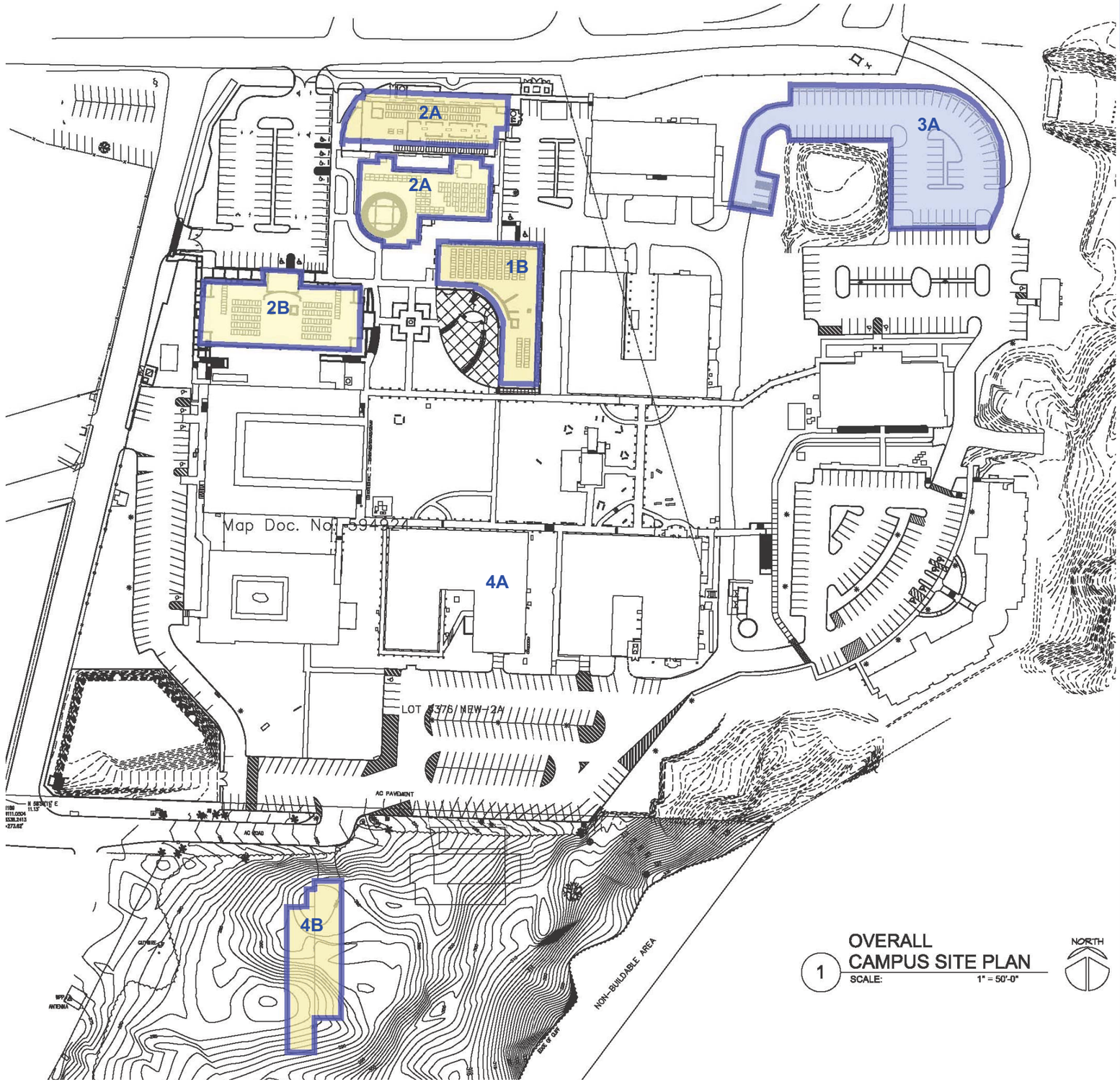
ESL	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010	FALL 2011	Total
ENROLLED	182	121	124	85	41	100	653
COMPLETERS	92	64	73	21	20	68	338

PROGRAM LOCATIONS

DEPARTMENT LOCATIONS

Accounting	Building C, D
Automotive Service Technology	Building 500, 900
Computer Aided Design & Drafting	Building 200
Computer Networking	Building 1000
Computer Science	Building 1000, Building D
Construction Technology	Building 600
Cosmetology	Building 300
Criminal Justice	Building 100, Forensic DNA Lab Facility
Culinary Arts	Building 400
Early Childhood Education	Building 200
Education	Building 200
Emergency Management	Building 100
Fire Science	Building 100
Food & Beverage Management	Building C
Hotel Operations & Management	Building 300
Liberal Arts	Building A
Marketing	Building 300
Medical Assisting	Allied Health Center
Medium/Heavy Truck Diesel Tech.	Building 500
Office Technology	Building D
Practical Nursing	Allied Health Center
Pre-Architectural Drafting	Building 200
Pre-Nursing	Allied Health Center
Supervision and Management	Building D
Surveying Technology	Building 200
Tourism & Travel Management	Building 300
Visual Communications	Building 300

NOTE: General Education Courses will be located primarily in Buildings A, C, D, and with some classroom use in Buildings 100, 200, and 300. Adult Education is located in Building 6000. Final program location is dependent on enrollment.



MASTER PLAN STATUS

COMPLETED WORK

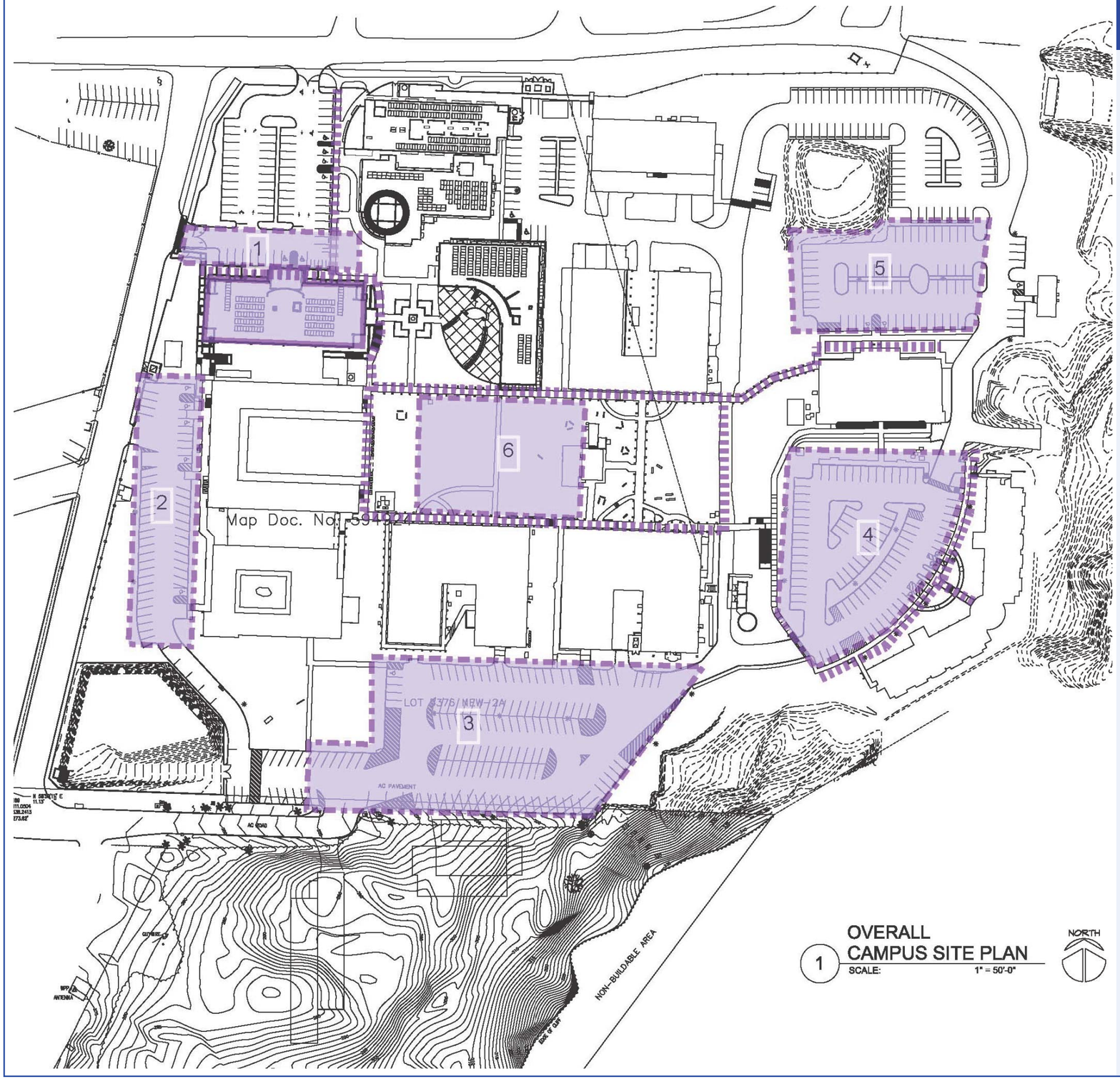
Guam Community College has completed several key phases of the 2005 Physical Master Plan. The 2005 Master Plan outlined the incremental development of the Guam Community College Campus. Six phases of work were developed in the Plan, and each phase, comprised of two parts—A & B—outline development tasks that could be achieved with moderate funding. Since 2005, three of the six phases have been implemented by the College. Figure 2 indicates the six phases of work and the corresponding projects that have been completed or are expected to be completed by the year 2014. Note that the GPD Forensic Lab was constructed by the Guam Judiciary, but the building is now owned by GCC. Additionally, note that some phases of work were not implemented in their entirety due to the College's re-evaluation of project priorities.

Completed work also includes various energy and capital improvement projects. Buildings 3000, 4000, 5000, and 6000 have been provided with photovoltaic power systems. Photovoltaic parking lights installed in nearly all of the college's parking lots. Emergency power generators have been provided for Buildings B, C, D, 400, and 1000. Upgrades to campus data network have been executed. Recently completed campus improvement also include exterior painting, water tank provisions, and the survey and delineation of the limestone forest.

Figure 2. WORK PHASE STATUS

- 1A:
- 1B: Student Center completed November 2011.
- 2A: Learning Resource Center completed December 2010. Foundation Building Renovation completed August 2012.
- 2B: Anthony Leon Guerrero Allied Health Center completed December 2009.
- 3A: Northeast Parking completed December 2011.
- 3B: TBD
- 4A: Building 200 Renovation completion in 2014.
- 4B: Forensic Lab* completion date 2008
- 5A: TBD
- 5B: TBD
- 6A: TBD
- 6B: TBD

*The Forensic Lab building was acquired by GCC from the Guam Judiciary.

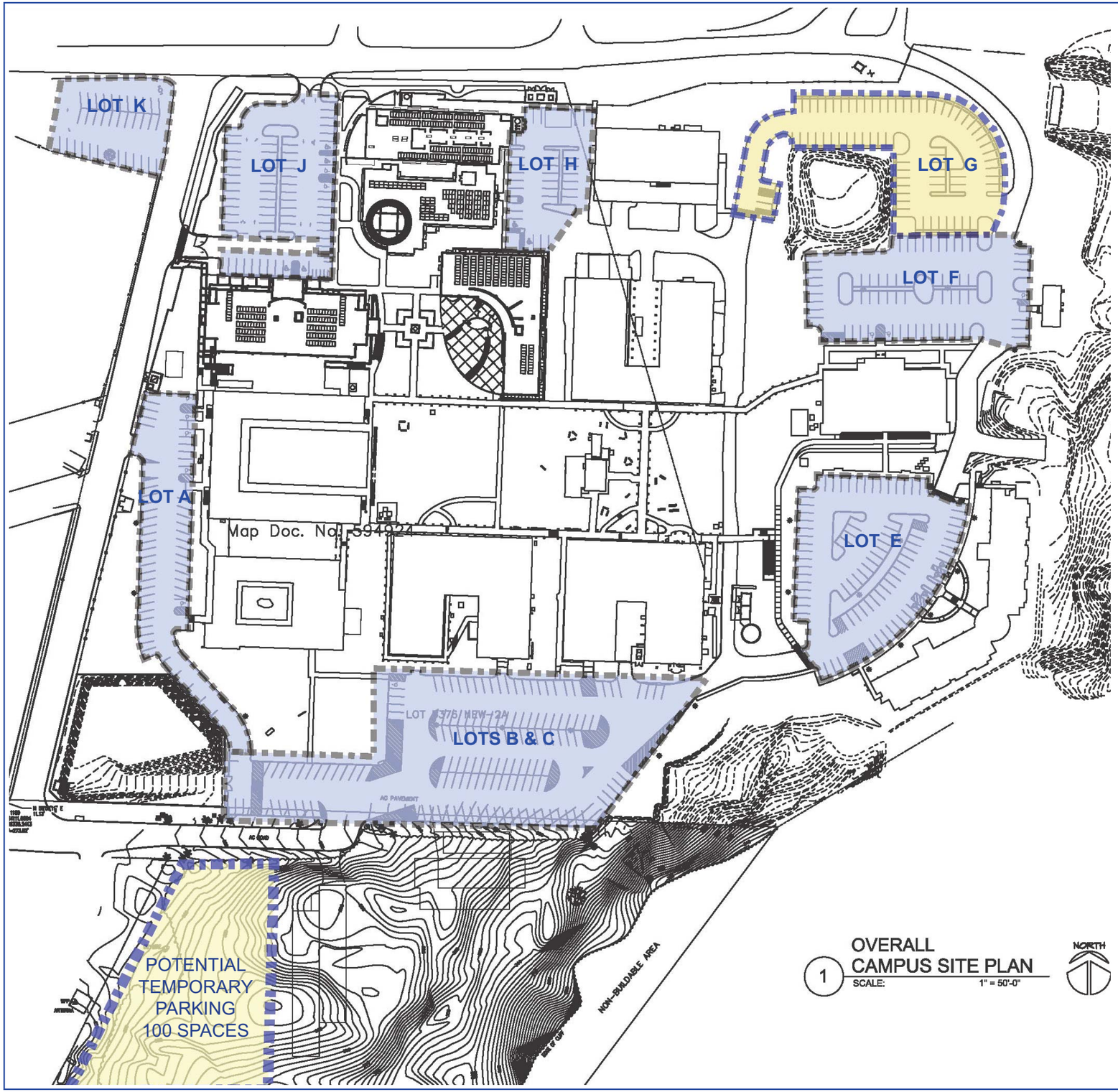


SUSTAINABILITY

LEED CERTIFICATION & ALTERNATIVE ENERGY

GCC's role as a leader in sustainability is at the forefront of the Master Plan update. The achievement of LEED certification is one of the primary goals for planned campus building projects. The catalyst for this new direction for GCC facilities is the Learning Resource Center (LRC) project, which was completed in 2010 and is the first building on Guam to achieve LEED Gold certification. The Foundation Building Renovation is expected to be completed in 2012, and it anticipates LEED Silver certification. Currently planned projects—including the GCC Forensic DNA Lab and the renovation of Buildings 100, 200, 300—also intend to achieve LEED certification.

The College has also implemented alternative energy projects and has plans to further utilize new building systems to monitor and control building energy consumption. Photovoltaic parking lights have been installed throughout the campus parking lots. Photovoltaic energy systems are being utilized by the Allied Health Center and will be installed at the Learning Resource Center, the Student Center, and the Foundation Building. Walkway canopies are being outfitted with PV film to power walkway lighting. Direct Digital Control (DDC) systems and occupancy sensors will be utilized in new and renovated buildings.



PARKING

EXISTING PARKING

The current campus parking accommodates approximately 530 cars, which is accomplished with surface parking lots and some street parking. There are nine surface parking lots on the campus:

Lot A 45 cars
Lot B 25 cars
Lot C 120 cars
Lot D (Future Parking)
Lot E 80 cars
Lot F 68 cars
Lot G 73 cars
Lot H 30 cars
Lot J 54 cars
Lot K 30 cars

In addition to the parking lots, Sesame Street provides parking for about 45 vehicles and 20 vehicles can park along Corten Torres Road. The parking counts identified above for the lots do not include the recent conversion of automobile parking spaces for scooter parking.

An additional 100 cars can be accommodated in the area to the south west of Lots B & C which is intended for temporary parking until parking structure 2 is constructed.

Future development will affect the current parking configuration. Parking Lots A, J, & K will be modified with the reintegration of Sesame Street. Lot H will be affected by the generator building for the Foundation Building, LRC, & Student Center. Lots B & C will be modified with the development of Parking Structure 2. Lot E will be modified with the development planned for the Administration Building and the Technology Center. Resurfacing of the parking areas with pervious pavement is intended for all of the parking areas.

Because of the property limitations, the campus will need to start programming or advocacy for additional public transportation options alongside UOG and GWHS.

- LEED Certification advocates....
- Consider possible parking fees or preferred stalls for carpools, hybrids, etc...

PARKING DEVELOPMENT:

- Sesame Street
  50 cars
- Parking Structure 1
  300 cars
- Parking Structure 2
  200 cars
- Lot A
  24 cars
- Lot B
  57 cars
- Lot C
  70 cars
- Lot D (Mult-use basement)
  30 cars
- Lot E
  50 cars
- Lot F
  68 cars
- Lot G
  73 cars
- Lot H
  25 cars
- Lot J
  22 cars
- Corten Torres
  21 cars

Total Parking Count = 990 cars

PARKING

PARKING DEMAND

Based on enrollment projections (excluding the secondary education students) the campus needs to accommodate parking for 2,092 post secondary students, 448 adult education students, faculty, and staff. Parking for continuing education students also needs consideration.

A new full time equivalent (FTE) for parking should be determined based on three factors:

1. weekly class distribution
2. daily class distribution
3. the transient nature of visitors, students, faculty, and staff.

