

UMBC

AN HONORS UNIVERSITY IN MARYLAND

The UMBC Event Center and Arena

Facility Program

December 30, 2013

Prepared for

UMBC Facilities Management

University of Maryland, Baltimore County

1000 Hilltop Circle, Baltimore, MD 21231

Prepared by

Whitman Requardt & Associates, LLP

University System of Maryland

Elkins Building

3300 Metzerott Road

Adelphi, Maryland 20783

Board of Regents

James L. Shea, Chair

Barry P. Gosset, Vice Chair

Gary L. Attman, Treasurer

Linda R. Gooden, Assistant Treasurer

The Hon. C. Thomas McMillan, Secretary

Thomas G. Slater, Esq., Assistant Secretary

Norman R. Augustine

Dr. Patricia S. Florestano

Louise Michaux Gonzales

Earl F. Hance, ex officio

The Hon. Francis X. Kelly, Jr.

David Kinkopf

Dr. Frank M. Reid, III

Paul L. Vance

Samim Manizade, Student Regent

University System of Maryland Headquarters

Dr. William E. Kirwan, Chancellor

Donald F. Boesch, Vice Chancellor for Environmental Sustainability

Irwin Goldstein, Sr. Vice Chancellor for Academic Affairs

Patrick J. Hogan, Vice Chancellor for Government Relations

David Mosca, Director of Auditing

Anne Moultrie, Vice Chancellor for Communications

Leonard R. Raley, Vice Chancellor for Advancement

Joseph F. Vivona, Chief Operating Officer and Vice Chancellor for Administration and Finance

Acknowledgements

Facilities Management would like to thank the following people who assisted or provided input to the development of this document:

Steering Committee

Lynne Schaefer, Vice President of Administration and Finance, Chair of Steering Committee

Terry Cook, Associate Vice President, Administrative Services

Tim Hall, Athletic Director

Antonio Moreira, Vice Provost

Philip Rous, Provost and Senior Vice President for Academic Affairs

Greg Simmons, Vice President for Institutional Advancement

Nancy Young, Vice President for Student Affairs

Technical Committee Members

Athletics

Tim Hall, Athletic Director

Jessica Hammond, Assistant Athletic Director for Academic Affairs

Cindy Kubiet, Director of Sports Medicine

Steve Levy, Director of Athletics Communications

Tom Mandato, Assistant Athletic Director for Operations

Phil Stern, WBB Head Coach

Aiki Thomas, MBB Head Coach

Building Systems

Shawn Blum, FM Energy Manager

Mark Cather, Director of Communication/Security

Ken Joy, Central Plant

Greg Linz, FM Plumbing Shop

Tom Murphy, FM Electrical Shop

Rusty Postlewate, Assistant Vice President for Facilities Management

Joseph Rexing, Director of Planning and Construction Services

Events and Student Life

Lee Calizo, Director, Office of Student Life

Sandy Campbell, Director Advancement Operations

Joe Regier, Executive Director of The Commons

Jen Dress, Assistant Director of Student Life for Major Events & Programs

Barry Riley, Manager of Contractual Services

Site and Security

Donna Anderson, Manager of Landscape and Grounds

Phillip Cho, UMBC Landscape Architect

Mike Pound, Director, Environmental Safety and Health

Bruce Perry, UMBC Police

Paul Dillon, Deputy Chief, UMBC Police

Additional Campus and University of Maryland Contributors

Mickey Miller, UMB

Judy DeGraw, UMB

Joe Geluso, UMB

Tom Myers, Facilities Management

Simon Reilly, The Commons/Event Production

Technical Consultants/Contributors

Jack Nye, Whitman, Requardt & Associates, LLP

Dianne Black, Whitman, Requardt & Associates, LLP

Robert Fatovic, Cannon Design, Inc.

Michael Pantano, Culinary Advisors

Israel Aguero, Forella Group LLC

John O'Connell, Navarro & Wright

Mark Gillis, Sextant Group

Reginald Sheppard, USSI Technologies

Celso Guitian, UMBC Project Manager

UMBC Facilities Management-Planning & Construction Services

Table of Contents

Section 1 Overview	1
1.01 Introduction	1
1.02 University Mission	1
1.03 Purpose of the Event Center and Arena Facility Program	2
Section 2 Project Scope	4
2.01 Purpose and Goals	4
2.02 End User Description and Program Summary	4
Section 3 Instructions to the Consultant.....	6
3.01 Overview.....	6
3.02 Consultant Services	7
3.03 Deliverables	10
3.04 Information to be Collected or Developed by the Consultant	10
Additional Information	12
3.05 Responsibility for Compliance in Design	12
3.06 Codes and Regulations.....	12
3.07 Abbreviations Used In This Document	13
3.08 Information Provided to the Consultant	13
Section 4 Site Development Criteria	15
Overview and Existing Site Conditions.....	15
4.01 Project Boundaries	16
4.02 Existing Surface Features	17
4.03 Adjacent Facilities.....	18
4.04 Existing Utilities and Subsurface Conditions	19
4.05 Existing Site Constraints and Opportunities	21
Site Design Criteria.....	24
4.06 Pedestrian Circulation and Open Space	24
4.07 Vehicular Circulation, Access, Loading and Parking	25
4.08 Excavation and Soils	26
4.09 Drainage and Stormwater Management.....	27
4.10 Forest Stand Delineation Plan	28
4.11 Plaza/Hardscapes	28
4.12 Landscaping and Plantings	28
4.13 Site Security and Lighting.....	29
4.14 Site Furnishings and Exterior Signage	29
Site Utilities	31
4.15 Energy.....	31
4.16 Electric Service	31

4.17 Natural Gas	32
4.18 Domestic Water and Fire Protection.....	32
4.19 Sanitary Sewer	32
4.20 Data and Telecommunication	33
Section 5 Building Design Criteria	35
Massing and Architectural Expression.....	35
5.01 Massing and Structure	35
5.02 Exterior Architectural Elements.....	36
5.03 Relationship to Exterior Spaces	36
Interior Architectural Planning and Design.....	37
5.04 Building Organization	37
5.05 Circulation.....	38
5.06 Bowl Configuration.....	38
5.07 Court Requirements	38
5.08 Flexibility	39
5.09 Seating Criteria.....	39
5.10 Accessibility	39
5.11 Patron Amenities.....	40
5.12 Food Service.....	40
5.13 Quality of Light.....	41
5.14 Sustainability Issues.....	41
5.15 Interior Materials and Finishes.....	41
5.16 Furniture and Equipment.....	42
5.17 Signage and Graphics.....	43
5.18 Security and Access Control	43
5.19 Audio/Visual and Acoustics.....	44
5.20 Vertical Circulation and Elevators.....	47
5.20 Material Delivery and Removal	48
5.22 Maintenance	48
5.23 Safety.....	49
Mechanical and Plumbing.....	50
5.24 General Criteria and Codes/Standards.....	50
5.25 Design Criteria.....	51
5.26 Ventilation/Filtration/Pressurization /Air change rates:	52
5.27 Equipment cooling loads:.....	53
5.28 Cooling Source and Distribution	53
5.29 Heating Source and Distribution.....	54
5.30 Central Air Handling and Exhaust Systems.....	54
5.31 Air Distribution System	55
5.32 Plumbing.....	56
5.33 Fire Suppression and Smoke Control	57

5.34 Building Automation System (BAS).....	57
5.35 Testing, Adjustment and Balancing and Commissioning.....	58
Electrical and Communication	58
5.36 Codes and Standards	58
5.37 Electrical	59
5.38 Lighting	62
5.39 Lightning Protection	63
5.40 Fire Alarm / Mass Notification	63
5.41 Communication	64
Section 6 Space Requirements.....	66
Event Center and Arena Facility.....	66
6.01 Building Organization	66

Space Sheets

Appendix A: Hilltop Circle Water Line Hydrant Flow Test

Appendix B: Preliminary Geotechnical Engineering Review

List of Figures and Tables

Figure 1.1	UMBC Campus	3
Table 2.1	Space Summary of the Proposed Event Center	5
Figure 4.1	Proposed Project Boundaries	15
Figure 4.2	Existing Site Features	19
Figure 4.3	Photograph of Project Site	17
Figure 4.4	Existing Utilities	19
Figure 4.5	Existing Site Constraints	20
Figure 4.6	Site Opportunities	21
Figure 4.7	Proposed Site Plan	29
Figure 4.8	Proposed Utilities Pathways	32

Section 1 Overview

1.01 Introduction

Established in 1966, the University of Maryland, Baltimore County (UMBC) is one of twelve universities that along with two regional centers and one system office constitute the University System of Maryland. UMBC is a public research university, emphasizing graduate programs in the sciences, engineering, public policy, information technology, and human services, building on a strong undergraduate liberal arts and science core.

UMBC is increasingly recognized as a major resource for building the State's economy and addressing its social concerns. More than 70% of UMBC's 61,000 active alumni live and work in Maryland, contributing significantly to the State's economic and social vitality. In 2013, UMBC had students enrolled from nearly all 50 states and more than 80 nations, creating a richly diverse student body. In 2013, the university awarded more than 2,230 bachelor's degrees, 528 master's degrees, 95 doctorates and 131 graduate certificates. The university has experienced a significant rise in student enrollment over the past five years. Headcount has increased by 15% for undergraduate students and over 11% for graduate students during this period. For the last four years, UMBC has been recognized by U.S. News & World Report's America's Best Colleges Guide as the nation's top up-and-coming national university.

The campus (excluding bwtech@UMBC and the three parking garages) houses more than 3.2 million gross square feet (GSF) of built space on 512 acres of mostly former farmland, and some forested areas and streams. The campus has excellent access to both I-95 via I-195 and the Baltimore Beltway (I-695) via Wilkens Avenue. The forested edges, sloping topography with views to the east, and the low density of surrounding residential development, all work to define a wooded and pastoral setting for the campus.

1.02 University Mission

UMBC is a dynamic university integrating teaching, research, and service to benefit the citizens of Maryland. As an Honors University, UMBC offers academically talented students a strong undergraduate liberal arts foundation that prepares them for graduate and professional study, entry into the workforce, and community service and leadership. Known for its outstanding faculty and cutting-edge research, UMBC emphasizes science, engineering, information technology, human services, and public policy at the graduate level. UMBC contributes to the economic development of the State and the region through entrepreneurial initiatives, workforce training, K-16 partnerships, and technology commercialization in collaboration with public agencies and the corporate community. UMBC is dedicated to cultural and ethnic diversity, social responsibility, and lifelong learning.

1.03 Purpose of the Event Center and Arena Facility Program

The Event Center and Arena (Event Center) Facility Program defines the environmental, spatial, and physical characteristics of the proposed Event Center building project. The architectural, engineering and planning objectives and detailed space allocation requirements are intended to guide the selected Architect/Engineer (A/E) Consultant commissioned by UMBC to prepare plans and specifications required for contract bidding and construction of the new facility.

The Program document will:

- Establish the site boundaries of the project,
- Delineate architectural, engineering, and planning objectives to be accomplished by design,
- Provide the basis for a detailed cost estimate for use in establishing a capital budget for the project,
- Detail the required facility space allocations, based on functional requirements,
- Describe the functional use, requirements, and general performance criteria and standards of the space,
- Depict, graphically, the desired functional relationships between spaces, and
- Provide the University a planning tool for developing project familiarity and assess priorities.

The Program document will be included as part of the contract between the selected A/E Consultant and UMBC for design of the project. In regard to this function the document will:

- Identify the performance criteria and requirements for the site,
- Provide a complete description of the project scope of work,
- Describe the functional use, requirements, and performance standards for the project, and
- Identify the general and special architectural, engineering and planning objectives and criteria to be addressed in the design.

The proposed project site is not within the Chesapeake Bay Critical Area, the 100-year floodplain, nor will it impact any known historical and/or cultural resources or involve clearing of areas defined as forested by the State of Maryland.

Figure 1.1 identifies the Event Center project site location on campus.

Figure 1.1 UMBC Campus



bwtech@UMBC South

TO BOLLING ROAD AND MAIN CAMPUS

Directions to bwtech@UMBC South from UMBC:

- Take Metro Circle to Hilltop Road and Walker Avenue.
- Turn left and proceed to Hilltop Road Southbound to Hill.
- Make a right turn onto Hill Road.
- Take the left turn and proceed a half mile to the entrance.



Proposed Site of the UMBC Event Center

Section 2 Project Scope

2.01 Purpose and Goals

The new UMBC Event Center is proposed to be a 98,180 NASF/163,633 GSF multi-purpose facility located on campus adjacent to the UMBC Stadium and Soccer Stadium. The purpose of the new facility is to host a variety of revenue and non-revenue producing events including commencement, concerts, featured speakers, banquets, etc., along with National Collegiate Athletics Association (NCAA) athletic games and practices for men's and women's basketball and women's volleyball. More specifically, the goals to be accomplished by design and construction of the new facility are:

- Develop a flexible, multi-purpose spectator facility with a capacity of 5,000 seats in the bowl and another 1,000 seats on the floor, with the necessary spectator support facilities such as concessions, catering, hospitality, restroom, security and guest services that can be easily reconfigured to support both the NCAA Division I Athletics program and a variety of non-athletic events.
- Create an athletics venue, with all the necessary performance and support facilities, to be one of best mid-major level, NCAA Division I facilities in the nation and to support recruitment and retention of high-quality student-athletes to advance the objective of becoming a consistent top-third finisher in all sports in the America East.
- Develop the project to physically and visually connect and integrate the new Event Center with the adjacent UMBC Stadium, the Soccer Stadium, the baseball field, the softball field and the academic precinct of campus.
- Create an interesting and exciting sense of arrival experience to the Event Center, and entire athletic precinct, for students, faculty/staff and visitors attending games or events coming from the academic precinct of campus and the new I-195 vehicle entrance gateway.
- Develop a project that accomplishes a harmonization and connection between the new Event Center with existing natural amenities on and adjacent to the site, including Giffen Hill, the two existing specimen trees and the stream.

2.02 End User Description and Program Summary

The primary end users of the new Event Center will be the Athletics Department and Event Planning and Conference Services (EPCS). Other campus units will use space in the building to provide support and include Chartwells (University food service contractor), the University Police Department, Division of Information Technology (DoIT), and the Facilities Management Department.

The University has more than 400 student-athletes and competes at the NCAA Division I level in 19 varsity sports. The Retrievers are members of the America East Conference. Teams compete in

men’s and women’s basketball, cross country, lacrosse, soccer, swimming and diving, tennis, indoor and outdoor track and field, men’s baseball, and women’s softball, field hockey and volleyball. Athletic events are currently held at the Retriever Activities Center, which includes the Natatorium and Tennis Center, and at the Stadium Complex (UMBC Stadium, the Soccer Stadium, the baseball and softball fields). The Event Center will become home to men’s and women’s basketball and women’s volleyball teams, and will provide support facilities to the other University teams and student-athletes located in other campus facilities.

The goal of EPCS is to provide the best possible assistance to all groups that choose to hold an event on the campus, whether they are a University department, student organization or off campus client. The EPCS staff assists with room selection, reservation forms and/or contracting for events and will assist the event sponsor by making the arrangements with the appropriate on campus service provider. Facilities available for rent, and managed by EPCS, include The Commons meeting rooms, University Center Ballroom and Ballroom lounge, athletic facilities including athletic fields and swimming pools, as well as meeting, seminar and classrooms. EPCS also coordinates catering, as needed, through Chartwells. EPCS will manage the new Event Center for daily use by the Athletics Department and for all special events.

A complete listing of spaces and a detailed description of purpose, proximity relationships and performance criteria are included in Section 6 of the document. A summary of space by type is included as Figure 2.1 below.

Figure 2.1 Space Summary of the Proposed Event Center and Arena

	Program Totals (NASF)
Spectator Facilities	46,610
Concessions and Retail	4,750
Administration and Ticketing	1,170
Performance/Media Facilities	850
Athletic Support	37,150
<u>Building Service / Operations</u>	<u>7,650</u>
Subtotal NASF	98,180
TOTAL ESTIMATED GSF	163,633

Section 3 Instructions to the Consultant

3.01 Overview

It is the intent of the University to create a functional, flexible, maintainable, and attractive facility that will serve the campus well for many decades. The University requires an innovative design solution that best addresses the program requirements, while optimizing the use of allocated funds for the project.

The Consultant, to be comprised of a team of professional architects, engineers, and other design specialists, will:

- Complete specialized studies, architectural and engineering design, energy and life cycle cost analyses, and preparation of appropriate plans and specifications for the construction of the new Event Center;
- Perform all required design functions, including the gathering of data on existing and proposed conditions;
- Prepare and include in the construction specifications a work schedule for those items of work that could unduly disrupt campus operations; and
- Provide instructions on scheduling, staging, or similar information needed to achieve optimum construction efficiency.

The design solution for both the site and the building should include and address, but not be limited to:

- Architectural and space planning solutions for the defined spatial relationships/layouts identified and set forth in Section 6 Space Requirements;
- Finish solutions that meet the needs and requirements of end user programs, as well as housekeeping and maintenance programs;
- Issues of building, fire, public safety and security, and ADA regulations, ensuring that all solutions are integrated and coordinated to work together;
- Requirements to achieve a minimum of LEED Silver Certification and energy efficiency in accordance with the International Energy Conservation Code;
- Studies to facilitate decisions regarding site development as it relates to building massing, scale and placement;
- Studies to ensure the continued operation of facilities and roadways adjacent to the immediate construction area;
- Plans for the development of the site surrounding the building to ensure that the facility is integrated with both the academic and residential precincts of campus;
- Plans for pedestrian connections to the UMBC Stadium complex and Soccer Stadium; and

- Plans for the demolition of existing site features and underground utilities necessary to facilitate construction of the new facility.

The Consultant is responsible during each phase of design to study, develop and recommend alternatives that will achieve cost efficiencies to maximize available funding. Creative design solutions are sought rather than reductions in the defined project requirements. If, in the course of design, the Consultant recognizes architectural or engineering solutions more beneficial to the University than those indicated herein, the Consultant is expected to bring these solutions forward to the University for review and consideration.

3.02 Consultant Services

The programmatic requirements and design criteria provided in the document are as complete and accurate as possible. The Consultant will work with the University at the onset of design to validate and refine the programmatic requirements and criteria, as necessary, to capture and reflect any changes since issue of the program document.

The Consultant will provide the basic architectural and engineering services per the *University System of Maryland's Procedure Manual for Professional Architectural/Engineering Services of University of Maryland Projects*, as well as all requirements outlined in Section 3 of this document. All design work for the project must respond to and address the design criteria, space allocations, equipment requirements, and spatial relationships contained in Sections 4 through 6 of this document. In addition to basic design and construction administration services, the Consultant will provide the following special services:

- A thorough review and validation of the facility program to identify any alternative ways of meeting the program objectives in a more cost effective manner.
- The establishment of a site development master plan incorporating the proposed building, loading and unloading service needs, storm water management features, site landscaping and pedestrian amenities.
- The inclusion of areas outside the specific boundaries of the site that will be impacted by the project and need to be addressed by the Consultant. These include modifications to existing roadway intersections, streets, parking areas, utilities or infrastructure needed to accommodate the new facility.
- The development of conceptual building concepts that convey the unique location of the Event Center on the campus and its visual and physical relationship to the Academic Precinct to the west the UMBC Stadium to the south, the Soccer Stadium to the east and the new I-195 vehicle gateway to the southwest.
- The provision of estimates and projections of all capital costs connected with the construction of the facility; such as, demolition of existing built and natural features, cost of new construction, equipment installation, utility extensions, and site development at each submission (i.e., schematics, design development, and each phase of the construction

documents). All estimates will be prepared and presented in CSI format. Lump sums will not be acceptable. The selected Consultant will employ an independent cost estimator to provide complete estimates concurrent with the submission of the Schematic and Design Development design submission phases and a review of the 50% cost estimate prepared by the selected Construction Management firm for the project. The Consultant will not proceed to the next design phase until the cost estimates are reconciled with the available budget and the Construction Manager's estimate.

- The preparation of presentation materials, including boards, electronic presentations and 3D models to convey the design concepts to decision makers at the University and outside review boards.
- The identification of specific project design areas where departure from current campus standards may be appropriate to optimize building systems and achieve or exceed the program intent.
- The preparation of a narrative design and life cycle cost analysis outlining utility options, with advantages/disadvantages considered, and justification for the selected system. The analysis will include the cost benefit assessment of alternative energy-saving strategies, including high performance materials and systems and renewable energy technologies.
- The preparation of a building envelope analysis, highlighting criteria, details, infiltration and coordination with HVAC systems.
- The provision of space tabulations for each phase of design utilizing the Areas, Volume, Efficiency (AVE) Forms, by room, net assignable square footage ("NASF") and total gross square footage (GSF) for the building. Organize each space tabulation submission to include the Postsecondary Education Facilities Inventory and Classification Manual's (FICM) room use code category for each space. Follow the space allocations contained in this document. Indicate programmed net areas and actual along with any difference.
- The completion of test-fit diagrams and style/fabric specifications of all moveable furniture in coordination with the University. The Consultant will coordinate task or specialty lighting based on the approved test-fit diagrams.
- The provision of a complete and integrated interior design package for the project. This includes all services, samples, product information, colored presentation boards/renderings of interior spaces, drawings, specifications, and cost estimates for finishes, furnishings and equipment.
- The provision of a plan and elevation of all furniture, fixtures, and equipment demonstrating that all programmed functions can be accommodated. The Consultant will specify, in enough detail for procurement, all moveable and fixed furniture and equipment and manage delivery and installation in coordination with the Construction Manager (CM) on behalf of the University.

- The coordination with the University and outside agencies for the integration of data and telecommunication systems and equipment.
- The development of bid documents to coincide with the construction phasing plan prepared by the CM. The plan will highlight a safe, ADA compliant pedestrian route along the perimeter of the site limits, during construction, and the continued access of service vehicles to all adjacent facilities.
- The specification and design coordination of any equipment requiring special environmental conditions and/or building system conditions. Identification of methods of installation and connection with building utility services, and provision of necessary clearances for convenient, safe use, and maintenance of equipment will be included. These documents will be fully coordinated with mechanical, electrical, plumbing, and structural (i.e., building systems), and all other pertinent construction documents.
- Submit to the University, for approval, the name of an individual, either in his/her own work force or as a Consultant, to act as Energy Analyst for the project. The Energy Analyst will have proven experience in energy design analysis and will be a registered engineer or architect. The Energy Analyst will:
 - Coordinate disciplines within the design team to achieve energy efficient design;
 - Review architectural, mechanical, and lighting submittals for compliance with energy guidelines prior to submission to the University;
 - Serve as the primary contact point on energy-related matters for the UMBC Facilities Management Department;
 - Develop a building energy consumption model;
 - Perform energy analysis; and
 - Assist the University in establishing a desired, achievable energy budget.
- The preparation of all documentation and obtain approval of all permits and licenses as required by all agencies having jurisdictional authority, which includes, but is not limited to: storm water management, Forest Conservation, Maryland State Fire Marshal, Baltimore County Health Inspector, fire apparatus accessibility, and installation of new boilers and hot water heaters.
- The preparation of documents to secure energy credits from local utilities and other agencies.
- The provision, during the first twelve months of the Post Construction Stage, of a review of Operations and Maintenance manuals, and record documents, and participation in any commissioning activities that extend beyond the occupancy date. Include/provide at least two full team walk-through inspections at mutually established milestones.
- The design of two add-alternates, through the Design Development phase, to determine the economic feasibility of accepting the improvements. If accepted, the Consultant will include the improvements in the project and complete full design. Alternates include:

1. Expand the “Auxiliary Gym” space to (2) full-size, NCAA compliant basketball courts in lieu of the (1) full-size, NCAA compliant court currently specified.
2. Increase the number of “Visiting Team Locker Rooms” and “Visiting Team Shower Rooms” from 2 to 4.

3.03 Deliverables

- The Consultant will submit to the University, nine sets of all drawings and specifications required for review and approval by the University, University of Maryland, Baltimore (UMB) Service Center, and the appropriate Maryland State agencies for each phase of the project. Each submission will consist of three full-size drawing sets and six half-size sets unless otherwise stipulated by the University.
- The Consultant will develop a 3D computer model for use throughout the early design phases and evolved into a final presentation following the completion of the Design Development Phase. The model format must be compatible with Google Sketch-UP to facilitate integration into a campus-wide computerized site model.
- Following the acceptance of the final Construction Documents by the University and UMB Service Center, the Consultant will provide the University with:
 1. One reproducible copy of record drawings;
 2. Hard copy plus electronic file of specifications on most current version of Microsoft Word; and
 3. Electronic drawing files on most current version of AutoCAD comprising Architectural, Mechanical, Electrical, Plumbing, Structural, Site Civil, Landscape Architecture, and any Specialty Consultant’s drawings and details per the UMBC AutoCAD standards.
- Tabulations of Net Assignable Areas in Microsoft Excel with each space identified by FICM space use code.
- The Consultant will prepare renderings and diagrams to assist in decision making and other presentation materials, including study models, to satisfy the provisions of Section 3.02.
- Studies and reports to satisfy the provisions of Section 3.02.
- The Consultant will coordinate design documents with the BIM model used by CM.

3.04 Information to be Collected or Developed by the Consultant

The Consultant will collect all available information from the University regarding planimetric maps, topography, utilities and infrastructure. The Consultant will be responsible for contracting for all required support services, e.g. a surveyor, geotechnical services, utility locators, environmental specialists, etc.

All existing building, utility and site plans, the Stormwater Management Master Plan (latest version), the Facilities Master Plan (2009-2019 or latest version), and the Campus Utility Infrastructure Study (2011) will be given to the Consultant. However, no assurances are given for the accuracy and completeness of these documents. The Consultant will establish the precise location of all underground utilities and/or services in the construction area and show the same in detail on the design drawings.

Referenced Standards

- Where this document references the University design standards for building, landscape, site and building furniture, site lighting, paving materials, etc., the Consultant will solicit the current standards from the University.

Field Investigation Requirements

- The Consultant is fully responsible for accurately defining existing conditions and the impact of these conditions on the design. The selected Consultant is required to examine existing drawings, order test borings, test pits, radon tests, infrared tests, electrical load tests, and any other means necessary to ensure accuracy for the design.
- Existing drawings, whether “as built” or construction drawings should only be used as a guide and for reference and under no circumstances be construed as accurate. All conditions will be field verified by the selected Consultant team during the design development of this project.

Benchmarks

- The Consultant, with the approval of the University, will establish a benchmark sufficient for the development of contract documents.
- The Consultant should follow the UMBC survey control requirements as provided by the University.

Test Holes

- Where there is a doubt as to the actual location of any existing utility or there is the possibility of interfacing with the alignments of new or existing utilities, and if such information is deemed necessary to prepare an accurate design, the selected Consultant will make test holes either by performing the work or contracting for the work, only after the approval of the University.
- It will be the responsibility of the Consultant to inform the university as to the quantity and location of test holes required and field check the utilities after the test holes are open.

Geotechnical Soil

- Test borings to determine soil conditions will be done under the direction of the Consultant. It will be the responsibility of the Consultant to inform and receive approval from the University as to the quantity and location of the test borings needed.

Survey

- The Consultant will prepare a survey that documents all existing conditions of the site and confirm all information provided by the University. The extent of the information and work required by the survey will include, but not be limited to, all existing topography, utilities, roads and improvements, significant vegetation and natural features, existing utilities, boundaries, easements, and any legal restrictions that are applicable.
- All survey data will be in compliance with Maryland State plane coordinates NAD 83/91 and NAVD 88.

Additional Information

3.05 Responsibility for Compliance in Design

The Consultant is responsible for producing a design that complies with applicable codes, ordinances, statutes, regulations and laws, and all standards and procedures for construction.

3.06 Codes and Regulations

Project design will comply with:

- The codes, regulations and permits identified in and required by The *University System of Maryland's Procedure Manual for Professional Architectural/Engineering Services of University of Maryland Projects*.
- The building code of the State of Maryland which includes the latest editions of the International Building Code (IBC) for Basic Building, Mechanical, and Energy Conservation Codes, the National Electrical Code, and ASHRAE standards, the consultant shall be responsible for developing the specifications and drawings in strict adherence to meeting or exceeding the requirements and regulations impacting on the project, whether or not it is so defined or listed in the final construction documents. The consultant shall coordinate approval of all plans with the State of Maryland Fire Marshal. Early submissions of design documents or early review meeting(s) may be required.
- Persons with Disabilities: In the preparation of all plans and specifications, the consultant shall be responsive to federal and university requirements for barrier-free design according to all applicable laws, rules, regulations and codes.
- Energy Consumption: In the preparation of all energy analysis and calculations as well as plans and specifications, the consultant shall follow design criteria and performance standards in accordance with the International Energy Conservation Code and ASHRAE

Standard 90.1. Where applicable codes/standards conflict in their requirements, the most stringent criteria must be followed.

- Crime prevention through environmental design concepts and principles.
- Homeland Security design concepts and principles.

3.07 Abbreviations Used In This Document

A/E - Architect/Engineer

ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers

ACI – American Concrete Institute

CAD - Computer Aided Design

CM - Construction Manager

COMAR - Code of Maryland Regulations

DBM - Department of Budget and Management

DGS - Department of General Services

FF/FL - American Concrete Institute Standard for Flatness and Levelness

GPH - Gallons per hour

GSF - Gross Square Feet

HVAC - Heating, Ventilation Air-Conditioning

HW - Hot Water

IBC - International Building Code

LEED - U.S. Green Building Council, Leadership in Energy and Environmental Design

MOSHA - Maryland Occupational Safety & Health Administration

MBH - Thousands of British Thermal Units per Hour

MFMA - Maple Flooring Manufacturers Association

NASF - Net Assignable Square Feet

NCAA - National Collegiate Athletic Association

NFPA - National Fire Protection Association

RCP - Reinforced Concrete Pipe

USAV - USA Volleyball

USGS - United States Geological Survey

3.08 Information Provided to the Consultant

UMBC Events Center Program

UMBC Event Center Geotechnical Report (3 borings)

2009-2019 UMBC Master Plan Update

2011 Campus Utility Infrastructure Study

UMBC Vehicular and Pedestrian Signage Standards

UMBC Site Lighting Standards

UMBC Site Furnishing Standards

Google SketchUp File of UMBC Campus Model

UMBC CAD Model with Campus Utilities, Topography and Buildings

The UMBC Forest Stand Delineation Plan and Forest Preservation Bank Plan

Stormwater Management Master Plan (2002)

UMBC Network Equipment and Cabling Standards

Section 4 Site Development Criteria

Overview and Existing Site Conditions

The purpose of this section is to provide an overview of existing site conditions and constraints, identify the site challenges and opportunities, and outline the project requirements. The information provided in this section is intended to supplement the Consultant's own site evaluation.

The Consultant is responsible for the design of all areas within the project site limit boundaries, including those directly impacted by the building footprint, utility, drainage infrastructure, parking and access, and landscape and open space improvements required by the project. Imaginative and responsible solutions should be developed to form a cohesive, integrated, economical, contextual and aesthetic design solution that is consistent with and advances the goals and objectives of the 2009 Facilities Master Plan and accomplishes the goals and requirements of the project.

4.01 Project Boundaries

Proposed project site boundaries encompass the area on campus needed to accommodate the building footprint, associated roadway, service, pedestrian, landscaping and site amenity improvements, and necessary utility upgrades to accomplish the program requirements. The proposed project boundaries include one area off campus that may be impacted by the project and will require evaluation to determine if improvements and upgrades are required. Proposed project site boundaries are delineated in Figure 4.1.

Site planning, and architectural and engineering design of the building, is a part of the scope of work and services to be completed by the selected Consultant. The Consultant will be required to verify the Event Center Facility Program and evaluate site requirements to determine the final site boundary area needed to accomplish the project requirements.

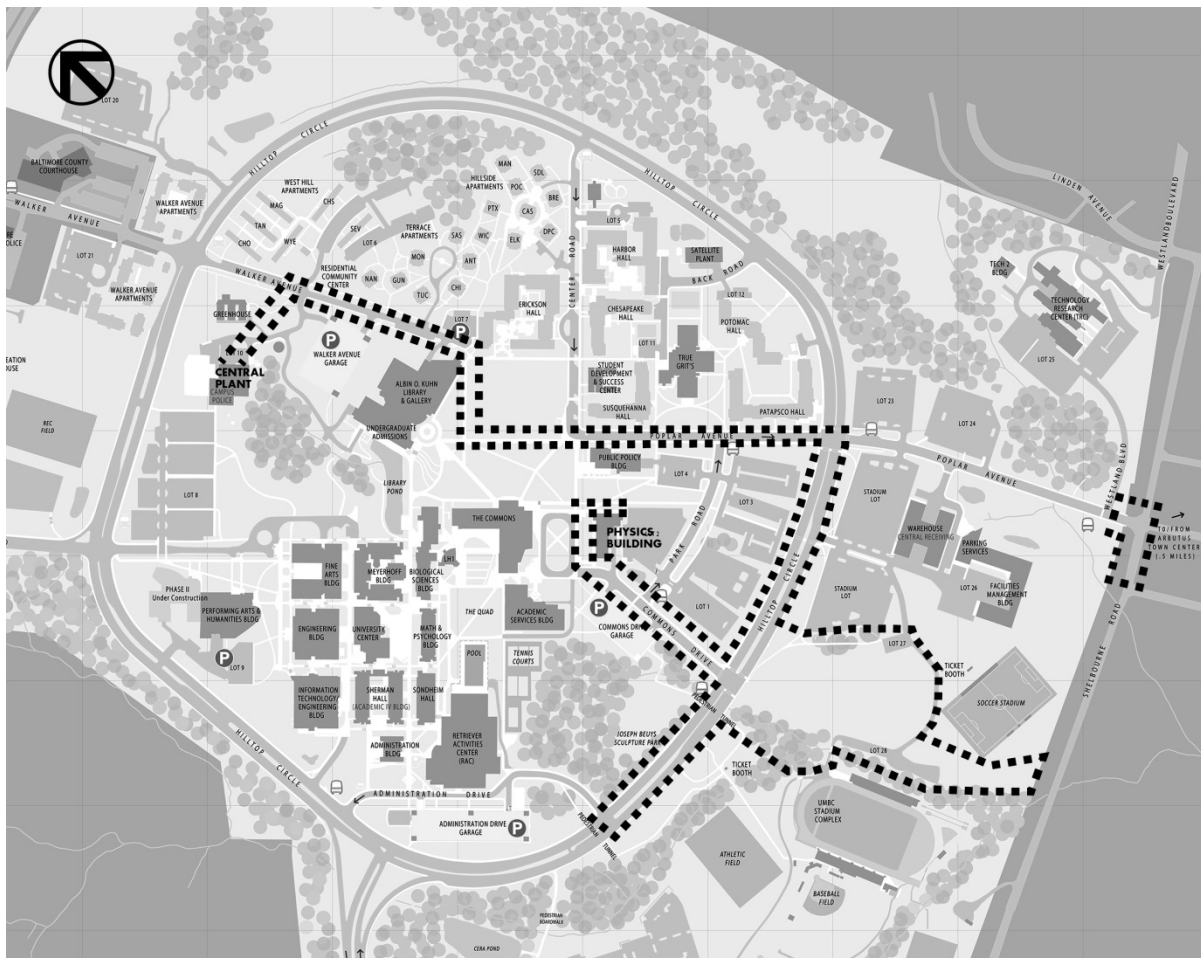
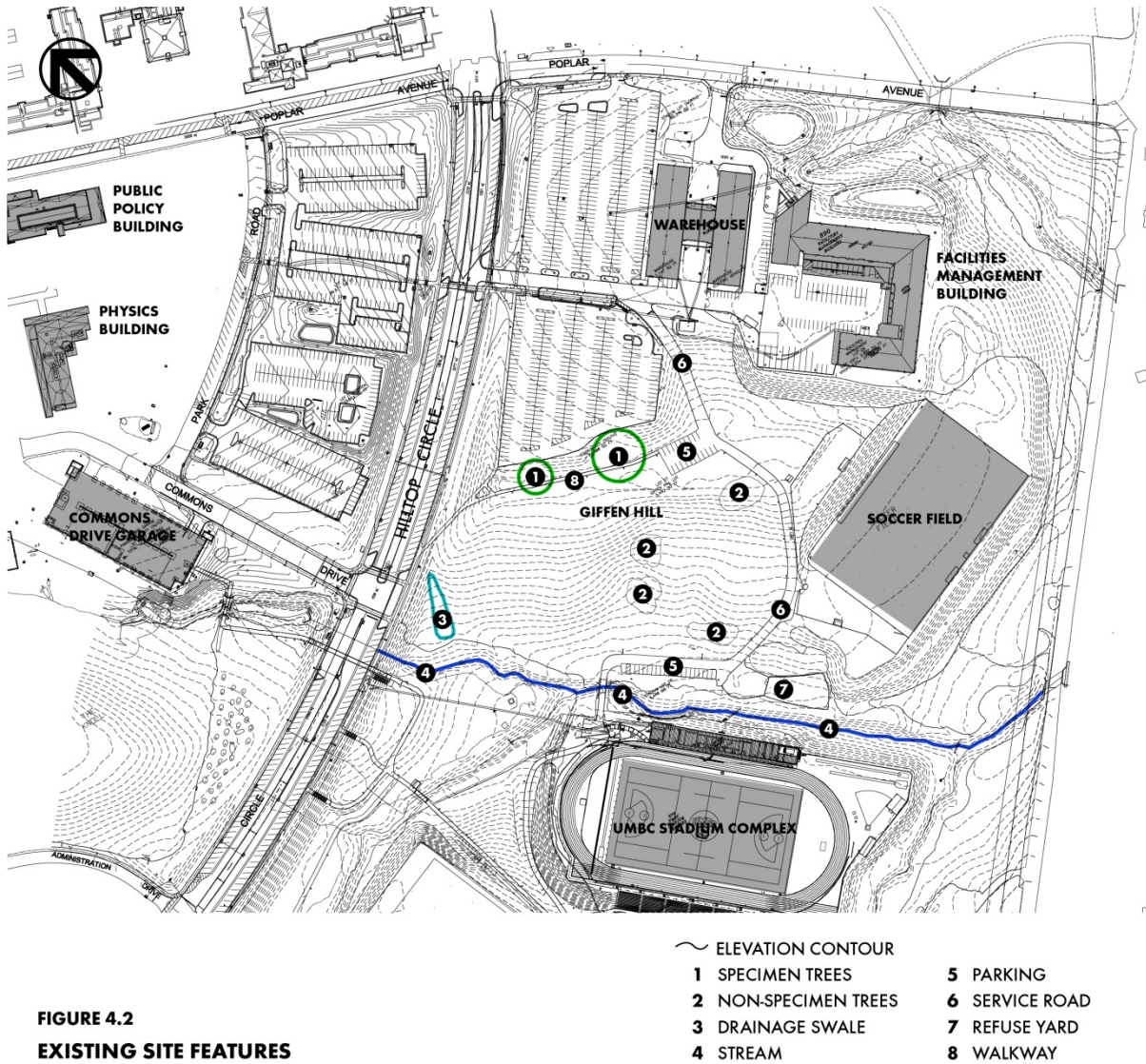


FIGURE 4.1
PROPOSED PROJECT BOUNDARIES

4.02 Existing Surface Features

The existing site is a green-field area that slopes and drains from the north to the south to an existing stream. The site is bounded by Hilltop Circle to the west, two specimen trees (a large white oak (*Quercus alba*) and a Tuliptree (*Liriodendron tulipifera*)) and two parking lots (Lot 27 and Stadium Lot) to the north, Shellbourne Road to the east and Lot 28 and the UMBC Stadium to the south. In addition to the two specimen trees, the site includes other smaller groves of trees, a storm water pipe outlet and drainage swale, a stream, a floodplain area and an existing 12' wide asphalt service road. Existing surface feature conditions are documented in Figure 4.2.



4.03 Adjacent Facilities

The project site borders the UMBC Stadium, the Soccer Stadium, two parking lots (Lot 27 and Stadium Lot), Shellbourne Road and Hilltop Circle. These facilities need to be protected during construction and be kept accessible and operational throughout the design and construction phases of the project. A photograph of the project site and adjacent facilities is included as Figure 4.3.

Figure 4.3 Photograph of Project Site



4.04 Existing Utilities and Subsurface Conditions

Figure 4.4 documents existing utilities that serve or traverse the project site area. The University will provide the Consultant with the latest AutoCAD mapping of topography, planimetrics, and campus site utilities. The Consultant is required to verify the location of all existing utilities.

Natural Gas

A 2" gas line traverses the project site on the west side and runs parallel to Hilltop Circle from north to south and turns east to serve the UMBC Stadium. The current remaining capacity of the line is unknown. There is a recorded right-of-way to Baltimore Gas and Electric for the line.

Domestic Water and Fire Protection

A 4" inch water line extends from a service point near the Warehouse building and traverses the site from the north to south to serve the Soccer Stadium and the UMBC Stadium. An 8" water line runs along Hilltop Circle to the west of the site and will provide service for the project. Flow test data is provided in Appendix A. There are no fire hydrants currently located on the project site.

Sanitary Sewer

A 15" Baltimore County sewer main traverses the south side of the project site running from the Academic Precinct of the campus to the west and connects into an 18" Baltimore County sewer main to the east along Shellbourne Road. The 15" sewer main services much of the Academic Precinct of campus and the UMBC Stadium. Remaining flow capacity of the line is unconfirmed. There is a recorded easement to Baltimore County for this line.

