

Chapter Two – Campus Design

C2.1. Introduction

“Old Dominion is a powerhouse for higher education with six colleges: Arts and Letters, Business and Public Administration, Education, Engineering and Technology, Health Sciences and Sciences. Old Dominion has offered master’s degrees since 1964 and Ph.D’s since 1971. The University has achieved designation as a “R1: Doctoral Universities – Very high research activity” from the Carnegie Foundation for the Advancement of Teaching.

Proud of its past, Old Dominion constantly looks to the future and prides itself on its continually expanding research and teaching programs. An ever-evolving university, Old Dominion is an agent of change for its students, for the region and the nation it serves. Old Dominion is Virginia’s forward-focused, public doctoral research university for students from around the world who want a rigorous academic experience in a profoundly multicultural community. Our internationally recognized faculty use real-world expertise and innovative teaching methods to challenge students to achieve their highest goals. Our determined entrepreneurial approach to problem-solving drives cutting-edge research, eminent scholarship and strategic partnerships with government, business, industry, organizations and the arts.” – ODU.edu
What is Inclusive Excellence?

“Inclusion is the active, intentional, and ongoing engagement with diversity - in people, in the curriculum, in the co-curriculum, and in communities. Inclusive Excellence is a level of institutional success that can only be realized in diverse communities where all constituencies have equitable opportunities to succeed.” – ODU.edu

- a. The evolution of the campus fabric should reflect the university’s academic goals and culture of inclusion, its buildings and grounds representing the foundations that foster the programs that define ODU.



1940’s Campus



1960’s Kaufmann Mall



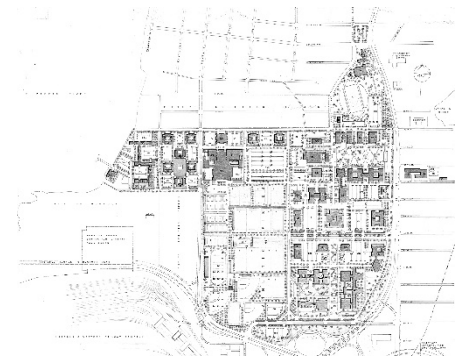
1970’s Campus



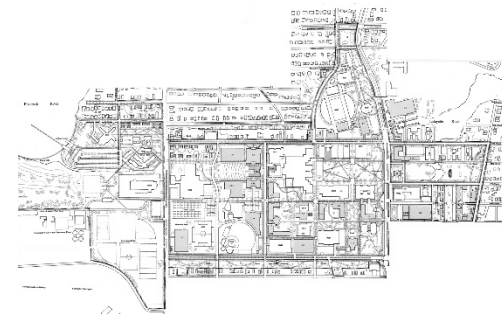
1990’s Campus

C2.2. Master Plan

- a. The 2013 Master Plan is no longer applicable to the campus and was not followed in the most recent development. There has also been new criteria related to flooding and sea level rise that impact how we place buildings on campus. A new master plan will follow the completion of ODU's strategic Plan.
- b. While the 2013 Master Plan no longer applies, the planning objectives are relevant:
 - Maximize the physical development of the campus without acquiring additional land.
 - Preserve and enhance green space
 - Improve pedestrian friendliness and eliminate vehicular conflicts where possible
 - Create campus organization that promotes appropriate physical relationships
 - Enhance campus by improving existing buildings through redevelopment and renovations; constructing new buildings to meet programmatic space needs
 - Provide development opportunities for specialized facilities that meet the programmatic needs of the university
 - Enhance residential communities with improved support services facilities
 - Identify opportunities for athletic and student recreational facilities
 - Consider growth opportunities at the Higher Education Centers
 - Analyze impacts of natural systems and campus boundaries
 - Align with the 2015 Stormwater Management Master Plan
 - Examine opportunities to strengthen campus precincts
 - Amend infrastructure to support campus organization
 - Conduct alternatives analysis
- c. Future campus development should
 - Reinforce the logical organization of academic, residential, recreational zones, and other areas
 - Preserve and enhance existing green spaces while seeking opportunities to create new green spaces and gardens.
 - Align to improve pedestrian, bicycle and vehicular flow
 - Recognize the impact that rising sea levels and the Norfolk campus's proximity to the Elizabeth and Laying rivers will have on future construction
- d. The 2013 Master Plan noted the need for increased building height on campus. This necessity will challenge designers given



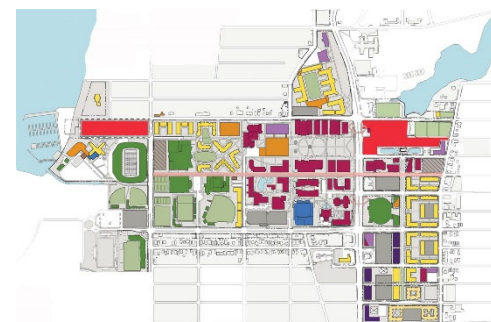
1966 Master Plan
McGaughy, Marshall & McMillan



1995 Master Plan
Ayers Saint Gross



2008 Master Plan
Ayers Saint Gross



2013 Master Plan
CIO David Harnage / Perkins & Will

the wealth of existing 1 and 2 story structures as exemplified by the buildings around Kaufmann Mall, all built between 1959 and 1969 and which are two story structures. The first 4 story building, built in 1967, was the Alfriend Chemistry building, which is slated to be replaced. Of the current academic buildings on the Norfolk Campus, a full 60% are 1 – 2 stories in height.

C2.3. Campus Character

- a. The character of the campus reflects the university's history beginning with the Williamsburg Lawn. Early building character was directly related to the institution existing as an extension of the College of William and Mary. Rollins Hall and the original Foreman Field use a Williamsburg brick pattern and other detailing visually connecting the campus back to the College of William and Mary. In the early years, there was very little campus growth. Spong Hall, adjacent to Rollins and in a similar style was not built until 1955. In 1962 the institution became an autonomous four year college and was named Old Dominion College and quickly gained University status in 1969. At the same time as ODU received its independence, the buildings surrounding Kaufman Mall were constructed, clearly breaking from the William and Mary aesthetic. These modern buildings established the first identity for the university. The 1970 and 80's saw a growth in on campus housing both on the east and west sides of Hampton Boulevard, characterized by non-descript brick structures that did nothing to contribute to or define the campus aesthetic. As we closed out the 20th century, building on campus started to rise out of the mundane and begin establishing a cohesive fabric, a trend that continues today. The desire for a consistent vocabulary with a collegiate appearance, bled over to renovations of the some of the original Kaufman Mall buildings hiding or eliminating any reference to their modernity.
- b. Construction progressed across campus, with significant growth between the millennium and 2020, where a 50% of the campus square footage was added. The first decade of the 21st century focused on student life and athletic facilities. This was followed by a decade of construction primarily focused on academic growth including the Student Success addition to the Perry Library, Engineering Systems, the Education Building and the Barry Art Building. While initial exploration of materials and form was evidenced in the Ted with its bold curve facing Hampton Boulevard and exploration of brick pattern, the development of the academic buildings solidified a campus framework allowing exploration of the campus palette and form development, specifically the inclusion of a curve in the designs.