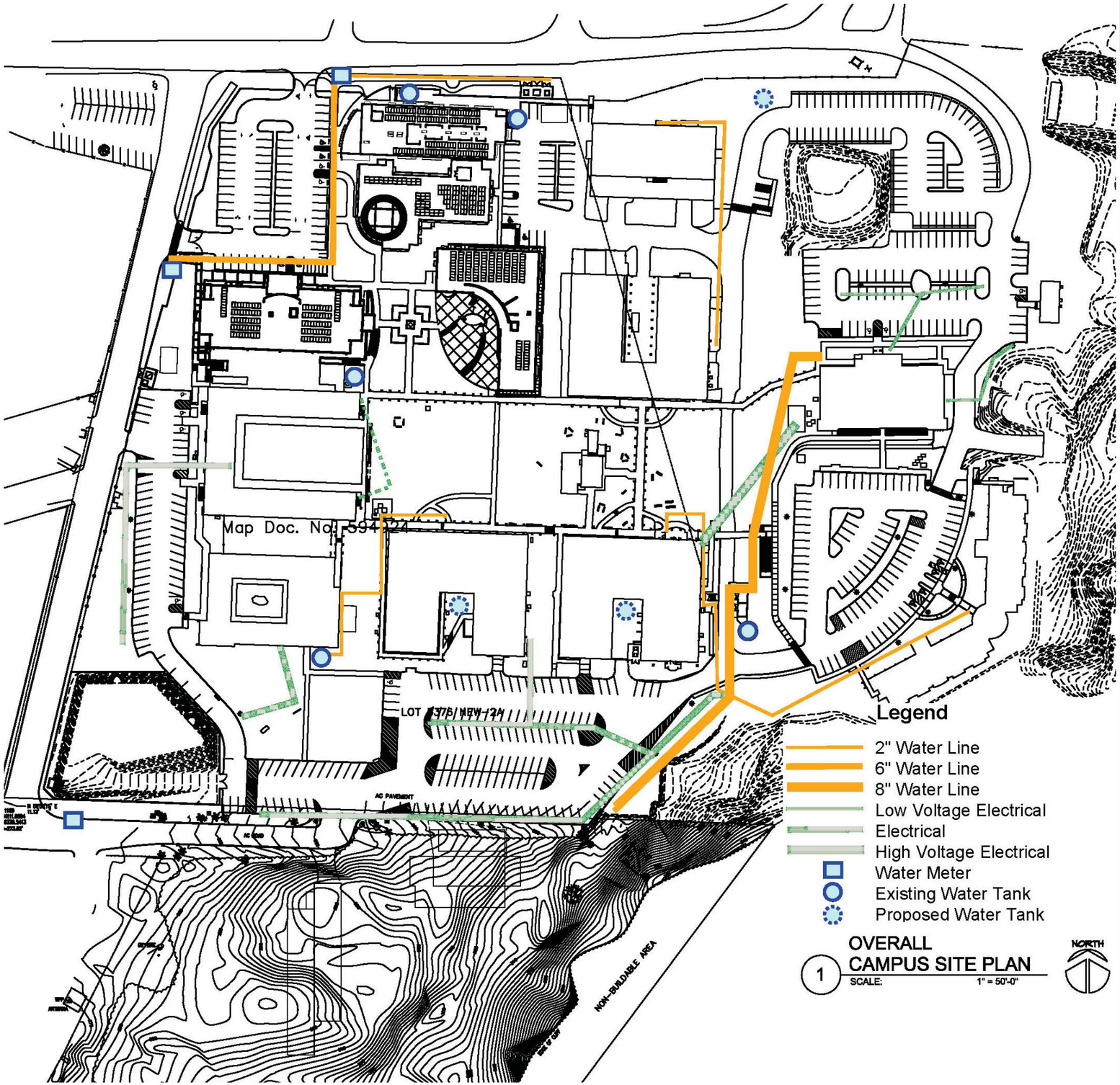
These factors account for the amount of time that visitors, students, faculty and staff spend on campus.

Most classes are typically done twice a week, Monday-Wednesday or Tuesday-Thursday. Friday and Saturday classes are minimal in comparison to the Monday through Thursday schedule. There are also a small percentage of classes that are conducted every day of the week. The following approximations were determined utilizing the Fall 2011 and Spring 2012 GCC class schedules:

- 76-percent of GCC classes are done primarily Monday through Thursday.
- 16-percent of classes are done on Fridays.
- 8-percent of classes are done on Saturdays.
- A normal instructional day is considered 12 hours (10am-10pm).

The GCC population on a given day can be estimated utilizing these approximations, which can provide a comprehensive picture of the daily campus parking demand. The campus population peak lasts from Monday through Thursday, which would amount to approximately 2,430 students, faculty, and staff on the GCC campus during each of those days. However, each population group is transient, therefore an FTE factor is assigned to each based on the percentage of time that they are on campus relative to the 12-hour instructional day. The resulting daily parking demand for the projected students, faculty, staff, and visitors is 785 cars, which also coincides with zoning law parking requirements. New parking development would park 950 cars approximately. This capacity provides additional parking for visitors and during class transitions. Additional overflow parking may be necessary during major campus events.

It is important to note the direct role that class scheduling plays in the parking demand. Adjusting class schedules to minimize the daily population shift should render more adequate parking during class time. Utilizing parking meters and paid parking may also be alternatives to curb the campus parking demand along with incentives for carpooling.



INFRASTRUCTURE IMPROVEMENTS

EXISTING WATER SYSTEM

Water meters are located at three locations on the campus. One meter is located on the 2-inch water line adjacent to the Foundation Building. Another meter is located on the 6-inch water main added with the Allied Health Center Building. The third meter is located at the south edge of the campus near Gate 4 on the 8-in water main that enters from Washington Drive to the East part of the campus. Most of the campus buildings have 2-inch lateral lines that tie into the 6-inch and 8-inch mains.

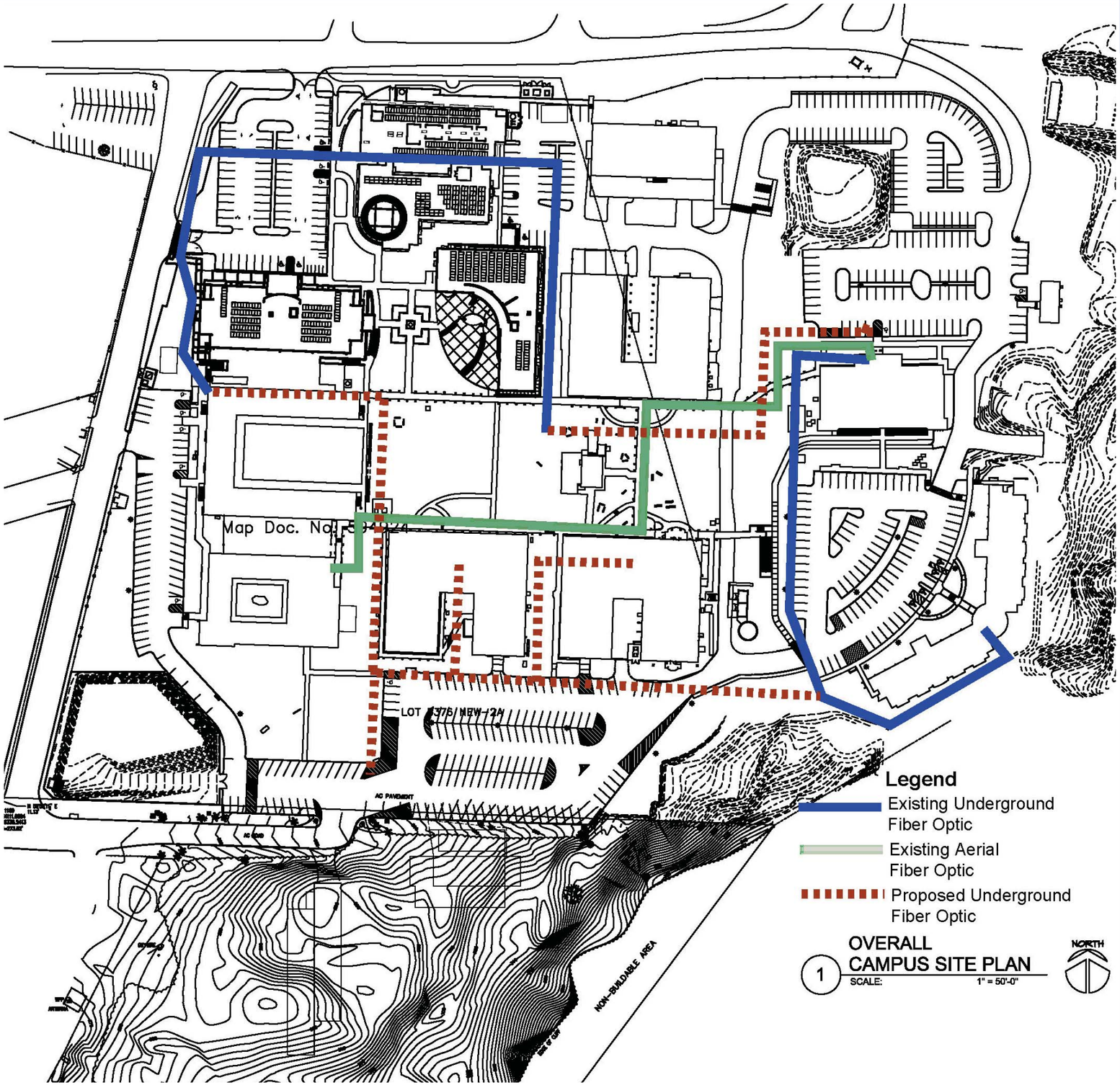
EXISTING POWER SYSTEM

Primary service to the GCC campus consists of a combination of overhead and underground systems. Overhead GPA lines run along Sesame and Corten Torres Streets. Underground connections to these lines were executed with the construction of the new building projects. The existing overhead service lines adjacent to the firing range and in the Main Quad will be replaced with underground lines.

Site utilities are based on available information and require further verification.

Existing Stormwater System

The campus stormwater system was upgraded in 2004 and designed to accommodate the entire campus fully developed. The capacity of the system assumes impervious surface at greater than 90-percent of the total campus area. The Master Plan projects will maximize open space and utilize pervious walkway and parking material.



INFRASTRUCTURE IMPROVEMENTS

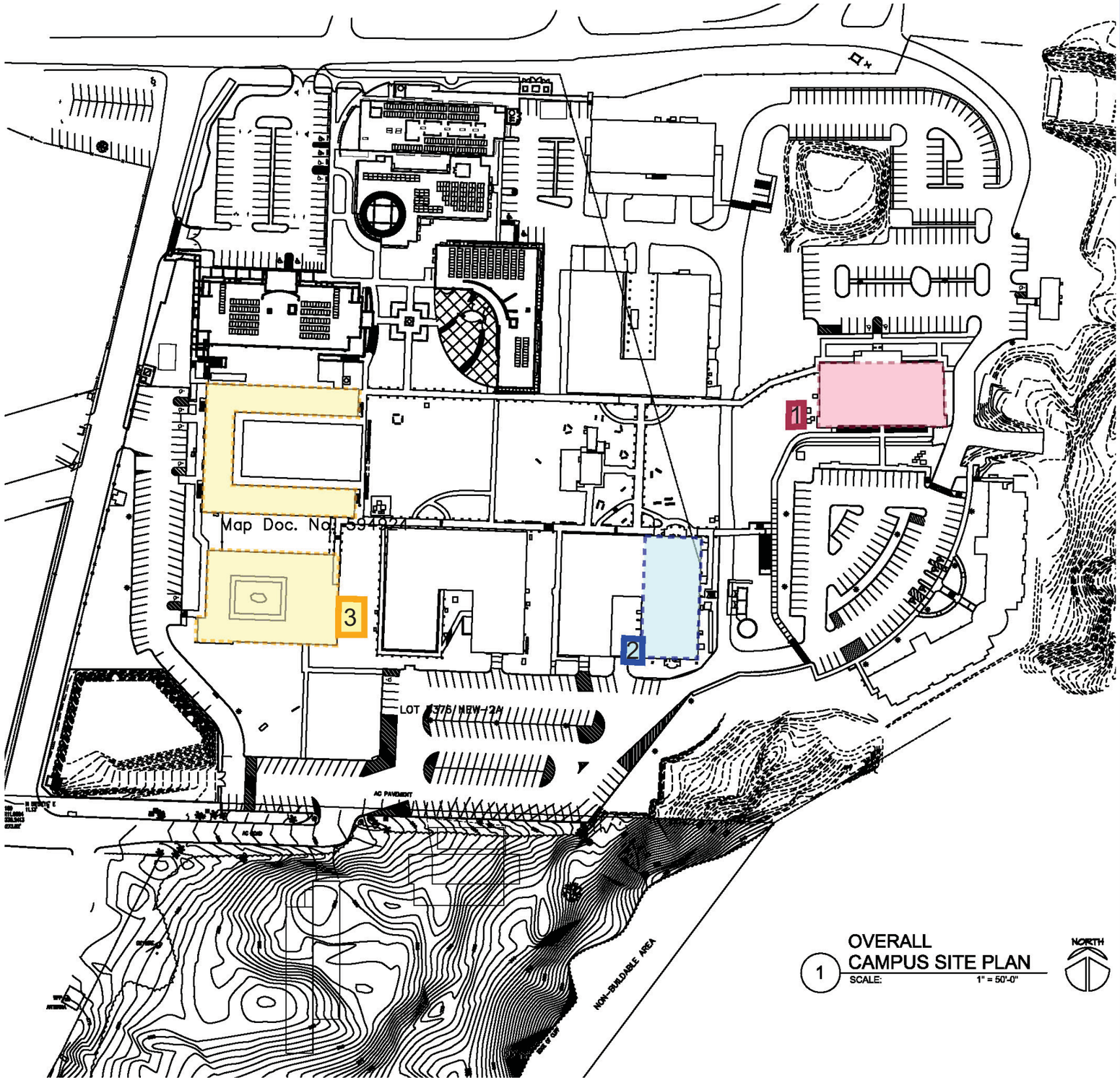
NETWORK & COMMUNICATION SYSTEMS

The existing campus network is comprised of overhead and underground fiber optic lines. Underground lines run from Building 1000 to Building 2000. Additional underground lines extend from Building A to Building 5000. Overhead fiber optic lines run from Building 1000 to Building D, the main campus network hubs, following the existing covered walkways. The overhead lines will be relocated underground as new projects are constructed. Each new building project will be programmed with Communication Rooms.

GCC intends to convert Building 1000 into a Green Data Center. This will involve:

1. Server Consolidation
2. Power Management Systems
3. Upgrade to Energy-efficient Servers
4. Utilization of High-efficiency Power Supply
5. Utilization of Energy Star and Standard Performance Evaluation Corp. Standards
6. Utilization of Photovoltaic Panels and Micro-turbine Power Generation
7. Utilization of Trigeneration--Combined Cooling, Heating, & Power

This conversion will allow GCC to continually upgrade it's network capability while addressing the increasing power demand of network systems.



INFRASTRUCTURE IMPROVEMENTS

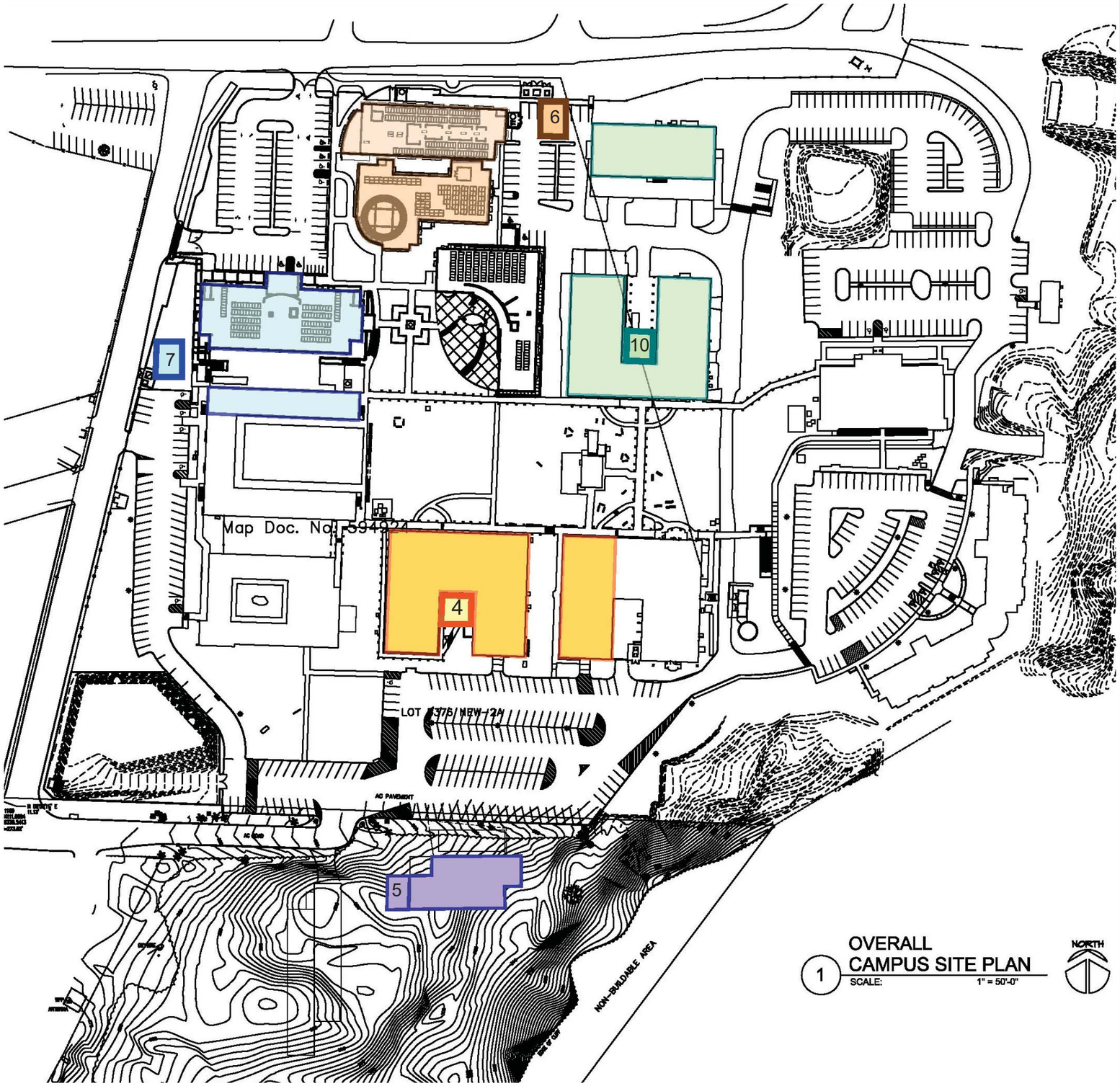
EMERGENCY POWER - EXISTING SYSTEMS

GCC has implemented backup generators to provide auxiliary power to campus facilities:

Generator 1 (Building 1000)
Generator 2 (Building 400)
Generator 3 (Buildings B, C, and D)

Backup power is critical to the maintenance of building systems being incorporated into the campus building projects such as direct digital control A/C systems and photovoltaic systems. Power service to the campus fluctuates frequently and this requires systems to be manually reset, and can damage systems enough to require replacement. The provision of line conditioners should also be incorporated with the generator facilities. Provision of uninterrupted power supply (UPS) units should also be utilized where appropriate.

A Spill Prevention, Containment, and Countermeasure (SPCC) plan for the GCC campus is required because of the environmental contamination threat posed by the emergency generators. The SPCC plan is an Environmental Protection Agency requirement and a plan has already been developed by Dueñas, Camacho, & Associates (DCA) for the generators servicing the Technology Center and Building 300. DCA is developing the overall campus SPCC plan, which will be updated with the completion of every campus generator project.



