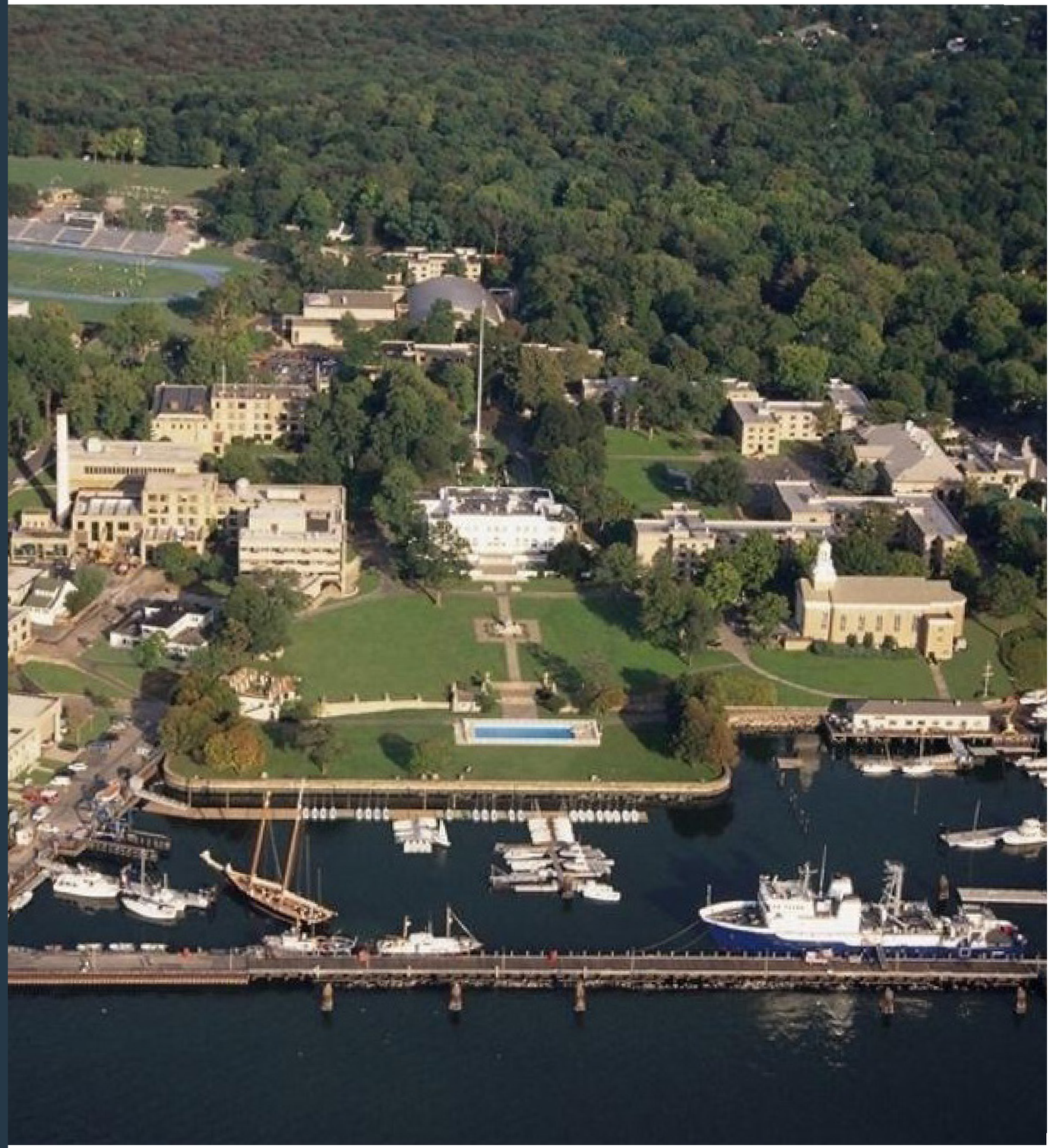
United States Merchant Marine Academy

Campus Modernization Plan

Final Submission | May 2025

Contract: W912DR22D0002
Task Order: W912DR25FA015



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Prepared For:

Prepared By:

ALLIANCE JOINT VENTURE WSP

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CHAPTER 1 INTRODUCTION

The United States Merchant Marine Academy (USMMA) is one of the Nation's five federal service academies. Located at Kings Point, New York along the scenic north shore of Long Island, the Academy educates and graduates leaders of exemplary character who serve the economic and national security interests of the United States as merchant marine officers and commissioned officers in the United States (U.S.) Merchant Marine and Armed Forces. The Academy's academic and leadership-development programs are rigorous and innovative and include both classroom instruction as well as experiential learning through USMMA's renowned Sea Year program. The Academy is part of the Department of Transportation's Maritime Administration and works closely with partners across the U.S. national-security community. Most of the facilities at USMMA date back to the Academy's founding, have not been modernized since, and are not conducive to the immersive training and demanding coursework today's Midshipmen are required to complete. Rehabilitating and modernizing the campus infrastructure at the USMMA is necessary to ensure current and future generations of midshipmen receive a first-class education.

This Campus Modernization Plan (CMP) builds upon multiple previous planning efforts during the past 20-years, including a thorough review of previous plans and studies, to form a strong foundation on which current updated planning recommendations are based to achieve an unpreceded and critical need for modernization. The result is a comprehensive and technically sound CMP that includes prioritized projects can be implemented over the next 10 years.

1.1 Project Purpose

The purpose of this CMP is to enable USMMA to meet the Academy's goals, support its mission, and address emerging trends and priorities of the maritime industry. The CMP will be a resource for the Academy to achieve its mission, vision, and goals by guiding future development of buildings, infrastructure, and open spaces in a comprehensive and sustainable manner while also acknowledging historically significant portions of the Academy. The CMP for USMMA was enabled via a holistic planning approach to validate a comprehensive vision for the future of the Academy that involved collaborative meetings with leadership and key stakeholders, analyzing existing conditions, developing alternatives for the Academy, and identifying and prioritizing projects to enable the CMP within an accelerated timeline.

The overarching goal of the CMP is to provide a planning framework enabling decision-makers to evaluate all pertinent factors that affect the Academy's current, short, and long-range development. The CMP supports the Academy's overall mission, strategic plan, and academic program direction, including:

- Defining and documenting accurate development requirements and opportunities that support the Academy's mission and Vision;
- Developing a comprehensive, authoritative reference for the Academy in reference to all future development; and,
- Meeting all applicable and required planning and design guidance and criteria requirements.

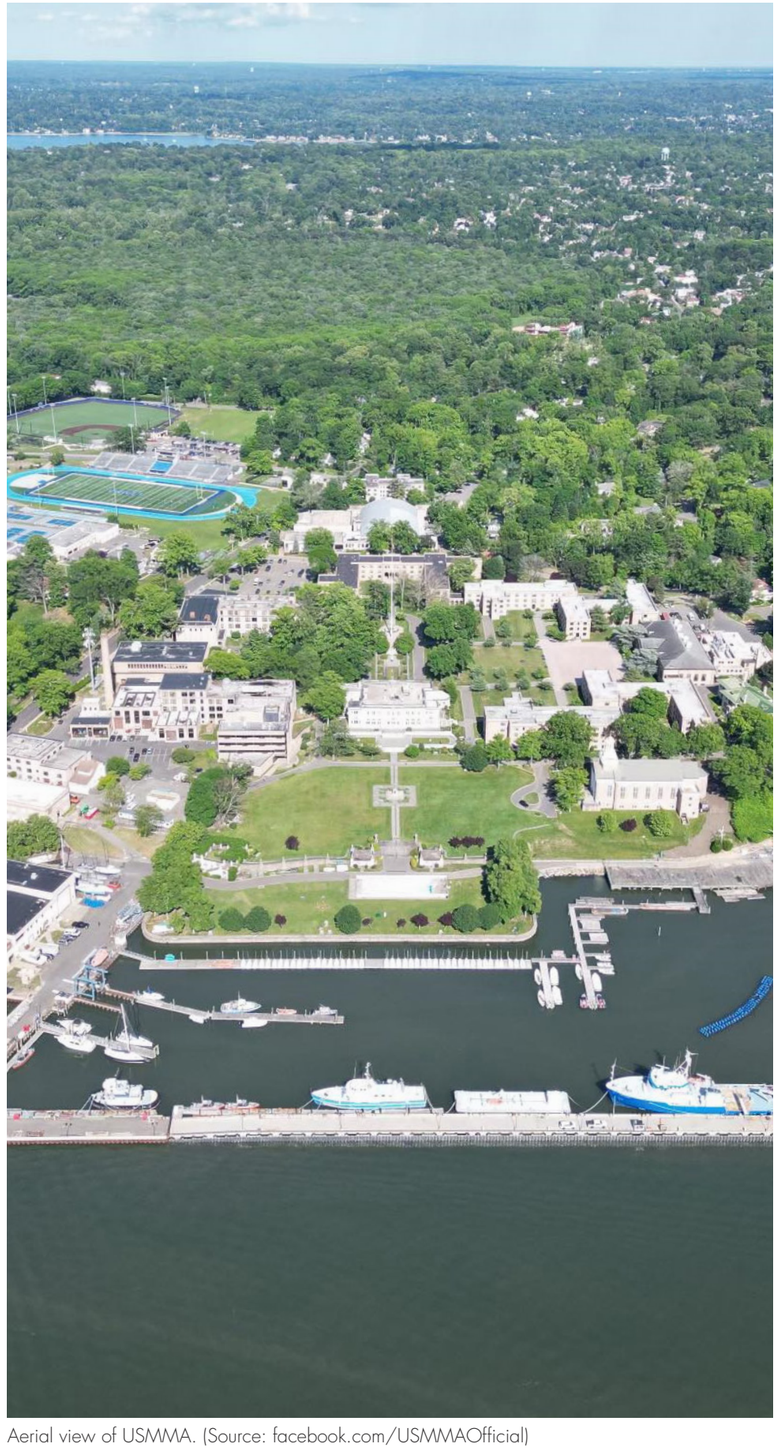
To achieve its mission, the USMMA educates and trains its enrollees on an 82-acre campus bordering the Little Neck Bay on the north shore of Long Island, east of New York City. With over 40 buildings and structures situated on the 82 acres of land, it has been determined that the Academy needs to plan for its future not just in terms of education and training programs, but also in terms of its real property assets in a comprehensive and holistic manner. Sound planning and management of these resources is key to long-term commitment and investment in these resources through thoughtful and thorough planning.

The USMMA contributions to our nation have never been more needed. As the White House Executive Order (EO) Restoring America's Maritime Dominance states, "It is the policy of the United States to revitalize and rebuild domestic maritime industries and workforce to promote national security and economic prosperity." USMMA is positioned to prepare individuals for service in the United States Merchant Marine, which is a vital component of America's maritime infrastructure, playing a critical role in both peacetime and wartime activities.

USMMA must focus their efforts on preserving their enduring legacy, as stated in United States Code 46 U.S.C 51301 under the Secretary of Transportation, to "maintain the United States Merchant Marine Academy as an institution of higher education to provide instruction to individuals to prepare them for service in the merchant marine of the United States, to conduct research with respect to maritime-related matters, and to provide such other appropriate academic support, assistance, training, and activities in accordance with the provisions of this chapter as the Secretary may authorize."

At Kings Point, New York, the USMMA is a key institutional component with an enduring legacy, as well as an economic generator and influencer within the local community. The Academy grounds, the American Merchant Marine Museum, the Navy Exchange, and the Schuyler Otis Bland Memorial Library are open to the general public Monday through Friday, during regular business hours (only closed during federal holidays and a few summer leave, winter leave, or campus events) – locally relevant. Despite maintaining aging and failing infrastructure and real property, the Academy continues to deliver up to 80% of all Strategic Sealift Officers (SSOs), graduating war-ready midshipmen on a yearly basis - enduring legacy. Ensuring the maritime industry remains ready and capable to promote national security and economic prosperity.

In order to meet this overarching objective, the USMMA requires a realistic and implementable CMP that identifies all capital improvements, including the modernization of mission critical real property assets. The state of real property at the USMMA has affected midshipmen, the USMMA community, and impacted student enrollment and faculty retention for many decades. These impacts will only increase and potentially affect our national security and economic prosperity, if modernization does not occur and funding for projects cannot be secured.



Aerial view of USMMA. (Source: facebook.com/USMMAOfficial)

The United States Merchant Marine Academy (USMMA) CMP builds upon the previous master planning efforts and provides a comprehensive and technically sound plan that can be executed over the next ten years. During the planning process on April 9, 2025, the White House issued an Executive Order (EO) Restoring America's Maritime Dominance, stating:

Sec. 14. Modernize the United States Merchant Marine Academy.

(a) The Secretary of Transportation shall:

(i) within 30 days of this order consistent with applicable law and available appropriations, take action to hire the necessary facilities staff and reprogram budgetary resources needed to execute urgent deferred maintenance projects and any other mission critical repair works at the USMMA;

(ii) take immediate action to finalize a long-term master facilities plan (LMFP) for the modernization of the USMMA campus and submit such plan to the assistant to the president for national security affairs (APNSA) and Office of Management and Budget (OMB) Director for concurrence; and

(iii) within 90 days of the concurrence described in subsection (a)(ii) of this section, in consultation with the Department of Government Efficiency, submit a 5-year capital improvement plan (CIP) consistent with the LMFP to the assistant to the president for national security affairs APNSA and OMB Director that includes capital project budgets, schedules, and sequencing, as well as an inventory of deferred maintenance items necessary to sustain campus operations through completion of the CIP.

(b) All actions taken pursuant to this section shall be detailed in the Master Action Plan (MAP).

Enabling a rapid delivery of prioritized projects without impacting ongoing daily operations is a challenging task. This plan outlines the process by which modernization of critical real property can be accomplished in a ten-year horizon, identifies prioritized projects, and indicates where schedule adjustments along the planning, design, and construction phases can occur that make the greatest impact within the first five years.

1.2 Background: Previous Studies and Plans

As part of the development of the CMP, a wide range of planning documents were reviewed to provide a comprehensive understanding of the Academy's infrastructure, operational needs, strategic goals, and previous planning history. These documents span a range of topics, including building condition assessments, space utilization, asset management, and institutional objectives. The insights gained from these reports have been integrated into the planning process to ensure alignment with long-term priorities and to address existing challenges. The following reports were reviewed as part of this assessment:

- **USMMA Long Range Facilities Master Plan (May 2024):** Comprehensive assessment of campus infrastructure with recommendations for phased improvements over two decades.
- **USMMA Long Range Facilities Master Plan Briefing for the Office of Management and Budget (OMB) (December 2024):** Condensed findings of the full plan with a focus on project prioritization for federal funding.
- **USMMA Real Property Master Plan (July 2020):** Evaluates building conditions and proposes strategies for long-term asset management.
- **USMMA Space Utilization Study (June 2015):** Analyzes space usage and recommends reallocation and renovation to optimize facility management.
- **Full Speed Ahead Plan (March 2022):** Modernization framework emphasizing technological integration, academic excellence, and campus resilience.
- **USMMA Strategic Plan 2024–2030 (December 2024):** Defines the Academy's mission, vision, and goals for the next six years, guiding infrastructure and programmatic improvements.
- **Organizational Assessment of the USMMA: A Path Forward (November 2021):** Independent evaluation of governance and resource allocation, with recommendations for improved operational efficiency.
- **USMMA: Red Sky in the Morning (March 2010):** Identifies systemic challenges and proposes corrective actions, with relevant findings on maintenance backlog and institutional culture.

While these planning documents provided essential context and valuable insights, three key reports were selected for more in-depth analysis due to their direct relevance to the CMP.

1.2.1 Long Range Facilities Master Plan

The USMMA Long Range Facilities Master Plan, published in May 2024, was developed by an internal USMMA working group. The plan identifies 15 capital improvement projects with estimated costs of approximately $767 million, scheduled for implementation between Fiscal Year (FY) 2026 and FY2036. Projects were scored and prioritized based on stakeholder prioritization statements, which considered mission alignment, operational need, and lifecycle condition assessments.

The highest-scoring projects included the establishment of the Federal Maritime Center of Excellence (COE), construction of a New Academic Center, and the renovation of Bowditch Hall. Each of these projects was identified as critical to supporting the Academy's academic mission and improving campus infrastructure resiliency.

Several recommendations were identified during the review of the Long-Range Facilities Master Plan. Upgrading utilities and supporting infrastructure were identified as a critical prerequisite to ensure the long-term functionality of new and renovated facilities. It was recommended that the implementation timeline be made more aggressive by pursuing renovation and new construction activities concurrently where feasible. The development of a detailed management and progress tracking tool was also recommended to ensure effective oversight of project delivery. In addition, the pier project was identified as a higher priority due to erosion concerns that may impact waterfront operations if not addressed.

Long Range Facilities Master Plan (2024).

1.2.2 Real Property Master Plan

The USMMA Real Property Master Plan was completed in July 2020 by a third-party AE team. The plan identifies 13 capital improvement projects estimated at approximately $216 million, scheduled for completion over an estimated 15-year period. While many additional projects were evaluated as part of the Capital Improvement Plan (CIP) process, only a subset was included in the final recommendations.

The 2020 Real Property Master Plan provides a detailed execution plan with well-defined and feasible timelines for project implementation. The document includes a comprehensive analysis of usable space within existing facilities, supporting recommendations for renovation, re-purposing, or replacement based on space utilization rates and future programmatic needs.

Several recommendations were identified during the review of the Real Property Master Plan. Active CIP projects that were not completed should be revisited and incorporated into future planning efforts to ensure continuity and alignment with current priorities. Environmental considerations, accessibility, and connectivity improvements presented in the plan should be adopted and integrated into ongoing and future projects. Additionally, the alternatives analysis included in the Real Property Master Plan may serve as a foundation to facilitate updated discussions regarding implementation challenges and friction points moving forward.

USMMA Real Property Master Plan (2020).

1.2.3 Full Speed Ahead Plan

The Full Speed Ahead Plan, A Plan to Address Critical Infrastructure Needs at the U.S. Merchant Marine Academy, was published in January 2021, revised March 2022, and presented by the Maritime Security Infrastructure Council (MSIC). The plan identifies 17 capital improvement projects estimated to cost approximately $1.02 billion, with a target completion date of 2032. The implementation strategy outlined in the plan includes up to seven projects occurring concurrently to accelerate modernization efforts across the campus.

The report addresses program management costs and emphasizes the importance of upgrading supporting infrastructure to ensure that new facilities are fully operational upon completion. The plan's approach focuses on modernizing academic, residential, and operational facilities in alignment with the Academy's strategic goals.

Several recommendations were identified during the review of the Full Speed Ahead Plan. Individual project timelines should be reassessed for realism based on standard design and construction durations. The overall implementation timeline requires further testing to evaluate its feasibility and to assess potential impacts on ongoing Academy operations. In addition, greater clarity is needed regarding the phasing and prioritization of projects to ensure alignment with operational needs and available resources.

Full Speed Ahead Plan (2021).

1.3 Planning Approach and Process

A collaborative team approach was used to gather information, determine planning needs and make informed decisions regarding future development and modernization considerations. The master planning process is a dynamic approach to create a future planning framework that is responsive to the development strategy and goals for the campus. This approach encourages bold, innovative strategies that are also environmentally sound and economical. The development framework for the campus addresses future needs based on the overall vision for the campus and its unique characteristics, balanced with academic and educational objectives, historic context, environmental sensitivity and energy conservation objectives.

The following narrative describes each phase and corresponding steps of the planning approach and process applied in the development of this CMP.

Stage One - Goal Setting, Existing Conditions, and Analysis: Initial steps in the planning process outlined project purpose, parameters, and scope. Overall planning vision, goals, and supporting objectives, as well as planning needs, are based on conversations conducted during stakeholder interviews and work sessions. Data was collected about the mission, functional and operational requirements; existing and future population projections; facility conditions; infrastructure and utility systems; natural and environmental conditions; circulation systems; and surrounding area influences. As a planning foundation for development of the CMP, this information was synthesized and documented to understand natural and man-made conditions, development suitability, and opportunities for site development or redevelopment. This foundation includes an understanding of future development opportunities, and awareness of functional relationships and planning needs and requirements.

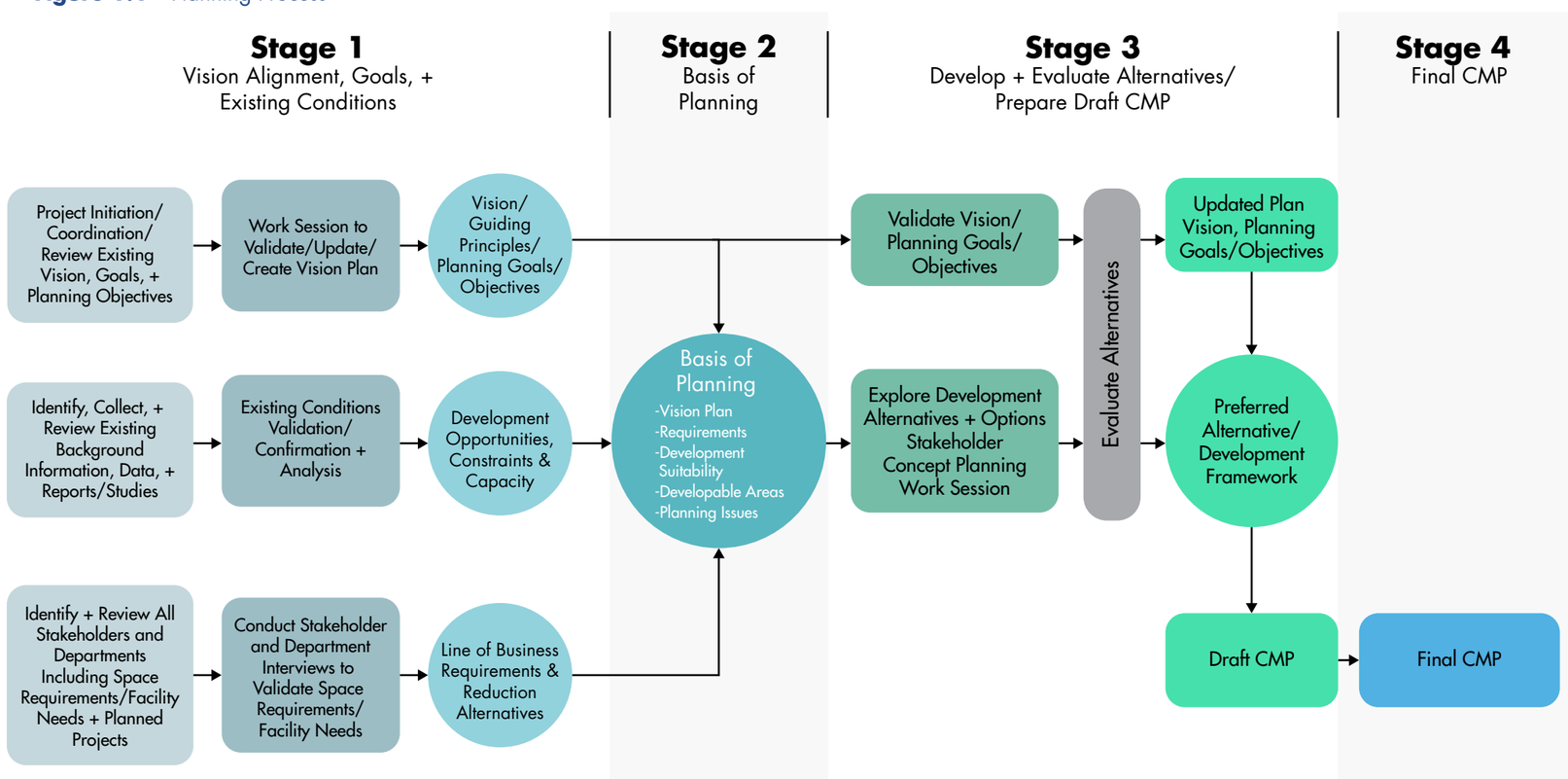
Stage Two - Basis of Planning: Basis of planning is a synthesis of what is being planned and its context. This includes: the definition of planning needs and resultant development to be accommodated; an understanding of development suitability; and the identification of development opportunities.

Stage Three - Planning Options and Evaluation: Proposed projects, renovation and demolition recommendations and options were established by understanding planning needs of the stakeholders, balanced with an understanding of existing conditions and development suitability. Planning options were explored through interactive work sessions in the context of planning needs, goals, and supporting planning objectives. Prioritized projects and preferred development directions formed the basis of planning recommendations, including development framework, future development plan, renovations, infrastructure needs and related sustainment, restoration and modernization recommendations.

Stage Four – Campus Modernization Plan: The refined preferred planning direction concludes the planning process and is structured around planning components commonly used in installation master plans. While the following plans are not currently established at USMMA, this approach helps communicate the recommendations clearly and identifies areas where additional studies or standards may be developed in the future.

- Framework Plan depicts the overall organization of campus land areas considering highest and best use in the context of development suitability to accommodate future development needs. Guidance is also provided on permitted uses within the designated historic district, including correlation to building types standards.
- Future Development Plan provides planning recommendations and prioritized projects in support of identified planning needs.
- Infrastructure Plan outlines any required systems, upgrades or expansions to support existing or future operational needs and requirements.
- Mobility Plan includes vehicular, bike, and pedestrian circulation networks to support overall campus mobility.
- Implementation Plan describes the recommended sequencing of development and/or projects to achieve the recommended planning actions in line with planning goals and balanced with stakeholder requirements, funding, and related influences. Investments required over the next ten years to reverse years of deferred maintenance and to modernize the campus in support of an enhanced academic environment for learning.
- Development Guidance includes building and development standards, to guide overall development form, image, character and quality. The A/E team was not tasked with this deliverable under this scope of work. Recommendations were made to develop an overall Planning and Landscape Design Standards for the Academy as well as Design and Construction Standards Manual to guide all future development and renovations.

Figure 1.1 - Planning Process



CHAPTER 2 STRATEGIC ALIGNMENT

The Campus Modernization Plan is guided by mission and vision statements with supporting goals and measurable objectives endorsed by USMMA Leadership and key stakeholders. The alignment of all planning recommendations, inclusive of future development initiatives and projects with the consensus-based mission, vision and supporting goals and measurable objectives provides a solid foundation for the Plan, while also promoting the most logical, rational and defensible planning result. Strategic vision alignment illustrates how planning initiatives and projects work together to achieve USMMA's vision and support its Campus Modernization objectives.

The A/E conducted a series of discussions with USMMA leadership and key stakeholders to fully understand their campus modernization requirements. Stakeholders took part in a fully collaborative planning process during the review and validation of USMMA's mission and vision statements, as well as previously developed planning goals and supporting objectives. Strengths, Weaknesses, Opportunities and Threats (SWOT) collected during the data collection phase were reviewed and validated with stakeholders during the SWOT Analysis. The result of the combined review and validation of these leadership priorities and strategic alignment, serve as the foundation for the Campus Modernization planning effort, as well as the basis for establishing evaluation criteria that was used to prioritize planning initiatives and projects.

2.1 Planning Vision, Goals and Objectives

The current mission and vision statements for USMMA inform the vision and planning process for the USMMA. The intent of the planning vision, goals and objectives is to enable support for implementation of the USMMA mission, with an emphasis on the planning initiatives and corresponding physical improvements needed to achieve a modernized campus. The following sections outline the revised vision statement, goals, and objectives discussed during the Visioning Session on 25 March 2025.

2.1.1 Planning Vision

The Planning Vision represents the first step toward establishing a Comprehensive Master Plan, per the Unified Facilities Criteria (UFC) 2-100-01 Installation Master Planning, with Change 2.[1] This functions as a decision support framework that details the long-term vision, goals, and objectives that guide the future physical development at USMMA. This framework informs development decisions to realize USMMA's vision and 10-year implementation to support a growing mission and continuing the enduring legacy of the maritime industry at Kings Point, New York.

All future planning and development decisions should align with the vision statement and meet key goals and objectives. The Vision Statement from the 2020 Facilities Master Plan was further refined during a Visioning Session with stakeholders on 25 March 2025. Stakeholders described mission priorities and requirements, developed a SWOT analysis, and verified the overall Vision Statement, Goals and Objectives aligned with the USMMA's legacy, priorities, and key needs.

The USMMA Vision Statement is as follows:

> ***"The U.S. Merchant Marine Academy shall have facilities that attract America's best and brightest, inspire the hearts, minds, and souls of our future military and merchant marine officers, reflect the maritime industry, adapt to future trends, support the holistic development of maritime professionals and serve as a center of excellence for Midshipmen development and maritime innovation."***

New graduates celebrate during a USMMA Commencement (Source: dvidshub.net)

[1]The United States Department of Transportation (DOT) does not have its own specific building standards. USMMA under the DOT utilizes the following established standards, codes, and guidelines: The International Building Code (IBC), General Services Administration (GSA) Facilities for the Public Building Service (PBS-100) requirements, Architectural Barriers Act (ABA) accessibility standards, and the Unified Facilities Criteria (UFC) guidelines on an ad hoc basis.

2.1.2 Planning Goals and Objectives

The USMMA Planning Goals and Objectives directly support the Vision Statement by focusing on fulfilling current and future development needs and reshaping existing conditions over a 10-year planning horizon. These key development goals are also embedded in the Vision Statement. Just as the Vision Statement is supported by Planning Goals, the Goals are supported by Objectives. Planning Objectives represent a series of specific and measurable actions, enabling plan implementation and monitoring toward achieving the Planning Goals.

The Planning Goals and Objectives were verified and revised through collaboration with Academy stakeholders to ensure alignment with institutional priorities and long-term development needs. The USMMA Planning Goals are identified in **Figure 2.1** below. Supporting Objectives are identified under each goal.

Figure 2.1 - USMMA Planning Goals and Objectives

GOAL 1
PROVIDE A SAFE, SECURE, AND SUSTAINABLE CAMPUS ENVIRONMENT

Redevelop all facilities to meet modern standards for effectiveness, security, and safety.

- Modernize select facilities and infrastructure to meet Architectural Barriers Act (ABA) requirements.
- Develop safe and secure facilities and infrastructure that meet modern standards.
- Maintain a secure campus that remains connected to the local community.
- Design facilities that are inspired by the physical environment, emphasizing both functionality and beauty.
- Ensure all real property is sustainable by maximizing energy efficiency and providing resilience to future events such as flooding and power disruptions.

GOAL 2
DEVELOP ADAPTABLE AND MODERN REAL PROPERTY

Adapt all facilities to support the changing maritime industry and evolving educational requirements.

- Preserve select historic facilities on campus and modernize others to enhance the Midshipmen experience.
- Develop flexible, adaptable, and modern facilities across campus.
- Ensure "genius loci" and historic viewsheds are preserved in the campus design.
- Construct collaborative and inviting spaces for midshipmen, faculty, and staff (e.g., meeting spaces, 18-hour café space, etc.).
- Integrate modern technology and infrastructure into classroom, laboratory, and simulation spaces.
- Ensure all facilities meet current educational standards and are adaptable to accommodate future standards and a 20% enrollment increase.
- Develop facilities that generate interconnectivity between the Academy, government, and industry.

GOAL 3
PRESERVE HISTORIC CHARACTER

Ensure all facilities, new and existing, honor and respect the historic integrity of the campus and the maritime industry.

- Preserve the Quadrangle (Quad) area with only minor changes, if any.
- Preserve and enhance the natural, cultural, and historic landscapes and resources of the Academy.

GOAL 4
ENHANCE THE USMMA INSTITUTIONAL LEGACY

Ensure all planning and development enhances collaboration, community, and campus culture across local, regional, and global maritime partners.

- Provide a central community space for hosting larger events (500+ personnel) and athletic events and conferences.
- Facilitate lifelong learning and expand research capabilities (e.g., visiting professors, sabbaticals for faculty).
- Provide additional faculty housing opportunities to strengthen the connection between staff and the campus.
- Create spaces to host industry and academic conferences and other events that bring people together and to the Academy.