Dragas Hall 1962



Dragas Hall 2017



The Runte Quad Housing 2007 - 2009



The Ted Constant Center 2003



Chemistry 2021 © Steve Malone

C2.4. Design Philosophy

- a. The A/E shall refer to **CPSM 1.4 DESIGN PHILOSOPHY** for the state's view of good design stewardship.
- b. ODU's design philosophy is an extension of the state's leadership in developing building designs that are functional and efficient. In the case of a state university, buildings must also exemplify the goals and ideals of the institution and continue the broader campus aesthetic. We believe the physical campus can inspire both current and future faculty staff and students.
- c. Landscape and building design are integrated concepts that should be collaboratively explored by the A/E at the onset of design. How a building integrates with its exterior surroundings, supporting visual and physical connection to outside space is a high priority as we move to a more urban campus. Exterior space should be considered as space to be inhabited encouraging activity appropriate to the facility.

C2.5. Landscape Design Philosophy - The Grounds of Old Dominion University

a. Introduction

Whether in a virtual or traditional setting, learning should not end in the classroom. At Old Dominion University we pride ourselves on fostering the acquisition of knowledge beyond our classrooms and into our community, the Commonwealth, and beyond. The Grounds of ODU are an imperator of this venerable objective and thereby an extension of the University's mission to serve the pursuit of scholarship.

Within the framework of the campus' landscape design, stewardship of the ODU mission may represent in the form of an interactive garden, rife with fragrance, multi-seasonal color and edible plantings, or it may appear as stormwater infrastructure disguised as an ornamental bed. Perhaps it is a basic taxonomic sign plate at the base of a tree which ties the landscape to the mission. Regardless of its format, the campus Grounds are intrinsic to the education of future Monarchs.

The Grounds of Old Dominion University are not merely a backdrop of transitory green space between University buildings. The landscape of ODU is a strategic portion of the University's mission and shall seek to represent its geography, character, and objectives in a manner which acknowledges the historic, present, and future goals of the institution.

b. Landscape Planning Objectives

i. Landscape Planning Objectives shall consider the following components:

- Context of Geography
- Character of the ODU Community
- Aesthetics
- Horticultural Industry Standards
- University Business Cycle
- Maintenance Cost
- Public Safety
- Structural Architecture
- Urban Forest Management
- Landscape Ecology & Sustainability

- ii. There is currently not a Landscape Master Plan for Old Dominion University. In lieu of the creation of such a document, these landscape planning objectives shall be utilized as a guidance tool during conceptual planning and actionable implementation of all renovation and design projects at the University.

c. Components of Landscape Design at Old Dominion University

i. Context of Geography

1. Geography shall consider four parts: indigenous Virginia landscape, the southern/mid-Atlantic climate, the coastal tidewater biome, and urban development.
2. Indigenous Virginia landscape is comprised of the cultural and natural resources homogeneous to the Commonwealth of Virginia. At ODU specifically, this would comprise our Virginia heritage as a 'first colony', our maritime history of trade and naval operations, our relationship with the US Navy, our roots as a William & Mary extension, and our estuaries which flank the main campus and tributaries surrounding ODU satellite locations.
3. Southern/Mid-Atlantic climate undergoes cool to cold winters and hot, humid summers, extremes on both ends of the spectrum are frequent. ODU is located in USDA Climate zone 8a/8b, sitting firmly in a transitional location that is separate from the rest of Virginia. The Hampton Roads MSA (metro-statistical area) where ODU is located can experience storms of extreme power in both winds and rainfall; Nor'easters, Hurricanes, and deep freeze snow/ice conditions are all possible.
4. Coastal Tidewater Biome sits slightly above sea level and is defined by its estuaries, predominantly the Chesapeake Bay, which give the area geographic features defined by peninsulas, islands made up of sandy-loam soil which is fractured by brackish and salt laden estuaries. The tidewater area is prone to frequent flooding, sometimes significant. ODU's location should be contextualized for its predisposition to flooding and storm force winds. This means that any landscape installations can be inundated with salt water or salt drift from outlying water sources.
5. Urban Development is omnipresent. Old Dominion University is located in the City of Norfolk, Virginia which is a member community of seven other cities that comprise the Hampton Roads MSA. Being the largest concentration of Virginians in the Commonwealth, the area crowded with citizens, infrastructure, and natural surroundings. ODU maintains a population of ~25,000 students, ~2,800 faculty/staff, and ~335 acres of fully urbanized land. The campus receives over one million visitors each year.