Storm Sewer

The project site area is drained by surface flow from the north down-slope to the south and into the existing stream. No underground storm sewer systems currently serve the site. However, a storm water pipe that drains a portion of the academic precinct outlets to a surface drainage swale on the site.

Electric

Electric service runs along Hilltop Circle and is powered by electric feeders 3 and 4 from the Central Plant, but does not currently traverse or serve any improvements on the project site. The University has indicated that electric feeders 3 and 4, based on current loading, do not have capacity to serve the Event Center.

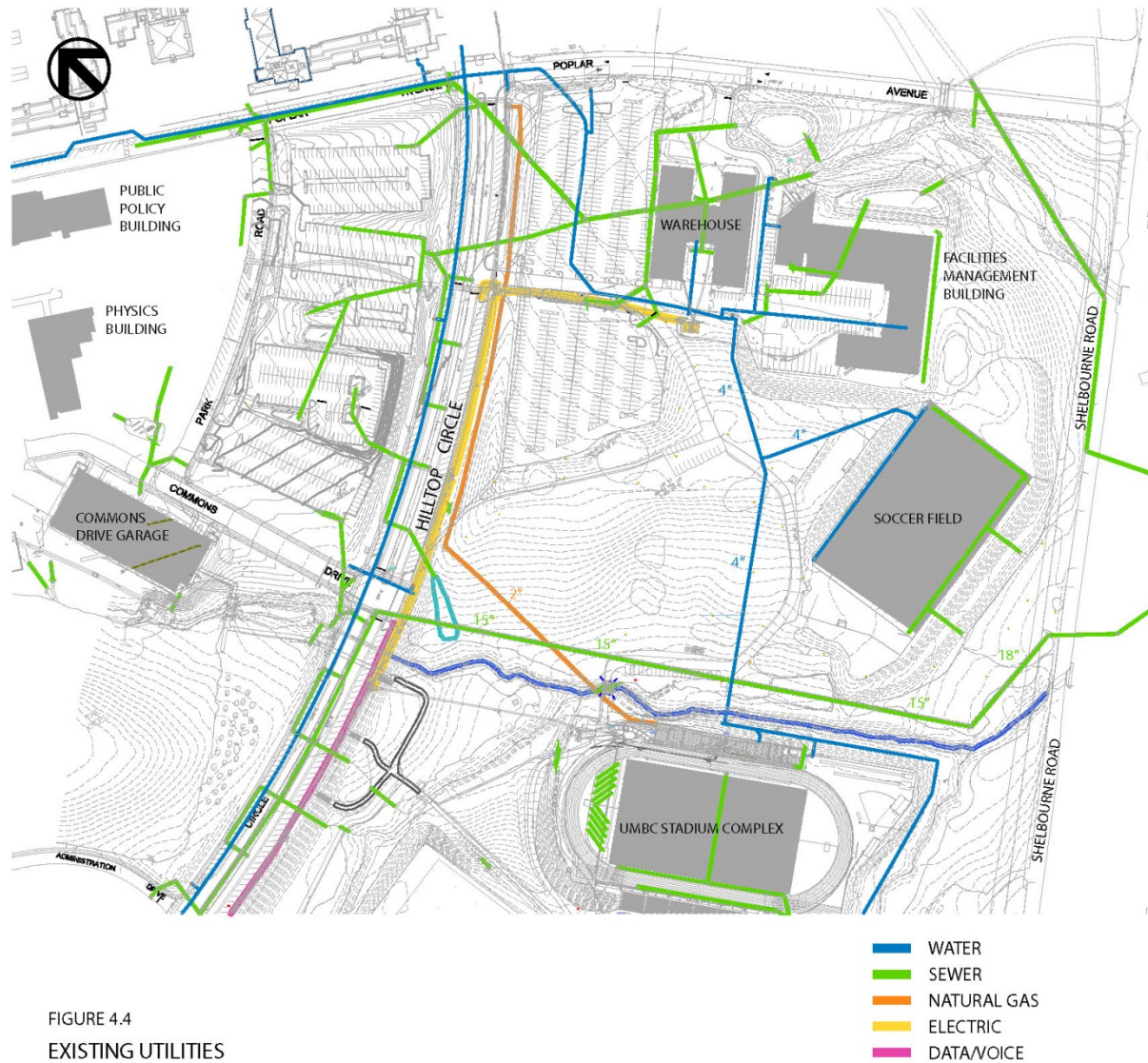
Telecommunication

A four way duct bank for data and voice infrastructure runs adjacent to the site along Hilltop Circle. The fiber optic Main Distribution Frame (MDF), for the east side of the campus, is located on the

north end of the Physics Building in the lower level and has been confirmed to have capacity to serve the Event Center project.

Subsurface Conditions

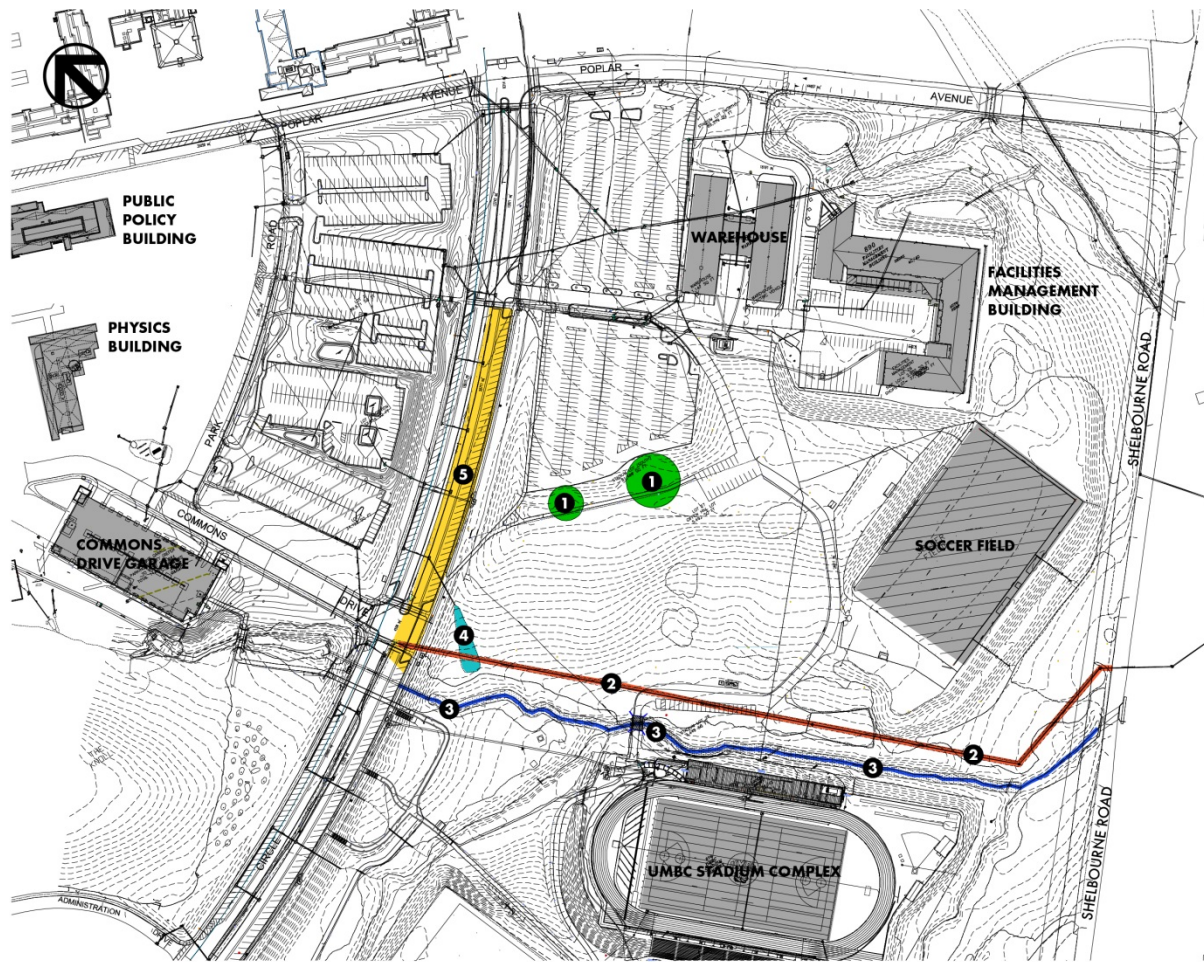
Three soil borings were taken on the site and analyzed to collect preliminary data on subsurface conditions. The borings indicated the presence of rock under portions of the site. The associated geotechnical report is included as Appendix B.



4.05 Existing Site Constraints and Opportunities

Existing site constraints to be observed and addressed by the Consultant in the design of the project are illustrated in Figure 4.5 and include:

- A minimum setback of 5' from the root protection area (RPA) and the height and canopy spread of the tree (with consideration to future growth potential) for all above and below ground building improvements from the two specimen trees located on the northern boundary of the site. Preservation and integration of both trees into a holistic design of the site plan for the project is a University priority.
- A minimum setback of 10' of all above and below ground building improvements from the 15" sanitary sewer line located on the southern boundary of the project site. Design will also consider and comply with the terms and conditions of the 10' easement issued to BGE for the line.
- An evaluation of the surface drainage swale area to determine if any portion meets the criteria for a wetland, as defined by state and federal authorities having jurisdiction. If determined to be a wetland, the extent of the wetland area will be delineated. The Consultant will design the project to avoid the area, or if not, design the necessary remediation/replacement efforts and improvements to acquire the needed permits from the agencies having jurisdiction.
- Maintenance of the existing Hilltop Circle roadway lane widths.



- 1 SPECIMEN TREES
- 2 SEWER MAIN
- 3 STREAM
- 4 DRAINAGE SWALE
- 5 HILLTOP CIRCLE

FIGURE 4.5
EXISTING SITE CONSTRAINTS

Site opportunities to be integrated by the Consultant into the design effort to create a new identity for the Athletics Precinct of campus are illustrated on Figure 4.6 and include:

- Creating pedestrian connections between the Event Center and the Academic Precinct, the UMBC Stadium and the Soccer Stadium.
- Creating visual connections between the Event Center and the Academic Precinct, the new I-195 Vehicle Gateway, the UMBC Stadium and the Soccer Stadium.
- Integrating stream restoration into the landscape aesthetic and function to enhance the pedestrian experience to the Event Center, the UMBC Stadium and the Soccer Stadium. In addition, stream restoration will improve stormwater management and drainage for the project, remediate existing areas of erosion and remove invasive plant species.
- Preserving and integrating existing specimen trees into a holistic design to create the desired aesthetic and possibly an outdoor plaza/terrace that can be used for events.

- Reusing a portion of the existing service road to reduce project grading and site improvements in an effort to manage project cost.

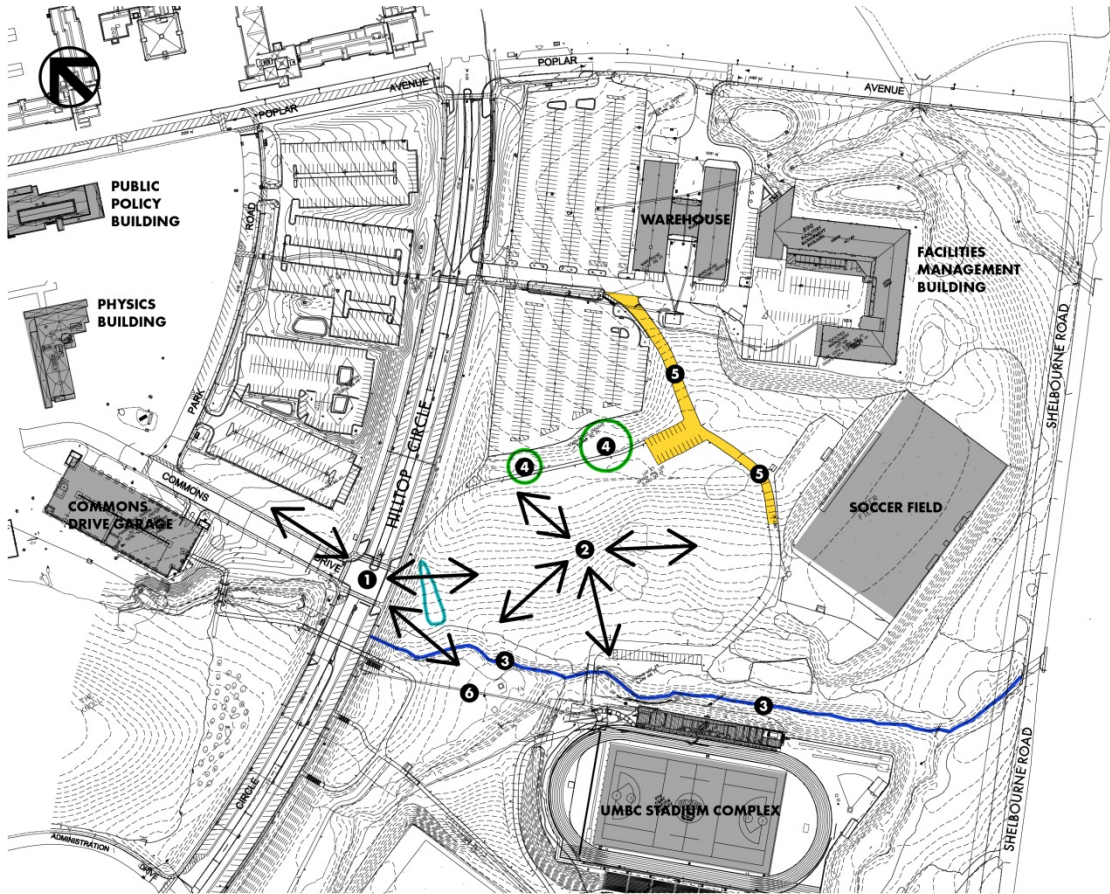


FIGURE 4.6
SITE OPPORTUNITIES

- 1 PEDESTRIAN CONNECTIONS**
 - EVENTS CENTER - UMBC STADIUM
 - ACADEMIC PRECINCT - SOCCER STADIUM
- 2 VISUAL CONNECTIONS**
 - EVENTS CENTER - UMBC STADIUM
 - L195 GATEWAY - SOCCER STADIUM
 - ACADEMIC PRECINCT

- 3 STREAM RESTORATION**
- 4 INTEGRATION OF SPECIMEN TREES**
- 5 REUSE OF SERVICE ROAD & PARKING**
- 6 PEDESTRIAN CONNECTION TO UMBC STADIUM COMPLEX**

Site Design Criteria

A proposed conceptual site plan is included as Figure 4.7. The intent of the conceptual plan is to serve as a test fit of the building and associated improvements. The concept will be used to describe the site design criteria.

4.06 Pedestrian Circulation and Open Space

Clearly delineated and well-designed pedestrian circulation routes for students, faculty, staff and visitors to the Event Center will be paramount to physically connecting the new facility/site with the Academic Precinct, parking, the UMBC Stadium and Soccer Stadium and vice versa. Pedestrian connections and improvements will play a major role in improving the “arrival” experience to the Athletic Precinct facilities, which is currently not good. In addressing pedestrian circulation to and around the site the Consultant will incorporate into project design the following:

- An Event Center Plaza at the front of the building on the west side to allow for both the movement of vehicles (service and emergency) and the use of pedestrians for gathering at and circulation into the main entrance. The plaza will serve as an outdoor gathering space and be a primary part of the “arrival” experience to the Event Center. The plaza will interface with the proposed visitor drop off area and will orient and guide pedestrians between the Academic Precinct and the Event Center, and the UMBC and Soccer Stadiums.
- To the west, the plaza will extend into a street crossing, with special paver treatment, over Hilltop Circle at the intersection of Commons Drive and Hilltop Circle, to create a highly visual pedestrian crossing. The crossing will connect to the existing walkways on west side of Hilltop Circle along Commons Drive. Improvements to the existing walkways along Commons Drive will be studied for improved pedestrian connections to the Academic Precinct and the development of ADA compliant pathways from the Commons Garage to the new Event Center.
- To the east the plaza will extend into a pedestrian promenade running west to east, between the new Event Center and the restored stream, to create an improved pedestrian connection to the UMBC Stadium and the Soccer Stadium. The promenade will engage the stream and will create a pleasant open space and pedestrian experience, while addressing the substantial change in elevation.
- To the north the plaza will extend to the Stadium Lot to provide a pedestrian connection for Event Center parking and an ADA compliant pathway to additional accessible parking. The Consultant will study the feasibility of a north side building entrance (secondary) and an accompanying smaller outdoor plaza that incorporates the two specimen trees on Giffen Hill to create another outdoor event/open space.
- Careful attention to the choice of paving materials and site details of the plaza is needed, especially where it transitions into existing vehicular roadways and drives.

4.07 Vehicular Circulation, Access, Loading and Parking

In addressing vehicular access, circulation, parking, loading and parking for the Event Center the Consultant will design the following:

- A reconfiguration of existing street parking on Hilltop Circle to create a new visitor drop off area at the west edge of the site to serve the main entrance of the facility. The drop off area is to be a minimum of 14' wide and be long enough to accommodate one full size coach bus or several passenger automobiles for events. It is also desired that the visitor drop off be capable of functioning as on-street parking to accommodate daily campus parking needs during non-event times. Configuration, roadway improvements and signage will be required to support the multiple uses intended for the visitor drop off area.
- A new service entrance and roadway from Shellbourne Road will be required to provide access for tractor trailers and other large vehicles (i.e., trash trucks, event production trucks, emergency vehicles, etc.) to the facility and/or service yard. The new roadway will be a minimum of 20' wide.
- A new service yard with 2 loading bays, including one dock to support 53' tractor trailers and one drive-in, on-grade bay to serve 26' trucks, is required to serve the facility. The service yard will be accessed via the new service road and will be located on the east side of the proposed building footprint.
- Upgrades to the intersection of Poplar and Shellbourne Road (off-campus location) may be required to accommodate large truck and bus traffic. It is anticipated that the intersection will require modifications to curb, gutter and paving to accommodate turning radii of bigger vehicles. Just south of the intersection, existing poles and overhead wires cross Shellbourne and may need to be relocated or raised to accommodate large trucks. Also in this area is an existing box culvert underneath of the road that upon preliminary inquiry with Baltimore County does not have any traffic restrictions. The Consultant will evaluate the existing intersection, pole/wire and box culvert conditions to determine required improvements.
- Milling and repaving of Hilltop Circle roadway, from Administration Drive to Poplar Avenue, will be required.
- No net new parking for visitors, students or faculty is proposed. The University plans to use existing surface lots and parking garages to support the new Event Center. However, making physical connections to existing parking facilities, as described previously, will be required.
- Re-building/re-surfacing of Lot 28 (adjacent to the UMBC Stadium) and development of 7 new parking spaces in the new service yard for operations, maintenance, ambulance and police vehicles is required. A minimum of one dedicated ambulance parking space is required to support events.
- Provide parking for vans and other support vehicles used by UMBC Athletics, as space allows.

- Options for providing ADA compliant pathways from the Commons Garage and the Stadium Lot to the Event Center will be studied. In addition, the cross slopes and striping of the Stadium Lot will be analyzed to determine re-grading, re-paving and re-striping needed to create ADA compliant parking spaces. Preferred options for providing ADA pathways and parking will be designed and constructed as part of the project.
- All paved areas of the project, including the pedestrian plaza proposed at the front entrance, will be designed to support large tractor trailer and emergency vehicle traffic unless otherwise approved by UMBC. The proposed sections will be developed by a professional Geotechnical Engineer and be approved by the University.
- Vehicle access control features may be required to manage unwanted or unsafe vehicular movements on and to the site. The Consultant will identify and design needed vehicle control locations and improvements.
- Pathways designated for emergency vehicle access, including roadways, pedestrian walkways or green spaces, will be designed to accommodate the maneuvering requirements and weight of emergency vehicles. A minimum pathway width of 20' is needed to accommodate emergency vehicles. All pathways designated for emergency use will be coordinated with and approved by UMBC life safety and police personnel, as well as local jurisdictions having authority.
- Truck loading and unloading access, as well as emergency vehicle access to the UMBC Stadium and Soccer Stadium will be maintained continuously throughout design and construction of the project.
- Vehicular access will be provided to the emergency generator and other equipment requiring service and/or fuel.
- Bicycle routes and parking areas will be incorporated into in the layout and design of new streets, upgrade to existing streets and exterior spaces.

4.08 Excavation and Soils

The existing conditions and character of the site will be considered by the Consultant in developing the site design to include:

- A determination of the footprint dimensions and placement of the building on the site. The proposed Event Center will be cut into the existing hillside with a walkout on the lower level. The main event floor elevation is anticipated to be at or around a 142' elevation. The building will be considerably lower than the existing grade on the north side and higher than the existing grade on the south side. These conditions will require identification of retaining wall locations, lengths and heights to account for the grade differential or use of the building to retain earth. A comparative analysis of options to will be completed to determine the most beneficial design solution.

- An understanding of the limitations to the development of the site due to soil conditions. Options for the placement and design of on-site building support systems (e.g., utilities, stormwater management, etc.) will be studied to determine the most beneficial design solution. The Consultant will secure geotechnical services to provide a comprehensive subsurface investigation to determine the condition of existing soil and identify any restrictions that these soil types will have on the development of the building's foundation and/or retaining systems. This effort will include a comparative analysis of options to determine the most beneficial design solution.

4.09 Drainage and Stormwater Management

Site drainage and stormwater management on the site will require study and analysis due to existing grade conditions and limited site area. In designing the site plan the Consultant will include:

- Compliance with the most recent MDE requirements regarding drainage, stormwater management, and erosion and sediment control, including all permits and approvals. It is anticipated that there will be impacts to the adjacent stream due to the site drainage outfalls into the stream, as well as the proposed stream restoration work. The project will include a Storm Water Management system that meets current standards and effectively protects the stream from downstream erosion and flooding.
- Drainage patterns around structures will direct water away from foundations, walks, patios, roadways, and turf areas so as not to interfere with the function of these site elements.
- Stormwater management improvements will provide both water quality and quantity. Careful consideration will be given to the water quantity component due to the close proximity to the receiving stream channel.
- Water quality management improvements incorporating Environmental Site Design (ESD) techniques as a primary treatment approach will be used to the maximum extent possible. Some examples of this technique include:
 - Micro bio-retention
 - Rain gardens
 - Bio, grass or dry swales
 - Porous paving for non-vehicular areas
 - Vegetated roofs
 - Rainwater harvesting
- Where it is not feasible to implement ESD measures, MDE may allow for alternative forms of treatment under the 2001 Stormwater Management Requirements (Chapter 3 of the MDE Manual) to meet Water Quality requirements. Due to the area constraints of the site, alternative forms of treatment are anticipated. The Consultant may consider underground facilities, including (but not limited to) sand filter systems and Contech Storm Filter systems to treat site runoff. Due to the large footprint of the proposed building, service yard (east

end of building) and entry plaza (west end of building) it will be difficult to utilize ESD measures because of the small amount of green space between the receiving stream channel and the proposed improvements.

- Drainage outfalls for the proposed improvements will directly discharge into the receiving stream channel. Such an increase to the discharge can cause erosion to the receiving channel and waterways downstream of the site. Therefore, we anticipate the need for management of quantity of runoff and the Consultant should consider underground facilities for such treatment.
- General drainage patterns of the proposed site will remain similar to the existing drainage patterns. The water will flow from the high side of the site (east) and be collected into the ESD facilities and the proposed underground systems, then released into the receiving channel on the low side (south) of the site.

4.10 Forest Stand Delineation Plan

- A Forest Conservation and Mitigation Plan will be developed for the project to meet the requirements of the Forest Conservation Act, as administered by the Maryland Department of Natural Resources, and be consistent with and advance the long-term forest protection plan for campus.
- The University has a forest stand bank with credit, which may be utilized to meet a portion or all of the needs of the project. The Consultant will determine if the current credit bank balance is adequate to meet the needs of the project. If not, the Consultant will develop a plan to supplement the bank, as needed, to meet the project requirements.

4.11 Plaza/Hardscapes

- Hardscape, including pedestrian paths, roadways, drivable paths, and building entry plazas will be designed in accordance with University standards and preferences.
- Exterior spaces will be in accordance with an overall site development plan and will consider vehicular circulation, the campus pedestrian network, UMBC standards for materials, furnishings, plantings and construction details, and adjacent building entries.
- The specific patterns, materials, widths and construction of pedestrian pathways will be developed to reinforce the building design and the development of outdoor spaces.

4.12 Landscaping and Plantings

Landscape and Site Design

- Landscape and site design will provide balanced outdoor spaces that respect the natural areas of the site, integrate the new facility with other parts of campus. The design will include hardscape and landscape areas that accommodate the outdoor activities, pedestrian traffic, and emergency vehicle and maintenance access. The outdoor areas should be

attractive, sustainable, environmentally conscientious, secure and safe, and easy to maintain.

- The landscaping design for the project area will be considered as a unified and comprehensive design, coordinated with the University landscape design themes. Where possible, incorporate the existing natural elements and features into the design of the landscape.
- A certified arborist should be engaged during design and construction to ensure proper measures are taken to preserve the two existing specimen trees.

Soil

- Preserve natural soils as much as practical through grading design. When planting in disturbed areas ensure that proper planting soil is provided throughout the root zone of the mature tree or plant.
- The disturbed (reconstructed) planting areas should be un-compacted and well drained. The design must require contractor to obtain soil testing in advance of the installation schedule. The imported soil will be inspected by the designer against the approved soil sample.
- Trees within paved area will be supported with additional root zone beyond the tree grate, by employing suspended/structural paving system.

4.13 Site Security and Lighting

- Lighting will comply with the latest edition of *The Lighting Handbook* from the Illuminating Engineering Society of North America and UMBC standards and preferences for interior and exterior lighting types and styles, including UMBC pedestrian light standards.
- Site lighting will incorporate a design scheme for lighting the building facades and will also consider the use of interior building lighting of lobbies, corridors, and significant interior spaces to supplement the exterior spaces adjacent to the building. Overall design will limit the amount of light transmission off-site and into the atmosphere.
- The project will modify, refurbish, and/or replace the existing street lighting on Hilltop Circle, from Administration Drive to Poplar Avenue, to meet current UMBC lighting standards.
- Exterior lighting may be required to light banners, signage and building features.

4.14 Site Furnishings and Exterior Signage

- Site furnishings, including trash and recycling receptacles, benches, bike racks, and site lighting will be selected and located in accordance with UMBC standards. Placement of furnishings will encourage use of outdoor space for social interaction.
- The building site, including adjoining facilities and field space, will incorporate the current UMBC way-finding signage system into its design for pedestrian, vehicular, parking, and

accessibility and access signage. The way-finding system will include provisions for digital signage both inside and outside of the building.

- A system of pedestrian way-finding and event banners to mark the pedestrian path along Commons Drive will be required.

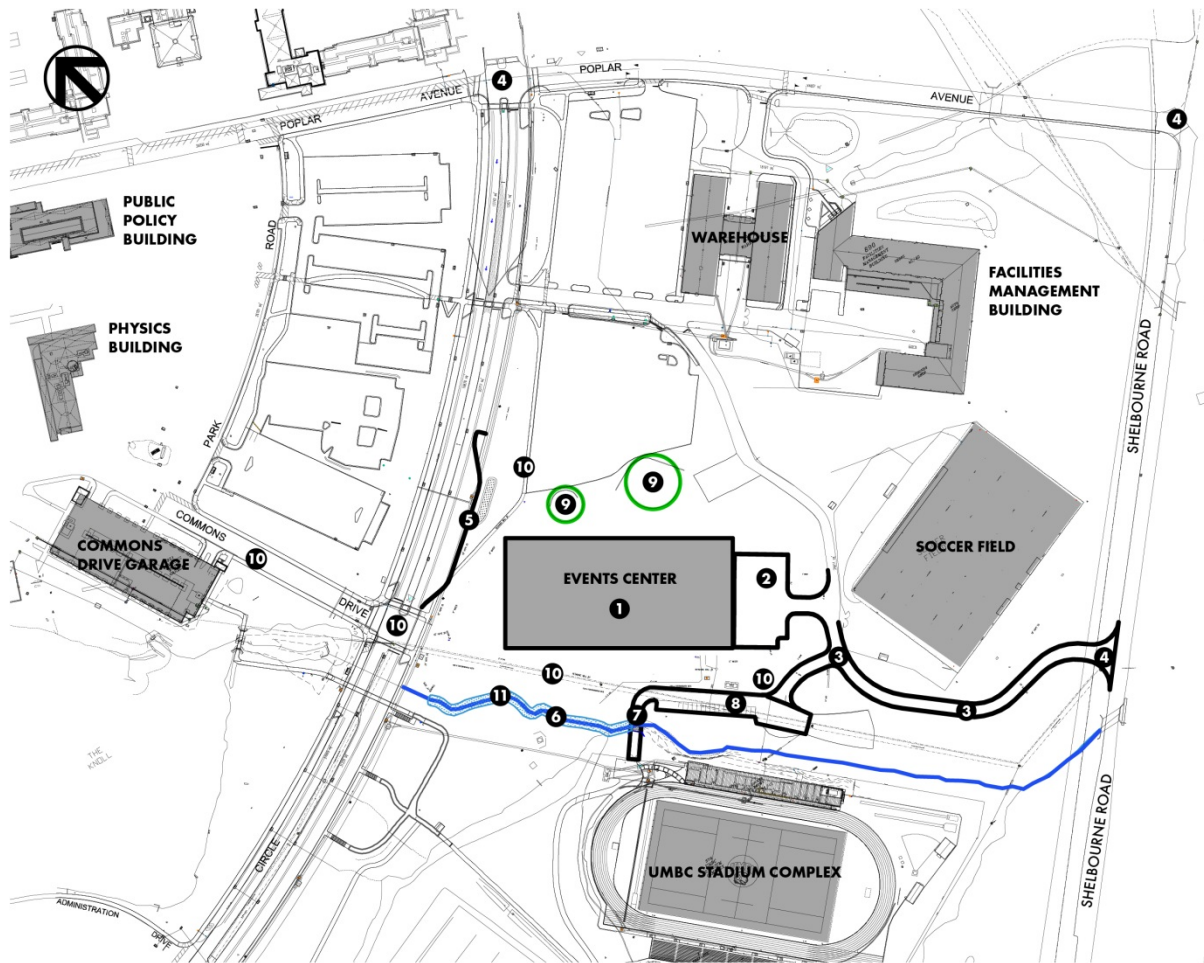


FIGURE 4.7
PROPOSED SITE PLAN

- | | | |
|-----------------------------|------------------------|----------------------------------|
| 1 EVENTS CENTER | 5 NEW 14' BUS PULL OFF | 9 PRESERVATION OF SPECIMEN TREES |
| 2 SERVICE YARD | 6 STREAM RESTORATION | 10 PEDESTRIAN IMPROVEMENTS |
| 3 NEW 20' SERVICE ROAD | 7 BRIDGE REPLACEMENT | 11 PEDESTRIAN CROSSING OF STREAM |
| 4 INTERSECTION IMPROVEMENTS | 8 PARKING REPLACEMENT | |

Site Utilities

A proposed conceptual site utilities pathways plan is included as Figure 4.8. The conceptual plan is intended to identify likely utility pathways and issues that need to be addressed as part of design. The concept does not represent a design, but is for description of the site utilities needed for the Event Center project.

4.15 Energy

The State of Maryland has adopted with modifications, the International Building Code (IBC) as the Maryland Building Performance Standards, requiring buildings to be designed and constructed in accordance with the International Energy Conservation Code (IECC). In addition, the project will:

- Comply with Executive Order 01.01.2001.02 – Sustaining Maryland’s Future with Clean Power, Green Buildings and Energy Efficiency, and all of the regulations and guidelines identified in the Maryland Green Building Council Report entitled Maryland’s High Performance Green Building Program.
- Meter all utility services to the building for integration with the campus building automation system for energy management purposes.

4.16 Electric Service

- Electric service for the University is distributed from an electric substation located adjacent to the Central Plant. The total capacity of this system is 40,000 kVA with a corresponding firm capacity of 20,000 kVA. It is anticipated that the Central Plant will have the capacity, including switchgear capacity and space, to serve the Event Center project.
- Electric service to the Event Center is proposed from the Central Plant via a new dual feeder loop. The new dual feeder loop will run from the Central Plant through a new duct bank or a combination of new duct bank and existing utility tunnel to an outdoor pad mounted loop switch that will isolate the two primary feeders from the building load. Service will then be fed into the building transformer to convert 13,200V to 480/277 Volts for use in the building. The outdoor pad mounted transformer will be provided near the main indoor electrical room.
- The Consultant will confirm that the Central Plant has enough capacity to serve the Event Center.
- The Consultant will study alternatives to the pathway identified in Figure 4.8 to determine if there is a more cost effective means of serving the Event Center. One alternative is for the Consultant to work with BGE to study the potential of a new service from Shelbourne Avenue.
- The Consultant will design the most cost effective pathway and infrastructure for providing high voltage electric service to the building, including the required transformer equipment.

4.17 Natural Gas

- The 2" natural gas line running parallel to Hilltop Circle is proposed to serve the Event Center. A portion of the existing line is located within the proposed footprint area of the Event Center and will need to be replaced and rerouted to continue service to the UMBC Stadium and provide new service to the Event Center.
- The Consultant will determine the final pathway of the line and confirm that the existing line has adequate pressure and capacity to serve the new Event Center.
- The Consultant will be responsible for the design and permit of the new gas line in accordance with the requirements of Baltimore Gas and Electric and the associated right-of-way agreement.

4.18 Domestic Water and Fire Protection

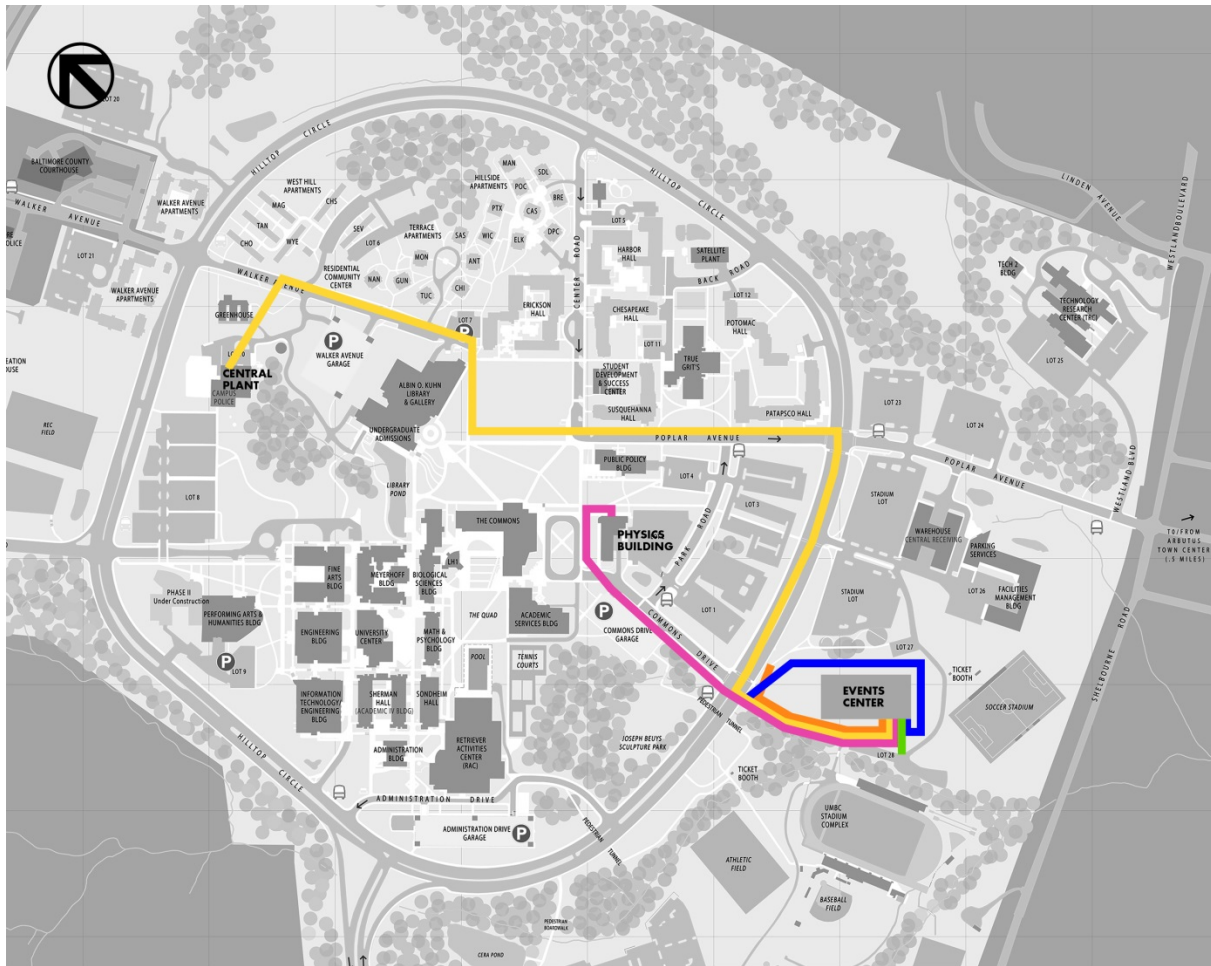
- The existing 8" water line along Hilltop Circle is proposed to serve the Event Center and required fire hydrants.
- Existing water service lines to the UMBC Stadium and Soccer Stadium will need to be maintained during construction of the Event Center.
- An 8" meter vault and service with a fire flow bypass system is proposed to serve the Event Center.
- Baltimore County may request that a looped water line service be provided to increase pressure and redundancy in the system. The Consultant will determine if a looped system is required by the County.
- The Consultant will determine and design the final pathway, size and material of the water line and confirm the capacity of the existing system to support the proposed Event Center.

4.19 Sanitary Sewer

- A new 8" sanitary service line is proposed from the building to connect into the existing 15" sanitary sewer line running west to east on the south side of the site parallel to the stream.
- A dog house manhole may be required at the connection point in lieu of a typical sewer house connection.
- The Consultant will determine the final pathway, size and material of the line and confirm that the existing 15" sanitary sewer line has adequate capacity to handle the in-flow from the proposed Event Center. Improvements to and/or relocation of the existing sewer line will require coordination and compliance with Baltimore County requirements.

4.20 Data and Telecommunication

- The fiber optic Main Distribution Frame (MDF), for the east side of the campus, is currently located in the lower level of the Physics Building. At a minimum, a new 8-pipe (each 4" diameter) telecommunication duct bank from the existing utility tunnel, located on the north side of the Physics Building, down the west side of the Physics Building to and along Commons Drive to a Hilltop Circle manhole is required. At Hilltop Circle the 8-pipe duct bank will be reduced to a 4-pipe duct bank and run east to the Event Center service entry. At the utility tunnel the telecommunication fiber will run east in the utility tunnel to connect into the MDF room in the north end of the Physics Building.
- The Consultant will study alternatives to the pathway identified in Figure 4.8 to determine if there is a more cost effective means of serving the Event Center. One alternative is to provide telecommunication service through an existing duct bank along Administrative Drive that is being reconstructed as part of another on-going project.
- The Consultant will determine the final pathway, size and design of the proposed telecommunication duct bank. Future development along Commons Drive will be considered in the design of the new duct bank. In addition, design of the new duct bank will consider future proofing to accommodate the planned MDF move from the Physics Building to the new Interdisciplinary Life Sciences Building (ILSB) scheduled to be completed two years after the Event Center.



**FIGURE 4.8
PROPOSED UTILITY PATHWAYS**

- NEW 8" WATER LINE
 - NEW 8" SEWER LINE
 - NEW 2" GAS LINE
 - NEW ELECTRIC LINE
 - NEW TELECOMM. DUCTBANK **
- * ALTERNATIVE TO PROVIDE ELECTRIC SERVICE FROM SHELLBOURNE ROAD TO BE STUDIED.
 - ** ALTERNATIVE TO PROVIDE TELECOMMUNICATION SERVICE FROM ADMINISTRATION DRIVE TO BE STUDIED.

Massing and Architectural Expression

By its nature, the Event Center scale and massing will make it one of the larger buildings on the campus. Therefore, the Consultant will study options for effectively breaking down and articulating the building massing to integrate and coordinate with other campus buildings.

The site is prominently located on the steep slopes of Giffen Hill, adjacent to the UMBC Stadium, and within view of the Academic Precinct and traffic along Hilltop Circle. Development of the site and building will be challenging, but it also offers many opportunities. These opportunities include creating pedestrian and visual connections with the Academic Precinct, adjacent athletic facilities and new I-195 entrance gateway, as well as developing a strong identity for the Athletics Precinct.

The Consultant will provide design solutions that result in a building that is inviting to the user, both as a functional structure and as a compatible element in the campus built environment. Design solutions will consider materials, scale, space, light, relationship of outdoor and indoor environments and circulation.