2.2 SWOT Analysis

The A/E team conducted a SWOT analysis during the initial data collection phase and verified the SWOT at the Vision Session. The purpose of this exercise was to gain stakeholder input on internal existing conditions, and external factors that impact the Academy. As part of the initial data collection phase, an internal stakeholder questionnaire was distributed to collect initial input. Stakeholder responses were reviewed during the two-day site assessment, where feedback was discussed and refined in person. Additional questionnaire responses received in the following weeks were incorporated into the overall analysis. Stakeholders were asked to identify specific factors and categorize them as strengths, weaknesses, opportunities, and threats, as defined below:

- Strengths are positive internal or current attributes and resources supporting campus operations and development.
- Weaknesses are negative internal or current attributes and resources inhibiting campus operations and development.
- Opportunities are positive external or future factors supporting campus operations and development.
- Threats are negative external or future factors inhibiting campus operations and development.

The feedback received from the SWOT analysis informed the validation of the vision statement, and refinement of the goals and objectives.

Strengths

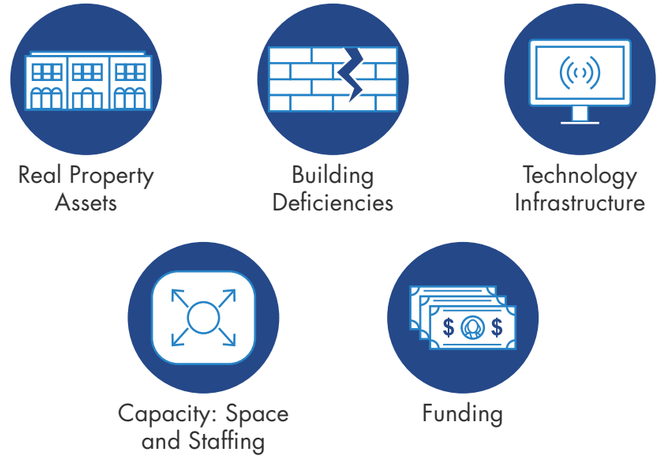
The strengths identified in the stakeholder questionnaires reflect several key assets and advantages that support the Academy's ongoing development, as noted in **Figure 2.2**. Stakeholders emphasized the prime location and accessibility of the USMMA campus, particularly its proximity to New York City, which is easily reachable by bus or train. The campus' real property assets were also highlighted, with specific reference to the historical and cultural significance of landmarks like the American Merchant Marine Museum (William Barstow Mansion) and Wiley Hall (Bendel/Chrysler Mansion). Another strength identified was the institution's strong capabilities, especially the programs in marine engineering, which equip graduates with specialized skills and open a wide range of workforce opportunities. Additionally, the maritime and historic legacy of the Academy was also considered a significant strength, with stakeholders acknowledging its cultural importance and unique position in the maritime industry. Finally, operational efficiency and departments supporting one another were viewed as strengths that facilitate the smooth functioning of campus activities, ensuring that academic and administrative processes run effectively.

Weaknesses

The weaknesses identified in the stakeholder questionnaires point to several challenges that need to be addressed to ensure the Academy can support future growth, as shown in **Figure 2.3**. Building deficiencies were a primary concern, with stakeholders noting the need for significant renovations to bring existing facilities up to modern standards and improve their functionality. In addition, IT capabilities and record systems were seen as outdated, limiting the campus' ability to streamline operations and enhance the academic experience for both students and staff. Another major issue was capacity, both in terms of space and staffing. The campus is currently struggling with inadequate space to meet the needs of an expanding student body and limited staffing, which can hinder the ability to offer a wider range of programs and support services. Operational constraints were also highlighted, with various logistical challenges impacting the smooth functioning of campus activities and the ability to meet strategic goals. While a few stakeholders raised concerns about the academic calendar, suggesting it may not offer enough flexibility to align with industry needs or support internship opportunities, the issue was not as widely discussed. Finally, funding emerged as a persistent weakness, with many stakeholders noting that financial constraints could hinder efforts to improve infrastructure, support new initiatives, and address the growing demands of the campus.

Figure 2.2 - USMMA Strengths

Figure 2.3 - USMMA Weaknesses



Opportunities

The opportunities identified in the stakeholder questionnaires reflect areas where strategic growth and development could enhance the Academy's future development and maritime legacy, as shown in **Figure 2.4**. Knowledgeable faculty and workforce were seen as a major asset, with the potential to build upon the existing expertise to expand and enhance academic offerings. This aligns with the opportunity to grow both faculty and staff, allowing the Academy to better meet the needs of students and increase its capacity to offer a broader range of programs. There is also significant potential to grow enrollment, increasing the Academy's student enrollment and faculty body, ensuring that future maritime professionals are well trained and ready to meet industry demands.

In terms of physical and institutional development, historic preservation was highlighted as a key opportunity, with stakeholders emphasizing the value of maintaining the campus' enduring legacy while also integrating modern elements. The creation of a new Academic Building, Crowninshield Pier, Mariner Training Center, and a Center for Excellence are identified as opportunities to elevate the Academy's enduring legacy as a premier maritime education and research center. In line with these efforts, the growth of ship billets was also seen as a potential avenue to expand practical training opportunities for students.

Figure 2.4 - USMMA Opportunities

Improving the existing historic facilities and those that are deemed "contributing" buildings within the historic district were also noted as an opportunity to celebrate the Academy's enduring legacy. On the infrastructure side, there is a clear need for modern academic facilities, barracks, training facilities, and overall utilities which would provide state-of-the-art spaces for teaching and learning, as well as modern IT and systems to support both academic and administrative functions.

The modernization of campus facilities and infrastructure more broadly was also viewed as a significant opportunity, helping to address current deficiencies and ensure that the campus remains a competitive and innovative place for students, faculty, and staff. The potential for international partnerships and the development of new real estate options were recognized as ways to expand the Academy's reach, increase its influence, and support future growth. Lastly, the need for additional funding was highlighted as a crucial opportunity to ensure that these initiatives are properly supported and implemented.

Threats

The threats identified in the stakeholder questionnaires underscore several challenges that could hinder the Academy's progress, as shown in **Figure 2.5**. Funding remains a critical threat, with insufficient financial resources potentially delaying or canceling key initiatives. Hiring and staffing challenges, compounded by the lack of congressional appropriations, limit the Academy's ability to attract and retain qualified personnel. Additionally, the lack of informed data-driven decision making and project management expertise could impede strategic planning and execution of large projects.

The Academy's capacity to undertake major projects is limited, and flood risks present a serious threat to facilities and infrastructure. External visitors increase security concerns, while leadership not reaching consensus could slow decision-making and progress. Other risks include aging facilities, compliance issues (Occupational Safety and Health Administration [OSHA], State Historic Preservation Offices [SHPO], Architectural Barriers Act [ABA]), and lack of modern IT systems, which could affect both administrative and academic functions.

Additional threats include external security risks, the loss of data and knowledge due to inadequate systems, and the uninhabitable or unusable space limiting the functionality of some facilities. Finally, noise and lighting complaints and the lack of available land and/or available real estate for future development could hinder campus operations and future development.

Another significant concern is the aging workforce, which may affect the Academy's enduring legacy. Similarly, aging infrastructure poses a major challenge, with many facilities requiring modernization to remain functional. The decrease in student enrollment could also reduce the Academy's ability to train future maritime professionals.

Figure 2.5 - USMMA Threats

2.3 Decision-Making Framework

A decision-making framework was developed to outline a procedure and corresponding steps to follow to ensure consistency and thoroughness in decision-making regarding planning initiatives and projects associated with the USMMA CMP. The decision-making framework includes methods and a process to help make well-informed choices and includes evaluation criteria that guide the decision-making process, ensuring that all relevant planning factors are considered, including a structured method to synthesize information, assess risks, and determine the most effective solutions. The objective of the decision-making framework is to provide clarity and confidence, ensuring that decisions are well-informed and aligned with the USMMA Mission, Vision, Strategic Plan and overall planning goals and objectives. The intended outcome is a clear and organized approach, enabling confident and effective decision making.

A decision matrix was the recommended format for evaluation and prioritization of planning actions, projects and any other planning recommendations. To that end, evaluation criteria were established to facilitate comparative evaluation of options in support of selecting a preferred planning direction, option or prioritization of projects. Evaluation criteria were sourced and filtered from current, as well as legacy stakeholder input, refer to **Table 2.1**.

Use of the Decision Matrix aided the planning team and stakeholders in making complex decisions more manageable by providing a method for comparing and evaluating previous and current planning actions, projects and recommendations. Each planning action, project and/or any other planning recommendation, option or initiative was scored against each criterion. While scores have the option of being weighted according to the importance of the criteria, weighting was not incorporated in this round of evaluation activity. Comparative evaluation of planning options facilitated and supported selection of a preferred planning direction, planning actions and set of planned projects and sequencing. The decision matrix also facilitated determination of the best composition of CMP content and direction with focus on key program elements (i.e. projects and other planning actions).

During the five-day Confirmation Charrette, the A/E team discussed and validated the prioritization of projects as identified initially by the decision-making framework. It was determined that most projects identified in previous master plans would need to be included in the prioritization and scope of the CMP, as the Academy has not undertaken any significant major construction projects over a number of decades.

2.3.1 Evaluation Criteria

Focused and filtered evaluation criteria were established from multiple inputs as follows in **Table 2.1**.

2.3.2 Evaluation Rating System

Scoring was tied to the extent established evaluation criteria was met and was based on the following scoring system in **Table 2.2**. The A/E presented initial findings of a preliminary decision-making framework matrix on 9 April 2025. This initially identified projects to be prioritized and verified during the confirmation charrette. **Appendix C** contains the decision-making framework developed and utilized as a tool to develop a preliminary prioritized project list.

Table 2.1 - Evaluation Criteria

Evaluation Criteria	Definition
Develop a 21st Century Academy Infrastructure.	Develop a 21st century Academy infrastructure that supports student learning and engages faculty, staff, coaches, and students not only to sustain the Academy but to inspire innovation at USMMA while promoting the safety, health, and wellness of all.
Promote Recruitment, Development and Retention.	Promote the Recruitment, development, and retention of a highly-qualified population of students, faculty, and staff that demonstrates and promotes the Institution's values, as well as cultivate an institutional culture in which every Academy community member is respected, valued, and can fulfill their maximum potential as a leader of exemplary character. Enhances USMMA's ability to attract top students and Improves recruitment generally. Brings USMMA facilities in line with those of comparably sized institutions of higher education.
Enhance shared governance, trusted and empowered leadership, and an invested administration.	Enhance shared governance, trusted and empowered leadership, and an invested administration to promote prolonged success as an institution of higher education.
Invigorate the Academy's Educational Program while promoting student success.	Invigorate the Academy's educational program while promoting student success, experiential learning in the regiment and at sea, and professional expertise both ashore and afloat.
Provide a Safe, Secure, and Sustainable campus environment.	All facilities will be redeveloped to meet modern standards for effectiveness, security, and safety. Addresses overall safety, security, and/or health concerns
Preserve Historic Character.	All facilities, new and existing, will honor and respect the historic integrity of the campus and the maritime industry
Enhances the overall campus development form, quality and character.	Positively impacts the academic experience and Quality of life for all students and Faculty. Provides substantial benefit to the learning physical environment and student life activities.
Substantiated by identified and documented program requirement.	Evidence of identification and documentation of specific program requirement need.
Promotes enhancement and protection of the waterfront district.	Incorporate actions that repair and replace aging waterfront structures in the interest of leveraging the waterfront edge, protecting the shoreline and enhancing the overall waterfront district.
Promotes the opportunity to collaborate with Maritime partners and global industry in research and special events.	Provides the necessary space, technology and overall environment to collaborate with maritime partners and global industry.
Mitigates risk of damage to real property and utility infrastructure from deferred maintenance.	Provides health, safety and continuity of operations and welfare of students, faculty and staff.
Promotes enhancement of the athletics program, modernize facilities and facilitate NCAA events on campus.	Enhances facilities that accommodate all athletic programs. Provides ability to compete and host at the NCAA level.
Mitigates risk to the land areas, waterfront and facilities from external environmental factors.	Provides health, safety and continuity of operations for the Academy.
Operational Effectiveness	Promote the highest level of mission + operational effectiveness in support of academic + athletic programs. Does the facility / project/planning action support what is trying to be achieved?
Functional Efficiency	Reinforces necessary functional relationships, adjacencies and flow of people and materials.
Highest + Best Use of Land	Project or facility Siting to maximize the most efficient use of land while also leveraging best practice siting and historic resources protection.
Optimization of Facility Resources	Utilization and optimization of existing facility resources and infrastructure. Are existing resources used to their full potential?
Implementation + Constructability	Logical and efficient phasing, implementation, including ease of constructability. Ensuring continuity of all campus operations.
Cost Effectiveness	Leverage limited funding to achieve the best project balanced with funding availability and approach. Is money being used properly, i.e., "best bang for the buck."

Table 2.2 - Evaluation Rating System

Evaluation	Description	Rating
Enhancement	Exceeds criteria with great improvement	**+2**
Meets Requirements	Adequately meets criteria resulting in incremental improvement	**+1**
No Improvement	No significant effect; or criteria not applicable	**0**
Negative Impact	Criteria not met; potential negative effect	**-1**

CHAPTER 3 PROGRAM NEEDS AND REQUIREMENTS

Establishing the existing programming needs and identifying the technical, strategic, and operational requirements are critical during the planning process, as the USMMA remains mission ready, continues an enduring legacy, and maintains local relevancy.

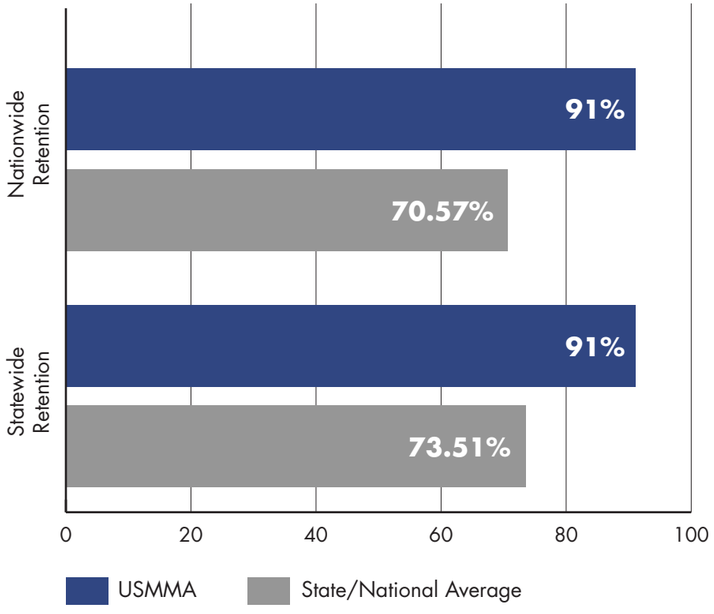
3.1 Mission Growth Factors

Over the next decade, the USMMA plans to increase student enrollment by 20% and faculty positions by 30%. As of the Fall 2023, student enrollment was 947 students. The current student-to-teacher faculty ratio is 13:1. The USMMA currently has a freshman retention rate of 91% as shown in **Figure 3.1**. It is important to note the majority of students leaving the campus prior to graduation are transferring to another school. This retention rate is well above the national average and New York State colleges and universities.

To accommodate an additional 250+ students while maintaining the current 13:1 student-to-faculty ratio and supporting a 30% increase in faculty, the Academy would need to hire at least 41 more faculty members. This would raise the total number of faculty from the current 135 to 176.

As the Academy meets these goals to expand and grow enrollment, new undergraduate and graduate programs will require additional classroom space, laboratories, and simulator space. The anticipated growth can only be minimally absorbed by the existing real property and must be accomplished by new construction, such as a Center of Excellence, Academic Building, and Crowninshield facility.

Figure 3.1 - Freshman Retention Rate: USMMA vs. State/National Average



3.2 Space Requirements Summary

The following assumptions were discussed and accepted as facts during the confirmation charrette week of the 14–18 April 2025.

- Programming requirements were verified with each department to confirm personnel numbers and identify space needs and functional requirements for classrooms, labs, simulators, and other mission-critical or special-purpose spaces.
- Leadership and supervisory roles will be assigned private offices of 150 square feet or more, based on departmental input.
- All other personnel will be assigned either 150 square feet of cubicle or hoteling space, unless their role requires a workbench or specialized workspace.
- Study rooms and conference rooms will not be double counted within a facility unless they serve distinct mission or medical functions.
- Total gross square footage (GSF) will include confirmed programmed space developed through previous master planning efforts, refined through current stakeholder interviews, validated during the April 2025 confirmation charrette, and aligned with DOT and General Services Administration (GSA) space standards.

A department-level analysis of facility requirements, mission-critical functions, and operational constraints is provided in the sections that follow. The *USMMA Space Utilization Study* (2015), *DOT Office Space Design Standard Policy* (DOT 4330.3A), GSA space utilization guidance, and stakeholder interviews were referenced to develop the space requirements.

3.2.1 Office of the Superintendent

The Office of the Superintendent, located in Wiley Hall, oversees all aspects of USMMA's mission and operations. The Superintendent operates under the premise that Heritage is Destiny and seeks to optimize the Academy's relationships with national security and industry leaders. The Superintendent's office has multiple primary objectives such as: modernizing the infrastructure, refining campus culture, and turning young talent into America's greatest mariners and leaders. Wiley Hall will remain the primary facility for the Superintendent and senior staff, with office space designed to support their work through a balance of private and collaborative areas. These spaces are essential for the Superintendent and senior leadership staff to manage the Academy's strategic direction, administration, and interaction with external stakeholders. Private offices are necessary for confidential discussions and decision-making, while conference rooms will accommodate larger meetings with internal and external partners, including government officials and industry leaders. The layout should facilitate seamless communication and coordination across departments, with flexible configurations to adapt to varying needs, such as strategic planning or crisis management. A reception area is needed for visitor management, and secure Information Technology (IT) infrastructure and storage solutions must be integrated to maintain confidentiality and security.

Some of the offices in Wiley and elsewhere on campus should remain larger than the DOT requirement of 150 square feet. This is mainly for ceremonial and representational requirements and includes the following job functions: Superintendent, Deputy Superintendent, Provost, Chief of Staff, Commandant, Athletic Director, and Facilities and Infrastructure Director.[2]

Table 3.1 outlines the space requirements and associated quantities for the Office of the Superintendent.

Table 3.1 - Office of the Superintendent Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	10	325	3,250
Open Office[2]	5	150	750
Conference Room[3]	2	450	900
Event Space[4]	1	900	900
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	400	400
Total Net Square Feet Requirement	**-**	**-**	**6,800**
Net-to-Gross[5]	-	-	3,400
Total Gross Square Feet Requirement	**15 Personnel**	**-**	**10,200**

Notes:
1. Overall Private Office space includes 5 personnel at 150 NSF per person. Additionally 5 personnel require 500 NSF for their offices that include the Superintendent, Deputy Superintendent, Commandant, Provost, Chief of Staff, and support staff.rintendent, Commandant, Provost, Chief of Staff, and support staff.
2. Open Office space refers to an office manager or support staff position that may not require a Private Office.
3. Two 15- to 20-person conference rooms are needed for daily operations.
4. A 50-person room used as event space for larger events and student use throughout the academic year.
5. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: Wiley Hall

[2]The number of private offices will be re-evaluated during the design process. It is noted that all recommended private offices in Chapter 3 reflects a 34% increase in offices from the last space utilization study completed in 2015. This aligns with the 30% increase in faculty anticipated with an increase in student enrollment for daily operations.

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3.2.2 Academic Center for Excellence

The Academic Center for Excellence (ACE) Department aims to help students succeed academically through cognitive skill development, decision making opportunities, academic intervention strategies, and projecting academic and professional success in the global Maritime Industry. The center is designed to assist students with academic challenges, providing a dedicated study hall and a structured environment for academic support. This includes facilities for remedial educational boot camps and one-on-one tutoring. A centralized student learning center is proposed to consolidate these academic support services and offer flexible learning environments.

To maintain an appropriate academic atmosphere, instructional and support spaces should be separated from adjacent social or recreational areas. A secure, private room is needed for discussions involving personally identifiable information (PII) and other confidential matters. Current configurations limit privacy and acoustical separation, complicating the accommodation of both walk-in students and scheduled appointments.

The facility requires locked, medium-term storage for sensitive materials not governed by the Federal Paperwork Reduction Act, and a controlled-access area for exam administration. The current use of the gymnasium for licensure examinations is inadequate due to space and environmental limitations. A larger, purpose-built facility is required to support the capacity, security, and environmental controls needed for standardized and high-stakes testing.

Additionally, space and resources for professional development programs are necessary to further the long-term goal of expanding the Academic Center for Excellence into a comprehensive Center for Teaching and Learning, supporting faculty training, workshops, and collaborative initiatives.

Table 3.2 outlines the space requirements and associated quantities for the department.

Table 3.2 - Academic Center for Excellence Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	6	150	900
Conference Room(s)[2]	1	375	375
Larger Conference Room[3]	1	1,650	1,650
EDICS/Charting Group Room	2	300	600
Hoteling/Open Office Space	6	150	900
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[4]	1	1,100	1,100
Storage/Server/Utilities[5]	1	500	500
Total Net Square Feet Requirement	**-**	**-**	**6,325**
Net-to-Gross[6]	-	-	3,163
Total Gross Square Feet Requirement	**6 Personnel**	**-**	**9,488**

Notes:
1. Overall Private Office space includes 6 personnel at 150 NSF per person. These positions include the ACE Director, Deputy Director, two Academic Advisors, an Educational Technology Specialist, and Classroom Technology Specialist.
2. Three 5-person conference rooms can be shared within the Library spaces and one 15-person conference room can be used for daily operations.
3. Two 50-person conference rooms can be utilized as a 100-person style lecture space during the academic year.
4. Reception space includes up to 800 NSF for a welcome/waiting area and support space which includes up to 300 NSF.
5. Storage space includes up to 300 NSF for typical storage and 200 NSF for USCG examination storage materials.
6. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space. Due to the proximity of ACE within the Library it is recommended they utilize the following spaces as reserved rooms: three 5-person conference rooms, five 1:1 tutoring station rooms/study rooms.

Location: New Federal Maritime COE/New Library

3.2.3 Academic Dean, Provost, and Registrar

The Academic Dean and Provost provide academic leadership and oversight for all instructional programs, faculty affairs, curriculum development, and academic policy at USMMA. The Registrar supports this mission by managing student records, course scheduling, academic calendars, registration services, and certification of degrees. Together, this office ensures the integrity and effectiveness of the Academy's academic programs in support of its broader mission to develop leaders for service in the maritime and defense sectors.

Wiley Hall will serve as the primary facility for these departments. To support these responsibilities, the office requires dedicated spaces that foster collaboration and efficient operation. Private offices for the Dean, Provost, and Registrar, along with functional administrative workspaces, are needed to manage curriculum planning, academic policies, and accreditation efforts. Additionally, meeting rooms are essential for faculty discussions, strategic planning, and academic advisory sessions. A centralized records area for student files and transcripts, as well as secure data management, is also required. The space should be flexible enough to accommodate busy periods, such as registration and graduation cycles, which may necessitate additional temporary workstations or meeting areas. Proximity to academic departments and technology support services will enhance communication and operational efficiency.

Table 3.3 outlines the space requirements and associated quantities for the department.

Table 3.3 - Academic Dean, Provost, and Registrar Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	13	150	1,950
Conference Room[2]	1	300	300
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**3,150**
Net-to-Gross[3]	-	-	1,575
Total Gross Square Feet Requirement	**13 Personnel**	**-**	**4,725**

Notes:
1. Overall Private Office space includes 13 personnel at 150 NSF per person. These positions include the Provost, Associate Dean for Faculty, Assistant Dean for Academic Affairs, Assistant Dean for Support Services, Registrar staff (up to 7 personnel), and support staff.
2. One 10-person conference room is needed for daily operations.
3. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: Wiley Hall

3.2.4 Admissions

The Admissions Department recruits prospective candidates and manages the full admissions process for each incoming class. As a federal service academy, USMMA relies on Admissions to identify and enroll candidates who meet the academic, physical, and leadership standards required to support its mission of producing licensed merchant mariners and commissioned officers.

To effectively carry out these duties, the department requires dedicated office space for staff to conduct interviews, process applications, and manage communications with applicants. Private offices are needed for the Director and senior staff, while collaborative open office areas are essential for recruitment and application review teams. The space should also include meeting rooms for conducting interviews with prospective students and families, as well as areas for outreach activities and presentations. A reception area is necessary for welcoming visitors, while secure storage for applicant records and confidential documentation is required. The layout of the office should facilitate smooth workflow during peak admissions periods, allowing for both individual work and team collaboration without disruptions.

Table 3.4 outlines the space requirements and associated quantities for the department.

Table 3.4 - Admissions Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	10	150	1,500
Open Office[2]	5	150	750
Conference Room[3]	1	450	450
Briefing Room[4]	1	600	600
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[5]	1	800	800
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**4,700**
Net-to-Gross[6]	-	-	2,350
Total Gross Square Feet Requirement	**15 Personnel**	**-**	**6,580**

Notes:
1. Overall Private Office space includes 10 personnel at 150 NSF per person. These positions include the Director of Admissions, Admissions Officers, and support staff.
2. Open Office space provides each personnel 150 NSF (for 5 personnel). These positions include support staff as the student enrollment and faculty positions grow.
3. One 20-person conference room is needed for daily operations.
4. A large briefing area is needed for larger groups of 75+ visitors.
5. The reception area needs to include a waiting/welcome area for visitors of approximately 500 NSF and the support space remains at 300 NSF.
6. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Welcome Center (Admissions & Alumni Office/Visitor Center & Gift Shop/ Security Center)

3.2.5 Alumni Association and Foundation

The USMMA Alumni Association and Foundation (AAF) exists to serve, assist, and perpetuate the USMMA at Kings Point, New York, its Regiment of Midshipmen, faculty, staff, and alumni. It support the USMMA's mission of educating and graduating Merchant Marine Officers who will become leaders in the commercial and defense transportation services of the United States.

The USMMA AAF provides financial support for charitable, scientific, and educational purposes by raising and distributing funds. AAF fosters and encourages the development of the Academy to meet the future transportation needs of the United States, and strives to enhance the prestige thereof by acquisition, preservation, and dissemination of information pertaining to their history, activities, methods, and objectives.

To effectively carry out their mission, they must be guaranteed a location on campus to perform their daily operations and access to event space for larger alumni gatherings and events. Alumni Association stakeholders indicated they are willing to relinquish their current quarters and associated land, provided there is a written agreement with the Academy guaranteeing them a permanent space on campus in perpetuity. This agreement will need to be in place prior to any of the AAF personnel moving to another location on campus.

Locating the AAF in the Welcome Center is an opportunity for the midshipmen to network and connect with alumni who are in the maritime industry and military career path. A career services resource in the Welcome Center could offer students with additional professional development services to prepare students for success.

Table 3.5 outlines the space requirements and associated quantities for the Alumni Association and Foundation.

Table 3.5 - Alumni Association and Foundation Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	15	150	2,250
Conference Room[2]	1	450	450
Large Conference Room/Event Space[3]	1	600	600
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**4,200**
Net-to-Gross[4]	-	-	2,100
Total Gross Square Feet Requirement	**15 Personnel**	**-**	**6,300**

Notes:
1. Overall Private Office space includes 15 personnel for the Alumni Association staff at 150 NSF per person. The Director and 14 other Alumni Association staff need private offices.
2. One 20-person conference room is needed for daily operations.
3. A larger 30-person conference room/event space is needed for daily operations.
4. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Welcome Center (Admissions & Alumni Office/Visitor Center & Gift Shop/ Security Center)

3.2.6 Department of Humanities

The Department of Humanities provides instruction in writing, literature, history, and related disciplines to support the intellectual, ethical, and professional development of midshipmen. To fulfill this mission, the department requires traditional classroom space with flexible configurations to support seminar-style discussions, as well as lecture-based instruction. Dedicated faculty offices are necessary to support mentoring and individualized feedback, and should offer privacy for academic advising and student support. Shared departmental space is also needed for curriculum coordination, adjunct support, and access to teaching materials. Given the centrality of writing and communication in the department's curriculum, quiet study areas and access to writing support services in adjacent or co-located facilities are recommended to enhance instructional effectiveness.

Table 3.6 outlines the space requirements and associated quantities for the department.

Table 3.6 - Humanities Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	20	150	3,000
Classroom	1	1,000	1,000
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[2]	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**4,900**
Net-to-Gross[3]	-	-	2,450
Total Gross Square Feet Requirement	**20 Personnel**	**-**	**7,350**

Notes:
1. Overall Private Office space includes 20 personnel at 150 NSF per person. These positions include all 15 Faculty Staff Positions and the additional 5 faculty positions that will be needed to support the Humanities department as student enrollment grows.
2. Each academic building needs the meeting spaces, support spaces (breakroom), IT computer printing areas, etc.
3. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Academic Facility (Faculty Offices, Classroom (shared), Bowditch Hall (Classroom Space and Library Lecture Space)

3.2.7 Department of Marine Engineering

The Department of Marine Engineering is (ME) responsible for educating and preparing midshipmen in the design, operation, and maintenance of marine propulsion systems and related engineering technologies. Its mission supports the development of licensed engineers who serve in the Merchant Marine and armed forces, with academic programs that combine rigorous classroom instruction, hands-on training, and at-sea experience.

To achieve this mission, the department requires specialized instructional space, including modern laboratories for steam, diesel, electrical, and automation systems; machine shops; and simulator rooms that replicate onboard conditions. Classrooms must be appropriately equipped for technical instruction and supported by adjacent storage for tools, components, and safety equipment. Faculty offices should be co-located with teaching areas to foster collaboration and mentorship.

Dedicated space for equipment maintenance, calibration, and upgrades is also necessary to keep pace with emerging technologies and maritime industry standards. Long-term planning should account for evolving training requirements, space for larger cohorts, and the replacement of legacy systems with energy-efficient and future-ready infrastructure. Additionally, a multimedia classroom is essential, equipped with 3D printers, simulation tools, and computer-aided design (CAD) drafting stations. This space will be strategically placed near other simulation facilities, ensuring a dedicated, specialized environment for advanced technical instruction.

Table 3.7 outlines the space requirements and associated quantities for the department.

Table 3.7 - Marine Engineering Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	34	150	5,100
Classroom[2]	1	1,000	1,000
Laboratory[3]	2	1,000	2,000
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**9,000**
Net-to-Gross[4]	-	-	4,500
Total Gross Square Feet Requirement	**34 Personnel**	**-**	**13,500**

Notes:
1. Overall Private Office space includes 34 personnel at 150 NSF per person. These positions include all 26 Faculty Staff Positions and the additional 8 faculty positions that will be needed to support the ME degree as student enrollment grows.
2. Additional classroom space will be needed in the new Academic Building.
3. ME has multiple laboratory requirements for diesel and steam engineering, refrigeration, marine engineering, thermodynamics, materials testing, machine shop, mechanical engineering, welding, electrical machinery, control systems, electric circuits, engine room simulators and graphics. Once the Bowditch Hall renovation is completed, Gibbs Hall can be utilized for additional engineering classroom and lab space (IME, expand the machine shop and welding, refrigeration). Two new labs are required within the Academic Building a diesel and steam lab space. An innovation and transformational modular lab space (biofuel, etc.) will be located in the Federal Maritime COE and with other lab spaces.
4. This includes a 30 percent net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Academic Building (Faculty Offices, Classroom), Fulton-Gibbs Hall (Classroom and Lab Space)

3.2.8 Department of Marine Transportation

The Department of Marine Transportation (MT) provides academic and practical instruction in navigation, seamanship, cargo handling, maritime regulations, and ship operations. Its mission is to prepare midshipmen for licensure as deck officers and for service in the Merchant Marine and armed forces. The program integrates classroom learning with simulation, hands-on training, and experience gained during the at-sea year.

