

MANDATORY REFERRAL REVIEW

Montgomery College Rockville



Proposed Parking Garage & Site Improvements

July 11, 2014

TABLE of CONTENTS

| | |
|--|----|
| VICINITY AND LOCATION MAPS | 3 |
| SCOPE OF PROJECT | 4 |
| PROJECT LOCATION | 11 |
| HOURS OF OPERATION | 11 |
| MASTERPLAN | 11 |
| SIDEWALKS AND PATHS | 12 |
| TYPICAL ROADWAY SECTIONS | 12 |
| HISTORICAL PROPERTIES | 12 |
| CONSTRUCTION PHASING | 12 |
| PUBLIC LAND | 12 |
| PROJECT FUNDING | 12 |
| PUBLIC PARKLAND | 12 |
| GENERAL LOCATION | 12 |
| SITE DEVELOPMENT PLAN | 12 |
| UTILITIES AND RIGHTS-OF-WAY PLAN | 12 |
| VEHICULAR AND PEDSTRIAN CIRCULATION PLAN | 13 |
| NATURAL RESOURCE INVENTORY/FOREST STAND DELINEATION (NRI/FSD) PLAN | 13 |
| SPECIAL PROTECTION AREA | 13 |
| FOREST CONSERVATION PLAN | 13 |
| TOPOGRAPHIC MAP AND EXISTING CONDITIONS | 13 |
| PRELIMINARY STORMWATER MANAGEMENT CONCEPT PLAN | 13 |
| LEED (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN) | 13 |
| LANDSCAPE PLAN | 15 |
| LIGHTING PLAN | 16 |
| OVERALL CONCEPT DEVELOPMENT PLAN | 17 |
| NOISE ABATEMENT | 17 |
| TRAFFIC IMPACT STATEMENT | 17 |

APPENDICES

Appendix A – Exhibits

- Overall Site Development Plan, SDP-1
- Detailed Site Plan, SDP-2
- Utility and Right-of-Way Plan, URW-1
- Vehicle and Pedestrian Plan, VPP-1
- Approved Natural Resource Inventory/Forest Stand Delineation, NRI-1
- Forest Conservation Plan, FC-101 and FC-102
- Existing Conditions Plan, VF-101
- Stormwater Management Concept Plan, SWM-1
- Landscape Plan, L1.00
- Fire Protection Site Plan, FP-1
- Floor Plans, AP101 – AP107
- Architectural Elevations, A201
- Architectural Renderings, A202
- Zoning Maps

Appendix B – Lighting Cut Sheets

DESIGN TEAM:

Montgomery College

Owner
40 West Gude Drive, Suite 200
Rockville, MD 20850

Carl Walker, Inc.

Structural Engineer
8910 Purdue Road, Ste 400
Indianapolis, IN 46268

Cho Benn Holbeck + Associates

Architect
100 N. Charles Street, 14th Floor
Baltimore, MD 21201

A Morton Thomas and Associates, Inc.

Civil Engineer
800 King Farm Boulevard, 4th Floor
Rockville, MD 20850

RMF Engineering Inc.

Mechanical, Electrical, Plumbing and Technology Engineers
5520 Research Park Drive, 3rd Floor
Baltimore, MD 21228