5.01 Massing and Structure

- To minimize the overall height of the structure the building will take advantage of the grades to nestle it into the hillside and step down to create a prominent face to the south.
- The building massing should respond to the surrounding site area, while accommodating the required functions of a tall event space and other smaller scale spaces and activities.
- It is anticipated that the building will be organized on three levels, with adequate floor to floor dimensions to accommodate the requirements of the various building systems. However, the Consultant will study and evaluate the cost-benefit of developing a fourth level (lower level) that takes advantage of the grade.
- The structural design will provide a building system that supports the program, but is also aesthetically pleasing and architecturally striking and complementary to the expressions of the facility.
- The structural design will accommodate the functional service needs, while meeting current codes and standards for sustaining all loads imposed on the building system.
- During the design phase, mechanical, electrical, plumbing and civil design will be coordinated with the structural elements to avoid any potential conflicts and minimize unplanned penetrations of floors and other structural members.
- It is anticipated that a long span steel frame will be employed to support the roof of the event space. The floor to underside of structure should provide a minimum clear height of 41 feet plus. The remaining structural frame system for the building should be economical

yet flexible. Multiple systems will be analyzed and tested against the project schedule and construction cost.

- The building will be designed for dead, live and seismic loads in accordance with all current applicable building codes.
- All equipment on the roof will be supported on dampening pads to minimize the effects of vibration and noise.
- All exposed equipment will be screened from view.

5.02 Exterior Architectural Elements

- The Event Center will be compatible and complementary to the architecture style of the latest buildings on campus, extending the modern vocabulary, while providing the warmth and scale of modular clay brick. The architectural elements and materials should be tested, low-maintenance systems with a service expectancy of more than fifty years. The University anticipates that a combination of metals, glazing, brick and precast concrete units will be used in the design of the building exterior in proportion to the functional aspects of the building
- The roof systems will provide a canopy celebrating the main entry of the building and will be clean of all major mechanical systems, as it will be highly visible. Major mechanical systems will be integrated in the lower flat roof structures and located within enclosed mechanical rooms or penthouses. Attention throughout the design process is required to ensure that major equipment, stacks, and penthouses are orderly and attractive when viewed from adjoining buildings and open spaces. No exterior ductwork is permitted other than hood exhaust.
- Mechanical equipment will be concealed in a penthouse.
- Consider and analyze the feasibility of including green roofs in the overall design of the project.

5.03 Relationship to Exterior Spaces

- Develop an exterior plaza to the west which will act as a gathering space for the students and public coming to an event.
- Moving beyond the main entry, a series of terraced steps and plazas will provide a transition down the slope of the site and provide access at the lower levels of the building and to the UMBC Stadium.
- By organizing the building to provide direct ground floor access from the main gathering plaza, the building's exterior serves to enhance the notion of entering the Athletic Precinct.
- The Event Center will require significant service access for team buses, TV broadcast trucks and deliveries in tractor trailers. A service yard is to be located to the east with access from

a newly graded and designed service roadway. The service yard will be designed to be hidden and screened from significant campus views and will provide an efficient back of house staging area for events.

- Entries will be at or just above grade with each primary entrance designed for use by individuals with disabilities as well as service deliveries and other general traffic. Weather protection at building entries will be provided by overhangs, canopies, or recessed doorways. Vestibules will be provided at each major entrance.
- Care will be taken in the design of roof details and walking paths to avoid hazards associated with snow or ice falling off of the building.

Interior Architectural Planning and Design

The interior of the new Event Center will represent the highest quality of spaces and material for the University. The Event Center will offer a fan friendly atmosphere, circulation that is clear and concise, and an interior palette of finishes and color that create excitement for a new era of UMBC events and athletics.

5.04 Building Organization

- The Event Center will have three major programmatic zones, each with distinct user group needs. The first two involve the event aspects of the building. The nature of an event center is that there is a public/spectator zone and a 'back of house'/ service zone. The relationship of spaces to one another, issues of convenience, access and security, and service requirements will be considered by the Consultant in the design of the building.
- A third programmatic zone, with distinct and interrelated user group needs is the Athletic Department which includes both administrative and student-athlete services. The relationship of spaces to one another, issues of convenience, access and security, and service requirements will be considered by the Consultant in the design of the building.
- The Consultant will organize the building to have:
 - Public level access from the west for spectators, circulating around a perimeter concourse, and to access their seats to view an event. Service access to the event floor will be from the east to provide service for deliveries, stage and floor seating set ups.
 - Athletic Department administration spaces located on the west side one level above the public concourse.

Student athlete support spaces are envisioned to be located at the court level or below. The Consultant will develop concepts for 3 and 4 story configurations to determine which has the greatest cost-benefit.

5.05 Circulation

- The circulation patterns between and within each programmatic zone will minimize conflict and coordinate crossing paths. The relative size of the horizontal and vertical circulation elements, like entrances and corridors, will be appropriately sized to directly serve the movement of people from one area to another.
- The main entrance will immediately convey a sense of the building and its activities to both the first time visitor and persons well acquainted with the building. The space will be inviting, provide a sense of excitement, and of a scale to visually impart a sense of direction moving along the concourses to the focus of activity on the event floor
- Vertical circulation directly accessible from the main concourse and dedicated entrances will link all levels containing major athletic administration and support spaces.

5.06 Bowl Configuration

- The seating bowl will be configured to provide optimal sight-lines to sporting events, lectures concerts and other events. To maximize spectator sightlines for a floor stage event, the seating bowl will be designed in a 'horseshoe configuration' with fixed tiers of seating on three sides of the event floor.
- The fixed tiers for seating will be constructed of precast concrete on a structural frame, of steel or concrete. Movable and retractable seating will be incorporated to provide flexibility for hosting a variety of events.
- The consultant will study the cost-benefit of providing a split bowl of multiple tiers of seating or a continuous bowl of seating tiers to achieve optimal sight-lines.
- Sightlines for all seating areas will be column free and the tiered seating rakes will provide for optimum viewing angles with the ability to see clearly to the nearest point of focus on the event floor over the head of the spectator below. This value, referred to as 'c' value will be a minimum of 2.5", which allows a clear view over the head of the spectator two rows in front.

5.07 Court Requirements

- The primary sporting events to be played will be NCAA men's and women's basketball and women's volleyball. The court configuration for basketball will be in accordance with NCAA requirements and volleyball with USA Volleyball requirements.
- The primary surface of the event floor will be a finished sealed concrete floor to accommodate a variety of events. The court surface for athletic events will be a top quality portable wood floor with painted lines and logos for basketball and volleyball. The sports floor will be stored in a climate controlled store room when not in use for athletic events.
- The nets, goals, official's tables and other timing and scoring equipment shall also be of professional grade and portable with permanent imbedded supports as required.

- See Section 5.38 for court lighting level requirements.

5.08 Flexibility

- The Event Center will be designed and configured as a multipurpose facility, meeting the needs of both special events and athletic competition. Inclusion of an auxiliary gymnasium will allow team practice and training during events occurring in the main event space. As an alternative the Consultant will design through Design Development Phase a two court Auxiliary Gym and two additional Visitor Locker Rooms (See Section 3.02 Consultant Services).
- The Consultant will study and make recommendations for movable and retractable seating that allows the event floor to be configured for many kinds of events: basketball and volleyball, and non-athletic events such as commencements, lectures, trade and job fairs, lectures, large dinners and concerts.
- The Consultant will provide alternate event floor configuration diagrams illustrating in detail how each of the events will be configured and operated.
- The court level will accommodate a draping/curtain system, that can work in tandem with the lighting system, to reduce the scale of the space for competition and events and allow for multiple configurations of the event floor and seating bowl.

5.09 Seating Criteria

- Primary seating for the Event Center will be a durable and comfortable stadium type chair with heavy aluminum or cast iron supports, riser mounted with arm rests to support durable one piece injection molded plastic seat bottoms and backs. The seats will be self-rising to allow clear access ways, as required, along the rows.
- Retractable seating will also be used to enhance the flexibility of the Event Center. The Consultant will determine to what extent retractable seating verses fixed seating shall be used.
- Seats will be a minimum of 20" wide, center to center and may vary in width to align aisles and other access ways.
- Padded or upholstered seats will be used in seating areas for premium seat holders, guests and Retriever Club members. The seats in premium areas will be a minimum of 22" wide center to center and may vary in width to align aisles and other access ways.

5.10 Accessibility

- The design will provide for the convenient use of the facility by individuals with disabilities.
- Design pertaining to use of the facilities by individuals with disabilities will conform to current ADAAG regulations and Maryland accessibility codes.

5.11 Patron Amenities

- Patrons that visit the Event Center will be served by the customary amenities typically found in assembly facilities; these include the main concourse, public restrooms, food and beverage concessions, and merchandise and novelty outlets.
- Restrooms will be evenly distributed around the seating bowl and be convenient to the seating areas. Restrooms will be sized to meet the minimum building code requirements for fixture counts. The Consultant will study enhancing these counts to accommodate crowd conditions at peak times during an event.
- Food and beverage concessions will be evenly distributed around the seating bowl and be convenient to all seating areas.
- Merchandise and novelty outlets will be provided in areas located off of the main concourse and near entries. These outlets are for the sale of team merchandise and event keepsakes. A main store will be provided for sales of merchandise to the public on non-event days.
- Other patron amenities will include a ticket and box office for the convenience of purchasing and collecting prepaid tickets, guest service attendants for information, lost and found and a first aid station.

5.12 Food Service

- Foodservice in the Event Center will complement the user experience and will be provided as either concessions food or banquet meals. Each, while sharing some basic facilities, will be sourced differently.
- Event food will be available in concession stands located off of the public concourse. The concessions menu will be limited in offerings. Most food will be served in either an as-purchased state or based on prepared product shipped in from an off-site location. No primary cooking will be possible in either the concessions themselves or in any on-site support space, except as may be accomplished with owner-provided countertop equipment such as popcorn poppers, pretzel ovens, hot dog roller grills, and similar equipment. Concession infrastructure will include multiple electrical outlets with a variety of plug configurations and voltages appropriate to support equipment.
- Banquet meals will be provided for special events located on the event floor for up to 500 guests and will be supported by a support pantry located near the service and loading areas. The support pantry will have space and equipment to facilitate banquet service.
- Banquet meals will be provided for the hospitality area of the Retriever Club. This service will be provided during events or non-event days that may be hosted by the University.
- The onsite storage will be located adjacent to the concessions storage room where all as purchased (ready for sale) products will be stored, along with any necessary disposable service wares and any swing equipment the owner determines to provide.

5.13 Quality of Light

- Natural day lighting will be incorporated into main public entrances, athletic administrative suite and adjoining hospitality lounge.
- Natural light is encouraged at the main Event Center entrance, but will require control from spilling onto the event floor during light sensitive performances.
- The Consultant will reference and apply all best practices and standards from the Illuminating Engineering Society of North America Lighting Handbook and the criteria in the design of the project.

5.14 Sustainability Issues

- The Event Center will achieve a minimum of LEED Silver certification with Gold as an aspirational goal.
- The Consultant will incorporate materials and systems into the design that will allow sustainable maintenance and reliability over the fifty year plus life of the facility.
- In addition to creating an environmentally responsible facility, the building will be a showcase for education, community outreach, and environmental awareness.
- The Consultant will provide cost-benefit/life cycle analyses for systems having alternative performance criteria which have potential environmental benefits. These criteria include increased thermal comfort zone, lower ASHRAE design temperature criteria and other energy saving strategies.

5.15 Interior Materials and Finishes

- Materials and finishes, both interior and exterior, will be selected to meet: durability, aesthetic considerations, acoustical requirements, ease of maintenance, conservation of energy, sustainable manufacturing processes, and indoor environmental quality.
- Architectural finishes are important and consideration for maintainability and durability will be a design priority. All materials, including design details, will be analyzed for their effect on durability and ease of maintenance, and attention will be given to areas of high traffic (corridors). Special care will be taken at building entrances to provide for the removal of dirt and sand.
- Surfaces will be selected to provide a monolithic, cleanable surface, free of cracks or ridges. Floor-wall joints must be designed to allow easy cleaning.
- Doors will be sealed against pests and vermin and all penetrations of pipe, conduit, etc. will be sealed for sound, fire, smoke, and pest control.
- Floor surfaces will be appropriate to the function of the space. Surface materials will be selected to respond to maintenance needs as well as to the function and acoustical needs of the spaces. Materials will generally be long-lasting and easily cleaned.

- The minimum specifications for carpet used will include performance requirements for static protection, Radiant Panel and Aminco Smoke Chamber Test passage, Steiner Tunnel Test (ASTM 84) passage, light fastness, tuft bind, delimitation, abrasion resistance, compression resistance, and acoustical qualities.
- The Consultant will take special notice of requirements for change in texture of floor surface where potential dangers to persons with disabilities exist.
- The Consultant will develop detailed product and installation specifications, and coordinate the review of these with UMBC prior to adoption.
- In the selection of building materials, the Consultant will take into consideration the off-gassing properties of selected building materials and finishes, especially those of wet pollutant emitters (e.g., paints, mastics/glues, etc.), in relation to maintaining good indoor environmental quality. Selected carpets will carry the Carpet and Rug Institute (CRI) IAO Logo in accordance with OSHA 29 CFR 1910.1001 - Air Contaminants and BOCA 3307 -Health Standards.

5.16 Furniture and Equipment

- Furniture and equipment layouts will be used to illustrate the function of each space. The Consultant will show all furniture and equipment at the Design Development phase to ensure that the proportion and size of each room provides for the function of the space.
- The selection of movable equipment and furniture is the responsibility of the Consultant. The Consultant is required to provide a prototypical layout to demonstrate space functionality, specify furniture and coordinate installation with the CM.
- Primary lists of equipment required to support this program are outlined in Section 6 Space Requirements. These lists are provided within the individual space sheets and are to be used as a starting point.
- Existing and new equipment as identified in the program space sheets are categorized as either "built-in equipment" or "moveable furniture". In addition, most space sheets include an equipment list table that documents additional information and specialized equipment, including responsibility for providing the item and for installing it.
- Items identified as "specialized equipment" will be included in the contract documents, unless they are identified as *Furnished and installed by Owner*. The Consultant will specify manufacturer, style, sizes, and location of this equipment and require the CM provide this equipment as part of the contract.
- The Consultant is equally responsible to specify the moveable furniture, and coordinate manufacturer's, models, finishes and numbers of items. The Consultant will provide a design to accommodate all furniture and include floor plans that illustrate the layout of furniture and the location of supporting utility infrastructure.

- The Consultant will specify manufacturer, style and sizes of sports equipment including those that are repositionable, temporarily attached to floors and walls, or permanently fixed to the building. The Consultant will consider ergonomic factors in the selection of furniture and the development of equipment layouts.
- Furniture specification will be in compliance with the Maryland State Facility and Maryland Correctional Enterprises (MCE) regulations.

5.17 Signage and Graphics

- The Consultant will design an identification, events messaging and directional system to communicate information essential to the operation of the new facility. The interior and exterior way-finding, events signage and graphic system is to assist individuals moving to, and within the facility. In accordance with ADA requirements, particular attention must be given to the needs of individuals with disabilities to access the building from adjoining parking areas and walkways, and to circulate effectively throughout the building.
- Branding will reflect or relate to the colors, brand and mascot of the University and Athletic Department.
- Way-finding will be organized to easily move crowds to their seats and to assist them in navigating to their seats.
- The Consultant will coordinate all interior and exterior graphics with UMBC standards. All signs will reflect standards established by UMBC in construction, location, color and lighting.
- The Consultant will develop a room numbering system in accordance with UMBC standards during the Schematic Design Phase and subsequent design phases for review and approval by the University.

5.18 Security and Access Control

- Building security measures will provide personal safety and security for occupants as well as provide measures to protect personal and University property. These include site lighting, physical deterrents to unauthorized entry, security communications systems and equipment, and emergency power for all electric locks and accessible door equipment.
- Provide appropriate exterior lighting to the building entrances and along all paths in accordance with UMBC standards. Provide lighting at all service entries and the loading area.
- Security cameras will be positioned on entry doors, the loading area and the roof (for recording activities in adjacent open spaces). On the inside, cameras will be positioned at the entries/exits.
- The fiber optic security equipment must be tied to the campus security infrastructure with alerts sent to the UMBC Police department.

- A security system, as specified and approved by UMBC, must be installed in the building. Door prop alarms for card controlled doors, fire alarm reporting, alarm signals for high-value / hazardous spaces, and environmental monitoring for critical spaces will be connected to the security system.
- All access control hardware, security system hardware will have a conduit installed from the location of the hardware device to within 18" of the closest communications basket tray.
- Security cameras and respective lighting will be on e-power. Lighting, in corridors and rooms video-monitored, will not be controlled by wall switches at the entrance or exit to the space. To conserve energy not all lights in a monitored space need to be on and interior lights can be controlled by switches.
- Provide emergency phones linked to the UMBC call response system.
- Provide card readers for access to all primary, secondary and service entrances to the building. Other card readers for suites and spaces within the building may be required by the University. Provide key overrides for all doors with card reader access.
- Private offices and spaces will be key controlled only. Building service spaces, like data and telecommunication rooms, janitorial closets, building storage, etc. will be both card and key controlled.
- Electronically controlled doors must operate via an electric strike. Emergency power is to be provided for all doors equipped with hardware to make them accessible to persons with disabilities.
- Access control to and within the facility will be designed to provide flexibility in segmenting and securing major functional and access areas of the building from each other to allow management of the building by multiple end users and/or concurrent events. Life/safety and fire egress should be accommodated in all design scenarios.

5.19 Audio/Visual and Acoustics

- Each space in the building will be designed to provide appropriate noise reduction for its scheduled use. Speech intelligibility for both sporting events and other functions in the main arena is critical. Sound isolation is also of utmost importance. Criteria for noise reduction and sound isolation is provided in the space sheets as a guide – the Consultant will employ “best practices” in this regard. This includes sound generated by equipment and users in adjacent rooms as well as by the building mechanical systems.
- Audiovisual Systems design will be required throughout the building and include meeting rooms, the hospitality room, press/video viewing room, media areas, locker rooms, coach’s offices, team rooms, as well as the scoreboard/video-board, ribbon displays around the arena and the associated production areas. The Consultant will be responsible for both infrastructure requirements and detailed system design.

- Mechanical system design must provide sufficient attenuation of noise generated by air flow through ducts and diffusers, as well as noise generated from system components in all occupied spaces.
- Spaces that contain noise generating equipment will be designed in locations away from spaces requiring background noise levels of RC-35(N) or below. If the final design requires adjacencies that cannot meet these requirements, adequate sound isolation must be provided. This may require structurally isolated box-in-box construction.
- The main arena will require sound absorbing treatments to minimize propagation of sound within the space in order to maintain speech intelligibility.
- The arena is planned to have two mounted scoreboards at each end. They will include a main scoreboard for basketball and volleyball with an HD video-board. A ribbon display will be provided that supports graphics and sponsor generated content. Sporting events scoring will be done from a scoring table on the event floor. Both basketball hoops will have shot clocks and all team and officials locker rooms will have synced game clocks. Multiple stage locations will be supported. To support connections for audio, video and scoreboard systems a minimum of six floor boxes will be located on the gymnasium floor.
- The sound system incorporated into the main event space for all seating sections will utilize distributed and zoned loudspeaker configuration, which will support speech intelligibility for announcements and music playback during games or other events. Speakers will be directed at the seating areas with each side as a separate zone to allow either side to be muted as needed. The main court or seating area will also be served by an additional zone for the players during a game or the floor seating during a commencement exercises or other functions.
- A multi-channel mixing console with outboard signal-processing equipment will be provided for incorporating all of the audio sources. On the main floor there will be two announce positions (main & auxiliary) for basketball and volleyball games. A wireless hearing assist system will be incorporated to meet the needs of the hearing impaired and comply with ADA regulations.
- A production switcher position will be located in the production control area. Four camera locations will be prewired for cameras. High definition portable cameras will be used for video capture and processing with the potential to show captured video content on the scoreboard video system. Source devices for the scoreboard system will include a Blu ray (DVD) player and a video server. The majority of the system's equipment will be housed in equipment racks that will reside in a dedicated AV rack room. The system will be controlled by a "user-friendly" control system. This system will provide a graphical user interface and will being reconfigurable for future multimedia needs including graduation & other special events.

- A series of conduits will be installed to allow for a Broadcast Production Truck to park outside of the building and set up for a live event broadcast. A parking pad and power connections will need to be located in accessible area outside of the Event Center.
- Press and media will be supported on the main event floor behind the team benches. Infrastructure will be provided for up to 12 analog/ISDN locations simultaneously during a basketball game with 12 adjacent data outlet connections.
- Design of the study hall and computer labs must provide for a high-quality acoustically-controlled learning environment which facilitates group learning. Sound transmission between classrooms and from corridors must be controlled. Acoustic treatments must be employed to minimize propagation of sound within the room. Presentation systems with fixed projectors and integrated projection screens will be required.
- The auxiliary gymnasium will require an overhead sound system to support speech intelligibility for announcements and music playback during games or practice. Wired and wireless microphones will be supplied for complete flexibility.
- The auxiliary gymnasium will have one score board for use during practice. The scoreboard will have a wireless controller for flexibility and ease of operation.
- The hospitality room will require audiovisual components for presentation, videoconferencing, audio conferencing and video capture. This will require a mix of flat panel monitors and a projection system for different configurations. The system will be controlled by a “user-friendly” control system. This system will provide a graphical user interface with room configurations and high level functions that have accessibility limited to specifically trained personnel.
- Each Head-Coach office will require a 50” flat panel monitor connected to a resident computer. Assistant Coaches offices will include connections for a future flat panel appropriately-sized for the offices.
- Conference Rooms and Meeting Rooms will require appropriately-sized flat panel monitors with integral smart technology plus inputs for laptops and auxiliary video devices.
- The Video Viewing Room/Press Room requires a higher level of acoustical treatment to prevent noise from entering the space and private team meeting audio from being overhead outside the space. Presentations will require both a 50” flat panel monitor and a white board with integral projection with inputs for laptops and auxiliary video devices. This space also requires a quality sound system with iHome (or similar) connectivity. The room will also require lighting for video, network connectivity and a cable pathway to both the production room, TV truck parking area and Video Review Room noted above.
- Team Informal Meeting Rooms require a wall mounted TV with iHome (or similar) and video game connectivity.
- The Academic Achievement Center group tutoring and classroom will require presentation capability including a drop down projection screen and fixed projector with inputs for

laptops and auxiliary video devices. This space will also require a quality sound system with iHome (or similar) connectivity.

- The Strength and Conditioning Room will require a quality sound system with iHome (or similar) connectivity, as well as flat panel displays at appropriate locations.
- Digital Signage for all major spaces will require an adequately sized monitor, a digital signage player and potential TV receiver.
- A whole building paging system will be required with multiple zones for different event modes of operation.
- Intercom capability will be required from the production room to multiple locations including the visiting team and auxiliary locker rooms which will be used as performer changing rooms for events, multiple follow-spot location both on the top of the bowl and catwalk locations.
- The Event Center will be designed to meet or exceed specified ambient noise levels and sound transmission criteria (STC) for the following room types, unless called out specifically in the individual space sheets.

Type of Space	Room Criteria	STC Rating
Study Hall	RC30-35(N)	STC 45-50
Meeting Rooms	RC25-30(N)	STC 50-55
Production Space	RC20-25(N)	STC 60-65
Offices	RC30-35(N)	STC 40-45
Conference Rooms	RC25-30(N)	STC 50-55
Lobby/ Lounges	RC35-40(N)	
Corridors	RC35-40(N)	

5.20 Vertical Circulation and Elevators

- The stairways will be designed as inviting links among all floors providing access and discouraging elevator use. The location and design of the staircases will be deliberate and visible.
- The building will incorporate a fast, flexible, and easy to use the elevator system. It is expected that two passenger elevators will service this building. Each passenger cab will have a minimum capacity of 4000 LBs and be well lit. Finishes will be durable and vandal resistant. Elevator wainscots will be reinforced to prevent damage from cart traffic.
- Food service will be provided to all levels via a service elevator will be remote from the passenger elevators.
- Elevator telephone service and ring down will be provided with the campus telephone system. Elevator telephones must be of the specific model and type stated in the UMBC Communications Services Specifications. The elevator car will house all instruments and

equipment compatible with UMBC standards and systems. All keyed switches will match current key systems (H259) except for fire service barrel key EPC 02. Elevators will be equipped with Remote Elevator Monitoring system.

- Provide the service elevator with card key access.

5.20 Material Delivery and Removal

- The loading area will have direct access to the event floor level, fuel tank of the emergency generator, a trash and recycling room. Overhead doors from this area will provide access to the event floor and will be a minimum of 14'-6" in height meeting Maryland State Highway requirements. All other overhead doors shall be a minimum of 10'-0".
- UMBC does not utilize exterior trash dumpsters for the removal of refuse from buildings. Disposal of trash and waste will be deposited in a compactor room with ease of access from the service yard.
- An area convenient to the building will be provided for storage of several recycling containers to store recyclables from the facility including: organics/compost, glass, metal, cardboard and paper.
- The service elevator will provide access to all levels, and be the principal access for distribution of materials and food service goods to the concourse concession stands and upper level hospitality spaces.
- Secondary containment will be provided for any fuel tanks associated with the on-site emergency generator.

5.22 Maintenance

- The Consultant will minimize maintenance problems by designing and laying out building systems, selecting equipment and finish materials, and designing other areas which directly affect annual maintenance operations and costs in consultation with UMBC.
- The Consultant will recommend the best available equipment, but not equipment soon to be obsolete. Specific requirements the Consultant will meet are:
 - Mechanical spaces will be accessible from public corridors and not require access through private spaces. Mechanical spaces that allow access from the exterior into the remainder of the building will be avoided.
 - Major mechanical chases will have spare capacity for future additions and modifications of building systems. These spaces will be blocked out during construction and monitored to prevent unauthorized use.
 - Specification of equipment which requires highly technical skills and procedures or specialized equipment tools for its repair will require thorough evaluation to determine acceptability to UMBC.

- Durable and easily maintained floor materials will be specified for high use areas and compatible with area functions.
- The Consultant will ensure accessibility to equipment for its maintenance, repair, removal, and replacement with minimal effort.
- The Consultant will develop an equipment numbering scheme, approved by the University, and use this numbering scheme to identify the equipment on drawings, submittals, name plates, and maintenance management forms. The Consultant will include this information the construction document specifications.
- The Consultant will address in the construction document specifications the requirements for the CM to provide detailed and comprehensive operations and maintenance manuals for all equipment and systems in an organized format. The Consultant will also stipulate the requirement for attic stock or spare parts allowances for early consumables, e.g. filters for air handling equipment.

5.23 Safety

- The UMBC Safety Office is responsible for inspection and evaluation of safety related problems on campus and is staffed with professionals trained in the various aspects of fire and life safety and bio-hazardous containment. Campus criteria for installation of fire alarm systems, extinguisher cabinets, sprinkler systems, fire lanes and ventilation will be provided by the University. Interconnection of the fire alarm system to the existing campus security monitoring system will be coordinated with the UMBC Department of Communications Services.
- The Consultant will investigate all potential fire and life safety problem areas, including those that may be generated by the program requirements. Below is a partial list of requirements:
 - All fire equipment is to be clearly visible and graphically designated. Systems will report locally within the building and to the central reporting center operated by the UMBC Police Department.
 - All materials used in the building will be selected with regard to flammability and the types of gasses produced by combustion.
 - Emergency access and egress routes will be clearly identified and physically apparent to the building occupants.
 - Ventilation systems will minimally comply with the latest standards set by the American Conference of Governmental Industrial Hygienists, BOCA Mechanical Code, ANSI/AIHA Z9.5, OSHA, ASHRAE, and SMACNA, as well as with other applicable codes and standards.
 - The energy monitoring system and security and safety systems will be interconnected with the UMBC campus central system and include card access as

required by the University. All components utilizing the campus security monitoring system must match existing equipment, conform to UMBC standards, and be coordinated through the UMBC Department of Communications Services.

- The Consultant will perform a lightning protection analysis to evaluate the requirement for a lightning protection system. The Consultant will design a lightning protection system around the perimeter of the roof, flat copper conductor cables, and copper coated steel ground rods. The system will be installed by a certified lightning protection installer, be in full compliance with ANSI/UL 96 and ANSI/NFPA 780 or latest editions, and have a UL Master Label when completed.
- A ground point, connected to the building lightning protection system, will be installed at all points where low voltage cabling enters the building. Surge protectors will be installed at any point where conductive cabling enters the building. These surge protectors will be installed in locations that are accessible and serviceable. A ground bar, connected to the building lightning protection system, will also be installed in the data and telecommunication closet on the highest floor of the building. It will be located at the point where the roof conduits enter the communications closet.
- Mass notification hardware and equipment will be installed to display emergency messages throughout the building. The displays will work with the UMBC Text Messaging system operated by the UMBC Police Department. Displays will be located at all elevator lobbies, building entrances, stairwell doors, and the loading area.

Mechanical and Plumbing

5.24 General Criteria and Codes/Standards

Following is a summary of HVAC, plumbing and fire protection design criteria for the major spaces in the Event Center. These criteria will be used where “Standards” are referenced in the room data sheets. The building will be designed to achieve a LEED Silver Certification.

The latest version of the referenced codes will apply unless otherwise directed by the University. Standards and guidelines are intended to establish the minimum design criteria for the project with final acceptance for potential variation by the University.

All alternative mechanical and plumbing systems will be selected on the basis of life cycle cost analysis (LCCA). The Consultant will focus on and provide a design that provides flexible, maintainable and reliable building systems.

The design will adhere to:

Most recent UMBC campus design standards and preferences

IBC

IMC

NSPC

IECC

NFPA 101

NFPA 13/14

ANSI 17.1-Elevator Code

ASHRAE Handbooks- HVAC System Design Guidelines

ASPE Handbooks- Plumbing design Guidelines

SMACNA- Ductwork Design Guidelines

ASHRAE 62.1-Ventilation Standards

ASHRAE 90.1-Energy Guidelines

5.25 Design Criteria

- Outside Design Conditions:

Summer: 89 degree F DB / 73 degree F WB (2% ASHRAE)

Winter: 18 degree F DB (99 %ASHRAE)

Cooling Tower Selection: 80 degree F WB

- Inside Design Conditions (occupied):

Temperature/ RH (Event Space):

Summer: 74 F DB / 60% RH maximum

Winter: 70 F DB / no humidity control

Temperature/ RH (Exercise Spaces /Strength and Conditioning/Training Rooms):

Summer: 74 F DB / 60% RH maximum

Winter: 72 F DB / No humidity control

Temperature/ RH (Office/Support Areas/): Offices / Ticket Sales / Other):

Summer: 74 F DB / 60% RH maximum

Winter: 70 F DB / no humidity control

Temperature/ RH (Storage Areas / Mechanical Rooms / Electrical Rooms):

Summer: 78 F DB / 60% RH maximum

Winter: 70 F DB / no humidity control

- Inside Design Conditions (unoccupied):

Temperature/ RH:

Summer: 80 F DB / 60% RH maximum

Winter: 55 F DB / no humidity control

- Occupancy schedule:

Obtain from UMBC Event Center hours of operation and occupied/unoccupied periods. Incorporate these data in energy model and final BAS sequences of control.

5.26 Ventilation/Filtration/Pressurization /Air change rates:

General

- The building will be pressurized to reduce infiltration of moist humid air in the summer and cold air in the winter.
- All areas will be ventilated following ASHRAE 62.1 standards. Carbon Dioxide sensors will be installed in high people density spaces to reduce supply air to spaces (e.g. Conference rooms) to minimize outdoor ventilation air requirements.
- Occupancy sensors will be specified to shut-down air to spaces when not in use to reduce building supply air requirements.
- Make up air for the food service spaces will be supplied from the air handling units serving the support spaces. Much of the make-up air will be transfer air from adjacent spaces.

Specific

Event space floor area:	4 ACH supply air occupied / MERV 13 filters / positive.
Event space spectator area:	6 ACH supply air occupied / MERV 13 filters / positive.
Concourse:	2 CFM/SF supply air, exhausted through toilet rooms.
Locker rooms / Team rooms:	1.75 CFM / SF supply air, exhausted through toilet and shower rooms. Ensure locker rooms are slightly negative relative to adjacent spaces
Office & Support Areas:	3 ACH minimum occupied / MERV 13 filters / positive.
Circulation Areas:	ASHRAE 62.1 / MERV 13 filters / positive.
Building Service Areas:	ASHRAE 62.1 / MERV 13 filters /

negative/continuous exhaust as required by code.

Mechanical / Electrical Areas:

ASHRAE 62.1 / MERV 13 filters / negative.

5.27 Equipment cooling loads:

Strength and Conditioning Rooms:

6 Watt/SF equipment load.

5.27.1 Specific Criteria

- Equipment will be selected for 1/3 of the peak design load. For example each pump in a three pump system will be selected for 1/3 of the peak design flow.
- Air handling equipment: Manifold air handling units to provide some redundancy for during repair or servicing.
- Heating equipment: Provide emergency power for boilers, heating pumps and coil freeze protection pumps
- Cooling equipment: Provide emergency power for small stand-alone cooling systems only.

5.28 Cooling Source and Distribution

- The building will be cooled by a stand-alone cooling system comprised of water cooled chillers, matching cooling towers and variable flow pumping systems.
- High efficiency, oil free chillers will be designed to achieve water supply at 44 degree F. Chilled water will be returned at 60 degree F to minimize pump energy cost. Chillers will use variable primary flow to minimize equipment first cost and optimize energy efficiency. This set up also reduces floor space required for equipment and minimizes maintenance costs. Provide flow meters at evaporator and condenser barrels and modulating flow control valves in chilled and condenser water supply piping to ensure equal flow and also minimum flow under all operating conditions.
- Chilled water will be distributed throughout the building by a variable flow chilled water pumping system. All cooling coils will have 2-way control valves.
- Air handling unit cooling coils will have a side stream circulator sized at 50% of coil flow. This circulator will operate below 35 degree F to protect coils from freezing and eliminate the need to drain cooling coils in the winter.
- Heat rejection will be accomplished with matching cooling towers. Towers will be winterized to allow instant use during mild winter days. Towers will be equipped with variable speed fans to minimize energy consumption. Cooling towers shall be located to ensure no entrainment of moisture in building air intakes. Also the cooling towers shall be hidden behind full height screen walls, not to be visible from grade level.
- Condenser water flow will also be variable flow to optimize cooling plant efficiency.

- Critical data and telecom rooms and also elevator equipment rooms will have standalone cooling systems. Standalone cooling systems shall be able to operate at an outdoor ambient temperature of 0 degree F.

5.29 Heating Source and Distribution

- The building will be heated by a stand-alone heating system comprised of gas fired heating hot water boilers and a variable primary flow pumping system.
- Boilers will be of low temperature condensing design fueled by natural gas to optimize energy use. Heating hot water supply to the building will be 140 degree F. Design hot water return will be 110 degree F.
- Boilers shall be capable of utilizing variable boiler flow. Dedicated, constant volume, boiler pumps shall not be used. Elimination of boiler pumps will minimize equipment first cost and also optimize energy efficiency. This set up reduces floor space required for equipment and minimizes maintenance costs. Boiler flow isolation valves will be installed to stop flow through boilers not in use. Minimum boiler flow by-pass valve shall be provided to ensure minimum boiler flow at low heating loads.
- Heating hot water will be distributed throughout the building by a variable flow heating hot water pumping system to air handling unit heating coils, unit heaters, cabinet heaters and reheat coils associated with variable airflow (VAV) boxes. All heating coils will have 2-way control valves.
- Provide perimeter fin radiation at all large expanses of perimeter glass.
- Air handling unit heating coils will have a side stream circulator sized at 50% of coil flow. This circulator will operate below 35 degree F to protect coils from freezing.

5.30 Central Air Handling and Exhaust Systems

- Separate air handlers will be utilized for the main event space, auxiliary gymnasium and support spaces throughout the building.
- The main event space will be served by three constant volume air handling units equipped with variable speed drives to optimize operating efficiency. Units will have manifolds to allow one or two units to supply the event space during low occupancy (e.g., basketball practice or event set-up) conditions.
- The auxiliary gymnasium will be served by one constant volume air handling unit equipped with variable speed drives to optimize operating efficiency. The variable speed drives will also allow the unit to operate at reduced airflow during low occupancy mode.
- Event space and auxiliary gymnasium air handling units will incorporate return air by-pass (RAB) downstream of the unit cooling coils to minimize reheat required during constant volume operation while limiting space humidity below 60% relative humidity (RH). This will reduce load on the heating plant and the cooling plant.

- Strength and Condition and Sports Medicine rooms, offices and concession space will be served by four variable air flow air handling units. Variable airflow supply air units in combination with variable air volume (VAV) boxes with shut-off capability and associated occupancy controls will ensure that only spaces in use will be fully air conditioned.
- All air handling units will be of commercial grade, modular, double wall design. All units will incorporate 100% economizer ability. Units will incorporate return fan section with direct drive plenum fans, outside air/mixing box section, air blender section, MERV 8 pre-filters section, pre-heat coil section, cooling coil section, supply air fan section with direct drive plenum fans, MERV 13 final filtration section and discharge plenum section. All fans will be variable speed. Duct mounted sound attenuators will be used to prevent excessive noise generated from the unit to reach occupied spaces.
- In lieu of return plenum and return fan section integral with the air handling unit, mixed flow wheel direct drive inline return fans located adjacent to the air handling units may be used. This will reduce mechanical space required for air handling equipment.
- Exhaust systems will be provided for general exhaust (e.g. toilet and shower room exhaust) and specialty exhaust (e.g. kitchen hood exhaust, refrigeration room exhaust).
- A smoke evacuation system for the event space will be provided.
- Study, and review with Owner, locating air handling units outside.

5.31 Air Distribution System

- Supply ductwork upstream of variable volume boxes will be designed for SMACNA 3 inches WC pressure class. Duct airflow velocities will be limited to 1800 feet per minute (FPM) to reduce duct generated noise within the building and save fan operating energy cost. Also ductwork upstream of the VAV boxes will be sized for maximum dynamic air pressure drop of 0.15 Inches WC/100 feet equivalent duct length.
- Employ services of an acoustical consultant to target space noise criteria and also to review building system designs to ensure that the noise criteria are maintained.
- Ductwork downstream of the VAV boxes will be sized for maximum pressure drop of 0.1 Inches WC/100 feet equivalent duct length.
- In general ductwork will be G90 galvanized steel. Stainless steel will be used for moisture laden air streams (e.g. shower room exhaust, dish washer exhaust), as the air stream dictates. Acoustical duct sound lining will not be allowed.
- All ductwork will be sealed in excess of Class A. All joints, seams and duct penetrations will be sealed. Leakage rate will not exceed 2 CFM per 100 SF of ductwork at 3 inches WG duct pressure.
- Commercial VAV terminal units with hot water re-heat coils will be used throughout the building. Series fan powered VAV units will be installed in areas where constant air

movement is required for optimum occupant comfort (e.g. Fitness rooms, Training rooms). All ductwork will be thermally insulated in accordance with the energy code.

- Variable air volume VAV boxes will be set-up in a constant volume mode, 2-position mode or variable volume mode depending on space served.
- Study incorporation of energy recovery in building exhaust systems to minimize building energy consumption.
- The design of the system should minimize noise toward the soccer stadium and the Stadium Complex.

5.32 Plumbing

- Complete sanitary sewer, storm water management and potable water systems will be provided.
- Domestic hot water will be generated at 140 degree F by natural gas fired, high efficiency, condensing hot water heaters. Hot water at 140 degrees will be supplied to all food service areas. Lower temperature (110 degree F) water will be supplied to showers, lavatories, sinks and other plumbing fixtures requiring domestic hot water. Solar domestic water preheating heating will be evaluated. Also use of electric water heaters powered by photo voltaic (PV) panels will be investigated for inclusion in design based on cost-benefit.
- Potable and fire protection water systems will be separated by backflow prevention devices.
- The storm water and sanitary systems will be no hub cast iron. Below grade it will be hub and spigot.
- Ensure complete drainage of the hydrotherapy pool and backwash from its filters.
- Water piping distribution systems materials will be evaluated and chosen based on a cost-benefit analysis.
- A black steel natural gas system will be extended to heat hot water boilers, domestic hot water heaters and food service equipment requiring natural gas.
 - Water saving plumbing fixtures will be utilized as required to achieve LEED certification. These will be sensor activated faucets and flush valves. Use UMBC preferred products.
 - Storm water reject system will be evaluated from a LCCA perspective to provide lawn irrigation to the landscape.
 - Provide fill line for the hydrotherapy pool.
- Sump pumps or sewage ejectors required for fixtures or drains that cannot drain by gravity will be fully redundant and on emergency power.
 - Provide sump pumps with an oil retention feature in elevator pits.

- Reuse of condensate from air handling units to provide cooling tower make-up will also be studied for incorporation into design based on a cost-benefit analysis.
 - Provide sub metering of water supplied to the cooling tower

5.33 Fire Suppression and Smoke Control

- The Event Center will be fully sprinklered. Preliminary study indicates that a fire pump is not required. However, the Consultant will confirm this conclusion and to ensure that the sprinkler system will meet the requirements of NFPA 13 and 14.
- Dry pipe or pre-action systems will be provided where freezing has a potential to occur (e.g. Event space loading dock).
- The building will incorporate ventilation and smoke control systems to meet all requirements of NFPA.
- An automatic smoke control system must be provided to maintain the smoke level at least 6 feet above the highest level of assembly seating.
- The smoke control system is required to be automatically activated by the automatic sprinkler system and by smoke detectors located over the stage area.
- Dry chemical extinguishing system will be provide for all kitchen hoods.