To support this mission, the department requires specialized instructional environments, including state-of-the-art bridge simulators, chart and navigation labs, cargo operations labs, and dedicated classrooms for maritime law and safety instruction. Simulator space must accommodate current technology and allow for scenario-based learning in bridge resource management and ship handling.

Support areas include secure chart and publication storage, instructor prep space, and offices located near instructional facilities to allow easy student access. Planning should also address future growth in simulation-based training, space flexibility to adapt to changing maritime technologies, and potential partnerships or credentialing needs that may expand space and infrastructure requirements.

Table 3.8 outlines the space requirements and associated quantities for the department.

Table 3.8 - Marine Transportation Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	31	150	4,650
Classroom[2]	1	1,000	1,000
Laboratory and Simulators[3]	10	1,000	10,000
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**16,550**
Net-to-Gross[4]	-	-	8,275
Total Gross Square Feet Requirement	**31 Personnel**	**-**	**24,825**

Notes:
1. Overall Private Office space includes 31 personnel at 150 NSF per person. These positions include all 24 Faculty Staff Positions and the additional 7 faculty positions that will be needed to support the MT degree as student enrollment grows.
2. Additional classroom space will be needed in the new Academic Building.
3. MT has multiple laboratory and simulator requirements including Navigation Chart Rooms and Simulation Laboratories, Liquid Cargo and Liquid Natural Gas Simulators, and Maritime Communications (GMDSS) Simulators) control systems, electric circuits, engine room simulators and graphics. Multiple labs are needed under MT: Two Integrated Navigational Labs (INLs) – assessment only, navigation assessment; Four Marine Transportation Labs (MTLs) – tanker/liquid cargo navigation and maritime communications; Flexible space in Samuels Hall – Class C Simulator (MTLs); Classroom and lab spaces should be collocated with Engineering where feasible. Potential future enhancements include crane simulation, a new firefighting and seamanship lab, a simulated wave pool for training, a freefall davit for lifeboat training, and a fast rescue boat davit. There is a need for redundancy in simulators and these simulators would be located under the Graduate Management Admission Test (GMAT) within the New Federal Maritime COE.
4. This includes a 30 percent net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Academic Building (Faculty Offices, Classroom), Samuels Hall (Labs), New Federal Maritime COE (Redundancy in Simulators)

3.2.9 Department of Mathematics and Science

The Department of Mathematics and Science supports the academic and professional development of midshipmen by providing foundational instruction in mathematics, physical sciences, and related disciplines essential to maritime operations and engineering. To support its curriculum, the department requires specialized classrooms designed for both lectures and hands-on learning, including laboratory spaces equipped with appropriate scientific equipment. Dedicated faculty offices are essential for academic advising, research, and one-on-one student engagement. Additionally, shared workspace for collaborative teaching efforts, research activities, and storage for lab materials is necessary. Space for adjunct faculty, along with access to storage for teaching resources, should also be included. The department would benefit from proximity to technology support spaces and quiet study areas for students to focus on individual learning and research.

Table 3.9 outlines the space requirements and associated quantities for the department.

Table 3.9 - Mathematics and Science Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	25	150	3,750
Classroom[2]	1	1,000	1,000
Laboratories[3]	3	1,000	3,000
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**8,650**
Net-to-Gross[4]	-	-	4,325
Total Gross Square Feet Requirement	**25 Personnel**	**-**	**12,975**

Notes:
1. Overall Private Office space includes 25 personnel at 150 NSF per person. These positions include all 21 Faculty Staff Positions and the additional 4 faculty positions that will be needed to support the M&S department as student enrollment grows.
2. An additional physics lab will be needed in the new Federal Maritime COE, especially as they add on a Physics graduate program.
3. M&S has multiple laboratory requirements including one 25-person chemistry lab, one 25-person physics lab. There is a need for redundancy in the physics lab if they add a graduate program and this space would be located within the Federal Maritime COE.
4. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: Bowditch Hall (Classroom and Lab Spaces), New Federal Maritime COE (Lab)

3.2.10 Department of Naval Science

The Department of Naval Science at the U.S. Merchant Marine Academy (USMMA) supports the Academy's mission by preparing midshipmen for commissioned service in the U.S. Navy Reserve and, when applicable, active duty in the U.S. Armed Forces. All graduates are commissioned as ensigns in the U.S. Navy Reserve unless they are selected for active duty in another service branch.

The curriculum emphasizes naval operations, the Strategic Sealift Officer Program, and courses in leadership and ethics. Instruction is designed to help midshipmen understand their role in national defense and maritime strategy, while reinforcing the responsibilities and expectations of commissioned service.

To function effectively, the Department of Naval Science requires classroom space for instruction, office space for faculty and staff, a conference room for small-group meetings and briefings, and secure storage for instructional materials and equipment.

Table 3.10 outlines the space requirements and associated quantities for the department.

Table 3.10 - Department of Naval Science Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	6	150	900
Conference Room[2]	1	300	300
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**2,100**
Net-to-Gross[3]	-	-	1,050
Total Gross Square Feet Requirement	**6 Personnel**	**-**	**3,150**

Notes:
1. Overall Private Office space includes 6 personnel for the Department of Naval Science staff at 150 NSF per person. Each of these faculty require private offices.
2. One 10-person conference room is needed for daily operations.
3. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Academic Building

3.2.11 External Affairs

The Department of External Affairs fosters relationships between USMMA and key external stakeholders, including government agencies, industry partners, alumni, and the maritime community. Its mission focuses on advocacy, communications, outreach, and fundraising to support USMMA's goals and enhance its visibility within the public and private sectors. The department also manages the Academy's brand and engages with stakeholders on policy and educational matters.

The department requires private offices for senior leadership to handle confidential discussions and strategic planning. Additionally, flexible conference rooms will be needed for meetings with stakeholders, including alumni, industry representatives, and government officials, with the capability to support virtual communication. A multipurpose conference room for large meetings and events will also be necessary.

Event and media spaces are also crucial, with adaptable areas for both small gatherings and larger community functions, such as podcasts, social events and fundraising campaigns. Secure IT infrastructure will be required to manage sensitive donor information and communications.

Table 3.11 outlines the space requirements and associated quantities for the department.

Table 3.11 - External Affairs Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	3	150	450
Open Office[2]	5	150	750
Podcast/Media Room[3]	1	500	500
Break Area	1	300	300
Welcome Area/Reception/Copy Room/Printer/ Support Space[4]	1	800	800
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**3,100**
Net-to-Gross[5]	-	-	1,550
Total Gross Square Feet Requirement	**8 Personnel**	**-**	**4,650**

Notes:
1. Overall Private Office space includes 3 personnel at 150 NSF per person. These positions include the EA Director and support staff.
2. Open Office space provides each personnel 150 NSF (for 5 personnel). These positions include a podcast technician, social media technician, and additional staff as the student enrollment and faculty positions grow.
3. The Podcast/Media Room is 500 NSF that can be located within the Library and utilized by multiple departments.
4. The reception space includes up to 500 NSF for a welcome/waiting area and support space which includes up to 300 NSF.
5. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: Wiley Hall/New Library

3.2.12 Facilities and Infrastructure

The Facilities and Infrastructure (F&I) department is responsible for the planning, maintenance, and operation of USMMA's physical assets. This includes managing building systems, infrastructure projects, and campus-wide utilities to ensure the academy's facilities are operational, efficient, and meet the needs of students, faculty, and staff. The department plays a crucial role in supporting the academy's long-term growth and operational priorities through strategic facility upgrades, renovations, and new construction

F&I requires a consolidated and modernized workspace to support expanding operations and address current inefficiencies. At present, F&I functions are spread across multiple buildings, including Department of Public Works (DPW) Buildings A and B and Furuseth Hall. This dispersion limits coordination across key areas such as Public Works, Administrative Services, Environmental Safety, and Public Safety. Centralizing these functions into a single facility will streamline communication, reduce redundancy, and enhance response time for maintenance and support services across campus.

Expanded shop and maintenance space is essential to support trades such as carpentry, plumbing, HVAC, and electrical, along with groundskeeping, boiler operations, equipment storage, and the motor pool. Contractor support teams must also be provided with adequate space and resources to operate efficiently within a centralized location. Consolidated and accessible storage will replace the current network of sheds and basement areas, providing secure and organized access to tools, parts, and supplies.

Additional requirements include private and open office spaces for administrative and technical staff, two large conference rooms to support interdepartmental coordination and project planning, and locker rooms for field personnel. Shipping and receiving operations, currently located within the General Supply Keeper (GSK) footprint, must be integrated into the overall logistical plan for F&I.

Environmental Safety

The Environmental Safety team currently operates with a single staff member stationed at USMMA through MARAD, but future needs call for a team of three. This team collaborates closely with F&I and MARAD, holding regular coordination meetings.

Responsibilities for environmental compliance are increasing. Current systems like the Environmental Management System are impeding audit performance. Implementing an automated platform could simplify compliance tracking and enhance responsiveness. Additionally, upgrading infrastructure is necessary to support safety systems. It is necessary to implement a new fire suppression system, expand fiber optic capabilities for security and monitoring, and establish a centralized location for managing mass notification systems and other emergency response tools.

Table 3.12 outlines the space requirements and associated quantities for the department.

Table 3.12 - Facilities and Infrastructure Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	10	150	1,500
Open Office[2]	40	150	6,000
Conference Rooms[3]	2	450	900
Shops/Maintenance Bays/Storage[4]	9	1,000	9,000
Locker Rooms[5]	1	800	800
Maintenance Contractor Shop Space[6]	1	2,500	2,500
GSK Shipping and Receiving Area[7]	1	6,150	6,150
Break Area	2	300	600
Reception/Copy Room/Printer/Support Space	2	300	600
Storage/Server/Utilities	2	300	600
Total Net Square Feet Requirement	**-**	**-**	**28,650**
Net-to-Gross[8]	-	-	14,325
Total Gross Square Feet Requirement	**50 Personnel**	**-**	**42,975**

Notes:
1. Overall Private Office space includes 10 personnel at 150 NSF per person. These positions include the F&I Director, DPW Director and all Supervisory positions.
2. Open Office areas will include desk space for all F&I, DPW, and Environmental Safety staff.
3. Two 20-person conference rooms are needed for daily operations.
4. DPW needs to maintain multiple shop spaces: carpentry, plumbing, HVAC, and electrical shop spaces, groundskeeping, equipment storage, boiler mechanical room, and motor pool. There also needs to be an additional 1,000 SF of storage space for DPW equipment.
5. Locker rooms are needed for the DPW staff. These can be 30-person (male) and 10-person (female) locker rooms.
6. Additional Maintenance Contractor Shop Space is needed for 30 personnel (approx. 2,500 NSF), 15 personnel are currently located in Fitch Hall.
7. GSK Shipping and Receiving need to be accessible near F&I. There needs to be one desk in the area and plenty of storage for incoming deliveries (approx. 6,150 SF).
8. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New F&I Administrative Building, New F&I Shops/Maintenance Building w/ GSK.

3.2.13 Federal Maritime Center of Excellence

The Federal Maritime COE is a new facility dedicated to advancing the United States' maritime industry by supporting education, research, and training programs. The center aims to foster innovation, promote best practices in the maritime sector, and enhance the nation's maritime capabilities by offering specialized programs, industry partnerships, and cutting-edge facilities. Its mission is to develop highly skilled professionals who will lead in the maritime industry, contributing to the economic strength, national security, and environmental resilience of the U.S. maritime fleet.

Space requirements for the Federal Maritime COE include specialized classrooms and simulation labs that accommodate hands-on training, as well as flexible learning environments for both students and professionals. Dedicated spaces for research initiatives, including laboratories and conference areas for collaboration with industry partners, will be essential. The center will require offices for faculty and staff, with the possibility of incorporating open workspaces to encourage interdisciplinary collaboration and innovation. Storage for research materials and maritime-specific equipment will be necessary, along with areas to house large-scale simulation technologies.

To support its mission, the center must be equipped with advanced maritime training facilities, including simulators and interactive systems. It is essential that these spaces are easily accessible and integrated with the campus infrastructure, particularly for students and faculty engaging in research and practical maritime training. Additionally, given the collaborative nature of the center, it is vital that dedicated meeting rooms and administrative offices are strategically placed to facilitate ongoing industry partnerships, events, and project coordination.

Table 3.13 outlines the space requirements and associated quantities for the Library and Federal Maritime COE combined.

Table 3.13 - Federal Maritime Center of Excellence and Library Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Library Wing Functional Use			
Library[1]	13	-	78,293 (GSF)
ACE[2]	6	-	9,488 (GSF)
Podcast/Media Room[3]	-	500	500
IT Service Desk[4]	-	800	800
Federal Maritime COE Functional Use			
Department of Marine Transportation Simulators	2	2,000	4,000
Department of Math and Science Physics Lab	1	1,000	1,000
Conference, Large	1	1,600	1,600
Conference, Small	2	1,200	2,400
Classroom	5	900	4,500
Laboratory	6	1,000	6,000
Reception	1	1,800	1,800
Event Space	1	1,200	1,200
Display Space	1	1,000	1,000
Office	6	150	900
Prep Kitchen	1	300	300
Support Space	1	2,000	2,000
Lecture Hall	1	4,000	4,000
Outdoor Promenade	1	2,400	2,400
Federal Maritime COE Hospitality Space Functional Use			
Guest Rooms	15	300	4,500
Dining and Prep	1	1,200	1,200
Support Space	1	800	800
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	-	-	**41,500**
Net-to-Gross[5]	-	-	**20,750**
Total Gross Square Feet Requirement[6]	**25 Personnel**	-	**150,030**

Notes:
1. Library space requirements.
2. ACE space requirements.
3. A 500 SF podcast/media room is needed in the Library.
4. IT requires 800 SF for a service desk area in the Library.
5. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Federal Maritime COE/New Library

3.2.14 Health and Food Safety

Health and Food Safety is responsible for ensuring the health and well-being of midshipmen and staff, managing food services, and overseeing the safety of food preparation and storage facilities. The department also occasionally caters to external events and provides services beyond the primary daily operations. All Health and Food Safety personnel are under contract agreement and offices are located in Delano Hall.

Currently, the food service facility, which seats 1,000 individuals, is not adequately equipped to handle non-midshipmen visitors or external catering requests. While the department occasionally provides catering for outside groups, the existing space limits this capability and creates operational inefficiencies. To better accommodate these needs, the facility would benefit from operational and redundant kitchen equipment. This would reduce the disruption to daily food service operations and allow for more efficient handling of external catering requests, providing greater flexibility for the department.

A space requirements table is not included for this section, as the programming will remain in Delano Hall. Renovations will need to occur within Delano Hall as outline in **Chapter 7**. The Director requires a private office and additional staff are contracted under food services wihtin Delano Hall.

3.2.15 Health Services

The mission of Health Services is to provide comprehensive healthcare to midshipmen and staff, focusing on preventative care, treatment of illness and injuries, and overall wellness. The department is responsible for managing health records, conducting routine health screenings, and offering emergency medical care, ensuring the well-being of all personnel. In addition to direct care, Health Services also plays a crucial role in maintaining the health standards required for midshipmen's training and readiness, particularly as they prepare for their maritime service.

To effectively fulfill this mission, the department requires modern, purpose-built space that includes dedicated provider offices, exam and isolation rooms, triage areas, physical therapy spaces, and stations for blood draws and vaccines. Dental services are also integral, requiring space for x-ray, sterilization, and charting functions. Supporting infrastructure, such as a records room, clean and soiled utility areas, and pharmacy storage, are essential for maintaining safe and compliant medical operations.

The department's operational needs also include a clear separation between sick and well patient waiting areas to ensure proper infection control, as well as an after-hours medication pickup zone for greater accessibility. Around-the-clock amenities, including restrooms, showers, locker space, and a kitchenette for overnight staff, are necessary to support continuous operations.

In addition, space for Emergency Medical Services (EMS) functions, including supply storage, dispatch, and equipment staging, is critical. Planning should account for the replacement of the leased ambulance bay and the provision of secure, climate-controlled storage for vaccines with backup power. A future isolation and sick ward is needed, as current facilities do not adequately support the segregation and treatment of contagious individuals. Additionally, key infrastructure priorities include roof replacement, storage for medical supplies and pharmaceuticals, and the digitization of medical records, which are already planned for future implementation.

Table 3.14 and **Table 3.15** outline the space requirements and associated quantities for the department.

Table 3.14 - Clinic Space Requirements (Medical)

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	11	150	1,650
Open Office[2]	21	150	3,150
Conference Room[3]	1	210	210
Lecture Space[4]	1	1,200	1,200
Special Purpose Medical Space[5]	1	3,455	3,455
EMS Special Purpose Medical Space[6]	1	900	900
Locker Rooms[7]	1	400	400
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[8]	1	2,450	2,450
Storage/Server/Utilities	1	300	300
Outdoor Gazebo[9]	1	400	400
Total Net Square Feet Requirement	**-**	**-**	**14,415**
Net-to-Gross[10]	-	-	7,208
Total Gross Square Feet Requirement	**32 Personnel**	**-**	**21,623**

Notes:
1. Overall Private Office space includes 11 personnel for the Medical Health Care Providers at 150 NSF per person. These positions include the Supervisory roles under Medical EMT.
2. Open Office areas will include desk space and hoteling for all other medical staff.
3. One 4-person conference room is needed for daily operations.
4. A 50- to 70-person lecture space is needed at the Midshipmen Activity Center. 135 EMT-certified midshipmen need a designated space to sit. Some training space can be utilized within classrooms.
5. The special purpose medical space includes six exam rooms (1,200 SF), four pandemic isolation exam rooms (500 SF), physical therapy exam room (150 SF), nutrition consultation (150 SF), blood draw station/vaccine station (150 SF), collection/samples space (80 SF), lab supply and specimen processing room (100 SF), clean storage (100 SF), medical supplies room/supply room (100 SF), staff restrooms/patient restrooms (300 SF), soiled and clean utility space/biohazard room (100 SF), medical charting and records (100 SF), private consultation space (size of exam room up to 5 personnel) (225 SF), and a pharmacy (200 SF).
6. EMS supply room (300 SF), bathroom and showers (1M/1F) (300 SF), supervisor office (1 private office, 150 SF), a kitchenette space accessible 24/7 for the "watch team" (150 SF) and ambulance bay and space for an EMT golf cart.
7. A minimum of 20 locker rooms are needed near the staff break room area to store clothing and personal items (400 SF).
8. The reception/copy room/printer/support space includes a dispatch/squad room is needed for Medical staff, a dispatch area (200 NSF), supply room (300 NSF), printer and copy area (300 NSF), a Reception Space/Kiosk (for 2 personnel) (150 SF), and triage area (at least 5 personnel) (750 SF), a patient waiting area well room (400 SF), a patient waiting area sick room (200 SF), after hours sealed box space (150 SF), and an after hours medication pickup.
9. An outdoor gazebo area with 25 to 30 seats is needed for Indoctrination Week (400 SF).
10. This includes a 50 percent net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Clinic/New Midshipmen Activity Center (lecture hall)

Table 3.15 - Clinic Space Requirements (Dental)

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	12	150	1,800
Open Office[2]	1	150	150
Conference Room[3]	1	210	210
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[4]	1	400	400
Storage/Server/Utilities[5]	1	1,260	1,260
Total Net Square Feet Requirement	**-**	**-**	**4,120**
Net-to-Gross[6]	-	-	2,060
Total Gross Square Feet Requirement	**13 Personnel**	**-**	**6,180**

Notes:
1. Overall Private Office space includes 11 personnel for the Dental Health Care Providers, and 1 personnel for the Dental Doctor at 150 NSF per person. These positions include the Supervisory roles under and the Dental Doctor.
2. Open Office areas will includes an open desk space for all other dental staff.
3. One 4-person conference room is needed for daily operations.
4. The reception/copy room/printer/support space includes a Dental waiting area (100 SF) and supply/printer/copy area (300 NSF).
5. In addition to the typical storage area (300 SF), additional special purpose storage space is needed for records/charting room (100 SF), X-ray space (150 SF) sterilization room (150 SF), supply room (100 SF), lab casting room (100 SF), staff restrooms/patient restrooms (160 SF total), storage and waste (100 SF), and a soiled and clean utility space/biohazard room (100 SF).
6. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Clinic

3.2.16 Human Resources

The Human Resources (HR) department is responsible for managing personnel services across the Academy, including recruitment, onboarding, employee relations, performance management, benefits administration, and compliance with federal employment regulations. HR plays a critical role in supporting faculty and staff, ensuring workforce readiness, and fostering a professional environment aligned with USMMA's mission and values.

To effectively carry out these responsibilities, the HR department requires secure and professional office space that supports both private and collaborative work. This includes individual offices for confidential conversations and personnel matters, a conference room, and shared workspaces for team members. Adequate storage is also essential for sensitive personnel files and records, particularly where physical documentation is still required for compliance.

Meeting and interview rooms are also needed to facilitate candidate screenings, training sessions, and employee consultations. Infrastructure should support secure digital systems, with sufficient IT capacity to manage personnel databases and ensure data privacy.

Table 3.16 outlines the space requirements and associated quantities for the department.

Table 3.16 - Human Resources Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	6	150	900
Open Office[2]	6	150	900
Conference Room[3]	1	375	375
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[4]	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	-	-	**3,075**
Net-to-Gross[5]	-	-	1,538
Total Gross Square Feet Requirement	**12 Personnel**	-	**4,613**

Notes:
1. Overall Private Office space includes 6 personnel at 150 NSF per person. These positions include the HR Director, Deputy Director, and support staff.
2. Open Office space provides each personnel 150 NSF (for 6 personnel). These positions include support staff as the student enrollment and faculty positions grow.
3. One 15-person conference room is needed for daily operations.
4. The support space needs to include an area for a security station (PIV/CAC production).
5. This includes a 30 percent net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: Renovated Patten Hall

3.2.17 Information Technology

IT supports the technological infrastructure and digital services that enable the Academy to operate efficiently. This department is responsible for maintaining computer systems, networks, software applications, and security protocols. IT ensures that faculty, staff, and students have the tools and resources needed to carry out academic and administrative functions while safeguarding the Academy's digital assets.

The department requires a dedicated facility with space for servers, data storage, and IT equipment, with provisions for climate control and security to protect sensitive information. Workstations for IT support staff and systems administrators are necessary for troubleshooting, system maintenance, and user assistance. Additionally, areas for collaborative work, training, and meetings with other departments or external vendors are required to plan, implement, and support technological solutions across campus.

Secure spaces for storing IT assets and equipment, including backups, network hardware, and system documentation, must be included to ensure compliance with data protection and cybersecurity standards.

Table 3.17 outlines the space requirements and associated quantities for the department.

Table 3.17 - Information Technology Department Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	5	150	750
Open Office[2]	30	150	4,500
Conference Room[3]	2	300	600
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[4]	1	1,100	1,100
Storage/Server/Utilities[5]	1	1,100	1,100
Total Net Square Feet Requirement	-	-	**8,350**
Net-to-Gross[6]	-	-	4,175
Total Gross Square Feet Requirement	**35 Personnel**	-	**12,525**

Notes:
1. Overall Private Office space includes 5 personnel for the Information Technology staff at 150 NSF per person. The Director and 4 other IT staff need private offices.
2. Open Office space provides each personnel 150 NSF (for 30 personnel). This area should be a combination of computer hoteling stations and work benches for IT staff.
3. Two 10-person conference rooms are considered huddle spaces needed for daily operations.
4. A service desk counter of 800 SF is needed at the Library for receiving/processing equipment repairs.
5. In addition to the typical storage area (300 SF) an additional 800 SF of storage is needed for equipment on racks that are being processed or repaired.
6. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: Renovated Patten Hall and New Library

3.2.18 Library Department

The mission of the Schuyler Otis Bland Memorial Library is to foster intellectual growth and advance the mission of the United States Merchant Marine Academy by providing quality resources and innovative services in education and research. The Library has been funded adequately for baseline completion of its operational mission but several areas have been lagging due to additional funding needs. In addition to serving midshipmen, faculty, and staff, the Library is also open to the public, supporting broader access to maritime knowledge and resources.

Space requirements for the Library include multiple climate-controlled areas for archival storage, book collections, and specialized spaces for reading rooms, static displays, multiple book and periodical collections, as well as the overall study rooms and spaces for students, faculty, and the public. **Table 3.18** outlines the functions, space requirements, and associated quantities for the Library.

To support its mission, the Library must be modernized to meet overall storage, academic, archival, and study space requirements. External Affairs will also require unique spaces within the Library in support of student academics and life on campus. The Library also plays a critical role in the local relevancy of the campus, being accessible to the local community and providing public access to maritime research. This mission has the opportunity to grow as there will be adequate space for training, research, and event spaces in conjunction with the new Federal Maritime COE building.

Table 3.18 - Library Department Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	8	150	1,200
Open Office[2]	5	150	750
Computer Lab[3]	1	2,000	2,000
Conference Room[4]	1	300	300
Special Purpose Library Space[5]	1	45,545	45,545
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[6]	1	800	800
Storage/Server/Utilities[7]	1	1,300	1,300
Total Net Square Feet Requirement	**-**	**-**	**52,195**
Net-to-Gross[8]	**-**	**-**	**26,098**
Total Gross Square Feet Requirement	**13 Personnel**	**-**	**78,293**

Notes:

1. Overall Private Office space includes 8 personnel for the Library staff at 150 NSF per person. The Director and 7 other Library staff need private offices.
2. Open Office space provides each personnel 150 NSF (for 5 personnel).
3. One 20-person computer lab room is needed for groups and classes.
4. One 10-person conference room is needed for daily operations. Ideally this is located near the Director's office.
5. Special purpose library space includes unique storage, study areas, and lecture spaces that are not captured elsewhere including: archival storage space climate-controlled and secure (4,500 SF) which contains vault collection and the archives collection; rare books vault (both climate-controlled) (1,000 SF); tangible and main collection (80,000 volumes) (8,000 NSF) w/ static display; museum archives (10,000 SF); leadership collection (120 SF); public spaces (125 SF); microfilm and reader areas (50 SF); self checkout kiosks (50 SF); vertical files (200 SF); periodicals collections/reports (4,500 SF); periodical reading room (150 SF); library book circulation (100 SF); atlas and dictionary stands (150 SF); textbook collection with static shelving (4,000 SF); 8 closed study rooms for students (800 SF); 8 closed study rooms for faculty (800 SF); two open study areas (total 10,000 SF); and two Library lecture spaces which includes shared space for the Humanities reading nook (total 1,000 SF).
6. The reception/copy room/printer/support space includes a printer and mail room area and includes a Coffee/Cappuccino Café of 200 SF and an atrium area for the Globe and Exhibit Space (300 SF).
7. The storage/server/utility area of 300 SF is included and the Library requires an additional 1,000 SF for storage of book materials, labels, etc.
8. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Federal Maritime COE/New Library

3.2.19 Commandant of Midshipmen

The Comandant is the Dean of Students and handles all midshipmen affairs related to military organization, conduct, and discipline. The office has multiple staff members that require private offices including the Commandant and Deputy Commandant. Staff members consist of the Battalion Officer, Company Officers, and Senior Enlisted leaders.

Key space requirements include private and open office areas, a conference room, study, media, lounge, and recreation areas. These requirements are met in the new Midshipmen Activity Center (MAC).

Table 3.19 outlines the space requirements and associated quantities for the Commandant of Midshipmen and functions within the Midshipmen Activity Center.

3.2.20 Midshipmen Activity Center

The MAC supports student life by providing a central location for social engagement, leadership development, recreation, and campus programming. It plays a key role in enhancing morale, promoting well-being, and strengthening community among midshipmen. The center serves as a hub for clubs, organizations, event coordination, and informal gathering, reinforcing the Academy's goal of developing well-rounded leaders with strong interpersonal and organizational skills.

To achieve these goals, the MAC requires a welcoming, flexible facility that can support a wide variety of uses. Key space requirements include multipurpose event areas, club meeting rooms, and casual lounge zones where students can relax or study. The center should also include recreational facilities such as game rooms and fitness amenities. Additionally, it may offer contracted food services, a golf simulator room, and a music room.

Additional needs include storage for club materials and equipment, flexible furniture and room layouts for different types of events, and robust technology infrastructure to support presentations, digital collaboration, and hybrid engagement.

Table 3.19 - Commandant Space Requirements within the Midshipmen Activity Center

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	3	150	450
Open Office[2]	4	150	600
Lecture Space[3]	-	1,200	1,200
Study Meeting Rooms	10	400	4,000
Computer Lab	1	650	650
Theatre	1	2,400	2,400
Lounge/Collaboration Space	1	5,000	5,000
Cafe/Pub/Food Court/Dining Options	2	2,500	5,000
Kitchen	1	700	700
Workout Rooms (Yoga/Activity Spaces)	2	1,000	2,000
Musical Rooms	2	150	300
Melville Hall Programming	1	5,000	5,000
Golf Simulator Rooms	1	200	200
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities[4]	1	900	900
Total Net Square Feet Requirement	**-**	**-**	**28,700**
Net-to-Gross[5]	-	-	14,350
Total Gross Square Feet Requirement	**7 Personnel**	**-**	**43,050**

Notes:
1. Overall Private Office space includes 3 personnel for the Commandant/MAC staff at 150 NSF per person that require private offices (Director of Wellness, Director of Student Activities, Career Counselor).
2. Open Office space provides each personnel 150 NSF (for 4 personnel including the Fitness Coordinator, Education Coordinator, and Nutritionist).
3. A 50- to 70-person lecture space is needed at the Midshipmen Activity Center. 135 EMT-certified midshipmen need a designated space to sit. Some training space can be utilized within classrooms.
4. The storage/server/utility area of 300 SF is included and the National Parent Association requires an additional 500 SF for storage of equipment and 100 SF for the Cookie Cafe.
5. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Midshipmen Activity Center

3.2.21 Midshipmen Counseling & Professional Development

Midshipmen Counseling & Professional Development (MCPD) provides essential support to students, addressing their mental health needs and promoting overall well-being. The department's mission is to offer confidential counseling, crisis intervention, and mental health education to ensure the psychological health of the USMMA community.

To fulfill this mission, the MCPD requires a dedicated facility that ensures privacy, confidentiality, and accessibility for students. Space needs include a reception area that can also function as a private office, a small waiting room for two to three individuals, and five private counseling offices for individual sessions. An open office area is needed to accommodate one administrative or support staff member.

Additional functional requirements include a secure room for records storage, a staff/patient restroom, a supply and storage area, and a break room for staff use. A group education room is also necessary to support outreach efforts, training programs, and therapeutic group sessions; this room may be shared with the SAPR office as long as privacy and scheduling needs are respected.

Table 3.20 outlines the space requirements and associated quantities for the department.

Table 3.20 - Midshipmen Counseling & Professional Development Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	5	150	750
Open Office[2]	2	150	300
Group Education Room[3]	1	300	300
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[4]	1	400	400
Storage/Server/Utilities[5]	1	400	400
Total Net Square Feet Requirement	**-**	**-**	**2,450**
Net-to-Gross[6]	-	-	1,225
Total Gross Square Feet Requirement	**7 Personnel**	**-**	**3,675**

Notes:
1. Overall Private Office space includes 5 personnel for the Counseling staff at 150 NSF per person.
2. Open Office areas will include an open desk space for the reception desk and other personnel.
3. One group education room is needed to support group counseling.
4. The reception/copy room/printer/support space includes a patient waiting room (100 SF) and supply/printer/copy area (300 NSF).
5. In addition to the typical storage area (300 SF), additional record storage is needed (100 SF).
6. This includes a 50 percent net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Clinic

3.2.22 Museum

The American Merchant Marine Museum plays a key role in preserving and showcasing the history, heritage, and achievements of the Academy and the maritime community. It serves as an educational resource for students, faculty, alumni, and the public, highlighting the contributions of USMMA graduates to national security, maritime operations, and the economy. The museum houses a collection of artifacts, exhibits, and historical documents that tell the story of the Academy's legacy and its impact on the maritime industry.