INFRASTRUCTURE IMPROVEMENTS

EMERGENCY POWER - NEW SYSTEMS

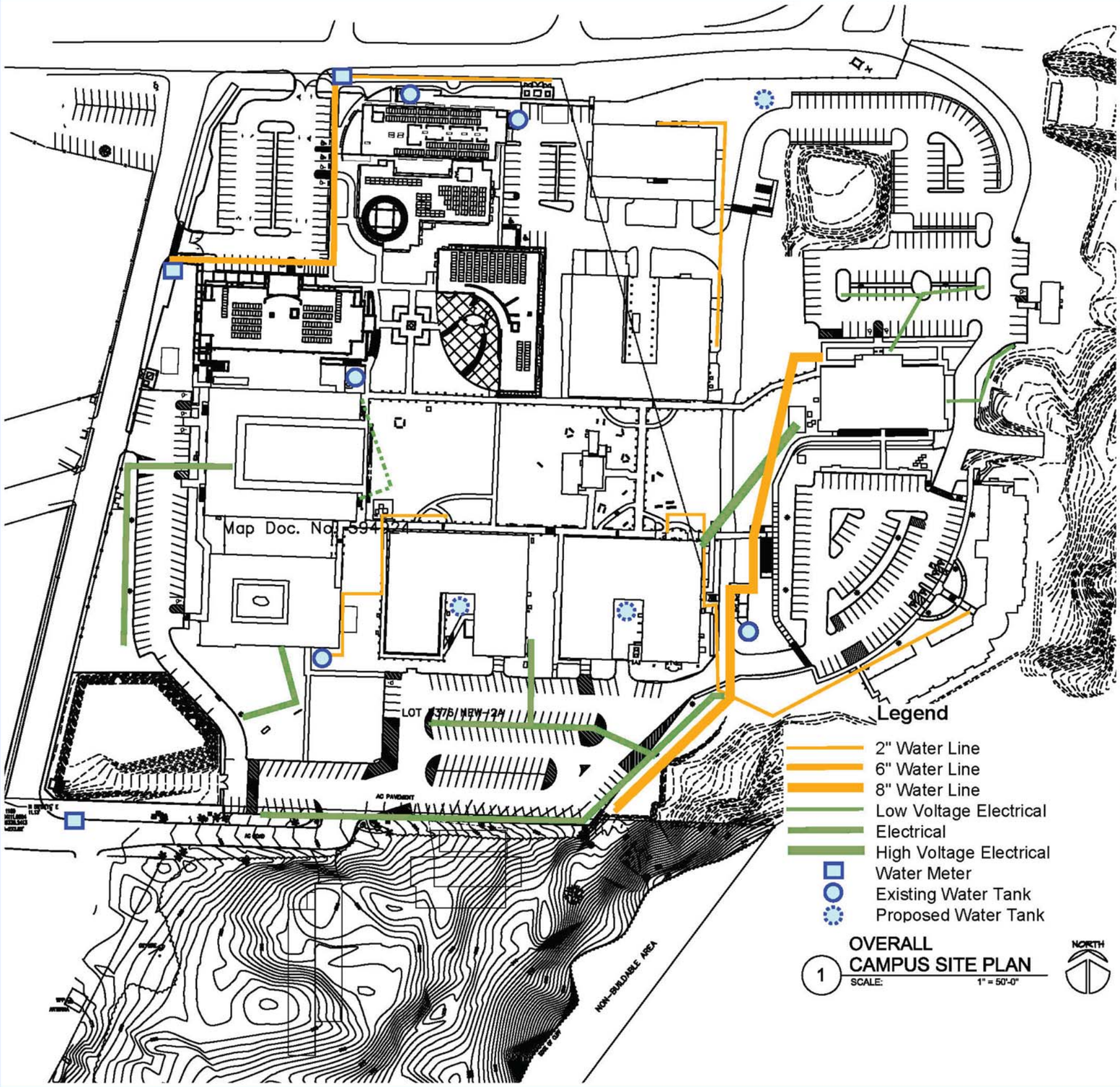
GCC is proposing the following additional generator buildings:

Generator 4 (Buildings 100, 200 & 300)
Generator 5 (Forensic DNA Lab Facility)
Generator 6 (Buildings 4000, 5000, & 6000)
Generator 7 (Buildings A & 3000)
Generator 8 (Maintenance Building)
Generator 9 (Multipurpose Auditorium)
Generator 10 (Buildings 500, 600, and 900)

The planned generators are intended to serve the buildings including full renovations. Line conditioners and UPS units will be considered with each specific project.

Comparison between non-centralized vs. centralized....

In terms of campus aesthetics, safety of students & equipment campus generators will usually be housed in concrete shelters.



INFRASTRUCTURE IMPROVEMENTS

EXISTING WATER SYSTEM

The water service to the Mangilao area is historically known for frequent interruption. GCC has initiated the use of domestic water tank systems to mitigate the effect of the current public water service on campus operations and instruction time. Existing campus water tank systems are

Tank 1
Building 1000
Building 2000
Building 400

Tank 2
Building 4000
Building 6000

Tank 3
Building 3000

Tank 4
Building 5000

Tank 5
Forensic DNA Lab

Tank 6
Building D

Tank 7
Buildings A,B,C

The water tank systems are necessary until upgrades to the public water service are done. A dependable water supply is necessary for Public Health and code requirements for fire protection and sanitary needs, in addition to the functional needs of classes / curriculums such as Culinary Arts and Biology.

INFRASTRUCTURE IMPROVEMENTS

WATER TANK SYSTEMS

Additional water tank systems will be provided with each new building project:

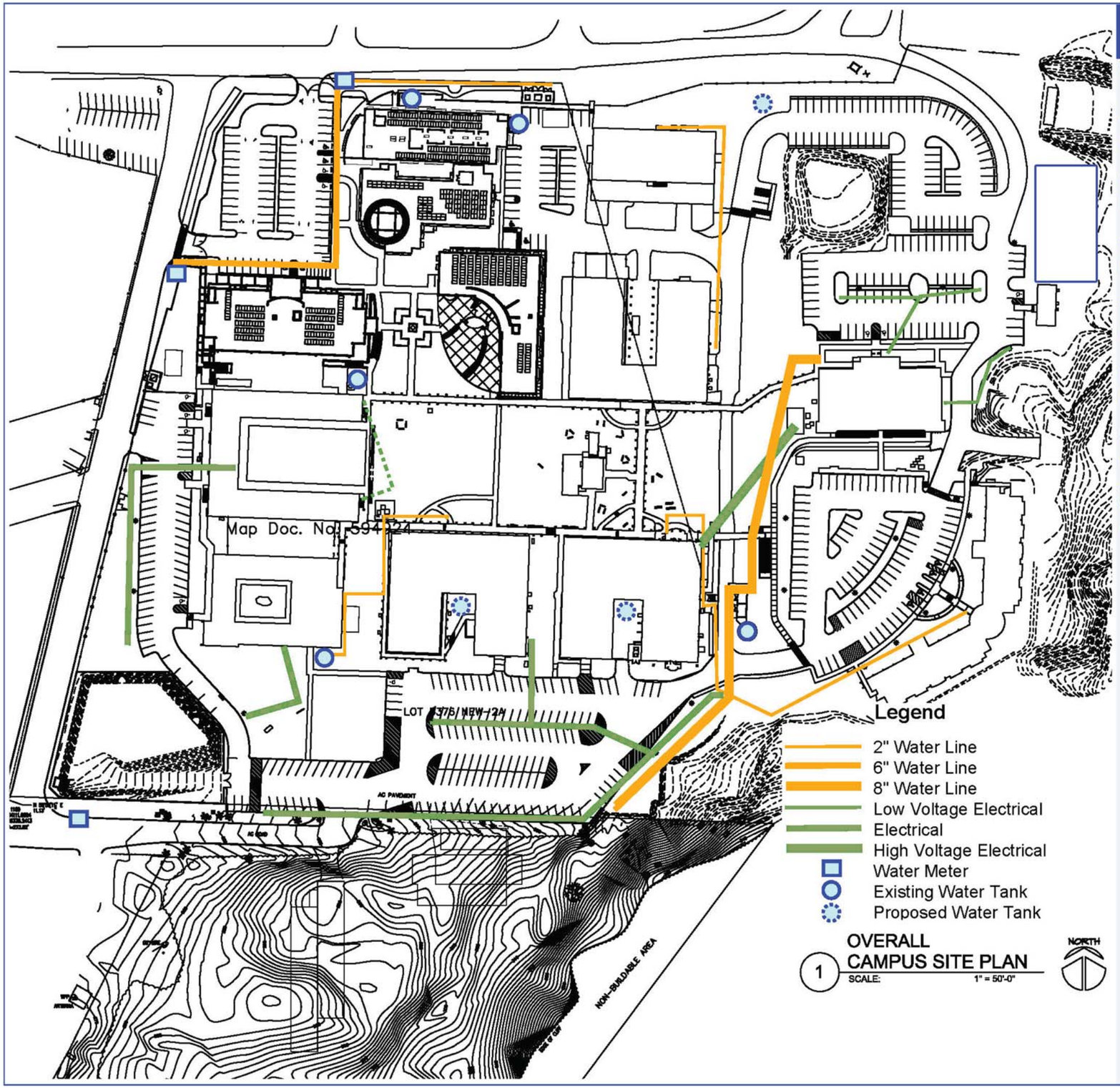
Tank 8
Building 100 & 200

Tank 9
Building 300

Tank 10
Buildings 500, 600, & 900

Tank 11
Maintenance Building

Water tank capacity will be determined anticipating the full building renovations scheduled in the Master Plan work. The water tank capacity will anticipate a 1-day reserve, minimum. Additional reserve capacity is subject to available space. Typical Factors for tank capacity include restrooms, drinking fountains, maintenance, hose bibs, and sinks.



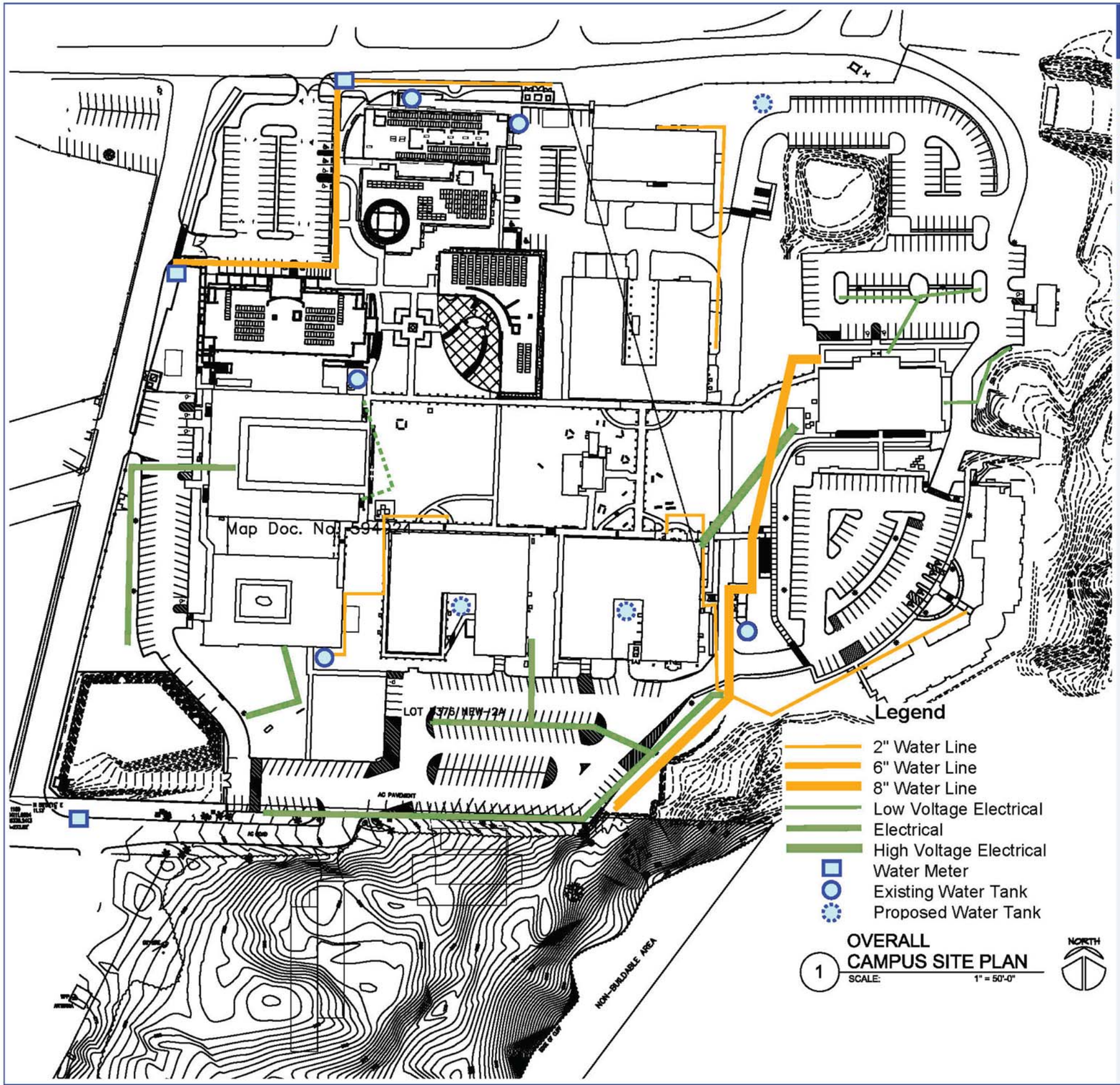
INFRASTRUCTURE IMPROVEMENTS

SEWER SYSTEM

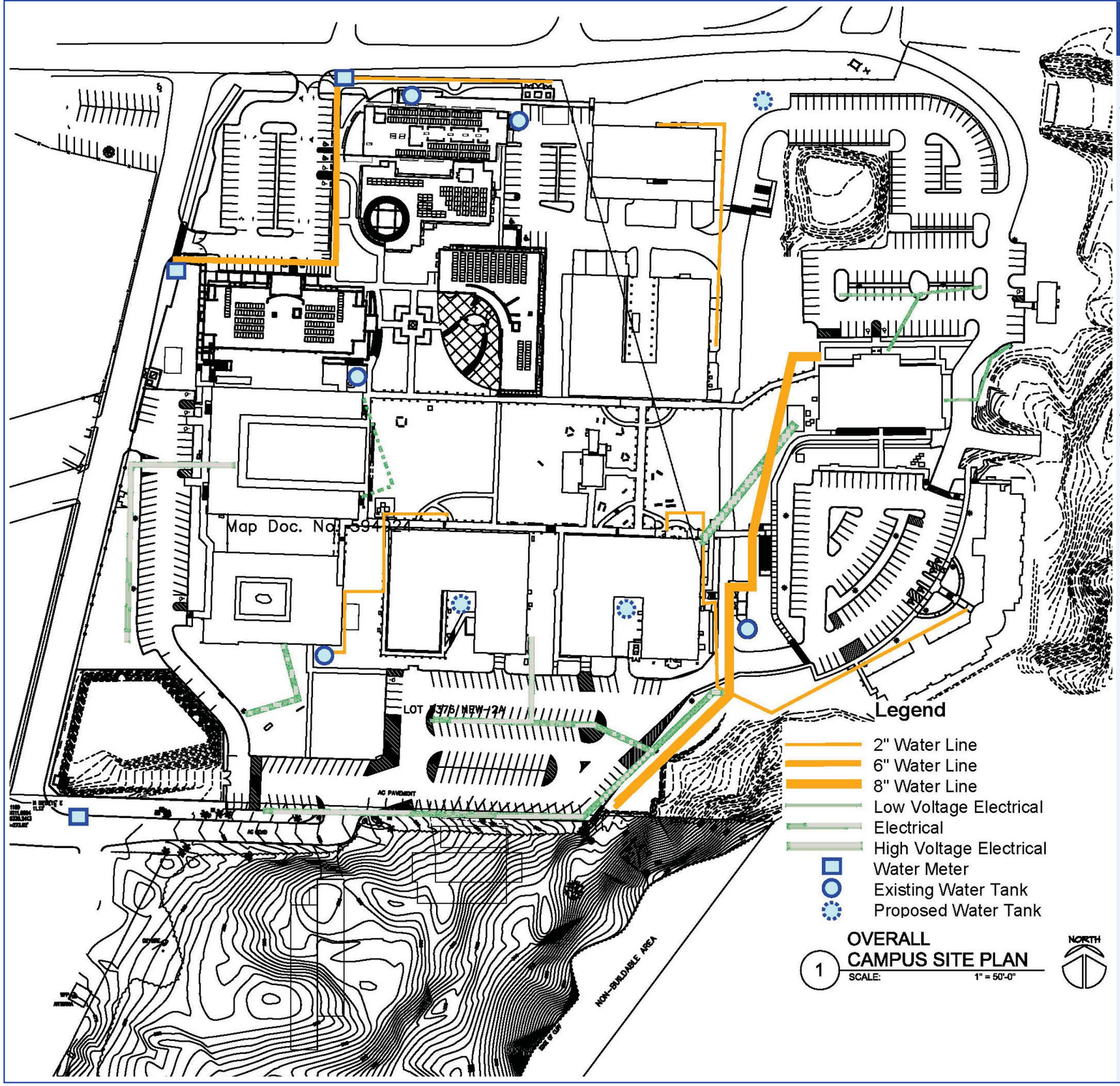
The GCC campus is served primarily by 8-inch sewer lines that run through the campus and connect to sewer mains along Sesame Street and Corten Torres Street. Campus facilities tie into the main sewer line with 6-inch and 4-inch lines.

RAINWATER CATCHMENT

Rainwater catchment is utilized at Building 6000 to increase the campus water efficiency. The water collected by the system is non-potable and used for the flushing of toilets & urinals. New buildings will include provisions for rainwater catchment sized for 1-day reserve capacity.



1 OVERALL CAMPUS SITE PLAN
SCALE: 1" = 50'-0"



INFRASTRUCTURE IMPROVEMENTS

FIRE PROTECTION

The following existing buildings will have fire sprinklers are:

Building 500
Building 600
Building 1000
Building 2000
Building 3000

Building 3000 has its own fire pump and tank. Buildings 500, 600, 1000, & 200 are serviced by Tank 1 which is a combination domestic water / fire pump system.

Fire sprinkler systems will be provided based on Code Requirements. For the future building projects, only the Multi Purpose Auditorium Building would require a fire sprinkler system based on a preliminary review of the 2009 International Building Code. However, the Maintenance Building is intended to have a fire sprinkler system as a campus safety precaution.

CAMPUS SAFETY

The Guam Community College campus is similar to a small city where diverse populations meet, reside, shop, learn, research, and play – often 24 hours a day. Unfortunately, they are also subject to a wide range of risk. Safety issues can be grouped into three general categories. Each category can be mitigated either with provisions for space; layout of physical spaces; campus wide systemic solutions; or a combination of both.

Category 1 Issues:

- Shooter attacks
- Sexual assault
- Bullying
- Power outages
- Protests
- Student unruliness or rioting
- Hostage situations
- Violence during mental duress and panic

Category 1 Measures:

- Building placement to allow easy visual access
- Removal of dead-end or “herding” routes where students can be trapped individually or in groups.
- Provision of alternative (and additional) exits from classrooms or administrative spaces.
- Provision of law enforcement or safety personnel hubs.