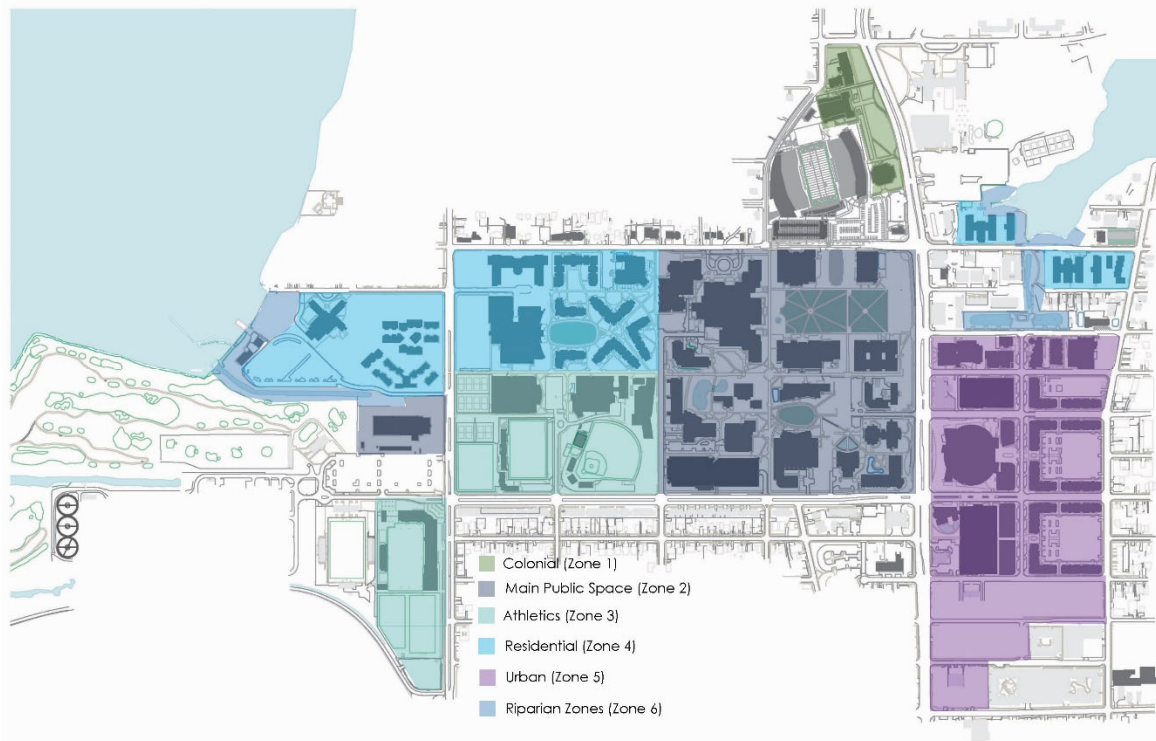
ii. Character of the Community

1. Character of the ODU Community shall consider present relationships with user groups, partners, and neighbors and how these can be reflected in the landscape.
2. User groups are dominated, but not limited to, three large segments: students, faculty/staff, and visitors. Whereas the student user will remain fluid, transitional, and mostly generational, faculty/staff will generally be more static in their relationship to the Grounds. The latter group, visitors, might be more dynamic with their ODU relationship; in that, visitors to the campus might be seasonal for a sporting event, frequent for scheduled meetings, or one-time for a concert or graduation.
3. Partners could be exemplified by University donor, a state contracted service provider, or administrators from the city of Norfolk. In general, partners of the University are to assist with the development and improvement of ODU and its mission.
4. Neighbors are within juxtaposition of the University, both in geography and/or mission. Examples of this could be the United States Navy, which is both a geographic neighbor and a partner in mutual success. Another could be an adjacent civic league working with ODU Public Safety to insure communal security.
5. Landscape design can be guided by one or more of ODU's relationships. Some designs may seek to target a specific user group, such as our international student population, while others may be

generalized by their polycentric nature. In either case, Landscape design shall consider the character of the ODU community and target positive externalities for all public space.

iii. Aesthetics

1. Aesthetic principles for ODU reflect upon the mission requirements of the University in a context that honors space, history, progress, sustainability, and beauty. The campus is broken into four aesthetic zones.
2. Space is governed by ODU's geographical context and urban setting. The landscape can appear limited by both natural watershed boundaries and urban density. It is incumbent that aesthetics be considered as a tool for softening the confines of population levels, construction projects, and traffic congestion while playing upon the natural beauty of the campus' riparian borders.
3. History matters by name at Old Dominion University. Recognition of the maritime past in the city of Norfolk, our foundations from William & Mary, or for being one of the many elite Virginia institutions. There is a theme of history throughout the landscape of ODU.
4. Progress in our landscape is reflected by our commitment towards improving our stormwater management system. This is but one example, but perhaps the most important. An innovative network of stormwater management practices stretch across ODU, many of them disguised as ornamental planting beds. The commitment towards beautification of what could be legitimately installed to appear as nothing more than infrastructure is important.
5. Beauty, in both the small and large. ODU is home to over 23 stormwater management green spaces, 16 designated gardens, and almost 7 acres of formally managed lawn. The branches of green across the Grounds for ODU's urban campus. These spaces may define an aesthetic zone, like the Kaufman Mall, or they may simply highlight natural space, as we find at Whitehurst Beach. The commitment to a diversified and unique experience with beauty stretches to all corners of the campus.
6. Aesthetic Zones: Zone 1 is our colonial zone, managed in the classical American landscape style as recognition of ODU's roots with William & Mary College. Zone 2 is the bulk of our campus – the academic core of campus. This zone is managed as open public space and contains the bulk of ODU's ornamental gardens. Zone 3 is the athletic sector; this sector uses our aesthetics as a recruiting tool or perhaps an intimidation tool for opposing teams; the area is designed according to coastal fauna. Zone 4 is mostly a housing district and all aesthetics here contain elements of school spirit and user group components such as resident specific site furnishings. Zone 5 is the 'shopping district'. All of zone 5 is located east of Hampton Blvd and its aesthetics are driven by urban conditions, ODU Branding, and access to commerce – landscape design in zone 5 should be framed as if it were a specific sub-section of the City of Norfolk. Zone 6 appears fractured, but relates in that these are the ODU riparian buffers. Landscape aesthetics of zone 6 will acknowledge the campus's connection to its waterways and build upon the natural surroundings of the tidewater biome. (See campus map, next page)



iv. Horticulture Industry Standards

1. Horticulture Industry Standards are more than the ‘right plant, right location’. In addition to landscape design meeting the philosophy of Old Dominion University, contractual obligations and ODU internal guidelines, any design installed here must also be in accordance with state policies outlined in the Virginia Erosion & Sediment Control Manual and with standards set forth by the American National Standards Institute for Nursery Stock.

v. University Business Cycle

1. The University Business Cycle is an alternative lens for viewing a calendar year. The business cycle is based on the academic calendar used by students, faculty, and staff, but also contains a seasonal layer pertaining to landscape.
2. Landscape design considerations shall take the University business cycle into account by illustrating year round visual interest. Examples would be blooming dogwoods during the spring commencement, a drift of flowering perennials for summer move-in, or fall color during the football season.
3. The University business cycle also pertains to use of the ODU landscape. For instance, bollards needed while classes are in-session may require a removable component for service during the summer. A lawn in one section of campus may require a fall overseed, whereas another section may be designed to go dormant.

vi. Maintenance Costs

1. Landscape designs shall not be accepted if the University is not able to maintain the projected costs of ongoing maintenance.
2. Protection of the investment requires maintenance costs remain within the expected growth and financial capabilities of the Department of Facilities Management. This includes the amount of time (labor hours) it will take one person to maintain a design to a stated level (illustrated by the Professional Grounds Management Society publication “Operational Guidelines for Grounds Management) utilizing all of the required tools and equipment within the course of a single year.

3. Considerations of maintenance costs should first be valued as an individual property and then the impact of a single project should be factored into the overall campus maintenance cost. Lastly, the capabilities of the Division of Grounds of Facilities Management are to be taken into account.
 4. There is no point to installing a landscape design which is unaffordable as such a design will fall into a deferred maintenance status until it is disassembled, removed, or redesigned.
- vii. Structural Architecture
1. Landscape design should be a cooperative element to the structural architecture of campus buildings, infrastructure layout, and the surrounding community.
 2. Landscape design should not be an aberration from the intended direction of this philosophy listed above and below. Rather, the landscape design shall consider the modified Georgian and Modern styles of ODU buildings, the grid patterns of the city's transportation network, and the residential/commercial nature of the outlying community.
 3. The structural architecture shall dictate some of the landscape design decisions, but not be the final metric. While some existing landscape designs may require alteration and/or removal to accommodate a structural installation or renovation, preservation of existing landscape should be the first consideration.
 4. The themes of ODU's character and landscape philosophy should be taken into consideration during the design phase of structural architecture. For example, knowledge of ODU's small space gardens could be considered and adopted into in the design(s) of future buildings.
- viii. Urban Forest Management
1. Urban Forest Management is the management process for all green space and natural features within a developed space. This process include inventory and asset management tools, GIS maps, staff, equipment, policy, design, public safety, and emergency response components.
 2. ODU has an urban forest management program. This program assists in maintenance scheduling, planting, design, financial allocation, budget forecast, master planning, and the University business cycle.
 3. Forest health is a primary concern for urban forest management. Landscape design shall consider forest health during the conceptual phase of any project.
 4. The ODU plant palette should be issued to all landscape designers and landscape architects, both internal and external to the agency, at the start of any design process.
 5. Plants listed as an "invasive species" by either the Federal, State, or local level will not be intentionally include in any ODU landscape design.
 6. Strict adherence to 'native plantings' is not required, but preferred. More important to a successful landscape design is the plant material's ability to tolerate the urban and climactic conditions of ODU's four primary campuses.
 7. The campus population of specific family & genus for some plants should be evaluated and considered during the conceptual phase of landscape design. Exceeding 10% of total campus vegetation by any one species should be avoided. This is due to epidemic plant pathogens and invasions, such as the Emerald Ash Borer or Dutch Elm Disease. In order to protect the urban forest assets of ODU, species diversity is the best frontline defense.
 8. Urban forest management in conjunction with a considered landscape design should seek to unite human and natural systems towards a maximization of mutual benefit.
- ix. Landscape Ecology & Sustainability