To support its mission, the museum requires dedicated space for the display of permanent and rotating exhibits, secure archival storage for its collections, and areas for research and educational programming. The facility should include well-designed galleries for public access, as well as storage for artifacts, documents, and memorabilia. Climate-controlled rooms are essential to protect sensitive items such as photographs, historical documents, and rare maritime artifacts.

Additionally, the museum needs flexible spaces for classrooms, educational events, group tours, and workshops. These spaces should allow for interactive learning experiences that enhance the understanding of the Academy's history and the maritime profession.

Table 3.21 outlines the space requirements and associated quantities for the department.

Table 3.21 - Museum Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	3	150	450
Open Office[2]	3	150	450
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**1,800**
Net-to-Gross[3]	-	-	900
Total Gross Square Feet Requirement	**6 Personnel**	**-**	**2,700**

Notes:
1. Overall Private Office space includes 3 personnel for the Museum staff at 150 NSF per person. The Director and 2 other Museum staff need private offices.
2. Open Office space provides each personnel 150 NSF (for 3 personnel).
3. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: Museum

3.2.23 Procurement and Finance

Procurement and Finance is responsible for managing the budgeting, purchasing, and financial operations of the Academy. This department plays a key role in supporting the institution's mission by ensuring efficient use of resources, compliance with financial regulations, and strategic allocation of funds. The department oversees procurement processes, manages financial reporting, and ensures adherence to both federal and institutional financial guidelines.

For effective operation, the department requires space for administrative offices, which includes areas for financial analysis, procurement, and contract management. Dedicated workstations for staff members handling purchasing, financial transactions, and budgeting are essential. A secure space for financial records and documentation is necessary to comply with audit and regulatory requirements. Meeting rooms for collaboration with other departments, midshipmen, and external vendors are also needed to facilitate the review of contracts and procurement strategies. Additionally, the department requires storage for sensitive materials, including contracts, procurement files, and financial reports, with secure access controls in place.

Table 3.22outlines the space requirements and associated quantities for the department.

Table 3.22 - Procurement and Finance Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	5	150	750
Open Office[2]	5	150	750
Conference Room[3]	1	300	300
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities[4]	1	600	600
Total Net Square Feet Requirement	**-**	**-**	**3,000**
Net-to-Gross[5]	-	-	1,500
Total Gross Square Feet Requirement	**10 Personnel**	**-**	**4,500**

Notes:
1. Overall Private Office space includes 5 personnel for the Procurement and Finance staff at 150 NSF per person.
2. Open Office space provides each personnel 150 NSF (for 5 personnel). These positions include support staff as the student enrollment and faculty positions grow.
3. One 10-person conference room is needed for daily operations.
4. In addition to the typical storage area (300 SF) an additional 300 SF of storage is needed for hard copy files.
5. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: Renovated Patten Hall

3.2.24 Professional Development and Career Services

The Department of Professional Development & Career Services (PDCS) at USMMA oversees all aspects of cadet career development and maritime training. Within PDCS, the Office of Shipboard Training is specifically responsible for administering the Sea Year Program, which places midshipmen aboard commercial and government vessels to fulfill U.S. Coast Guard licensing requirements and gain practical experience. PDCS also includes the Office of Career Services, which focuses on shoreside internships and post-graduation employment support. Together, these offices ensure midshipmen receive comprehensive professional preparation through a combination of academic, shipboard, and industry engagement.

To function effectively, the Shipboard Training Department requires dedicated office space for its staff, including individual offices for Academy Training Representatives and the Department Head, as well as shared administrative areas. In addition, the department needs access to secure storage for training guides and midshipmen documents, classroom space for Sea Year briefings and lectures, and proximity to the Academy's Travel Office, Medical Services, and Commandant's Department for coordination. A designated area for midshipmen check-ins, sea gear distribution, and daily accountability is also necessary to support the day-to-day operations of Sea Year administration. Locker room space or long-term personal storage is also required to accommodate midshipmen's belongings while they are assigned to vessels for extended periods.

Table 3.23 outlines the space requirements and associated quantities for the department.

Table 3.23 - Professional Development and Career Services Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office1	7	150	1,050
Open Office2	4	150	600
Conference Room3	1	300	300
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	**-**	**-**	**2,850**
Net-to-Gross4	-	-	1,425
Total Gross Square Feet Requirement	**11 Personnel**	**-**	**4,275**

Notes:
1. Overall Private Office space includes 7 personnel for the Professional Development and Career Services staff at 150 NSF per person. The 5 Academic Training Representatives, one Department Head, and one Master of Science in Maritime Logistics and Security program staff need private offices.
2. Open Office space provides each personnel 150 NSF (for 4 personnel). These positions include support staff such as administrative assistants.
3. One 10-person conference room is needed for daily operations.
4. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Academic Building

3.2.25 Physical Education and Athletics

Physical Education and Athletics supports the health, wellness, and leadership development of midshipmen through mandatory physical education courses, intercollegiate, club, and intramural sports programs, as well as varsity athletics. The department plays a critical role in ensuring midshipmen meet military physical readiness standards while fostering leadership, teamwork, and resilience. This is accomplished through a combination of structured physical education classes, athletic competition, and intense training, all geared toward preparing physically fit leaders for maritime service.

To meet the diverse needs of its programs, the department requires facilities that support both everyday training and competitive events. A multi-purpose fieldhouse is essential to provide indoor space for sports such as track, rugby, and other athletic programs, especially during inclement weather or off-season periods. Additionally, a Mariner Training Center is required, featuring a pool, locker rooms, and other specialized spaces to support physical conditioning, safety drills, and maritime-specific training.

The department also needs gymnasiums, strength and conditioning areas, outdoor fields, locker rooms, and dedicated athletic trainer spaces. Proper storage for athletic gear, offices for coaching staff, and spectator seating for competitions are also important.

Table 3.24 outlines the functions, space requirements, and associated quantities within the Mariner Training Center and **Table 3.25** outlines the functions, space requirements, and associated quantities within the Fieldhouse.

Table 3.24 - Mariner Training Center

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	68	150	10,200
Open Office[2]	10	150	1,500
Conference Rooms[3]	3	450	1,350
Gymnasium[4]	1	31,700	31,700
Pool (Competition/Survival)[5]	1	25,000	25,000
Weight Training Area/Strength/Cardio Rooms[6]	1	12,000	12,000
Team/Class Rooms[7]	2	2,000	4,000
Athletic Training/Physical Therapy Room[8]	1	2,500	2,500
Equipment Room	1	4,800	4,800
Laundry Room	1	1,000	1,000
Locker Rooms[9]	524	20	10,480
Break Area	2	300	600
Reception/Copy Room/Printer/Support Space[10]	1	5,000	5,000
Storage/Equipment/Server/Utilities[11]	1	2,200	2,200
Subsurface Parking[12]	150	300	45,000
Total Net Square Feet Requirement	-	-	**157,330**
Net-to-Gross[13]	-	-	78,665
Total Gross Square Feet Requirement	**78 Personnel**	-	**235,995**

Notes:
1. Overall Private Office space includes 68 personnel for the Athletics staff at 150 NSF per person. The following staff should have a suite of offices: Aquatics (12 Head Coaches and 13 Assistant Coach offices); Support Staff Suite (10 personnel); Football Suite (1 Head Coach, 8 Assistant Coach (4 full-time, 4 part-time)); Indoor Sport Suite (Basketball/Volleyball: 4 Head Coach, 4 Assistant Coaches); Outdoor Sport Suite (Mlax, Wlax, Tennis: 4 Head Coach, 4 Assistant Coaches); Support Staff Suite: 2 Finance Offices, 2 Sports Info, 2 Equipment; Strength & Conditioning Coach Suite: 1 Head Coach, 1 Assistant Coach.
2. Open Office space provides each personnel 150 NSF (for 10 personnel). These are mainly administrative functions that will be in a Executive type suite/open suite office or supporting open office.
3. Conference rooms include one 20-person Executive Conference Room, and two 20-person shared conference room is needed for daily operations.
4. The gymnasium needs to include a Performance Basketball Court; a Performance Volleyball Court; second court for Basketball and two practice Volleyball courts either side by side or crosscourt for practice; seating for 1,500 spectators and VIP seating; large storage space; team storage space; sound system; performance lighting; two scoreboards; shot clocks on the main goals; platform for cameras; and a gym divider/netting.
5. The pool will be used as a competitive pool and for Midshipmen training pool. An eight-lane 25-meter pool is needed for competitions and training space; Five-meter deep diving well; One-meter and three-meter diving boards and waiting hot tub; Five-meter platform; Seating for 500; Aquatic Director and Manager offices; PE and S&D storage space.
6. The Weight Training Area/Strength/Cardio Rooms serves as the main training area for sports teams.
7. This includes a space for 120 people that can be divided into two or three rooms.
8. This training and physical therapy space will include training tables, cold/hot tubs, ice machines, space and equipment for ATC, physical therapy tables, rehab machines, open floor areas for rehab, and indoor sauna rehab space.
9. Locker rooms are needed for each sports team (with men's and women's locker rooms) and visiting teams (with men's and women's locker rooms).
10. The reception/copy room/printer/support space (300 SF) also include a reception area, support space with laundry rooms of an additional 4,700 SF.
11. The storage/server/utility area of 300 SF is included and additional storage of 1,900 SF for equipment and additional storage space.
12. Subsurface parking will only be one level below ground and shall have anywhere from 50 to 75 spaces per level.
13. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Mariner Training Center

Table 3.25 - Physical Education and Athletics Space Requirements within the Fieldhouse

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	12	150	1,800
Open Office[2]	2	150	300
Conference Room[3]	1	375	375
Athletic Training Room[4]	1	1,500	1,500
Indoor Track and Turf Field[5]	1	49,000	49,000
Locker Rooms[6]	332	20	6,640
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[7]	1	400	400
Storage/Equipment/Server/Utilities[8]	1	2,300	2,300
Subsurface Parking	150	300	45,000
Total Net Square Feet Requirement	-	-	**107,615**
Net-to-Gross[9]	-	-	53,808
Total Gross Square Feet Requirement	**16 Personnel**	-	**161,423**

Notes:
1. Overall Private Office space includes office suites for Athletics staff at 150 NSF per person. The following suites are included: Soccer Suite (4 offices), Baseball Suite (2 offices), XC/TF Suite (2 offices), Certified Athletic Trainer (ATC) Suite (2 offices), and a Future Sport (2 offices).
2. Open Office space provides each personnel 150 NSF (for 2 administrative personnel).
3. One 15-person conference room is needed for daily operations.
4. One Athletic Training room is needed for students including 4-6 training tables, 1 large ice machine, two 6-person cold/hot tubs, storage space, and space for rehab.
5. An Indoor Track Space 200 M or less (15,000 SF) and Multi-purpose Turf Field (34,000 SF) is needed in the Fieldhouse. Other elements include safety netting, batting cage netting, a scoreboard, shot clocks, and storage area for equipment.
6. Locker rooms are needed for multiple sports. The following sports require locker room space: Soccer (40 Men & 40 Women), Baseball (50 Lockers), MXC/TF (40 Lockers), WXC/TF (40 Lockers), Future Team (40 Lockers), Visitor Team (40 Men & 40 Women), Officials Locker (6 Men & 6 Women).
7. A Reception Area (100 SF) is needed in addition to the 300 SF of support space.
8. The storage/server/utility area of 300 SF is included and additional storage is needed for athletic storage (1,000 SF) and an equipment room (1,000 SF).
9. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Fieldhouse

3.2.26 Public Safety and Security

The Department of Public Safety and Security is responsible for maintaining a secure and safe campus environment for all midshipmen, faculty, staff, and visitors. This includes routine patrols, emergency response, access control, event security, and coordination with local law enforcement and emergency services. The department plays a key role in preparedness planning, crisis management, and compliance with federal safety and reporting regulations.

To better support access control and ensure effective campus security, Public Safety requires a strategically located facility outside the main security gate. This relocation would improve visitor screening, allow for the inspection of privately owned and commercial vehicles, and reduce traffic disruptions at the entrance. Core space requirements include a secure dispatch and communications center with radio, CCTV, and emergency monitoring equipment; guard locker rooms; secure evidence and records storage; and office space for administrative staff and officers. Additional operational needs include a conference room for emergency coordination and training, locker and break areas for shift personnel, and secure parking or staging space for patrol vehicles.

Table 3.26 outlines the space requirements and associated quantities for the department.

Table 3.26 - Public Safety and Security Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	5	150	750
Locker Rooms[2]	1	400	400
Emergency Management Center[3]	1	500	500
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	-	-	2,550
Net-to-Gross[4]	-	-	1,275
Total Gross Square Feet Requirement	5 Personnel	-	3,825

Notes:
1. Overall Private Office space includes 15 personnel for the Alumni Association staff at 150 NSF per person. The Director and 14 other Alumni Association staff need private offices.
2. A locker room space with 20-lockers is needed for daily operations.
3. An emergency management center (500 SF) is needed for crisis events in a central area.
4. This includes a 50 percent net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Welcome Center (Admissions & Alumni Office/Visitor Center & Gift Shop/ Security Center)

3.2.27 Religious Ministry

The Religious Ministry at USMMA provides spiritual support, pastoral care, and opportunities for religious expression to midshipmen, faculty, and staff of all faiths. It fosters moral development, resilience, and ethical leadership through worship services, counseling, educational programs, and ceremonial events. The ministry plays a vital role in supporting the emotional and spiritual well-being of the Academy community, while upholding the institution's commitment to inclusivity and freedom of religion.

To fulfill this mission, the Religious Ministry requires a renovated Mariners' Memorial Chapel to accommodate diverse forms of worship and reflection. The space should include a primary chapel or worship area with adaptable seating and acoustics, smaller rooms for quiet prayer or religious study, and a multipurpose space for fellowship, classes, and interfaith dialogue. Offices for ministry staff, private counseling rooms, and secure storage for religious materials and ceremonial items are also essential.

The Religious Ministry requires accessible ABA restrooms near the Chapel. Renovations to the Chapel grounds are ongoing for interior O&M. The Chapel also requires a new fire pit, and patio facing the waterfront. These spaces need to be ABA accessible.

Table 3.27 outlines the space requirements and associated quantities for the department.

Table 3.27 - Religious Ministry Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	5	150	750
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities	1	300	300
Total Net Square Feet Requirement	-	-	1,650
Net-to-Gross[2]	-	-	825
Total Gross Square Feet Requirement	5 Personnel	-	2,475

Notes:
1. Overall Private Office space includes 5 personnel for the Religious Ministry staff at 150 NSF per person. Each of these staff require private offices.
2. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: Chapel

3.2.28 Sexual Assault Prevention and Response

The Sexual Assault Prevention and Response (SAPR) office is integral to supporting the USMMA community by addressing issues related to sexual assault, providing prevention programs, and offering confidential support to survivors. To effectively carry out its mission, SAPR requires a dedicated, confidential space that ensures the safety and privacy of those seeking assistance. This includes private offices for staff, a secure counseling area, and a conference room for meetings and training sessions. The office should also provide storage for sensitive materials, such as records and resources for victims, in a secure and accessible manner.

In addition, SAPR operations require specialized infrastructure to support its mission, including areas for confidential counseling, a separate entrance for counseling staff, and secure spaces for storing equipment and materials. Space should be designed to allow for flexibility, enabling the office to accommodate both individual counseling sessions and group meetings or workshops focused on prevention and awareness.

The SAPR office also plays a role in coordinating with other departments, so providing space for cross-sector collaboration is essential. This may include shared spaces for coordination with other support services on campus, ensuring a holistic approach to prevention and response efforts. Additionally, considerations for privacy and acoustical separation between different areas within the office are critical, as SAPR staff often engage in sensitive conversations that require confidentiality.

Table 3.28 outlines the space requirements and associated quantities for the department.

Table 3.28 - SAPR Space Requirements

Functional Use	Personnel/ Quantity	SF	NSF
Private Office[1]	7	150	1,050
Conference Room[2]	1	375	375
Break Area	1	300	300
Reception/Copy Room/Printer/Support Space[3]	1	400	400
Storage/Server/Utilities[4]	1	400	400
Total Net Square Feet Requirement	-	-	2,525
Net-to-Gross[5]	-	-	1,263
Total Gross Square Feet Requirement	8 Personnel	-	3,788

Notes:
1. Overall Private Office space includes 7 personnel for the SAPR staff at 150 NSF per person. The Director and all SARC offices need to be private offices for confidentiality.
2. One 15-person conference room is needed for daily operations.
3. The reception/copy room/printer/support space includes a patient waiting room (100 SF) and supply/printer/copy area (300 NSF), additional restroom spaces are needed for clients.
4. In addition to the typical storage area (300 SF) this space needs to store swag and have an exterior lock.
5. This includes a 50 percent net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Clinic

3.2.29 Waterfront Operations and Sea Training

The Waterfront Operations and Sea Training Department plays a central role in delivering USMMA's core maritime training mission, providing hands-on seamanship and vessel operation experience to midshipmen.

This department is responsible for the management and operation of the Academy's training vessels, small boats, and waterfront infrastructure, including coordination of training, docking, navigation, boat maintenance, and safety instruction. It supports year-round practical instruction and evaluations that are foundational to license preparation and professional development.

Located at the Yocum Sailing Center, the department requires expanded storage for training equipment and supplies, along with a high bay vessel shop for hands-on training activities. Similarly, the Crowninshield Pier must be upgraded to support the department's operational requirements. This includes restoring lost dock space and ensuring existing docks are capable of supporting daily operations and visiting vessels. Infrastructure improvements must also account for large-scale events, such as Fleet Week and alumni gatherings, which demand expanded facilities and robust support systems. The addition of fire training classes, a Safety of Life at Sea (SOLAS) Lab, and a seamen ship facility are also needed to ensure comprehensive training capabilities.

Continued dredging of the basin is necessary to preserve navigability. Hague Basin should be dredged to support the range of vessels currently used at USMMA, with target depths of 17 feet in the western portion and 14 feet in the eastern portion.

Table 3.29 outlines the space requirements and associated quantities for the department.

Table 3.29 - Waterfront Operations and Sea Training Space Requirements

Functional Use	Personnel/ Quantity	SF	GSF
Private Office[1]	21	150	3,150
Conference Rooms[2]	2	450	900
Large Conference Room[3]	1	600	600
Classrooms[4]	4	900	3,600
Laboratories[5]	2	1,000	2,000
Event/Rooftop Space[6]	1	5,000	5,000
Row Tanks	1	3,000	3,000
Fitness and Locker Rooms	2	5,000	10,000
Sail Loft (70' Clear)	1	3,400	3,400
Boat Bay (Two-story/High Bay)	1	4,000	4,000
Eletson Bay (45' Clear)	1	5,000	5,000
Reception/Copy Room/Printer/Support Space	1	300	300
Storage/Server/Utilities[7]	1	3,300	3,300
Total Net Square Feet Requirement	**-**	**-**	**44,250**
Net-to-Gross[8]	-	-	22,125
Total Gross Square Feet Requirement	**21 Personnel**	**-**	**110,625**

Notes:
1. Overall Private Office space includes 21 personnel for the Waterfront Operations and Sea Training Department at 150 NSF per person.
2. Two 15-person conference rooms are needed for daily operations.
3. One larger 30-person conference rooms is needed for larger meetings.
4. Classroom spaces need to have a 30-person capacity for Fire Training Classes, Seamen Ship Classes, and other Waterfront classes.
5. Redundancy in the SOLAS Lab and Waterfront Labs are needed for multiple classes.
6. A larger event/rooftop space is needed for 100+ person events.
7. Additional equipment storage (3,000 SF) is needed in addition to the overall storage/ server/utilities (300 SF).
8. This includes a 1.5 net-to-gross factor for circulation, stairwells, restrooms, and other building support space.

Location: New Yocum Sailing Center

CHAPTER 4 PLANNING PARAMETERS

Planning parameters describes existing conditions, both natural and man-made features of the campus, that may affect future development. This chapter also addresses factors that could influence how the campus ultimately develops.

4.1 Existing Site Conditions

The USMMA has been in a state of disrepair where the vast majority of USMMA investments must go directly to facilities overhaul.[3] Many of the buildings are original to the inception of the campus and almost all have a severe backlog of deferred maintenance. Water intrusion and mold are consistent themes across campus as well as inefficient utilities. There are systems and buildings that need to be completely overhauled in order to support the campus as they're supposed to.

Over the years there have been extensive studies undertaken to improve the existing facilities and future development of the Academy including the following: utilities, historical preservation, building condition assessments, and more. These reports are referenced in the following sections and should be consulted for a deeper understanding of the systems at the USMMA. Additional work may have been completed since those reports. As such this report will identify key upgrades. Any future surveys and studies will need to take into account these previous details and upgrades mentioned in this section.

4.1.1 Utilities

Electrical System

Electrical power is supplied by the Long Island Power Authority (LIPA) through two 13.2/7.62 kV, three-phase, four-wire overhead transmission lines that feed 200-amp switchgear located at the south end of the campus (Real Property Master Plan, p. 165).

Campus electrical is a patchwork of distribution systems to sites acquired throughout the history of the campus and distribution to existing facilities present at the campus. Current design indicates four distribution loops around campus. Presumably, all campus buildings are picked up on one of the distribution loops.

- Loop 1 connects the athletic fields and Brooks Fieldhouse, Furuseth Hall and barracks along the east side of campus.
- Loop 2 originates at the main switchgear and loops around the original 1943 portion of the campus.
- Loops 3 and 4 originate at the Main Switchgear at the south end of campus, continue north under the roadway between Barracks and O'Hara hall and then run along Steamboat Road.

Concern has been raised about frequent power outages across campus. From discussion with facilities, existing primary power supply is sufficient for current campus. An evaluation of power consumption was completed in 2013 indicating there was adequate primary power supply. However, secondary distribution networks are in need of repair and replacement. A project to replace the feeders and components was completed in 2020. As additional buildings are added to the Academy, evaluation of the power supply and distribution will be necessary.

Domestic Water System

Domestic water is supplied by the Great Neck Water Authority. Water service is provided via an 8" water main that runs down Stepping Stone Lane and underneath Steamboat Road. The service main, meters and water vault were upgraded in 2013. Upgrades to the campus loop system were completed in 2016, refer to the 2020 Real Property Master Plan.

Domestic water piping to existing buildings is connected in piping runouts that connect back to the domestic main along Steamboat Road. Piping tends to follow existing internal roadways and loops back around to the exterior of the original quad.

Fire Protection System

All fire protection systems and existing fire hydrants are supplied from the domestic water system. An upgrade of the domestic water system was completed in 2016 that improved water flow pressure and linked the existing system to the municipal water supply.

An additional water distribution study was completed in 2016, building off the hydrant report and upgrades of the water main along Steamboat Road which showed some buildings having fire water pressure issues. Some buildings have individual fire water pumps to mitigate pressure issues.

Sanitary Sewer System

The USMMA campus sanitary sewerage system is supported by a gravity sanitary sewer system that runs beneath Steamboat Road. A sewage pump station located near Samuels Hall pumps sewerage up to the gravity sewer. A sewerage gravity loop connects the existing buildings around the original campus quadrangle. Buildings at the south end of campus are connected to the sanitary force main system that supports Grenwolde Park to the east of campus. Existing campus quarters are a combination of connections to the sanitary sewer or existing leaching fields.

Limited information is available for the sanitary sewer, and there are plans to fully scope and survey the system. USMMA indicated that there have been a number of recent sewer backups around campus. A comprehensive study needs to identify the location of all piping and equipment, determine condition and identify areas of repair and replacement.

Storm Drain System

Stormwater drainage at the USMMA campus connects all existing buildings to a system of five stormwater outfalls that directly discharge stormwater into the Long Island Sound. Existing buildings on campus have building perimeter drainage and internal roof drains that connect to the stormwater drainage piping across the campus. Existing quarters including Land Hall and Melville Hall have perimeter gutters and downspouts that connect to a perimeter stormwater drainage system.

Existing stormwater piping is a combination of clay piping, concrete, and steel. Piping is likely original to the campus and has exceeded its service life. USMMA reports significant stormwater backups at buildings during rain events. Concern was raised in the Facilities Master Plan that given the close proximity of stormwater and sanitary piping there may be cross-contamination during rain events due to breaks in the piping. USMMA reports that there are utility lines that are abandoned in place around the campus further complicating repair and identification.

Given the age of the piping, it is likely that there are many damaged and collapsed piping portions or piping clogged by detritus and tree roots. There is concern that connections between drain leaders and perimeter drainage systems have failed, further exacerbating stormwater backups. From a visual inspection at the existing buildings, there are clogged drains that require cleaning.

The condition of the existing stormwater infrastructure is presumed to be at end of life. A comprehensive study needs to identify the location of all piping and equipment, determine condition and identify areas of repair and replacement.

[3]Cropsey, S. and Halem, H. (May 2024). A Strategic Concept for the United States Merchant Marine. Yorktown Institute. Online: https://yorktowninstitute.org/wp-content/uploads/2024/05/Monograph_A-Strategic-Concept-for-the-Merchant-Marine_Final.pdf.

Figure 4.1 - Existing Facilities Map

Natural Gas System

The existing natural gas utility is operated by National Grid. A comprehensive study of natural gas piping has not been completed at the USMMA campus and digging for other utilities has caused delays when unknown gas piping has been encountered during construction. Existing documentation from the Real Property Master Plan indicates that existing gas mains are present beneath Elmridge Road, Stepping Stone Lane, and Steamboat Road. Runouts from the piping connect all of the existing structures on campus with main lines running north and south through the campus.

Steam System

Low pressure steam central plants are present at the USMMA campus at Delano and O'Hara Halls. Low pressure steam loops from these central plants provide steam to most of the existing buildings on campus through a network of routing that is partially underground or located at the Zero Deck in the barracks buildings. Several locations around campus have identified steam line breaks in the system that require repair.

A hot water boiler plant is present at Fulton Hall that provides hot water to the surrounding academic buildings on campus.

All remaining buildings on campus maintain independent gas-fired heating boilers for hot water heating. Recommendations include creating two separate centralized systems that can support multiple new and existing facilities. This would improve the existing hot water loop and create a redundant capability if needed.

Geothermal Steam Heating System

There is an extensive geothermal heating system for select buildings including Palmer, Murphy and Cleveland Hall. Based on limited drawings, it is unclear how many wells were actually drilled but initial drawings called for 70-90 wells per building. There is a well grid in and around the mentioned buildings, additionally, in and around Barney Square as well as Delano Hall. Heat pumps in these buildings transfers the heat from the fluid in the pipe network to usable heat.

Telecommunications

An upgrade to the campus fiber optic system occurred within the last two years, increasing the fiber capacity from a 36-strand loop to a 72-strand loop. At the time of this report, this loop is still being pulled into 11 entrance facilities. There is another capital improvement project that will tie the remaining buildings on campus to the fiber loop. This project has funding, but the contract has not been awarded for design or construction.

4.1.2 Parking and Circulation

The existing vehicle parking on campus is nearing capacity. According to the space utilization study completed in 2015, there are 538 parking spaces on campus. According to USMMA staff, there are currently around 480 spaces. This could be due to the construction laydown area around Samuels Hall and other fluctuations due to campus operations. For additional parking information, refer to the 2020 Real Property Master Plan.

There is multiple surface lots around campus including the Brooks Field Lot, Marvin Place Lot and parking around the academic buildings. These areas account for most of the campus parking. There are other smaller lots and parking areas along buildings that accommodate staff and students.

Parking is required for staff (approximately 150 spaces), senior Midshipmen (approximately 200 spaces), as well as contractors and visitors, which fluctuates based on campus operations. During large events such as parents weekend, graduation, and sporting events there are large surge parking requirements. During these events people currently park on the grass rugby pitch or off site.

The primary access to campus is via Steamboat Road, a residential collector road. The main entrance is located just west of the intersection of Steamboat Road and Stepping Stone Lane. Steamboat Road continues through campus serving as the main thoroughfare. Another restricted access point (controlled by an adjustable barrier) is located along Elmridge Road at the north end of campus. Various service roads, some one-way provide access to the buildings throughout the campus which are located primarily between Gibbs Hall and Melville Hall along the west side of the campus.

There are daily deliveries by large truck along campus roadways to Delano Hall and along Steamboat Road to Fitch Hall and Facilities and Infrastructure warehouses for shipping and receiving.

4.2 Overall Facility Condition

A Building Evaluation Report (BER) was completed in 2013 and updated in 2022. These reports were used to inform capital improvement programs and prioritize deferred maintenance. The total amount of maintenance recommended in 2022 totaled $399M. **Table 4.1** links the asset title to the report, the 2022 value of maintenance, and an overall rating of the building being either excellent, marginal or inadequate.

Existing facilities at the USMMA campus can be subdivided into several categories: Academic buildings, Student Life, Support and Administration buildings, Athletic facilities, and Residential quarters.

During the site visit and throughout this study, limited assessment of facilities was conducted. Further studies involving invasive investigation methods are recommended to fully determine the renovation needs of all buildings.

4.2.1 Academic Facilities

Academic buildings include Bowditch Hall, Fitch Hall, Fulton Hall, Gibbs Hall, Samuels Hall, Bland Library, and the Yocum Sailing Center. Several of these facilities, such as Bowditch, Fitch, and Fulton Halls, were constructed during the Academy's initial development in 1943. Bland Library was added in 1969, and the Yocum Sailing Center was completed in 1993. Gibbs Hall and Samuels Hall were built more recently and are not part of the original construction phases. From previous reports, these facilities are in need of comprehensive renovations to improve the existing building systems and modernize them to fulfill mission requirements for the 21st century. Typical failures with these facilities include the following: stormwater backups in lower areas, roof leaks, water damage, mold and mildew, antiquated mechanical systems that do not provide sufficient heating and cooling, antiquated electrical systems with limited power capacity, obsolete lighting fixtures, lack of fire protection systems, obsolete fire alarm equipment, need for door and window replacements, and limited telecommunications networks.

4.2.2 Student Life Facilities

Student Life buildings make up the rest of the central quad and include Delano Hall (Dining Hall) as well as the six barracks facilities: Jones, Barry, Rogers, Cleveland, Murphy, and Palmer Halls. All of these buildings were constructed in 1943, and while the barracks have undergone several renovations since then, the most recent was completed over a decade ago. All of these facilities are in need of renovation. Typical failures include: water damage, basement flooding issues, roof leaks, heat pump units in each barracks room have necessitated frequent repairs, toilets and showers lack proper ventilation, and fire alarm systems require upgrades. At Delano Hall, there are ongoing problems with roof leaks, storm and sewer backups, as well as deteriorating kitchen equipment and infrastructure.

Land Hall is a residential structure that predates the USMMA campus and is currently being used as a student center. This structure is a contributing element to the historic campus and has a number of infrastructure issues. The CMP has it slated for demolition after the Midshipmen Activity Center building is completed.