Category 2 Issues:

- Mass food poisoning
- Chemical or biological attacks
- Chemical or Biological agent accidents
- Pandemic outbreaks
- Property damage

Category 2 Measures:

- Provide operational safety and recovery spaces including triage
- Provide easy access for emergency vehicles
- Provide isolation areas.
- Provide law enforcement hubs

CAMPUS SAFETY

Category 3 Issues:

- Theft
- Security of high value equipment or materials
- Computer attacks
- Drug use or proliferation
- Protection of sensitive documents
- Natural disasters-earthquake and typhoon
- Voyeurism and privacy violations

Category 3 Measures:

- Provide communication and visual (and electronic)
- Surveillance campus-wide
- Provide controlled access points
- Motion operated sensors
- View panels in doors
- Pathway lighting
- Back-up power and communications systems campus-wide

CAMPUS EXPANSION

PRIVATE PROPERTY ACQUISITION
2 Lots to the North

PUBLIC PROPERTY ACQUISITION
Shared with George Washington High School to the South

water tank property...

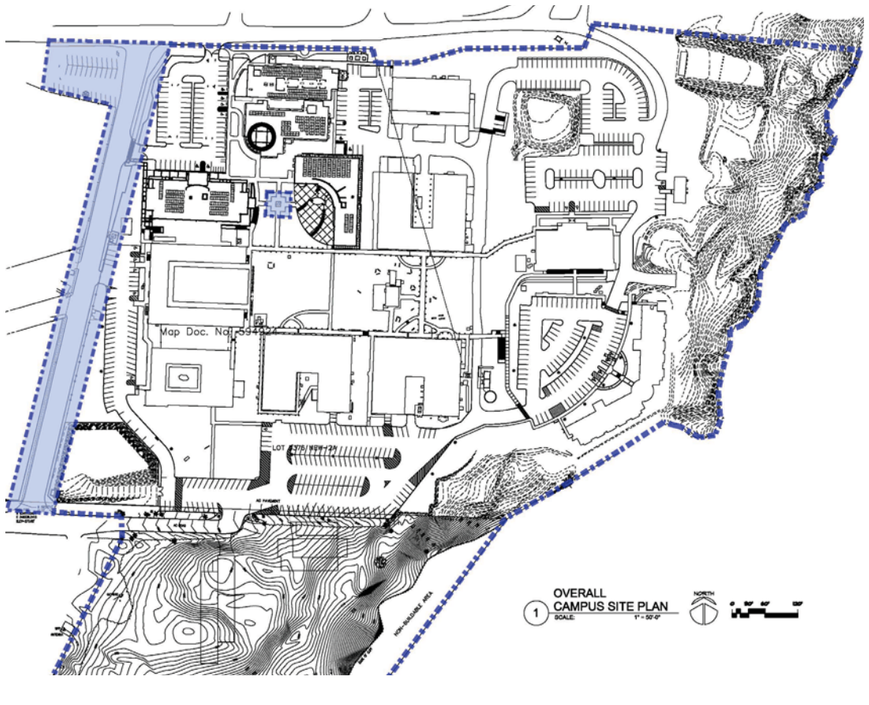
need dilineation of Forensic Lab boundary...

Acquisition of these properties will provide an opportunity for temporary vehicle parking until future development is determined.

Existing Campus Property
Lot 5376 New - 2A

Limestone Forest

- From GCC Campus to UOG Campus
- Hiking trail should not be hindered by development
- Outside of the designated conservation area
- Ifit trees need to be saved
- Considerations for other significant plants such as cycads



CAMPUS EXPANSION

REINTEGRATION OF SESAME STREET

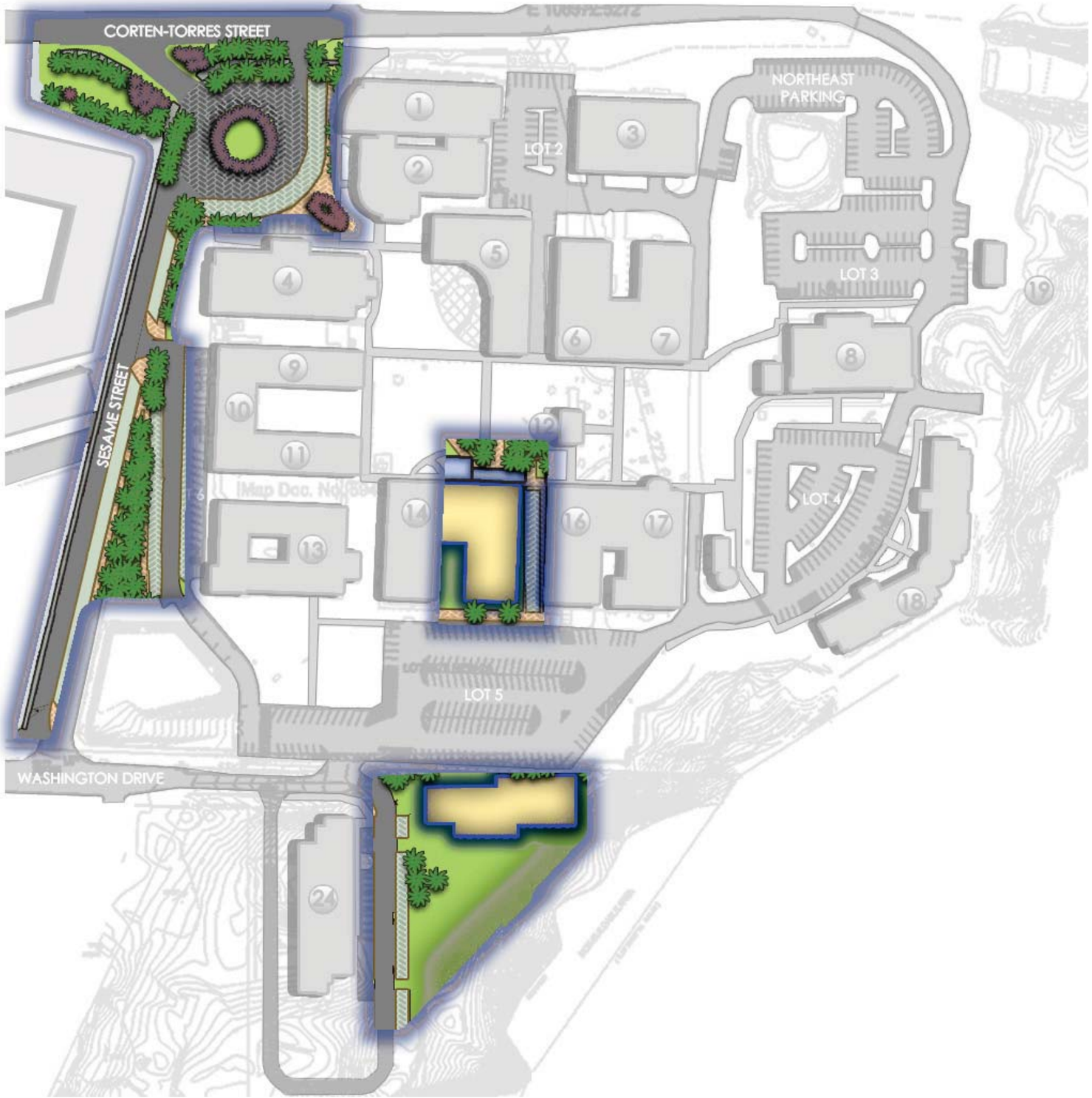
Sesame Street is the arterial street on the west edge of the Campus that connects Corten-Torres Street and Washington Drive, the two primary streets that take cars to GCC from Vietnam Veterans Highway (Route 10). Sesame Street is currently considered outside of the GCC campus. However, the campus topographic map shows that street is located on the GCC property. Property information does not indicate that Sesame Street is a public right of way.

Reclaiming Sesame Street provides an opportunity to accommodate additional parking for GCC and to further define the western edge of the campus. It may be optimal to convert Sesame Street to a one way travel and additional parking space. The development should also consider increased pedestrian activity. The development of Sesame Street is also critical to other campus projects including:

- Soka Gakkai International Monument
- West Fence Construction
- Parking Structure 1 & 2
- Campus Gateways

The integration of these projects is part of GCC's development plan for Sesame Street and the western edge of the campus. Once completed, these projects will enhance the sense of arrival to the Guam Community College campus.

PHASES OF WORK



PHASE 1A

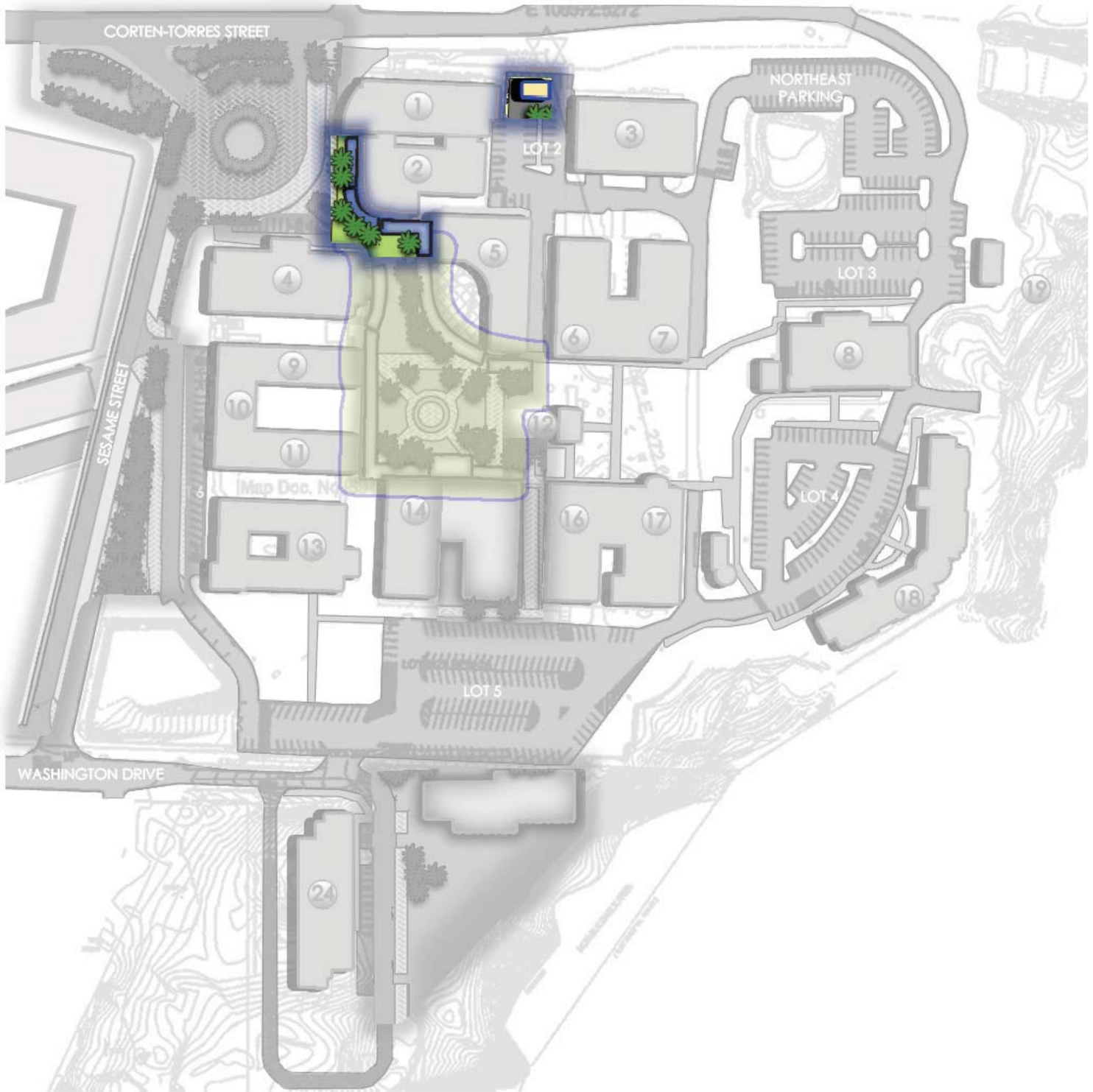
1. ***SESAME STREET REINTEGRATION***
   Reconfiguration of Sesame Street for one-way travel with parking.
   - New Campus Entrance; construction of the campus perimeter fence and main entrance gate.
   - Construction of transit stop.
   - Placement of Soka Gakkai monument.
   - May need to be subdivided into two-phases, with reconfiguration Parking Lot J & K moving to a later work phase.
   - Consideration of Phase 2B work - Generator #5.

2. ***BUILDING 200 RENOVATION***
   - 2-story addition
   - Classroom @ 700 SF ea. 8 total
   - Classroom/Lab @ 1400 SF ea. 2 total
   - Office @ 900 SF ea. 2 total
   - Office @ 400 SF ea. 1 total
   - Office @ 200 SF ea. 2 total
   - Consideration of Phase 1B work - Founders' Square

3. ***GENERATOR #4***
4. ***GENERATOR #5***
5. ***FORENSIC DNA LABORATORY FACILITY***
   - Criminal Justice Classrooms @ 650 SF ea. 2 total
   - Criminal Justice Offices @ 110 SF ea 2 total
   - DNA Laboratory & Office Space 6,600 SF total

PHASE 1B

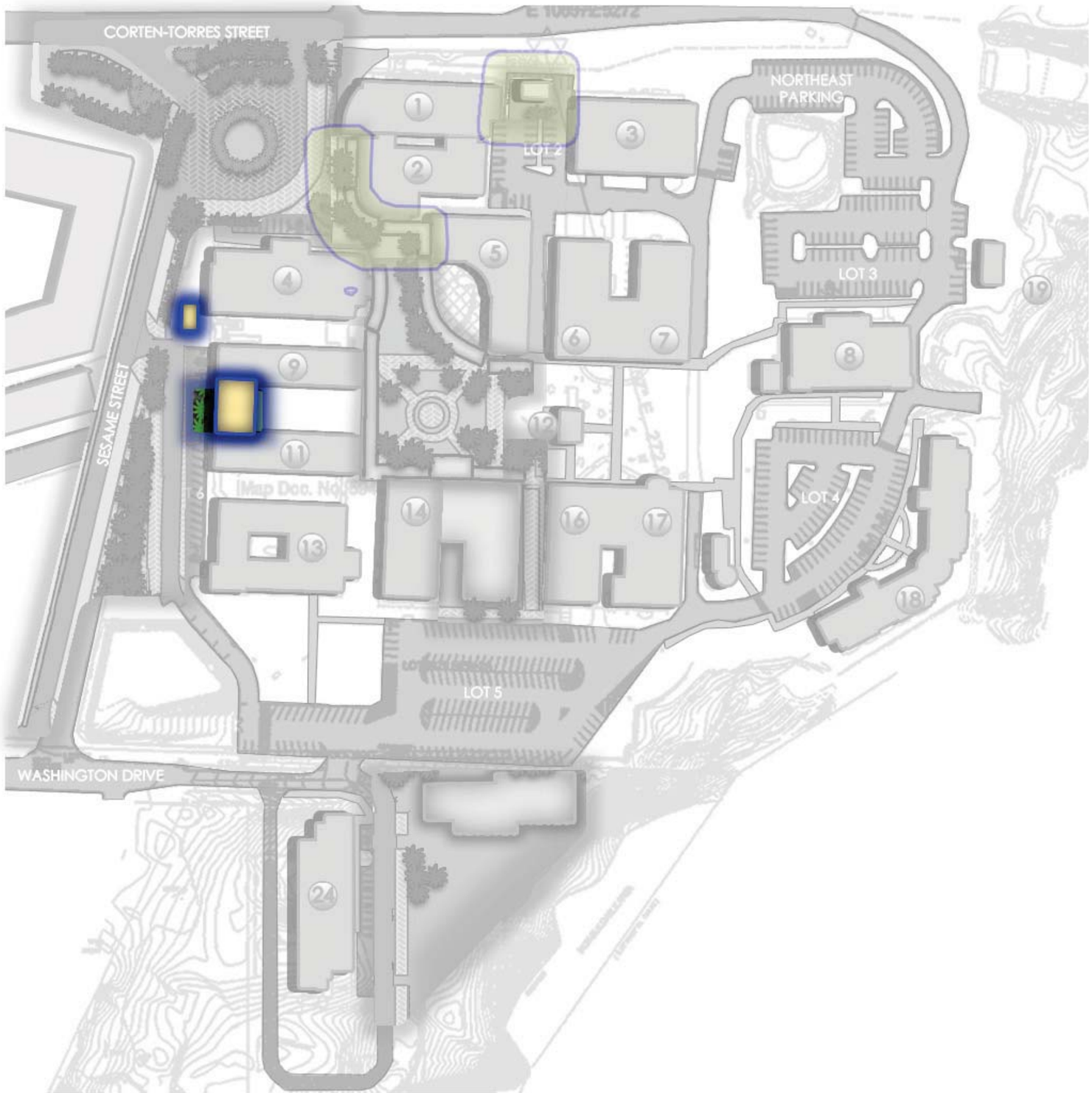
1. ***FOUNDER'S SQUARE***
   - Recognition plaques
   - Walkway canopies
   - Planting & site improvements
   - Infrastructure improvements - network, water, and power.
   - Consideration of Phase 1A work - Building 200 Renovation.
   - Consideration of Phase 3B work - Building 100 Renovation.



PHASE 2A

1. ***GENERATOR #6***
   - Backup power for Buildings 4000, 5000, & 6000
   - Modification of Parking Lot H.