1. Landscape Ecology & Sustainability in the landscape of ODU shall be applied to maximize the environmental benefits of green space in a way which can be maintained and preserved.
2. Considerations for landscape design are using green infrastructure solutions for meeting stated stormwater objectives, creating complete ecosystems, supporting University mission & initiatives, and building a resilient space.
3. The limited space between structures and grey infrastructure means that landscape design at ODU can never serve one sole purpose. In traditional landscape architecture the goal was simply to beautify space in a way that compliments structural architecture. Layered landscape designs seek to provide a social solution while simultaneously beautifying space. An example would be a stormwater conveyance swale landscaped to disguise the sheet flow as a stream.
4. The current urban forest management plan calls for the use of edible plants applied as ornamental landscape features. This helps to support the University's mission of public education and is a sustainable feature. As well, numerous network initiatives are met by introducing edibles into ODU's landscape.
5. ODU currently has a number of complete ecosystems that service not only the public while exemplifying bountiful wildlife habitat. A complete ecosystem has a stratified planting schematic with a cast system of predatory & prey fauna. Landscape design should seek to establish such habitat where applicable.
6. Opportunities to maximize the environmental benefits of landscape should be sought by design. Whether for CO2 sequestration, reduced energy cost/consumption, or stormwater filtration, additional components of the aesthetic component is desired by the institution.

C2.6. Refer to the [LANDSCAPE FRAMEWORK PLAN](#) dated June 28, 2021 and located in the Appendix for further development of the landscape design philosophy, especially as it relates to the story of water on our campus.

C2.7. Architectural Character

- a. With a philosophy of an ever evolving institution, focused on entrepreneurialism, forward thinking yet grounded in history, our buildings and campus environment should reflect the same. New buildings should explore innovative ideas, while showing respect for the contextual fabric of the campus; they should not be flashy and faddish, but have relevance, elegance and permanence today and well into the future. Buildings should express the facility's use and activities.
- b. As an urban campus, no space shall be considered left over, back yard, or unworthy of consideration. It is these secondary spaces that are opportunities to continue the small gardens concepts that enhance the campus experience as evidenced by the west entry of the Webb Center, the South side of Kaufmann Hall and the garden enclave east of the Perry Library green space. The small spaces are unique contributors to the campus environment.
- c. These guidelines were created to further enhance the beauty of our campus, strengthen the cohesive fabric that identifies buildings at ODU. Development of the campus shall celebrate our diverse and profoundly multicultural student body and support innovation grounded in the established campus framework. Designs shall create a strong sense of place, while enhancing the student and faculty experience by creating open spaces integrated with buildings and connected to the pedestrian circulation axis's. Ultimately, the physical campus as a whole shall nurture student success.
- d. New construction shall enable pedestrian movement and safety through the creation of a comfortable atmosphere for pedestrians, while providing controlled access for service and delivery vehicles. Parking associated with academic and administrative buildings shall be limited to accessible spaces and

delivery/maintenance vehicle space, with the majority of the parking shifted to the perimeter of the campus reinforcing the pedestrian and bicycle priority.

- e. The campus desires to enhance its bicycle-friendly environment. Future buildings should consider ways to improve, enhance and at a minimum maintain the bicycle paths, and parking established on campus.

C2.8. Building Orientation

- a. Building locations shall be set prior to the commencement of schematic design.
- b. The positioning of new buildings should consider the functional connection between programs in adjacent facilities; encouraging building relationships. This may take priority over solar orientation, but subsequent building façade development shall intelligently respond to solar orientation and energy conservation.
- c. The space between buildings is no less important than the space within buildings and should encourage interaction between students and faculty both at a social and academic level. Spaces between buildings shall not create unsafe conditions, such as alleyways or blind spots.
- d. ODU is a relatively flat campus bordered by two rivers resulting in the need to raise the ground level floor elevation up out of the flood plain, which necessitates sloped sidewalks and in some cases ramps to provide accessible entrances. It is the responsibility of the Architect to design all exterior site railings, in concert with the civil engineer, for aesthetic continuity. All exterior railings shall be identified to the University architect for review early in the design. Care shall be taken to minimize accessible ramps in lieu of sloped sidewalks.
- e. Earlier in the campus development, buildings were placed on crawl spaces as evidenced by all of the buildings on Kaufman Mall. While the crawl spaces have created challenges to meet the American's with Disabilities Act of 1990, they protect ground floor construction from flooding. Future development will focus on designing accessible buildings that innovatively protect university property from costly damage due to flooding.
- f. Previously the University follows the City of Norfolk requirement for elevating the finish floor three feet above flood plain instead of the state requirement of two feet. As of today, Executive Order 45 supersedes the City of Norfolk requirements, but is still a developing Flood Standard. *The A/E along with ODU will assess this fluid situation as it applies to both new construction and major renovation.*
- g. Buildings shall continue to integrate pedestrian, bicycle, vehicular, service access on a campus wide approach, not insular to the project specific site.
- h. Building location shall seek opportunities to utilize existing infrastructure, while recognizing when aging infrastructure needs replacement. Project budgeting shall carefully consider costs associated with aged infrastructure replacement when proximate to the building site.
- i. Buildings shall be programmed (sized) to provide adequate, not excessive, space for the initial occupancy, future expansion and shared uses. It is important to consider the flexible adaptation of space over the life of the building. While we don't have a crystal ball for where university growth, trends and innovation will take place, we can be good stewards of that space. As good stewards of both the environment and financial resources, buildings shall consider the methods by which future renovations could take place. Each building should be flexible enough to respond to future changes in program, technology, types of learning, as well as changing research and academic priorities, without the need for extensive structural renovations or costly interior demolition balancing durable construction with anticipated renovations within the 50 year life of a building.
- j. The university has earned the Tree Campus USA designation from the Tree City USA organization over multiple years. We have consistently received the Elizabeth River Project the River Stars Sustained Distinguish Performance Award in recognition of the school's history of environmentally responsible practices. In 2014 Old Dominion University was ranked among the "most environmentally responsible colleges in the United States and Canada" by The Princeton Review in its Guide to 322 Green Colleges. These are just a few of the accolades associated with the campus, but which exemplify the desire to create a beautiful setting. As an urban campus

we must rise up to the challenge of finding the right balance between increased building density and maintaining the tree canopy, open green spaces and unique gardens that provide character to the university.