5.34 Building Automation System (BAS)

- A direct digital control system will be provided for the Event Center as manufactured by Siemens Technology. The system will be WEB based and integrated seamlessly into the existing campus system. Actuators will be electronic. All panels will have emergency power connections and UPS modules.
- The existing, campus-wide Central Control and Monitoring System (CCMS) will be expanded as required to control, monitor, and alarm the DDC and CCMS System.
- Building DDC and energy management controls are to be implemented using the UMBC campus wide standard system. The building system is to be capable of standing alone but is also to be totally integrated into the overall campus wide network. System design is to be coordinated with UMBC's designated vendor responsible for site management and support. Sequence of Operation will be provided to the selected Consultant. System design is to include:
 - Building system configuration drawings,
 - I/O lists (typical accepted) to include mechanical and electrical systems as follows:
 - Tripped main, tie, or feeder circuit breaker as determined by UMBC,
 - Substation secondary voltage,
 - Substation transformer hot spot temperature,
 - Substation automatic throw over status-automatic, manual,

- Items listed under Emergency Power System,
 - Major mechanical equipment (chiller, boiler pumps, AHU, etc.),
 - Minor mechanical equipment (VAV, fan coils, etc.), and
 - General environmental status (temperature, humidity, etc.).
- Sequence of operation for mechanical equipment,
 - Drawing locating all system modules/cabinets,
 - Generalized description of desired graphics,
 - List of desired reactions to selected alarm conditions, and
 - Integration with power monitoring system.

5.35 Testing, Adjustment and Balancing and Commissioning

- The Consultant will incorporate the requirements of ANSI/ASHRAE 111-1988 or the most current approved version, Practices for Measurement, Testing, Adjusting, and Balancing of Building Heating, Ventilation, Air Conditioning, and Refrigeration Systems, into the construction specifications.
- The building will be commissioned by a third party commissioning agent meeting the LEED certification criteria for scope of services.

Electrical and Communication

Following is a summary of electrical, communication and lighting design criteria for the major spaces in the Event Center. These criteria will be used where “Standards” are referenced in the room data sheets.

The building will achieve a minimum LEED Silver certification. The latest version of the referenced codes will apply unless specifically required otherwise by the University.

Standards and guidelines are intended to establish the minimum design criteria for the project with final acceptance for potential variation by the university.

5.36 Codes and Standards

- Americans with Disabilities Act (ADA)
- ANSI/ASME A17.1 Safety Code for Elevators and Escalators
- National Electrical Code
- Applicable editions of National Fire Protection Association (NFPA)
- State and local codes and regulations
- American Concrete Institute (ACI)
- American National Standards Institute (ANSI)

- American Society of Mechanical Engineers (ASME)
- Certified Ballast Manufacturers Association (CBM)
- Edison Electric Institute (EEI)
- Electronics Industry Association/ Telecommunications Industry Association (EIA/TIA)
- Environmental Protection Agency Regulations (EPA)
- Illuminating Engineering Society of North America (IESNA)
- Institute of Electrical and Electronics Engineers (IEEE)
- Insulated Power Cable Engineers Association (IPCEA)
- International Building Code (IBC)
- National Electrical Manufacturers (NEMA)
- Underwriters Laboratories, Inc. (UL)
- Maryland Occupational Safety and Health Administration
- ASHRAE/IESNA 90.1
- ANSI: “National Electrical Safety Code” – ANSI C-2 and ANSI C-37
- UM Facilities Management – “Architectural and Engineering Design Standards”

5.37 Electrical

- **Electrical Distribution:** The Consultant will design an electrical distribution system to include a main switchboard, distribution panels, branch-circuit panel boards, disconnect switches, motor controllers, raceway, cable, lighting and its controls.
- **Power**

Overall Building Normal Load	<15 VA/SF	3000kVA
Overall Building Emergency Load	<4 VA/SF	800 kVA (non-shelter)
- **Service Entrance Power:** Provide a pad mount transformer to convert 13200V new dual service feeders from the Central Plant to 480/277 volts for use in the building. Install a new medium voltage loop to be extended from two new Square D vacuum circuit breakers installed within spaces at the main campus substation secondary switchgear at the Central Plant. The Consultant will investigate spares available in existing ductbanks to the Event Center area to determine if adequate or if a new duct bank system will be required. The primary will consist of 2 exterior pad mounted isolation switches and a radial fused switch to the building transformer. The pad mount transformer will be liquid filled. Other low voltage electrical equipment will be located in a main electrical room within the building. The secondary main switchboard will consist of a draw-out main power circuit breaker or an insulated case with solid-state molded case branch breakers to fill the switchboard including spares. Series ratings of protective devices are prohibited. Square D is the preferred manufacturer as the “basis of design” confirm approved equals with UMBC. Provide local

digital metering on the main circuit breaker and tie directly to Square D Power Logic Main Metering System at the Central Plant. Provide additional metering for LEED silver design requirements. All metering will report to the appropriate campus server. Feeder breakers will have ground fault protections and metering on the digital trip units.

- Emergency Loads: The following is a non-comprehensive list of the loads that will be on emergency power.

Life Safety

- Life Safety Lighting
- Emergency Communication Center (ECC)
- Main Event Control Room
- Lighting Control Systems
- Fire Alarm / Mass Notification System
- Security System and designated Security Rooms
- Emergency blue phones
- Professional Sound Systems in Main Event areas (with override from fire alarms / mass notification system)

Equipment

- Building IT room equipment and cooling
 - Elevator – three total in two banks (one selectable in each bank on gen set)
 - Elevator machine room and IT closet cooling
 - Elevator sump pumps
 - Boiler and associated pumps for minimal heating to prevent piping from freezing
 - Main event smoke evacuation fans
 - ATC controls
 - Sump pumps
 - Sewage ejector pumps (if required)
 - A/V controls
- Generator: The diesel generator location will be evaluated with special consideration given for an on-grade location. The generator will have an in-base “belly” tank with 72 hours of fuel capacity at 100% load. The generator will be located such that a fuel delivery truck can easily fill the tank. Preferred generator manufacturers are Caterpillar, Cummins, and Kohler. The generator will be sized to meet all of the emergency requirements listed above and have 20% spare capacity for future needs. An emergency generator status / alarm panel that monitors the generator will be installed in the ECC with generator running and trouble remote signaling to the central plant monitoring equipment as designated by UMBC.
 - Emergency Shelter Generator Provisions: To allow for student and community use of the Event Center during prolonged utility outages or emergencies, provisions will be made to bring in a portable generator. Exterior generator connector, manual transfer provisions and associated internal distribution will be provided to accommodate the following designated loads:

- Additional boiler capacity for human comfort.
 - Hot water heating pumps.
 - DHW heating and circulating pumps.
 - AHU systems, lighting, and outlets for UMBC designated areas of refuge spaces.
 - Locker-room exhaust fans.
 - Concession / kitchen lighting and equipment designated by UMBC.
 - Provision for backup to building standby generator loads.
- Automatic Transfer Switches: ATS's will be 4 pole for 4 wire systems isolation bypass, closed transition type, as manufactured by Russelectric or approved equal by ASCO.
 - Power Distribution: The main secondary low voltage switchgear will feed distribution panel boards to serve branch circuit panel boards in the building. Show power and Retriever Room, kitchen and concession areas will be provided with separate UMBC metered panel boards. MC cable wiring methods will be allowed in finished areas.
 - Panel boards: will have copper busing, be fully rated, have 42 poles, and have door in door construction.
 - Dry type transformers: Transformers will be of the harmonic cancelling type where necessary to reduce harmonics in the building. Provide energy efficient type TP-1 transformers as a minimum.
 - Electrical Rooms: Main normal and emergency electrical rooms will be physically separated. Vertical area electrical rooms will be stacked where possible. Rooms will be walk-in with minimum dimensions of 7'-0" by 8'-0" or larger as required for the equipment contained. Provide one room for every 10,000 GSF of floor area. Rooms will contain normal and emergency panels and will be mechanically ventilated with the capacity required to remove the anticipated heat load.
 - The design engineer will provide a fault analysis and coordination study to meet UMBC guidelines and will review a Fault Study, a Coordination Study, and an Arc Flash Study performed by the contractor's electrical equipment manufacturer. The contractor will be required to provide arc flash signage for each piece of electrical equipment.
 - A building flywheel UPS must be installed to protect the data and telecommunication rooms, building automation systems and lighting control systems. This building flywheel UPS will be fed by power service that is backed up by an emergency generator. The UPS will be manufactured from Caterpillar / Active Power will be used for the basis of design. The project contract will provide for a five (5) year maintenance contract.
 - Small stand-alone UPS systems will be provided for critical PC equipment, other than the IT network, for fire alarm, ATC controls, electrical digital metering and lighting controls.

- Show Power: Provide Main Event Room plug-in stations for lighting and sound at stage area with 500 kVA load allowance for each. Include broadcast truck plug-in stations at designated parking area.
- Ribbon Board Power: Provide Main Event Room control rough-in and 500 kVA load allowance.
- Floor Boxes: Integrated power, data, sound, and scoreboard control floor boxes will be provided to suit main event, auxiliary gym, and fitness area needs.

5.38 Lighting

- The Energy Code for Maryland was established under the Energy Conservation Building Standards Act enacted by the Public Service Commission. The adoption of the Energy Code now takes place under the Maryland Building Performance Standards (MBPS).
- The State of Maryland has adopted with modifications, the International Building Code (IBC) 2012 as the Maryland Building Performance Standards. These standards require the buildings to be designed and constructed in accordance with the International Energy Conservation Code (IECC) 2012.
- Consolidate and organize all room controls at a convenient wall location adjacent to entry doors.
- Provide addressable lighting control system throughout, tied to campus energy management system. Include local timeout overrides and plug load control in office areas per ASHRAE 90.1-2012. Provide automatic controls for all rooms including dimming considerations for multi-functional spaces as well as space grouping and level switching. Include daylight harvesting controls where appropriate at the building perimeter spaces. Provide local controls so that they override energy management systems. Vacancy sensors will be specified to meet referenced codes in a “manual on” approach. Main Event Area control shall be initiated from Main Event Control Room. Entry desk will have programming and overrides per users programming.
- Lighting Power Density (LPD) levels will be in accordance with ASHRAE Standard 90.1-latest edition or most current approved version. The 2010 version requires maximum 0.78 (sports arena) to 0.99 (school/university) watts/sf.
- The Consultant will verify the following codes and standards in force at the time of design; however, the following average maintained IESNA lighting levels, in foot-candles, are anticipated:

Main Event Area	80-125
Televised NCAA Games	125
Auxiliary Gym	50-80
Strength and Conditioning	30-50
Office	30

Conference Room	30
Lobby/ Lounge	5-10
Corridor	5-10

- Main Event Room lighting design considerations will include:
 - Provisions to reduce metallic halide luminaire ballast noise (e.g., remote installation of ballasts in sound-proof enclosures or rooms).
 - Metal halide luminaires installed at catwalk level with quick-disconnect plugs for simulated on-off control.
 - Instant-on life safety lighting to provide emergency lighting for egress paths.
 - Provisions for additional network and local broadcast television lighting equipment as required and provided by the broadcasters.
 - Interlacing of three phase electrical power distribution to luminaires to mitigate light flicker.
- Provide for decorative banquet lighting on a winch system to provide for event banquet seating.

5.39 Lightning Protection

- The Consultant will include a performance specification for a Franklin Rod, faraday cage type lightning protection system per NFPA 780 to be provided by the contractor.

5.40 Fire Alarm / Mass Notification

- Provide a complete voice evacuation, addressable fire detection and alarm notification system.
- The Consultant will include an integrated mass communication system (MNS) with the voice communication. The MNS will have connections to data boards, email system, text messaging, and the UMBC Police Department. Consideration should be given that there are going to be four audio input systems to the voice system (General Event/Daily Use PA, Emergency Use PA from the Fire Command Position/ Emergency Command Center (ECC), Library Roof notification system, E2 Campus/Alertus notification system).
- The Emergency Command Center (ECC) is anticipated to be manned for event functions having smoke generators. ECC drill switches will defeat main event area automatic detection system and the area will be manned with handheld communication to the ECC as fire wardens.
- Event area detectors may be beam or smoke aspiration type for serviceability.
- Professional and stage sound systems will be overridden by the fire alarm voice evacuation systems by priority input.

- Show power systems will be defeated by the fire alarm system in an alarm condition to ensure fire alarm and mass notification visual and audible notification appliances are seen and heard.
- A smoke evacuation mode is anticipated for the Main Event Arena.
- A remote microphone is anticipated to be located at the main entry desk to allow for general paging. In fire alarm condition, this microphone will be overridden by the ECC voice system.
- The Consultant will confirm the preferred fire alarm manufacturer of the University.

5.41 Communication

Coordination and Design Criteria

- The Consultant will design a central distribution system for voice, video, and data cabling in the building. Prior to the Design Development phase of the project, the Consultant will meet with the University's Director of Communication and Security to review and discuss the incorporation of the University requirements for data and telecommunications distribution systems into the project design.
- The Consultant will adhere to UMBC's Network Equipment and Cabling Standards as well as any subsequent additional requirements communicated by the University to the selected Consultant.
- The Consultant will incorporate all UMBC Telecommunication specifications into the design documents after coordination with UMBC to determine all of the pathway requirements, components and elements that will be incorporated into the project. Data infrastructure and elements will be designed and specified based on UMBC's Pathway Specifications. The wireless network protocols to be supported will be 802.11a, 802.11ac, 802.11g, and 802.11n.

Data and Telecommunication Rooms

- A data and telecommunication room is required on each floor above the lowest floor and stacked to facilitate wiring. The data and telecommunication rooms will be approximately 150 square feet and be able to support a minimum of five UMBC standard rack spaces, per the criteria below.
- Data and telecommunication rooms must be centrally located in the building to facilitate easy routing of telecommunications basket trays and pathways. All locations in the building must be within 275 feet of a data and telecommunication room as the cable runs and including vertical transitions.
- The Event Center will have a Main Distribution Frame (MDF) connected to the campus fiber optic network. The MDF will be approximately 300 square feet and be able to support eight UMBC standard rack spaces.

- All data and telecommunication rooms must be accessible from public corridors and not require access through private spaces.
- UMBC standard rack spaces are 116" deep by 40" wide. All data and telecommunication rooms must have a clearance to a minimum height of 10 feet. All deck mounted riser conduits will be kept tight against the data and telecommunication closet walls and outside of the rack spaces. All the wall surfaces in the data and telecommunication rooms must be covered with fire retardant plywood. All walls will provide a 6" buffer space that does not include walkway space or rack space. This 6" buffer is to accommodate the depth of wall mounted hardware.

Distribution Systems

- Basket tray must be installed down all public corridors. Only communications cabling, managed by UMBC Communications Services, will be installed in the basket tray. All building automation and other low voltage cabling will be run through a separate pathway structure, unless the basket trays are designed and installed to accommodate various cabling per UMBC telecommunication requirements, including physical divisions within the tray and unique clearances over and around the tray.
- Access points will be from public corridors with acoustic panel ceiling.
- All communications outlets will be mounted in double-gang boxes. A 1 1/2" conduit will need to be installed from all double-gang boxes to within 18" of the closest corridor basket tray and terminate in the public corridor.
- All the pathways, conduits, wall boxes, and other pathway structures must take into account the minimum bend radius of the cabling that could be installed.
- A 4" conduit must be installed from the top floor data and telecommunication room through the roof. The conduit must be installed in such a way as to prevent rain, insects, and animals from entering the building through the conduit.

Additional Data and Telecommunication Criteria

- Courtesy phones must be provided at strategic locations in the corridors of the building.
- The unshielded twisted pair cabling will meet a minimum Category 6a certification.
- An In-Building Cellular Distribution Antenna System will be designed and installed to insure cellular coverage in all areas of the building. The minimum carriers to be supported and the system to be installed must be approved by the UMBC Director of Communications and Security.
- Design will ensure that UMBC 2-way radio system has full coverage in all building support and maintenance areas.

Section 6 Space Requirements

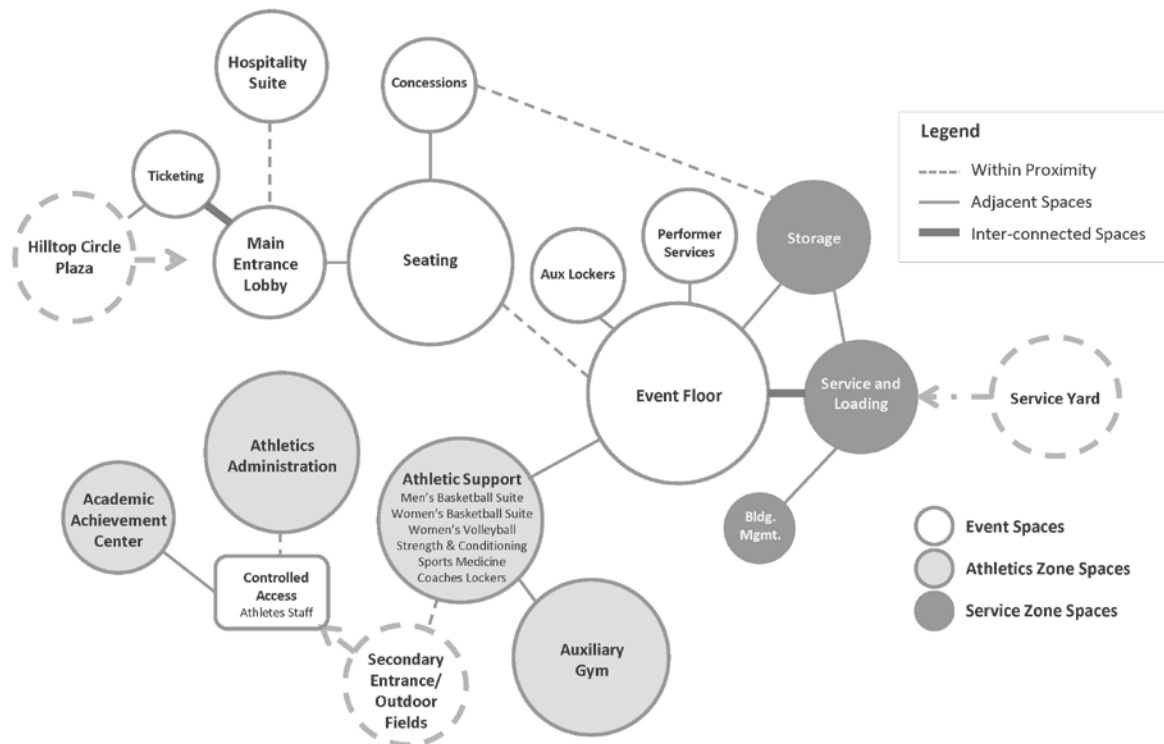
Event Center and Arena Facility

6.01 Building Organization

The Event Center will have three major programmatic zones:

- **Event Zone**, comprised of the lobby, concourse, seating, event floor area, and spectator support facilities;
- **Athletic Zone**, comprised of spaces to support the student-athletes and University administration/staff administering NCAA sports programs.
- **Service Zone**, comprised of the 'back of house' space, which includes the service yard, loading docks, storage areas, mechanical and control spaces, food service pantry, and other spaces that support the events held in the building.

Entrances and Proximities



While interconnected, each of the three programmatic zones will have its own identity and distinct building access. The location on campus, sloping site, and unique programmatic requirements

necessitates organization of the building into these functional zones, each with distinct entrances. The Event Zone will be accessed from an exterior plaza adjoining Hilltop Circle, the Service Zone will be accessed from the east, and the Athletic Zone will have both a controlled access in from the Academic Precinct of campus as well as a direct connection to the UMBC Stadium Complex and the Soccer Stadium to the south and east.

Event Zone

The Event Zone is accessed directly from an outdoor gathering plaza adjacent to Hilltop Circle. While the main entrance to the building will occur here, it is important to recognize that procession to the events, whether by foot, car, or bus, will begin further away and needs to be addressed and celebrated. Pedestrians will be arriving from the Academic Precinct of campus and Commons Drive Garage as well as the residential communities to the north. These processional routes should be supported with improved way-finding signage, banners, and lighting to mark the route. Arrival at the outdoor plaza will be the culmination of the arrival experience and should be celebratory by nature, while allowing for drop-off and emergency vehicle access. Ticketing functions can also occur off of the plaza. Bicycles should be accommodated as well.

The Main Entry Lobby will be inviting and welcoming to visitors and spectators and serve multiple purposes. The space will accommodate guest services, including information, ticketing and pre-function activities, while also providing control and creating visual orientation to the main event floor. It is expected that the lobby space will be programmed to accommodate a variety of pre-function activities. Control and ticketing points will need to be evaluated to ensure functionality and efficient layout of the space. Elements of "Retriever Success and Pride" will be expressed within the lobby space, including a 'Hall of Fame'. In addition, the lobby will incorporate technology to display upcoming events at the Event Center and throughout campus.

- The Event Zone experience will begin at the lobby and continue to spectator seating, the event floor, and/or the Hospitality Suite. Each of these areas will have individual access control. The spectator will circulate to their seats via the concourse, which also provides access to spectator services, like concessions, merchandizing, and restrooms. To take advantage of the sloping site, the concourse level is estimated to be fifteen to twenty-five feet above the court level. It is expected that the concourse will be located, at least partially, along the exterior of the building. Access to seating will be provided through portals in the tiered seating, an arrangement that may create a more compact building, shield the event floor from the lights and noise of the concessions (that can be tucked under the tiered seating), and provide natural light to and views from the concourse.
- The Hospitality Suite will be located above the concourse and have secure access from a stair and an elevator. The suite will be sub-dividable and have upgraded finishes, private restroom facilities, a small food service pantry, and an unobstructed view of the event floor. An adjoining controlled-access terrace will provide a space to gather outside of the room, overlooking the event floor with convenient access to premium seating. Provide views to the UMBC Stadium Complex, if possible.

- The event floor will be a multi-purpose space that can accommodate a wide range of campus-oriented events in addition to athletic events, like convocations and graduations, as well as shows, concerts and other public events. The event floor will have a finished concrete slab, covered by a portable wood flooring system to accommodate sports competitions.

Athletic Zone

The Athletic Zone will support the day to day activities of the Athletic Department and needs to function independently from the Event and Service Zones when other events and related activities occur. A distinct, secure and controlled access point for staff, coaches and student-athletes will allow easy access without having to open the entire facility.

The Athletic Zone will include the Administration Suite, Academic Achievement Center and athlete support areas which will have direct access to the Auxiliary Gym, Event Floor and the UMBC Stadium Complex and Soccer Stadium.

The athlete support area caters to the student-athletes as they prepare, practice, and compete in their respective athletic programs. Team areas are provided to support basketball (men and women), and volleyball (women) and will have direct access to the event floor for competition and the auxiliary gym for practice. Adjacent to these program areas will be offices, locker rooms and meeting spaces for the coaching staffs.

Supporting the entire student-athlete population will be strength and conditioning and sports medicine areas, which will have direct access from the athlete entrance and the outdoor fields.

Athletic Administration Suite

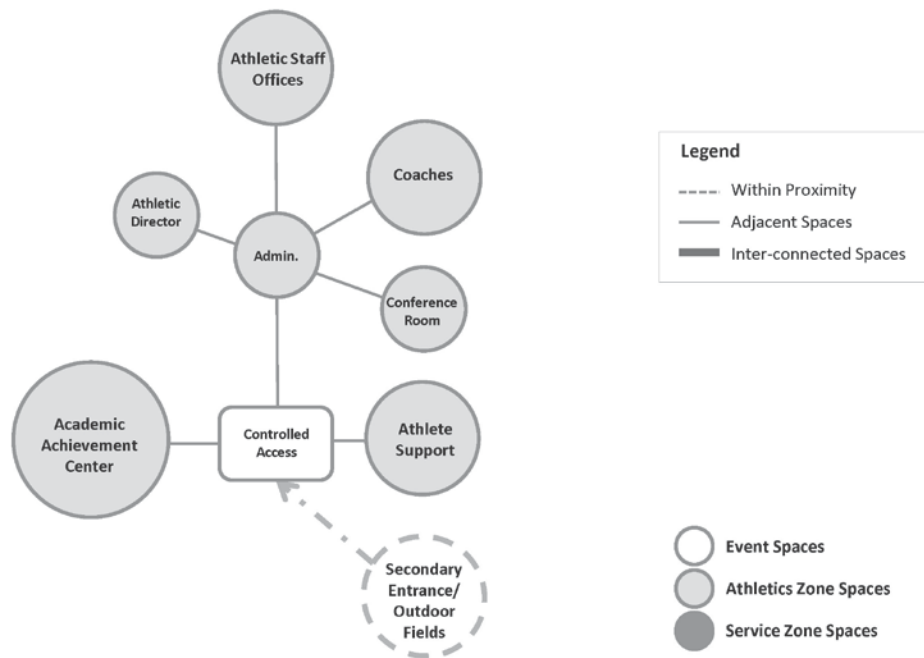
A majority of the Athletic Department will be housed in the Event Center. The administration suite will consist of the Athletic Director along with assistant and associate athletic directors. Head coaches and assistant head coaches will also be co-located in the administration suite with the administrative support staff.

Access to the administration suite will be from a secure controlled access point that will be used by all staff, coaches and student athletes and will be independent from the main Event Center entry.

The Athletic Administration Suite comprises:

- Office of the Director of Athletics
- Offices for directors of compliance, student affairs, communications, marketing & promotions, business & finance, and other Athletic Department units
- Offices for administration and reception
- Coaches offices for all sports except basketball, swimming and diving, and tennis
- Shared Meeting Rooms for coaches and a Conference Room
- Office Support Room

Athletics Administration



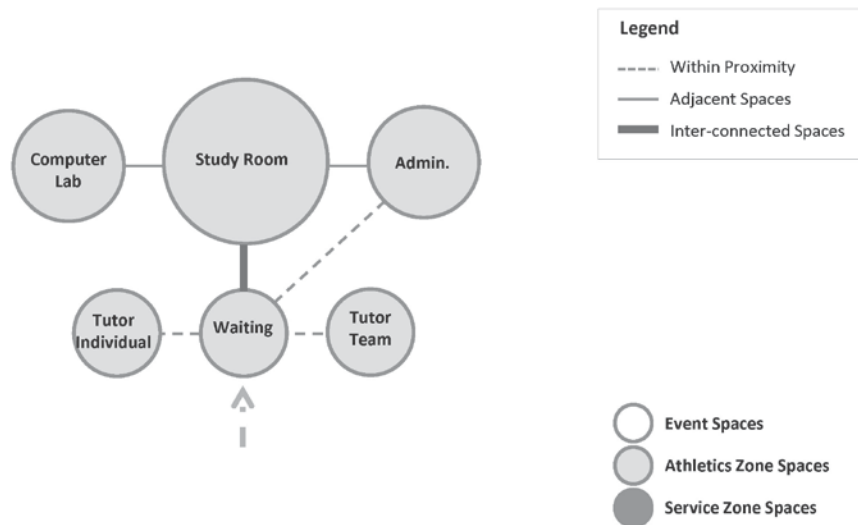
Academic Achievement Center

The Academic Achievement Center will support student-athlete academic success with both individual and team based study facilities. This area will be easily accessed from an entrance point separate from the main Event Center entry. The center accommodates study carrels and computer work stations, and team and private tutoring spaces that are adjacent to and have convenient access to a small waiting area.

The Academic Achievement Center comprises:

- Study Room for 40 student athletes
- Computer Lab
- Team Tutoring room
- Individual Tutoring rooms
- Waiting Area
- Offices for a director and staff
- Office Support Room

Academic Achievement Center



Men's & Women's Basketball Suite

The University's renewed focus on the men's & women's basketball programs is reflected in the allocation of primary practice and competition spaces for these sports. Basketball locker rooms should be located convenient to the Auxiliary Gym, which is used for practice. This relationship allows the team to practice with limited interruption from other events that may be taking place in the Event Center. Integral to the team practice is the team room with seating and video capability adjacent to the team locker room.

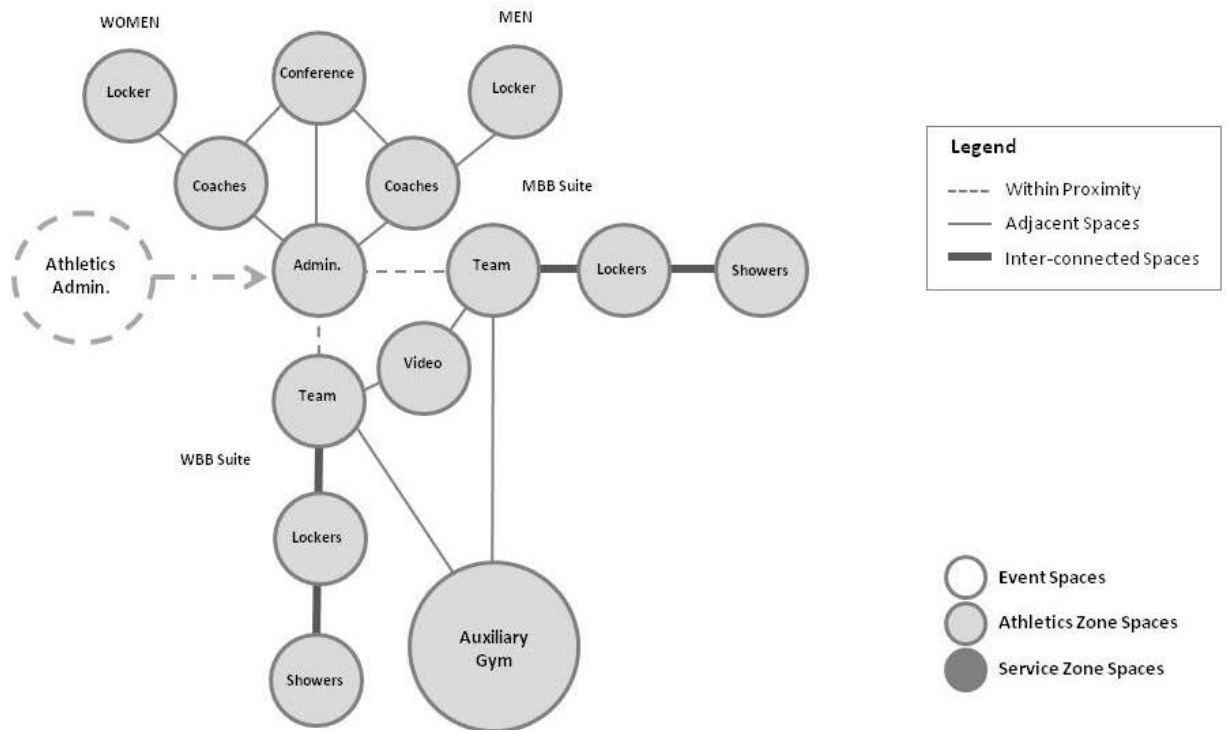
Within proximity will be the basketball coaches' offices, a small conference room, and a video room to review game film. The locker rooms will have convenient access to the main event floor.

The Auxiliary Gym

The Auxiliary Gym will primarily serve the practice needs of the basketball and volleyball programs. The gym will have wooden flooring and a clear structure height to allow for competitive volleyball tournaments. Finishes within the gym will be utilitarian and the courts should make well use of natural day-lighting. Simplified electronic scoreboards and time clocks will be located in each court, controlled at courtside. The base design will accommodate one basketball court, while an add alternate will develop two courts, partitioned with a curtain system.

The Auxiliary Gym will also serve non-sporting activities, serving as a multi-purpose space for indoor training, and the hosting of campus and Athletic Department events. The Athletic Department envisions hosting events in this space to support fund-raising, celebratory, and alumni events.

During large campus events held on the main event floor, like commencement, the auxiliary gym may serve for staging of the procession. For this reason, circulation from the Auxiliary Gym to the main floor should be convenient and clear.



Sports Medicine and Strength & Conditioning

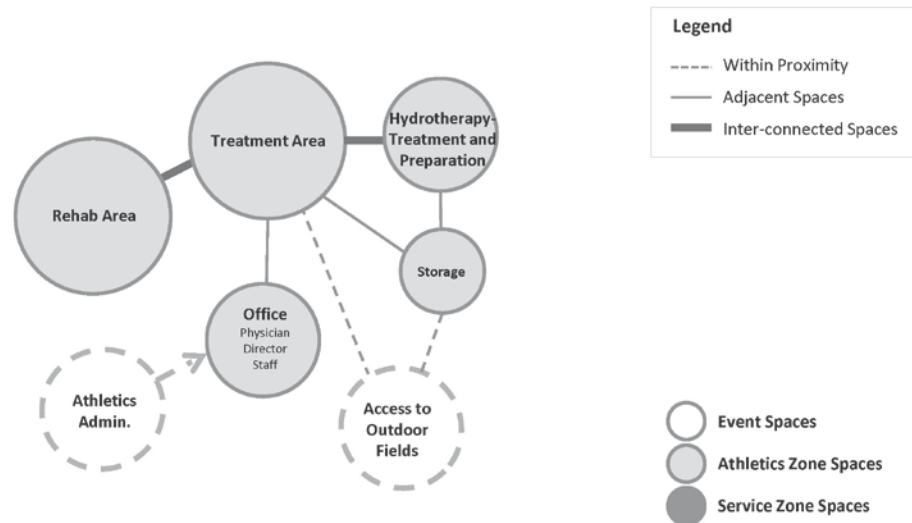
Enhancing the abilities of student-athletes to prepare and improve their skills requires a facility for strength and conditioning. This space provides for aerobic and non-aerobic equipment, free weights and agility training. This facility is open to all athletes at UMBC and needs to be accessible to outside practice fields and locker rooms in the UMBC Stadium Complex. The main strength and conditioning spaces should be partially lit by natural light, and have wall-mounted monitors and a sound system. The atmosphere of this space should be motivational, stimulating, and promote UMBC athletics success through hard work.

Constant training and the rigors of competition requires attention to the health of the student athletes. The Sports Medicine Center serves several purposes: to educate and prepare students to the physical rigors of competitive sports, to provide for the recovery of muscles after competition, and when necessary the treatment of sports injuries, and to support academic programs in Sports Medicine. The facility supports the entire athletic program and requires direct access to the outdoor sports fields.

Facilities within the Sports Medicine suite include treatment tables, ice machines and specialized equipment, areas for physical therapy, and hydrotherapy pools. Doorways and corridors leading to the facility should allow for large carts, rolling tables and stretchers. In addition, storage areas and workrooms should be conveniently located to prepare carts for sporting events on outside fields.

The Sports Medicine suite comprises:

- Physician Office/ Examination Room
- Medical Conference Room
- Treatment Area
- Rehab Area
- Hydrotherapy – Treatment and Prep
- Offices for a director and staff
- Training Staff Workroom
- Storage



The Service Zone

The Service Zone supports both athletic and non-athletic events in the building. Spaces that comprise the Service Zone include the service yard, loading and staging area, storage, mechanical rooms, maintenance shop, and the building management and security offices.

Servicing the Event Center requires access for deliveries and removal of waste through a service yard. This outdoor space accommodates delivery vehicles, garbage trucks, and media vehicles. The yard will need to be sized to accommodate the turning and backing up of tractor-trailers. A loading dock will accommodate one full size tractor-trailer. An adjacent on-grade door will allow smaller trucks and forklifts to enter the Event Floor through an interior loading and staging area.

The service yard will also include access to the trash compactor and recycling bay. It is expected that the service yard will fence-in both the emergency generator along with the medium voltage gear,

i.e., the electrical switches and transformers to facilitate convenient access for routine maintenance and testing.

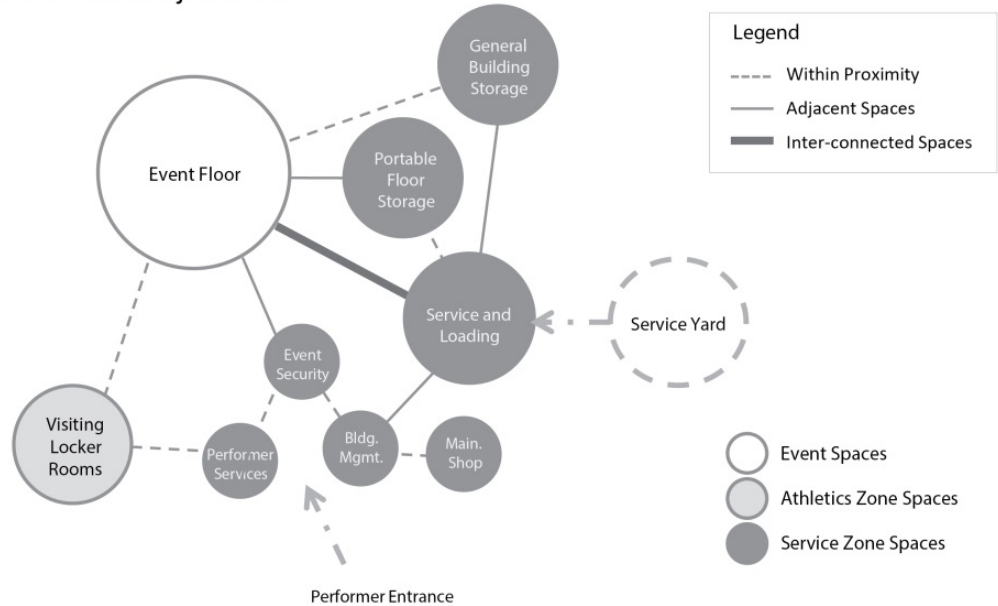
The loading and staging area should have immediate access to the building storage areas. All storage areas should allow access by forklift. Rooms will be separated with metal rolling doors of a minimum 12 feet in width and 14 feet in height.

An office adjacent to the loading dock with a window overlooking it will allow building management personnel to monitor activities in the yard and dock. The building management and security suite will support activities within the facility and serve as a command center during major events.

The service area will also allow for access to the 'back of house' during performances. Performers, visiting athletes, officials and staff will make use of a private entry leading to adjoining corridors with access to locker rooms, green rooms, and other services.

The loading dock will provide access to a Foodservice Support Pantry. This space has equipment to support banquet service to the event floor and the Hospitality Suite, including refrigeration machinery, ice makers, coffee brewing, mobile plating tables, and numerous outlets for mobile warming carts.