Table 4.1 - Existing Building Condition

Function	Asset Title	Total Maintenance Cost	Building Rating
Academic	Asset 05: Fulton Hall (BLDG 16), Gibbs Hall (BLDG 15), and Berger	$71,206,732.00	
	Asset 10: Bowditch Hall (BLDG 18)	$32,344,503.00	
	Asset 13: Fitch Building/Babson Center (BLDG 19)	$10,114,849.00	
	Asset 17: Bland Library (BLDG 17)	$15,828,214.00	
	Academics Total	***$129,494,298.00***	
Athletics	Asset 16: O'Hara Hall (BLDG 02)	$24,259,068.00	
	Asset 19: Tomb Fieldhouse	$3,528,922.00	
	Athletics Total	***$27,787,990.00***	
Campus Improvement Projects (Support, Administrative, Residential)	Asset 06: Memorial Chapel (BLDG 13)	$7,180,331.00	
	Asset 09: Barstow House (Merchant Marine Museum) (BLDG 27)	$8,507,108.00	
	Asset 14: Wiley Hall (BLDG 14)	$15,457,954.00	
	Asset 15: Furuseth Hall (BLDG 01)	$16,633,863.00	
	Asset 18: Patten Health Clinic (BLDG 08)	$13,293,533.00	
	Asset 27: Paint Locker (BLDG 22)- North Memorial Arbor	$1,186,517.00	
	Asset 28: Eldridge Showers Men's (BLDG 24)	$145,495.00	
	Asset 29: Eldridge Showers Women's (BLDG 24)	$231,053.00	
	Asset 30: Public Works A (BLDG 28)	$4,068,567.00	
	Asset 31: Public Work B (BLDG 29)	$1,937,038.00	
	Asset 32: Vickery Gate House	$2,426,115.00	
	Asset 33: Quarters A	$832,644.00	
	Asset 34: Quarters B	$1,088,692.00	
	Asset 35: Quarters C	$614,790.00	
	Asset 36: Quarters D	$483,188.00	
	Asset 37: Quarters E and Asset 38: Quarters F	$1,325,442.00	
	Asset 39: Quarters G	$410,974.00	
	Asset 40: Quarters J	$547,328.00	
	Asset 41: Quarters K	$990,361.00	
	Asset 42: Quarters L	$470,072.00	
	Asset 43: Quarters M and Asset 44: Quarters N	$729,172.00	
	Asset 45: Quarters O	$404,769.00	
	Map 02: Marvin Place Parking	$577,853.00	
	Map 08: Collins Place Parking	$482,180.00	
	Map 19: Eldridge Pool	$70,000.00	
	Map 28: Chapel Parking	$383,482.00	
	Map 46: Cleveland Hall Parking	$528,449.00	
	Map 61: Midshipmen Parking	$620,584.00	
	Map 62: Steamboat Road	$891,298.00	
	Map 63: Stepping Stone Lane	$567,448.00	
	Map 64: Elmridge Road	$722,748.00	
	Map 65: Farrell Road	$699,817.00	
	Map 67: Marvin Place	$410,060.00	
	Map 68: Collins Place	$403,485.00	
	Campus Improvement Projects Total	***$86,080,554.00***	
Student Life	Asset 01: Land Hall (BLDG 10)	$4,901,336.00	
	Asset 04: Delano Hall (BLDG 07) with Topside Dining	$27,108,145.00	
	Asset 07: Cleveland Hall (BLDG 06)	$23,267,919.00	
	Asset 08: Rogers Hall (BLDG 05)	$3,576,016.00	
	Asset 12: Melville Hall (BLDG 09)	$8,168,568.00	
	Asset 21: Jones Hall (BLDG 03)	$20,483,014.00	
	Asset 22: Barry Hall (BLDG 04)	$21,069,952.00	
	Asset 23: Murphy Hall (BLDG 11)	$18,274,579.00	
	Asset 24: Palmer Hall (BLDG 12)	$19,426,722.00	
	Student Life Total	***$146,276,251.00***	
Waterfront	Asset 26: Yocum Sailing Center (BLDG 21)	$9,311,345.00	
	Asset 48: Facility Seawall	$8,783,117.00	
	Waterfront Total	***$18,094,462.00***	
Total Deferred Maintenance		**$407,733,555.00**	

Source: United States Merchant Marine Academy Final Assessment Report (June 2022)

Note: Building condition ratings for each asset were derived based on a cumulative rating of all systems analyzed in the 2022 Building Evaluation Report. Maintenance costs values represent 2022 dollars and should be escalated to present value for pursuit of funding. This list should be confirmed with USMMA F&I personnel as some maintenance efforts may have been completed.

LEGEND Excellent Marginal Inadequate

4.2.3 Support and Administrative Facilities

Support and Administration Buildings include: Furuseth Hall and Wiley Halls (Administration), Patten Hall (Health Clinic), Memorial Chapel, Melville Hall, Paint Locker, Eldridge showers, Vickery Gate House, Department of Public Works buildings A and B.

Wiley Hall predates the campus as the former Chrysler Mansion. Currently it houses administrative and ceremonial functions, meeting areas and senior administration including the superintendent of the USMMA. Typical failures include: roof leaks, basement flooding, outdated mechanical, electrical and fire alarm systems. This facility is envisioned to be renovated and continue on as an administrative facility.

Patten Hall was completed during the 1943 initial campus construction and houses the health and dental clinic. It is intended to have some renovation work completed in the near term and a full renovation during the course of the campus modernization to repurpose the building to house administrative functions. A new building will be constructed to house the health, dental, counseling and EMT functions that are currently within Patten Hall.

Furuseth Hall was constructed in 1943 campus as a barracks and has been remodeled to function as administrative space for the academy. Typical building issues include basement flooding, roof leaks, and failures in mechanical, electrical, and plumbing systems, as well as fire alarm and fire protection systems. In the CMP, this facility will be demolished after administrative functions are transferred to Patten Hall.

4.2.4 Athletic Facilities

Athletic facilities include the Brooks Fieldhouse, Tomb Field and O'Hara Hall. Brooks Fieldhouse and Tomb Field structures are slated for demolition during the CMP and their functions to be incorporated into the new Fieldhouse and Mariner Training Center.

O'Hara Hall was constructed during the initial 1943 construction phase. The interior floor and wood beams are considered contributing elements to the historic campus. Typical failures within the building include: basement flooding issues, roof repairs, door and window replacement, mechanical, electrical and fire protection upgrades and interior finish replacement. O'Hara Hall is slated for renovation after the completion of the new Fieldhouse and Mariner Training Center are completed so as to minimize impact to campus.

4.2.5 Residential Structures

Residential structures at the USMMA campus mostly predate all of the 1943 buildings and are in various states of disrepair. Included in this category are: Land Hall, Barstow House (Museum) and Quarters A-O. Typical issues include: water infiltration, roof leaks, mechanical, electrical, plumbing systems at the end of life, fire alarm system upgrades, finish upgrades, exterior envelope updates.

Melville Hall, currently unoccupied due to water damage, serves as a campus alumni house with guest quarters and a dining facility. Although a contributing element to the historic campus fabric, it is slated for demolition to accommodate the Midshipmen Activity Center and its programmatic elements will be incorporated into the MAC.

Barstow House currently serves as the USMMA museum and will continue to function in that capacity. Renovations are scheduled in the CMP including systems repair, envelope repairs, accessibility upgrades and addition of an elevator.

Quarters A-O mostly predate the USMMA campus and are two-story residential structures composed of exterior masonry, wood flooring structure, wood door and windows, and pitched roofs. Concerns for structures tend to involve water infiltration issues, roof repairs, window and door replacement, interior finish replacement and engineering systems reaching end of life. Several of the Quarters facilities are recommended for demolition to support new facilities on campus.

Campus housing at the Academy typically has been single family houses that have defined the Academy as Quarters A through O. All are in various states of disrepair and many date from the 1920s and are scattered across the Academy grounds.

The CMP maintains several of the original Quarters and identifies areas for housing enclaves at the north side and south side of the Academy campus. The ideal mix of housing for the Academy likely will include some single family housing, townhouse options and low-rise apartment options. The housing goals are to maximize the amount of on-campus housing opportunities while achieving some measure of privacy for families. There are several different options available for housing on Academy grounds identified in order of increasing density.

- Single family housing – Similar to the existing quarters providing a traditional two-story standalone residential structure to accommodate a single family with front and back yard and parking.
- Duplex housing – A large single family residential structure that is split to accommodate two families. Front and back yards are shared, and each unit has its own parking.
- Townhouse arrangement – A higher density version of a single family residence likely with two to three townhouses three stories in height in a block of housing. Green spaces and parking would be shared.
- Low-rise residential apartments – Low-rise building three- to four- stories in height with a central staircase that access apartments on either side. Each unit would house six to eight apartments and have shared green space and localized parking.

Existing waterfront staff housing on the USMMA property.

Existing 1940s era housing on the USMMA property.

4.3 NEPA Considerations and Review Process

The National Environmental Policy Act (NEPA) requires federal agencies to evaluate each of the alternatives thoroughly to support comparisons about their implementation and their impacts on resources in natural and physical environments. Plans and alternatives are evaluated in terms of the social and economic impacts. The USMMA and A/E consulted staff from two other academies regarding their planning and construction efforts. The loss of 9 buildings and changes to one structure (Vickery Gate House) that are contributing resources to the USMMA Historic District would likely constitute a significant impact because those resources would lose their ability to convey their historic significance and would erode the physical fabric of the Historic District. However, the overall integrity of the USMMA Historic District would likely remain as it would continue to contain a large number of original contributing resources and thus be able to continue to convey its historical significance. Because of the potential significant impact due to the loss of contributing resources, it is the A/E's assumption that an Environmental Impact Statement (EIS) versus an environmental assessment would be required to satisfy compliance under the NEPA. **Figure 4.2** shows the NEPA process for an EIS with approximate timeframes and steps that need to occur prior to any construction. In addition, it is recommended the USMMA coordinate efforts with the New York State Governor's office to ensure the plan aligns with government initiatives early in the planning and design process. Coordination will also need to take place with the New York District United States Army Corps of Engineers and State Historic Preservation Office (SHPO) for all NEPA and SHPO review.

4.4 SHPO Considerations and Review Process

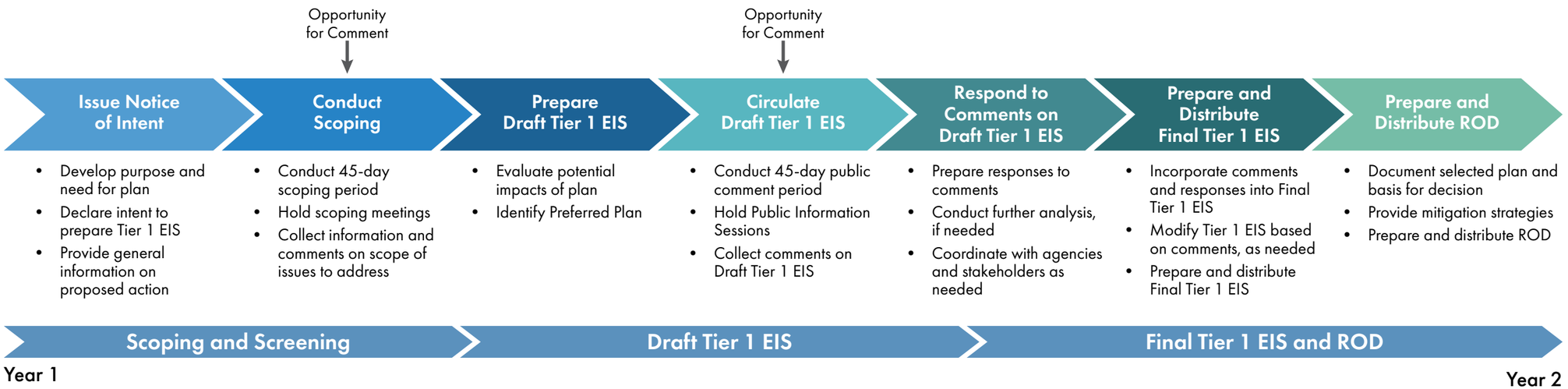
A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is a legally binding document that commits an agency both by statute and by federal regulation to conduct the undertaking in accordance with the terms of the agreement in satisfaction of its responsibilities under Section 106 of the National Historic Preservation Act (NHPA) of 1966. The MOA or PA serves three main purposes: (1) to specify the alternatives or mitigation agreed to by the signatories; (2) to identify who is responsible for carrying out the specified measures; and (3) to serve, along with its implementation, as evidence of the agency's compliance with Section 106 of the NHPA.[4] The USMMA currently has a Programmatic Agreement (PA) with SHPO, dated April 2022. There may be a requirement to update the PA during the planning process. Engaging SHPO early in the design and planning process enables stakeholders to assess the significance of each facility slated for rehabilitation or removal. It also allows for the exploration of alternatives to avoid, minimize, or mitigate adverse effects on individual facilities and the historic district as a whole. Additionally, early involvement helps determine which facilities contribute to the campus's historic character and which should be considered for removal or demolition.

Preparing multiple historically significant buildings for relocation or demolition over several years requires considerable time, staff expertise, coordination with multiple stakeholders, and planning to develop and prepare projects for execution. There will be required consultations with the New York SHPO in compliance with Section 106 of the NHPA. The overall intent is to reduce aging and costly infrastructure and optimize limited maintenance funding.

[4]Advisory Council on Historic Preservation. 2025. Guidance on Agreement Documents: Executing Agreement Documents. https://www.achp.gov/executing_agreement_documents.

USACE's Engineer Research and Development Center (ERDC) developed multiple USMMA Historic District Property Maintenance and Repair Manuals compiled as an eight-volume report that identifies historic preservation technical procedures and satisfies Section 110 of the NHPA, as amended. This volume was reviewed to inform future construction scheduling and provide a baseline for all SHPO related requirements.

Figure 4.2 - NEPA Process



ROD = Record of Decision

Table 4.2 - USMMA Historic Facilities Contributing Status

Feature Type	Name/Description	Contributing Status	Notes
Site	Topography, landscape, viewsheds, layout, and circulation	Contributing	Inside Historic District
Building	Quarters D (Grenwolde Casino)	Contributing	Inside Historic District
Building	Quarters A (Neiley Estate – Main House)	Contributing	Inside Historic District
Building	Quarters J (Neiley Estate – Garage)	Contributing	Inside Historic District
Building	Melville Hall (Meighan Estate)	Contributing	Inside Historic District
Building	Quarters K (Meighan Estate – Garage)	Contributing	Inside Historic District
Building	Land Hall (Schenck Estate)	Contributing	Inside Historic District
Building	Quarters B (a Grenwolde House)	Contributing	Inside Historic District
Building	Quarters C (Vreeland House)	Contributing	Inside Historic District
Building	Wiley Hall (Bendel/Chrysler Mansion)	Contributing	Inside Historic District
Building	Palmer Hall	Contributing	Inside Historic District
Building	Murphy Hall	Contributing	Inside Historic District
Building	Cleveland Hall	Contributing	Inside Historic District
Building	Rogers Hall	Contributing	Inside Historic District
Building	Barry Hall	Contributing	Inside Historic District
Building	Jones Hall	Contributing	Inside Historic District
Building	Furuseth Hall	Contributing	Inside Historic District
Building	Fulton Hall	Contributing	Inside Historic District
Building	Bowditch Hall	Contributing	Inside Historic District
Building	Fitch Building	Contributing	Inside Historic District
Building	Samuels Hall	Contributing	Inside Historic District
Building	Delano Hall	Contributing	Inside Historic District
Building	O'Hara Hall	Contributing	Inside Historic District
Building	Admissions Center	Contributing	Inside Historic District
Building	Patten Medical Clinic	Contributing	Inside Historic District
Building	U.S. Merchant Marine Memorial Chapel	Contributing	Inside Historic District
Building	Crowninshield Pier and Boat House	Contributing	Inside Historic District
Building	Men's Shower	Contributing	Inside Historic District
Building	Women's Shower	Contributing	Inside Historic District
Building	Paint Locker	Contributing	Inside Historic District
Building	Bland Library	Contributing	Inside Historic District
Structure	Vickery Gate	Contributing	Inside Historic District
Structure	Marvin Place Gate	Contributing	Inside Historic District
Structure	Mallory Pier	Contributing	Inside Historic District
Structure	Eldridge Pool	Contributing	Inside Historic District
Object	Flagpole	Contributing	Inside Historic District
Object	Amphitrite Pool	Contributing	Inside Historic District
Object	Gun (5-inch deck gun)	Contributing	Inside Historic District
Object	War Memorial	Contributing	Inside Historic District
Building	American Merchant Marine Museum (William Barstow Mansion)	Contributing	Outside Historic District
Building	Quarters O (Garage)	Contributing	Outside Historic District
Building	Berger Hall	Non-Contributing	Inside Historic District
Building	Gibbs Hall	Non-Contributing	Inside Historic District
Building	Quarters G	Non-Contributing	Inside Historic District
Building	Coast Guard Station	Non-Contributing	Inside Historic District
Building	Yocum Sailing Center	Non-Contributing	Inside Historic District
Building	Natatorium	Non-Contributing	Inside Historic District
Building	Guard Shack	Non-Contributing	Inside Historic District
Building	Boat House (Schenck Estate swimming pool)	Non-Contributing	Inside Historic District
Building	Sewer Pump House	Non-Contributing	Inside Historic District
Object	Mariner Monument	Non-Contributing	Inside Historic District
Other	Tomb Memorial Field & Brooks Stadium	Not Eligible	Outside Historic District
Other	Upper & Lower Roosevelt Fields	Not Eligible	Outside Historic District
Other	Tennis & Handball Courts	Not Eligible	Outside Historic District
Other	Brooks Fieldhouse	Not Eligible	Outside Historic District
Other	Parking Lot	Not Eligible	Outside Historic District
Other	Quarters E & F	Not Eligible	Outside Historic District
Other	DPW Buildings	Not Eligible	Outside Historic District
Other	Quarters M & N (McNulty Campus)	Not Eligible	Outside Historic District
Other	Quarters L (McNulty Campus)	Not Eligible	Outside Historic District
Other	307 Steamboat Road	Not Eligible	Outside Historic District

4.5 Developable Areas

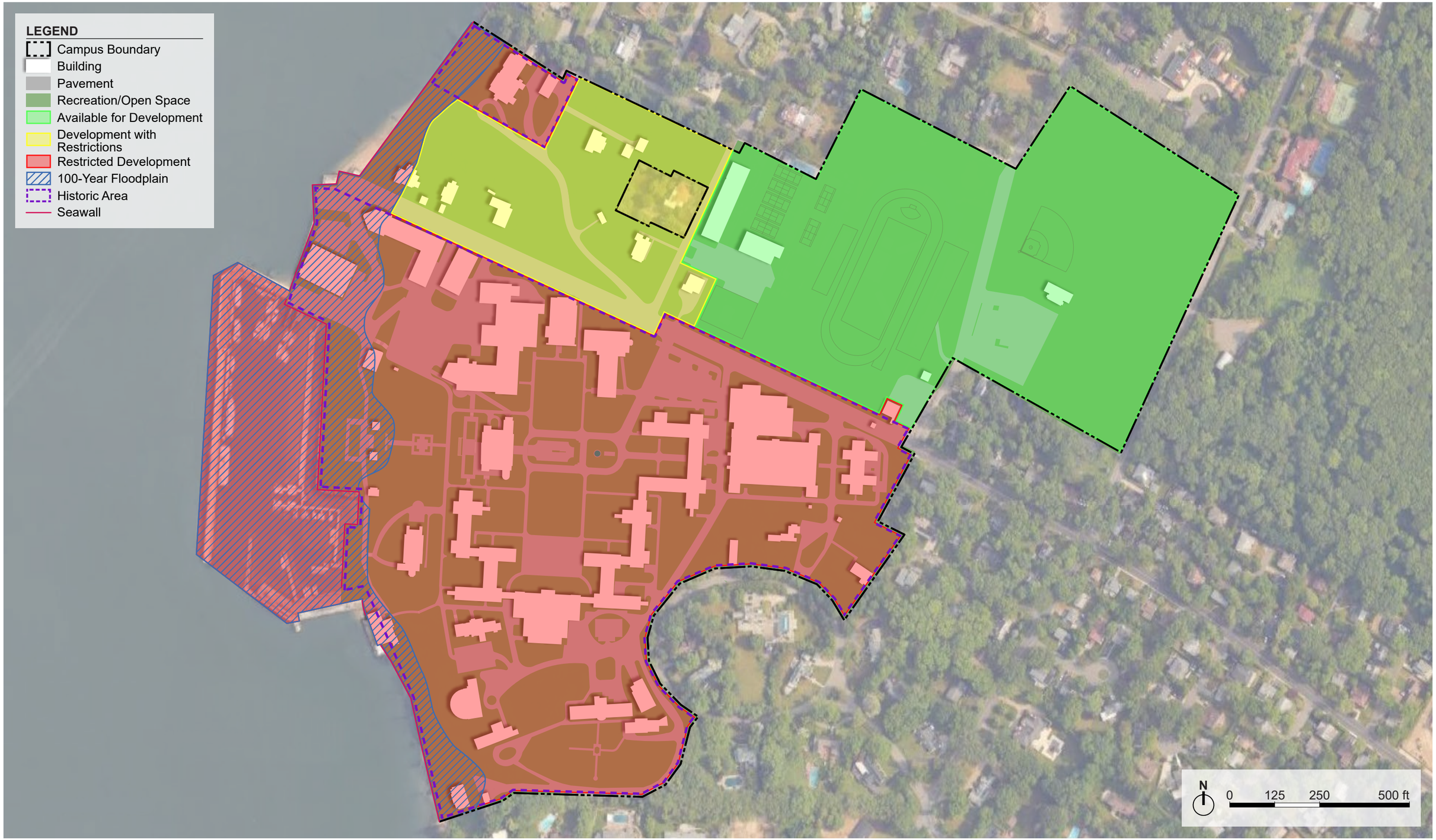
The Developable Areas analysis identifies and calculates the future development potential of land within the Academy, guided by the planning vision, site constraints, and opportunities. This plan outlines the overall development capacity of the USMMA campus. Areas where development may be limited or require additional review are shown in the Development Suitability Plan (**Figure 4.3**). Key constraints include location within the FEMA 100-year floodplain, proximity to historic resources subject to SHPO review, existing infrastructure, ongoing projects, and environmental constraints.

Developable areas are defined by three main categories that can determine site suitability for future development. The three categories of development are shown in **Figure 4.3**. The final suitability of the campus will need to be further evaluated by professional engineering and surveying.

- Available for Development: These areas are essentially open space or "greenfield" sites, free from any known constraints that could impede the development process. They are primed for future development, pending the necessary approvals, permits, and site clearing. These areas offer the most straightforward development path.
- Development with Restrictions: This category includes areas that are open for development but may necessitate additional review and approval processes. The primary restriction within the campus for this category is the already developed landscape with mature urban tree canopy. This category requires a more cautious approach to development due to these restrictions.
- Restricted Development: This category comprises land that is already developed with facilities, utilities, or other infrastructure. Any redevelopment would require demolition prior to new construction. Additionally, these areas may contain significant environmental, cultural, or other constraints that could affect future development. Sites in this category necessitate additional coordination and extended timelines for approval and site preparation. They represent the most challenging areas for development. The primary restriction within the campus for this category are the floodplain areas and areas within the historic boundary.

USMMA will seek to maximize access to developable areas by providing the USMMA AAF with dedicated on-campus office and meeting spaces in perpetuity. This will benefit midshipmen by optimizing career-development and networking opportunities, while also enabling AAF to provide the Academy with land upon which to develop additional faculty/staff housing, or other facilities, on the land tract currently occupied by the AAF Alumni House. As this approach is executed, Academy leadership will consider and finalize plans to further expand the quantity and mix of faculty/staff housing.

Figure 4.3 - Developable Areas



CHAPTER 5 CONCEPT EVALUATION AND PREFERRED ALTERNATIVE

During the Confirmation Charrette held on the week of 14–18 April 2025, project prioritization and multiple phasing plans were discussed to generate feedback based upon the USMMA priorities and overall vision for a modernized campus. Identified projects met multiple capability gaps discussed with stakeholders during the two-day site assessment and additional qualitative feedback received from stakeholder questionnaires.

5.1 Planning Drivers and Assumptions

The following key mission requirements, campus priorities, and planning drivers were identified by stakeholders and leadership during the visioning session:

- Metrics
  - Goal tracking hub where initiatives and projects can be tracked for progress.
- Capacity
  - Expected student growth of 20% and faculty growth of 30%.
  - Campus boundary is not likely to expand.
  - Additional full-time staff is required to manage projects and initiatives.
- Infrastructure
  - Historic buildings have lead, asbestos, mold, and other hazardous materials.
  - All facilities need to be able to facilitate men & women as well as meet ABA requirements.
  - Facilities and utilities are aged beyond usable period and many are at capacity.
  - All facilities and supporting infrastructure need to be modernized.
  - Need an indoor space for larger gatherings.
- Historic Preservation
  - Promote the historic legacy of the campus.
- Quality of Life
  - A place for students to collaborate socially.
  - Space for a student activity center.
  - Modernize athletic and health facilities.
  - Modernize academic and library spaces.
  - Space for virtual conferences and classrooms.
  - Increase external and internal research capabilities.

5.2 Concepts Explored

Concept 1 focuses on the renovation of existing mission critical facilities and construction of new facilities to meet the mission priorities and capability gaps at USMMA.

Figure 5.1 depicts the final stage of a sequencing option that was presented on the first day of the charrette. The proposed phasing sequence includes:

- Phase 0 – Initial site mobilization, completion of Samuels Hall to provide needed academic spaces, partial renovation of Patten Hall (previously scheduled), full campus utility survey and documentation for future utilities replacement.
- Phase 1 – Seawall repair, construct new jetty and concrete pier, construct utility loop replacements, implement phase 2 of the telecommunication loop, provide utility improvements to Steamboat Road to allow for backbone for new utilities on McNulty Campus and future development.
- Phase 2 – Construction of new academic center on McNulty Campus, implement minor renovation to Delano Hall, barracks renovations along east quad, renovate Melville Hall.
- Phase 3 – Continue barracks renovations along east quad, renovate Furuseth Hall, and demolish Land Hall.
- Phase 4 – Construct Midshipmen Activity Center on site where Land Hall was. Renovate barracks on west side of quad, renovate Wiley Hall, demolish Bland Library, and construct Mariner Training Center.
- Phase 5 – Renovate Gibbs and Fulton Halls.
- Phase 6 – Renovate Bowditch Hall, renovate O'Hara Hall, construct Crowninshield Pier building, and construct Yocum Sailing Center replacement facility.
- Phase 7 – Construct the Federal Maritime Center of Excellence.

Initially there were some aspects of this sequence that were captured in the final preferred plan and some elements that were evaluated by stakeholders and revised.

Stakeholder feedback received from the discussion were identified in the following priorities:

- Development of Campus Design and Engineering Design Standards must begin immediately, as these documents will set the stage for all future development and renovation at the Academy.
- Utility documentation and utility work must begin as soon as possible.
- Completing the telecommunications loop is also a priority.
- Concept of increasing the quad beyond Steamboat Road to connect McNulty Campus and historic portions of campus.

Recommended improvements to the plan include:

- Seawall repair and new jetty should be at the beginning of the project as it is in danger of failure and can proceed independently of other campus work.
- Location of new academic center was less desirable further away from the main academic buildings.
- Renovation of two or more barracks at one time was likely not achievable.
- Retention of Melville Hall was not deemed essential to the mission.
- Location of Midshipmen Activity Center should be closer to barracks.
- Federal Maritime Center of Excellence may benefit from being constructed in one of the earlier phases.
- Removal and replacement of specific Quarters needs to be added into phasing plan.
- Retain Bland Hall to use as swing space until the end of the project.

Concept 2, shown in **Figure 5.2**, focused on a more refined layout that built off of Concept 1 and augmented with feedback received. The proposed phasing sequence includes:

- Phase 1– Initial site mobilization, completion of Samuels Hall to provide needed academic spaces, partial renovation of Patten Hall (previously scheduled), full campus utility survey and documentation for future utilities replacement. Seawall repair, construct new jetty and concrete pier. Construct new Fieldhouse at northeast end of campus, and construct new barracks to be used as swing space as barracks are removed for renovation, construct new quarters at the north end of the campus.
- Phase 2 – Utility replacement, utility backbone along Steamboat Road, renovate two barracks buildings along east quad, demolish Land Hall, demolish Melville Hall in preparation for new activity center. Construct new academic center next to Gibbs and Fulton Hall to allow for additional academic space as existing academic buildings are renovated. Construct new Facilities and Infrastructure warehouse and administration areas on east side of campus.
- Phase 3 – Demolish existing Facilities and Infrastructure area, construct Midshipmen Activity Center on site formerly occupied by Land Hall and Melville Hall, construct Crowninshield Pier building, construct Mariner Training Center at demolished location of facilities, construct new parking deck at northeast end of campus. Renovate Rogers and Cleveland Hall barracks.
- Phase 4 – Demolish Prosser Boat house, barracks renovations (Murphy and Palmer Halls), renovate Bowditch Hall, renovate O'Hara Hall.
- Phase 5 – Renovate Wiley Hall, renovate Fulton and Gibbs Hall, construct Federal Maritime Center of Excellence, construct new clinic.
- Phase 6 – Renovate Patten Hall for administrative areas.
- Phase 7 – Demolish Furuseth Hall, construct new admissions, construct new gatehouse, Steamboat Road improvements, construct waterfront promenade.

Feedback gathered during the discussion of Concept 2 was considered and ultimately incorporated into the Future Development Plan, shown in **Figure 6.2**.

Figure 5.1 - USMMA Concept 1

Figure 5.2 - USMMA Concept 2

CHAPTER 6 FUTURE DEVELOPMENT PLAN

The Future Development Plan describes the Academy's desired end state, incorporating all planning recommendations. This includes the necessary steps and corresponding strategies, initiatives and actions that will enable the CMP. Additionally, planning recommendations are described in this chapter in the context of time-frame horizons, operational considerations, corresponding governance and business practices, and priorities that will enable the recommendations.

6.1 Framework Plan

The Framework Plan accommodates anticipated planning needs in the context of the established vision, goals and objectives balanced with existing planning parameters, development opportunities and constraints and resultant buildable suitability. A key objective of the CMP is to provide a planning framework that accommodates planning needs in an environmentally responsible manner that will also be compatible with the historic designation of the campus. The Framework Plan must also reinforce the Academy's vision and campus image and design character objectives.

The Framework Plan, shown in **Figure 6.1**, is defined by key districts, common geography, circulation, existing land uses, and functions, as well as nodes (natural and man-made) that influence development. Nodes are identified in the Framework Plan as key focal points on campus. This can be an area where people congregate and can include things like the Midshipmen Activity Center, Welcome Center, Mariner Training Center, and more. These districts are utilized to further define the campus subareas that influence future development at the Academy. Academic functions and Waterfront Operations are focused within the "Education District." Physical education and sports related teams/event spaces are concentrated in the "Athletics District." The Museum, Center of Excellence, and Library are located in the "Research District." Midshipmen barracks are located in the "Barracks District." Staff and Faculty Housing are located in the "Quarters District." Shipping and Receiving, Facilities and Infrastructure, the Department of Public Works, and Patten Hall (future functions include IT/Budget and Finance/Human Resources) are all located in the "Logistics District." The Welcome Center, Midshipmen Activity Center, Chapel, Delano Hall, Health Services/Clinic are all located in the "Community District."

6.2 Future Development Plan

The future development plan is shaped by an understanding of existing conditions, planning needs, and insights gained from the collaborative planning process. While the CMP provides specific recommendations based on current needs, it is designed as a flexible, dynamic, and evolving framework that can adapt to shifting stakeholder priorities, global trends, and economic factors. As such, the master plan and specifically the future development plan should be regularly updated to reflect changing circumstances and planning requirements.

The core land uses/districts within the Academy provide a variety of opportunities for multiple renovation and new construction projects to occur simultaneously without hindering daily activities and operations. A complete project list is provided in **Table 6.1**. Phasing of projects is depicted in **Section 7.2**. Major new construction and renovation projects occurring within the Historic District, McNulty Campus, and along the waterfront operations meet overarching goals to:

- Provide a safe, secure, and sustainable campus environment.
  - Redevelop all facilities to meet modern standards for effectiveness, security, and safety.
- Develop adaptable and modern real property.
  - Adapt all facilities to support the changing maritime industry and evolving educational requirements.
- Preserve historic character.
  - Ensure all facilities, new and existing, honor and respect the historic integrity of the campus and the maritime industry.
- Enhance the USMMA institutional legacy.
  - Ensure all planning and development enhances collaboration, community, and campus culture across local, regional, and global maritime partners.

6.3 Campus Form and Development

Previous Master Plans of the USMMA and this CMP notes the intention that the historic preservation and enduring legacy of the campus should be built upon through consideration of both the campus landscape and built form.