- k. Siting of structures shall evaluate how new or existing open spaces are used and defensible considering lines of site from building occupants throughout the day and night. Site planning of new structures shall consider the shading and effect buildings will have on adjacent outdoor spaces. The project will consider how the limits of construction impact neighboring facilities and what can be done, within the project budget, to improve pedestrian paths and or/ roadways up to campus standards.
- l. Building entrances shall be identifiable as such and positioned through careful site analysis of pedestrian traffic patterns to and around the site. Entrances shall include vestibules to shelter students, faculty and staff from the weather and mitigate energy consumption. Building entrances should acknowledge and encourage students, faculty and staff to meet, gather and interact – both inside and out.
- m. There are no backs to buildings on campus, so areas devoted to building service, trash removal, or to mechanical equipment should be designed so that their visibility from public areas, including walkways, is minimized. With the ability to use 3D technology to view building and site design from any position on campus, the A/E is encouraged to look at the design from various angles of approach, including views towards service areas. While Birdseye views are best to understand the whole building concept, they are not relative to how the building will be experienced. Alternately, views from adjacent building window heights can be simulated and explored, especially as it relates to views of rooftops and their necessary equipment. Use of 3D models can identify when landscape or physical screening is desired, while not compromising security and safety on campus.
- n. Building edges shall contribute to the vibrancy of academic and student life on campus, recognizing those spaces that will have activity throughout the day to energize the campus experience through their visibility to adjacent walks and street for enhanced security.
- o. Buildings identified as gateways to the campus by the University Architect, should be visual symbols of the institution through height, scale and distinctive building elements, signifying the transition from the city to the campus.

C2.9. Accessible Design

- a. Old Dominion University desires to create inclusive environments where students, faculty, staff and visitors can achieve their highest success. While the American with Disabilities Act and associated 2010 ADA Standards for Accessible Design will be followed as a minimum, there are instances where the minimum is no longer appropriate. In some cases the ODU Design Guidelines have identified specific requirements that improve the inclusive nature of the institution for all.

C2.10. Safety and Security

- a. Building design should promote the safety of faculty, staff, students and guests; to support the security of campus buildings and facilities; and to provide protection from unauthorized access.
- b. Security and accessibility are topics that should be discussed together as an integrated design solution. Campus security as well as accessibility involves a number of different issues at differing levels. The A/E should discuss and document, with the university, a security and accessibility plan for the building and its site.
- c. Design Considerations
 - i. Public Safety has two primary components: 1. Crime Prevention Through Environmental Design (CPTED) principles & application, 2. Risk Management.
 - ii. Landscape design at ODU will always seek to be applied in a way which is adherent to CPTED principles for public safety at all times.

- iii. Risk Management regards the forecasting, identification, and evaluation of risk, either present or potential, and the subsequent actionable sequences to recognized risk.
- iv. Landscape design should consider risk, not only in the framework of CPTED, but also with the potential for landscape to become a degradation of either public health, structural integrity, or transitory movement. Examples of each: intentional use of a tree species such as Bradford Pear known to frequently shed limbs during storms is a risk to public health, a White oak known for its potential growth size planted 10ft. beside a building will compromise the building materials, an azalea planted 1ft. away from an ADA entry point will grow to interfere with pedestrian use of the entry point.
- v. Particular concerns include landscaping, building entrances, walkways and parking areas, which shall be adequately lighted and free of areas hidden from view that could encourage criminal activity.
- vi. Line of sight and accessibility for police personnel shall be given design consideration, including proposed or future surveillance cameras.
- vii. Buildings, landscapes and lighting should be designed to promote personal safety both inside and outside buildings.
- viii. Landscape design should avoid creating opportunities for people to hide and obstruct the view in to and out of windows, both when the plants are young and when mature. Landscape elements should avoid areas of concealment around building entrances, pedestrian walkways, and parking facility perimeters.
- ix. Operable windows that are within 10 feet of the finished ground will have security screens installed on all building types.
- x. Paths of travel to and from the building will take into consideration current University pathway design for access to parking structures and other University facilities.
- xi. Provide adequate lighting, see the **DIVISION 26 ELECTRICAL | EXTERIOR LIGHTING SECTION** of these standards for additional information.
- xii. All safety initiatives should be ADA-compliant and take into consideration the needs of all occupants and potential visitors.
- xiii. Other considerations:
 1. Make it difficult for people to harm the building, its occupants, and contents.
 2. Use barriers to keep service vehicles from having easy access to areas not intended for vehicular traffic.
 3. Prevent unauthorized access from inside and outside the building to roofs, attics, adjacent buildings, and utility tunnels.
 4. For each facility considerations will be put into place for protection against active threats within the building. Building design will take into consideration a shelter in place posture.
- xiv. Refer to **DIVISION 28 – ELECTRONIC SAFETY AND SECURITY** for additional information.

C2.11. Scale, Height and Massing

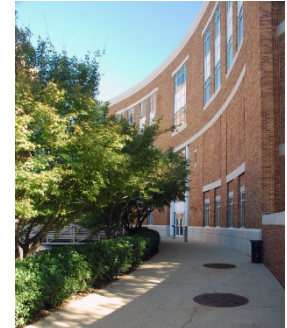
- a. As an urban campus with limited land resources, new construction, when appropriate, should be 4 to 5 stories in height, while using stepped massing to relate to permanent proximate lower structures when appropriate. Design shall consider the likelihood of existing 1 or 2 story adjacent buildings being demolished and replaced, during the life of the building when developing massing. The International Building Code defines buildings whose highest occupied floor exceeds 75' above the lowest level of fire department vehicle access as High Rise Structures and as such exceeding that limit shall be carefully considered when appropriate to the campus scale. The 1972 Batten Arts and Letters building at nine stories and the 1982 Whitehurst Residence Hall at six stories, represent two buildings on campus that do not add to or reinforce campus identity and do not respect the adjacent building context. Of the existing academic buildings on campus, a full 60% are 1 – 2 stories in height, 30% 3-4 stories

and 10% 5 stories and above. Of the 29 buildings built since 2000, only 2, Engineering Computational Sciences and the new Education Building exceed 3 stories in height. These buildings represent over a half million square feet of academic space.

- b. Building massing should relate to human scale while being functionally driven; building elements, incongruent with the campus, are discouraged. Massing shall consider how people interact, approach and experience the building, articulating it to relate to human scale. Architectural detailing that creates texture and depth articulation in exterior walls is encouraged.