Core Studio Design

Landscape Architect
1817 Bolton Street
Baltimore, MD 21217

ECS Mid-Atlantic, LLC

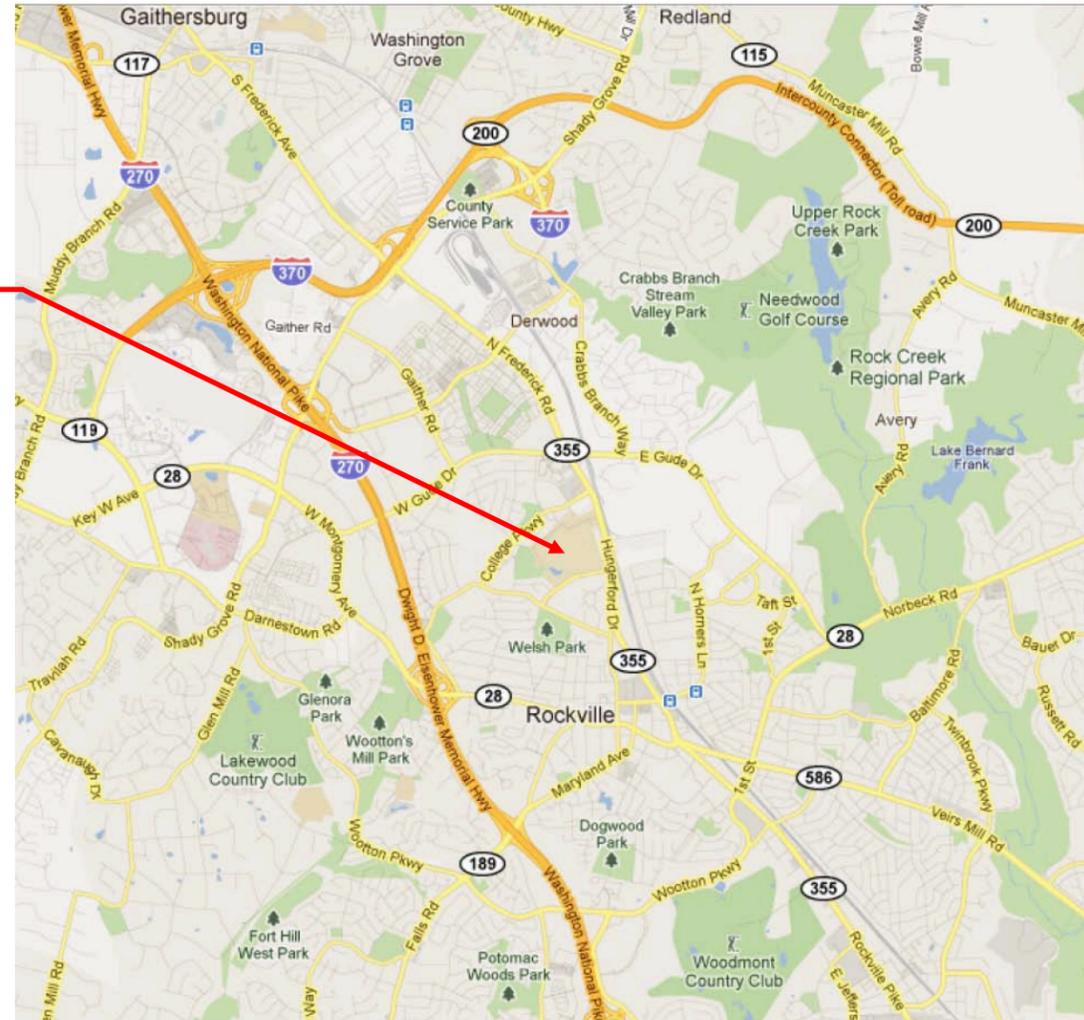
Geotechnical Engineer
5112 Pegasus Court, Suite S
Frederick, MD 21704