The natural landscape and topography of the site, the existing quad, Steamboat Road, and vistas along the waterfront create a series of open vistas and viewsheds that are historically significant and create a network of pedestrian corridors throughout the campus.

These viewsheds and corridors should be incorporated into the planning and context of the Academy as future development occurs and as improvements are made to guide students, faculty, staff, and visitors throughout the Academy campus.

Multiple areas within the Academy that have significant existing wooded areas and preserved open space viewsheds are identified in **Figure 6.3**. These core wooded areas include the following:

- McNulty Campus west of Elmridge Road
- Southwest Historic District near Patten Hall

Other core viewshed open space areas include the following:

- The Quad
- Viewshed from Wiley Hall
- Viewshed from the Waterfront
- Viewshed from the Museum

Figure 6.1 - Framework Plan

Table 6.1 - Project List

FY	Project Title	Project Type
FY25	Hauge Basin Dredging	Renovation
FY25	307 Steamboat	Demolition
FY25	Samuels Hall Renovation	Renovation
FY25	Seawall Replacement	Renovation
FY26	New Academic Building	New Construction
FY26	Athletics Fieldhouse	New Construction
FY26	North Faculty & Staff Housing	New Construction
FY26	Relocate F&I	New Construction
FY26	Clinic Construction	New Construction
FY26	New Barracks #1	New Construction
FY26	GIS, BIM and Utility Survey with Academy Utility Upgrade	Renovation
FY26	Fitch Hall	Demolition
FY26	Midshipmen Activity Center	New Construction
FY27	Mariner Training Center	New Construction
FY27	Welcome Center	New Construction
FY27	New Barracks #2	New Construction
FY27	Crowninshield Pier Construction	New Construction
FY27	Bowditch Hall Renovation	Renovation
FY27	Patten Hall Renovation	Renovation
FY27	Academy Security Improvements	Renovation
FY27	Residence Hall Renovation (Jones)	Renovation
FY27	Residence Hall Renovation (Barry)	Renovation

FY	Project Title	Project Type
FY28	Furuseth Hall	Demolition
FY28	O'Hara Hall Renovation	Renovation
FY28	Residence Hall (Murphy)	Renovation
FY28	Residence Hall (Palmer)	Renovation
FY29	Federal Maritime Center of Excellence & Library	New Construction
FY29	Land Hall	Demolition
FY29	South Faculty & Staff Housing	New Construction
FY29	Fulton-Gibbs Hall Renovation	Renovation
FY29	Chapel & Wiley Hall Site Improvements	Renovation
FY29	Residence Hall (Rogers)	Renovation
FY29	Residence Hall (Cleveland)	Renovation
FY30	Yocum Waterfront Center (with CG Facility)	New Construction
FY30	Steamboat Road Paving & Waterfront Promenade	Renovation
FY30	Delano Hall Renovation	Renovation
FY30	Museum Renovation	Renovation
FY31	Quarters G, P, K, J, M&N Demolition	Demolition
FY31	Quarters A, D, O Renovation	Renovation
FY32	Bland Library	Demolition
FY32	Wiley Hall Renovation	Renovation

Figure 6.2 - Future Development Plan

Figure 6.3 - Overall Campus Form and Design

6.8 Site Strategies and Resiliency

Site strategies and resiliency are intended to be campus and building specific. Campus wide strategies include maintaining existing greenspaces and forested areas to the greatest extent possible, introduction of permeable paving for stormwater management, pedestrian network upgrades, and minimizing site disturbance to facilitate new construction and renovation work. New construction projects are intended to coexist with their surroundings in both existing built structures and existing site features.

Resiliency is the capability of the campus and its structures to maintain function and operability during unforeseen weather events, utility power outages, flooding, etc. Examples of campus and building specific strategies to support this include redundant utility loops, site stormwater management, backup power generation, increased building thermal envelopes to reduce energy operating costs, exterior shading devices and increased rainwater collection.

Stormwater management should be approached methodically in an attempt to not overwhelm the campus with large stormwater treatment facilities, rather to include multiple small systems. Small rain gardens, additional vegetation around buildings and permeable pavement can be considered to promote green space as well as reduce the amount of runoff on the campus. Infiltration trenches can be used to route stormwater from one system to another while decreasing the amount of runoff and larger wet ponds or sand filters can serve as treatment options prior to outfall into the Long Island Sound.

6.9 Building Strategies

Existing Building Renovations

Existing building renovations at the USMMA campus tend to vary between full gut renovation and targeted replacement of systems and finishes. Existing barracks buildings, academic buildings and Patten Hall will likely be full gut renovations. Delano Hall, Wiley Hall, Memorial Chapel, O'Hara and the Barstow House (Museum) will be more targeted in their scope of renovation to maintain operability and improve functionality. Existing residential structures will likely involve systems and envelope upgrades with varying degrees of functionality maintained during construction.

For existing buildings requiring a full renovation the likely scope will include demolition of all elements down to existing structure and existing exterior walls. Existing structure to be maintained and reinforced as necessary based on loading design. Improvements to the building envelope to increase thermal efficiency and waterproofing will involve new updated thermally efficient windows and doors, introduction of building insulation to meet current code requirements, new roofing membrane with additional roof insulation. Depending on the condition of the building a comprehensive masonry repointing may be required as well as replacement of foundation waterproofing and perimeter drainage to ameliorate stormwater backups.

Systems replacement will involve comprehensive removal and replacement of electrical power and lighting systems, plumbing systems, replacement or installation of fire suppression systems, replacement of fire alarm systems, introduction of low-voltage access control systems and telecommunication systems.

At buildings that require full functionality it is likely that existing systems will need to remain in place and be operational until new systems are installed and activated before existing systems can be decommissioned and removed. These more targeted renovations will require effort for phasing of construction to maintain operability.

Structural Considerations for Barracks Renovation

Historical documents state the existing barracks were constructed in the mid-1940s using a cast-in-place concrete floor system and steel-concrete composite columns, with brick exterior walls. The structural system does not meet current design code standards, but it can and should be retained without upgrades as long as the building's occupancy or use remains unchanged and the renovation cost does not exceed 50% of its replacement value. Time and labor costs should be budgeted for thorough structural inspections for each Barrack to be renovated and additional costs need to consider some structural repair.

Proposed New Construction

New construction will incorporate design and layout in accordance with IBC, and other federal guidelines including GSA PBS-P100, ABA, UFC facilities criteria, and installation guidelines where applicable. Programmatic areas will be designed to achieve operational requirements for the USMMA and future development to provide a facility that meets requirements and expectations for a 21st century facility.

Architectural design will seek to harmonize with the historic nature of the campus while developing an aesthetic that provides a clean, modern design. Building portions facing the existing quad should seek to embrace the building height, fenestration hierarchy, and materiality present with existing buildings with some delineation to allow a viewer to identify existing versus new. Portions of buildings facing towards the Long Island Sound should allow for lighter materials preferable glass and steel that provide a modern aesthetic with wide expansive views. Facilities will be designed to be ABA compliant with accessible access, toilet facilities, signage, wayfinding, compliant stairs and elevators.

New construction projects will include new mechanical systems tailored for each building to provide optimal thermal efficiency, electrical power to support existing systems requirements and potential future loads, LED lighting, new plumbing infrastructure and fixtures in quantities as defined by UFC and code requirements. All new facilities will incorporate fire alarm systems, fire suppression systems, telecommunications backbone and routing, and low voltage systems for access control.

Structural Considerations for New Construction

New buildings will be designed and constructed to meet current code standards, including wind, seismic, snow loads in accordance with IBC and other federal guidelines including GSA PBS-P100, ABA, UFC facilities criteria.

New construction will typically use steel framing, with steel columns and beams or trusses supporting a concrete floor slab on stay-in-place metal form decks. Steel-framed structures are common for institutional buildings due to their cost-effectiveness in modern construction. They provide large, flexible spaces and are better suited to cooler climates compared to cast-in-place concrete.

For elevated parking facilities, precast concrete is a typical structural type such as double tees. If the project site is not conducive for precast construction, other structural types such as post-tension and steel framing are also feasible.

Foundations under new buildings will depend on the size of the building and the subsurface conditions which will be investigated in the design phase. All foundation construction will be in line with the State of New York and Long Island region.

6.10 Energy Strategies

During renovation and new construction there will be many opportunities to reduce the amount of energy required for systems and make systems more efficient. Some examples include:

- High-efficiency HVAC systems
- Windows that are designed to reduce energy loss
- Right sizing plumbing systems to reduce the number of pumps required
- New light fixtures should use LED bulbs
- Insulating concrete buildings will minimize temperature fluctuations
- Smart technology such as swift off lights, thermostats and energy management systems
- Promote natural light in new construction
- Relocate solar energy sources to the roofs of other buildings such as the new athletics facilities and Facilities & Infrastructure buildings
- A Battery Energy Storage System (BESS) should be considered adjacent to the main switch gear to capture and store excess energy generated from renewable sources

Building techniques can promote energy efficiencies, however the most important consideration for sustaining energy is proper maintenance of all systems. When systems are neglected and aren't running as intended, they require unwarranted amounts of power. An energy management system and maintenance system will be paramount to the success in reducing energy consumption.

6.4 Vehicular Parking and Circulation

Parking capacity on campus is currently limited; however, with proper planning, future requirements can be met. The existing vehicular and pedestrian circulation networks will be preserved and enhanced to improve connectivity between key campus areas. Table 6.2 outlines projected parking demand based on future campus population, while Table 6.3 summarizes existing conditions, anticipated impacts from planned development, and strategies for replacing any displaced spaces.

Based on the currently programmed parking included in the future development plan, there is potential for up to 863 spaces. This number may vary depending on how the campus takes shape during construction; however, it is clear that sufficient space exists to meet parking requirements if properly planned.

In addition to the locations already identified for parking, the following opportunities for additional parking exist around campus:

- The proposed faculty housing, which includes more units than currently exist on campus, will result in a net gain of 28 parking spaces.
- Up to 10 additional spaces may be accommodated near the Chapel.
- The area surrounding the Federal Maritime COE offers flexibility to accommodate more than 50 parking spaces.
- Depending on the final siting of the athletic fieldhouse, the surrounding area may support approximately 40 additional spaces.
- As development occurs along Elmridge Road, one side of the road could accommodate up to 20 additional parking spaces.

With the inclusion of these potential parking areas, the campus could accommodate approximately 1,000 parking spaces. This would nearly double the current number and provide sufficient capacity for daily use, along with added flexibility for surge events.

Regarding circulation, the following minor upgrades should be considered across campus:

- Parking should not restrict two-way traffic unless the roadway is intentionally designated as one-way.
- Curb heights should be improved alongside planned sidewalk upgrades.
- Curb radii should be evaluated to ensure they can accommodate service vehicle turning movements, and all intersections should be reviewed to maintain safe lines of sight.
- Vehicular wayfinding should be enhanced to help drivers navigate the campus efficiently and reduce congestion caused by confusion or poor signage.

Large truck traffic is being addressed by relocating shipping, receiving, and all contractor-related activities to the campus entrance, keeping these functions outside the main gate. This approach will help reduce congestion at the gate, shorten security wait times for other personnel, and minimize truck traffic within the campus. Circulation for large vehicles will still need to be accommodated around Delano Hall, along Steamboat Road, and near the Facilities and Infrastructure area. However, this new strategy is intended to limit the overall need for large vehicle movement through the campus core.

Table 6.2 - Future Parking Requirements

User Group	Future Parking Requirement
Students (Seniors)	300
Faculty / Staff	275
Contractors	75
Visitors	50
Total	**700**

Table 6.3 - USMMA Future Parking

Existing Parking		Impact to Parking		Future Parking	
Location	Stalls	Future Development Plan Impact	Delta	Where is this parking being made up?	Future Stalls
Barstow / Quarters O	5	Remains	0	N/a	5
Quarters L	2	Demo	-2	North Faculty Housing	2
Quarters P	2	Demo	-2	North Faculty Housing	2
Quarters M&N	2	Demo	-2	North Faculty Housing	2
Quarters E&F	2	Demo	-2	North Faculty Housing	2
DPW Lot	31	Replaced by Mariner Training Center	-31	Subsurface Mariner Training Facility	150
Vickery Gate	9	Replaced by Welcome Center	-9	Welcome Center West parking (21), North Parking (8)	29
Stepping Stone Lane (One Side)	25	Remains	0	Both Sides, +25	50
Brooks Field Lot	122	Replaced by fieldhouse	-122	Subsurface Fieldhouse (150), Southern edge (27)	177
Steamboat (One Side)	48	Expanded to double side of road parking	48	Additional parking created.	96
Westend Steamboat	15	No planned parking	-15	N/a	0
USCG	10	Demoed, combined with Yocum	-10	Parking on south, east and north side of future Yocum	43
Yocum Sailing Center	14	Demoed, combined with USCG	-14		
Samuels Hall	2	Remains	0	Remains	2
Fitch Hall	6	Demoed	-6	Parking along CUP.	10
Fulton / Gibbs Hall	63	Some is removed due to Academic Center	-31	Parking along Academic center	62
Marvin Place Lot	73	Remains	0	Remains	73
Jones Hall	3	Remains	0	Remains	3
Chapel	2	Remains	0	Remains	2
Delano Hall West	3	Remains	0	Remains	3
Land Hall	20	Demoed. Reappropriate to SAC	-20	Student Activity Center lot	35
Quarters A	2	Remains	0	Remains	2
Quarters D	2	Remains	0	Remains	2
Patten hall	13	Remains	0	Remains	13
Quarters K	2	Demo	-2	North Faculty Housing	2
Quarters J	2	Demo	-2	North Faculty Housing	2
Delano Hall East	23	Remains	0	Remains	23
O'Hara South	15	Remains	0	Remains	15
O'Hara East	6	Impeded on	-6	No planned parking.	0
North of Quarters C	22	Gone, replaced by F&I	-22	Replaced by parking in location of Furuseth Hall	52
Quarter C	2	Demo	-2	North Faculty Housing	2
Quarters B	2	Demo	-2	North Faculty Housing	2
Furuseth East	6	Demo, replaced by F&I	-6	F&I Parking accounted for above	0
Existing Total	**556**	**Total Lost to Development**	**296**	**Total Future Parking**	**863**

Figure 6.4 - Vehicular Circulation, Access, and Parking

6.5 Pedestrian Circulation and Open Space

The USMMA is a very walkable campus, and additional considerations should be made to promote foot traffic, as shown in **Figure 6.5**. All students and faculty walk throughout the campus, and it only takes about 10 minutes to get from one end to the other. There are locations where sidewalks are needed and other locations where there are sidewalks, but they're aged and constructed of outdated materials, presenting hazards. New and improved walkways should integrate new development with the existing and meet all ABA requirements. Some areas of emphasis include:

- Walkways around O'Hara Hall, leading to the southern area of campus
- The new Waterfront Promenade will promote safe walking along the water's edge
- Steamboat Road widening and sidewalk improvements to promote walking along the main route of campus

A trail network should also be considered around the campus. With the amount of physical training the midshipmen do, it would be much safer to have a looped running trail on campus than running in the neighboring streets. This trail should have minimal sharp turns, no stairs and be wide enough to facilitate runners in either direction. There's an opportunity for this running network to tie into the waterfront promenade, the development of Mcnulty Campus, improved sidewalks around O'Hara Hall and where the promenade terminates in vicinity of the new student activity center.

With the consolidation of several buildings and demolition of over 10 existing buildings, there will be new green space throughout campus. This green space will be important to the living and learning environment to everyone at the USMMA. Views of the Long Island Sound and NYC skyline should be promoted in these green spaces to attract students, faculty and visitors to these common areas.

6.6 Utilities Infrastructure Upgrades/ Recommendations

All utilities should be identified, inspected, and evaluated for their ability to support the planned future development of USMMA. Based on the results of this assessment, further recommendations should be considered. Several recommendations from earlier efforts have been reviewed and are restated below.

This utilities effort should be the first project undertaken as part of USMMA's development. Knowing the location, condition, and capacity of all utility systems will be critical to the success of future work. Utilities should be appropriately sized and positioned to align with the future development plan. This initial utilities project should establish a reliable foundation for subsequent construction efforts to connect into, helping to avoid rework and ensuring that all systems can meet future demand.

6.6.1 Electrical System

- Construction of a new loop adjacent to loop 2 allowing for a new service that could be sized for the existing campus buildings and potential new buildings with connections to each new and existing structure. As each existing building is renovated or new building is completed, it would be connected to the new loop. In this way, existing buildings would remain on the existing loop and would transfer to the new loop as they are renovated without risk to loss of operability.
- Creation of an additional loop along Steamboat Road would allow for power to all existing and future construction to the east of Steamboat Road.

6.6.2 Domestic Water System

- Replace required portions of existing damaged domestic water lines.
- New construction at the McNulty Campus will likely necessitate additional runs and potentially additional water mains from the water utility.
- New construction within the campus may be supported with the existing loop present and new piping runouts.

6.6.3 Fire Protection System

Based on the information available at this time, the existing static pressure at the hydrants suggests that maintaining the fire protection system connection to the domestic water may be feasible, provided the system is supported by properly sized equipment and an upsized water main. However, additional testing is necessary to confirm whether the fire protection system can remain on the domestic supply. The system should also include additional loops to help maintain pressure and allow for isolation of sections during maintenance.

- Size and construct fire protection equipment around the existing portion of campus that account for existing renovated buildings as well as new construction and provide capacity for future expansion.
- Size and construct fire protection equipment at McNulty campus to include existing renovated facilities and new construction.

6.6.4 Sanitary Sewer

- Investigation of the existing capacity of the main pumping station and gravity sewer line needs to be conducted to see if the capacity is sufficient for all the existing systems as well as proposed new construction.
- New sewerage lines should be added to the existing buildings at the McNulty campus as well as potential new construction on campus that connect to the gravity sewer main or a new sewerage line if necessary.
- All existing structures that are currently supplied by leach fields should be connected to the sanitary sewer system.
- Existing structures that are connected to the Grenwolde force main system should be connected to the campus sanitary sewer system.

6.6.5 Storm Drain System

- During existing building renovations, replace internal rain leaders with new piping, replace subsurface drainage that connects to perimeter stormwater drainage system. Replace perimeter drainage system with new perforated piping, gravel, and external wall waterproofing. Additional treatment methods closer to buildings should be considered to reduce the size of treatment facilities closer to outfalls.
- Replace existing stormwater piping with new piping that is sized for existing building capacity and excess capacity for proposed new construction and future projects at the campus. Stormwater piping should be separated from sanitary sewerage piping to prevent cross-contamination issues.
- Construct new stormwater detention systems at each building location as well detention systems prior to outfalls for treatment of stormwater.

6.6.6 Natural Gas System

- Replace damaged existing piping and systems with new piping.
- Construct new piping and equipment to support new construction and identify new potential building locations on campus.

6.6.7 Steam System

- Convert low pressure steam to hot water piping that is sized for the capacity to support existing renovated buildings.
- Construct and size new hot water piping as necessary for adjacent new construction projects to the hot water system.
- Construct new gas-fired hot water boilers at new projects that are not attached to the hot water loop system.

6.6.8 Geothermal Heating System

- The existing geothermal system should be investigated to determine the location of all components and capacity. It is not believed that there is additional capacity.
- Buildings using geothermal for heating should continue to use and benefit from this system.

6.6.9 Telecommunications/IT

- Future construction should be tied into the upgraded fiber loop and provide services throughout all buildings.
- A Wi-Fi network should be available throughout campus for students, faculty and visitors to benefit from.

Figure 6.5 - Pedestrian Circulation and Open Space

Centralization Versus Decentralization for Utilities

Utilities at the USMMA tend to be looped systems that originate along Steamboat Road and loop around the perimeter of the north-south quad of campus with runouts to pick up individual buildings. Limited opportunities exist to share utility corridors at the Academy currently.

Most buildings work on a decentralized system with heat and cooling generated at the individual building level. Notable exceptions include a low pressure steam system that circulates between two steam plants and provides heating for areas in Delano Hall, Wiley Hall, Furuseth Hall and common areas in all barracks. Although not a campus loop, it does provide an exposed loop system at the Zero Deck barracks spaces.

Likewise, a hot water plant and loop supplies hot water at the academic buildings: Fulton, Gibbs, Bland Library, and Bowditch Hall through a series of hot water lines at Zero Deck and underground.

With a proposed utilities replacement and update in the CMP, there are a couple of different options that can be explored for campus utility organization.

Decentralization Option

One option is to maintain the current decentralization of utilities at the campus. As stated above, buildings around the campus maintain some heating connectivity through the use of steam plants and a hot water plant. This could be maintained and new buildings would have heating via hot water boilers fired by the natural gas loop.

Chilled water for cooling would be maintained with individual chillers and cooling towers for each building.

The existing geothermal well system should be maintained to provide heating and cooling for individual barracks rooms. Concerns for maintenance should be addressed with investigation into the functioning of the system and condition of water pumped through the wells. Further investigation may determine if the geothermal system can be converted to a system that utilizes the geothermal wells to provide heating and cooling through a more traditional piping system to eliminate the need for multiple heat pumps.

Benefits of this approach include that individual buildings maintain independence and resiliency. A system failure in one building does not impact other buildings in on the campus.

Liabilities of the approach include having multiple different systems that require service, potentially different manufacturers, variance in age of equipment and availability and storage of parts.

Centralization Option

Centralization of utilities at the USMMA campus would involve creating a centralized loop or tunnel that utilities could be run through. This is advantageous for ease of maintenance without significant excavation.

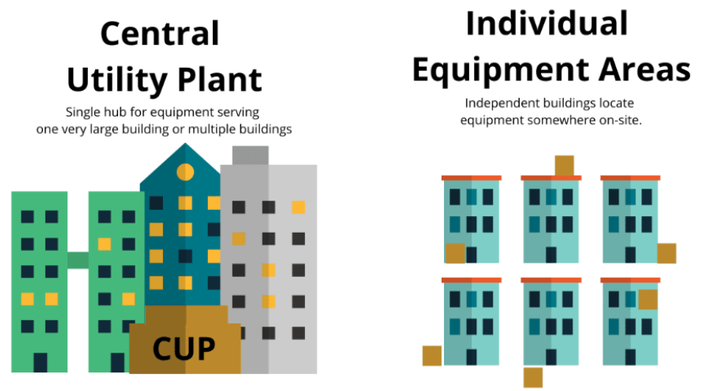
Creation of a central utility plant (CUP) would house hot water boilers for a high temperature hot water loop for heating and chillers for a chilled water loop for cooling around the campus. The CUP and utility loops could be sized for all existing facilities and expandable for additional boilers and chillers as new construction projects are added to the campus. In this scenario, the existing low pressure steam plants would be replaced with high temperature hot water similar to the hot water boilers at Fulton Hall.

The central loop would originate at the central utility plant (potentially by O'Hara Hall) and route hot water and chilled water through the network of zero deck space that connects Delano Hall and the barracks. Once leaving the northernmost barracks it would either translate through a new utility tunnel or underground over to Wiley Hall and the academic buildings at the northern end of campus. Ultimately, the loop would route along Steamboat Road with buried piping and connect to all of the new buildings at the McNulty Campus and then return to the central plant. The Midshipmen Activity Center and New Academic Center would be picked up by runouts off of the main loop.

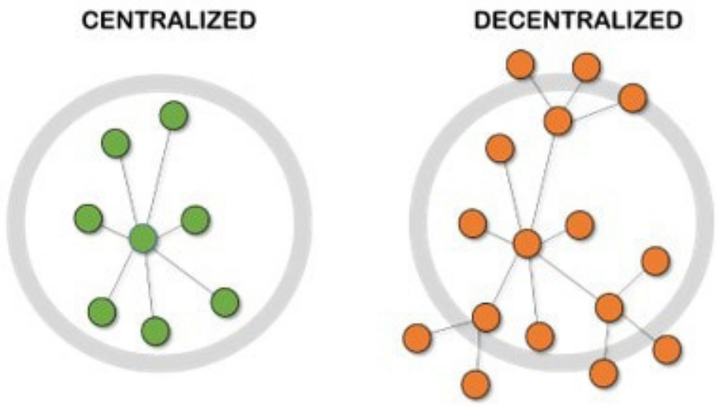
Loops would be sized for all existing and future construction, incorporate decoupling to allow for additional hot water or chilled water load without impact to individual buildings and incorporate heat exchangers at each building.

Benefits of this system include economy of heating and cooling equipment, future expandability, piping maintenance, redundancy of systems with multiple boilers and chillers to carry loads and uniformity of heating and cooling systems across the campus.

Liabilities of this system include initial costs for a central utility plant building and equipment and costs for creation of new utility corridors around campus to facilitate the loop.



Central utility plant example. Source: https://rwb.net/



Centralized versus decentralized example. Source: https://www.businesstechweekly.com/

Figure 6.6 - Water and Sewer Utilities Infrastructure

6.7 Public Safety and Security

One portion of the CMP is to improve public safety and security at the USMMA campus. These public safety improvements can be divided into building specific upgrades and campus wide initiatives. Building specific upgrades include: access control upgrades and lighting upgrades. Campus wide items include: security fencing, lighting upgrades, pedestrian access, vehicle access, CCTV cameras, and a centralized command center.

A more comprehensive access control system should be implemented on the campus. Card reader access for all exterior doors should be implemented at all barracks facilities, athletic facilities and academic buildings. Additional security systems may be necessary for sensitive spaces to include card readers and door position sensors and intrusion detection. Access control systems should be tied back to a campus command center for override control.

Building specific lighting upgrades include lighting around the building for safety and security to prevent shaded areas around the building and illuminate potential tripping hazards. Interior lighting fixtures should be tied to an emergency panel to provide dedicated lighting in the event of a power failure.

Consider rewrite: Campus lighting upgrades will establish a well-distributed network to illuminate public walkways, roadways, and waterfront areas. These improvements aim to reduce shaded areas, enhance nighttime wayfinding, and provide sufficient lighting to identify potential tripping hazards.

The current perimeter fencing is approximately 6 feet in height and serves as a privacy separation between the academy and surrounding residential neighborhoods. A more robust approach would involve increasing the fence height to deter ease of climbing, ensuring that the fencing does not have gaps in the perimeter and providing operable gates for ingress and egress from the campus. Any new fencing and gates should be designed to achieve the necessary security considerations and be designed to meet the design aesthetics of the USMMA campus and integrate with the surrounding residential neighborhood fabric.

Vehicle routes at gates likely will require some form of bollard or delta barrier to prevent unauthorized access outside of normal operating hours. The main gatehouse is recommended to be rebuilt as part of the CMP with improvements to allow for two lanes of traffic and a pedestrian gate. A dedicated vehicle screening area should be created ahead of the main gate to allow for inspection prior to vehicles entering the main portion of campus.

Pedestrian access improvements include the development of a comprehensive Existing pedestrian access at the academy is a combination of discontinuous sidewalks and vehicle roadways that are used for pedestrian access. The lack of a continuous and interconnected pedestrian network presents safety concerns to the welfare of visitors, faculty and midshipmen.

Closed circuit Television (CCTV) cameras should be added strategically to the campus to improve public safety and monitor portions of campus and the waterfront areas. CCTV cameras should be tied back to the main command center on campus and connected to some form of video documentation system.

A small command center currently exists with the Public Safety group in Furuseth Hall. A larger command center should be created that provides space and capability for campus CCTV camera monitoring, access control systems and components for a rapid response team. Additional staffing and equipment would likely be necessary for public safety during larger crowd events such as graduation, homecoming, and athletic events.

Barracks at USMMA

Gate near the American Merchant Marine Museum

Waterfront at USMMA.

CHAPTER 7 EXECUTION PLAN

The path to a modernized USMMA campus is focused on both expanding the physical footprint of Academy facilities and increasing capabilities to be adaptable to meet any future mission. This effort will also ensure that USMMA remains postured to sustain, modernize, and secure its position as the premier leader in maritime research and Midshipmen development institution in the world. The execution plan incorporates the planning and feedback received by stakeholders and USMMA partners that will ensure this plan remains implementable and sets the Academy up for success.

At the time of this report, there are key systems that are not yet in place to support the scale of construction that will need to be undertaken. It is important that all stakeholders, internal and external, understand that the approach recommended is aggressive but attainable with the proper coordination, collaboration, and systems in place. These implementation strategies will be discussed further in **Section 7.5** and **Section 7.6**.

This execution plan identifies areas for construction across the campus that minimize impacts to daily operations, while also making significant improvements to meet mission priorities and improve the quality of life for Midshipmen, faculty, and staff. During the planning process each phase was verified with stakeholders and adjustments were made during the five-day Confirmation Charrette.

7.1 Project Timelines

Each project will undergo a planning, design, and construction phase with contracting in between to ensure a successful implementation of the CMP. The complexity and scale of each project will dictate the timeline. **Table 7.1** outlines each project step, potential durations, and the task(s) required to support each project. Each of these considerations are built into the project durations shown in the following sections.

The AE incorporated components of USACE's project timeline recommendations into the following project timelines. However, with the proper support, staffing, and coordination ahead of time, the following project timelines are recommended. The project durations will be defined further as individual scopes of work are developed but for the purpose of this study, the following considerations were made:

- For the design phase, all renovation and new construction projects are given a 7-month period for a 15% design phase and this varies by the scale of the project up to 24-months for projects over $100 million to complete designs. Demolition projects do not account for a 15% design and have reduced design periods.
- For the construction phase, all projects have varied construction times dictated by their size and complexity. Projects range in construction time from 1-2 months to 24-months. These timelines represent realistic construction time periods for the type of work being completed, yet does not account for unknowns. As project designs are completed, more accurate construction periods of performance will be formulated.

7.1.1 Time Saving Opportunities

There may be opportunities to advance some of these timelines, however these steps are deliberate to ensure the USMMA's projects remain executable and on track. The following time-saving options can be implemented with further input from stakeholders:

- **Completing multiple 15% designs in tandem,** with one or a smaller group of engineering firms. This will promote institutional knowledge, ease the amount of contracting time and establish deep working relationships with all stakeholders. There may also be projects that don't need a separate 15% design, specifically demolition projects.
- **Completing designs well ahead of prescribed construction,** Similar to completing multiple 15% designs, there may be an opportunity to front load the designs of projects that are slated for construction well into the future. These designs could advance up to 35% or beyond. Once the reach the 35% stage, then USMMA has multiple options. The design could be shelved for future use, it could continue in design to construction documents, or it could be used to facilitate a design-build contract.
- **Involve all external approving parties as early in the process as possible**, including the Governor of the State of New York, the State Historic Preservation Office Representative for New York, New York Environmental Agencies, and other personnel whose approval is required throughout the planning and design process. This allows for transparency and collaboration to start from the beginning and will help guide the implementation process as information is distributed in a timely manner to all internal and external stakeholders.
- **Exploration of alternate contracting mechanisms.** There may be other contracting mechanisms besides Design-Bid-Build (DBB) that could reduce some of the project timelines. Considerations can be made for Design-Build (DB) which may streamline project timelines for individual projects.
- **Design-Build contracts have the potential to expedite construction** and shrink the overall project timeline by 20%. The main advantage is the fact that there will be shovels in the ground sooner due to the opportunity for concurrent design and construction. Simple projects such as the Athletics Fieldhouse, North & South Faculty Housing and the Midshipmen Activities Center could be viable candidates for Design-Build. The management of these contracts are also different and should be considered prior to implementation.
- **Establishing a contractor pool and attracting contractors early.** Established contractor pools could ease the amount of time and the price of projects. If there are more contractors interested in and bidding on the projects, there will be more competition, an opportunity for lower prices and less delays. A Multiple Award Construction Contract (MACC) would also reduce the amount of time to validate contractors.
- **Completing multiple construction projects with one contract.** There may opportunities to combine two scopes into one contract which will alleviate the variety of contractors on the site at one time. Multiple renovation projects, like the barracks, are on the same timeline, have similar scopes and could be completed under one contract. Similarly, there are demolition projects that could happen under one contract or be grouped onto a new construction or renovation project, if the desired timeline supports.