Service Zone Adjacencies



Space Sheets

PROGRAM ELEMENTS		Unit Capacity	Factor Unit	Quantity	Unit NASF	Total NASF
EVENT ZONE						
1.00	SPECTATOR FACILITIES					
1.01	Reception / Lobby	150	13	1	2,000	2,000
1.02	Event Floor			1	19,360	19,360
	Seating - Fixed	3,490	6		20,940	20,940
	Seating - Retractable	1,360	0		0	0
	Seating - Courtside	50	0		0	0
	Seating - Mobility Aided & Companion	100	13		1,300	1,300
1.03	Hospitality Room (Retriever Club)	150	23	1	2,250	2,250
1.04	Hospitality Room Storage	1		1	200	200
1.05	Hospitality Room Pantry	1		1	200	200
1.06	Guest Services- Information	1		1	160	160
1.07	First Aid	1		1	200	200
	Total					46,610
2.00	CONCESSIONS & RETAIL					
2.01	Foodservice Concessions			4	500	2,000
2.02	Concession Storage	1		1	1,000	1,000
2.03	Foodservice Support Pantry	1		1	1,500	1,500
2.04	Merchandising / Storage	1		1	250	250
	Total					4,750
3.00	EVENT CENTER ADMIN / TICKETING					
3.02	Events Coordination Staff Office	1		2	100	200
3.03	Events Management Workroom	3	60	1	180	180
3.04	Marketing Promotional Storage	1		1	200	180
3.05	Box Office / Ticket Windows	4	60	1	240	240
3.06	Ticket Manager Office	1		1	120	120
3.07	Counting Room	1		1	100	100
3.08	Storage			1	50	50
3.09	Event Security	1		1	100	100
	Total					1,170
4.00	PERFORMANCE/MEDIA FACILITIES					
4.02	Meeting/Green Room	1		1	200	200
4.05	Sound / Light / PA / Scoreboard Control/Video Production			1	400	400
4.06	Patch Panels / Broadcast Connections	2		1	150	150
4.07	Media and Performance Equipment Storage	1		1	100	100
	Total					850

PROGRAM ELEMENTS		Unit Capacity	Factor Unit	Quantity	Unit NASF	Total NASF
ATHLETICS						
5.00	ATHLETIC SUPPORT					
Athletic Department Administrative Suite						
5.01	Associate VP, Athletic Director	1		1	150	150
5.02	Associate Athletic Director	1		8	150	1,200
5.03	Director or Manager	1		15	120	1,800
5.04	Administrative Assistant/Staff	1		5	100	500
5.05	Head Coach	1		9	120	1,080
5.06	Assistant Coach	1		18	100	1,800
5.07	Conference Room	22	20	1	440	440
5.08	Coaches Meeting Rooms	6		2	150	300
5.09	Office Support (Kitchenette)			1	120	120
	Sub-total					7,390
Basketball and Volleyball Support						
5.10	Auxiliary Gym			1	7,000	7,000
5.11	Video Viewing Room / Media Press Conference	24	29	1	950	950
	Sub-Total					7,950
Academic Achievement Center						
5.12	Study Room	40	25	1	1,000	1,000
5.13	Computer Lab	20	20	1	400	400
5.14	Tutoring Team	30	20	1	600	600
5.15	Tutoring Individual	2		6	60	360
5.16	Director	1		1	120	120
5.17	Academic Advisor Office	2		4	100	400
5.18	Office Service Room	1		1	100	100
5.19	Waiting	15	10	1	150	150
	Sub-total					3,130
Men's Basketball Suite						
5.20	Men's Basketball Locker Room	16		1	450	450
5.21	Men's Basketball Shower Room	16		1	300	300
5.22	Men's Basketball Informal Meeting	16		1	400	400
5.23	Head Coach Office	1		1	120	120
5.24	Assistant Coach Office	1		5	100	500
5.25	Administrative Assistant	1		1	100	100
	Sub-total					1,870
Women's Basketball						
5.26	Women's Basketball Locker Room	16		1	450	450
5.27	Women's Basketball Shower Room	16		1	300	300
5.28	Women's Basketball Informal Meeting	16		1	400	400
5.29	Head Coach Office	1		1	120	120
5.30	Assistant Coach Office	1		5	100	500
5.31	Coaches' Meeting Room	8		1	160	160
	Sub-total					1,930

PROGRAM ELEMENTS		Unit Capacity	Factor Unit	Quantity	Unit NASF	Total NASF
Women's Volleyball						
5.32	Volleyball Locker Room	16		1	450	450
5.33	Volleyball Shower Room	16		1	300	300
5.34	Volleyball Informal Meeting	16		1	400	400
5.35	Head Coach	1		1	120	120
5.36	Assistant Coach	1		2	100	200
Sub-total						1,470
Other Locker Room Facilities						
5.37	UMBC Coaches' & Staff Locker Rooms	16		2	450	900
5.38	UMBC Coaches' & Staff Shower Rooms	16		2	300	600
5.39	Visiting Teams Locker Rooms/ Group Performers Dressing Room	16		2	400	800
5.40	Visitor Shower Rooms	16		2	300	600
5.41	Officials' Locker Rooms/ Star Performer's Dressing	4		2	120	240
5.42	Officials' Shower Rooms	4		2	80	160
Sub-total						3,300
Sports Medicine						
5.43	Physician Office/ Examination Room	2		1	200	200
5.44	Director's Office	1		1	120	120
5.45	Assistant Director's Office	1		1	100	100
5.46	Training Staff	4	60	2	120	240
5.47	Medical Conference Office	8	30	1	240	240
5.48	Treatment Area	12	67	1	800	800
5.49	Rehab Area	12	67	1	800	800
5.50	Hydrotherapy - Wet Treatment	8	98	1	780	780
5.51	Hydrotherapy - Wet Preparation	8	31	1	250	250
5.52	Storage			1	200	200
Sub-total						3,730
Strength & Conditioning						
5.53	Training area	35	129	1	4,500	4,500
5.54	Director's Office	1		1	120	120
5.55	Assistants	2	60	1	120	120
Sub-total						4,740
Athletic Support						
5.56	Turf/Field Management Team	2	60	1	120	120
5.57	Equipment Issue			1	200	200
5.58	Equipment Manager's Office	1		1	120	120
5.59	Assistants	1		1	100	100
5.60	Equipment Storage			1	800	800
5.61	Laundry			1	300	300
Sub-total						1,640
Total Athletic Support						37,150
SERVICE/SUPPORT						

Reception / Lobby 1.01

Space Use Category:	1.00 SPECTATOR FACILITIES	Area NASF:	2,000	SF
Room Use Code:	600	Quantity	1	
		Total Area:	2,000	NASF

Function: Will serve as the formal public entry into the Event Center and be part of the Event Zone. The space will accommodate guest services, including information, ticketing and pre-function activities, while also providing circulation control and creating visual orientation to the main event floor. The lobby space will be programmed to accommodate a variety of pre-function activities. Elements of "Retriever Success and Pride" will be expressed within the space, including a 'Hall of Fame' integrating graphics, displays, furnishing and equipment into the lobby and main concourse. The lobby will incorporate technology to display upcoming events at the Event Center and throughout campus

Occupants: Visitors, spectators and patrons

Relationships: Adjacent to event/ ticket office and retail store. Serves as the "Front of House" and is located within "Event Zone"

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	terrazzo/polished concrete	Base:	ground face block
Walls:	ground face block	Wall Finish:	ground face block
Ceiling:	exposed	Min.Ceiling Ht:	multi-level
Windows:	storefront/curtain wall	Window Treatments:	none
Doors:	storefront/curtain wall	Door Size:	determined by egress calculations
Access:	from exterior		3'-0" clear min.
Other:	none		

Built in Millwork

Base Cabinets:	TBD
Countertops:	TBD
Wall Cabinets:	TBD
Other:	kiosks/graphic walls specialized exhibit furnishings/equipment and display cabinets

Moveable Furnishings

Desks:	none
Chairs:	(4) 8' benches
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Equipment:	portable tape stanchions see specialized equipment see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent
Natural:	yes
Other:	specialized accent and spot lighting in coordination with exhibits, displays and graphics

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.6-0.8 s (ave. mid-freq.) RC(N) 35-40
Sound Transmission:	none

1.01 Reception / Lobby

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: positive pressure to outside to reduce air infiltration

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice/Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: digital signage & event/program displays
 paging & public address sound
 display & sound control
 Special Requirements: hearing assist system (ADA)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
digital signage	1	TBD	TBD	TBD	TBD	TBD	none	none	none
specialized exhibits/displays	1	TBD	TBD	TBD	TBD	TBD	TBD	TBD	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Event Floor 1.02

Space Use Category:	1.00 SPECTATOR FACILITIES	Area NASF:	19,360	SF
Room Use Code:	600	Quantity	1	
		Total Area:	19,360	NASF

Function: The area of the facility where multiple use events occur including sports, graduations, concerts, speakers, banquets, etc. Focal point of the Event Center

Occupants: Event participants

Relationships: Direct access to locker rooms, sports medicine, equipment storage, loading/staging area and building services

Architectural

see architectural sections 5.01 - 5.23

Flooring:	sealed concrete with portable wood flooring system	Base:	TBD
Walls:	TBD	Wall Finish:	TBD
Ceiling:	exposed	Min.Ceiling Ht:	multi-level
Windows:	none	Window Treatments:	none
Doors:	access doors through vomitories	Door Size:	3'0" x 7'0"

Access: from the main entry and concourse

Other: floor needs to accommodate basketball standards/shot clocks, scorer table(s) and volleyball stanchions
 floor needs to accommodate moveable seating and premium floor seats for basketball games
 vertical clear height needs to accommodate NCAA requirements for basketball and volleyball

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	1,500 stacking chairs for spectator floor seating
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(65) 8 person rounds for banquets
Equipment:	sports equipment TBD see specialized equipment see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent/HID sports lighting
Natural:	none
Other:	lighting will accommodate live televised broadcasts

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 NTE 1.5 s (ave. mid-freq.) RC(N) 35-40
Sound Transmission:	none

1.02 Event Floor

Mechanical

see mechanical sections 5.24 - 5.35

Special Requirements: CO2 sensing at air handling units to lower outside air demand.

Plumbing:

see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical

see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: recessed floor box (power, data, AV) for scorers, officials and press tables courtside.

Voice / Data

see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual

see audio/visual section 5.19

Capabilities/Features: digital signage & Event/Program displays
two scoreboards at each end of Arena (1 main scoreboard & 1 HD video board per side)
a ribbon display
zoned paging & public address sound systems
systems control

Special Requirements: hearing assist system (ADA)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
scorers' table	1	TBD	TBD	TBD	TBD	TBD	none	none	none
portable backstops	1	4	TBD	TBD	TBD	TBD	none	none	none
shot clocks	1	4	TBD	TBD	TBD	TBD	none	none	none
volleyball standards	1	2	TBD	TBD	TBD	N/A	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Space shall meet all NCAA requirements for basketball and volleyball.

Hospitality Room (Retriever Club) 1.03

Space Use Category:	1.00 SPECTATOR FACILITIES	Area NASF:	2,250	<i>SF</i>
Room Use Code:	600	Quantity	1	
		Total Area:	2,250	<i>NASF</i>

Function: Reception lounge space for patrons of the club seating area. Multipurpose space on non event days and subdividable for meetings

Occupants: 150 for dining

Relationships: Located at the upper level of club seating area with full view of event floor. Separate entry from main event space entry

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	carpet	Base:	wood
Walls:	gypsum wall board/glass	Wall Finish:	wall covering/ wood panel
Ceiling:	acoustic panel /gypsum wall board	Min.Ceiling Ht:	10'0"
Windows:	yes	Window Treatments:	Blinds and/or drapes
Doors:	solid wood	Door Size:	(2)3'0" x 7'0"
Access:	public entrance accessible on non event days		(3) 6'0"sliding glass doors
Other:	sidelight glass wall facing event floor		

Built in Millwork

Base Cabinets:	(6) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(6) 20 lin/ft each
Other:	drink and plate rails at event glass wall media wall

Moveable Furnishings

Desks:	none
Chairs:	(150) chairs (caster)
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(25) 6- person tables; and (3) 6' serving tables
Equipment:	see specialized equipment see audio-visual

Lighting

	see lighting section 5.38
Type:	general, accent/ dimmable
Natural:	yes
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.6-0.8s (ave. mid-freq.) RC 30-35 (N)
Sound Transmission:	STC 45 minimum

1.03 Hospitality Room (Retriever Club)

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: CO2 control of room air supply

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: digital signage & event/program displays
 paging & public address sound systems
 audio conferencing and video capture
 local systems control
 space for equipment
 electronic lectern
 video projection presentation system(s)
 Special Requirements: hearing assist system (ADA)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
digital signage	1	TBD	TBD	TBD	TBD	TBD	none	none	none
video projection system	1	TBD	TBD	TBD	TBD	TBD	none	none	none
electronic lectern	1	TBD	TBD	TBD	TBD	TBD	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Hospitality Room Storage 1.04

Space Use Category:	1.00 SPECTATOR FACILITIES	Area NASF:	200	SF
Room Use Code:	600	Quantity	1	
		Total Area:	200	NASF

Function: Storage space for Hospitality Room materials and supplies

Occupants:

Relationships: Adjacent to Retriever Club and Hospitality Pantry

Architectural

see architecture sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wallboard	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	(2)3'0" x 7'0"
Access:	indirect direct from main pantry area		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	none
Tables:	none
Other:	storage shelving
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	none
Sound Transmission:	STC 45

1.04 Hospitality Room Storage

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: none

Data: none

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Hospitality Room Pantry 1.05

Space Use Category:	1.00 SPECTATOR FACILITIES	Area NASF:	200.0	<i>SF</i>
Room Use Code:	600	Quantity	1	
		Total Area:	200	<i>NASF</i>

Function: Serves as the staging and preparation area for banquet food to be served in hospitality room

Occupants: 4
Relationships: Adjacent to Hospitality Room

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	quarry tile
Walls:	gypsum wallboard	Wall Finish:	tile
Ceiling:	acoustic panel	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	(1) 3'0" x 7'0"
Access:	indirect direct from main pantry area		
Other:	vision panels		

Built in Millwork

Base Cabinets:	(2) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(2) 20 lin/ft each
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Equipment:	none

Lighting

	see lighting section 5.38
Type:	fluorescent
Natural:	none
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	none
Sound Transmission:	none

1.05 Hospitality Room Pantry

Mechanical see mechanical sections 5.24 -5.35

Special Requirements: room to be exhausted

Plumbing: see plumbing section 5.32

Sinks: yes

Floor Drains: yes

Hose Bib: yes

Special Requirements: none

Electrical see electrical sections 5.36 -5.40

Normal Power(volts): 120 v,208,240

Special Requirements: multiple outlets to support food service equipment

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Guest Services- Information 1.06

Space Use Category:	1.00 SPECTATOR FACILITIES	Area NASF:	160.0	SF
Room Use Code:	600	Quantity	1	
		Total Area:	160	NASF

Function: Staffed central information area for guests to get event information and to serve as a lost and found

Occupants: 2

Relationships: Part of " Front of House" and "Event Zone". Adjacent to lobby/entrance and event/ticket office

Architectural

	see architecture sections 5.01 - 5.23		
Flooring:	resilient	Base:	rubber
Walls:	ground face block	Wall Finish:	ground face block
Ceiling:	acoustic panel	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	(1) 3'0" x 7'0"
Access:	from concourse		
Other:	overhead grill-(1) 8'0" x 4'0" high		

Built in Millwork

Base Cabinets:	(2) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(1) 8 lin/ft each
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	(2) counter height stools
File Cabinets:	(2) below counter
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Equipment:	see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent
Natural:	none
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.6 - 0.8 s (ave. mid-freq.) RC(N) 35-40
Sound Transmission:	none

1.06 Guest Services- Information

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.41

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: digital signage & event/program displays

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
digital signage	1	TBD	TBD	TBD	TBD	none	none	none	

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

First Aid 1.07

Space Use Category:	1.00 SPECTATOR FACILITIES	Area NASF:	200.0	SF
Room Use Code:	600	Quantity	1	
		Total Area:	200	NASF

Function: Area equipped and supplied for providing basic medical attention and treatment of minor wounds/injuries of visitors and patrons. The space will also serve as a staging/holding area for people with more serious injuries until ambulance service arrives

Occupants: 1

Relationships: A publically identifiable space in close proximity to lobby/entrance, concourse and seating areas

Architectural

see architecture sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	painted
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood door	Door Size:	3'0" x 7'0"
Access:	from main concourse		
Other:	none		

Built in Millwork

Base Cabinets:	(1) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(1) 8 lin/ft each
Other:	none

Moveable Furnishings

Desks:	(1) 60" desk
Chairs:	(1) rolling chair – upholstered back and seat
File Cabinets:	(1) lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	medical table
Equipment:	none
	medical patient cot
	medical blood and sharps container(s)

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.)
	RC(N) 35-40
Sound Transmission:	STC-45

1.07 First Aid

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: (1) hand sink

Floor Drains: yes

Hose Bib: yes

Special Requirements: (1) unisex water closet

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Foodservice Concessions 2.01

Space Use Category:	2.00 CONCESSIONS & RETAIL	Area NASF:	500.0	<i>SF/ point of sale</i>
Room Use Code:	600	Quantity	4	
		Total Area:	2,000	NASF

Function: Provides direct snack and beverage service to the public. Each concession should have 5'-0" of service counter for each point of sale (POS) position. Assuming five POS per concession, a 25'-0" long counter is required. In addition, each concession requires an adjacent holding/support room for refrigerated and ambient product storage and for the location of the soda system. Queuing may be shared with concourse circulation space or as a recess off the concourse but is not included in the size allocation for the concessions

Occupants: 6-10 person per concession stand

Relationships: Convenient to event center seating, queuing can be shared with concourse circulation, adjacent to holding/ storage room

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	quarry tile
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustic panel /gypsum wall board	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	hollow metal with vision panels	Door Size:	(1) 3'-0"x7'-0"
Access:	concession holding storage, direct.		
Other:	Overhead grill at front counter		

Built in Millwork

Base Cabinets:	front and back service counters
Countertops:	stainless steel
Wall Cabinets:	none
Other:	front counter to accommodate service equipment

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Equipment:	see specialized equipment see audio-visual

Lighting

	see lighting section 5.38
Type:	70 fc to all working surfaces
Natural:	none
Other:	accent lighting at front counter

Acoustics

	see acoustics section 5.19
Room Criteria:	none
Sound Transmission:	none

2.01 Foodservice Concessions

Mechanical

see mechanical sections 5.24 - 5.35

Special Requirements:

serve from support area air handling unit (dedicated VAV box).
use transfer air from spectator space for exhaust hood make-up air

Plumbing:

see plumbing section 5.32

Sinks:

(1) hand sink, (1) 3-compartment sink

Floor Drains:

yes

Hose Bib:

yes

Special Requirements:

none

Electrical

see electrical sections 5.36 - 5.40

Normal Power(volts):

120 v, 208, 240

Special Requirements:

multiple outlets to support food service equipment

Voice / Data

see audio/visual section 5.19

Voice:

yes

Data:

yes

Wi-Fi:

yes

Special Requirements:

none

AudioVisual

see audio/visual section 5.19

Capabilities/Features:

electronic menu boards

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
roll-in refrigerator	1	2	TBD	TBD	TBD	TBD	TBD	TBD	
shelf Unit	1	lot	TBD	TBD	TBD	TBD	TBD	TBD	
soda system	2	1	TBD	TBD	TBD	TBD	TBD	TBD	by soda supplier
hand sink	1	lot	TBD	TBD	TBD	TBD	TBD	TBD	
front service counter	1	3	TBD	TBD	TBD	TBD	TBD	TBD	72" per POS
ice cart	1	3	TBD	TBD	TBD	TBD	TBD	TBD	
POS system	2	5	TBD	TBD	TBD	TBD	TBD	TBD	
beverage refrigerator	2	2+	TBD	TBD	TBD	TBD	TBD	TBD	by soda supplier
back service counter	1	1+	TBD	TBD	TBD	TBD	TBD	TBD	allow for bev refrigerator
electronic menu boards	1	4	TBD	TBD	TBD	TBD	TBD	TBD	

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Concession Storage 2.02

Space Use Category:	2.00 CONCESSIONS & RETAIL	Area NASF:	1,000.0	<i>SF</i>
Room Use Code:	600	Quantity:	1	
		Total Area:	1,000	<i>NASF</i>

Function: Provides a location for the storage of concessions and all purchased food products and swing equipment. It should also allow for desk space for minor supervisory/management functions. No employee facilities are necessary

Occupants: 1

Relationships: Locate adjacent to support pantry, with direct access from loading area, Indirect access via service elevator if needed to concession stands

Architectural

	see architectural sections 5.01 -5.23		
Flooring:	sealed concrete	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	12'0"
Windows:	none	Window Treatments:	none
Doors:	hollow metal doors with vision panels	Door Size:	(2) 3'0" x 7'0"
Access:	direct from loading area, indirect to concession stands		
Other:	access from loading dock (1) coiling OH door 12' x 14'0 high		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) work station for management
Chairs:	(2) roller chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(2) 8'-0" preparation tables
Equipment:	utility cart (number TBD) dunnage rack (number TBD) storage shelving

Lighting

	see lighting section 5.38
Type:	70 fc to all working surfaces
Natural:	none
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	none
Sound Transmission:	none

2.02 Concession Storage

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: (1) hand sink

Floor Drains: yes

Hose Bib: yes

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Foodservice Support Pantry 2.03

Space Use Category:	2.00 CONCESSIONS & RETAIL	Area NASF:	1,500.0	SF
Room Use Code:	600	Quantity	1	
		Total Area:	1,500	NASF

Function: Serves as the staging location for banquet food prepared off site and held here for service. Provides limited level of support for the concessions, including ice production and beverage holding and chilling. Cold beverages are stored in the walk-in refrigerator. Ice is transported to the concessions, and stored there, in mobile ice carts that are filled directly by the ice production equipment located in this space. No direct food production is anticipated

Occupants:

Relationships: Convenient to largest/most frequently used meal venue event level floor. Should also be contiguous to Concessions Storage

Architectural

Flooring:	resilient	Base:	quarry tile
Walls:	CMU	Wall Finish:	painted
Ceiling:	acoustic panel	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	hollow metal with vision panels	Door Size:	(2) 6'0" x 7'0"
Access:	direct from loading area and event floor for serving, indirect to concession stands		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(2) 8' long preparation tables
Other:	none
Equipment:	see specialized equipment

Lighting

	see lighting section 5.38
Type:	fluorescent
Natural:	none
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	none
Sound Transmission:	none

2.03 Foodservice Support Pantry

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: thermal control

Plumbing: see plumbing section 5.32

Sinks: yes

Floor Drains: trench drains

Hose Bib: yes

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v, 208, 240

Special Requirements: multiple outlets to support food service equipment

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
Walk-in Refrigerator	1	1	TBD	TBD	TBD	TBD	IW	TBD	
Ice Maker, 1400 lbs.+	1	2+	TBD	TBD	TBD	TBD	CW+IW	TBD	
Ice Bin, 3,000 lbs.+	1	1+	TBD	TBD	TBD	TBD	IW	TBD	
Ice Transport Cart			TBD	TBD	TBD	TBD	none	TBD	
Coffee Brewer, 2x6gal	2	1	TBD	TBD	TBD	TBD	CW	TBD	
3-comp (Pot) Sink	1	1	TBD	TBD	TBD	TBD	H&CW+IW	TBD	
2-comp (Prep) Sink	1	1	TBD	TBD	TBD	TBD	H&CW+IW	TBD	
Work Counters (w/Sink)	1	2	TBD	TBD	TBD	TBD	H&CW+IW	TBD	
Mobile Work Tables	1	Lot	TBD	TBD	TBD	TBD	none	TBD	
Hand Sinks	1	Lot	TBD	TBD	TBD	TBD	H&CW+IW	TBD	
Roll-in Heated Cabinets	1	2+	TBD	TBD	TBD	TBD	none	TBD	

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Merchandising / Storage 2.04

Space Use Category:	2.00 CONCESSIONS & RETAIL	Area NASF:	250.0	<i>SF</i>
Room Use Code:	700	Quantity	1	
		Total Area:	250	<i>NASF</i>

Function: Serves as a retail area for the sale of team and University related merchandise

Occupants: 2-4

Relationships: Located off the main public entry lobby at the event center concourse

Architectural

Flooring:	resilient	Base:	rubber
Walls:	glass	Wall Finish:	glass
Ceiling:	open to lobby	Min.Ceiling Ht:	TBD
Windows:	desirable	Window Treatments:	none
Doors:	glass in aluminum frame	Door Size:	(1) 6'0" x 7'0"
Access:	off main lobby, direct		
Other:	none		

Built in Millwork

Base Cabinets:	(1) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(1) 8 lin/ft each
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	(2) stools
File Cabinets:	none
Trash Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	(1) cash register retail sales shelving, and displays see specialized equipment

Lighting

	see lighting section 5.38
Type:	display lighting
Natural:	desirable
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	none
Sound Transmission:	none

2.04 Merchandising / Storage

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: yes

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
POS system	2	1	TBD	TBD	TBD	TBD	TBD	TBD	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Events Coordination Staff Office 3.02

Space Use Category:	3.00 EVENT CENTER ADMIN / TIC	Area NASF:	100.0	<i>SF</i>
Room Use Code:	300	Quantity:	2	
		Total Area:	200	<i>NASF</i>

Function: Offices for event project managers

Occupants: 3

Relationships: Located on the exterior adjacent to lobby entry, integral to event center administrative suite

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	from suite		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – desk
File Cabinets:	(1) lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	(1) bookshelf
Equipment:	(1) computer, flat screen monitor (1) shared printer, located for suite access

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

3.02 Events Coordination Staff Office

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable tv

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Events Management Workroom 3.03

Space Use Category:	3.00	EVENT CENTER ADMIN / TI	Area NASF	180	SF
Room Use Code:	300		Quantity	1	
			Total Area:	180	NASF

Function: Area for event staff to conduct meetings and prepare materials

Occupants: 3

Relationships: Located adjacent to Events Coordination Director and staff offices

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	from suite		
Other:	sidelight		

Built in Millwork

Base Cabinets:	yes
Countertops:	solid surface
Wall Cabinets:	yes
Other:	(6) cubbies for student intern back-pack storage

Moveable Furnishings

Desks:	(3) 6'0" straight
Chairs:	(3) roller chairs
File Cabinets:	(3) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(1) 6' work table
Other:	none
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

3.03 Events Management Workroom

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements:

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Marketing Promotional Storage 3.04

Space Use Category:	3.00	EVENT CENTER ADMIN	Area NASF	200	SF
Room Use Code:	300		Quantity	1	
			Total Area:	200	NASF

Function: Storage area for marketing materials used by the event center/ticketing staff

Occupants:

Relationships: Adjacent to Event Coordinators offices

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	from suite		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	storage shelving
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	none
Sound Transmission:	none

3.04 Marketing Promotional Storage

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Box Office / Ticket Windows 3.05

Space Use Category:	3.00	EVENT CENTER ADMIN	Area NASF	240	SF
Room Use Code:	300		Quantity	1	
			Total Area:	240	NASF

Function: For public sale of tickets/will call

Occupants: 4

Relationships: Part of "Front of House" and "Event Zone". Adjacent to Lobby and main entrance

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	required	Window Treatments:	coiling security gate/shade
Doors:	solid wood	Door Size:	3'0" x 7"0"
Access:	off of main lobby		
Other:	sidelight		

Built in Millwork

Base Cabinets:	(2) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(1) 8 lin/ft each
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	4 – rolling chairs – desk
File Cabinets:	2 – lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	secure ticket windows
Equipment:	computer
	printer
	ticket machine

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 35-40
Sound Transmission:	STC 45

3.05 Box Office / Ticket Windows

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: dedicated VAV box
 accommodate ticket processing computer heat load,

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: panic button

Voice/ Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: panic button

AudioVisual see audio/visual section 5.19
 Capabilities/Features: intercom/electronic communication

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Ticket Manager Office 3.06

Space Use Category:	3.00 EVENT CENTER ADMIN / TICKET	Area NASF:	120.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	120	NASF

Function: Office space for ticket manager

Occupants: 1

Relationships: Located adjacent to box office and event center administrative suite

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	from suite		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) 72" L-shaped desk
Chairs:	(1) rolling chair – upholstered back and seat; (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

3.06 Ticket Manager Office

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: panic button

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: panic button

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Counting Room 3.07

Space Use Category:	3.00	EVENT CENTER ADMIN / TICKET	Area NASF:	100.0	<i>SF</i>
Room Use Code:	300		Quantity	1	
			Total Area:	100	<i>NASF</i>

Function: Space to count the cash and ticket taken for events

Occupants: 1

Relationships: Located adjacent to box office and ticket managers office

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	from suite		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(2) rolling chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	bookshelf
Equipment:	computer
	printer
	see specialized equipment

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

3.07 Counting Room

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: panic button

Voice/ Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: panic button

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
Commercial safe	1	1	TBD	TBD	TBD	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Space Use Category:	3.00	EVENT CENTER ADMIN / TIC	Area NASF:	50.0	SF
Room Use Code:	300		Quantity	1	
			Total Area:	50	NASF

Function: Storage space for marketing merchandise typically distributed at events

Occupants:

Relationships: Located adjacent to main entrance and grand lobby, indirectly to event center administrative suite

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	off of main concourse		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	none
Tables:	none
Other:	storage shelving
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	none
Sound Transmission:	none

3.08 Storage

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: yes

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Space Use Category:	3.00	EVENT CENTER ADMIN	Area NASF:	100	SF
Room Use Code:	300		Quantity	1	
			Total Area:	100	NASF

Function: Utilized by event security staff

Occupants: 1

Relationships: Space or booth that has a view of the bowl and the event floor. It would have a front counter with glass, and a back counter with TV monitors to view the closed circuit tv cameras

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	service window	Window Treatments:	roller shades
Doors:	solid wood with side light	Door Size:	3'0" x 7'0"
Access:	off of the main concourse		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	solid surface
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) 6'0" desk
Chairs:	(4) rolling chairs
File Cabinets:	(2) 5-drawer laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	computer(s)
	see specialized equipment

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19 (see office space)

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC-45

3.09 Event Security

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing:

Sinks: see plumbing section 5.32

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable tv.

AudioVisual see audio/visual section 5.19

Capabilities/Features: security monitors

CCTV system capability and access

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
CCTV monitors	1	TBD	TBD	TBD	TBD	TBD	none	TBD	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Meeting/Green Room 4.02

Space Use Category:	4.00	PERFORMANCE/MEDIA	Area NASF:	200	SF
Room Use Code:	300		Quantity	1	
			Total Area:	200	NASF

Function: Serves primarily as a building meeting space and accommodates performers not yet required on stage. Functions as a lounge for performers before and after a performance

Occupants:

Relationships: Adjacent to event floor, press work room for athletic events

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	off of main circulation		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	sofa and lounge chairs, (18) folding chairs
File Cabinets:	none
Trash/Recycling Can:	yes
Tables:	(4) folding tables
Other:	none
Equipment:	see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.)
	RC(N) 30-35
Sound Transmission:	STC-45

4.02 Meeting/Green Room

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: multiple outlets

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat panel display
connection/player for facilities program
local systems control
local sound

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Sound / Light / PA / Scoreboard Control/Video Production 4.05

Space Use Category:	4.00	PERFORMANCE/MEDIA FACII	Area NASF:	400.0	SF
Room Use Code:	500		Quantity	1	
			Total Area:	400	NASF

Function: Visual and audio control for event. Recording and work area for game film and main event floor video screen and ribbon board video and graphics.

Occupants: 4 -6

Relationships: Upper levels of event center with a view to event floor

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	full view window	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	TBD		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	full front counter, solid surface
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(4) desks
Chairs:	(7) roller chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC requirements
Tables:	(2) 6'0" folding tables
Other:	none
Equipment:	computers
	see specialized equipment
	see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent
Natural:	none
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.5-0.6 s (ave. mid-freq.)
	RC(N) 25-30
Sound Transmission:	STC 60-65

4.05 Sound / Light / PA / Scoreboard Control/Video Production

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: dedicated VAV box
 accommodate high heat load

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: dimmable lighting control

Voice / Data see communication section 5.41
 Voice: Yes
 Data: Yes
 Wi-Fi: Yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: flat panel displays
 connection for facilities program player
 local systems control
 local sound system
 auxilliary connections for portable input
 facilities program player
 studio sound monitors
 connections to broadcast truck production pad
 recording and mixing equipment

Special Requirements: production switcher
 audio-visual mixing and recording console
 scoreboard video viewer
 camera position monitor bank
 intercom

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
Production switcher	1	1	TBD	TBD	TBD	TBD	none	TBD	none
Audio mixing board	1	1	TBD	TBD	TBD	TBD	none	TBD	none
Scoreboard video viewer	1	1	TBD	TBD	TBD	TBD	none	TBD	none
Other equipment	1	TBD	TBD	TBD	TBD	TBD	none	TBD	none

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Patch Panels / Broadcast Connections 4.06

Space Use Category: 4.00 PERFORMANCE/MEDIA FACII Area **NASF:** 150.0 SF
Room Use Code: 500 **Quantity:** 1
Total Area: 150 **NASF**

Function: Space for broadcast camera and radio patch panels. Cables from this room run to predetermined camera positions

Occupants:

Relationships: Located adjacent to loading area and exterior service yard for cable connections to Broadcast TV trucks

Architectural

see architectural sections 5.01 - 5.23

Flooring:	sealed concrete	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	exposed	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatmer	none
Doors:	hollow metal	Door Size:	6'0" x 7'0"
Access:	off of main circulation		
Other:	none		

Built in Millwork

Base Cabinets: none
Countertops: none
Wall Cabinets: none
Other: none

Moveable Furnishings

Desks: none
Chairs: (2) folding chairs
File Cabinets: none
Trash/Recycling Can: in accordance with UMBC standards
Tables: (1) table
Other: none
Equipment: TV rack components (see specialized equipment)
AV racks
see specialized equipment
see audio-visual

Lighting

see lighting section 5.38
Type: fluorescent
Natural: none
Other: none

Acoustics

see acoustics section 5.19
Room Criteria: RT60 = 0.5-0.7 s (ave. mid-freq.)
RC(N) 30-35
Sound Transmission: none

4.06 Patch Panels / Broadcast Connections

Mechanical	see mechanical sections 5.24 - 5.35
Special Requirements:	none
Plumbing:	see plumbing section 5.32
Sinks:	none
Floor Drains:	none
Hose Bib:	none
Special Requirements:	none
Electrical	see electrical sections 5.36 - 5.40
Normal Power(volts):	120 v
Special Requirements:	company switch power connections for broadcast trucks
Voice / Data	see communication section 5.41
Voice:	yes
Data:	yes
Wi-Fi:	yes
Special Requirements:	none
AudioVisual	see audio/visual section 5.19
Capabilities/Features:	flat panel monitors connection for facilities program player local systems control studio sound monitoring audio/video patch panel
Special Requirements:	production switcher audio mixer console scoreboard video viewer camera position monitor bank intercomms equipment rack

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
Equipment Rack	1	1	TBD	TBD	TBD	TBD	none	TBD	none
Audio/video patch panel	1	1	TBD	TBD	TBD	TBD	none	TBD	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Media and Performance Equipment Storage 4.07

Space Use Category:	4.00	PERFORMANCE/MEDIA	Area N/	100	SF
Room Use Code:	300		Quantit	1	
			Total A/	100	NASF

Function: Storage of event equipment

Occupants: 1

Relationships: Adjacent to general storage space at loading area

Architectural

see architectural sections 5.01 - 5.23

Flooring:	sealed concrete	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	exposed	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatment:	none
Doors:	hollow metal	Door Size:	3'0" x 7'0"
Access:	TBD		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	none
Tables:	none
Other:	none
Equipment:	storage shelving

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	none
Sound Transmission:	none

4.07 Media and Performance Equipment Storage

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: yes

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Associate VP, Athletic Director 5.01

Space Use Category:	5.00 Athletic Department Administrative Suite	Area NASF:	150.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	150	NASF

Function: Office for the Director of Athletics

Occupants: 1

Relationships: Prime location within the Athletics Administrative Suite. Accessible from a public entrance through the reception area. Adjacent to Administrative Assistant and other associate AD's

Architectural

	see architectural sections 5.01 - 5.23			
Flooring:	resilient	Base:	rubber	
Walls:	gypsum wall board	Wall Finish:	paint	
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"	
Windows:	yes	Window Treatments:	roller shade	
Doors:	solid wood	Door Size:	3'0" x 7'0"	
Access:	public entrance			
Other:	sidelight			

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) 72" L-shaped desk
Chairs:	(1) rolling chair – upholstered back and seat, (4) roller side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(1) conference table
Other:	rear credenza bookshelf
Equipment:	computer printer see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	yes
Other:	accent lighting

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.01 Associate VP, Athletic Director

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: Dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable tv

AudioVisual

Capabilities/Features: flat panel display
 connection for facilities program player
 local systems control
 local sound
 auxiliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Associate Athletic Director 5.02

	Athletic Department			
Space Use Category:	5.00 Administrative Suite	Area NASF:	150.0	SF
Room Use Code:	300	Quantity	8	
		Total Area:	1,200	NASF

Function: Office for the Associate Directors of Athletics

Occupants: 1

Relationships: Central Location within the Athletics Administrative Suite. Accessible from a public entrance through the reception area. Adjacent to Administrative Assistant and the Athletic Director

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	yes	Window Treatment:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chair – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	yes
Other:	accent lighting

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.02 Associate Athletic Director

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: Dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable tv

AudioVisual

Capabilities/Features: flat panel display (provide utility infrastructure only)
 connection for facilities program player
 local systems control
 local sound
 auxilliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

	Athletic Department			
Space Use Category:	5.00	Administrative Suite	Area NASF:	120.0 SF
Room Use Code:	300		Quantity	15
			Total Area:	1,800 NASF

Function: Office for the Assistant Directors of Athletics

Occupants: 1

Relationships: Central Location within the Athletics Administrative Suite. Accessible from a public entrance through the reception area. Adjacent to Administrative Assistant and the Associate Athletic Directors

Architectural

	see architectural sections 5.01 - 5.23	
Flooring:	resilient	Base: rubber
Walls:	gypsum wall board	Wall Finish: paint
Ceiling:	acoustic panel	Min.Ceiling Ht: 9'0"
Windows:	desirable	Window Treatment: roller shade
Doors:	solid wood	Door Size: 3'0" x 7'0"
Access:	public entrance	
Other:	sidelight	

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	desirable
Other:	accent lighting

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.03 Director or Manager

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual

Capabilities/Features: flat panel display (provide utility infrastructure only)
 connection for facilities program player
 local systems control
 local sound
 auxiliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Administrative Assistant/Staff 5.04

Space Use Category:	5.00 Athletic Department Administrative Suite	Area NASF:	100.0	SF
Room Use Code:	300	Quantity	5	
		Total Area:	500	NASF

Function: Office

Occupants: 1

Relationships: Visual connection to reception, centrally located in suite to have easy access to coaches and administrators

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatment:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chair – desk
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	bookshelf
Equipment:	computer
	printer, located for suite access
	see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

5.04 Administrative Assistant/Staff

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat panel display (provide utility infrastructure only)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Space Use Category:	5.00 Athletic Department Administrative Suite	Area NASF:	120.0	SF
Room Use Code:	300	Quantity	9	
		Total Area:	1,080	NASF

Function: Office for Head Coaches

Occupants: 1

Relationships: Coaches grouped within the administration suite, adjacent to an administrative assistant

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer see audio-visual white board tack board

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.05 Head Coach

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat panel display
 connection for facilities program player
 local systems control
 local sound
 auxiliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Assistant Coach 5.06

Space Use Category:	5.00 Athletic Department Administrative Suite	Area NASF:	100.0	<i>SF</i>
Room Use Code:	300	Quantity	18	
		Total Area:	1,800	<i>NASF</i>

Function: Office for Assistant Coaches

Occupants: 1

Relationships: Coaches grouped within the administration suite, adjacent to an administrative assistant

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	internal suite		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	coat hooks

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (1) sled base side chair
File Cabinets:	(1) lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer white board tack board see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.06 Assistant Coach

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: Dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat panel display(provide utility infrastructure only)

connection for facilities program player

local systems control

auxilliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Comments

Conference Room 5.07

Space Use Category:	5.00 Athletic Department Administrative Suite	Area NASF:	440.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	440	NASF

Function: Conference meeting room for large staff and public meetings

Occupants: 22

Relationships: Prime location within the administrative suite and adjacent to the main public reception area

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	internal suite		
Other:	sidelight		

Built in Millwork

Base Cabinets:	(1) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(1) 8 lin/ft each
Other:	lockable cabinets

Moveable Furnishings

Desks:	none
Chairs:	(18) roller chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(2) 8' conference tables
Other:	none
Equipment:	white board
	tack board
	see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	no
Other:	accent, dimmable

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.)
	RC(N) 25-30
Sound Transmission:	STC 50

5.07 Conference Room

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: dedicated VAV box
 CO2 supply air control

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: cable TV
 speaker phone

AudioVisual
 Capabilities/Features: large flat panel display or front projection system
 facilities program player
 local systems control
 input connections at table & auxilliary all plate
 program sound system

Special Requirements: annotation capabilities
 infrastruure only for future audio & video conferencing/collaboration
 LCD screen, with smart board technology (provide infrastructure only)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Coaches Meeting Rooms 5.08

Space Use Category:	5.00 Athletic Department Administrative Suite	Area NASF:	150.0	<i>SF</i>
Room Use Code:	300	Quantity	2	
		Total Area:	300	<i>NASF</i>

Function: Conference meeting room for small staff and coaches' meetings

Occupants: 6
Relationships: Located throughout the Administrative suite

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient flooring	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	internal suite		
Other:	sidelight		

Built in Millwork

Base Cabinets:	(1) 8 lin/ft each
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	
Chairs:	(6) roller chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	conference table to accommodate 6
Other:	none
Equipment:	none
Specialties:	white board tack board see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	none
Other:	none

Acoustics

	see acoustics section 5.19		
Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 25-30	Sound Transmission:	STC 50

5.08 Coaches Meeting Rooms

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: dedicated VAV box
 CO2 supply air control

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: Dimmable lighting control

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: cable TV

AudioVisual
 Capabilities/Features: flat panel display
 facilities program player
 local systems control
 input connections at table & auxilliary all plate
 program sound system
 Special Requirements: annotation capabilities
 infrastrure only for future audio & video conferencing/collaboration
 LCD screen, with smart board technology

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Office Support (Kitchenette) 5.09

Space Use Category:	5.00 Athletic Department Administrative Suite	Area NASF:	120.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	120	<i>NASF</i>

Function: Food preparation station to serve conference and meeting rooms within Athletic Department Administrative Suite

Occupants:

Relationships: Adjacent to conference and meeting rooms

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	internal suite		
Other:	none		

Built in Millwork

Base Cabinets:	(1) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(1) 8 lin/ft each
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	coffee maker microwave refrigerator

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	none
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	none
Sound Transmission:	none

5.09 Office Support (Kitchenette)

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: room to be exhausted

Plumbing: see plumbing section 5.32

Sinks: 1- 2 compartment

Floor Drains: yes

Hose Bib: none

Special Requirements: garbage disposal
water filling station/drinking fountain

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: multiple outlets for food service equipment

Voice / Data see communication section 5.41

Voice: none

Data: none

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Space Use Category:	5.00	Area NASF:	7,000.0	SF
Room Use Code:	600	Quantity	1	
		Total Area:	7,000	NASF

Function: Auxiliary gym to accommodate one full-size, NCAA compliant basketball court that has clear height to accommodate volleyball practices and other multi-use activities

Occupants:

Relationships: Adjacent to basketball and volleyball locker rooms and support spaces

Architectural

see architectural sections 5.01 - 5.23

Flooring:	concrete base with permanent wood athletic	Base:	rubber
Walls:	cmu	Wall Finish:	paint
Ceiling:	exposed	Min.Ceiling Ht:	Meet NCAA requirements
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	determined by code analysis
Access:	TBD		
Other:	wood floor infrastructure and ceiling height need to accommodate volleyball		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	(6) stackable chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(2) 6' folding tables
Other:	none
Equipment:	see specialized equipment
	see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent - per NCAA Standards
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = <1.50 s (ave. mid-freq.) RC(N) 35-45
Sound Transmission:	None

5.10 Auxiliary Gym

Mechanical	see mechanical sections 5.24 - 5.35
Special Requirements:	accommodate high heat loads
Plumbing:	see plumbing section 5.32
Sinks:	none
Floor Drains:	none
Hose Bib:	none
Other:	(2) water fountain/bottle filling stations near entrance of gym
Electrical	see electrical sections 5.36 - 5.40
Normal Power(volts):	120 v
Special Requirements:	none
Voice / Data	see communication section 5.41
Voice:	yes
Data:	yes
Wi-Fi:	yes
AudioVisual	see audio/visual section 5.19
Capabilities/Features:	paging and wired/wireless public address systems connection for facilities program player local systems control zoned local sound system auxiliary input connections
Special Requirements:	assistive listening system(ADA) connections and inputs in floor boxes

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
ceiling hung, fold up backboards	1	6	TBD	TBD	TBD	TBD	none	TBD	none
volleyball stanchions/nets	1	2	TBD	TBD	TBD	TBD	none	TBD	none
wall mounted shot clocks	1	4	TBD	TBD	TBD	TBD	none	TBD	none
divider curtain	1	1	TBD	TBD	TBD	TBD	none	TBD	none

Comments

Space shall meet all NCAA requirements for basketball and volleyball.