2. ***OPEN SPACE IMPROVEMENTS***
   - Walkway canopy
   - Planting & site improvements
   - Infrastructure Improvements

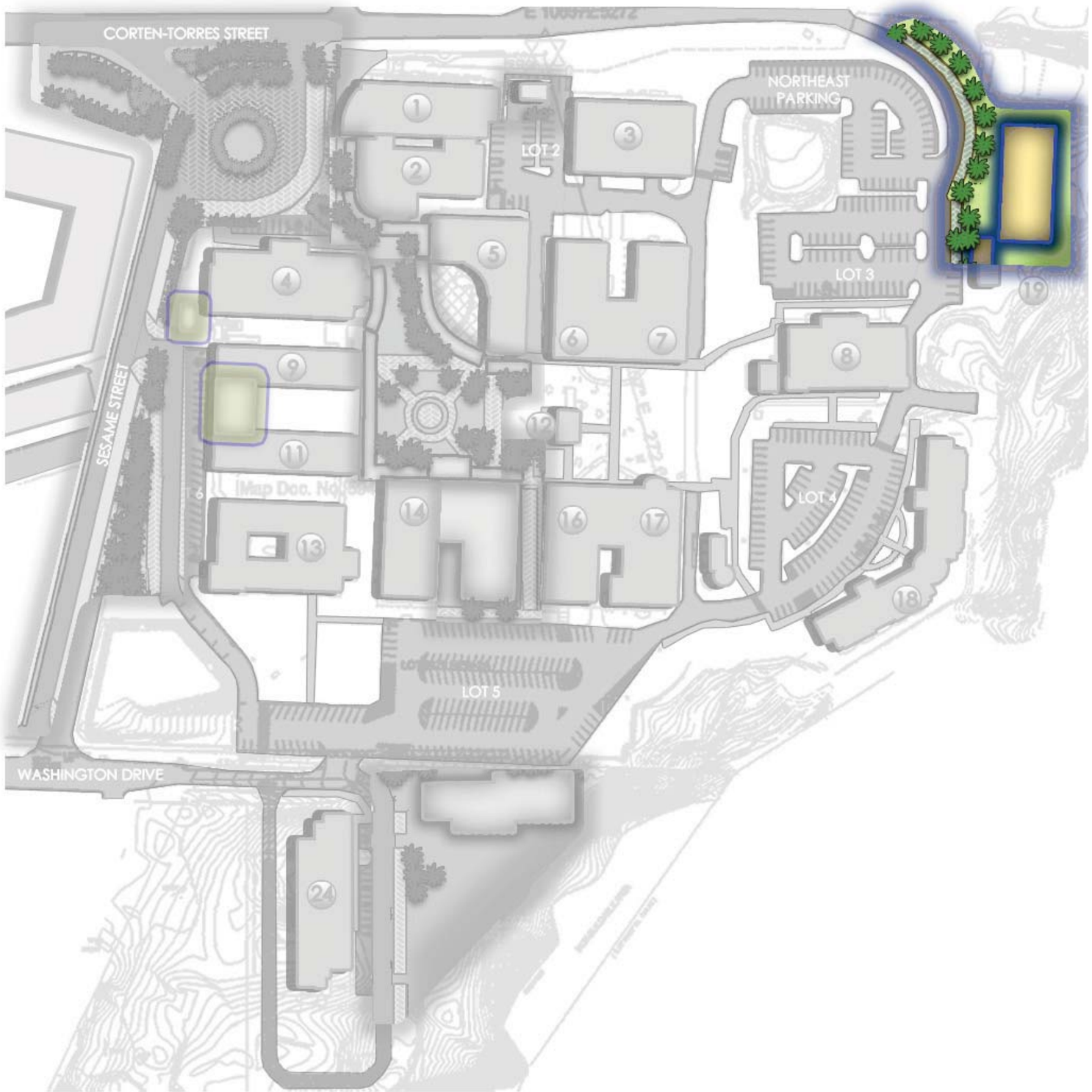


PHASE 2B

1. ***BUILDING B RENOVATION***
   - 2-Story addition
   - Office @ 1,900 SF, 3 total
   - Office @ 2500 SF, 1 total

2. ***OPEN SPACE DEVELOPMENT***
   - Planting & site improvements
   - Infrastructure improvements

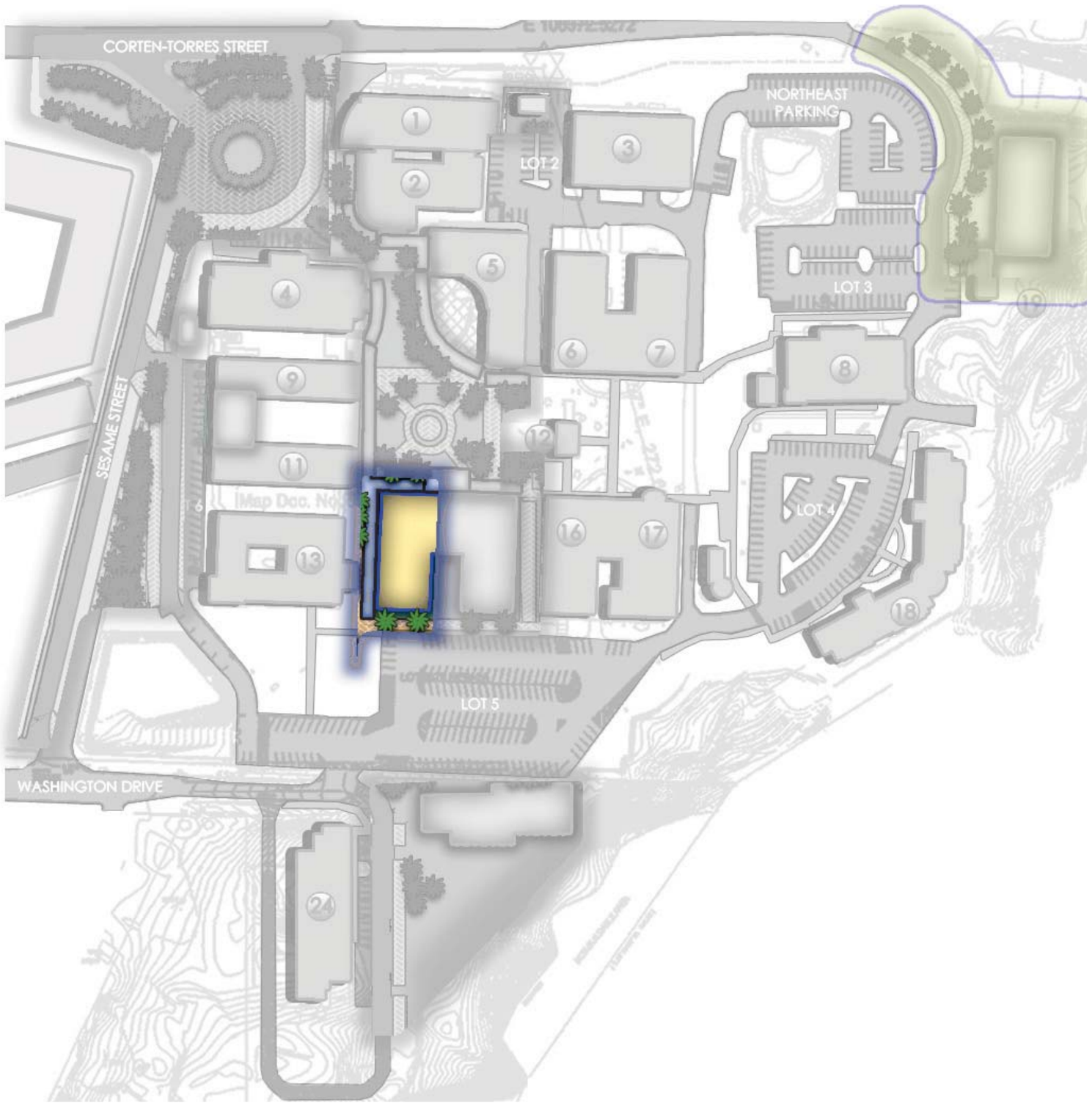
3. ***GENERATOR #7***
   - Backup power for Buildings A & 3000.
   - Consideration of the planned biology planting area & Phase 1A work - Sesame Street Reintegration.



PHASE 3A

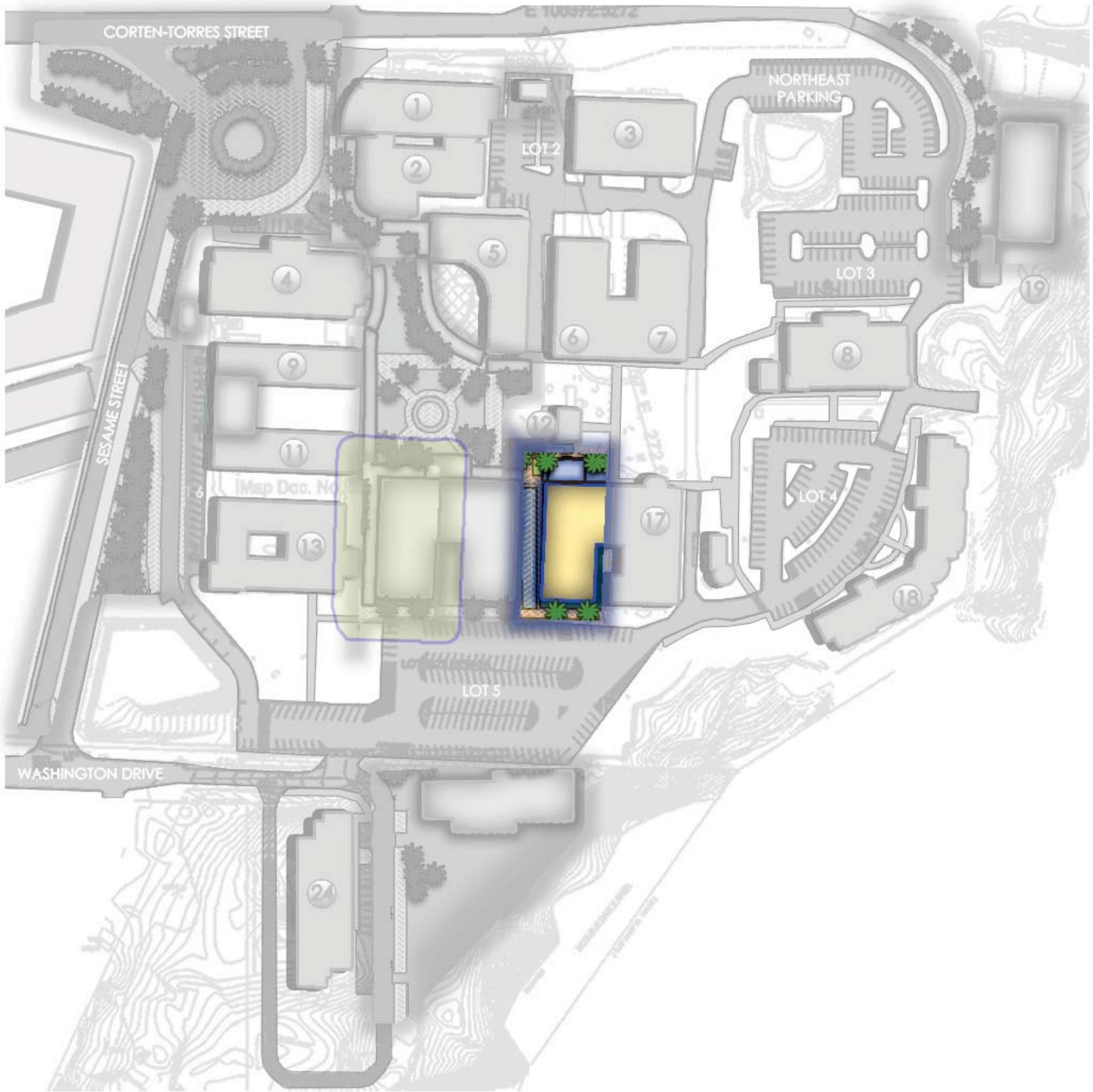
1. ***MAINTENANCE BUILDING***
   - Warehouse 5,000 SF total
   - Office Space 1,000 SF total
   - Consideration for additional campus parking
   - Demotion of the temporary building

2. ***GENERATOR #8***
   - Backup power for the Maintenance Building



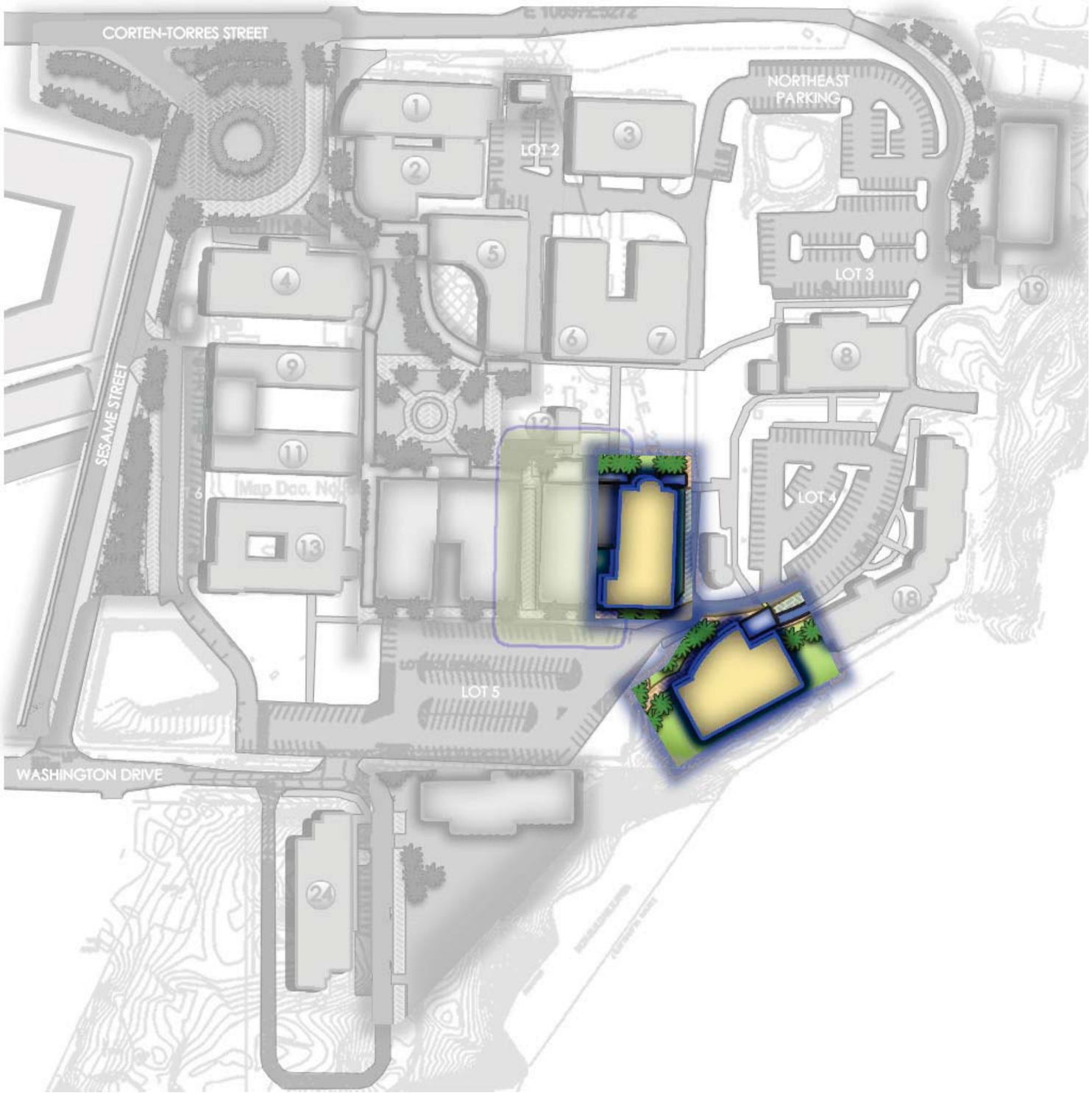
PHASE 3B

1. ***BUILDING 100 RENOVATION***
   - 2-story addition
   - Classroom @ 700 SF, 8 total
   - Classroom / Lab @ 1,400 SF, 2 total
   - Office
   - Walkway canopy construction



PHASE 4A

1. ***BUILDING 300 RENOVATION***
   - 2-story addition
   - Classroom @ 700 SF, 8 total
   - Classroom / Lab @ 1,400 SF, 2 total
   - Office
   - Walkway canopy construction

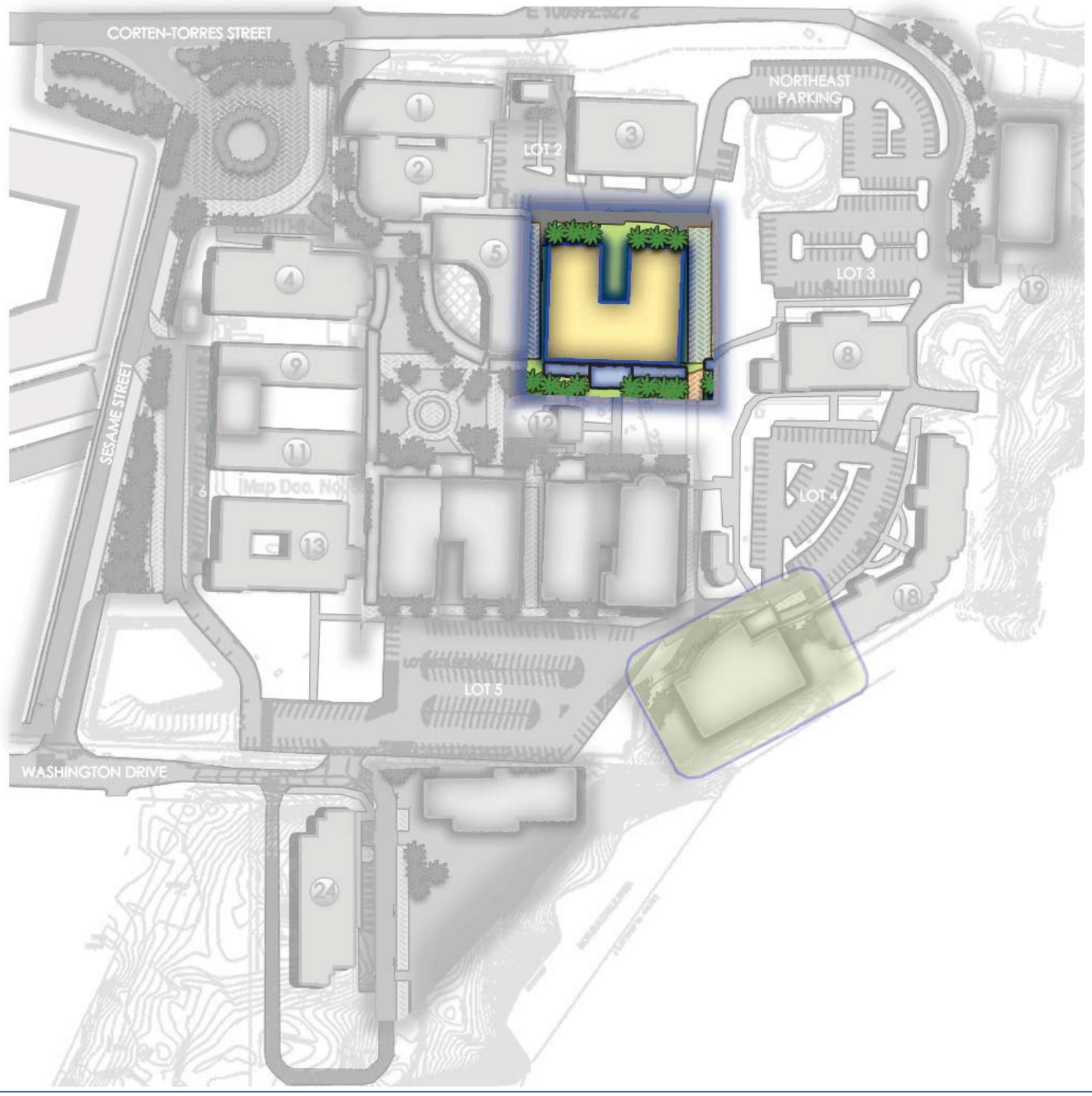


PHASE 4B

1. ***BUILDING 400 RENOVATION***
   - Kitchen expansion - additional 4,000 SF

2. ***MULTI PURPOSE AUDITORIUM***
   - 2-story building
   - Auditorium 4,000 SF
   - Offices 2,000 SF