C2.12. Building Mass Articulation

- a. Since the millennium, there has been a meaningful growth in campus architecture, which has established the character of the university, providing identity to the Old Dominion Campus.
- b. The first significant element has been the incorporation of curves into the majority of buildings built and or renovated. The curve was first introduced (outside of Foreman Field) in 1998 with the concave four story mass of the Gornto TeleTechnet classroom building designed by Ayers Saint Gross. The curve was reinforced in the landscape with a curved stormwater pond and the curved profile of the bridge. The integration of the building with the landscape has served to create an identifiable and pleasant experience on campus.
- c. Following the completion of Gornto, the Ted Constant Center and the renovation/addition to Constant hall continued incorporating the curve as part of the architecture. At the Ted, the building mass, relating to its function, was composed of multiple intersecting curves with materials along with shape, used to articulate the mass in a modern way, appropriate to an athletic venue.
- d. The addition to Constant Hall, by Mosely Harris & McClintock, added convex curves at the 49th street and Kaufman Mall entrances to provide identify. The addition of subtle curved elements at entries continued with the renovations of Health Sciences and Dragas Hall.
- e. The concave curve of Gornto is picked up again in the Student Recreation Center designed by Mosely Architects | Hastings and Chivetta in 2006 and the Perry Library Student Success Center addition, by Clark Nexsen in 2009. The concave curve represents a welcoming configuration drawing the student into the building while creating outdoor space to connect the building to it surrounding landscape.
- f. Cylindrical masses were used as major features in the Barry Arts Building by Tymoff + Moss Architects in 2014 and the Broderick Dining Commons by Mosely Architects in 2016 with the entry rotunda. The two buildings are similar in scale and use a curved feature to anchor the building to the campus.
- g. A subtler approach to the incorporation of the curve is evidenced by a number of buildings where the curve creates the corner of a



*Gornto TeleTechnet
Concave Curved Mass*



*Ted Constant Center
Curved Intersecting Masses*



*Barry Arts Building
Cylindrical Mass*



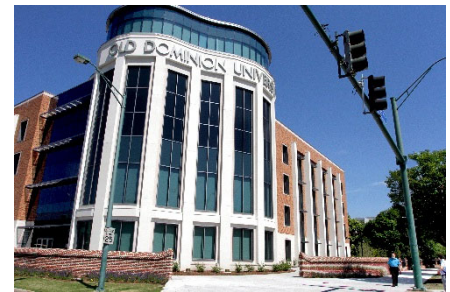
*Broderick Dining Commons
Cylindrical Mass*

building identifying the entrance. While there are numerous examples the Engineering Computational Sciences Building, designed by Mosely Architects in 2002, and the Mitchum Basketball Performance Center, by Clark Nexsen | AECOM in 2016 are characteristic.

- h. The curve has continued to evolve and reflects the innovative nature of Old Dominion University in two projects. The College of Education on the corner of Hampton Boulevard and 43rd street occupies one corner of the south campus gateway and was designed by SHW Group, completed in 2016. While the curved element is located at the corner of the building, the entrance is slid over, adjacent to the curve. The curve is characterized by multiple radiuses and extends above the roof line. While precast is used to clad the curved element to the 4th floor, the fifth floor is all glass, accentuating the shape.
- i. On the opposing corner from the College of Education is the Barry Art Museum designed by Saunders & Crouse and completed in 2018. The curve is the defining feature of the building composed of insulated channel glass with integral LED lights, befitting a museum primarily devoted to art glass.
- j. The curve as an element within the building design should be considered and evaluated in each project. Curves need not always be a major feature, but they should reinforce building functional concepts and add vitality to the campus, reinforcing the element as part of the Old Dominion University identity. Consider curves that would:
 - integrate building mass with the landscape and outdoor space
 - define overall building mass
 - provide an anchoring building mass feature
 - signify entrances
 - be a major feature, when appropriate to location and function

C2.13. Materiality

- a. The campus has developed a distinct materials palette which is defined by both building and landscape materials and is the contextual thread that unifies the campus, creating a beautiful identity. Two trends have emerged, one typified by a transitional approach using materials to define a base, middle and top for each façade, while the other has seen materials applied as differentiators for the buildings mass. Within that generalized framework there are contemporary interpretations and variations that provide subtle diversity and innovation within the buildings on campus. The application of these two approaches should be based on building function, location and massing.



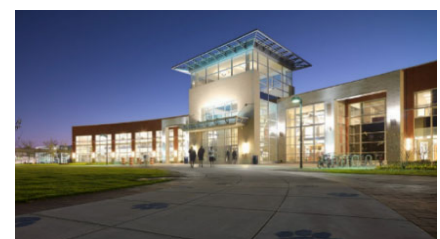
*College of Education
Multi radiuses Feature Element*



*Barry Art Museum
Curved Glass as Primary Feature*



*Engineering Systems Building
Brick & Precast Defining Building Mass*



*Student Recreational Center
Precast Mass Highlighting the Entry
Concave Building Mass*

- b. Engineering Systems Building designed by RRMM | The SLAM Collaborative and completed in 2014, expresses the two story mass through material distribution highlighting the concave building, which responds to the Perry Library form and defines the opposing edge to the green space between the two buildings.
- c. Similarly, the Student Recreation Center uses precast to define the building entry element with brick delineating the majority of the concave shape anchoring the Quad Residential area green.
- d. Recently the new Chemistry Building designed by SmithGroup JJR|Mosely Architects (completion 2020) explored the use of materials to define form, the subtle integration of a curve and the use of concave mass to embrace exterior space.
- e. Other campus buildings have highlighted the first floor through a differentiation of materials, textural shifts in the masonry or a combination of both. The base varies in height responding to surrounding buildings or specific building proportional needs. Articulated precast, articulated brick and cast stone are examples of base definition.
- f. While brick is the predominant material on campus, it is expressed in three distinct methods:
 - single brick color
 - blended brick
 - patterned brick
- g. The selection and method of expression for new construction shall takes its cues from the campus and those buildings in close proximity or functionally similar such as academic, athletic or student life.

The blended brick pattern at the College of Educations is as follows:

- Taylor 306 40%
- Taylor 313 40%
- Taylor 316 20%

In addition to the Taylor brick colors above, the following additional bricks colors can be used:

- Taylor 309
- Taylor 301 – Buff Light Accent

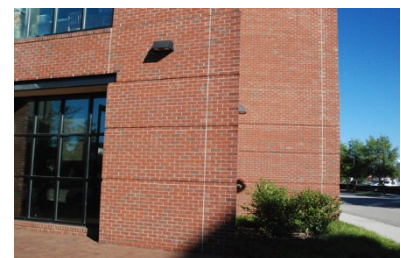
- h. The use of a brick pattern is evidenced on campus by the Ted Constant Center with the Mitchum Basketball Performance Center and the Diehn Fine & Performing Arts Center original and addition. Patterned brick, when used appropriately, can provide subtle, textural depth to the campus. The addition of subtle precast elements to the brick has also added textural variety, a tradition that is evidenced in the new Barry Art Museum.
- i. The traditional Williamsburg brick pattern shall only be used in and around the Williamsburg Lawn area of campus.