Video Viewing Room / Media Press Conference 5.11

		Basketball and Volleyball			
Space Use Category:	5.00	Support	Area NASF:	950.0	SF
Room Use Code:	300		Quantity	1	
			Total Area:	950	NASF

Function: Multi-use room for teams to review game film and to serve as a media press conference room on game day. Accommodates members of the press for post game/performance interviews

Occupants: 24

Relationships: Internal to athletic department administrative suite with access off of common area. Indirect access for press to interview room

Architectural

	see architectural sections 5.01 - 5.23			
Flooring:	resilient	Base:	rubber	
Walls:	gypsum wall board	Wall Finish:	paint	
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"	
Windows:	none	Window Treatments:	none	
Doors:	solid wood	Door Size:	3'0" x 7'0"	
Access:	TBD			
Other:	none			

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	Tiered seating for 24

Moveable Furnishings

Desks:	none
Chairs:	(20) stacking chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(40 lf) 2'0" wide folding tables
Other:	none
Equipment:	see specialized equipment see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent, down lights dimmable
Natural:	none
Other:	light rack for TV, portable TV lighting

Acoustics

	see acoustics section 5.19
Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 25-30
Sound Transmission:	STC-45

5.11 Video Viewing Room / Media Press Conference

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: dedicated VAV box
 accommodate high heat load

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: multiple outlets for media
 multiple outlets for portable lighting

AudioVisual
 Capabilities/Features: large flat panel display
 facilities program player
 local systems control
 local sound system
 auxiliary input connections
 Special Requirements: assistive listening system(ADA)
 press mult connections
 lectern or podium
 media lighting

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
TBD	1	TBD	TBD	TBD	TBD	TBD	TBD	none	

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Study Room 5.12

Space Use Category:	5.00 Academic Achievement Center	Area NASF:	1,000.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	1,000	NASF

Function: Student athletes study area

Occupants: 40

Relationships: Located with in the Academic Achievement Suite, adjacent to the public entrance and academic support advisors

Architectural

see architectural sections 5.01 - 5.23

Flooring:	carpet	Base:	rubber
Walls:	gypsum wall board,	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	(40) desk chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(3)-4 person tables
Other:	(40) study carrels
Equipment:	(2) tackboards
	clock
	see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.)
	RC(N) 30-35
Sound Transmission:	STC 45

5.12 Study Room

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual

Capabilities/Features: large flat panel displays or video projection system
 facilities program player
 local stereo sound reproduction system
 local sound reinforcement system, wired/wireless microphones, ceiling loudspeakers
 local control system
 floor and wall connections for systems inputs
 lectern
 assistive listening system (ADA)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Comments

Computer Lab 5.13

Space Use Category:	5.00 Academic Achievement Center	Area NASF:	400.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	400	NASF

Function: Student athletes computer work area

Occupants: 20

Relationships: Located within the Academic Achievement Suite, adjacent to study room and academic support advisors

Architectural

see architectural sections 5.01 - 5.23

Flooring:	carpet	Base:	rubber
Walls:	gypsum wall board,	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(10)2 person desks
Chairs:	(20) roller chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(2) 6 person round
Other:	none
Equipment:	(20) computers
	(1) printer with stand
	clock
	see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.)
	RC(N) 30-35
Sound Transmission:	STC 45

5.13 Computer Lab

Mechanical

see mechanical sections 5.24 - 5.35

Special Requirements: dedicated VAV box
accommodate high heat load / provide CO2 supply air control

Plumbing:

see plumbing section 5.32

Sinks: none
Floor Drains: none
Hose Bib: none
Special Requirements: none

Electrical

see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v
Special Requirements: none

Voice / Data

see communication section 5.41

Voice: no
Data: yes
Wi-Fi: yes
Special Requirements: multiple outlets

AudioVisual

Capabilities/Features: large flat panel displays or video projection system
facilities program player
local stereo sound reproduction system
local sound reinforcement system, wired/wireless microphones, ceiling loudspeakers
local control system
floor and wall connections for systems inputs
lectern
assistive listening system (ADA)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Comments

Space Use Category:	5.00 Academic Achievement Center	Area NASF:	600.0	SF
Room Use Code:	300	Quantity:	1	
		Total Area:	600	NASF

Function: Student athletes' team tutoring room

Occupants: 30

Relationships: Located within the Academic Achievement Suite, adjacent to study room and academic support advisors

Architectural

see architectural sections 5.01 - 5.23	
Flooring: resilient	Base: rubber
Walls: gypsum wall board,	Wall Finish: paint
Ceiling: acoustic panel	Min.Ceiling Ht: 9'0"
Windows: desirable	Window Treatments: roller shade
Doors: solid wood	Door Size: 3'0" x 7'0"
Access: public entrance	
Other: sidelight	

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(15) 2 person desks
Chairs:	(30) roller chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	clock
	see audio-visual

Lighting

see lighting section 5.38	
Type: fluorescent – indirect	
Natural: desirable	
Other: none	

Acoustics

see acoustics section 5.19	
Room Criteria: RC(N) 35-40	
Sound Transmission: STC 45	

5.14 Tutoring Team

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: no

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: LCD screen, with smart board technology (provide infrastructure only)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Comments

Tutoring Individual 5.15

Space Use Category:	5.00 Academic Achievement Center	Area NASF:	60.0	SF
Room Use Code:	300	Quantity	6	
		Total Area:	360	NASF

Function: Student athletes individual tutoring rooms

Occupants: 2

Relationships: Located within the Academic Achievement Suite, adjacent to study room and academic support advisors

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board,	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7"0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) desk
Chairs:	(2) rolling chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	clock

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 35-40
Sound Transmission:	STC 45

5.15 Tutoring Individual

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Comments

Space Use Category:	5.00 Academic Achievement Center	Area NASF:	120.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	120	NASF

Function: Office for the Assistant Director of Athletics for Academic Achievement

Occupants: 1

Relationships: Located with in the Academic Achievement Suite, adjacent to study room and academic support advisors

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.16 Director

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: Dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat panel display
 connection for facilities program player
 local systems control
 local sound
 auxilliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Academic Advisor Office 5.17

Space Use Category:	5.00 Academic Achievement Center	Area NASF:	100.0	SF
Room Use Code:	300	Quantity	4	
		Total Area:	400	NASF

Function: Office for the academic advisor

Occupants: 2

Relationships: Located within the Academic Achievement Suite, adjacent to study room and Assistant Athletic Director

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board,	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (1) sled base side chair
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 35-40
Sound Transmission:	STC 45

5.17 Academic Advisor Office

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Office Service Room 5.18

Space Use Category:	5.00 Academic Achievement Center	Area NASF:	100.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	100	NASF

Function: Storage room for Academic Achievement Center

Occupants: 1

Relationships: Located with in the Academic Achievement Suite, adjacent to study room and academic advisor offices

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board,	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	(1) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(1) 8 lin/ft each
Other:	lockable cabinets

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	1- copy machine

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

5.18 Office Service Room

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Space Use Category:	5.00 Academic Achievement Center	Area NASF:	150.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	15	NASF

Function: Entry into and reception space for the Academic Achievement Suite

Occupants: 15

Relationships: Serves as entry space to the suite and access to adjacent study spaces

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	carpet	Base:	rubber
Walls:	gypsum wallboard, glass	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	(10) upholstered sled base chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(2) end tables, (1) coffee table
Other:	systems furniture reception work counter/station
Equipment:	clock
	see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	desirable or indirect borrowed light
Other:	table lamps

Acoustics

	see acoustics section 5.19
Room Criteria:	RC(N) 35-40
Sound Transmission:	STC 45

5.19 Waiting

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: no

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat panel display

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Men's Basketball Locker Room 5.20

Space Use Category:	5.00 Men's Basketball Suite	Area NASF:	450.0	<i>SF</i>
Room Use Code:	500	Quantity	1	
		Total Area:	450	<i>NASF</i>

Function: Locker room for men's basketball team

Occupants: 16

Relationships: Located, adjacent to Auxiliary Gym, with access to the playing court. Functionally integrated with team and shower rooms

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	custom carpet	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel, gypsum	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	integrate locker room with team room into one large space that meets privacy needs		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	(16) 33" x 24" custom wood lockers

Moveable Furnishings

Desks:	none
Chairs:	(16) padded courtside chairs with logos
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	clock countdown clock timer for half time intermission glass marker board

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	none
Other:	accent down lighting

Acoustics

	see acoustics section 5.19
Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.20 Men's Basketball Locker Room

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: dimmable lighting control
duplex outlet in lockers

Voice / Data see communication section 5.41

Voice: no

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Locker room to have extensive branding and team logos

Men's Basketball Shower Room 5.21

Space Use Category:	5.00 Men's Basketball Suite	Area NASF:	300.0	<i>SF</i>
Room Use Code:	500	Quantity	1	
		Total Area:	300	<i>NASF</i>

Function: Shower and toilet room

Occupants: 16

Relationships: Located within locker room suite, adjacent to locker room

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	ceramic tile	Base:	ceramic tile
Walls:	ceramic tile	Wall Finish:	ceramic tile
Ceiling:	gypsum wall board	Min.Ceiling Ht:	9'0" min
Windows:	none	Window Treatments:	none
Doors:	none	Door Size:	none
Access:	direct from locker room		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	solid surface
Wall Cabinets:	none
Other:	full height and length mirror

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	hand & hair dryers

Lighting

	see lighting section 5.38
Type:	fluorescent
Natural:	none
Other:	none

Acoustics

	see acoustics section 5.19
Room Criteria:	none
Sound Transmission:	none

5.21 Men's Basketball Shower Room

Mechanical

see mechanical sections 5.24 - 5.35

Special Requirements: use transfer air from locker room for exhaust
12 ACH exhaust

Plumbing:

see plumbing section 5.32

Sinks:	4	Toilets:	2
Floor Drains:	yes	Urinals:	2
Hose Bib:	yes	Shower:	5
Special Requirements:	none		

Electrical

see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data

see communication section 5.41

Voice: no
Data: no
Wi-Fi: no
Special Requirements: none

AudioVisual

see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Men's Basketball Informal Meeting 5.22

Space Use Category:	5.00 Men's Basketball Suite	Area NASF:	400.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	400	NASF

Function: Informal meeting space. Includes entry and storage

Occupants: 16

Relationships: Serves as main entry space into the locker room suite, directly adjacent to locker room with direct access to the service corridor and to both the playing floor and auxiliary gym

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	custom carpet	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel , gypsum	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	none		

Built in Millwork

Base Cabinets:	(2) 8 in/ft each
Countertops:	solid surface
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	large cushioned couches, quantity TBD; and café table stool, quantity TBD
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	small café tables
Other:	none
Equipment:	refrigerator
	microwave
	see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	
Other:	accent down lighting

Acoustics

	see acoustics section 5.19
Room Criteria:	RC(N) 35-40
Sound Transmission:	STC 45

5.22 Men's Basketball Informal Meeting

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat screen display

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

To have extensive branding and team logos

Head Coach Office 5.23

Space Use Category:	5.00 Men's Basketball Suite	Area NASF:	120.0	<i>SF</i>
Room Use Code:	300	Quantity:	1	
		Total Area:	120	<i>NASF</i>

Function: Office for Head Coach

Occupants: 1

Relationships: Located within the basketball coaches suite, near men's basketball locker room

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer see audio-visual white board tack board

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = 0.5-0.7 s, (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.23 Head Coach Office

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: Dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat panel display
 connection for facilities program player
 local systems control
 local sound
 auxiliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Assistant Coach Office 5.24

Space Use Category:	5.00 Men's Basketball Suite	Area NASF:	100.0	<i>SF</i>
Room Use Code:	300	Quantity	5	
		Total Area:	500	<i>NASF</i>

Function: Office for Assistant Coaches

Occupants: 1

Relationships: Coaches grouped within the basketball administration suite, adjacent to head coach

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	internal suite		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	coat hooks

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (1) sled base side chairs
File Cabinets:	(1) lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer white board tack board see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.24 Assistant Coach Office

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: **infrastructure and connections only for below:**

flat panel display

connection for facilities program player

local systems control

auxiliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Administrative Assistant 5.25

Space Use Category:	5.00 Men's Basketball Suite	Area NASF:	100.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	100	<i>NASF</i>

Function: Space for administrative assistant for coaches

Occupants: 1

Relationships: Directly adjacent to coaches' offices, with direct relationship to coaches suite entry

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shades
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – desk
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	bookshelf
Equipment:	computer printer, located for suite access

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

5.25 Administrative Assistant

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Women's Basketball Locker Room 5.26

Space Use Category:	5.00 Women's Basketball	Area NASF:	450.0	<i>SF</i>
Room Use Code:	500	Quantity	1	
		Total Area:	450	<i>NASF</i>

Function: Locker room for women's basketball team

Occupants: 16

Relationships: Located adjacent to Auxiliary Gym with access to the playing court. Functionally integrated with team and shower rooms.

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	custom carpet	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel , gypsum	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	integrate locker room with team room into one large space that meets privacy needs		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	(16) 33"x24" custom wood lockers

Moveable Furnishings

Desks:	none
Chairs:	(16) padded courtside chairs with logos
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	clock countdown clock timer for half time intermission glass marker board

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	none
Other:	accent down lighting

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.26 Women's Basketball Locker Room

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: dimmable lighting control
duplex outlet in lockers

Voice / Data see communication section 5.41

Voice: no

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Locker room to have extensive branding and team logos

Women's Basketball Shower Room 5.27

Space Use Category:	5.00 Women's Basketball	Area NASF:	300.0	<i>SF</i>
Room Use Code:	500	Quantity	1	
		Total Area:	300	<i>NASF</i>

Function: Shower and toilet room

Occupants: 16

Relationships: Located within locker room suite, adjacent to locker room

Architectural

see architectural sections 5.01 - 5.23

Flooring:	ceramic tile	Base:	ceramic tile
Walls:	ceramic tile	Wall Finish:	ceramic tile
Ceiling:	gypsum wall board	Min.Ceiling Ht:	9'0" min
Windows:	none	Window Treatments:	none
Doors:	none	Door Size:	
Access:	direct from locker room		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	solid surface
Wall Cabinets:	none
Other:	full height and length mirror

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	hand & hair dryers

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	none
Sound Transmission:	none

5.27 Women's Basketball Shower Room

Mechanical

see mechanical sections 5.24 - 5.35

Special Requirements: use transfer air from locker room for make-up air
12 ACH exhaust

Plumbing:

see plumbing section 5.32

Sinks:	4	Toilets:	3
Floor Drains:	yes	Urinals:	0
Hose Bib:	yes	Shower:	5
Special Requirements:	none		

Electrical

see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data

see communication section 5.41

Voice: no
Data: no
Wi-Fi: no
Special Requirements: none

AudioVisual

see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Women's Basketball Informal Meeting 5.28

Space Use Category:	5.00 Women's Basketball	Area NASF:	400.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	400	<i>NASF</i>

Function: Informal meeting space. Includes entry and storage

Occupants: 16

Relationships: Serves as main entry space into the locker room suite, directly adjacent to locker room with direct access to the service corridor and to both the playing floor and auxiliary gym

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	custom carpet	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel , gypsum	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	integrate locker room with team room into one large space that meets privacy needs		

Built in Millwork

Base Cabinets:	(2) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	large cushioned couches
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	small café tables
Other:	none
Equipment:	refrigerator
	microwave
	see audio-visual

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	none
Other:	accent down lighting

Acoustics

	see acoustics section 5.19
Room Criteria:	RC(N) 35-40
Sound Transmission:	STC 45

5.28 Women's Basketball Informal Meeting

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: none

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat screen display

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Comments

Locker room to have extensive branding and team logos

Head Coach Office 5.29

Space Use Category:	5.00 Women's Basketball	Area NASF:	120.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	120	<i>NASF</i>

Function: Office for Head Coach

Occupants: 1

Relationships: Located within the basketball coaches suite, proximate to women's basketball locker room

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	coat hooks

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer see audio-visual
Specialties:	white board tack board

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.29 Head Coach Office

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat panel display
 connection for facilities program player
 local systems control
 local sound
 auxilliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Assistant Coach Office 5.30

Space Use Category:	5.00 Women's Basketball	Area NASF:	100.0	<i>SF</i>
Room Use Code:	300	Quantity	5	
		Total Area:	500	<i>NASF</i>

Function: Office for Assistant Coaches

Occupants: 1

Relationships: Coaches grouped within the basketball administration suite, adjacent to head coach

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	internal suite		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer white board tack board see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.30 Assistant Coach Office

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual **infrastructure and connections only for below:**

Capabilities/Features: flat panel display
 connection for facilities program player
 local systems control
 auxiliary input connection

Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Coaches' Meeting Room 5.31

Space Use Category:	5.00	Women's Basketball	Area NASF:	160	SF
Room Use Code:	300		Quantity	1	
			Total Area:	160	NASF

Function: Area for head and assistant coaches to collaborate and game plan

Occupants: 8

Relationships: Shared meeting room adjacent to Head and Assistant coaches offices

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel , gypsum	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	none		

Built in Millwork

Base Cabinets:	(1) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	(8) roller chairs
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	conference table for 8
Other:	none
Equipment:	see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	none
Other:	accent down lighting

Acoustics

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.)
	RC(N) 30-35
Sound Transmission:	STC 45

5.31 Coaches' Meeting Room

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat screen display

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Volleyball Locker Room 5.32

Space Use Category:	5.00 Women's Volleyball	Area NASF:	450.0	<i>SF</i>
Room Use Code:	500	Quantity	1	
		Total Area:	450	<i>NASF</i>

Function: Locker room for women's volleyball team

Occupants: 16

Relationships: Located, adjacent to Auxiliary Gym, with access to the playing court

Architectural

see architectural sections 5.01 - 5.23

Flooring:	custom carpet	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel , gypsum	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	(16) 33"x24" custom wood lockers,

Moveable Furnishings

Desks:	none
Chairs:	(16) padded courtside chairs with logos
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	none glass marker board

Lighting

	see lighting section 5.38
Type:	fluorescent - indirect
Natural:	none
Other:	accent down lighting

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.32 Volleyball Locker Room

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: dimmable lighting control
 duplex outlet in lockers

Voice / Data see communication section 5.41
 Voice: no
 Data: no
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Locker room to have extensive branding and team logos

Volleyball Shower Room 5.33

Space Use Category:	5.00	Women's Volleyball	Area NASF:	300.0	<i>SF</i>
Room Use Code:	500		Quantity	1	
			Total Area:	300	<i>NASF</i>

Function: Shower and toilet room

Occupants: 16

Relationships: Located within locker room suite, adjacent to locker room

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	ceramic tile	Base:	ceramic tile
Walls:	ceramic tile	Wall Finish:	ceramic tile
Ceiling:	gypsum wall board	Min.Ceiling Ht:	9'0" min
Windows:	none	Window Treatments:	none
Doors:	none	Door Size:	none
Access:	direct from locker room		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	solid surface
Wall Cabinets:	none
Other:	full height and length mirror

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	hand & hair dryers

Lighting

	see lighting section 5.38
Type:	fluorescent - indirect
Natural:	none
Other:	none

Acoustics

Room Criteria:	none
Sound Transmission:	none

5.33 Volleyball Shower Room

Mechanical

see mechanical sections 5.24 - 5.35

Special Requirements: use transfer air from locker room for make-up air
12 ACH exhaust

Plumbing:

see plumbing section 5.32

Sinks:	4	Toilets:	3
Floor Drains:	yes	Urinals:	0
Hose Bib:	yes	Shower:	5
Special Requirements:	none		

Electrical

see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice / Data

see communication section 5.41

Voice: no

Data: no

Wi-Fi: no

Special Requirements: none

AudioVisual

see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Volleyball Informal Meeting 5.34

Space Use Category:	5.00 Women's Volleyball	Area NASF:	400.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	400	<i>NASF</i>

Function: Informal meeting space

Occupants: 16

Relationships: Serves as main entry space into the locker room suite, directly adjacent to locker room with direct access to the service corridor to both the playing floor and auxiliary gym

Architectural

	see architectural sections 5.01 - 5.23			
Flooring:	custom carpet	Base:	rubber	
Walls:	gypsum wall board	Wall Finish:	paint	
Ceiling:	acoustic panel , gypsum	Min.Ceiling Ht:	10'0"	
Windows:	none	Window Treatments:	none	
Doors:	solid wood	Door Size:	3'0" x 8'0"	
Access:	service corridor			
Other:	none			

Built in Millwork

Base Cabinets:	(4) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	large cushioned couches
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	small café tables
Other:	none
Equipment:	refrigerator
	microwave
	see audio-visual

Type:	fluorescent – indirect
Natural:	none
Other:	accent down lighting

Acoustics

	see acoustics section 5.19
Room Criteria:	RC(N) 35-40
Sound Transmission:	STC 50

5.34 Volleyball Informal Meeting

Mechanical see mechanical sections 5.24 - 5.35

Special Requirements: none

Plumbing: see plumbing section 5.32

Sinks: none

Floor Drains: none

Hose Bib: none

Special Requirements: none

Electrical see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: dimmable lighting control

Voice / Data see communication section 5.41

Voice: yes

Data: yes

Wi-Fi: yes

Special Requirements: cable TV

AudioVisual see audio/visual section 5.19

Capabilities/Features: flat screen display

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Locker room to have extensive branding and team logos

Head Coach 5.35

Space Use Category:	5.00 Women's Volleyball	Area NASF:	120.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	120	<i>NASF</i>

Function: Office for Head Coach

Occupants: 1

Relationships: Coaches grouped within the administration suite, adjacent to an administrative assistant

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	coat hooks

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer white board tack board see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45-50

5.35 Head Coach

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: cable TV

AudioVisual see audio/visual section 5.19
 Capabilities/Features: flat screen display

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Assistant Coach 5.36

Space Use Category:	5.00 Women's Volleyball	Area NASF:	100.0	<i>SF</i>
Room Use Code:	300	Quantity	2	
		Total Area:	200	<i>NASF</i>

Function: Office for Assistant Coaches

Occupants: 1

Relationships: Coaches grouped within the administration suite, adjacent to head coach

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	internal suite		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	coat hooks

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (1) sled base side chair
File Cabinets:	(1) lateral
Trash Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer printer white board tack board see audio visual

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

5.36 Assistant Coach

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: dimmable lighting control

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: flat screen display (provide infrastructure only)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

UMBC Coaches' & Staff Locker Rooms 5.37

Space Use Category:	5.00 Other Locker Room Facilities	Area NASF:	450.0	<i>SF</i>
Room Use Code:	500	Quantity	2	
		Total Area:	900	<i>NASF</i>

Function: Locker and change room for coaches

Occupants: 16

Relationships: located on event level with access to exterior fields

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustic panel , gypsum	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	(20) 24"x24" metal lockers and accompanying benches

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	accent down lighting

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.37 UMBC Coaches' & Staff Locker Rooms

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: none
 Data: none
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

UMBC Coaches' & Staff Shower Rooms 5.38

Space Use Category:	5.00 Other Locker Room Facilities	Area NASF:	300.0	<i>SF</i>
Room Use Code:	500	Quantity	2	
		Total Area:	600	<i>NASF</i>

Function: Shower and toilet room

Occupants: 16

Relationships: Located adjacent coaches' locker room

Architectural

see architectural sections 5.01 - 5.23

Flooring:	ceramic tile	Base:	ceramic tile
Walls:	ceramic tile	Wall Finish:	ceramic tile
Ceiling:	gypsum wall board	Min.Ceiling Ht:	9'0" min
Windows:	none	Window Treatments:	none
Doors:	none	Door Size:	none
Access:	direct from locker room		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	solid surface
Wall Cabinets:	none
Other:	full height and length mirror

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	hand & hair dryers

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	none
Sound Transmission:	none

5.38 UMBC Coaches' & Staff Shower Rooms

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: 3 Toilets: 2
 Floor Drains: yes Urinals: 1
 Hose Bib: yes Shower: 4
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements:

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements:

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Visiting Teams Locker Rooms/ Group Performers Dressing Room 5.39

Space Use Category:	5.00 Other Locker Room Facilities	Area NASF:	400.0	<i>SF</i>
Room Use Code:	500	Quantity	2	
		Total Area:	800	<i>NASF</i>

Function: Locker room for visiting teams, multiuse space for group performers

Occupants: 16

Relationships: Located on court level, with indirect access from loading area and service yard

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustic panel , gypsum	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	(4) LF, make up counter
Wall Cabinets:	none
Other:	(16) 24" x 24" metal lockers

Moveable Furnishings

Desks:	none
Chairs:	(16) padded courtside chairs with logos
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	none make up mirror

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	accent down lighting

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.39 Visiting Teams Locker Rooms/ Group Performers Dressing Room

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: Compliance with NEC 520.71-.73 for dressing room lighting

Voice / Data see communication section 5.41
 Voice: none
 Data: none
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Visitor Shower Rooms 5.40

Space Use Category:	5.00 Other Locker Room Facilities	Area NASF:	300.0	<i>SF</i>
Room Use Code:	500	Quantity	2	
		Total Area:	600	<i>NASF</i>

Function: Shower and toilet room

Occupants: 16

Relationships: Located within locker room suite, adjacent to locker room

Architectural

see architectural sections 5.01 - 5.23

Flooring:	ceramic tile	Base:	ceramic tile
Walls:	ceramic tile	Wall Finish:	ceramic tile
Ceiling:	gypsum wall board	Min.Ceiling Ht:	9'0" min
Windows:	none	Window Treatments:	none
Doors:	none	Door Size:	none
Access:	direct from locker room		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	solid surface
Wall Cabinets:	none
Other:	full height and length mirror

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	hand & hair dryers

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	none
Sound Transmission:	none

5.40 Visitor Shower Rooms

Mechanical

see mechanical sections 5.24 - 5.35

Special Requirements: use transfer air from locker room for make-up air
12 ACH exhaust

Plumbing:

see plumbing section 5.32

Sinks:	4	Toilets:	3
Floor Drains:	yes	Urinals:	0
Hose Bib:	yes	Shower:	5
Special Requirements:	none		

Electrical

see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v
Special Requirements: none

Voice / Data

see communication section 5.41

Voice: none
Data: none
Wi-Fi: none
Special Requirements: none

AudioVisual

see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Officials' Locker Rooms/ Star Performer's Dressing 5.41

Space Use Category:	4.00 PERFORMANCE/MEDIA FACI	Area NASF:	120	SF
Room Use Code:	300	Quantity	2	
		Total Area:	240	NASF

Function: Area for lead performer to prepare for show/performance. Multi Use space with Official locker room, see 4.01

Occupants:

Relationships: Adjacent to event floor, adjacent to shower room

Architectural

see architectural sections 5.01 - 5.23

Flooring:	ceramic tile	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustic panel , gypsum	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	3'0" x 8'0"
Access:	service corridor		
Other:	upgraded finishes		

Built in Millwork

Base Cabinets:	none
Countertops:	(4) LF, make up counter
Wall Cabinets:	none
Other:	(4) 24" x 24" custom lockers and accompanying benches

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	none
Specialties:	make up mirror

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	
Other:	accent down lighting make up lighting

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.41 Officials' Locker Rooms/ Star Performer's Dressing

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: yes

Plumbing: see plumbing section 5.32
 Sinks: 1 Toilets: 1
 Floor Drains: yes Urinals: 1
 Hose Bib: yes Shower: 1
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: Compliance with NEC 520.71-.73 for dressing room lighting

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: intercom system

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Officials' Shower Rooms 5.42

Space Use Category:	5.00 Other Locker Room Facilities	Area NASF:	80.0	<i>SF</i>
Room Use Code:	500	Quantity	2	
		Total Area:	160	<i>NASF</i>

Function: Shower and toilet room

Occupants: 4

Relationships: Located integral with officials locker room

Architectural

see architectural sections 5.01 - 5.23

Flooring:	ceramic tile	Base:	ceramic tile
Walls:	ceramic tile	Wall Finish:	ceramic tile
Ceiling:	gypsum wallboard	Min.Ceiling Ht:	9'0" min
Windows:	none	Window Treatments:	none
Doors:	none	Door Size:	none
Access:	direct from locker room		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	solid surface
Wall Cabinets:	none
Other:	full height and length mirror

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	hand & hair dryers

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	none
Sound Transmission:	none

5.42 Officials' Shower Rooms

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: 1 Toilets: 1
 Floor Drains: yes Urinals: 1
 Hose Bib: yes Shower: 1
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: none
 Data: none
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Physician Office/ Examination Room 5.43

Space Use Category:	5.00 Sports Medicine	Area NASF:	200.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	200	<i>NASF</i>

Function: Office for team physician / demonstration teaching space

Occupants: 2

Relationships: Located on the perimeter of the treatment space, with indirect access from the public corridor, adjacent to Director's Office

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	(1) 3'0" x 7'0"
Access:	corridor from public, adjacent to treatment		
Other:	none		

Built in Millwork

Base Cabinets:	(1) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(1) 8 lin/ft each
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, 2 side chairs
File Cabinets:	(2) lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf treatment table
Equipment:	computer printer hospital curtain see specialized equipment

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

5.43 Physician Office/ Examination Room

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: yes
 Floor Drains: yes
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
fluoroscope machine	3	1	TBD	TBD	TBD	TBD	TBD	TBD	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Space Use Category:	5.00 Sports Medicine	Area NASF:	120.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	120	<i>NASF</i>

Function: Office for the Director of Sports Medicine

Occupants: 1

Relationships: Perimeter location within the Sports Medicine Suite. Accessible from a public entrance. Adjacent to trainers and treatment area and physician office

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	closet

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RT60 = 0.5-0.7 s (ave. mid-freq.) RC(N) 30-35
Sound Transmission:	STC 45

5.44 Director's Office

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: cable TV

AudioVisual see audio/visual section 5.19
 Capabilities/Features: flat panel display
 connection for facilities program player
 local systems control
 local sound
 auxiliary input connection
 Special Requirements: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Assistant Director's Office 5.45

Space Use Category:	5.00 Sports Medicine	Area NASF:	100.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	100	<i>NASF</i>

Function: Office for the Assistant Director of Sports Medicine, serves also as a medical consult office

Occupants: 1

Relationships: Perimeter location within the Sports Medicine Suite. Accessible from a public entrance. Adjacent to trainers and treatment area and physician office

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	10'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	closet

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (1) sled base side chair
File Cabinets:	(1) lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.45 Assistant Director's Office

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Training Staff 5.46

Space Use Category:	5.00 Sports Medicine	Area NASF:	120.0	<i>SF</i>
Room Use Code:	300	Quantity	2	
		Total Area:	240	<i>NASF</i>

Function: Offices for athletic training staff

Occupants: 2

Relationships: Perimeter location within the Sports Medicine Suite. Accessible from a public entrance. Adjacent to treatment area and physician office

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	10'0"
Windows:	yes, view to treatment area	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance,treatment		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(2) 6'0" desk
Chairs:	(2) roller chairs
File Cabinets:	(2) lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	computers

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 35-40
Sound Transmission:	STC 55

5.46 Training Staff

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Medical Conference Office 5.47

Space Use Category:	5.00 Sports Medicine	Area NASF:	240.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	240	<i>NASF</i>

Function: Meeting /conference room for medical training staff and medical record storage

Occupants: 8

Relationships: Adjacent to Director and training staff

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	10'0"
Windows:	yes, view to treatment area	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance,treatment		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	
Chairs:	(8) roller chairs
File Cabinets:	(2) lateral
Trash Can:	in accordance with UMBC standards
Tables:	(1) conference table for 8
Other:	none
Equipment:	computer

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	dimming ability

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.47 Medical Conference Office

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Treatment Area 5.48

Space Use Category:	5.00 Sports Medicine	Area NASF:	800	<i>SF</i>
Room Use Code:	800	Quantity	1	
		Total Area:	800	<i>NASF</i>

Function: Serves as treatment and evaluation area for student athletes

Occupants: 12

Relationships: Located at the heart of the Sports Medicine suite, with direct visual access from trainers offices. Located conveniently form other outside sports fields

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	desirable, but consider privacy issues	Window Treatments:	roller shades
Doors:	solid wood	Door Size:	(1) 3'0" x 7'0"
Access:	corridor from public, adjacent to trainers		
Other:	none		

Built in Millwork

Base Cabinets:	yes
Countertops:	solid surface
Wall Cabinets:	yes
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	(12) stools
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	(12) treatment tables (4) taping tables
Other:	medical container for hazardous materials
Equipment:	(2) computers printer see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	none
Other:	none

Acoustics

Room Criteria:	RC(N) 35-40
Sound Transmission:	STC 50

5.48 Treatment Area

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: 2 dual compartment
 Floor Drains: at ice machines
 Hose Bib: none
 Special Requirements: ice machine(s)

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: verify equipment power loads

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements:

AudioVisual see audio/visual section 5.19
 Capabilities/Features: flat screen displays

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
Ice Machine	3	1	TBD	TBD	TBD	TBD	TBD	TBD	none
Hot pack machine	3	1	TBD	TBD	TBD	TBD	TBD	TBD	none
Cold Pack machine	3	1	TBD	TBD	TBD	TBD	TBD	TBD	none
Hot and Cold Pack Cabinet	3	1	TBD	TBD	TBD	TBD	TBD	TBD	none

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Space Use Category:	5.00 Sports Medicine	Area NASF:	800.0	<i>SF</i>
Room Use Code:	800	Quantity	1	
		Total Area:	800	<i>NASF</i>

Function: Serves as rehabilitation and evaluation area for student athletes

Occupants: 12

Relationships: Located adjacent to treatment area with direct visual access from trainers offices

Architectural

see architectural sections 5.01 - 5.23

Flooring:	rubber sports floor	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	desirable, but consider privacy issues	Window Treatments:	roller shades
Doors:	solid wood	Door Size:	(1) 3'0" x 7'0"
Access:	corridor from public, adjacent to trainers		
Other:	none		

Built in Millwork

Base Cabinets:	(2) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(2) 20 lin/ft each
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Specialties:	mirrored wall
Equipment:	stationary bike treadmill hand weight set parallel bars or railing medicine balls pulleys set stackable steps

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.49 Rehab Area

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Hydrotherapy - Wet Treatment 5.50

Space Use Category:	5.00 Sports Medicine	Area NASF:	780.0	<i>SF</i>
Room Use Code:	800	Quantity	1	
		Total Area:	780	<i>NASF</i>

Function: Wet area for hydrotherapy treatment and tubs

Occupants: 8

Relationships: Located adjacent to treatment area and convenient to strength & conditioning

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	Porcelain tile
Walls:	CMU	Wall Finish:	Porcelain tile
Ceiling:	gypsum wall board	Min.Ceiling Ht:	10'0"
Windows:	internal vision	Window Treatments:	mini blinds
Doors:	glass	Door Size:	3'0 x 7'0"
Access:	from treatment area		
Other:	tubs to be submerged, need space for pumps		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	stainless steel shelving
Equipment:	hydrotherapy equipment in ground rehab pool see specialized equipment

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.50 Hydrotherapy - Wet Treatment

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: 12 ACH minimum exhaust in hydro tub area

Plumbing: see plumbing section 5.32
 Sinks: (2) deep, single compartment sinks
 Floor Drains: yes
 Hose Bib: yes
 Special Requirements: hand held shower

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: GFCI protection per NEC
 verify equipment power needs

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
Swimex	1	1	18'	8'	6'6"				with treadmill
cold plunge	1	1	TBD	TBD	TBD	TBD	TBD	TBD	none
hot plunge	1	1	TBD	TBD	TBD	TBD	TBD	TBD	none
whirlpool	1	1	TBD	TBD	TBD	TBD	TBD	TBD	none

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Hydrotherapy - Wet Preparation 5.51

Space Use Category:	5.00 Sports Medicine	Area NASF:	250.0	<i>SF</i>
Room Use Code:	800	Quantity	1	
		Total Area:	250	<i>NASF</i>

Function: Storage room for medical equipment and supplies

Occupants: 8

Relationships: Located in Sports Medicine suite, adjacent to hydrotherapy area. Accessible to exterior fields

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	(1) 3'0" x 7'0"
Access:	corridor from public, adjacent to trainers		
Other:	none		

Built in Millwork

Base Cabinets:	(2) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(2) 20 lin/ft each
Other:	closeted storage areas

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	stainless steel shelving
Equipment:	dishwasher
	ice machines
	see specialized equipment

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	none
Other:	none

Acoustics

see acoustics section 5.19

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.51 Hydrotherapy - Wet Preparation

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: 12 ACH minimum exhaust in hydro tub area

Plumbing: see plumbing section 5.32
 Sinks: 1
 Floor Drains: at ice machines
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: GFCI protection per NEC
 verify equipment power needs

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
Ice machine	1	1	TBD	TBD	TBD	TBD	TBD	TBD	none

Status Key
 1 – Furnished and Installed by Contractor
 2 – Furnished by Owner and Installed by Contractor
 3 – Furnished and Installed by Owner

Comments

Storage 5.52

Space Use Category:	5.00 Sports Medicine	Area NASF:	200.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	200	<i>NASF</i>

Function: Storage room for medical equipment and supplies

Occupants:

Relationships: Located in Sports Medicine suite

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	(1) 3'0" x 7'0"
Access:	corridor from public, adjacent to trainers		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	none
Tables:	none
Other:	stainless steel shelving
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.52 Storage

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: none
 Data: none
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Strength & Conditioning 5.53

Space Use Category:	5.00 Strength & Conditioning	Area NASF:	4,500	<i>SF</i>
Room Use Code:	800	Quantity	1	
		Total Area:	4,500	<i>NASF</i>

Function: Space for strength & condition training, free weights and aerobic equipment

Occupants: 45

Relationships: Located convenient to locker rooms and court areas. Will have student athlete access from out door field sports

Architectural

see architectural sections 5.01 - 5.23

Flooring:	rubber sports floor	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	(2) 3'0" x 7'0"
Access:	corridor from locker rooms		(1) 6'0" x 8'0" double
Other:	sidelight		

Built in Millwork

Base Cabinets:	yes
Countertops:	solid surface
Wall Cabinets:	yes
Other:	cubbies for back packs

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	see specialized equipment
	see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.53 Strength & Conditioning

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: (2) filtered water fountain/bottle filler stations

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: dedicated circuits to designated equipment
 charging stations

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: cable TV, to monitors and equipment

AudioVisual see audio/visual section 5.19
 Capabilities/Features: (2) large flat screen displays
 central audio system controlled from within the space

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
sound system	1	1	N/A	N/A	N/A	TBD	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Space Use Category:	5.00 Strength & Conditioning	Area NASF:	120.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	120	<i>NASF</i>

Function: Office for Director

Occupants: 1

Relationships: Adjacent to strength & conditioning space

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	deirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 50

5.54 Director's Office

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Assistants 5.55

Space Use Category:	5.00 Strength & Conditioning	Area NASF:	120.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	120	<i>NASF</i>

Function: Office for assistants to the Director.1 shared offices for 2 to 3 staff

Occupants: 2

Relationships: Adjacent to strength & conditioning space

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	gypsum wall board	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	10'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	solid wood	Door Size:	3'0" x 7'0"
Access:	public entrance,treatment		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(2) desks
Chairs:	(2) roller chairs
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	computer

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.55 Assistants

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Turf/Field Management Team 5.56

Space Use Category:	5.00	Athletic Support	Area NASF:	120	SF
Room Use Code:	300		Quantity	1	
			Total Area:	120	NASF

Function: Area for Field Management team to meet

Occupants: 2

Relationships: Adjacent to Equipment Manager Office

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	hollow metal	Door Size:	(1) 3'0" x 7'0"
Access:	corridor from lockers , adjacent to equipment storage		
Other:	overhead door to counter 10' wide		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(2) desks
Chairs:	(2) roller chairs
File Cabinets:	(2) lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	storage shelving storage cabinets
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.56 Turf/Field Management Team

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Space Use Category:	5.00 Athletic Support	Area NASF:	200.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	200	<i>NASF</i>

Function: Space for student athletes to pick up equipment and uniforms

Occupants:

Relationships: Located on circulation corridor to and from locker rooms adjacent to main equipment room