Hughes Associates

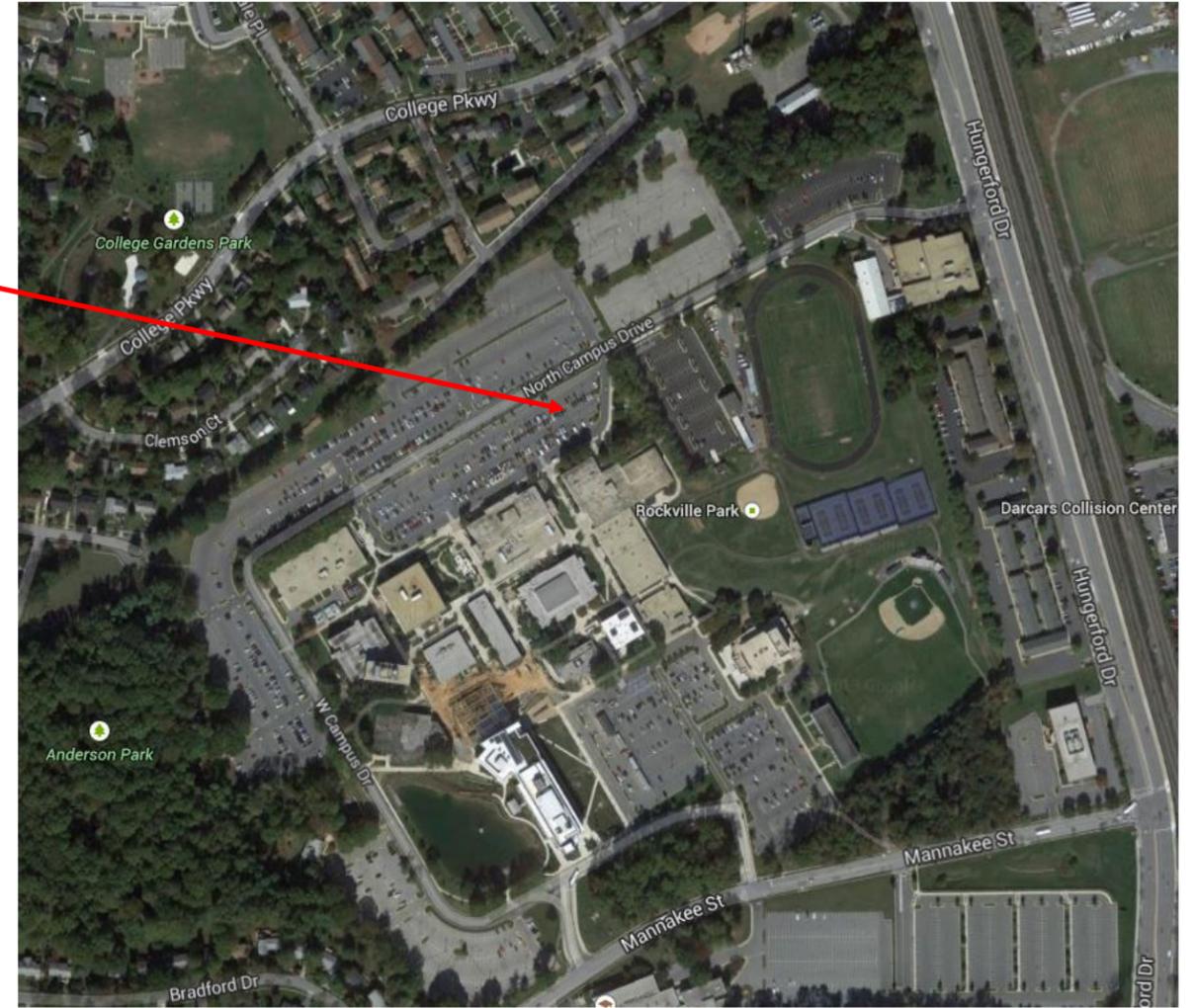
Fire Protection Engineer
3610 Commerce Drive, Suite 817
Baltimore, MD 21227

VICINITY AND LOCATION MAPS

Project Location



Project Location



MONTGOMERY COLLEGE ROCKVILLE PARKING GARAGE

SCOPE OF PROJECT

Existing Conditions

The campus is sited on approximately 85 sloping acres on which the academic buildings are located in the center of the property and surrounded by an access road and parking lots.

The proposed parking garage is to be located within the existing Parking Lot 4, situated in between the Physical Education Building and North Campus Drive, in the north portion of the campus.

Structural Design and Durability

General Principles - The design intent is to provide the parking garage with a design service life of 50 years. During this service life, major structural repairs should not be required (i.e. significant concrete corrosion deterioration repair) if proper construction and maintenance practices are followed. During this anticipated service life, we would anticipate that as a minimum, the following housekeeping and maintenance would be necessary.