3. ***GENERATOR #9***
   - 2 story building
   - Conference room
   - Offices

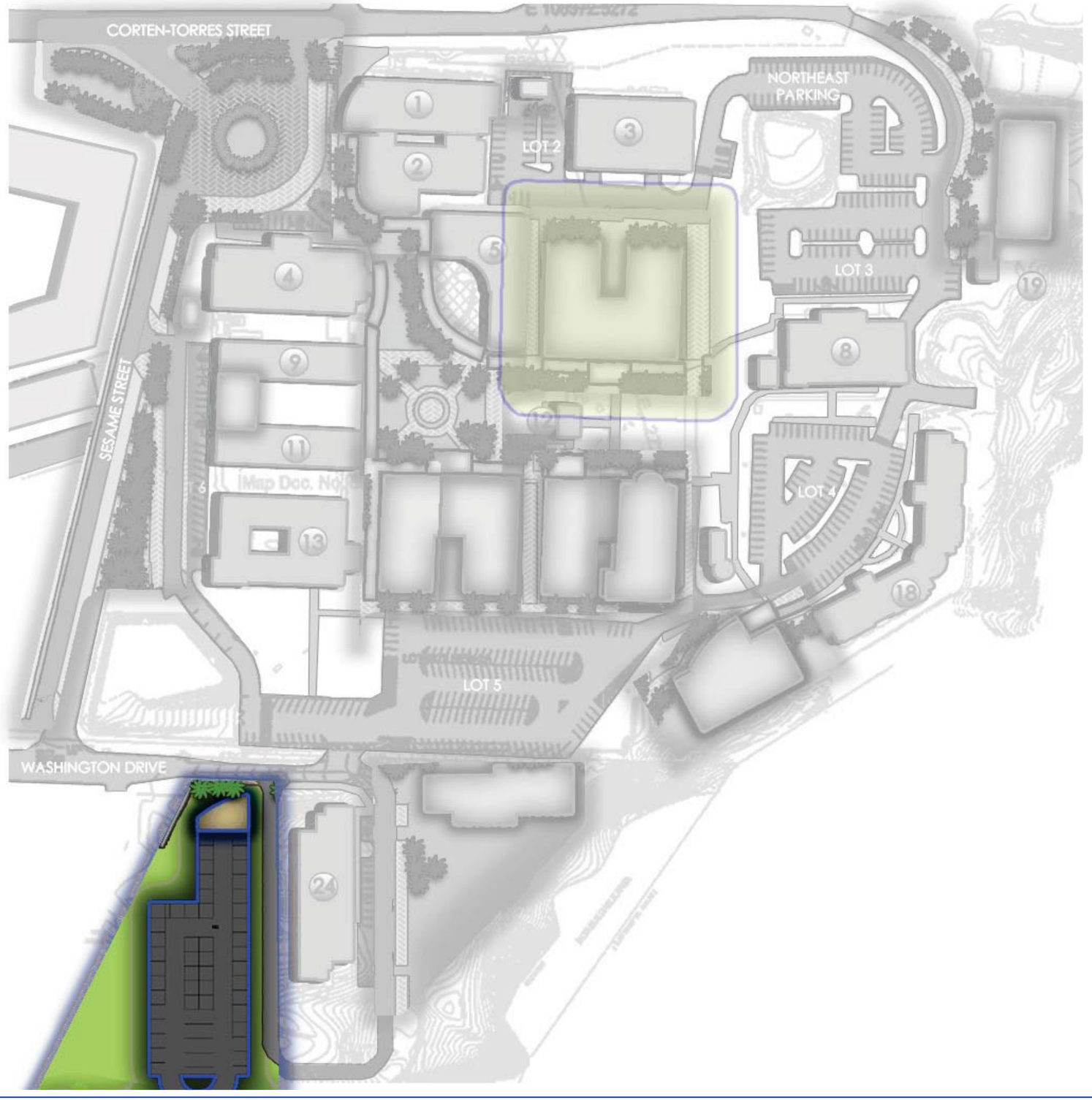


PHASE 5A

1. ***BUILDING 500 RENOVATION***
   - 2-Story addition
   - Classrooms @ 700 SF ea. 5 total
   - Office @ 900 SF ea. 1 total
   - Office @ 400 SF ea. 1 total
   - Shop / Storage Space 6,000 SF

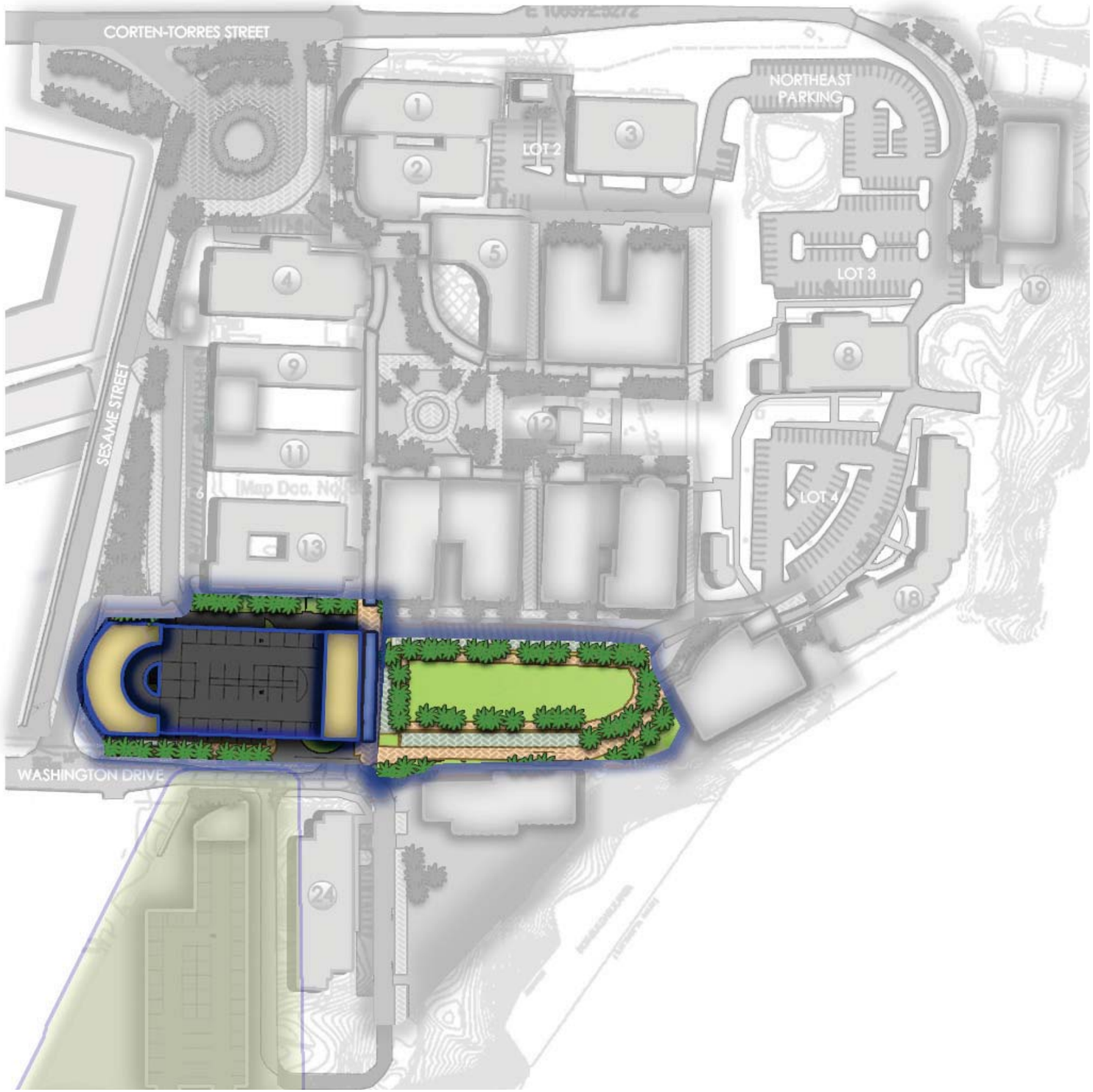
2. ***BUILDING 600 RENOVATION***
   - 2-Story addition
   - Classrooms @ 700 SF ea. 5 total
   - Office @ 900 SF ea. 1 total
   - Office @ 400 SF ea. 1 total
   - Shop / Storage Space 6,000 SF

3. ***GENERATOR #10***
   - Backup power for Buildings 500, 600, & 900



PHASE 5B

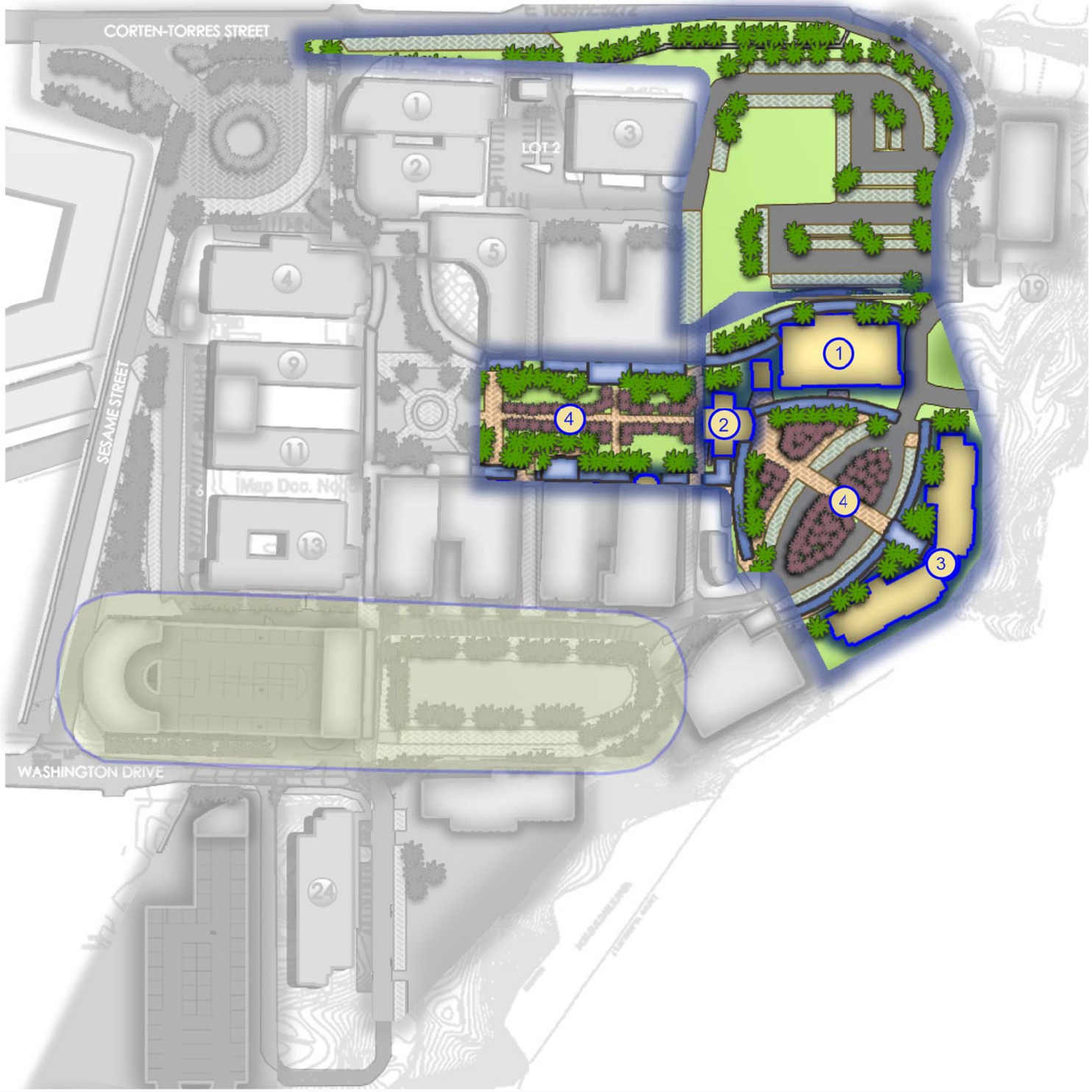
1. ***PARKING STRUCTURE 1***
   - 3 parking levels
   - Office Space 2,000 SF
   - Stormwater Percolation Chambers



PHASE 6A

1. ***PARKING STRUCTURE 2***
   - 3-levels, 200 cars
   - Office Space 7,000 SF

2. ***RECREATION TRAIL***
   - Planting & site improvements
   - Infrastructure improvements



PHASE 6B

1. ***BUILDING 1000 GREEN DATA CENTER CONVERSION***
   - Server Consolidation & Upgrades
   - Building Upgrades
     - Power Management System
     - Photovoltaic Panel Installation
     - Micro-turbine Generation consideration
     - Combined cooling, heating, & power

2. ***CLOCK TOWER BUILDING***
   - 3-story structure from the Main Quad ground level.
   - 1st Floor Cafe 2,000 SF
   - 2nd Floor Administration Office 1,000 SF

3. ***ADMINISTRATION BUILDING***
   - Building repairs
   - Interior renovations
   - Consideration of room consolidation into collaborative work areas.
   - Planting & site improvements
   - Infrastructure improvements

4. ***OPEN SPACE DEVELOPMENT***
   - Modification of Parking Lot E
   - Completion of Main Quad
   - Planting & site improvements
   - Infrastructure improvements
   - Pervious paving installation at parking lots & fire lanes.

COMPLETION

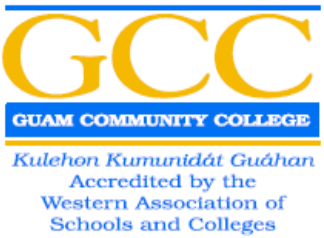
BUILDING KEY

1. Foundation Building (Building 6000)
2. Learning Resource Center (Building 4000)
3. Building 900
4. Anthony A. Leon Guerrero Allied Health Center (Building 3000)
5. Student Center (Building 5000)
6. Building 600
7. Building 500
8. Technology Center (Building 1000)
9. Building A
10. Building B
11. Building C
12. N/A
13. Building D
14. Building 100
15. Building 200
16. Building 300
17. Building 400
18. Administration Building (Building 2000)
19. N/A
20. Forensic Lab
21. Forensic DNA Lab Facility
22. Parking Structure 1
23. Parking Structure 2
24. Multi Purpose Building
25. Clock Tower / Cafe
26. Maintenance Building

Appendix C

Information Technology Strategic Plan

GUAM COMMUNITY COLLEGE



INFORMATION TECHNOLOGY STRATEGIC PLAN (ITSP)

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Guam Community College
Information Technology Strategic Plan (ITSP)

1. INTRODUCTION

Guam Community College is a multi-faceted public vocational educational institution, created by Public Law 14-77 in 1977 to strengthen and consolidate vocational education on Guam. The college operates secondary and postsecondary vocational programs, adult and continuing education, community education, and short-term, specialized training. These programs are delivered both on and off-campus, in satellite programs and on-site at businesses as needed. The college also serves as the State Board of Control for vocational education under the United States Vocational Education Act of 1946, 1963, and subsequent amendments.

The college offers over 50 courses of study which are job related and prepares students for transfer to four-year colleges and universities with advanced standing in professional and technical degree programs. The college offers a variety of community service and special programs to prepare students for college experiences including English-as-a-Second Language, Adult Basic Education, General Education Development (GED) preparation and testing, an Adult High School Diploma program, External Diploma Program and Apprenticeship.

The administration and operation of the college are under the control of a nine-member Board of Trustees appointed by the Governor with the advice and consent of the Legislature. Law states the purposes of the college are to:

- Establish technical, vocational and other related occupational training and education courses of instruction aimed at developing educated and skilled workers on Guam
- Coordinate vocational-technical programs in all public schools on Guam
- Establish and maintain short-term extension and apprenticeship training programs on Guam

- Expand and maintain secondary and postsecondary educational programs in the vocational-technical fields
- Award appropriate certificates, degrees, and diplomas to qualified students
- Serve as the Board of Control for vocational education for purposes of the United States Vocational Education Act of 1946 and 1963 and subsequent amendments thereto

2. BACKGROUND

For over 34 years, Guam Community College (GCC), like most other organizations, has acquired an assortment of technologies. Since 2006, GCC has had enterprise architecture or a technology strategic plan to guide its acquisition and implementation of emergent technologies and applications. Since the institution of their 2006 Enterprise Architecture document, GCC has established technology standards and has made forward progress in planning and expanding its network capacity to meet an ever-growing student population and trend toward providing student offerings through web-based applications such as Distance Education (DE).

A consequence of expanding and adding new technologies often involves incompatible or stovepipe technology, various components become obsolete, and a replacement strategy is often driven by funding availability, rather than business needs or architectural considerations.

The college is both a business enterprise and an educational institution. These two facets of the enterprise often have conflicting technological needs, expectations, and priorities. The business side wants stable, robust systems that have proven themselves over time and place. The educational side frequently wants 'state-of-the-art' tools and techniques that allow it to be at the forefront of the technological world. Yet both parts of the college must work together to establish a technology infrastructure that meets both sets of needs and delivers the college an effective, efficient, and responsive system.

To make maximum use of its limited technology resources and funding, GCC decided to develop an information technology strategic plan and enterprise architecture to guide its technology investments. The enterprise-wide strategic plan defines how technology will be used to achieve the college's educational and business goals, while the enterprise-wide target architecture establishes information technology (IT) standards and design guidelines. The Information Technology Strategic Plan (ITSP) and Enterprise Architecture (EA) are companion documents that detail what the IT environment of the future will be (the Enterprise Architecture) and how GCC will achieve this future environment (the ITSP). The architecture and strategic plan cover all areas of information, communication, building, and academic systems technology that have any effect on the operations of the college.

What is an ITSP?

The ITSP is a top-down enterprise-wide strategic plan created to achieve GCC's strategic educational and business goals. The plan details how to:

1. Implement the Enterprise Architecture
2. Develop staff skills needed to manage GCC's IT resources
3. Establish processes and structures to manage information technology as an enterprise resource
4. Transition from the current environment to the desired future state

This future environment requires technology that can communicate, interoperate, and share data and resources while reducing the costs associated with training, maintenance, and support through the implementation of the Enterprise Architecture.

The ITSP is not intended to limit or constrain creativity among GCC users, but to provide a stable, robust, modern infrastructure and environment in which to solve business problems and allow departments to collaborate on significant cross-departmental efforts. The plan is built on an IT model of management which employs the best features of both centralized and decentralized IT management, support, and decision-making.

Created and adopted on 04/12/2006. Subsequent revisions on 09/01/2006, 12/14/2007, 3/18/2009, 11/1/2011 and 2/2/2012.

Why develop an ITSP?