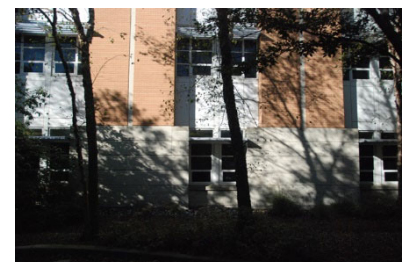
*Chemistry Building
Materials defining Mass
Concave form*



*Engineering Computational Sciences
Curved Corner Entry*

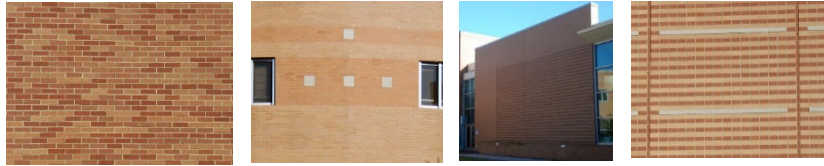


*Barry Arts Building
Brick Masonry Articulated Base*



*Engineering Systems &
Computational Science
Cast Stone Articulated Base*

- j. On the east side of campus, the arts district departed from the traditional Taylor brick and used a Glen-Gery “Plymouth” brick color. Only the Barry Arts, Hixsen and Child Study building use this brick, which was intended to compliment the Stables Theater built in 1917.



C2.14. Sun Shading and the Monarch Crown

- a. Old Dominion University has deployed a number of sun shading devices on its buildings, some of which are merely decorative and do not provide any protection from solar heat gain based on building orientation. In new construction, shading devices should be intelligently placed based on solar studies that show the level of shade provided to expanses of glass. We live in a hot climate and while views afforded by glass are valued, hot uncomfortable interior spaces that have high energy demands are not. The architect should find a balance between natural light & views and solar heat gain. As an institution of higher education, innovation in energy conservation integrated into building architecture is a desired outcome and should be evaluated throughout the design process.
- b. Not to be confused with shade devices, metal fabrications have been installed on athletic buildings that are symbolic of the institutions mascot and logo crown. It is desired to continue this symbolic reference, as best seen on the Ted Constant Center, in future athletic buildings. The crown can be used to identify an entry or as part of the overall architecture and has been most successful when used on a curved from.



*Jim Jarrett Athletic Administration Building
Crown expressed at primary building entry*

C2.15. Box Bay

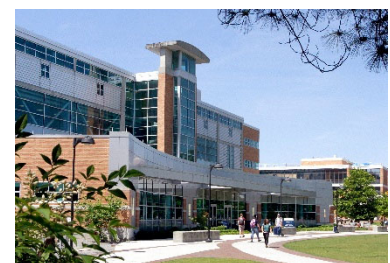
- a. The box bay has been used to provide interest and scale to building facades on campus. Two examples are the Barry Arts Building and the Monarch Bookstore. The box bay is a contemporary interpretation of the bay window, which would be incongruent element on this campus.



*Barry Arts Building
Box Bays*

C2.16. Other Materials

- a. Curtainwall and storefront shall use one or a combination of three colors, White, clear anodized | powder coat silver, and charcoal gray (College of Education). While black was used in the arts district, it shall not be used elsewhere on campus.
- b. Beyond brick and precast/cast stone, buildings have used a “third” material when necessitated by design or cost. Examples have included metal panels, cementitious panels and metal siding. None



Perry Library

of these materials should be the dominant material on a building.

Introduction of new materials shall be carefully vetted early in the design and shall blend with the existing palette.

- c. Refer to **APPENDIX AL – EXISTING BUILDING MATERIALS CHART** for additional information.

C2.17. Roof design Approach

- a. The Williamsburg Lawn area of campus references the original William and Mary roots, typified by the brick and pitched roof forms. Beyond this area of campus typically all non-residential, non-athletic buildings on campus have low slope roofs. Residence Halls within the quad have standing seam metal pitched roofs. Roofs on residential buildings help distinguish them from academic facilities, signifying home. Some of the athletic buildings have received blue sloped metal roofs, the Tennis Center and the Batting Cage. Colored metal roofs are not desired on campus and shall be considered only on athletic buildings, when integral to the design and in support of the athletic brand.
- b. Rooftop mechanical equipment should be screened with screen design integrated into the overall building design. The A/E shall consider the acoustic impact to neighboring pedestrian and building environments and identify potential mitigation measures as part of the project scope.
- c. Positioning of roof top equipment, both original equipment and additions shall avoid locations that will cause the addition of guardrails at the perimeter of the building. During a renovation, or when Facilities Management has been requested to add additional rooftop equipment, location of equipment that necessitate the addition of guardrails shall be reviewed by the University Architect prior to bidding and/or installation. In New construction the A/E shall carefully consider views from adjacent buildings to the roof and its equipment.

C2.18. Art on Campus

- a. Old Dominion University supports and nurtures an interdisciplinary culture which can be enhanced by creating opportunities to incorporate art installations in both buildings and landscape. The integration of art on campus will further position the institution and the city of Norfolk as a fine arts destination.
- b. While not always within the project budget, the A/E shall consider opportunities for placement of art in new landscapes and buildings, whether installed as part of the project or as a plan for the future, incorporation of these opportunities should be considered early in a project's development. Artwork opportunities shall consider the context of the specific site, be complementary to the buildings character and function and consider how the artwork will be viewed.

C2.19. Responsible Renovation and Upgrades to Existing Buildings

- a. The University encourages responsible stewardship of all existing campus structures. Renovation projects should include an investigation of all systems and features impacted by the specific intervention and any conditions discovered during project evaluation, design or construction that are in need of improvement should be brought to the attention of university leadership, for evaluation against budget and schedule. Any building deficiencies brought to light are to be examined and documented so that they may be addressed at a future time.

C2.20. Designing for Safety and Security

- a. Through user discussions during the programming phase, room specific security concerns should be documented as part of the Room Data Sheets. Because these questions are raised during the earliest phase of a project, the inclusion of an ITS and Public Safety representative and/or the Threat Assessment Coordinator, in these meetings is essential and will provide personnel with a clear picture of the security concerns for any particular building user group.
- b. As part of the schematic design submittal, provide a security and access plan identifying the following:
 - i. Primary Entrance Doors. Identify all EAC locations.

- ii. Secondary Entrance Doors.
 - iii. Egress only exit doors.
 - iv. Identify the accessible path of travel from adjacent buildings, streets and sidewalks, transportation stops, accessible parking and accessible loading zones to the building entrance. At those entrances provide auto operators.
 - v. Any intended locations, along the path of travel, for operable door actuators, both exterior and interior. Indicate whether they are to be mounted on pedestals or building components.
 - vi. The Project Manager and A/E should discuss with the users how they will enter the building. For example in a residence hall should all students only be allowed to enter at the main lobby where the 24 hour desk is located and that exterior doors to stairs will not be used for building entry.
 - vii. Identify which doors will be equipped with card access control for after-hours access for authorized individuals. Designate two doors at each building as after-hours card access control. Confirm with the users the designated doors are acceptable to avoid costly additions or changes when the building opens.
 - viii. Locate all security cameras.
 - ix. Show in plan any areas that have been identified by the building user as high value areas and places where students sit and hang out.
 - x. Identify other campus buildings that are paired or associated with the facility under design by the nature of their function. Map out pedestrian traffic between such buildings to understand if and when students and faculty will be going between buildings and how this might impact after hour's card access and accessible paths.
 - xi. Identify access points that are key management issues versus a means of intrusion detection.
 - xii. Discuss with the building users any issues associated with privacy and faculty student interactions that might prompt additional EAC or security measures.
- c. During the preliminary design phase the A/E will hold a follow up meeting with representatives from Public Safety, ITS and building users to review in detail the security measures in place for the building.
- d. Requirements
- i. Designs will take crime prevention through environment design (CPTED) into consideration.
 - ii. Buildings, landscapes and lighting should be designed to promote personal safety both inside and outside buildings.
 - iii. Landscape design should avoid creating opportunities for people to hide and obstruct the view in to and out of windows, both when the plants are young and when mature. Landscape elements should avoid areas of concealment around building entrances, pedestrian walkways, and parking facility perimeters.
 - iv. Operable windows that are within 10 feet of the finished ground will have security screens installed on all building types.
 - v. Paths of travel to and from the building will take into consideration current University pathway design for access to parking structures and other University facilities.
 - vi. Provide adequate lighting, see the Exterior Lighting section of these standards for additional information.
 - vii. Make it difficult for people to harm the building, its occupants, and contents.
 - viii. Use barriers to keep service vehicles from having easy access to areas not intended for vehicular traffic.
 - ix. Prevent unauthorized access from inside and outside the building to roofs, attics, adjacent buildings, and utility tunnels.