- *Housekeeping* – We would generally define housekeeping as work conducted by in-house staff consisting of basic cleaning, sweeping, slab wash downs, etc. Housekeeping would include items such as:
 - Sweeping of the stairs, elevator lobbies and floor slabs on a regular basis.
 - Trash collection on a periodic basis.
 - Slab wash downs and floor drain cleanout on a semi-annual basis.
 - Cleaning of stair enclosures, canopies, doors, door frames and glass on a periodic basis.
 - Cleaning of signage, elevator floors, doors, walls, parking equipment, etc. on a periodic basis.
- *General Maintenance* – General maintenance would usually be performed by in-house staff; however, outside contractors may be required in some cases. Maintenance would represent tasks necessary to ensure proper operations of systems and components. General maintenance would include items such as:
 - Doors and Hardware – Periodic lubrication.
 - Parking Equipment – Generally the parking equipment maintenance is performed by an outside contractor. It should be anticipated that parking equipment would be replaced with new equipment every 10-15 years.
 - Elevator – Elevator maintenance is generally provided by an outside maintenance firm.
 - Lighting – It is anticipated that the lamps should be replaced as required based on the type of fixture used, and light fixtures will likely require replacement every 20 years.
 - Sealants/Expansion Joint – Repair/replacement of isolated sealant or expansion joint failure. Leaking at slab cracks may also require sealant installation.
 - Painting – Painting touchup should generally be performed as damage is observed. It is anticipated that repainting of exposed steel would be performed every 10 years, and parking stripes reapplied every 2-4 years.
- *Structural Maintenance* – Structural maintenance is generally performed by outside contractors and will consist of repairing damage to waterproofing or structural elements. Structural maintenance would include items such as:

- Crack and Joint Sealants – It is anticipated that sealants will be replaced every 10 years.
- Expansion Joints – Expansion joints require replacement every 10 years.
- Stair/Elevator Tower Roofing Systems – These waterproofing systems will likely require replacement every 20 years.
- Slab Penetrating Sealer – It is anticipated that a penetrating sealer would require reapplication every 5 to 10 years, depending on the type of material used.
- Concrete Repairs – It is anticipated that, even with state-of-the-art durability features, isolated concrete repairs will be required, generally due to corrosion deterioration.

Structural – Based on proposed framing and long-term maintenance considerations, we anticipate that the structural system will consist of cast-in-place post-tensioned concrete, with post-tensioned slabs and beams. The structural system will be designed and detailed to accommodate anticipated volume changes from concrete drying shrinkage, elastic shortening, creep, and temperature changes.

- *Structural System* - Cast-in-place – Superstructure will consist of cast-in-place concrete columns, beams, and slabs. Beams and slabs will be post-tensioned.
- *Lateral Load Resisting System* – The lateral load resisting system for the parking garage will consist of reinforced concrete moment frames.
- *Stair and Elevator Towers* – The stair/elevator towers will consist of galvanized steel stairs and framing, with masonry infill. The stair and elevator towers will be connected to the parking garage (no expansion joint).
- *Foundations* – It is anticipated that shallow foundations consisting of spread footings will be used to support column loads for the parking garage. The native soil will be improved using rammed aggregate piers such as the Geopiers system. In addition, we anticipate cantilevered retaining walls at much of the garage perimeter to allow the first level to be built into the sloping grade of the site.
- *Slab-on-Grade* – We anticipate the slab-on-grade will be a 5" concrete slab over a minimum of 6" compacted sub-base and will be reinforced and jointed as required to reduce concrete cracking. A subfloor drain system and permanent groundwater control system are not anticipated.

Future Expansion – None: However, the structure will be designed to support a full structural steel roof system and solar panels.

Concrete Durability – The structure will be designed and constructed with special emphasis on durability and ease of maintenance. Components will include details and materials that promote long-term durability. Specific features are anticipated to include:

- Low water/cement ratio concrete, 0.40 or less;
- Air-entrained concrete;
- Epoxy coated reinforcement;
- Corrosion inhibiting admixture (i.e. 3 gallons per CY of concrete for cast-in-place post-tensioned concrete floors; 3 gallons per CY of concrete for cast-in-place columns and walls);
- Encapsulated post-tensioning system;
- Positive drainage to floor drains of 1.5% minimum slope;
- Minimum concrete cover of 2" for top of slabs that are exposed to deicing chemicals;
- Hot-dipped galvanized finish for any exposed steel framing, connections and embed plates;

- Polyurethane sealants in all concrete slab construction and control joints and cove sealants;
- Silane sealer (100% solids content) on concrete floors;
- Expansion joints;
- Traffic bearing membrane over electrical/storage/mechanical areas and pourstrips.