The ITSP provides a focus for GCC and its departments to discuss and come to agreement on the application of information technology to the college's business needs. It serves as a framework for budgeting, planning, and managing GCC's IT resources. The plan provides direction, establishes IT management processes, and documents the desired future state of IT in GCC.

What do we do with the ITSP?

The ITSP is used to implement the Enterprise Architecture and achieve GCC's IT vision. By following the plans contained in the ITSP, GCC can develop the technical environment it needs, the human resource skills necessary to manage the new environment, and the oversight and leadership mechanisms for fulfilling its strategic goals.

The ITSP and the Enterprise Architecture (EA)

The Enterprise Architecture and ITSP are complementary documents. The EA describes the current IT environment, the desired target architecture, and the actions needed to transition from the current to the target architecture. It focuses primarily on the technical issues involved in changing the IT environment. The ITSP takes a broader perspective on the transition process. It identifies the strategic goals that must be achieved for GCC to provide leadership and oversight of its IT resources. It addresses the management, budget, and governance challenges facing the transition and develops specific action plans to resolve the issues. Implementing the EA and ITSP together, GCC can provide both the technical and organizational leadership needed to fulfill its IT mission.

3. APPROACH TO DEVELOPING THE ITSP

The development of the ITSP was a collaborative effort involving GCC faculty

administrative staff, and executives. Participants in the development effort considered the needs, interests, and concerns of all departments and users throughout the process.

Scope

The EA and ITSP apply exclusively to all components of GCC. The architectural principles and standards apply to all IT products, systems and projects. At this time, the ITSP addresses governance and staffing issues relevant to GCC.

Methodology

Staff selected from GCC faculty and administration developed the ITSP with facilitation support from consultants in the private sector. GCC's College Technology Committee (CTC) provided oversight and direction to the development process. It then discussed guiding principles for the IT environment of the future and technological trends that will affect that environment. The ITSP is a living document and requires periodic updating and revising as required by GCC, or as major IT enterprise systems are deployed, and IT policies are affected which change the strategic direction of the college.

Building upon the April 2009 ITSP, the team described the current IT environment and envisioned the future IT environment for the college. The team then generated a list of goals which, if achieved, would fulfill the college's vision. These goals were consolidated and prioritized to produce the final strategic goals.

For each strategic goal, the ITSP team described the goal, the current situation, the desired future state, and how to reach the future state. They also developed performance measures to indicate whether the future state had been reached. Finally, the team prepared action plans to achieve each strategic goal.

4. ANALYSIS OF GCC's IT NEEDS

In assessing GCC's needs for information technology, the ITSP team developed certain core principles to form the foundation for guiding the development of the Enterprise Architecture and desired future state of IT in the college. The team also analyzed trends

in technology to ensure its EA and desired IT future were consistent with and supportive of the direction of the industry and profession. Using this information as a start, the team described the current IT situation in GCC, the desired future state, and the migration path that leads the college from where it is to where it wants to be.

Guiding Principles

The ITSP team articulated a set of overarching guiding principles that would drive both the architecture and the vision of GCC's desired future IT environment. These guiding principles, determine many of the characteristics of the EA and the IT future state. They affect decisions, or in some cases, determine decisions, at every level of the architecture and throughout the definition of the future IT state. These principles are:

- GCC will stay true to its mission
- GCC will keep the student first
- Information technology, IT staffing and the IT budget are enterprise resources
- Information exists to support the educational and business objectives of GCC
- Technology and technology investments must be viewed from an enterprise perspective
- The educational, business priorities, and functional requirements of the college will determine investments in information technology
- Information is an enterprise strategic resource
- GCC must provide electronic access to information and services while maintaining security and privacy
- GCC's data must be accurate and collected only once in a timely and efficient manner according to life-cycle standards
- GCC and its information technology must become an integrated enterprise

Trends in Technology

Many trends in technology affect the decisions IT organizations make and determine the directions they take. It is difficult, if not impossible to fight the trends, but planning to

take advantage of them, makes the IT function vastly more effective while reducing costs. Some of the trends in technology that will affect GCC's IT future are:

- Rapid creation of emergent technologies may shorten technology life-cycles
- The growth of internet-based commerce and customer service will result in an increasing focus on security and privacy
- The Internet will drive technical standards for applications and network computing.
- The rapidly expanding use of Internet technology will be used to redesign and redefine business processes
- There will be a shortage of qualified IT staff
- The performance of computer hardware will continue to grow exponentially, while costs continue to decline
- The convergence of voice, data, and video has begun and will accelerate
- New ways to connect to the computing environment are emerging
- Application delivery will be increasingly component based
- Market forces will continue to dominate over superior technology
- Data warehousing applications and uses will experience high growth
- The drive for interconnectivity and interoperability will blur traditional boundaries
- Collaborative computing environments are enabling organizations to better marshal and focus their intellectual resources
- Enterprises are using new technologies to reduce administrative costs and establish a unified system management approach for corporate computing

Current State of Information Technology Resources in GCC

GCC has a fully staffed MIS department of 10 people and has maintained this level since 2006. The GCC technology inventory includes more than 1500 personal (desktop and laptop) computers and nodes. These computers run everything from Macintosh Operating Systems, to Windows 98 up to Windows 7. There is a growing number of

MAC computers used primarily for instruction of digital media courses. The College also possesses lab spare computers, monitors, and other equipment on campus should the need arises to replace any down or malfunctioning equipment in the specific labs, which are mostly IBM PC compatible systems.

The campus has numerous servers, one AS400 and the rest primarily Dell and IBM Blade servers. Most servers are under MIS control and housed in a centralized server room. Most servers are also dedicated to a single application. The BANNER/LUMINIS Enterprise System or the Integrated Database Management System is now in a new DELL VMware-virtualized server environment. Incremental and full backups are performed on each server daily but there is no schedule for testing the restoring of a server, and are only conducted when the need arises or to restore specific file systems. This needs to be included in their SOP for daily, incremental and full back-up policy. This SOP will also include testing to test back-ups at all levels, daily, incremental and full. There is little if any redundant capability. If the Integrated Database Management System goes down, there is no immediate way to continue operations in another backup electronic environment. There are spare servers, however, they are not in use or serve in a backup capacity. By mutual arrangement, a few servers are in the faculty area outside of MIS' control. It's recommended to consolidate all servers under the MIS department except when and where restricted by either Program Agreements, grants' conditions and requirements, or if resources and the expertise to maintain them are unavailable in MIS.

All main campus computers are networked on the centralized LAN, with the exception of those on wireless connections, and can gain access to the internet via one 10 megabit per second line and a separate 20 megabit per second line provided by a partnership and paid services with MCV, a local cable TV company, and GTA, a local analog phone and digital cable company. There is a concern about the adequacy of the bandwidth available, particularly when new applications become a requirement for instruction or operations. Monitoring of bandwidth usage is a constant activity in order to determine if sufficient bandwidth is available to support current operations. Currently, MIS has stated they are running at 90-percent and with Wi-Fi coming online, they will reach

maximum capacity. This is not sufficient to run GCC's network and an upgrade to their network infrastructure is underway to meet projected bandwidth demands. There were also at least three DSL lines on campus, but each is separate from the LAN and is used to provide localized wireless access points. Early this year a change occurred with Internet Service Providers (ISP) that has since change the number to one DSL line with the other wireless access bridged into the wired network. The previous ISP was no longer able to provide the services and transferred GCC's accounts to the new ISP. As an update, there is now a campus wireless project pending bid award to the vendor and the project is scheduled for completion in Spring 2012.

The current Integrated Database Management System (IDMS) allows for a more efficient operation in Human Resources, Business and Finance, Registrar's and Development and Alumni Relations Offices, and the rest of the college.

GCC is becoming a 24x7 operation. More students are taking classes where tests and other materials are online. These students often work jobs during GCC's normal business hours and attempt to gain access to GCC servers outside normal business hours. Access to the College's servers are available except during IT maintenance activities that require downtime, which are usually done late at night and only when necessary. MIS runs two operational shifts and has staff available between 8am and 11pm on weekdays in an effort to reduce downtime and be more responsive to the demands of the College. MIS also has certain individuals accessible only for emergencies around the clock which include the Systems Administrator, a Teleprocessing Network Coordinator, and one Systems Programmer.

All PC computers are open use computers; no individual user-id and password are required to use a computer. There is no means of tracking user activities back to a specific user. This lack of user authentication is non-standard practice, especially since the rest of the controls on the network are so robust.

The current Integrated Database Management servers are protected from unauthorized

access through the use of firewalls, Secure Socket Layer (SSL) certificates from VeriSign, and through unique username and passwords.

Desired Future State of Information Technology Resources in GCC

GCC will have a unified enterprise architecture and all IT resources will be compliant with this architecture. Standards will be established using industry best practices and adhered to for all IT resources. At a minimum, these standards will address security, data and data sharing, communications, compatibility, contingency plans and disaster recovery, and back-up/recovery. Systems will interface easily, seamlessly, effectively, and cost-efficiently. GCC-wide IT resources will be applied effectively and cost-efficiently. All IT resources will be current and life-cycle management schedules will be developed and funded. GCC will have sufficient qualified IT staff and resources. GCC's IT budget and annual spending plans will be developed and managed to maximize the value to the college overall.

GCC will create and operate services on-line that are accessible 24 hours a day, seven days a week. It will deliver integrated enterprise information systems and infrastructure that improve public access to GCC functions and information, streamline business processes to simplify college-public interactions and reduce costs, and meet the legal and business needs of the college. The technology will enable departments to continually improve their efficiency and effectiveness, while also allowing applications to be developed more rapidly, easily, and inexpensively as business needs change.
Education will no longer be time and place dependent. All students will have laptops and classrooms will be fully equipped with multi-media, computers, and LAN access. GCC courses will teach the most up-to-date technology and offer certifications in the IT field. End users will be adequately computer literate and proficient. The educational community will communicate its needs to the technology community with sufficient lead time for them to provide the needed support/services. GCC will establish a model classroom with state-of-the-art technology

GCC technology will be 'invisible' to the user and always available when it is needed. The GCC campus will be completely wireless and secure, with no viruses, spam, or system breaches. All satellite sites will be connected. Users and their applications will not be impacted by limited bandwidth. Campus safety and security equipment (fire alarms, smoke alarms, security camera systems, etc.) will be fully integrated and the phone system will be significantly improved at a lower cost.

GCC will be a leader in the Pacific region in the application of technology. The college faculty and staff will anticipate the skills needs of the local business community and provide training and certification to deliver and develop skills needed in the work force. GCC will establish a technology center where new technology of any type can be prototyped and tested. GCC will provide a 'computer store' where students repair and upgrade systems for both work experience and income. GCC will develop cost-effective means for providing 'niche' training and services, and for providing training and education not in the college curriculum.

The college will establish formal, fully accepted processes for IT budgeting, decision-making, resource allocation, project sponsorship, and priority setting. GCC will also have an effective process for integrating and reconciling users' needs with technology capabilities. GCC will have formally adopted a target enterprise architecture (EA) and standards that establishes a broad set of boundaries within which everyone agrees to stay, yet allows flexibility to safely experiment with new tools and technology (one size does not fit all). The target EA will support multiple operating systems.

Migration Path from Current State to Desired Future State

GCCs environment is in constant state of planning for future growth and is almost never static. As demonstrated since the last EA in 2006, major infrastructure improvements have taken years to plan, approve, budget, and execute. Transitioning from the current state to the future state will involve constant minor infrastructure improvements, policy reviews, and managing and validating changing requirements. Major initiatives such as DE and VOIP will take years to implement. The migration path will involve periodic and

affordable minor improvements in accordance with the EA. Major IT capital improvements involves long-term tracking and forecasting as outdated infrastructure systems and end- of-cycle milestones approach and are planned and integrated into the college's capital improvement process plan to be selected and prioritized into the college's business and educational goals and objectives. Although major aspects of the transition can be planned, scheduled, and implemented according to planned milestones, many transition components occur as external events allow them. For instance, it's difficult to impose EA standards and design features on legacy systems that existed years prior to the EA. However, as these legacy systems are replaced or upgraded, they should be required to conform to the EA.

5. STRATEGIC GOALS

The CTC brainstormed an extensive list of initiatives needed to fulfill its technology vision. These initiatives were then combined, simplified, clarified, and rephrased as goal statements to produce CTC's strategic goals list. These goals in priority order are:

Strategic Goal 1: GCC will develop and implement a target Enterprise Architecture.

This goal defines and implements the technical, business and educational environments GCC wants to have in five years. **Enterprise Architecture** is the practice of applying a comprehensive and rigorous method for describing a current or future structure for an organization's processes, information systems, personnel and organizational sub-units, so that they align with the organization's core goals and strategic direction. Although often associated strictly with information technology, it relates more broadly to the practice of business optimization in that it addresses business architecture, performance management and process architecture as well.

Where are we now?

GCC has made progress toward where we would like our technology to be. It has a topology (network) and an organizational chart and structure. It has an Integrated

Database Management System (IDMS) which integrates HRO, Business, Student, and Financial Aid, and Development and Alumni Relations Offices. Other databases exist that do not talk to each other and have restrictive and specialized functionality that are hard-coded and difficult to update. These are legacy systems that eventually will be planned for replacement or removed from the production environment as operational requirements change.

Some of the college's hardware, operating systems, and applications are obsolete. A minimal number of applications require old operating systems (Windows 98). System security is not where we would like it to be although we are moving toward compliance with all federal and local requirements such as the American Disabilities Act (ADA). The college is working with security consultants to conduct ethical hacking vulnerability assessment of our network environment. An enterprise anti-virus system is in place to address the large number of spam and to manage and reduce the number of legitimate messages that are either intentionally or inadvertently blocked.

The college has approved new computer standards to promote more user flexibility. There are charters detailing the level of support to be expected and provided; however, service and support expectations vary, often leading to dissatisfied users. Technical support is inadequate and users need to be more computer literate.

Where do we want to be?

Since 2006, GCC will have successfully implemented its target Enterprise Architecture and the Information Technology Strategic Plan. The college will continue to improve on its integrated database and set of applications with the web portal, providing access to students, faculty, staff and the public at anytime from anywhere. Users will have access to the information they need, when they need it, and where they need it. The college will have approved standards for information, databases, hardware, software, security, access, networks, business processes, and all other aspects of the technical and educational environment.

College systems will be secure and comply with all federal and local requirements. There will be adequate bandwidth so that no users or applications are adversely affected by lack of bandwidth. GCC will be less reliant on vendors for changes and enhancements to its systems.

GCC will have defined processes and procedures that are understood and complied with by all its users. Faculty and MIS will have improved communications and negotiate service and support agreements to meet the needs of both constituencies. Standards will be developed, approved and adhered to by all users. All users will sign users' agreements after an initial training and familiarization program. Within the approved standards, EA, and support agreements, faculty will be able to 'experiment' with innovative technology and applications. An MIS help desk will be fully operational.

Faculty, staff and students will be trained on the technology and be proficient at a level appropriate for their job duties or educational needs. For each college position GCC will articulate the required technical skills and levels of proficiency. The college will establish minimum annual training standards and plans for staff for each department.

How do we get there?

GCC will develop and implement an Enterprise Architecture and establish, implement, and enforce policies supporting the EA. The college will continuously assess its progress in implementing the EA. It will also procure a fully integrated information system to meet community, administrative, and educational needs. GCC will obtain additional bandwidth and monitor the need for additional for growth. The college and its users will make more effective use of its bandwidth.

How do we know we did it?

- Percentage of bandwidth used (AP 1.4, 1.5, 1.6)
- Number of stand-alone systems (AP 1.3)
- Number of servers (AP 1.3)
- Number of packets dropped (AP 1.4, 1.5, 1.6)

- Customer satisfaction survey (AP 1.1 – 1.6)
- Number of Work Orders (AP 1.1 – 1.6)
- Number of signed service/support agreements (AP 1.1 – 1.6)
- Number of requests for additional training outside "core" curriculum (AP 1.2)
- Cycle time for closing Work Orders (AP 1.2)

Strategic Goal 2: GCC will develop policies, procedures, and processes to analyze and acquire the components (hardware, software, applications) of the Enterprise Architecture.

GCC needs a formal, structured process for defining user requirements, assessing system capabilities against the requirements, and acquiring the technology that best meets the users' needs. The process would use systems analysis tools and techniques to define needs and/or problems, research options for meeting the needs or solving the problem, develop alternative solutions, test the possible solutions, and select the best solution within budgetary or other constraints. Decisions about technology will be based on reviews of what works and why, and what does not work and why. The technology community will be constantly learning and growing based on its experiences, research, and testing. This approach to acquiring and using technology will ensure GCC makes the best use of its limited resources and technology.

Where are we now?

- Active College Technology Committee (CTC) body that meets regularly
- Bylaws updated and charters finalized
- Completed minimum computer standards to be reviewed every six months
- Integrated database in place
- Campus community is becoming more aware that technology issues and policies must be presented to the CTC
- Adequately trained personnel not in place to support current and future EA
- Highly externally trained MIS, however all skills set levels are outdated in all areas of networking, PC/Macintosh maintenance and repair, systems and network

security, database management systems, and on server-grade and server-based operating system tools and utilities (UNIX, Windows Servers, VMware, etc.)

- College-wide technology literacy proficiency levels need improvement
- Standards and policies in place for information technology products and tools
- Need updated technology user agreement

Where do we want to be?

- College community informed and aware of CTC's role and responsibility
- Standards and policies are in place to address technology products and tool use campus-wide
- Appropriate technology training relative to current and future EA
- Every department establish individual training plans based on institutional needs
- Sufficient personnel to support EA
- Annual technology user-agreement signed

How do we get there?

- Approved and updated charters
- Communicate to campus community via website of CTC's role, responsibilities and accomplishments
- Create and revise current standards and policies to address evolving technological needs
- Assess technology training needs
- Assess technology staffing needs
- Update current technology user agreement and establish annual signing date (post/secondary, employees)

How do we know we did it?

- Effective policies and procedures published (AP 2.1 & 2.4)
- Departmental technology training plan in place (AP 2.4 & 2.5)
- Standards and policies are adhered to (AP 1.2 & 2.4)
- CTC website is updated weekly (AP 2.3)

Created and adopted on 04/12/2006. Subsequent revisions on 09/01/2006, 12/14/2007, 3/18/2009, 11/1/2011 and 2/2/2012.

- Campus-wide technology survey indicates committee awareness (AP 2.3)

Strategic Goal 3: GCC will acquire the funding needed to implement the Enterprise Architecture.

Implementation of the target EA is a long-term effort requiring a significant amount of funding. Once the target EA is defined and approved by the governance process, the governance entity needs to develop a multi-year budget that matches funding needs to the technology needs of the migration path from the existing architecture to the target architecture. To fund these budget needs, GCC will explore all possibilities—lobby the GCC Foundation and Legislature for additional funds, use GCC's 315 acres of land to generate revenue, apply for grants to fund technology enhancements and meet federal and local regulatory requirements, such as the Americans with a Disability Act, and create 'pockets of entrepreneurship' in which specific components of the college provide products and/or services to the public, businesses, and government agencies on a fee basis.