- e. All safety initiatives should be ADA-compliant and take into consideration the needs of all occupants and potential visitors.
- f. For each building and facility considerations will be put into place for protection against active threats within the building. Building design will take into consideration a shelter in place posture.
- g. As part of the schematic design submittal, provide a security and access plan identifying the following:
 - i. Primary Entrance Doors. Identify all EAC locations.
 - ii. Secondary Entrance Doors.
 - iii. Egress only exit doors.
 - iv. Identify the accessible path of travel from adjacent buildings, streets and sidewalks, transportation stops, accessible parking and accessible loading zones to the building entrance. At those entrances provide auto operators.
 - v. Any intended locations, along the path of travel, for operable door actuators, both exterior and interior. Indicate whether they are to be mounted on pedestals or building components.
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 - xi. Identify access points that are key management issues versus a means of intrusion detection.
 - xii. Discuss with the building users any issues associated with privacy and faculty student interactions that might prompt additional EAC or security measures.

C2.21. Site Analysis

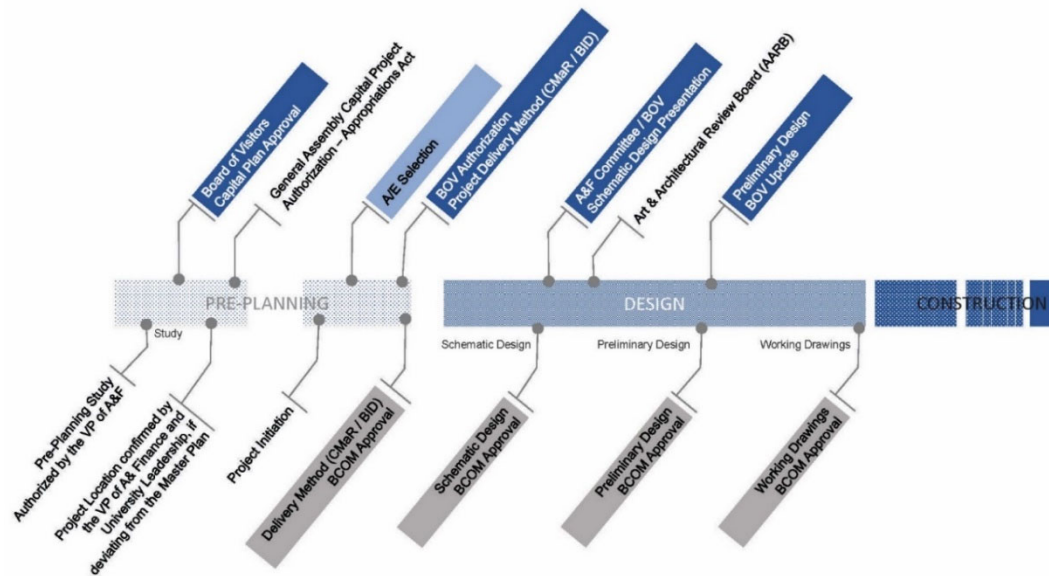
- a. During the conceptual design phase, a site analysis should be performed with results presented to the university. Site analysis should include, but is not limited to:
 - i. Master Plan Compliance – factors to consider
 - ii. Fit analysis of the program with the site
 - iii. Sun / Shade patterns, especially the impact of adjacent buildings
 - iv. Wind – Preference is to look at wind patterns through programs that show adjacent buildings impact on wind patterns on the site.
 - v. Pedestrian and Bike paths to, from and through the site.
 - vi. Accessibility Factors - confirm all points that need to have an accessible route such as adjacent bus stops, parking meter pay stations, accessible passenger loading zones, trash enclosures, etc.
 - vii. Accessible Parking – accessible parking requirements, parking space proximity and allotment potential.
 - viii. Service – access points, service requirements including truck turning radius when appropriate.
 - ix. State Vehicle / Vendor Parking space – Plan for at least one designated space for each building.

- x. Adjacent building access points in relation to the proposed site.
- xi. Identify any potential building proximity restrictions associated with the building code and allowable areas.
- xii. Existing Utilities – identify those whose relocation would represent a significant cost impact to the project
- xiii. Storm water analysis – initial calculations of pervious and impervious area, what footprint would yield the best approach, what limitations need to be considered.
- xiv. Emergency Vehicle Access - identify existing emergency vehicle access at adjacent buildings and any potential issues or impacts
- xv. Views – identify any view corridors to and from the site that should be considered in the development of the design, especially as it relates to visible service areas, roof tops and ground mounted equipment.
- xvi. Vegetation – identify any significant or unique existing landscape features of the site. Contact the grounds manager for an existing tree assessment prior to development of the site analysis.
- xvii. Easements
- xviii. Access to the Monarch Shuttle – identify existing bus stops.
- xix. Construction Staging Area – identify potential construction staging areas to begin the conversation on how this might impact adjacent campus locations.
- xx. Consider crane access for future removal of rooftop and or mechanical equipment.

C2.22. Resilience + Sustainability (*Reserved*)

C2.23. Capital & Non-Capital (DEB) Project Design Approval Process

- a. The University Architect will present the building design to the Administration and Finance Committee of the Board of Visitors prior to submission to the Art & Architectural Review Board (AARB). The A/E will work with the University Architect to provide images and materials for this presentation.



- b. Presentations to AARB shall be reviewed and approved by the University Architect prior to submission to AARB. Allow at least one week for review and modification, if necessary, prior to the required AARB submission date. Refer to the AARB official web site for submission requirements and deadlines.

<https://dgs.virginia.gov/division-of-engineering-and-buildings/resources/aarb/>

C2.24. Non-Capital (non DEB) and Maintenance Reserve Design Approval Process

- a. For projects that are not subject to the process outlined in the CPSM, the Director of Facilities Management and/or the Director of Design & Construction shall determine when projects or aspects of projects shall require review and approval by the University Architect.