These durability features are consistent with the recommendations of the American Concrete Institute, ACI 362, "Guide for the Design of Durable Parking Structures" Zone III. Below is a durability matrix which shows ACI 362 recommendations in the second column from the left. We are basing our design on the next column to the right labeled "Recommended" which provides a theoretical design life of 50 years.

| | Garage Construction | |
|---|---|---|
| | Cast-in-Place Post-Tensioned Concrete | |
| | ACI 362 ¹ <i>Durable Design</i> | Recommended <i>Long Service Life³</i> |
| 1. Concrete | | |
| 1.1 Concrete Strength | | |
| <i>Cast-in-Place Concrete</i> | 5,000 psi | 5,000 psi |
| 1.2 Air Entrainment (%) | 6 1/2 % | 6 1/2 % |
| 1.3 Water/Cement Ratio (Max) | | |
| Cast-in-Place Concrete | 0.40 | 0.40 |
| Precast Concrete (Architectural Panels) | 0.38 | 0.38 |
| 1.4 Corrosion Inhibitor | | |
| <i>Cast-in-Place Concrete</i> | Optional | 3 gal/cy |
| 2. Reinforcement/Embedded Steel | | |
| 2.1 Concrete Cover (Top of Slab) | 2 Inches ² | 2 Inches |
| 2.2 Reinforcing Steel (Mild) | | |
| <i>Cast-in-Place Concrete</i> | Epoxy Optional | Epoxy Coated |
| 2.3 Post-Tensioning System | Encapsulated | Encapsulated |
| 2.4 Exposed Steel Shapes and Plates | Hot-Dip Galvanized | Hot-Dip Galvanized |
| 3. Waterproofing | | |
| 3.1 Deck Coating or Sealer | Sealer | Sealer + Isolated deck coating |
| 3.2 Cracks & Construction Joints | Sealant | Sealant |
| 4. Miscellaneous | | |
| 4.1 Drainage (Minimum) | 1 1/2 % | 1 1/2 % |

Notes:

1. American Concrete Institute *Guide for the Design of Durable Parking Structures*. Montgomery College is in Durability Zone III.
2. ACI allows 1/2 inch reduction in concrete cover if corrosion inhibitor or epoxy coated steel is specified.
3. Recommended service life is 50 years.

Site improvements proximate to the parking garage will consist of demolition and replacement of surrounding existing pavement and storm drainage utilities serving the building and surrounding areas. Proposed stormwater

management will also be included. A new fire access road is proposed along the west side of the Physical Education Building. General site improvements will include the integration of on-site pedestrian circulation, integration with and enhancement of pedestrian access to the parking structure and parking lot, and delivery of, and connection to, all required utility services affected by the new structure.

Parking Layout, Circulation & Operations

Carl Walker, Inc. recommends the use of User Comfort Factors (UCF) to classify conditions in parking facilities. The UCF approach is applicable to a number of design considerations in parking including the extent of trail blazing signage, vehicular circulation, site dimensions, parking geometrics, flow capacity, and entry/exit design. Acceptable user comfort factors for parking, which are defined below, range from 1 to 4.

- UCF 1 - Poor; less than 50% of patrons will be satisfied*
- UCF 2 - Acceptable; 50% of patrons will be satisfied*
- UCF 3 - Good; 75% of patrons will be satisfied*
- UCF 4 - Excellent; 90% of patrons will be satisfied*

UCF criteria should be related to the needs and concerns of users balanced with efficiency and cost effectiveness. Generally, users with low familiarity and high turnover, such as transients/visitors/patients, should be accorded a higher UCF. On the other hand, users with high familiarity and low turnover, such as monthlies/employees, are more tolerant of lower user comfort, with the exception of criteria related to travel time and average wait.