Where are we now?

- Continuous budget challenges
- Assigned resource for generating income to support college upgrades
- Pursuing funding from nontraditional sources for IT capital improvements through public/public partnerships and through grants and donations/contributions from public and private sources
- Funds generated out of CE, our largest pocket of entrepreneurship, go back to support departments needs or fall to the bottom line and help keep up with financial obligations
- We have the technology fee
- We have Memorandum of Understanding (MOU) and Memorandum of Agreement (MOA) with our ISP (reduced fees)
- Incorporating site licenses as opposed to individual licenses
- Develop partnerships with vendors such as Cisco and 3M

Where do we want to be?

- Financially stable
- To be technology leaders with a secure infrastructure
- To plan IT upgrades proactively, not reactively
- To have a stable architecture
- To build trust and confidence with the needs of the "experts"
- Appropriately trained and staffed technology team
- Financially self-sufficient

How do we get there?

- Request additional funding from the legislature
- Continue to aggressively pursue grants
- Build internal relationships that are win-win so trust can be established
- Cross-utilize internal resources for assistance since external consulting is cost-prohibitive
- Include limited IT roles and responsibilities with internal resources to assist with the overall EA
- Develop cost centers for certain programs (e.g., Electronics for repairs and installation, Business (Accounting) for taxes, Automotive for oil changes, tire replacement, Internet Café, Electronic games)
- Establish Kinko-like center
- Have vendors pay college for intern students
- Lobby for taxes to support education

How do we know we did it?

- When users are able to download, install and access needs such as podcasts, movies and programs without interruption (AP 1.4, 1.5, 1.6)
- Through network traffic data collection used by MIS (AP 1.4, 1.5, 1.6)
- When users experience reduced latency with the internet or Banner (AP 1.4, 1.5, 1.6)

- When students, faculty and staff are able to access the system 22/7 as opposed to 24/7 to enable MIS to do backups and technical maintenance (AP 1.4, 1.5, 1.6)
- When upgrades can be made as planned and scheduled and are not delayed until events drive a forced replacement (AP 3.1, 3.5, 3.6)
- Reduce dependency on legislative appropriation (AP 3.2, 3.5, 3.6, 3.7)

Strategic Goal 4: GCC will expand the use of technology in education by the College faculty.

Technology is used in many ways in GCC's educational and business settings. The technology offers many more opportunities than are currently being used, however. GCC needs to challenge its faculty and staff to creatively design their work environments and practices to more fully take advantage of the power and flexibility of the technology. For this expansion of the use of technology to be successful, GCC employees need to be trained and fully proficient with the technology available to them and the educational and business practices that maximize the use of technological tools. GCC will also need to recruit more students to the college and into the technical fields at the College by increasing its marketing efforts, providing more training and certification programs, and offering additional services to local businesses and government agencies. To meet this anticipated demand to recruit more students, GCC is planning to deploy a robust Distance Education (DE) platform and complete a Three-Phase Network Infrastructure upgrade currently underway.

Where are we now?

The faculty is at widely varying levels of using technology in the educational process, they are 'all over the map'. Some instructors are heavily into using technology in the classroom, while others prefer a non-technical classroom environment. Instructors use a variety of products (much of it freeware) obtained on-line. There are no standards for these products or tools used in the classroom.

Many users, when needing assistance, don't know what questions to ask, to find new tools, or to discover what technology can do for them. No list of resources is available to

instructors, staff or administrators. This places the technology staff in a challenging position to balance their limited resources in supporting enterprise-wide, standard infrastructure systems and applications. Assigning limited MIS resources to assist non-standard, non-enterprise classroom applications with no training or familiarity with the functionality is difficult and discouraged.

In July 2010, GCC adopted a Distance Education policy to deliver educational services either through instruction or support services to students who are not physically co-located with the individuals providing the service. The platform GCC currently utilizes to support DE is the Moodle Course Management System, a course management system designed to help educators deliver quality online courses. Moodle is open-source software and is used all over the world by universities, schools, companies and independent teachers. The current technology used varies widely, from computers to multi-media.

Where do we want to be?

Distance Education is a major endeavor and moves GCC into another dimension of providing off-campus student offerings and perhaps, inter-islands offerings. DE can be a convenient, flexible, and effective means of providing education since nearly half of all college students in the country are of the age group once thought of as nontraditional. They are working adults or adults seeking first educational credentials or retraining. Many working adult students with multiple demands on their time find DE to meet their needs better than campus-based education. GCC envisions expanding its current DE offerings and capturing this growing student market.

To support DE, all faculty will be able to put courses on-line with minimal constraints. The faculty will have the knowledge and skills necessary to use technology in the educational process. Instructors will be required to receive proactive 'technology certification'. 'Early adopters' will continue to test new technology and new applications of technology in the classroom. Faculty will be so skilled in using technology in the classroom that they will be able to showcase their application of technology in education at professional conferences and meetings.

The college infrastructure will support the faculty in applying technology in course work and will establish and adopt standards for applying technology in course work. To promote faculty innovation for introducing technology in course work, the college will work with the MIS staff to remove barriers and constraints such as funding, managing expectations for non-standard technology, and limited MIS staff.

How do we get there?

Faculty will be encouraged to try technology in their courses in as many ways as possible. GCC needs to put professional training on technology into individual faculty plans and use it as a component of the performance appraisal process. The MIS staff can identify "power users" in each department to start applying technology in education and help other faculty try using technology in the classroom. GCC needs to provide more training and more "hands-on" support for faculty reluctant to try using technology in their instructional methodology. Each department can be requested to identify specific courses that can be available on-line. Similarly, each department can be asked to identify opportunities to use technology in its curriculum. To support these emerging technologies and provide the path for them to traverse, GCC has in place an existing Three-Phase Network Infrastructure Upgrade project to increase bandwidth. Additionally, to establish a roadmap to achieve a more robust DE offering, a Three-Phase approach is also recommended. The Three-Phase Network and DE strategies are complementary to each other. Any advancement in the Network Infrastructure Improvement project positions GCC to acquire and deploy a far-reaching DE infrastructure.

How do we know we did it?

- Number and percentage of courses using technology (AP 4.1, 4.2, 4.3)
- Number of syllabi integrating technology into course (AP 4.2 & 4.5)
- Number of students enrolling in classes using technology (AP 4.2 & 4.5)
- Number of students enrolled exceeds number of students on campus (others are online)

- Number of instructors using technology in class (AP 4.5)
- Program assessments can be used to encourage use of technology (AP 4.2 & 4.5)
- Provide adequate technology and bandwidth for instructors and classrooms (AP 4.5)

Strategic Goal 5: GCC will enhance the governance process to provide timely and efficient integration of users' needs into decisions on investments in technology.

Governance is the set of rules, processes, and structures by which IT resources are managed. Studies have shown that an effective governance structure is the single most important factor in maximizing the value of IT investments. The governance process covers the creation and implementation of the target enterprise architecture, management of the Information Technology Strategic Plan (ITSP), and decision-making for IT budgets and investments. The governance structure also establishes processes for the entire life-cycle of integrated enterprise projects—project planning, project initiation, project management, configuration management, systems development, systems implementation, maintenance, ongoing enhancements, support, project monitoring and evaluation, project/system termination, and project accountability.

The governance process comprises the information sharing, data collection, stakeholder involvement, agency-wide communication, and decision making activities involved in creating and implementing the target enterprise architecture. The process includes configuration management of the current architecture as it evolves into the target architecture. It requires a continuous dialogue among technology users, GCC stakeholders, and the IT community regarding changes or upgrades in the technology environment. The governance process typically addresses budgeting to meet technology needs, assimilating users' needs, prioritizing needs within budget constraints, making decisions affecting the technology environment and the architecture, and providing oversight for project initiation and implementation.

Where are we now?

Created and adopted on 04/12/2006. Subsequent revisions on 09/01/2006, 12/14/2007, 3/18/2009, 11/1/2011 and 2/2/2012.

The College Technology Committee (CTC) is comprised of representatives from the faculty and the administration. The CTC is an advisory body responsible for making policy recommendations related to technology and technology issues. The CTC reports to the College Governing Council, which makes its recommendations to the College President.

The CTC makes policy recommendations, but the MIS function also has some influence in the decision making process. MIS can disapprove an acquisition by stating the selected technology does not meet the standards or support is not in place. In addition to the CTC, there are also working groups established to address functional and operational issues related to the integrated database management system and website.

Where do we want to be?

The IT governance structure and processes are formalized, recognized, clearly defined, and actively used in the decision-making process for all IT issues. The governance structure manages and directs the Enterprise Architecture, the ITSP, and IT planning, budget, and funding processes. The governance structure also establishes and oversees the processes for the entire life-cycle of integrated enterprise projects—project planning, project initiation, project management, configuration management, systems development, systems implementation, maintenance, ongoing enhancements, support, project monitoring and evaluation, project/system termination, and project accountability.
The governance process will be simplified, responsive, proactive, effective, timely, and results-oriented involving all stakeholders (or representatives of all stakeholders).

How do we get there?

Since 2006, the governance process has continually evolved with organizational changes and policies which impact the IT technological environment. The current governance process is operational, active, systemic, and constantly monitors organizational dynamics for process improvement and decision-making. The various groups within GCC's governance structure have active charters, membership, and authority to execute their assigned roles and responsibilities. As the governance structure and process continually

matures, the college can respond and adjust as needed to transition and support to its desired future state. All paths to the desired future state converge and go through the CTC. The CTC will monitor and advise on the strategic direction and status of GCC's ITSP transition plans.

How do we know we did it?

- Number of technical issues identified needing policies (AP 5.3)
- Percentage of these issues for which the CTC issues policies (AP 5.3)
- All department charters signed, approved (rules of engagement) (AP 5.2)
- CTC recommendations are perceived in high regard (AP 5.1)

Strategic Goal 6: GCC will build partnerships with external business and government organizations to expand business, educational, and funding opportunities.

To expand its technology opportunities, GCC needs to build strong partnerships with business, government agencies, and the local community. As with all partnerships, these arrangements would provide benefits to both partners. GCC would benefit by obtaining additional technology, funding, students, teachers, and opportunities for its graduates. The business and government partners would receive well-trained and/or certified graduates as potential employees, access to the skills of the GCC faculty and staff, and facilities to prototype and test their technology before acquisition or implementation.

Where are we now?

- Partnership with FAA for student interns leading to fulltime employment
- Partnerships with online testing organizations such as PAN, HOST, PROMETRIC, and Pearson Vue.
- Good relationship with employers, DOL, AHRD, and GCA Trades Academy
- Partnership with MCV for internet bandwidth resource
- Training activities with NCTAMS and Andersen AFB Communications Unit.
- Active Advisory Committees

- On-going direct relationships with construction companies with highly technical training requirements

Where do we want to be?

- Continue to improve current partnerships
- Number one training facility on Guam for Government of Guam, federal government, private, and military sectors
- Expand partnerships on Guam and in the regions
- Establish partnerships that will provide for research, development, and testing of new technology
- Increase more national certificate testing opportunities and certification courses

How do we get there?

- Utilize the Office of Development and Alumni Relations and Continuing Education to assist with outreach efforts
- Encourage Departments to become more entrepreneurial
- Encourage diverse memberships on advisory committees representative of local businesses and needs on Guam
- Increase publicity so the community is truly aware of what GCC is doing and is capable of doing

How do we know we did it?

- Increased number of partners
- Greater number of testing options
- Use advisory committee comments to generate course and/or program changes

6. Transition Plans

The Guam Community College Enterprise Architecture (GCC EA) is the highest level planning and objectives document. It communicates the current situation and also the desired vision of the future. The Information Technology Strategic Plan (ITSP) will address specific challenges and objectives spelled out in, or derived from, the GCC EA. It then assigns each approved initiative to a project manager who creates a project plan, acquires the necessary stakeholder support, resources, and establishes a time frame for completion.

What is needed at this point is to identify those parts of the current architecture which are the most critical to the college. These should be addressed first by the ITSP. In this way, from the GCC EA to ITSP, to individual project plans, GCC will integrate into its planning, funding, acquisition and implementation processes to transition its' IT environment from the present to the future.

The Transition Plans are presented in a rough order of priority. Those listed first have the highest probability of saving staff hours and/or improving GCC efficiency. The CTC will decide on the final disposition of each and make recommendations through the Faculty Senate to senior management.

Transition Plan 0 – CTC:

1. CTC meets with the Faculty Senate to present its charter. Gains approval.
2. CTC updates and presents MIS, ED, Academic Technology Departments (CSD, Electronics, etc) and ADMIN charters to Faculty Senate for approval.
3. CTC presents an overview of the IT Strategic Plan and Enterprise Architecture to the Faculty Senate.
4. CTC gains approval from the Faculty Senate for the Transition Plans, as appropriate.

Transition Plan 1 – GENERAL:

1. Identify all current projects.
2. Suspend work on those projects that are not yet financially obligated or committed.
3. Ascertain the goal of all the projects and the architecture and standards being used.
4. Re-instate all projects in alignment with the GCC EA.
5. Determine the best course of action for all projects in conflict with the GCC EA.
6. Review, validate, prioritize, and select desired projects in the GCC EA "One to Five Year Initiatives" section.
7. Submit selected projects into GCC's out-year budgeting and funding process.
8. Develop DE implementation plan and targeted milestones.
9. Perform DE applications market analysis to select DE application best suited for GCC's needs.
10. Develop DE hardware acquisition plan to support selected DE application.
11. Submit DE hardware acquisition costs into GCC's out-year budgeting and funding process.
12. Develop DE functional training requirements based on selected DE application.
13. Submit training requirements into GCC's out-year budgeting and funding process.

Transition Plan 2 – SUNGARD: Done, but continuously patched and upgraded when de-supported or when required.

1. Train the staff to be able to do this type of work.
2. Establish SUNGARD project team, project plan, quality plan and other documents.
3. Implement the SUNGARD system.
4. Determine the business functions each tool performed.
5. Determine whether SUNGARD provides this function automatically or the capability to add it to SUNGARD functionality.
6. Incorporate the business function into SUNGARD.

Transition Plan 3 – NETWORK:

1. Complete Phase 3 of the Network Improvement Project
2. Plan and integrate Distance Education network improvements with Phase 3
3. Train the staff to be able to do this type of work and/or contract for services.
4. CTC will review the policies, procedures, and practices surrounding the current network, its topology, traffic volumes, and monitoring capabilities.
5. MIS creates a new Network Requirements Definition document defining a double-ring topology with three high-speed internet connections and load balancing software, plus other pertinent design features.
6. Conduct a Technical Options Study on the feasibility and opportunities of implementing the new network.
7. Report findings to the CTC for further action.
8. CTC recommends to senior management the creation of a project to procure and implement the Network Requirements Definition.
9. CTC selects a project manager who creates a project team, project plan and schedule, quality plan, product selection criteria.

Transition Plan 4 – IMAGING:

1. Train the data staff to be able to do this type of work and/or contract for services.
2. CTC will review the policies, procedures, and practices surrounding PC imaging.
3. CTC creates a new PC Imaging Requirements Definition document.
4. Conduct a Technical Options Study on the feasibility and opportunities of automating any and all Imaging requirements and activities.
5. Report findings to the CTC for further action.
6. CTC recommends to senior management the creation of a project to implement the PC Imaging Requirements Definition.
7. CTC selects a project manager who creates a project team, project plan and schedule, quality plan, product selection criteria.

Transition Plan 5 – EMAIL ADMIN: Done and ongoing.

1. Train the data staff to be able to do this type of work and/or contract for services.

2. CTC will review the policies, procedures, and practices surrounding Email Administration.
3. CTC creates a new Email Admin Requirements Definition document.
4. Conduct a Technical Options Study on the feasibility and opportunities of automating any and all Email Admin requirements and activities.
5. Report findings to the CTC for further action.
6. CTC recommends to senior management the creation of a project to implement the Email Admin Requirements Definition.
7. CTC selects a project manager who creates a project team, project plan and schedule, quality plan, and product selection criteria.

Transition Plan 6 – STUDENT LOGINS:

1. Train the data staff to be able to do this type of work and/or contract for services.
2. CTC will review the policies, procedures, and practices surrounding Student Logins.
3. CTC creates a new Student Logins Requirements Definition document.
4. Conduct a Technical Options Study on the feasibility and opportunities of automating any and all Student Login requirements and activities.
5. Report findings to the CTC for further action.
6. CTC recommends to senior management the creation of a project to implement the Student Logins Requirements Definition.
7. CTC selects a project manager who creates a project team, project plan and schedule, quality plan, and product selection criteria.

Transition Plan 7 – IT SKILLS TRAINING:

1. CTC identifies the new or enhanced skills needed to implement the EA.
2. CTC reviews the current skills matrix against the new skills.
3. CTC tasks each organization to create individual training plans for the acquisition of these new skills.
4. CTC creates a master IT Skills Training Plan.

5. CTC recommends to senior management that training funds be provided in accordance with the master IT Skills Training Plan.
6. CTC administers and monitors each organization's compliance with the master IT Skills Training Plan.

Transition Plan 8 – RECORDS MANAGEMENT:

1. Train the data staff to be able to do this type of work and/or contract for services.
2. Identify all paper forms currently in use.
3. Identify all other documents received and stored.
4. Determine which paper forms could be replaced with an online data entry form within SUNGARD.
5. Report findings to the CTC for further action.
6. Establish a project to permanently replace these paper forms with online data entry forms.
7. Determine which documents must be stored in their original paper form for legal reasons.
8. Establish a project to design and build an electronic documents storing solution that will allow paper documents to be scanned into electronic format and stored on a computer.
9. Establish cataloging and storage requirements and procedures for those documents which are not allowed to be stored electronically.
10. Scan and store all documents.
11. Destroy all paper documents that are not legally required to be kept.

7. Information Technology or Instructional Technology

Although the title and the use of the word technology in this plan is referring to information technology (IT), it does not address the other type of IT which is instructional technology. The college must be made aware that there are primarily two main types of technology (IT) in use here at GCC and should be addressed and perhaps merge with this ITSP document and change the title to simply be called the Institutional Technology Strategic Plan (ITSP):

1) Information Technology (IT)

a. The acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by a microelectronics-based combination of computing and telecommunications.

Source: http://en.wikipedia.org/wiki/Information_technology#cite_note-0

b. MIS is primarily in charge of Information Technology

2) Instructional Technology (IT)

a. In education, instructional technology is "the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning," according to the Association for Educational Communications and Technology (AECT) Definitions and Terminology Committee.

Source: http://en.wikipedia.org/wiki/Instructional_technology#cite_note-0

b. Different departments or programs here at the college use different types of Instructional Technology (Examples: Automotive Technology, Office Technology, Construction Technology, Fire Science Technology, Civil Engineering Technology, Diesel Technology, Surveying Technology, Waterworks/Wastewater Technology, etc.)

GUAM COMMUNITY COLLEGE MISSION STATEMENT

The mission of Guam Community College is to be a leader in career and technical workforce development by providing the highest quality education and job training in Micronesia.

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