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	hollow metal	Door Size:	(1) 3'0" x 7'0"
Access:	corridor from lockers , adjacent to equipment storage		
Other:	overhead door to counter 10' wide		

Built in Millwork

Base Cabinets:	(1) 8 lin/ft each
Countertops:	solid surface
Wall Cabinets:	(1) 8 lin/ft each
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	(2) stools
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	stainless steel shelving storage cabinets laundry lockers
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.57 Equipment Issue

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Equipment Manager's Office 5.58

Space Use Category:	5.00 Athletic Support	Area NASF:	120.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	120	<i>NASF</i>

Function: Office for Equipment Manager

Occupants: 1

Relationships: Adjacent to issue desk and storage

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	hollow metal	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

5.58 Equipment Manager's Office

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Assistants 5.59

Space Use Category:	5.00 Athletic Support	Area NASF:	100.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	100	<i>NASF</i>

Function: Office for assistant to the Equipment Manager

Occupants: 1

Relationships: Located adjacent to Issue desk and equipment storage

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	10'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	hollow metal	Door Size:	3'0" x 7'0"
Access:	public entrance,treatment		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) desk
Chairs:	(1) roller chair
File Cabinets:	(2) laterals
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	computer

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.59 Assistants

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Equipment Storage 5.60

Space Use Category:	5.00 Athletic Support	Area NASF:	800.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	800	<i>NASF</i>

Function: Storage of sports team equipment and uniforms

Occupants:

Relationships: Located on circulation corridor from loading area, directly adjacent to equipment issue desk and laundry

Architectural

see architectural sections 5.01 - 5.23

Flooring:	sealed concrete	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	(1) 3'0" x 7'0"
Access:	corridor from public, adjacent to trainers		(1) overhead door
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	none
Tables:	none
Other:	none
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent – indirect
Natural:	none
Other:	none

Acoustics

Room Criteria:	NC 40
Sound Transmission:	STC 45

5.60 Equipment Storage

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: none
 Data: none
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Space Use Category:	5.00 Athletic Support	Area NASF:	300.0	<i>SF</i>
Room Use Code:	300	Quantity	1	
		Total Area:	300	<i>NASF</i>

Function: Area to wash uniforms

Occupants:

Relationships: Adjacent to Equipment Issues and Storage

Architectural

see architectural sections 5.01 - 5.23

Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	10'0"
Windows:	none	Window Treatments:	none
Doors:	hollow metal	Door Size:	(1) 6'0" x 7'0"
Access:	direct access from equipment storage room		
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash Can:	in accordance with UMBC standards
Tables:	folding tables
Other:	storage shelving
Equipment:	see specialized equipment
	see audio-visual

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

5.61 Laundry

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: provide dryer exhaust booster system with roof mounted fan

Plumbing: see plumbing section 5.32
 Sinks: (1) hand sink, (1) double compartment sink
 Floor Drains: trench drains for washers
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: confirm equipment power

Voice/ Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: central audio system controlled from within the space

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
commercial washer	1	2	TBD	TBD	TBD	TBD	TBD	TBD	none
commercial dryer	1	2	TBD	TBD	TBD	TBD	TBD	TBD	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Building Management Office / Dock Supervisor 6.01

Space Use Category:	6.00 BUILDING SERVICE / OPERATIONS	Area NASF:	100.0	SF
Room Use Code:	300	Quantity	2	
		Total Area:	200	NASF

Function: Office for Building Manager

Occupants: 1
Relationships: Adjacent to loading/staging area

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	hollow metal	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(1) L-shaped desk
Chairs:	(1) rolling chairs – upholstered, (1) sled base side chair
File Cabinets:	(1) lateral
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	rear credenza bookshelf
Equipment:	computer

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

6.01 Building Management Office / Dock Supervisor

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Building Security Office - Command Center 6.02

Space Use Category:	6.00 BUILDING SERVICE / OPERATIONS	Area NASF:	150.0	SF
Room Use Code:	300	Quantity	1	
		Total Area:	150	NASF

Function: Main office for building security

Occupants: 2
Relationships: Adjacent to Building Management Office

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	resilient	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustic panel	Min.Ceiling Ht:	9'0"
Windows:	desirable	Window Treatments:	roller shade
Doors:	hollow metal	Door Size:	3'0" x 7'0"
Access:	public entrance		
Other:	sidelight		

Built in Millwork

Base Cabinets:	none
Countertops:	workstation counter for various monitors
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	(2) desks
Chairs:	(2) roller chairs – upholstered, (2) sled base side chairs
File Cabinets:	(2) laterals
Trash Can:	in accordance with UMBC standards
Tables:	none
Other:	bookshelf
Equipment:	computer
	see audio-visual equipment and special equipment

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	desirable
Other:	none

Acoustics

Room Criteria:	RC(N) 30-35
Sound Transmission:	STC 45

6.02 Building Security Office - Command Center

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: none
 Hose Bib: none
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: Fire alarm LCD annunciator

Voice / Data see communication section 5.41
 Voice: yes
 Data: yes
 Wi-Fi: yes
 Special Requirements: cable tv

AudioVisual see audio/visual section 5.19
 Capabilities/Features: multiple security monitors (see specialized equipment)

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
CCTV system & monitors	1	TBD	TBD	TBD	TBD	TBD	none	TBD	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

General Building Storage 6.03

Space Use Category:	BUILDING SERVICE / 6.00 OPERATIONS	Area NASF:	2,400.0	SF
Room Use Code:	700	Quantity	1	
		Total Area:	2,400	NASF

Function: Storage area for general building supplies/materials

Occupants:
Relationships: Adjacent to Loading/Staging area

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	sealed concrete	Base:	none
Walls:	CMU	Wall Finish:	unfinished
Ceiling:	exposed	Min.Ceiling Ht:	14'
Windows:	none	Window Treatments:	none
Doors:	hollow metal	Door Size:	(1) 3'0" x 7'0"
Access:	off of service circulation		(1) 12'x 14' OH coil door
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash Can:	none
Tables:	none
Other:	storage shelving
Equipment:	none

Lighting

	see lighting section 5.38
Type:	fluorescent – indirect
Natural:	none
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

6.03 General Building Storage

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: none

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: yes
 Hose Bib: (1) inside the space and (1) outside space with access to exterior of building
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: none
 Data: none
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Portable Floor / Basketball Hoop Storage 6.04

		BUILDING SERVICE /			
Space Use Category:	6.00	OPERATIONS	Area NASF:	2,500.0	SF
Room Use Code:	700		Quantity	1	
			Total Area:	2,500	NASF

Function: Storage area for court flooring and other athletic equipment

Occupants:

Relationships: Adjacent to General Building Storage and to event floor

Architectural

see architectural sections 5.01 - 5.23

Flooring:	concrete	Base:	none
Walls:	CMU	Wall Finish:	unfinished
Ceiling:	exposed	Min.Ceiling Ht:	14'0"
Windows:	none	Window Treatments:	none
Doors:	solid wood	Door Size:	(1) 3'0" x 7'0"
Access:	off of service circulation		(1) overhead door
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	none
Tables:	none
Other:	none
Equipment:	none

Lighting

see lighting section 5.38

Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

6.04 Portable Floor / Basketball Hoop Storage

Mechanical

see mechanical sections 5.24 - 5.35

Special Requirements: coordinate need for space humidity control with portable flooring to be stored

Plumbing:

see plumbing section 5.32

Sinks: none

Floor Drains: yes

Hose Bib: yes

Special Requirements: none

Electrical

see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v

Special Requirements: none

Voice/ Data

see communication section 5.41

Voice: none

Data: none

Wi-Fi: yes

Special Requirements: none

AudioVisual

see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

1 – Furnished and Installed by Contractor

2 – Furnished by Owner and Installed by Contractor

3 – Furnished and Installed by Owner

Comments

Loading / Staging Area 6.05

Space Use Category:	BUILDING SERVICE / 6.00 OPERATIONS	Area NASF:	2,000.0	<i>SF</i>
Room Use Code:	700	Quantity	1	
		Total Area:	2,000	<i>NASF</i>

Function: Area to accept event center deliveries

Occupants:

Relationships: Adjacent to General Building Storage, adjacent to loading docks and event floor

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	sealed concrete	Base:	none
Walls:	CMU	Wall Finish:	unfinished
Ceiling:	acoustical panel	Min.Ceiling Ht:	14'0"
Windows:	none	Window Treatments:	none
Doors:	hollow metal	Door Size:	(1) 3'0" x 7'0"
Access:	off of service circulation		(3) overhead door
Other:	none		

Built in Millwork

Base Cabinets:	none
Countertops:	none
Wall Cabinets:	none
Other:	none

Moveable Furnishings

Desks:	none
Chairs:	none
File Cabinets:	none
Trash/Recycling Can:	in accordance with UMBC standards
Tables:	none
Other:	none
Equipment:	see specialized equipment

Lighting

	see lighting section 5.38
Type:	fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

6.05 Loading / Staging Area

Mechanical see mechanical sections 5.24 - 5.35
 Special Requirements: provide air curtains at roll-up doors

Plumbing: see plumbing section 5.32
 Sinks: none
 Floor Drains: yes
 Hose Bib: yes
 Special Requirements: none

Electrical see electrical sections 5.36 - 5.40
 Normal Power(volts): 120 v
 Special Requirements: none

Voice / Data see communication section 5.41
 Voice: none
 Data: none
 Wi-Fi: yes
 Special Requirements: none

AudioVisual see audio/visual section 5.19
 Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
Loading dock levelers	1	TBD	TBD	TBD	TBD	TBD	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Maintenance Shop 6.06

	BUILDING SERVICE /			
Space Use Category:	6.00 OPERATIONS	Area NASF:	400.0	SF
Room Use Code:	700	Quantity	1	
		Total Area:	400	NASF

Function: Area to repair building equipment and other facility components

Occupants: 2

Relationships: Adjacent to Loading/Staging area

Architectural

	see architectural sections 5.01 - 5.23		
Flooring:	sealed concrete	Base:	rubber
Walls:	CMU	Wall Finish:	paint
Ceiling:	acoustical panel	Min.Ceiling Ht:	14'0"
Windows:	none	Window Treatments:	none
Doors:	hollow metal	Door Size:	(1) 6'0" x 7'0"
Access:	off of service circulation		
Other:	none		

Built in Millwork

Base Cabinets:	yes
Countertops:	yes
Wall Cabinets:	yes
Other:	none

Moveable Furnishings

Desks:	(1) desk
Chairs:	(1) roller chair
File Cabinets:	(1) lateral
Trash Can:	in accordance with UMBC standards
Tables:	none
Other:	storage shelving
Equipment:	none

Lighting

	see lighting section 5.38
Type:	Lensed Industrial Fluorescent
Natural:	none
Other:	none

Acoustics

Room Criteria:	RC(N) 40
Sound Transmission:	STC 45

6.06 Maintenance Shop

Mechanical

see mechanical sections 5.24 - 5.35

Special Requirements: provide local exhaust for welding / machining work
room to be exhausted / 8 ACH minimum

Plumbing:

see plumbing section 5.32

Sinks: yes
Floor Drains: yes
Hose Bib: none
Special Requirements: none

Electrical

see electrical sections 5.36 - 5.40

Normal Power(volts): 120 v
Special Requirements: 208V per UMBC
Include local panel board

Voice / Data

see communication section 5.41

Voice: yes
Data: yes
Wi-Fi: yes
Special Requirements: none

AudioVisual

see audio/visual section 5.19

Capabilities/Features: none

Specialized Equipment

Item	Status	Qty	Size			Electrical	Plumbing	HVAC	Notes
			L	W	H				
none	N/A	none	none	none	none	none	none	none	none

Status Key

- 1 – Furnished and Installed by Contractor
- 2 – Furnished by Owner and Installed by Contractor
- 3 – Furnished and Installed by Owner

Comments

Appendix A:
Hilltop Circle Water Line Hydrant Flow Test

Appendix B:
Preliminary Geotechnical Engineering Review



Preliminary Geotechnical Engineering Review

Proposed Events Center
University of Maryland, Baltimore County
Baltimore, Maryland

Submitted to:

Whitman, Requardt & Associates, LLP
801 South Caroline Street
Baltimore MD 21231

Date: September 20, 2013
N&W # 1308MD086

*Balance...
performance,
integrity,
quality,
results.*



NAVARRO & WRIGHT
CONSULTING ENGINEERS, INC.

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Location	1
1.2	Scope of Work and Available Information.....	1
1.3	Proposed Construction	1
1.4	Site Description	2
2.0	GEOLOGIC SETTING	3
3.0	SUBSURFACE EXPLORATIONS.....	3
4.0	LABORATORY TESTING	4
5.0	SUBSURFACE CONDITIONS	5
5.1	Soil.....	5
5.2	Bedrock	6
5.3	Groundwater	7
6.0	PRELIMINARY ANALYSES AND RECOMMENDATIONS.....	8
6.1	Floor Slabs	8
6.2	Spread Footing Foundations.....	9
6.3	Deep Foundations.....	9
6.4	Retaining Walls	10
6.5	Prestressed Rock Anchors.....	10
6.6	Seismic Site Parameters	10
6.7	Site Grading.....	11
6.8	Quality Control	12
7.0	CONCLUSIONS	12
8.0	LIMITATIONS.....	12

FIGURES

Figure 1 – Project Location Map

Figure 2 – Boring Location Sketch

APPENDICES

Appendix A – Typed Engineer’s Boring Logs

Appendix B – Core Box Photos

Appendix C – Laboratory Testing Results

1.0 INTRODUCTION

1.1 Location

The proposed Events Center is located on the University of Maryland, Baltimore County (UMBC) in southern Baltimore County, Maryland. The proposed construction area is positioned east of Hilltop Circle, directly north of the existing Stadium Complex and directly west of the existing Soccer Stadium. The generalized site location is illustrated on the Project Location Map, Figure 1 of this report.

1.2 Scope of Work and Available Information

The Preliminary Geotechnical Engineering Review as presented herewith was prepared by Navarro & Wright Consulting Engineers, Inc. (N&W) for Whitman, Requardt & Associates, LLP. This report summarizes the results of the test borings, laboratory testing and geotechnical engineering analyses associated with the conceptual design of the proposed Events Center at UMBC. This report is intended to supplement a feasibility review by Whitman, Requardt & Associates, LLP regarding the potential construction of the proposed Events Center at the project site discussed herein. As the building design is currently conceptual, details of structural loading conditions, the finish floor levels, and the precise overall building dimensions are currently unavailable.

To assist N&W with this evaluation, Whitman, Requardt & Associates, LLP provided the following information:

- An image of the existing site conditions, titled “Site Context” by Whitman, Requardt & Associates, LLP, undated.
- An image of the conceptual building footprint relative to the existing site conditions, titled “Site Plan” by Whitman, Requardt & Associates, LLP, undated.
- An image of the conceptual building footprint relative to the existing site conditions, titled “Site Plan” by Whitman, Requardt & Associates, LLP, undated.
- Two conceptual building sections illustrating a building with dimensions of 275’-0” by 400’-7” and four (4) building levels. The sections are titled “UMBC Event Center” by Cannon Design and are dated September 17, 2013.

1.3 Proposed Construction

As previously indicated, the proposed construction plans are currently in the conceptual stages; therefore, details of structural loading, general framing plans or the proposed building materials are not available at the time of this writing. Consequently, it is uncertain if roof and elevated deck loads will be carried by steel framing and/or load-bearing masonry walls or concrete. According to our

discussions with Whitman, Requardt & Associates, LLP, Cannon Design has conceptualized an exterior to include metal panel, some brick, and enough glass to make lounge and administrative spaces transparent. The brick or masonry would be used for the lower level façade.

The four-level structure would be situated within the existing topography such that the lowest level floor will be at the approximate mid-grade of the existing slope; therefore, the site grading might be somewhat balanced as earthwork cuts and fills would be necessary to establish the lower level subgrade.

1.4 Site Description

The site of the proposed UMBC Events Center lies on a gentle slope with an approximate ratio of 7:1 (horizontal to vertical). Site grades fall from northeast to southwest from approximate elevation 170 feet to approximate elevation 130 feet at the base of the slope near campus Parking Lot No. 28. Groundcover consists of turf grass with a few isolated wooded areas. A small stream flows from Pig Pen Pond to the southwest of the site and then between Parking Lot No. 28 and the UMBC Stadium Complex. A photograph of the site looking to the north follows.



2.0 GEOLOGIC SETTING

The Maryland Geologic Survey has published documentation regarding the geologic features of the region. According to the Geologic Map of the Baltimore West Quadrangle, Maryland by William P. Crowley and Juergen Reinhardt, 1979, the project site is underlain by the sand facies member of the Patuxent Formation of the Potomac Group of Lower Cretaceous age. This source describes this deposit as follows:

Sand facies. Highly variable, interbedded sand, gravel, silt, and clay locally indurated by ferruginous cement. Sand and gravel typically quartzose with a buff, kaolinitic clay-silt matrix. Sediments are organized into fining-upward packages 3 to 5 meters thick consisting of planar-bedded gravel with clay clasts or cross-bedded sand at the base grading upward to laminated or massive silt-clay at the top. Elsewhere vertical sequences show abrupt sediment size changes and erosive contacts. The heavy mineral suite is characterized by staurolite, zircon, tourmaline, and kyanite. Sparse silicified and abundant iron-oxide replacements of both cycadioids and coniferous wood are present throughout the formation. These sediments were deposited in high-gradient, braided to meandering streams.

The Baltimore West Quadrangle also illustrates Cambrian-age rocks near the site which we consider to be consistent with the bedrock cores recovered from the test borings. Consequently, the sand facies deposits are likely very thin at the project site. The James Run Formation includes the Relay Gneiss Member and the Carroll Gneiss Member, which are described as follows:

Relay Gneiss Member. Fine- to medium-grained biotite-quartz-plagioclase gneiss, locally containing muscovite. Mica absent and magnetite present in some outcrops. Commonly cut by numerous randomly oriented joints.

Carroll Gneiss Member. Fine- to medium-grained biotite-quartz-plagioclase gneiss, locally with muscovite. Mica absent and magnetite present in some outcrops. Includes subordinate, concordant amphibolite in layers a few centimeters to tens of centimeters thick, but locally several meters thick. Facies equivalent of Druid Hill Amphibiolite Member.

3.0 SUBSURFACE EXPLORATIONS

The preliminary subsurface exploration program for the UMBC Events Center project consisted of three (3) exploratory test borings. Test borings were drilled at locations shown on the Boring Location Sketch, attached as Figure 2. Drilling inspection and logging of the soil and rock samples were performed by N&W personnel. The test borings were drilled by TRC Engineers, Inc., under subcontract to N&W on September

3, 2013. The borings were advanced in general compliance with methodology specified by the American Society for Testing and Materials (ASTM) Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils, Designation D1586, and the Standard Practice for Diamond Core Drilling for Site Investigation, Designation D2113. Hollow stem augers were utilized to advance the borings. Water level readings were taken immediately after the completion of each boring (zero hour reading) and the day following completion of the boring (24-hour reading). Following the recording of these water readings, the lower portions of these borings were grouted, and the upper portions were backfilled with the auger cuttings.

Continuous sampling was performed in soil to 10 or more feet below the existing ground surface using the Standard Penetration Test (SPT) split-spoon sampler. An NQ II-size core barrel, outfitted with a diamond bit, was used to advance the borings into bedrock in each of the three (3) test borings. Borings were terminated at depths of 39.5, 44.5, and 35.0 feet for Borings B-1, B-2 and B-3 respectively. Engineer’s Boring Logs are presented in Appendix A, and photographs of the recovered soil and rock samples are presented in Appendix B.

4.0 LABORATORY TESTING

Laboratory testing was performed by the in-house AMRL-certified laboratory of N&W. Detailed results of the laboratory testing are presented in Appendix C. Testing was performed on five (5) soil samples and three (3) rock samples recovered from the test borings. The soils were classified in general accordance with the Unified Soil Classification System (USCS), ASTM D2487. Classification tests were performed in general accordance with ASTM procedures to determine the gradation (ASTM D422), Liquid Limit (LL) and Plasticity Index (PI) (ASTM D4318) of each sample. The water content (*w*) (ASTM D2216) of each sample was determined, and the frictional and cohesive properties of select soil samples were measured via direct shear testing (ASTM D3080). The following table summarizes the physical soil properties determined by laboratory testing:

PHYSICAL SOIL PROPERTIES TESTING SUMMARY

Boring No.	Depth (ft)	USCS	LL (%)	PI (%)	Natural Moisture <i>w</i> (%)	Friction ϕ (°)	Cohesion <i>c</i> (psf)
B-1	6.0 – 8.0	CL	26	8	18.5	-	-
B-2	10.0 – 12.0	SC	50	27	28.5	23.0	640.1
B-3	2.0 – 4.0	CL	26	9	14.5	35.7	72.5
B-3	13.0 – 15.0	SM	NP	NP	21.4	-	-

Results of chemical testing on the soil indicated low corrosion potential, and suggest that significant corrosion of buried concrete or steel is unlikely. The chemical testing results are summarized in the following table.

SUMMARY OF CORROSION POTENTIAL TESTING

Boring No.	Depth (ft)	pH*	Chloride (ppm)	Sulfate (ppm)	Min. Resistivity (kOhms-cm)
B-3	8.0 – 10.0	7.2	8	0	22.520

*pH as measured in water

Select samples of the rock cores recovered from the borings were tested for unconfined compressive strength in general accordance with ASTM D7012-C and are summarized as follows:

PHYSICAL ROCK PROPERTIES TESTING SUMMARY

Boring No.	Depth (ft)	Core Run	Unconfined Compressive Strength (tsf)
B-1	39.0 – 39.3	R-2	234.5
B-2	37.8 – 38.1	R-1	699.3
B-3	32.6 – 32.9	R-2	79.1

5.0 SUBSURFACE CONDITIONS

5.1 Soil

Below a very thin horizon of topsoil, the site soils consist of a moderately thick zone of alluvial clays and sands, which are typically of stiff consistency, or in a medium dense state. These soils are considered unconsolidated with the exception of the consolidation associated with their natural overburden pressure and historical wetting/drying cycles. Residual soils underlie the alluvial deposits and are typically more sandy and dense relative to the upper soil zone. Residual soils are created by the in-situ weathering and erosion of the indigenous parent rock. The site residual soils tend to increase in density with associated increments of depth below the ground surface, typically transitioning from medium dense to very dense.

The residual soils ultimately transition into a saprolite zone as the bedrock surface is approached. Saprolites are formed by the in-situ chemical weathering of the indigenous parent rock. The saprolite zone encountered by the test borings is in a very dense state. Although the precise depth that the saprolite transitions into bedrock varies significantly across the site, a typical subsurface strata profile,

illustrating the generalized and conceptual soil and rock conditions revealed by the borings, is presented via the following table:

Typical Depth Below Gd. Surface (feet)	Typical Elevation (feet)	Typical Subsurface Strata Description
0	150	Ground Surface
10	140	Sandy lean CLAY (CL), light brown with gray mottles, moist, stiff to very stiff, contains quartz gravel (<i>ALLUVIAL</i>)
25	125	Silty SAND with fine gravel (SM), light brown and orangish brown, moist, medium dense to very dense (<i>RESIDUAL</i>)
31	119	Silt SAND (SM), light gray and brown, moist, very dense (<i>SAPROLITE</i>)
Below 31	Below 119	GNEISS, light gray and dark gray, hard, minor weathering to fresh, no apparent bedding, closely to medium-jointed (<i>BEDROCK</i>)

The typical subsurface strata profile shown above is conceptual and does not represent the subsurface conditions at any specific point. The erratic site topography combined with the differential weathering pattern of the bedrock surface suggest that extrapolation of test boring data should be performed with caution, and supplemental borings should be performed where a higher level of certainty regarding specific subsurface conditions is considered necessary. Detailed descriptions of the soils encountered at each of the three (3) test boring points are presented on the Engineer’s Boring Logs in Appendix A.

5.2 Bedrock

For purposes of geotechnical engineering evaluations, the bedrock surface is typically considered to be positioned at the depth where auger refusals occur, or at the depth where diamond-bit core sampling is initiated. Refusal of the split-spoon sampler is often considered a possible indication of the presence of bedrock; however, this extrapolation is typically verified by other means. Furthermore, auger refusals can occur upon isolated boulders, and it may be possible to recover core samples of soil, where the soil consists of dense materials with some cohesion.

Rock was sampled by the diamond-bit core sampling tools in each of the borings. The bedrock encountered by the test borings is consistent with the James Run Formation gneiss as previously described in the Geologic Setting section of this report. The apparent depth to bedrock at each boring point, according to geotechnical engineering convention, is summarized in the table to follow.

APPARENT DEPTH TO BEDROCK

Boring No.	Ground Surface Elevation (feet)	Apparent Depth to Bedrock (feet)	Top-of-Rock Elevation (feet)
B-1	165.9	31.0	134.9
B-2	151.0	36.5	114.5
B-3	131.1	26.5	104.6

Potential conflicts with the site bedrock during site grading or foundation installations cannot be extrapolated or interpolated at this time since structural plans and site grading plans have not been developed. On an overall basis, a moderately thick soil mantle appears to overlie the hard bedrock. The bedrock is hard to very hard and will likely require the use of pneumatic hammers and/or blasting where it might conflict with site grades or foundation subgrades.

The site bedrock is weathered to a shallow depth whereby minor weathering to fresh rock was typically observed within or before the second core run of each boring. Nevertheless, the recovered rock cores displayed numerous discontinuities including weak joint planes and fractures. The condition of the bedrock is reflected by core recoveries and the Rock Quality Designations (RQDs) recorded on the Engineer's Test Boring Logs. The recovery for all core runs varies between 77% and 100%, averaging 94%. The RQD for all core runs varies between 11% and 100%, averaging 56% suggesting that the rock is in fair condition due to the presence of the discontinuities.

The erratic strength of the rock due to the presence, or absence, of weakly cemented joints is illustrated by the erratic results of the unconfined compressive strength testing of the cores. Consequently, the confined rock mass may support considerable compressive loading; however, its ability to resist tensile loading from anchors or tie-backs may be somewhat compromised for this reason.

5.3 Groundwater

Static water levels were obtained from short-term readings in each of the test borings. Water was present at depths of 13.3, 8.6, and 9.2 feet at 24 hours after completion in Borings B-1, B-2 and B-3 respectively. Nevertheless, water was

introduced into each of the borings to flush cuttings and to cool the core bit during rock sampling operations. Consequently, the true level of the stabilized free water surface should not be extrapolated from the test boring results.

A cursory review of USGS well data for local wells within the Patuxent Formation within Baltimore and surrounding counties, suggests that groundwater is typically tens of feet below the existing ground surface. The small stream at the base of the site between Parking Lot 28 and the Stadium Complex suggests that some groundwater might be present at shallow depths. Nonetheless, the recovered soil samples did not appear saturated, suggesting that the level of the phreatic surface is positioned somewhere below the top-of-rock level. Consequently, we recommend the installation of one or more groundwater monitoring wells during any supplemental geotechnical engineering study intended to support a detailed building design and site grading plan.

6.0 PRELIMINARY ANALYSES AND RECOMMENDATIONS

6.1 Floor Slabs

With the exception of some isolated and localized soft soil zones, the existing site soils, including the alluvial and residual soil zones are generally medium dense to very dense and judged capable of supporting typical slab-on-grade loading. A subgrade modulus of 75 pci could be used to model slab interaction with the site alluvial or residual soils and a subgrade modulus of 250 pci could be used to model slab interaction with well-compacted AASHTO No. 57 Coarse Aggregate subbase. The final subgrade moduli should be reviewed and assigned based on the anticipated soil zone(s) at the final ground floor level.

All proposed slab-on-grade floor slabs and subbase sections should be constructed in accordance with the latest standards established by the American Concrete Institute (ACI) as well as the Portland Cement Association (PCA). A polyethylene vapor barrier of at least five (5) mils in thickness may be incorporated into the floor slab/subbase section design for interior slabs. Where a vapor barrier is used, consideration should be given to providing a three (3)-inch-thick layer of compacted sand above the vapor barrier in general accordance with ACI 302. Sand should meet the material properties for Cement Concrete Sand (ASTM C33).

Due to the potential for groundwater, the ground level slab subbase should consist of AASHTO No. 57 Coarse Aggregate at least 6 inches thick. The subbase thickness should be locally increased where perforated underdrain pipes are installed. The extent of underdrains that are necessary should be reviewed following additional groundwater monitoring. The presence of isolated soft soil

zones below the proposed floor could be identified by proofrolling. The overall suitability of the soil subgrade for floor construction will be directly related to the weather conditions at the time of construction.

6.2 Spread Footing Foundations

Conventional shallow-depth spread footings bearing upon the existing site soils are typically the most cost effective foundation alternative. The most appropriate bearing capacity for shallow foundation design will be a function of the foundation depth and geometry relative to the subsurface profile. The density and subsequent bearing capacity of the subsurface materials will characteristically improve with depth below the preconstruction site grades. In this respect, we anticipate presumptive bearing pressures of approximately 3,000 psf for foundations situated within about 15 feet of preconstruction grades and 4,000 to 6,000 psf for residual soils and saprolites at depths of greater than approximately 15 feet below the preconstruction grades. The precise ground contact pressures for soil-bearing foundations will likely be controlled by settlement considerations in consideration of the specific building materials and the thickness of the overburden within the foundation stress influence zone.

Depending upon the ground floor levels adopted by the final design, spread footings could potentially bear directly upon bedrock. The highest elevation of the bedrock surface as disclosed by the preliminary test borings for this study is 134.9 feet at Boring B-1 near the top of the hill. Preliminary design concepts suggest that finish floor levels might be positioned near elevation 150 feet; therefore, the significant application of spread footings bearing directly on bedrock would appear impractical.

No foundation should be positioned to bear upon any existing or proposed utility or sewer line. Wall penetrations with sleeves that can accommodate foundation settlement are preferable to routing pipes below proposed footings. A minimum frost depth of 30 inches is considered appropriate as reinforced by the Baltimore County Building Code. Foundation bearing levels should gradually transition from lower levels to higher levels as necessary to meet frost protection or other architectural criteria. Vertical foundation steps should be limited to a maximum of 24 inches in height, and foundations should ascend at a ratio no steeper than 2:1 (horizontal to vertical) as measured between the leading edge of footing bases at adjacent steps.

6.3 Deep Foundations

Deep foundations, such as caissons, H-piles, or micropiles, could bear directly on, or within, the site bedrock and should be considered for the support of heavy structure loads where rock is significantly deeper than the proposed floor levels. The bearing capacity utilized for foundations end-bearing on the competent site bedrock could be conservatively designed based on a bearing capacity of 15 ksf;

however, significantly higher bearing capacities approaching 40 tsf or more may be achievable upon closer review and in consideration of the condition of the overall rock mass.

6.4 Retaining Walls

The existing slope will likely dictate the use of earth retaining walls such as reinforced concrete walls for building interiors or mechanically stabilized earth segmental block for exterior areas.

The following soil properties can be used to calculate lateral earth pressures, equivalent fluid pressures, uplift resistance, interface frictional forces and subgrade reactions for buildings and retaining walls:

DESIGN CONDITION	EXISTING SITE SOILS (Lower Limit)	EXISTING SITE SOILS (Upper Limit)
Total Unit Weight, γ_t (above the water table)*	115 pcf	140 pcf
Angle of Internal Friction, ϕ (for lateral pressure coefficients)	23°	35°
Cohesion, c	Neglect	
Adhesion with Concrete, c_a	Neglect	
Interface Friction Factor $\tan\delta$ (with mass concrete)	0.30	0.45
Interface Friction Factor $\tan\delta$ (with formed concrete)	0.25	0.30

*Notes: Drained conditions may be assumed where adequate foundation drainage is incorporated into the design. Adequate drainage includes (but is not limited to) flow zones along walls including drainage boards as well a perimeter drain on the active pressure side of the wall.

6.5 Prestressed Rock Anchors

Typical ultimate bond stresses for rock anchors bonded via grout may be assigned at 250 psi but should be verified and potentially adjusted by load testing. We recommend adding approximately five feet of rock socket to typical designs to account for the presence of discontinuities in the otherwise competent and hard rock.

6.6 Seismic Site Parameters

Based on subsurface conditions documented in this report, the subsurface strata profile coincides with Site Class D of the International Building Code (IBC). This site class assumes foundation-bearing zones will be prepared in accordance with the design parameters and procedures documented in this report and further assumes the

position and level of the proposed structures are as indicated in this report. We have assumed that significant sections of structural fill will be necessary to establish the proposed ground-level floor. Depending upon the final floor level assigned, a significant improvement to the Seismic Site Class may be possible upon further evaluation of the selected foundation type in conjunction with the proposed bearing levels.

6.7 Site Grading

Based upon the conceptual design concepts, the ground level floor will span the site grading cut/fill line. Therefore, earthwork quantities may be balanced and onsite soils should be reused as fill materials to the greatest practical extent. The majority of the onsite soils are of suitable gradation and classification for reuse as fill materials; however, some onsite soils will require special attention to moisture controls in order to achieve the levels of compaction necessary to achieve architectural standards. Buildings that incorporate extensive masonry and glass are sensitive to differential settlement; therefore, compaction controls should be based on the Modified Compaction Test (ASTM D1557), and structural fill materials should be compacted to at least 95 percent of the material's maximum dry density and within 3.0 percentage points of the optimum moisture content by ASTM D1557.

Soils with high silt contents and saprolites can be especially difficult to moisture-condition when attempting to achieve compaction of structural fill. Based on the laboratory test results, the natural moisture contents of the sandy materials are well above their respective optimum moisture contents. Consequently, a significant portion of the existing site soils will require extensive air-drying prior to recompaction if they are to be reused to support the proposed floor slab. Extensive air-drying is typically practical when a large staging area is available to spread the soil out into thin layers during warm and dry weather conditions. Such air-drying will likely require a large staging area that is not necessarily available within the proposed limit of construction disturbance. Alternatively, existing soils that are removed from excavations could be disposed offsite and replaced with offsite borrow materials that meet specification requirements. Contractors must understand their contractual responsibility associated with provisions for fill and backfill relative to the high natural moisture condition of some of the site soils.

Onsite soils reused to construct structural fill sections for bulk earthwork activities should consist of inorganic materials that do not contain rock fragments which are retained on an eight (8)-inch mesh screen and are of suitable moisture content to achieve the compaction requirements. Oversize cobbles or boulders should be wasted offsite, or relocated in onsite areas approved by the Architect/Engineer.

Materials originating from offsite sources of borrow as may be necessary to balance onsite deficiencies should consist of inorganic and well-graded soils. Offsite borrow soils should meet the following gradation parameters:

- 100 percent of the soil particles should pass a 6-inch mesh screen
- At least 85 percent of the soil particles should pass a 2-inch mesh sieve
- 5 to 45 percent of the soil particles should pass the No. 200 mesh sieve

Liquid limits for offsite borrow soils should not exceed 40 and plasticity indices should not exceed 20. Borrow soils should classify as SC, SM, SW, GC, GM or GW according to ASTM D2487. Well-graded gravel or roadway subbase (e.g. CR6) would be ideal for use as offsite borrow. No slag should be used.

6.8 Quality Control

Specifications should incorporate independent geotechnical engineering observations and testing on a full-time basis during all phases of the site preparation, foundation construction and roadway construction to ensure proper execution of the design.

7.0 CONCLUSIONS

The site of the proposed University of Maryland, Baltimore County Events Center is considered suitable for the construction of the proposed facilities. Detailed geotechnical engineering studies should be conducted to support the structural and site grading and stormwater designs as the project continues to evolve. Additional test borings, groundwater observation wells and laboratory testing may be appropriate. The analyses and recommendations presented in this report are considered preliminary and must be confirmed or refined based upon additional studies and the subsurface conditions disclosed during the construction phase.

8.0 LIMITATIONS

This report has been prepared for the exclusive use of Whitman, Requardt & Associates, LLP for application to the University of Maryland, Baltimore County Events Center project. The presentations in this report are based upon the available geotechnical information. The borings depict the soil and rock conditions at the specific point locations and at specific times at which they were drilled. The soil and bedrock conditions at other locations and times may differ significantly from those encountered by the borings for this evaluation. The presence of hazardous waste was not apparent during the test boring program; however, this report does not address environmental conditions.

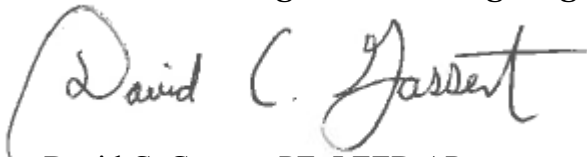
Proposed Events Center
University of Maryland, Baltimore County
Baltimore, Maryland
N&W # 1308MD086
September 20, 2013

The anticipated revisions to the plans for the proposed structure or for site design, made after the date of this report, should be brought to the attention of the Geotechnical Engineer, so that subsequent changes in our recommendations can be prepared as deemed appropriate. If deviations from the noted subsurface and foundation conditions are encountered during subsequent studies or during construction, they should be brought to the immediate attention of the Geotechnical Engineer. The cost of additional design review or construction review services is not part of our current Professional Services Agreement.

N&W's professional services have been performed and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practice. Navarro & Wright Consulting Engineers, Inc. is not responsible for the conclusions made by others based upon the data herein.

Respectfully submitted,

Navarro & Wright Consulting Engineers, Inc.



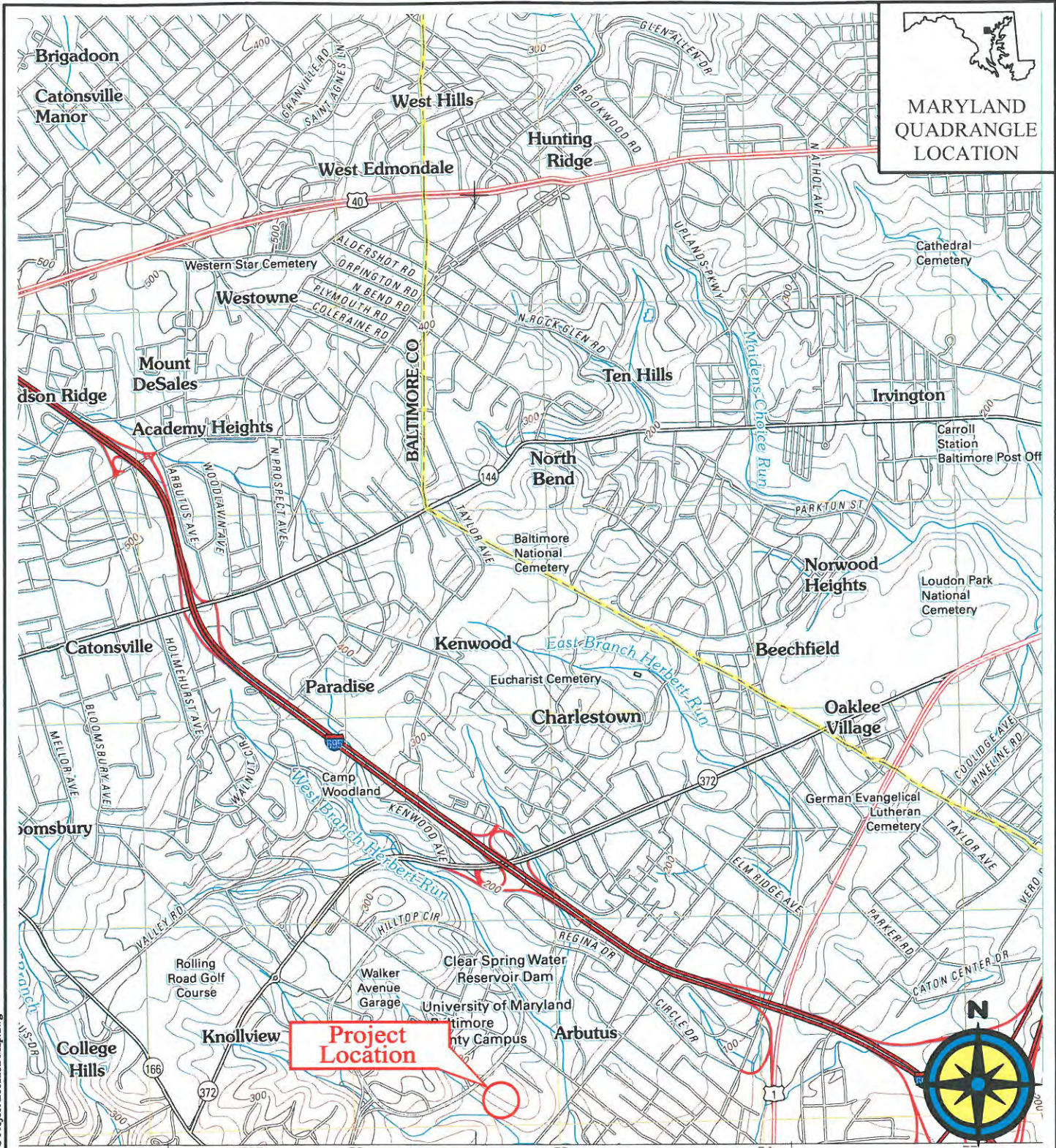
David C. Gassert, PE, LEED AP
Senior Geotechnical Engineer

DCG/d



Proposed Events Center
University of Maryland Baltimore Campus
Baltimore County, Maryland

Figures



Project Location Map

University of Maryland, Baltimore County Events Center
Baltimore, Maryland

Figure:
1

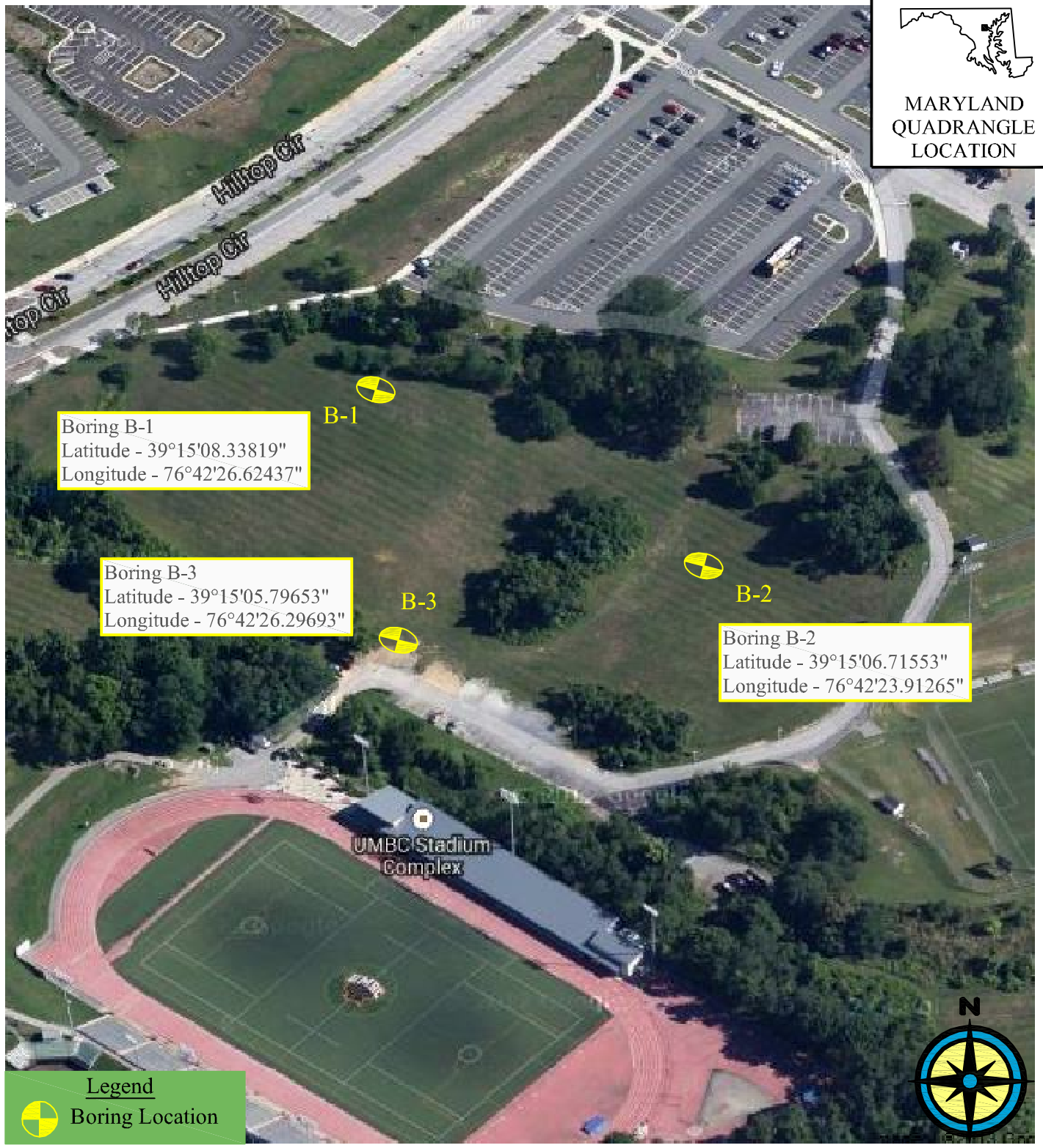
Source: U.S.G.S. Baltimore West, MD 7.5-Minute Topographic Quadrangle Map, 2011.