Based on our understanding of the site constraints, and City of Rockville/Montgomery College parking standards, a UCF of 3 is anticipated. Following the evaluation of many alternative parking structure layouts and ramping configurations, the option best balancing the optimization of the design for the site and the parking garage was selected as described below. This design meets the City of Rockville Parking Standards as outlined in Section 25.16.

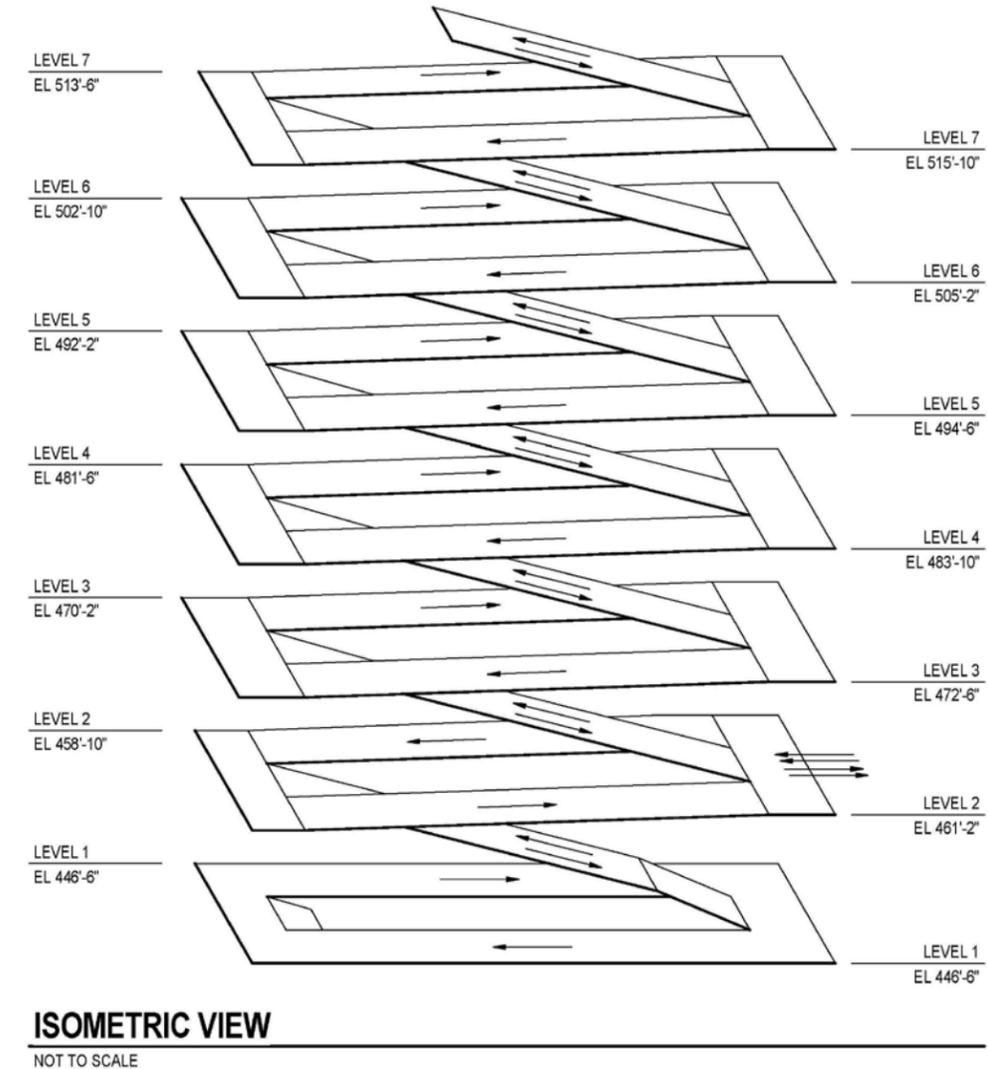
- Number of Parking Spaces: Montgomery College wanted to maximize the number of spaces within the site constraints and maximum 75 foot height limit.
 - The current parking space count is 920 spaces; however, incorporation of additional MEP components, bike storage and special features may reduce the final capacity.
 - The parking capacity (920) includes 900 standard parking spaces, 5 van accessible and 15 accessible spaces.
- Functional Layout: A seven level structure with three parking bays. One level will be placed partially below grade and will require mechanical ventilation. A new access roadway located on the east end of the garage will run between the parking garage and existing Lot 3 to the east.