Table 7.1 - Proposed Project Timeline

Project Step	Duration	Tasks
USMMA Approval	0-3 Months	USMMA internal approval process.
Funding Approval	2-3 Months	Funding approval from higher headquarters.
15% Design RFP/ Contracting	2 Months	Government contracting period for a third-party contractor.
Planning (15% Design)	7 Months	Planning and programming requirements, develop a conceptual design, including government review.
Design RFP/ Contracting	4 Months	Government contracting period for a third-party contractor.
Design	12-28 Months	Advance design from concept to construction documents and permitting, includes government review.
Construction RFP/ Contracting & Award	7 Months	Government contracting period for a third-party contractor.
Construction	8-33 Months	Building construction / renovation / demolition.
Beneficial Occupany Period	0-9 Months	Furnishings, shifting capabilities from existing buildings, time for project phasing if needed.

7.2 Sequencing and Phasing

All projects previously discussed in the project list were analyzed based on criteria such as their mission criticality on campus, constructability, impact to operations, duration, and improvement to quality of life. From there the projects were phased in such a way that would minimize the impacts to the student experience and daily operations but also achieve the desired end state of accomplishing the campus upgrade within the near future.

Table 7.2 indicates the phased projects. Table 7.3 provides a more detailed description of the implementation timeline.

Table 7.2 - Phasing Considerations

Order	Project Title	Phasing Description
1	Samuels Hall Renovation	Once complete, the temporary lab space in Bowditch Hall will be located and the classrooms in the trailers will again continue in Bowditch Hall. Samuels Hall will serve as the location for all simulation labs.
2	GIS, BIM and Utility Survey with Academy Utility Upgrade	The field investigation should occur immediately. The utility upgrade project should begin soon after, upgrading and replacing systems as needed and ensuring the greater utility infrastructure is sized and in place for easy tie ins for future construction projects.
3	Seawall Replacement	The seawall project should be completed immediately. Laydown space and swing space for this project / Prosser Boat House should be considered around Eldridge Pool. Contractors should consider storing equipment and materials on a barge.
4	Hague Basin Dredging	This project should occur immediately.
5	Fitch Hall	Fitch Hall should be demolished immediately to support the CUP construction. Swing space should be accommodated for in Patten Hall, with shipping and receiving functions shifted to the current F&I location.
6	307 Steamboat	This demolition project should occur immediately.
7	New Academic Building	Once Samuels Hall is back online, a new Academic Building should be constructed south of Samuels Hall. This new construction will be in place of an existing parking lot and should be coordinated with the underground fuel storage. Because this is a new build, there is no swing space required because of this project. Laydown area should be considered in place of the old 307 Steamboat Road and south of the new construction area.
8	Athletics Fieldhouse	This project impacts the existing senior midshipmen parking area and potentially Brooks Fieldhouse pending how the final building footprint is placed. The parking should be considered for relocation throughout campus, at an offsite location or personnel should be limited in having vehicles during this construction. If the footprint does impede on Brooks Fieldhouse, those entities may need to be relocated into portable space during construction.
9	North Faculty & Staff Housing	The northern faculty housing should be completed in the first stages of the campus development because it will allow for the demo of existing living quarters that need to be removed in order to facilitate future construction. After all personnel from those units move into the new homes, the existing quarters can be demoed. There should be additional phasing within this project to account for the personnel living in Quarters L. The project should begin construction in the north east corner of the localized project site which will allow for Quarters L to remain in operation until there is a quarters available for living. The first occupants for these new homes should be the current residers of Quarters B, C and L to accommodate other projects.
10	Relocate Facilities & Infrastructure	Once Quarters B and C are demoed, a new DPW warehouse building and administrative building should be constructed. Because the faculty members from Quarters B & C have already moved out, no swing space is required. There should be ample laydown space in and around the project site but additional laydown space can be on the southern portion of campus or in place of the old 307 Steamboat Road.
11	Clinic Construction	This project impacts minimal campus operations and should be prioritized early in the program. Laydown space should be considered in and around the current location of the obstacle course.
12	New Barracks #1	This project has the potential to impact the flow of traffic along Farrell Road. It is important to ensure that this project doesn't impede daily traffic to Delano Hall and the southern portion of campus. This new construction should occur immediately to provide future swing space for barracks renovations.
13	Midshipmen Activity Center	Once Melville Hall is demoed, the new Student Activity Center should be constructed.
14	Federal Maritime Center of Excellence & Library	The Federal Maritime Center of Excellence and Library facility can be constructed anytime after the 307 Steamboat Road area is demoed and cleared. It is sequenced for construction after Bowditch Hall renovation to not congest the amount of projects occurring in that area and to not affect the day to day learning of the midshipmen with too much construction activity in the Academic areas.
15	Bowditch Hall Renovation	Once the new academic building is complete, Bowditch Hall should be renovated. Swing space will be available in the new academic building.
15	Mariner Training Center	The Mariner Training Center construction can begin once the Facilities & Infrastructure facilities are demoed.
17	Welcome Center	This project will be completed after the Facilities and Infrastructure project in alignment with the Academy Security Upgrade. Admissions personnel may need to occupy swing space during construction/ renovation. If space is needed the personnel could be temporarily relocated to Furuseth Hall, occupy space in the new Fieldhouse or explore temporary office space.

Table 7.2 continues on the next page.

Table 7.2 continued from the previous page.

Order	Project Title	Phasing Description
18	Patten Hall Renovation	Patten Hall should be renovated once the clinic is completed for future use as an administrative building. Since all medical personnel will be moved into the new clinic, no swing space is required. Once complete, the entities from Furuseth Hall will occupy the newly renovated Patten Hall.
19	Academy Security Improvements	The Academy security upgrades can be completed as a part of other smaller projects or as one large project. This is sequenced in a way to move the gate, perimeter fence and guard house once the F&I relocation is complete.
20	New Barracks #2	This project has minimal dependencies but shouldn't begin until the first building is completed in order to incorporate lessons learned from the first construction.
21	Residence Hall Renovation (Jones)	Jones Hall should be renovated once the new residence hall is built. Midshipmen should be relocated the new Barracks building or consolidated into other existing barracks buildings during construction.
22	Residence Hall Renovation (Barry)	Barry Hall should be renovated once the new residence hall is built. Midshipmen should be relocated the new Barracks building or consolidated into other existing barracks buildings during construction.
23	Crowninshield Pier Construction	The Crowninshield Pier replacement and academic space on the deck should be completed following the completion of the seawall replacement. Laydown space should be considered around Eldridge Pool.
24	O'Hara Hall Renovation	O'Hara Hall should be renovated once the Mariner Training Center is complete. All functions can temporarily be moved into the new Mariner Training Center and the new Fieldhouse.
25	Furuseth Hall	Furuseth Hall should be demolished once the Patten Hall renovation is complete and personnel have been relocated from Furuseth Hall.
26	Residence Hall (Murphy)	Murphy Hall should be renovated once the Jones Hall renovation is complete. Midshipmen should be relocated the new Barracks building or consolidated into other existing barracks buildings during construction.
27	Residence Hall (Palmer)	Palmer Hall should be renovated once the Barry Hall renovation is complete. Midshipmen should be relocated the new Barracks building or consolidated into other existing barracks buildings during construction.
28	Fulton-Gibbs Hall Renovation	Once Bowditch Hall is renovated and back on line, Fulton-Gibbs should be renovated.
29	Chapel & Wiley Hall Site Improvements	This project can be completed once the Student Activity Center is complete.
30	South Faculty & Staff Housing	The south faculty housing could be constructed at any time although it is sequenced in a way to not have too much construction going on in one area, at any given time and therefore should be constructed once the Patten Hall renovation is complete.
31	Land Hall	Land Hall should be demolished once the Student Activity Center is constructed.
32	Residence Hall (Rogers)	Rogers Hall should be renovated once the Murphy Hall renovation is complete. Midshipmen should be relocated the new Barracks building or consolidated into other existing barracks buildings during construction.
33	Residence Hall (Cleveland)	Cleveland Hall should be renovated once the Palmer Hall renovation is complete. Midshipmen should be relocated the new Barracks building or consolidated into other existing barracks buildings during construction.
34	Steamboat Road Paving & Waterfront Promenade	Once the large construction projects near the waterfront and along Steamboat Road are complete, a final paving should be done along Steamboat Road.
35	Delano Hall Renovation	This project can be done at any time but impacts to student life should be considered amongst other projects.
36	Museum Renovation	This project should occur after the construction of the Federal Maritime Center of Excellence and Library to best protect the artifacts and offer viewing of historical items while the Barstow Mansion is under renovation.
37	Yocum Waterfront Center (with CG Facility)	The Yocum Waterfront Center can be completed at any time but should consider the amount of construction occurring in the vicinity of the waterfront and student learning area and therefore is sequenced for completion after the Federal Maritime Center of Excellence and Bowditch Hall are complete. Swing space for boat storage should be considered in and around the Eldridge Pool.
38	Quarters G, P, K, J, M&N Demolition	Quarters can be demolished once faculty have moved into either the north or south housing.
39	Quarters A, D, O Renovation	Quarters should be renovated once there's space in either faculty housing locations for the occupants to live temporarily.
40	Wiley Hall Renovation	This project should occur after the renovation of Patten Hall. Pending the scale and phasing of the renovation, swing space could be utilized in the library.
41	Bland Library	Bland Library can be demolished once it is no longer needed as swing space.

USMMA will pursue opportunities to truncate the timelines and utilize design-build contracts, see **Section 7.1.1** for time reducing opportunities.

With the already mentioned project timelines and all phasing considerations, the following implementation plan was built:

Table 7.3 - Implementation Timeline

USMMA CMP Implementation Timeline			
		Calendar Year	2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037
		Fiscal Year	2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036
		Quarter	2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
Function	**Project Title**	**Cost**	**Type**
Academics	Samuels Hall Renovation	N/A	Reno
	New Academic Building	$67m	New
	Bowditch Hall Renovation + Addition	$90m	Reno
	Federal Maritime Center of Excellence & Library	$231m	New
	Fulton-Gibbs Hall Renovation	$80m	Reno
	Bland Library Demolition	$5m	Demo
Athletics	Athletics Fieldhouse	$119m	New
	Mariner Training Center	$171m	New
	O'Hara Hall Renovation	$83m	Reno
Campus Improvement Projects	GIS, BIM and Utility Survey with Utility Upgrade	$55n	Reno
	307 Steamboat Road Demolition	$0.4m	Demo
	Fitch Hall Demolition	$2.1m	Demo
	North Faculty & Staff Housing	$25m	New
	Facilities & Infrastructure Relocation	$60m	New
	Clinic Construction	$73m	New
	Welcome Center	$74m	New
	Patten Hall Renovation	$19m	Reno
	Academy Security Improvements	$1.7m	Reno
	South Faculty & Staff Housing	$14m	New
	Chapel & Wiley Hall Site Improvements	$17m	Reno
	Furuseth Hall Demolition	$6m	Demo
	Museum Renovation	$11m	Reno
	Delano Hall Renovation	$45m	Reno
	Steamboat Road Paving & Waterfront Promenade	$8m	Reno
	Quarters A, D, O Renovation	$12m	Reno
	Quarters G, J, K, M&N, P Demolition	$5.4m	Demo
	Wiley Hall Renovation	$36m	Reno
Student Life	New Barracks #1	$67m	New
	Midshipmen Activity Center	$29m	New
	Jones Hall Renovation	$61m	Reno
	Barry Hall Renovation	$63m	Reno
	New Barracks #2	$49m	New
	Murphy Hall Renovation	$53m	Reno
	Palmer Hall Renovation	$59m	Reno
	Rogers Hall Renovation	$36m	Reno
	Cleveland Hall Renovation	$74m	Reno
	Land Hall Demolition	$1m	Demo
Waterfront	Hauge Basin Dredging	$5m	Reno
	Seawall Replacement	$9m	Reno
	Crowninshield Pier Construction	$97m	New
	Yocum Waterfront Center (with CG Facility)	$113m	New

LEGEND Design and Contracting Phase Construction Phase

Prior to all new construction the USMMA, USACE and other stakeholders shall ensure they have the proper staffing and systems in place to manage the construction schedule. Based on lessons learned from similar facilities at the United States Military Academy at West Point, a robust staffing of USACE and facilities and infrastructure staff will be required to effectively manage the projects and ensure proper completion.

Table 7.4 indicates the average number of projects either in construction, design, or contracting over the next 10 years. There may be some projects that overlap at the beginning and ends creating a flux of projects, especially where there are projects with turnover periods. The number of concurrent projects has been balanced across the campus and by function to prevent any single area or department from being overwhelmed. Additionally, the mix of project types is considered and shown in **Table 7.5**, which identifies the average number of renovations, new construction, and demolition projects active at any time. For a full list of project classifications, see the project list in **Table 6.1** and **Appendix D**.

Finally, **Table 7.6** shows the average cost of ongoing construction at any given time. This can be used as another metric to gauge the amount of work going on around campus and can be used as a capacity barometer when trying to forecast requirements.

Table 7.4 - Project Status Load Chart

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	
1	1	2	4	7	9	8	7	9	10	5	1	Construction
1	7	10	9	10	7	11	8	4	1	0	0	Design
9	4	5	5	3	7	4	4	4	1	0	0	Contracting

Table 7.5 - Project Type Load Chart

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	
1	1	1	1	2	4	4	4	6	7	4	1	Renovation
0	0	0	8	7	5	2	2	3	2	1	0	New Construction
0	0	1	0	0	0	1	1	0	1	1	0	Demolition

7.2.1 Laydown and Swing Space Locations

During this campus modernization program there will be significant daily logistical requirements to facilitate progress. While these projects are spaced across the campus, there will be daily construction traffic throughout campus as well as oversight personnel. Areas have been identified for potential laydown space, contractor trailer space and contractor parking. These areas are designated in **Figure 7.1** through **Figure 7.5**.

These dedicated contractor areas include but are not limited to:

- The grass area east of the new Fieldhouse.
- The area south of Patten Hall near the existing obstacle course.
- The existing 307 Steamboat Road property near the waterfront.
- Near and proximate to individual project sites.
- Near and proximate to Elmridge Pool.

In addition to the construction laydown area, there will be swing space requirements throughout the program. The projects have been phased in such a way to minimize the amount of swing space required and ensure entities are not impacted dramatically by construction, however, events are bound to occur. This study recommends considering the following spaces for swing space throughout the lifecycle of the program:

- Existing Quarters that are to be demolished once personnel have moved into the North Staff/Faculty Housing.
- Locations for auxiliary modular classroom space near the quad.
- Temporary classrooms, office space or event space in facilities that are built early such as the Athletic Fieldhouse or Midshipmen Activity Center.
- Land Hall once student activity functions have been relocated to the Midshipmen Activity Center.
- Parking for some entities may have to be considered for off campus with a shuttle service or ride sharing to campus, until additional parking garages and spaces are constructed or repaved.

Additionally, the main gate should be dedicated to construction traffic and the gate along Elmridge Road should be opened during business hours for non-construction traffic. This is intended to ease the traffic coming through the main gate as well as deter any disruption to the adjacent neighborhood while ensuring non construction personnel still have access to the campus.

Table 7.6 - Cost Load Chart

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	
$-	$-	$30,000	$134,750	$464,000	$595,350	$584,000	$358,500	$575,000	$517,200	$247,500	$36,000	Construction Cost

Figure 7.1 - Proposed Development Plan FY25 to FY26

Figure 7.2 - Proposed Development Plan FY27 to FY28

Figure 7.3 - Proposed Development Plan FY29 to FY30

Figure 7.4 - Proposed Development Plan FY31 to FY32

Figure 7.5 - Proposed Development Plan FY33 to FY35

7.3 Budget and Cost Estimates

The cost estimates seen in **Table 7.7** were prepared by the A/E and are based on project narratives, defined area types, gross square foot building programming and anticipated renovation levels. Estimates were developed using a parametric cost model aligned with UFC 3-730-01 Programming Cost Estimates for Military Construction (March 2024), leveraging the most current unit cost data per CATCODE and corresponding facility codes. Costs follow UFC 3-701-01 and Army PAX Newsletter 3.2.2 standards, with location-adjusted facility unit costs. These costs cover installed equipment and basic AT/FP (anti-terrorism/force protection) design features but exclude supporting facilities beyond the 5-foot line.

Per AACE 56R-08 these estimates are considered Class 5 with an accuracy range of -30% to +50%. Projects were escalated to their midpoint of construction based on BCI Q1 2025 escalation values, this table can be found in the Whole Building Design Guide. A historical preservation factor of 5% was applied to projects with historical compliance requirements. All projects include markups for unforeseen conditions, market conditions, and a technical complexity factor based on predicted scope. Additionally, new construction projects include a below the line 5% contingency while renovation projects include a 10% contingency as well as the already mentioned markups.

These are rough order of magnitude estimates and should be refined by project as the scopes develop. Additional cost assumptions, backup information and project by project estimates can be found in **Appendix E**.

Table 7.7 - Cost Summary Table

USMMA Campus Modernization Cost Table				Class 5 Variation		
Function	**Project Title**	**Project Type**	**Year of Funding**	**-30% ($000)**	**Cost Estimate ($000)**	**+50% ($000)**
Academics	Samuels Hall Renovation	Renovation	N/A	$-	$-	$-
	New Academic Building	New Const.	FY26	$46,900	$67,000	$100,500
	Federal Maritime Center of Excellence & Library	New Const.	FY29	$161,700	$231,000	$346,500
	Bowditch Hall Renovation + Addition	Renovation	FY27	$63,000	$90,000	$135,000
	Fulton-Gibbs Hall Renovation	Renovation	FY29	$56,000	$80,000	$120,000
	Bland Library Demolition	Demolition	FY33	$3,500	$5,000	$7,500
Athletics	Athletics Fieldhouse	New Const.	FY26	$83,300	$119,000	$178,500
	Mariner Training Center	New Const.	FY27	$119,700	$171,000	$256,500
	O'Hara Hall Renovation	Renovation	FY29	$58,100	$83,000	$124,500
Campus Improvement Projects	307 Steamboat Road Demolition	Demolition	FY25	$294	$420	$630
	Fitch Hall Demolition	Demolition	FY26	$1,505	$2,150	$3,225
	North Faculty & Staff Housing	New Const.	FY26	$17,500	$25,000	$37,500
	GIS, BIM and Utility Survey with Utility Upgrade	Renovation	FY26	$38,220	$54,600	$81,900
	Relocate F&I	New Const.	FY26	$42,000	$60,000	$90,000
	Clinic Construction	New Const.	FY26	$51,100	$73,000	$109,500
	Patten Hall Renovation	Renovation	FY27	$13,300	$19,000	$28,500
	Welcome Center	New Const.	FY27	$51,800	$74,000	$111,000
	Academy Security Improvements	Renovation	FY28	$1,190	$1,700	$2,550
	Furuseth Hall Demolition	Demolition	FY30	$4,200	$6,000	$9,000
	Chapel Site Improvements and Classroom Learning	Renovation	FY29	$11,900	$17,000	$25,500
	South Faculty & Staff Housing	New Const.	FY29	$9,800	$14,000	$21,000
	Steamboat Road Paving & Waterfront Promenade	Renovation	FY32	$5,600	$8,000	$12,000
	Museum Renovation	Renovation	FY30	$7,700	$11,000	$16,500
	Delano Hall Renovation	Renovation	FY30	$31,500	$45,000	$67,500
	Quarters D, A, O Renovation	Renovation	FY31	$8,400	$12,000	$18,000
	Quarters G, P, K, J, M&N Demolition	Demolition	FY32	$3,822	$5,460	$8,190
	Wiley Hall Renovation	Renovation	FY33	$25,200	$36,000	$54,000
Student Life	New Barracks #1	New Const.	FY26	$46,900	$67,000	$100,500
	Midshipmen Activity Center	New Const.	FY26	$20,300	$29,000	$43,500
	Jones Hall Renovation	Renovation	FY27	$42,700	$61,000	$91,500
	Barry Hall Renovation	Renovation	FY27	$44,100	$63,000	$94,500
	New Barracks #2	New Const.	FY27	$34,300	$49,000	$73,500
	Murphy Hall Renovation	Renovation	FY29	$37,100	$53,000	$79,500
	Palmer Hall Renovation	Renovation	FY29	$41,300	$59,000	$88,500
	Rogers Hall Renovation	Renovation	FY30	$25,200	$36,000	$54,000
	Cleveland Hall Renovation	Renovation	FY30	$51,800	$74,000	$111,000
	Land Hall Demolition	Demolition	FY30	$903	$1,290	$1,935
Waterfront	Hauge Basin Dredging	Renovation	FY25	$3,500	$5,000	$7,500
	Seawall Replacement	Renovation	FY25	$6,300	$9,000	$13,500
	Crowninshield Pier Construction	Renovation	FY27	$67,900	$97,000	$145,500
	Yocum Waterfront Center (with CG Facility)	New Const.	FY30	$79,100	$113,000	$169,500
Total				**$1,418,634**	**$2,026,620**	**$3,039,930**

7.4 Capital Investment Strategy

The USMMA should reconsider their existing capital improvement program, assess the existing deferred maintenance, address immediate quality of life projects, and program their future requirements based on the sequence of construction mentioned.

7.4.1 Existing Capital Improvement Program

The USMMA has an existing Capital Improvement Program that should be revised in conjunction with this report. In the 2024 CIP request to the DOT, the USMMA requested funds for 11 projects totaling $238 million with $78 million already appropriated. **Table 7.8** indicates the 11 projects, their status and this reports near term recommendation based on the greater CMP.

Table 7.8 - Existing Capital Improvement Program Projects

Project	Funds Requested	Status	Recommendation
Samuels Hall Renovation	$60,690,000	On-going	Continue as planned
Fulton/Gibbs Complex Renovation	$27,752,000	On-going	Continue as planned
Campus Fiber Optic Upgrade (Phases I & II)	$13,078,000	Awaiting Design	Continue as planned
Gate Access Control (Phase II)	$2,985,000	Awaiting funding	Reallocate funds
Stormwater Management System	$50,000,000	Funded, awaiting field investigation contract	Continue as planned, consider adding additional investigation scope to cover other utilities
Seawall Replacement	$20,000,000	Funded, awaiting design contract	Continue as planned
Residence Hall Renovation (1st of 6)	$20,000,000	Awaiting funding	Reallocate funds
Rehabilitation of MARAD owned Roads, Parking Lots and Sidewalks on USMMA Campus	$4,400,000	Awaiting funding	Reallocate funds
Historic renovation of Wiley Hall	$13,000,000	Awaiting funding	Reallocate funds
Renovation of Delano Hall	$25,500,000	Awaiting funding	Reallocate funds
Facilities Master Plan	$1,002,000	Under contract	Continue as planned

7.4.2 Existing Deferred Maintenance

Based on the Restoring America's Maritime Dominance Executive Order, signed April 9th, 2025, there's a request for an inventory of deferred maintenance. The approach to the deferred maintenance strategy is two-fold and shall ensure that recommended deferred maintenance improvements do not 1)undergo reconstructed quickly after completion by greater modernization projects or 2) interfere with the larger modernization effort. Based on the deferred maintenance inventory from the 2022 and 2012 Building Evaluation Reports and syncing with the timeline of the CMP, this study has divided the deferred maintenance into three buckets.

- **Mission Critical** - These projects are urgently needed to ensure that the USMMA can continue to meet its core mission. Failure to move forward with this work immediately will affect the health and safety of students, faculty, and staff, and/or undermine the structural integrity of the affected buildings, potentially making them unusable.
- **Essential** – These projects are required to return the USMMA infrastructure to a baseline state of good repair, prevent emergency failures and reduce long-term capital operations and maintenance costs. Taken within the context of the larger planned revitalization plan, this work will not be compromised by any intended future renovations.
- **Enhancing** - These projects will significantly improve the midshipmen, faculty, and staff experience and quality of life, morale, and improve the enduring legacy to provide a quality learning environment. Taken within the context of the larger planned revitalization plan, this work will not be compromised by any intended future renovations.

If identified deferred maintenance was recommended prior to the CMP projects or would be impacted by more significant renovation/new construction, that deferred maintenance is not recommended for completion, or it is only considered enhancing. An example is the recommended demolition or moving of Melville Hall, almost immediately, therefore it's not worth completing any deferred maintenance projects in Melville Hall. The summary of deferred maintenance consists of the following projects and costs in millions of dollars:

- Mission Critical - $71.8
- Essential – $240.8
- Enhancing – $108.3

In addition to requesting ongoing maintenance funds, an additional 34 staff members, ranging from skilled tradesmen to project executives, is recommended to support the effort. This additional staff is critical to the successful implementation of not just the deferred maintenance but also the future new construction and renovation projects on campus.

7.4.3 Immediate Quality of Life Improvements

In conjunction with the list of deferred maintenance, there is an opportunity for the USMMA to pursue immediate and low cost quality of life projects around campus. The projects listed under **Table 7.9** are estimated to cost approximately $40 million and have an immediate impact on the day-to-day life of the USMMA community.

Table 7.9 - Immediate Quality of Life Projects

Academics	Ackerman Auditorium improvement; new seats (e.g. with flip desks), upgrade Lighting
Athletics	O'Hara Hall locker room improvements (modernize locker rooms/ restrooms/showers)
	O'Hara Hall modernized basketball court bleachers
	Brooks Stadium seating (replace blue seats) at Tomb Field
	Brooks Stadium Add storage capacity for athletic equipment (e.g. storage containers)
Campus Improvement Projects	Wiley maintenance/repairs
	VTC technology in conference rooms
	HVAC maintenance/repair/re-do campus-wide
	Campus lighting upgrade, all streets and walkways
	Library furniture and space revitalization
	Delano Hall kitchen appliance upgrade
	Delano Hall dishwasher redundancy
Student Life	Barracks restroom modernization and upgrades (fixtures, partitions, showers, sinks, and toilets)
	Midshipmen public Wi-Fi
	Rogers Hall barracks furniture upgrade
	Laundry room refresh and equipment replacement
	Locks and individual cages for storing/locking equipment (Sea Year storage)
	Replace ice and water machines in Delano Hall
	Ackerman Hall seat and lighting upgrade
	Land Hall furniture upgrade
WaWaterfront	Floating docks replacement

7.4.4 Campus Improvement Projects

In addition to the deferred maintenance and the quality of life projects, there are additional, smaller projects that should be completed around the campus, refer to **Table 7.10**. These projects are best suited as additions to larger contracts or treated as O&M projects to be completed prior to the larger CMP projects. A bulk of the construction does not begin until FY28. Many of these campus improvement projects do not require detailed designs and can be completed in the short-term to show progress for USMMA and provide immediate improvements to the campus.

One example is the Hauge Basin Dredging. At the time of this report, this project is already moving in the design stage. This project is being prioritized for completion, as it impacts multiple facilities and improvements that need to occur near the waterfront.

Table 7.10 - Priority Campus Improvement Projects

Academics	Library climate control, maintenance, repairs, and furniture replacement
	Bowditch, Fitch, Fulton-Gibbs maintenance/repairs/upgrades
	Improve HVAC in Academic facilities
Athletics	O'Hara Hall modernize locker rooms/restrooms/showers
	O'Hara Hall modernized bleachers
	Brooks Stadium seating (replace blue seats) at Tomb Field
	Brooks Stadium remodel press box/VIP seating area
	Brooks Stadium add storage capacity for athletic equipment (e.g. storage containers)
	O'Hara Hall lower levels ventilation
	O'Hara HVAC/climate control, roof repair, and painting
	O'Hara Hall pool bleacher replacement
	O'Hara Hall weight room and cardio space improvements
	Brooks Stadium equipment storage addition
	Brooks Stadium updated track and jumps area
	Brooks Stadium press box and seating area improvements
	Brooks Stadium filming tower for Tomb Field (permanent filming tower for safety)
	Brooks Stadium updated video scoreboard
	Re-sod rugby field
Student Life	Outdoor pool area and changing room improvements
	Topside Dining room furniture and aesthetics
Water Front	Dredging of Hague Basin
	Installation of New SOLAS davit
	Replace Travel Lift Rail and Supporting Piles

7.4.5 Future Capital Improvement Program

At the time of this study it is unclear what the method of funding this program will be. There may be opportunities for funds outside of the normal capital improvement program requests for funds for the USMMA. The following quantities of funds in **Table 7.11** is what would be needed to accomplish the recommended amounts of improvements:

These appropriations would cover any new construction, demolition and renovations as proposed by this study. There should be additional funds allocated for deferred maintenance, quality of life projects as well as the future maintenance program which is discussed further in **Section 7.5**.

Table 7.11 - Future Capital Improvement Cost

Fiscal Year	Cost ($000)
FY25	$68,600
FY26	$442,570
FY27	$624,000
FY28	$1,700
FY29	$537,000
FY30	$286,290
FY31	$12,000
FY32	$13,460
FY33	$41,000

7.5 Operations and Maintenance Plan/ Strategy

A campus-wide operations and maintenance plan/strategy needs to be aligned with the goals of the CMP while remaining flexible enough to function independently of any proposed new projects. At present, multiple maintenance plans are in place at the Academy, but funding for these efforts is limited and often competes with other capital improvement initiatives.

Ongoing maintenance should be expanded to include all existing buildings and operate independently from new capital improvement projects. Often, maintenance and operations work are smaller, limited scope projects that may occur with no impact to building functionality, limited construction timeframes, do not require swing space, and have a high visibility across the campus that addresses concerns for student and faculty quality of life.

Operations and maintenance projects can be broken down into exterior envelope repairs, interior repairs, systems maintenance and upgrades, and utility maintenance and repairs.

- Building envelope repairs may include masonry repointing, painting, sealant replacement, roof repairs and potential replacement, door and window repairs or replacement.
- Interior repairs may include painting, fixture and equipment repair and replacement, and finish upgrades for walls, floors or ceilings.
- Systems maintenance may include repairs and replacement in kind to exhaust ventilation, mechanical systems, plumbing fixtures, electrical lighting and power repairs and/or fixture replacement and fire protection device replacement and repair.
- Utility maintenance and repairs may include roof and building drain cleaning and scoping, limited repair or replacement of existing utility lines and repair or replacement of downstream utility systems.

These types of projects are likely to provide immediate relief and improve the overall quality of life at the Academy. They focus on targeted work rather than complete building renovations or full system replacements.

Figure 7.6 and Table 7.12 indicate the amount of real property, measured in square feet, the USMMA will encumber as a result of this modernization effort. It is imperative that the campus be prepared to facilitate the maintenance of all existing and future facilities. This preventative maintenance plan should include, but is not limited to the following:

- Proper maintenance personnel staffing and supplemental maintenance contracts. These contracts should be in place prior to the completion of all construction.
- A user-friendly reporting mechanism for work orders. That provides the USMMA with cost information to formulate future O&M budgets.
- A building health tracking system.
- A benchstock of relevant maintenance materials.
- A routine maintenance program of all systems to include subsurface utilities and behind the wall MEP systems.
- Proper maintenance funding, like that of an out-year CIP for new construction.