Scale:
1:24,000



Navarro & Wright Consulting Engineers, Inc.
111 South Calvert, Suite 2700 Baltimore, MD 21202
(410) 385-5335 (Telephone) (866) 386-8597 (Fax)

Date:
09/20/13



Boring Location Sketch

University of Maryland, Baltimore County Events Center
Baltimore, Maryland

Figure:
2

Source: Aerial Image from Google Earth, 2013

Scale:
N.T.S.



Navarro & Wright Consulting Engineers, Inc.
111 South Calvert Street, Suite 2700, Baltimore MD 21202
(710) 385-5335 (Telephone) (866) 386-8597 (Fax)

Date:
09/20/13

NA: 201311308NID086_WRA_UMBC/AutoCAD/UMBC Boring Location Map.dwg

Proposed Events Center
University of Maryland Baltimore Campus
Baltimore County, Maryland

Appendix A
Typed Engineer's Field Boring Logs

ENGINEERS FIELD BORING LOG

BORING NO.	<u>B-1</u>
SHEET	<u>1</u> OF <u>2</u>
DATE: START	<u>9/3/13</u>
END	<u>9/3/13</u>
O.G. ELEV.	<u>165.9</u>
GWL ELEV.	<u>152.6</u>

PROJECT NAME UMBC Events Center COUNTY Baltimore Co., MD
 STATE RT. NO. - SECT. - SEGMENT - OFFSET -
 STATION - OFFSET FROM CENTERLINE -
 INSPECTOR (SIGNED) C. McCarthy DRILLERS NAME/COMPANY J. Mehalick/TRC

EQUIPMENT USED Mobile B57 Truck Rig with Safety Hammer

DRILLING METHODS Cont. SS 3' Int Sampler/NQ II Core/ Unsampled

CASING: SIZE: 3.25" I.D. HSA; DEPTH: 31.0'; WATER: DEPTH: 12.1' TIME: 0 HR DATE: 9/3/13
 CHECKED BY: DCG; DATE: 9/20/13 DEPTH: 13.3' TIME: 24 HR DATE: 9/4/13

NOT ENCOUNTERED

DEPTH (FT)	SAMPLE NO./TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (FT.)	RECOVERY (%)	RQD (%)	POCKET PENT/TORVANE (TSF)	USCS	AASHTO	H ₂ O CONTENT	DESCRIPTION	REMARKS	
0							CL			Lean CLAY with sand, (CL, A-4(4)), medium orangish brown and medium gray with some gray, dry to moist, hard to stiff to very stiff, contains some fine gravel (Alluvial) Lab Testing (S-4): LL=26%, PI=8%, w=18.5%		
2.0	S-1	9 18 19 14	0.6	30	-			D-M				
4.0	S-2	11 11 19 16	1.5	75	-			M				
5												
6.0	S-3	5 5 5 7	0.1	5	-			M				
8.0	S-4	7 6 7 10	1.2	60	-			M				
10	S-5	12 16 13 17	1.6	80	2.75	A-4(4)	M	10.0	155.9			
13.0	UNS		-	-		sc					Clayey SAND with fine gravel, (sc, a-7-6), light gray to medium orangish brown with brownish red mottling, moist, dense to very dense (Residual)	
15	S-6	10 17 31 28	1.8	90	-			M				
18.0	UNS		-	-								
20	S-7	31 41 27 21	1.6	80	-	a-7-6	M					

ENGINEERS FIELD BORING LOG

BORING NO.	<u>B-1</u>
SHEET	<u>2</u> OF <u>2</u>
DATE: START	<u>9/3/13</u>
END	<u>9/3/13</u>
O.G. ELEV.	<u>165.9</u>
GWL ELEV.	<u>152.6</u>

PROJECT NAME UMBC Events Center COUNTY Baltimore Co., MD
 STATE RT. NO. - SECT. - SEGMENT - OFFSET -
 STATION - OFFSET FROM CENTERLINE -

INSPECTOR (SIGNED) C. McCarthy DRILLERS NAME/COMPANY J. Mehalick/TRC

EQUIPMENT USED Mobile B57 Truck Rig with Safety Hammer

DRILLING METHODS Cont. SS 3' Int Sampler/NQ II Core/ Unsampler

CASING: SIZE: 3.25" I.D. HSA; DEPTH: 31.0'; WATER: DEPTH: 12.1' TIME: 0 HR DATE: 9/3/13

CHECKED BY: DCG; DATE: 9/20/13 DEPTH: 13.3' TIME: 24 HR DATE: 9/4/13

NOT ENCOUNTERED

DEPTH (FT)	SAMPLE NO./TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (FT.)	RECOVERY (%)	RQD (%)	POCKET PENT/TORVANE (TSF)	USCS	AASHTO	H ₂ O CONTENT	DESCRIPTION	REMARKS
20							sc			Clayey SAND with fine gravel, (sc, a-7-6), light gray to medium orangish brown with brownish red mottling, moist, dense to very dense (Residual)	
23.0	UNS		-	-							
25		13 22 35 40	2.0	100				M			
25.0	S-8										
28.0	UNS		-	-			a-7-6			28.0	137.9
28.9	S-9	19 50/0.4	0.7	78			sm	M		Silty SAND, (sm, a-2-4-), light gray and brown, moist, very dense (Saprolite)	
30											
31.0	ADV		-	-			a-2-4-			31.0	134.9
				77						GNEISS, light gray and dark gray, hard, weathered to minor weathering, no apparent bedding to intensely bedded, very closely to medium jointed (Recovery 88 % - RQD 32 %)	31.0': Auger refusal 31.7'-32.0': Completely weathered sandy silt
35											
34.5	R-1		2.7	11							
				96							
39.5	R-2		4.8	46						39.5	126.4
										Lab Testing (39.0' to 39.3'): Unconfined compressive Strength=234.5 tsf	
40	End of boring at 39.5'										Job Number: <u>1308MD086</u>

ENGINEERS FIELD BORING LOG

BORING NO.	<u>B-2</u>
SHEET	<u>1</u> OF <u>3</u>
DATE: START	<u>9/3/13</u>
END	<u>9/3/13</u>
O.G. ELEV.	<u>151.0</u>
GWL ELEV.	<u>142.4</u>

PROJECT NAME UMBC Events Center COUNTY Baltimore Co., MD
 STATE RT. NO. - SECT. - SEGMENT - OFFSET -
 STATION - OFFSET FROM CENTERLINE -

INSPECTOR (SIGNED) C. McCarthy DRILLERS NAME/COMPANY J. Mehalick/TRC

EQUIPMENT USED Mobile B57 Truck Rig with Safety Hammer

DRILLING METHODS Cont. SS 3' Int. Sampler/NQ II Core/Unsampled

CASING: SIZE: 3.25" I.D. HSA; DEPTH: 36.5'; WATER: DEPTH: 9.2' TIME: 0 HR DATE: 9/3/13

CHECKED BY: DCG; DATE: 9/20/13 DEPTH: 8.6' TIME: 24 HR DATE: 9/4/13

NOT ENCOUNTERED

DEPTH (FT)	SAMPLE NO./TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (FT.)	RECOVERY (%)	RQD (%)	POCKET PENT/TORVANE (TSF)	USCS	AASHTO	H ₂ O CONTENT	DESCRIPTION	REMARKS
0		6					SC			Clayey SAND, (SC, A-7-6(9)), medium to light brown and orangish brown mottled, moist, medium dense to dense, no odor (Alluvial) Lab Testing (S-6): LL=50%, PI=27%, w=28.5%, Ø=23.0°, c=640 psf	S-3 and S-4: No recovery due to quartz gravel
2.0	S-1	11 14 15	1.4	70	-			M			
4.0	S-2	14 11 11 24	1.2	60	-			M			
5		16 14 9									
6.0	S-3	17	0.0	0	-			-			
8.0	S-4	24 15 14 14	0.0	0	-			-			
10		9 12 13									
10.0	S-5	13	0.3	15	-			M			
12.0	S-6	19 21 20 22	1.3	65	-			M			
13.0	UNS		-	-				-			
15		8 13 12									
15.0	S-7	19	2.0	100	-			M		S-7: Rust staining throughout	
18.0	UNS		-	-		A-7-6(9)		-	18.0		
18.4	S-8	50/0.4	0.4	100	-	sm		M	133.0	Silty SAND, (sm, a-2-4), light gray, moist to damp, very dense (Residual)	
20						a-2-4					

ENGINEERS FIELD BORING LOG

BORING NO.	<u>B-2</u>
SHEET	<u>2</u> OF <u>3</u>
DATE: START	<u>9/3/13</u>
END	<u>9/3/13</u>
O.G. ELEV.	<u>151.0</u>
GWL ELEV.	<u>142.4</u>

PROJECT NAME UMBC Events Center COUNTY Baltimore Co., MD
 STATE RT. NO. - SECT. - SEGMENT - OFFSET -
 STATION - OFFSET FROM CENTERLINE -
 INSPECTOR (SIGNED) C. McCarthy DRILLERS NAME/COMPANY J. Mehalick/TRC

EQUIPMENT USED Mobile B57 Truck Rig with Safety Hammer

DRILLING METHODS Cont. SS 3' Int. Sampler/NQ II Core/Unsampled

CASING: SIZE: 3.25" I.D. HSA; DEPTH: 36.5'; WATER: DEPTH: 9.2' TIME: 0 HR DATE: 9/3/13
 CHECKED BY: DCG; DATE: 9/20/13 DEPTH: 8.6' TIME: 24 HR DATE: 9/4/13

NOT ENCOUNTERED

DEPTH (FT)	SAMPLE NO./TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (FT.)	RECOVERY (%)	RQD (%)	POCKET PENT/TORVANE (TSF)	USCS	AASHTO	H ₂ O CONTENT	DESCRIPTION	REMARKS
20							sm			Silty SAND, (sm, a-2-4), light gray, moist to damp, very dense (Residual)	
23.0	UNS		-	-							
23.7	S-9	18 50/0.2	0.7	100	-			M			
25											
28.0	UNS		-	-							
28.3	S-10	50/0.3	0.3	100	-			Da			
30											
33.0	UNS		-	-							
33.3	S-11	50/0.3	0.3	100	-			Da			
35											
36.5	UNS		-	-			a-2-4		36.5	114.5	36.5': Auger refusal
				100						GNEISS, light gray and dark gray, hard, minor weathering to fresh, no apparent bedding to intensely bedded, very closely to medium jointed Lab Testing (37.8' to 38.1'): Unconfined compressive strength=699.3 tsf	
39.5	R-1		3.0	57							
40				100							

ENGINEERS FIELD BORING LOG

BORING NO.	<u>B-2</u>
SHEET	<u>3</u> OF <u>3</u>
DATE: START	<u>9/3/13</u>
END	<u>9/3/13</u>
O.G. ELEV.	<u>151.0</u>
GWL ELEV.	<u>142.4</u>

PROJECT NAME UMBC Events Center COUNTY Baltimore Co., MD
 STATE RT. NO. - SECT. - SEGMENT - OFFSET -
 STATION - OFFSET FROM CENTERLINE -

INSPECTOR (SIGNED) C. McCarthy DRILLERS NAME/COMPANY J. Mehalick/TRC

EQUIPMENT USED Mobile B57 Truck Rig with Safety Hammer

DRILLING METHODS Cont. SS 3' Int. Sampler/NQ II Core/Unsampled

CASING: SIZE: 3.25" I.D. HSA; DEPTH: 36.5'; WATER: DEPTH: 9.2' TIME: 0 HR DATE: 9/3/13

CHECKED BY: DCG; DATE: 9/20/13 DEPTH: 8.6' TIME: 24 HR DATE: 9/4/13

NOT ENCOUNTERED

DEPTH (FT)	SAMPLE NO./TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (FT.)	RECOVERY (%)	RQD (%)	POCKET PENT/TORVANE (TSF)	USCS	AASHTO	H ₂ O CONTENT	DESCRIPTION	REMARKS
40											
44.5	R-2		5.0	100					-	GNEISS, light gray and dark gray, hard, minor weathering to fresh, no apparent bedding to intensely bedded, very closely to medium jointed	
45									44.5	End of boring at 44.5'	106.5
50											
55											
60											

ENGINEERS FIELD BORING LOG

BORING NO.	<u>B-3</u>
SHEET	<u>1</u> OF <u>2</u>
DATE: START	<u>9/3/13</u>
END	<u>9/3/13</u>
O.G. ELEV.	<u>131.1</u>
GWL ELEV.	<u>121.9</u>

PROJECT NAME UMBC Events Center COUNTY Baltimore Co., MD
 STATE RT. NO. - SECT. - SEGMENT - OFFSET -
 STATION - OFFSET FROM CENTERLINE -

INSPECTOR (SIGNED) C. McCarthy DRILLERS NAME/COMPANY J. Mehalick/TRC

EQUIPMENT USED Mobile B57 Truck Rig with Safety Hammer

DRILLING METHODS Cont. SS 3' Int. Sampler/NQ II Core/Unsampled

CASING: SIZE: 3.25" I.D. HSA; DEPTH: 26.5'; WATER: DEPTH: 8.1' TIME: 0 HR DATE: 9/3/13

CHECKED BY: DCG; DATE: 9/20/13 DEPTH: 9.2' TIME: 24 HR DATE: 9/4/13

NOT ENCOUNTERED

DEPTH (FT)	SAMPLE NO./TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (FT.)	RECOVERY (%)	RQD (%)	POCKET PENT/TORVANE (TSF)	USCS	AASHTO	H ₂ O CONTENT	DESCRIPTION	REMARKS
0		12					sm			Silty SAND with quartz gravel, (sm, a-2-4), damp, very dense (Fill)	
2.0	S-1	17	1.0	50	-		a-2-4	Da	129.1		
4.0	S-2	8	1.5	75	-		CL	Da		Sandy lean CLAY, (CL, A-4(3)), medium yellowish brown to orangish brown, damp to moist, stiff to very stiff, no odor, contains some quartz gravel (Alluvial)	
5		7								Lab Testing (S-2): LL=26%, PI=9%, w=14.5%, Ø=35.7°, c=73 psf	
6.0	S-3	9	1.1	55	2.25			M			
8.0	S-4	6	1.4	70	-			M			
9.0		8					A-4(3)		122.1		
10	S-5	15	1.8	90	-		SM	M		Silty SAND, (SM, A-2-4(0)), light brown and orangish brown mottling, moist, dense to very dense (Saprolite)	
		26								Lab Testing (S-5): pH=7.2, Chlorides=8 ppm, Sulfates=0 ppm, Resistivity=22.0520 kOhms x cm	
13.0	S-6		-	-				-			
		8								Lab testing (S-6): LL=NP, PI=NP, w=21.4%	
15	S-6	33	2.0	100	-			M			
18.0	UNS		-	-				-			
18.9	S-7	34	0.9	100	-			M			
20		50/0.4					A-2-4(0)				

ENGINEERS FIELD BORING LOG

BORING NO.	<u>B-3</u>
SHEET	<u>2</u> OF <u>2</u>
DATE: START	<u>9/3/13</u>
END	<u>9/3/13</u>
O.G. ELEV.	<u>131.1</u>
GWL ELEV.	<u>121.9</u>

PROJECT NAME UMBC Events Center COUNTY Baltimore Co., MD
 STATE RT. NO. - SECT. - SEGMENT - OFFSET -
 STATION - OFFSET FROM CENTERLINE -

INSPECTOR (SIGNED) C. McCarthy DRILLERS NAME/COMPANY J. Mehalick/TRC

EQUIPMENT USED Mobile B57 Truck Rig with Safety Hammer

DRILLING METHODS Cont. SS 3' Int. Sampler/NQ II Core/Unsampled

CASING: SIZE: 3.25" I.D. HSA; DEPTH: 26.5'; WATER: DEPTH: 8.1' TIME: 0 HR DATE: 9/3/13

CHECKED BY: DCG; DATE: 9/20/13 DEPTH: 9.2' TIME: 24 HR DATE: 9/4/13

NOT ENCOUNTERED

DEPTH (FT)	SAMPLE NO./TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (FT.)	RECOVERY (%)	RQD (%)	POCKET PENT/TORVANE (TSF)	USCS	AASHTO	H ₂ O CONTENT	DESCRIPTION	REMARKS
20							SM			Silty SAND, (SM, A-2-4(0)), light brown and orangish brown mottling, moist, dense to very dense (Saprolite)	
23.0	UNS		-	-					-		
23.9	S-8	24 50/0.4	0.9	100	-				M		
25											
26.5	UNS		-	-			A-2-4(0)		-	26.5	26.5': Auger refusal
30											
30.0	R-1		3.4		71				-		
35											
35.0	R-2		4.8		52				-	35.0	96.1
											End of boring at 35.0'
40											

Proposed Events Center
University of Maryland Baltimore Campus
Baltimore County, Maryland

Appendix B
Core Box Photographs



Boring B-1, Box 1 of 1



Boring B-2, Box 1 of 1

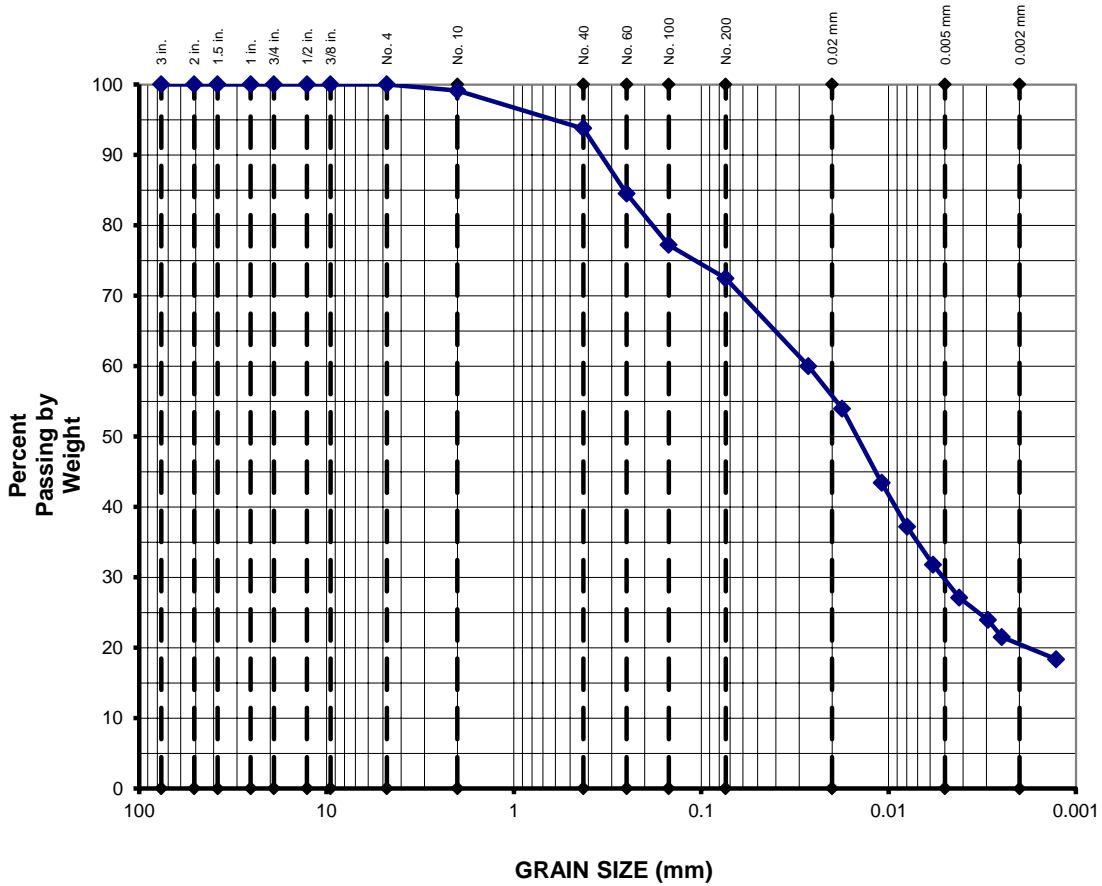


Boring B-3, Box 1 of 1

Proposed Events Center
University of Maryland Baltimore Campus
Baltimore County, Maryland

Appendix C
Laboratory Testing Results

GRAIN SIZE DISTRIBUTION CURVE



GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0%		27.5%			72.5%	
0.0%	0.0%	0.8%	5.4%	21.3%	43.0%	29.5%

GRAVEL			SAND		FINES	
COARSE	MEDIUM	FINE	COARSE	FINE	SILT	CLAY
		0.8%	26.7%		72.5%	
0.0%	0.0%	0.8%	5.4%	21.3%	53.6%	18.9%

Project:	UMBC Events Center	Soil Type: lean CLAY with sand
Boring No.:	B-1	
Station:	Proposed Building	USCS Classification: CL
Offset:	N/A	AASHTO Classification: A-4 (4)
Sample No.:	S-4	LL = 26 % PL = 18 %
Depth:	6.0-8.0 ft	PI = 8 % w = 18.5 %
Spec. Grav.:	2.7 (assumed)	



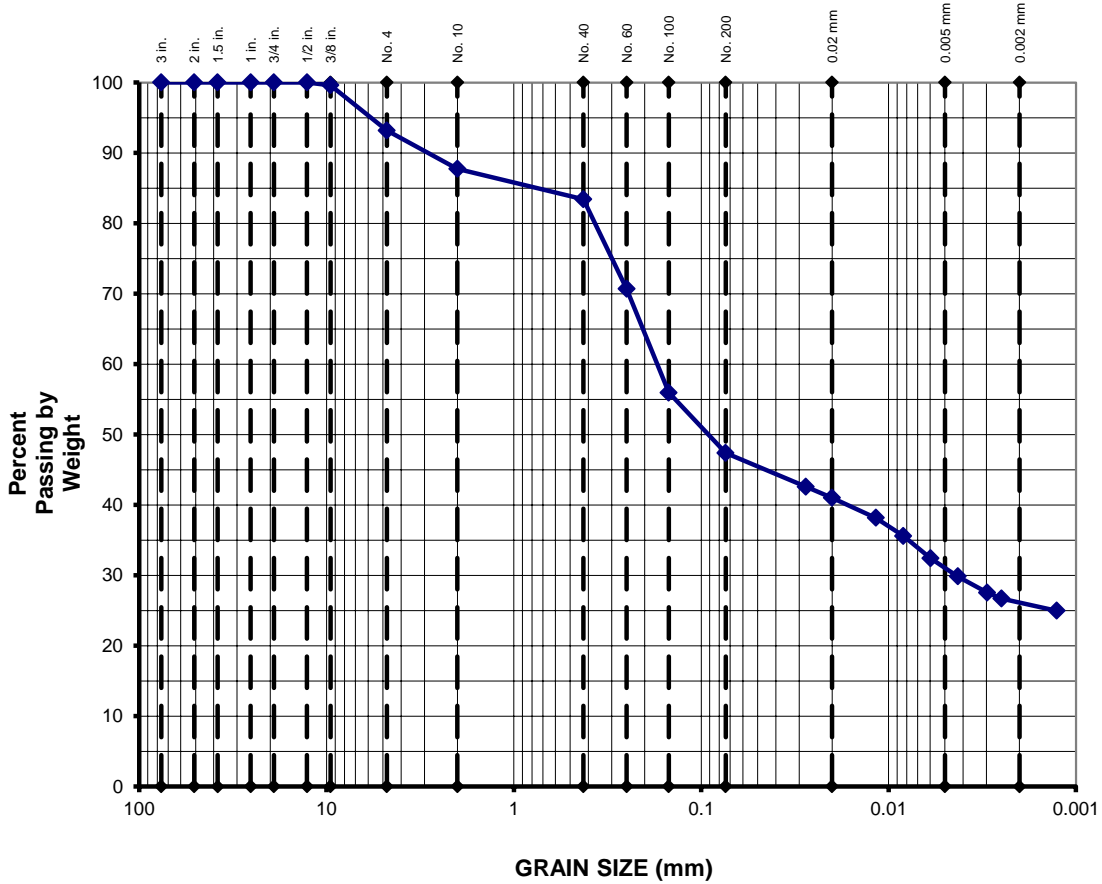
9/20/2013

Classification Testing Results

USCS & AASHTO

By: BBB Ckd: JDP

GRAIN SIZE DISTRIBUTION CURVE



GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
6.8%		45.8%			47.4%	
0.0%	6.8%	5.4%	4.3%	36.1%	16.4%	31.0%

GRAVEL			SAND		FINES	
COARSE	MEDIUM	FINE	COARSE	FINE	SILT	CLAY
	12.3%		40.4%		47.4%	
0.0%	0.4%	11.9%	4.3%	36.1%	21.5%	25.8%

Project:	UMBC Events Center	Soil Type:	clayey SAND
Boring No.:	B-2	USCS Classification:	SC
Station:	Proposed Building	AASHTO Classification:	A-7-6 (9)
Offset:	N/A	LL = 50 %	PL = 23 %
Sample No.:	S-6	PI = 27 %	w = 28.5 %
Depth:	10.0-12.0 ft		
Spec. Grav.:	2.7 (assumed)		



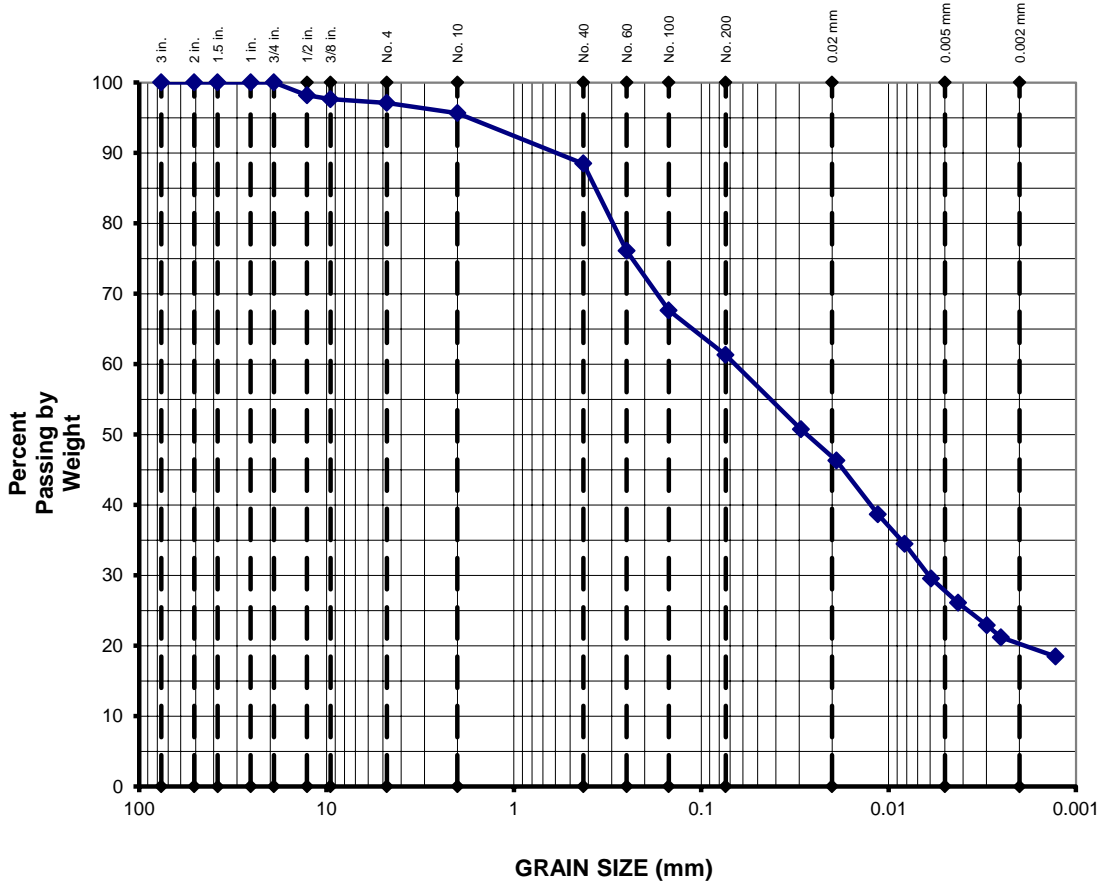
9/20/2013

Classification Testing Results

USCS & AASHTO

By: BBB Ckd: JDP

GRAIN SIZE DISTRIBUTION CURVE



GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
2.9%		35.8%			61.3%	
0.0%	2.9%	1.4%	7.2%	27.2%	33.7%	27.6%

GRAVEL			SAND		FINES	
COARSE	MEDIUM	FINE	COARSE	FINE	SILT	CLAY
	4.3%		34.4%		61.3%	
0.0%	2.4%	2.0%	7.2%	27.2%	41.9%	19.4%

Project:	UMBC Events Center	Soil Type: sandy lean CLAY
Boring No.:	B-3	
Station:	Proposed Building	USCS Classification: CL
Offset:	N/A	AASHTO Classification: A-4 (3)
Sample No.:	S-2	LL = 26 % PL = 17 %
Depth:	2.0-4.0 ft	PI = 9 % w = 14.5 %
Spec. Grav.:	2.7 (assumed)	



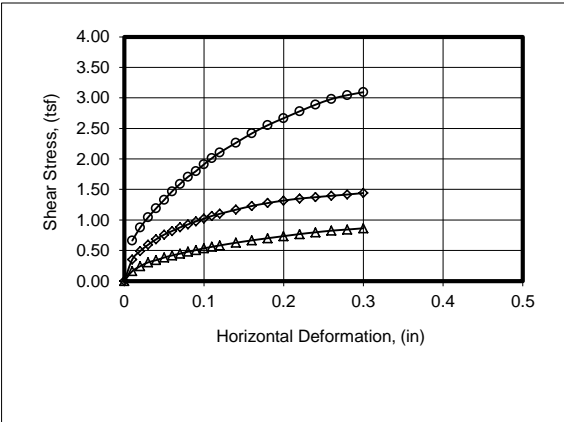
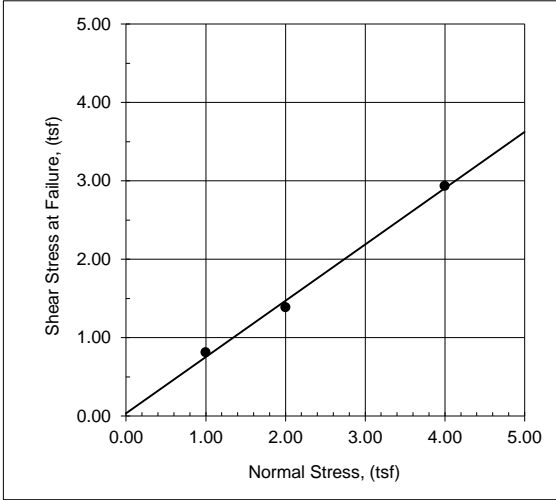
9/20/2013

Classification Testing Results

USCS & AASHTO

By: BBB Ckd: JDP

COHESION	72.5	PSF
FRICTION ANGLE	35.7	Degrees
TAN FRICTION ANGLE	0.72	



		SAMPLE NO.	1	2	3
Initial	Water Content, %	w_0	14.4%	14.4%	14.4%
	Dry Density, pcf	γ_d	105.0	104.9	104.9
	Moist Density, pcf	γ_m	120.2	120.0	120.0
	Void Ratio	e_0	0.60	0.61	0.61
	Saturation, %	S_0	64.4%	64.1%	64.1%
Void ratio after consolidation		e_c	0.50	0.40	0.37
Final	Water Content, %	w_f	18.0%	17.2%	15.9%
	Dry Density, pcf	γ_d	115.5	122.9	125.8
	Moist Density, pcf	γ_m	136.4	144.0	145.8
	Void Ratio	e_f	0.44	0.35	0.32

Sample Type: remolded
Test Type: Consolidated/Drained
Loading Rate: 0.004 in/min
Soil Description: sandy lean CLAY

USCS/AASHTO: CL,A-4(3)
LL : 26 **PI :** 9
Spec. Grav. = 2.70 (assumed)
Nat. Moisture = 14.5%
Project: UMBC Events Center
Boring No.: B-3
Station: Proposed **Offset:** N/A
Sample No.: S-2
Sample Depth: 2.0-4.0
Tested By: BBB
Checked By: JDP

Normal Stress, tsf	1.000	2.000	4.000
Shear Stress at Failure, tsf	0.811	1.385	2.935
Residual Shear Stress, tsf	#N/A	#N/A	#N/A

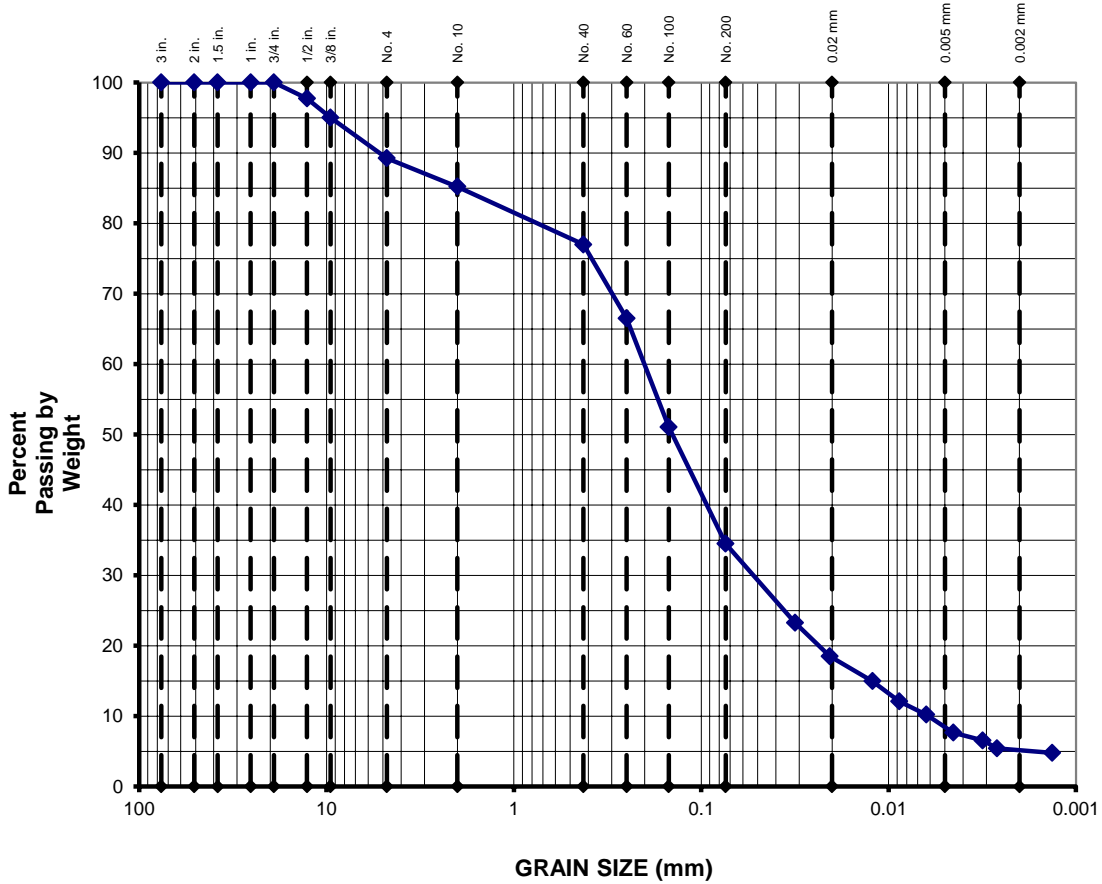


DIRECT SHEAR TEST REPORT

AASHTO T 236-92
ASTM D 3080-04

9/6/2013

GRAIN SIZE DISTRIBUTION CURVE



GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
10.7%		54.8%			34.5%	
0.0%	10.7%	4.0%	8.2%	42.5%	26.1%	8.4%

GRAVEL			SAND		FINES	
COARSE	MEDIUM	FINE	COARSE	FINE	SILT	CLAY
	14.8%		50.7%		34.5%	
0.0%	5.0%	9.8%	8.2%	42.5%	30.5%	4.0%

Project:	UMBC Events Center	Soil Type:	silty SAND
Boring No.:	B-3	USCS Classification:	SM
Station:	Proposed Building	AASHTO Classification:	A-2-4 (0)
Offset:	N/A	LL = NP	PL = NP
Sample No.:	S-6	PI = NP	w = 21.4 %
Depth:	13.0-15.0 ft		
Spec. Grav.:	2.7 (assumed)		



9/20/2013

Classification Testing Results

USCS & AASHTO

By: BBB Ckd: JDP

PROJECT NAME
PROJECT NUMBER
Date

University of Maryland, Baltimore County Events Center
 1308MD086
 9/12/2013

Boring No.	Sample Depth	Rock Type	Sample Diam. (in)	Sample Height (in)	Load (lb)	Comp. Strength (tsf)	Failure Type	Sample Notes/Remarks
B-1	39.0-39.3	Gneiss	1.995	4.008	10180	234.5	shear	R-2
B-2	37.8-38.1	Gneiss	1.994	4.009	30330	699.3	shear	R-1
B-3	32.6-32.9	Gneiss	1.994	4.008	3430	79.1	shear	R-2
Avg.						337.6		

Moisture Condition of Samples Air-dry
Temperature at Testing 72 deg.
Rate of Loading 250 lbs/sec
Direction of Load Application Vertical to core

UNCONFINED COMPRESSIVE STRENGTH OF INTACT ROCK CORE
 ASTM D7012-C



9/20/2013

By: BBB Ckd: JDP