Figure 7.6 - USMMA Real Property

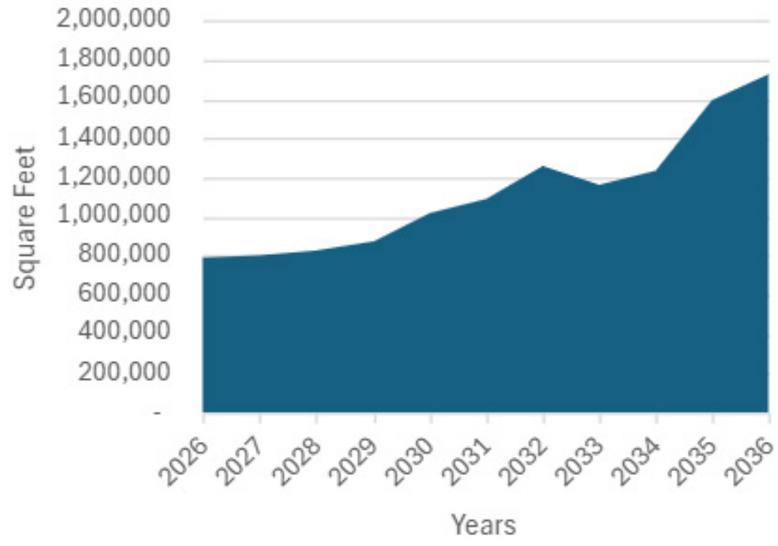


Table 7.12 - USMMA Real Property

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	
797,183	797,183	803,442	825,167	876,023	1,020,811	1,086,821	1,264,090	1,160,634	1,232,908	1,602,471	1,734,802	Real Property (SF)
	0%	1%	4%	10%	28%	36%	59%	46%	55%	101%	118%	Growth Compared to Existing

7.6 Coordination Strategy and Alignment

Involving stakeholders early on in the process ensures each perspective and concern are considered for review and discussion. Partnering with the government entities and agencies early on in the process will also help USMMA's messaging align with government priorities and identify how this plan benefits the public and complies with all regulations.

Program Implementation Considerations

There are a number of key steps that should be taken prior to large scale construction to ensure the success of this program. Those include:

- **Early coordination with all approving authorities.**
  - Throughout this program there will be many stakeholders involved. The list will be long but to list a few, the USMMA, DOT, USACE, the New York Governor's office, SHPO, community members, local industry, local construction and environmental approvers, state approvers and permitting agencies, etc. USMMA needs to ensure that as many stakeholders as possible are engaged early on in this process and that all understand the endeavor being embarked on. Due to the scale of work, there may be ways to streamline some of these efforts through memorandums of agreement or other binding documents that will help the USMMA accomplish its goals. This is only possible though with early notification and communication of the intended plan for all to come to a shared understanding on.
- **Proper management staffing from both the USMMA and USACE.**
  - Based on the CIP program at the United States Military Academy as well as known staffing at the United States Coast Guard Academy there need to be additional staff allocated to these efforts. It is recommended that internal to the USMMA there are dedicated project managers providing daily oversight and coordination for the contracted personnel. It is also recommended that USACE establish a local office and have dedicated personnel on sight in a similar fashion to manage and coordinate all the construction efforts.
  - To plan for and execute campus modernization efforts, the USMMA entered into an inter-agency agreement with the USACE in April 2025. The initial 10-year agreement allows for utilizing USACE capabilities for the revitalization and modernization of USMMA's campus.
- **Proper field investigation prior to design of all projects.**
  - Each new construction project will require similar documentation, including but not limited to topographic surveys with utility locations, geotechnical surveys, and potentially more detailed subsurface investigations depending on initial findings. The USMMA should consolidate these efforts into a single comprehensive study instead of handling them separately for each contract. This will set all design teams up for immediate success and streamline the design efforts.
- **Defined design standards for contracted personnel to adhere to.**
  - Published design standards that incorporate historical preservation and preferred design considerations on campus will serve as a consistent reference for all design efforts to work against. This should also include expectations for review periods for all stakeholders as well as the responsibilities of all parties during the design process.

- **Defined construction standards for contracted personnel to adhere to.**
  - Like the design standards, a construction standards document should be developed to address frequent contractor questions, provide all governing codes and criteria up front, and attempt to establish logistics coordination. These standards should include known contractor laydown space, contractor parking areas, and traffic flow for construction equipment and materials. Additionally, these standards should define the roles and responsibilities of all personnel during the construction process to ensure there's a shared understanding for all stakeholders as to who is responsible for what and promote accountability.

7.6.1 Potential Program Risks

This CMP is bound to face challenges; some potential risks the program could face are:

- **Unforeseen conditions during renovation:** If there are significant unforeseen conditions experienced during construction, specifically during renovation of the historic buildings, there could be additional time for redesign and or rework, as well as associated costs to account for the changes. These risks raise the potential of schedule derailment and compounding costs.
- **Gaps in funding:** If the program doesn't acquire the amount of funds required, the Academy will be forced to prioritize projects based on the funds available, rather than operational need. This scenario would cause delay of projects, schedule adjustment and risk to fulfillment of the mission to modernize the academy.
- **Contractor Competition:** It is not expected that there will be a shortage of contractors in the project area, however there may be a shortage of specific trades and subcontractors causing price gauging and potentially bid busts.
- **Historic Compliance:** If the projects don't account for the historic significance of existing structures and designs don't meet the requirements of SHPO, there could be delays or forced changes to this plan.
- **Unforeseen operational considerations:** The projects have been planned and considered for construction based on their reasonable construction feasibility and what contractor needs would be. Additionally, USMMA's needs have been considered. However, this study was conducted at a high level. Detailed operations were not assessed and may have been overlooked. If there was a significant operation or factor missing, there could be a general extension of timelines, which could further impact the critical path.
- **Change in Programmatic Direction / Requirements:** If the underlying direction or priorities of USMMA development changes, then there could be compounding effects to the project schedule. For example, if in 2 years the direction is to focus more on Maritime Infrastructure Development and less on academic instruction (more aligned with a trade school program), then there could be a change in priorities. If more training vessels were required than class space, then perhaps there might be more focus on piers than on classrooms. The needle could swing other ways as well.
- **Change in Scale of USMMA:** If the Administration ramps up the output of annual mariner class size, then additional residential dorms or dorm SF (or added floors) could be required.
- **Early Delays Leading to Compounding Programming Escalation Costs:** It is critical to start on time and to hold to the proposed schedule. Any early delays will have two immediate effects. First, delays will affect the critical path, pushing some projects further back in time. This could jeopardize logistics, complicate concurrent projects, and increase project costs. Second, delays will increase project costs. Early programming estimates may spiral into excessive unplanned for costs if delays are not mitigated.

7.6.2 Risk Mitigation

USACE-NAD has released additional guidance regarding Sustainment, Restoration and Modernization projects and can be found in the following references:

- USACE Contingency Management Guidance (Cost/ Schedule) 18 APR 25
- Minimizing Risk During the Planning, Design, and Execution of Sustainment, Restoration and Modernization (SRM) Projects (2025-26)
- Capital Improvement Policy, and NAD Historic Building Guidance.

Additionally, projects should consider the following risk reduction measures and key steps prior to the large-scale construction effort:

- **Early coordination with all approving authorities.**
  - Throughout this program there will be many stakeholders involved. The list will be long but to list a few: the USMMA, DOT, MARAD, USACE, SHPO, community members, local industry, local construction and environmental approvers, state approvers and permitting agencies, etc. USMMA needs to ensure that as many stakeholders as possible are engaged early on in this process and that all understand the endeavor being embarked on. Due to the scale of work, there may be ways to streamline some of these efforts through memorandums of agreement or other binding documents that will help the USMMA accomplish its goals. This is only possible though with early notification and communication of the intended plan for all to come to a shared understanding on.
- **Proper management of staffing from both the USMMA and USACE.**
  - Based on the Capital Improvement Program at the United States Military Academy as well as known staffing at the United States Coast Guard Academy there need to be full-time additional staff allocated to these efforts. It is recommended that internal to the USMMA there are dedicated project managers providing daily oversight and coordination for the contracted personnel. It is also recommended that USACE establish a local office and have dedicated personnel on sight in a similar fashion to manage and coordinate all the construction efforts.
- **Proper field investigation prior to design of all projects.**
  - Each new construction project is going to require similar documents. These include but are not limited to topographic surveys including utility locations, geotechnical surveys and potentially more in-depth subsurface conditions investigations pending findings. The USMMA should complete all of this under one effort, rather than piecemealing across each contract. This will set all design teams up for immediate success and streamline the design efforts.
- **Defined design standards for contracted personnel to adhere to.**
  - Published design standards that incorporate historical preservation and preferred design considerations on campus will serve as a consistent reference for all design efforts to work against. These design standards should include the requirements for destructive investigation of all facilities, proper planning (including a charrette) and design phases based on the project. The planning phase should include an approved DD1391 or equivalent with USACE to ensure scope validation and proper contingencies are in place for all projects. This should also include expectations for review periods for all stakeholders as well as the responsibilities of all parties during the design process.
- **Defined construction standards for contracted personnel to adhere to.**
  - Similar to the design standards, a construction standards document should be published to address frequent contractor questions, provide all governing codes and criteria up front as well as attempt to establish logistics coordination, and facilities best practices. These standards should include known contractor laydown space, contractor parking areas, and traffic flow for construction equipment and materials. Additionally, these standards should define the roles and responsibilities of all personnel during the construction process to ensure there's a shared understanding for all stakeholders as to who is responsible for what and promote accountability.

APPENDIX A ACRONYMS

AAF	Alumni Association and Foundation
ABA	Architectural Barriers Act
ACE	Academic Center for Excellence
A/E	Architect/Engineer
APNSA	Assistant to the President for National Security Affairs
AT/FP	Anti-Terrorism/Force Protection
ATC	Certified Athletic Trainer
BCI	Building Cost Index
BER	Building Evaluation Report
BESS	Battery Energy Storage System
CAD	Computer-Aided Design
CIP	Capital Improvement Plan
CMP	Campus Modernization Plan
COE	Center of Excellence
CUP	Central Utility Plant
DB	Design-Build
DBB	Design-Bid-Build
DOT	Department of Transportation
DPW	Department of Public Works
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
EO	Executive Order
ERDC	Engineer Research and Development Center
FY	Fiscal Year
GMAT	Graduate Management Admission Test
GSA	General Services Administration
GSF	Gross Square Feet
GSK	General Supply Keeper
HVAC	Heating, Ventilation, and Air Conditioning
INL	Integrated Navigational Lab
IT	Information Technology
LMFP	Long-term Master Facilities Plan
MAC	Midshipmen Activity Center
MACC	Multiple Award Construction Contract
MAP	Modernization Action Plan
MCPD	Midshipmen Counseling & Professional Development
MEP	Mechanical, Electrical, and Plumbing
MOA	Memorandum of Agreement
MSIC	Maritime Security Infrastructure Council
MT	Marine Transportation
MTL	Marine Transportation Lab
NEPA	National Environmental Policy Act
NEX	Naval Exchange
NFCU	Navy Federal Credit Union
NHPA	National Historic Preservation Act
NPA	National Parent Association
NSF	Net Square Feet
O&M	Operations and Maintenance
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement
PBS	Public Buildings Service
PII	Personally Identifiable Information
PIV	Personal Identity Verification
ROD	Record of Decision
SARC	Sexual Assault Response Coordinator
SAPR	Sexual Assault Prevention and Response
SHPO	State Historic Preservation Office
SOLAS	Safety of Life at Sea
SSO	Strategic Sealift Officer
UFC	Unified Facilities Criteria
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USMMA	United States Merchant Marine Academy
VTC	Video Teleconferencing

APPENDIX B REFERENCES

AACE International Professional Guidance Document 56R-08, Guide to Cost Estimate Classification Systems

Advisory Council on Historic Preservation Guidance on Agreement Documents: Executing Agreement Documents, 2025

Architectural Barriers Act

Building Evaluation Report for the United States Merchant Marine Academy, 2013 (updated 2022)

Design Standards from the United States Department of Transportation

Design Standards from the United States General Services Administration

Executive Orders related to energy conservation and sustainability in federal facilities

Federal Emergency Management Agency Floodplain Management Requirements

General Services Administration Public Buildings Service Facilities Standards (P-100)

Long Range Facilities Master Plan Briefing for the Office of Management and Budget, December 2024

Maritime Administration Policies and Directives

Maritime Security Infrastructure Council Full Speed Ahead Plan: A Plan to Address Critical Infrastructure Needs at the United States Merchant Marine Academy, January 2021 (Revised March 2022)

Memorandum of Agreement and Programmatic Agreement under Section 106 of the National Historic Preservation Act, 2022

National Environmental Policy Act Guidelines

National Historic Preservation Act of 1966

Naval Facilities Engineering Systems Command Building Cost Index, Quarter 3, 2024

Office of Management and Budget Capital Programming Guide

Organizational Assessment of the United States Merchant Marine Academy: A Path Forward, November 2021

Red Sky in the Morning: A Report on the United States Merchant Marine Academy, March 2010

State Historic Preservation Office Project Review Requirements

Strategic Plan 2024–2030 for the United States Merchant Marine Academy, December 2024

U.S. Army Corps of Engineers Army Facilities Pricing Guide, PAX Newsletter 3.2.2, 21 May 2021

U.S. Department of Transportation 4330.3A Office Space Design Standard Policy

U.S. General Services Administration, Public Buildings Service Facilities Standards for the Public Buildings Service (P100)

United Facilities Criteria 3-701-01 DoD Facilities Pricing Guide, with Change 6

United Facilities Criteria 3-730-01 Programming Cost Estimates for Military Construction

United Facilities Criteria 4-010-01 DoD Minimum Antiterrorism Standards for Buildings, with Change 3

United States Army Corps of Engineers Engineer Research and Development Center United States Merchant Marine Academy Campus Historic District Property Maintenance and Repair Manuals

United States Department of Transportation Design Standards

United States General Services Administration Design and Construction Standards

United States Green Building Council Leadership in Energy and Environmental Design Guidelines

United States Merchant Marine Academy Long Range Facilities Master Plan, May 2024

United States Merchant Marine Academy Real Property Master Plan, July 2020

United States Merchant Marine Academy Space Utilization Study, June 2015

APPENDIX C DECISION MAKING FRAMEWORK

Table C.1 - Evaluation Rating System

Evaluation	Description	Rating
Enhancement	Exceeds criteria with great improvement	+2
Meets Requirements	Adequately meets criteria resulting in incremental improvement	+1
No Improvement	No significant effect; or criteria not applicable	0
Negative Impact	Criteria not met; potential negative effect	-1

Table C.2 is provided on the following pages.

Table C.2 - Decision Making Matrix

Evaluation Criteria	Criteria Description	Projects Sourced From May 2024 LRFMP																	Additional Projects from January 2024 Full Speed Ahead Plan						
		Waterfront Center (with CG Facility/Yocum)	New Pier at Waterfront	Residence Hall (Cleveland)	Mariner Training Center	Parking Garage (separated from Mariner Training Center)	Residence Hall (Jones)	Midshipmen Activity Center	Residence Hall (Barry)	New Academic Center	Bowditch Hall	Residence Hall (Murphy)	O'Hara Hall	Residence Hall (Palmer)	Federal Maritime Center of Excellence	Faculty Housing	Senior Staff Housing	Furuseth Hall	Relocate Shipping and Receiving	Admissions and Alumni Offices	Chapel Site Improvements and Classroom Learning	Visitor Welcome Center / Campus Security -Center	Steamboat Road Improvements	Waterfront and Security Improvements	GIS and Upgrade Academy Utilities
Develop a 21st Century Academy Infrastructure.	Develop a 21st century Academy infrastructure that supports student learning and engages faculty, staff, coaches, and students not only to sustain the Academy but to inspire innovation at USMMA while promoting the safety, health, and wellness of all.	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Promote Recruitment, Development and Retention.	Promote the Recruitment, development, and retention of a highly-qualified population of students, faculty, and staff that demonstrates and promotes the Institution's values, as well as cultivate an institutional culture in which every Academy community member is respected, valued, and can fulfill their maximum potential as a leader of exemplary character. Enhances USMMA's ability to attract top students and Improves recruitment generally. Brings USMMA facilities in line with those of comparably sized institutions of higher education.	1	1	1	2	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Enhance shared governance, trusted and empowered leadership, and an invested administration.	Enhance shared governance, trusted and empowered leadership, and an invested administration to promote prolonged success as an institution of higher education.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Invigorate the Academy's Educational Program while promoting student success.	Invigorate the Academy's educational program while promoting student success, experiential learning in the regiment and at sea, and professional expertise both ashore and afloat.	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Provide a Safe, Secure, and Sustainable campus environment.	All facilities will be redeveloped to meet modern standards for effectiveness, security, and safety. Addresses overall safety, security, and/or health concerns.	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1
Preserve Historic Character.	All facilities, new and existing, will honor and respect the historic integrity of the campus and the maritime industry	0	0	1	0	0	1	0	1	0	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0
Enhances the overall campus development form, quality and character.	Positively impacts the academic experience and Quality of life for all students and Faculty. Provides substantial benefit to the learning physical environment and student life activities.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Substantiated by identified and documented program requirement.	Evidence of identification and documentation of specific program requirement need.	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Promotes enhancement and protection of the waterfront district.	Incorporate actions that repair and replace aging waterfront structures in the interest of leveraging the waterfront edge, protecting the shoreline and enhancing the overall waterfront district.	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0

Table E.2 continues on the next page

Table E.2 continued from the previous page

Evaluation Criteria	Criteria Description	Projects Sourced From May 2024 LRFMP																Additional Projects from January 2024 Full Speed Ahead Plan						
		Waterfront Center (with CG Facility/Yocum)	New Pier at Waterfront	Residence Hall (Cleveland)	Mariner Training Center	Parking Garage (separated from Mariner Training Center)	Residence Hall (Jones)	Midshipmen Activity Center	Residence Hall (Barry)	New Academic Center	Bowditch Hall	Residence Hall (Murphy)	O'Hara Hall	Residence Hall (Palmer)	Federal Maritime Center of Excellence	Faculty Housing	Senior Staff Housing	Furuseth Hall	Relocate Shipping and Receiving	Admissions and Alumni Offices	Chapel Site Improvements and Classroom Learning	Visitor Welcome Center / Campus Security -Center	Steamboat Road Improvements	Waterfront and Security Improvements	GIS and Upgrade Academy Utilities
Promotes opportunity to collaborate with Maritime partners and global industry in research and special events.	Provides the necessary space, technology and overall environment to collaborate with maritime partners and global industry.	0	0	0	1	0	0	1	0	1	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0
Mitigates risk of damage to real property and utility infrastructure from deferred maintenance.	Provides health, safety and continuity of operations and welfare of students, faculty and staff.	0	1	1	0	0	1	0	1	0	1	1	1	1	0	0	0	0	0	1	1	0	1	1	1
Promotes enhancement of the athletics program, modernize facilities and facilitate NCAA events on campus.	Enhances facilities that accommodate all athletic programs. Provides ability to compete and host at the NCAA level.	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mitigates risk to the land areas, waterfront and facilities from external environmental factors.	Provides health, safety and continuity of operations for the Academy.	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Operational Effectiveness	Promote the highest level of mission + operational effectiveness in support of academic + athletic programs. Does the facility / project/planning action support what is trying to be achieved?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Functional Efficiency	Reinforces necessary functional relationships, adjacencies and flow of people and materials.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1
Highest + Best Use of Land	Project or facility Siting to maximize the most efficient use of land while also leveraging best practice siting and historic resources protection.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Optimization of Facility Resources	Utilization and optimization of existing facility resources and infrastructure. Are existing resources used to their full potential?	0	0	1	0	0	1	0	1	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0
Implementation + Constructability	Logical and efficient phasing, implementation, including ease of constructability. Ensuring continuity of all campus operations.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Effectiveness	Leverage limited funding to achieve the best project balanced with funding availability and approach. Is money being used properly, i.e., "best bang for the buck."	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Score		***10***	***13***	***11***	***13***	***8***	***11***	***11***	***11***	***11***	***11***	***10***	***11***	***11***	***10***	***8***	***8***	***10***	***9***	***9***	***11***	***11***	***9***	***13***	***13***
Ranking		**15**	**1**	**5**	**1**	**22**	**5**	**5**	**5**	**5**	**5**	**15**	**5**	**5**	**15**	**22**	**22**	**15**	**19**	**19**	**5**	**5**	**19**	**1**	**1**

APPENDIX D PROJECT LIST

Table D.1 - Project List

FY	Project Title	Project Description	Project Type
FY25	Hauge Basin Dredging	This dredging project involves removing 40,000 cubic yards of accumulated sediment within the Hauge Basin.	Renovation
FY25	307 Steamboat	307 Steamboat to be demolished and replaced with temporary laydown / contractor space.	Demolition
FY25	Samuels Hall Renovation	At the time of this report, Samuels Hall is currently under construction. The project has hit many roadblocks and shall be fast tracked for completion. It is expected to be complete by November of 2026.	Renovation
FY25	Seawall Replacement	The existing seawall will be rebuilt to replace the existing, deteriorating seawall. The new seawall will account for modern day storm sizes and sea level rise. This project shall also account for the demolition of Prosser Boat House. This project already has funding through the existing capital improvement program and will progress as intended.	Renovation
FY26	New Academic Building	The Academic Center will provide USMMA with an additional 20 classrooms, three conference rooms, and six labs dedicated to Marine Engineering objectives. It also preserves office space currently provided by Fitch Hall. The Academic Center will also include 14,000 square foot multi-purpose space capable of holding 200 students and faculty for licensing exams.	New Construction
FY26	Athletics Fieldhouse	The new athletics Fieldhouse will provide an indoor turf field (50yd x 70yd) with a 4 lane running track around the outside. The space will serve as a multi use space for any sports teams as well as a large indoor space for drill and ceremonies, licensing exam space or other recreational sporting events. This facility will take the place of the current Midshipmen parking area. That parking area will be replicated as subsurface parking (150 stalls) and additional parking will be available to the south of the new building. Additionally, the current capacity of Brooks Fieldhouse will be incorporated into this new Fieldhouse and offer locker room and meeting spaces for those teams. This project shall demolish the existing Brooks Fieldhouse.	New Construction
FY26	North Faculty & Staff Housing	Located in the northeast of McNulty Campus, Faculty Housing will be located adjacent to the Elmridge Gate. The 16 townhouse style homes will consist of 2-bedroom units measured at 2,000 square feet each. Adjacent parking will be provided with a capacity of 32 spaces. This project shall include demolition of Quarters L. There will be an excess of 6 units for use by the USMMA once complete.	New Construction
FY26	Relocate F&I	A new DPW warehouse building and administrative building shall be constructed in their place to serve as the future footprint of Facilities and Infrastructure. This area shall facilitate turning delivery vehicles, contractors as well as all USMMA F&I personnel. Parking for this area will be instituted once Furuseth Hall is demoed. This project shall also include the demolition of Quarters B&C.	New Construction
FY26	Clinic Construction	A new clinic will be constructed in the vicinity of Patten Hall. This new clinic shall support the existing clinic functions, dental facility, EMS training and operations, counseling and SAPR. This new facility shall provide a handful of parking spaces and ensure it has the necessary number of entrances and Midshipmen privacy is considered during design.	New Construction
FY26	New Barracks #1	A new barracks building will be constructed, connecting Barry Hall to Rogers Hall on the southern side. This barracks building shall be built to match and tie into the existing barracks. The barracks will be capable of supporting up to 150 Midshipmen.	New Construction
FY26	GIS, BIM and Utility Survey with Academy Utility Upgrade	This project shall include a thorough subsurface investigation of all utilities, geotechnical borings for all future construction areas and any other destructive investigation of existing structures to prepare for the future design and construction efforts. Once the investigations are complete, utility upgrades will be completed to establish the backbone of all systems for the future development. Heating and cooling systems shall tie into two centralized areas, one in place of Fitch Hall and the other south of O'Hara Hall. This project will ensure there is capacity and pressure in all utilities to support future locations of construction and campus growth. The system shall be designed for all future individual projects to tie into and minimize impacts to the greater system.	Renovation
FY26	Fitch Hall	Fitch Hall to be demolished to accommodate a Central Utility Plant in its place.	Demolition
FY26	Midshipmen Activity Center	A new Student Activity Center shall be constructed in its place. This facility will include a low impact fitness area, places for Midshipmen to relax and hangout including alternate food option(s). The top floor shall serve as an event venue space with views of the Long Island Sound. This project will also account for the demolition of Melville Hall.	New Construction
FY27	Mariner Training Center	This new facility will include all the of the functions of O'Hara Hall plus room for growth. The HIT locker will be re-built on the roof and the structure will be built to accommodate 150 parking spaces. These parking spaces will be subsurface or along appropriate sides of the building. During construction the tennis courts and field events of the Tomb Field Facility will be impacted. Pending the successful investigation of the Tomb Field Track resurfacing project, the jumping sand pits as well as the pole vault pit will be relocated to the D-Zone of the field. The shotput circle will be relocated 180 degrees from the hammer cage which will allow for the bleachers to be built on the western side of Tomb Field. This project shall include the demolition of Quarters E&F and the existing F&I buildings. Seven new tennis courts will be placed east of the Mariner Training Center and will have additional lighting.	New Construction
FY27	Welcome Center	This project will be completed after the Facilities and Infrastructure project in alignment with the Academy Security Upgrade. Admissions personnel may need to occupy swing space during construction/ renovation. If space is needed the personnel could be temporarily relocated to Furuseth Hall, occupy space in the new Fieldhouse or explore temporary office space.	New Construction
FY27	New Barracks #2	A new barracks building will be constructed, connecting Palmer Hall to Murphy Hall on the southern side. This barracks building shall be built to match and tie into the existing barracks. The barracks shall be capable of supporting up to 150 Midshipmen.	New Construction
FY27	Crowninshield Pier Construction	This project will create a new pier in the footprint of the former Crowninshield pier to protect the basin and reduce seawall degradation. The dock space offered by a new pier will help USMMA make better use of the waterfront and Kings Pointer for SOLAS and STCW training. Additionally, it will enable USMMA to launch and recover lifeboats. The new pier will also offer midshipmen new recreational opportunities, such as sailing, paddleboarding, and kayaking.	New Construction

Table D.1 continues on next page

Table 6.1 continued from previous page

FY	Project Title	Project Description	Project Type
FY27	Bowditch Hall Renovation	Bowditch Hall is not adequately configured for the Marine Transportation Department and the labs it houses. Bowditch will be reconfigured to include math, science, humanities, and shipboard training departments while maintaining the current office space with most classrooms requiring minor renovations. The labs will be reconfigured for chemistry and physics within the existing lab space. Professional Development and Career Services (PDCS) and the Department of Naval Science may also be incorporated into the space. A new 11,400 square foot addition will provide rehearsal space for USMMA's Regimental Band and include two large rehearsal rooms with two smaller rooms.	Renovation
FY27	Patten Hall Renovation	Patten Hall will be renovated for future use as an administrative building. Once complete, the entities from Furuseth Hall will occupy the newly renovated Patten Hall.	Renovation
FY27	Academy Security Improvements	Security improvements around campus include updated fencing, gates, badging systems, big voice notifications and the guardhouse. These upgrades could be addressed as a part of individual projects or as one large effort once major construction is complete.	Renovation
FY27	Residence Hall Renovation (Jones)	Jones Hall will be renovated to update the plumbing, HVAC system, fire protection, roof replacement, waterproofing, flooring and ceilings, finishes and any additional structural upgrades pending a destructive investigation of the existing facility. Capacity will remain as is.	Renovation
FY27	Residence Hall Renovation (Barry)	Barry Hall will be renovated to update the plumbing, HVAC system, fire protection, roof replacement, waterproofing, flooring and ceilings, finishes and any additional structural upgrades pending a destructive investigation of the existing facility. Capacity will remain as is.	Renovation
FY28	Furuseth Hall	Furuseth Hall will be demolished. This space will be replaced with parking for F&I.	Demolition
FY28	O'Hara Hall Renovation	O'Hara Hall is to be renovated. The existing area with the pool shall be reconstructed to support wrestling and Track and field locker rooms. The existing gymnasium and locker room spaces will be renovated and repurposed to support recreational sports and fitness, providing a weight training facility for all Midshipmen to use.	Renovation
FY28	Residence Hall (Murphy)	Murphy Hall will be renovated to update the plumbing, HVAC system, fire protection, roof replacement, waterproofing, flooring and ceilings, finishes and any additional structural upgrades pending a destructive investigation of the existing facility. Capacity will remain as is.	Renovation
FY28	Residence Hall (Palmer)	Palmer Hall will be renovated to update the plumbing, HVAC system, fire protection, roof replacement, waterproofing, flooring and ceilings, finishes and any additional structural upgrades pending a destructive investigation of the existing facility. Capacity will remain as is.	Renovation
FY29	Federal Maritime Center of Excellence & Library	This facility will hold all of the desired functions of the CoE, the functions of the library and provide parking either on the north side or on the southern side and possible built into the structure to take advantage of the topography. 50 parking spaces will be considered for library visitors, conferences being held in the CoE and faculty members.	New Construction
FY29	Land Hall	Land Hall will be demolished. This area will be replaced with green space and activity area for Midshipmen.	Demolition
FY29	South Faculty & Staff Housing	This project will build six new faculty houses and provide parking for each home. These homes will be standalone with the desired occupants being the senior staff members. Each 3,000 sf	New Construction
FY29	Fulton-Gibbs Hall Renovation	Fulton Gibbs hall will be renovated to upgrade the plumbing, HVAC system, fire protection, roof replacement, waterproofing, finishes and any exterior upgrades that are needed. The scope of this project will be revisited once the current renovation is complete.	Renovation
FY29	Chapel & Wiley Hall Site Improvements	Chapel site improvements that include Architectural Barriers Act (ABA) compliant access features; improved vehicular access for parking, deliveries, and drop off; an architecturally complementary and compliant accessible entrance; a multi-use outdoor plaza for entertaining, meetings, and classroom learning; landscaping; and Eldridge pool and facilities upgrades.	Renovation
FY29	Residence Hall (Rogers)	Rogers Hall will be renovated to update the plumbing, HVAC system, fire protection, roof replacement, waterproofing, flooring and ceilings, finishes and any additional structural upgrades pending a destructive investigation of the existing facility. Capacity will remain as is.	Renovation
FY29	Residence Hall (Cleveland)	Cleveland Hall will be renovated to update the plumbing, HVAC system, fire protection, roof replacement, waterproofing, flooring and ceilings, finishes and any additional structural upgrades pending a destructive investigation of the existing facility. Capacity will remain as is.	Renovation
FY30	Yocum Waterfront Center (with CG Facility)	This project will provide similar capabilities of the existing facility, combine the USCG capabilities and offer parking opportunities. This project will include the demolition of the existing Yocum Sailing Center and USCG facility.	New Construction
FY30	Steamboat Road Paving & Waterfront Promenade	The road will be extended to support parking on both sides and sidewalks. At the west end of Steamboat a gathering area along the waterfront will be incorporated for viewing and enjoying the great views available at the USMMA. This project will also include the promenade on the southern portion of campus as well as demolition of Prosser Boat House.	Renovation
FY30	Delano Hall Renovation	Delano Hall will be renovated to promote an updated dining area, functioning kitchen and useable basement space. This project can be completed at any time and will be phased in such a way that daily operations aren't impacted. As alternate food options become available at the student activity center and the library, the alternate food options in Delano Hall may become obsolete and these areas can be treated as opportunity space based on requirements of the campus.	Renovation
FY30	Museum Renovation	The museum will be renovated to support ABA requirements, offer additional viewing options, preserve the historical architecture and address waterproofing concerns. The existing hotel lodging could be considered for renovation to be used as hoteling space for the CoE, so long as it is accessible and independent from the museum.	Renovation
FY31	Quarters G, P, K, J, M&N Demolition	Quarters G, J, K, P and M&N will be demolished.	Demolition
FY31	Quarters A, D, O Renovation	Quarters A, D & O will be renovated to increase the quality of living.	Renovation
FY32	Bland Library	Bland Library will be demolished. This area will be replaced with green space.	Demolition
FY32	Wiley Hall Renovation	Wiley Hall will be renovated to address and space utilization efficiencies, address any MEP concerns and preserve the historical architecture both inside and out.	Renovation

APPENDIX E COST ESTIMATES

To access the attachments in the PDF, either:

- *On the top of the toolbar, go to View > Show/Hide > Navigation Panes > Attachments*
- *Or, click on the arrow on the left hand side of the Adobe Window to open the Navigation Pane, then click on the Paperclip (Attachments) icon.*