SPACE TABULATION

| DESCRIPTION | STANDARD | ADA VAN | ADA | TOTAL |
|-------------|----------|---------|-----|-------|
| LEVEL 7 | 111 | --- | --- | 111 |
| LEVEL 6 | 143 | --- | --- | 143 |
| LEVEL 5 | 144 | --- | 4 | 148 |
| LEVEL 4 | 144 | --- | 4 | 148 |
| LEVEL 3 | 144 | 1 | 3 | 148 |
| LEVEL 2 | 109 | 2 | 2 | 113 |
| LEVEL 1 | 105 | 2 | 2 | 109 |
| SUB-TOTAL | 900 | 5 | 15 | 920 |

9'-0" X 18'-0" STANDARD SPACES
8'-0" X 18'-0" STANDARD ACCESSIBLE SPACES WITH 5'-0" ACCESS AISLE
8'-0" X 18'-0" VAN ACCESSIBLE SPACES WITH 8'-0" ACCESS AISLE

- Circulation System: A seven level, three bay, side-by-side helix design.
 - A side-by-side, continuous ramp helix with one-way traffic on the outside bays and two way traffic on the middle ramped bay.
 - The parking garage main ramp is the middle bay with the outside bays sloped slightly due to the shortened length of the garage. The main ramp slope is 5% and the two outside bays are sloped at 1.5%
 - This system utilizes a one-way traffic flow on the outside bays and a two way traffic pattern on the middle sloped ramp. An up-cycle and down-cycle are provided. Each cycle includes one flat bay and one sloped bay. Circulation from the up-cycle to the down-cycle is easily achieved.



- Parking Geometrics:
 - Standard parking stalls will be 9'-0" wide by 18'-0" long.
 - Accessible parking spaces will be sized to meet building code requirements; and van accessible spaces will have a minimum vertical clearance of 8'-2".
 - Parking in two-way traffic areas will be at 90 degrees to the drive aisles, and parking in one-way traffic areas will be 75 degrees to the drive aisles.
- Parking Structure Height:
 - The typical floor-to-floor height is 11'-4" to provide clearance for ADA van accessible parking on all levels and greater openness and visibility for user comfort.
 - The grade elevation at the parking garage perimeter varies.

- Vehicle Entry/Exiting: The entry/exit lanes are located at the east end of the structure. There are two entry lanes and two exit lanes. The right hand entry lane is design to be a right turn only. This entry lane is for vehicles wanting to park on Level 1 and Level 2. The left hand entry lane is designed to send vehicles directly up the center ramp for parking on Level 3 thru 7. The left hand exit lane is designated for vehicles coming down the main ramp from the levels above (Level 3 thru 7). The right hand exit lane is for vehicles exiting from Levels 1 and 2.
- Pedestrian Access:
 - Northeast Stair Tower:
 - Northeast stair tower will extend from the below grade level (Level 1) to the top level of the garage (Level 7).
 - The top level of the stair tower will be fully enclosed to provide protection from the weather.
 - All other levels will be open to the garage on the interior and enclosed with glass on the two exterior sides.
 - The stair tower will exit onto grade at Level 2 of the garage.
 - Southwest Stair/Elevator Tower:
 - Southwest stair/elevator tower will extend from grade (Level 1) to the top level of the garage (Level 7).
 - The top level of stair tower will be fully enclosed to provide protection from the weather.
 - All other levels will be open to the garage on the interior and enclosed with glass on the two exterior sides.
 - The stair tower will exit onto grade at Level 1 of the garage.
 - There will be two traction elevators in the tower.
 - The elevator will be glass backed.
- Parking Operations
 - It is anticipated that parking will be used by students, faculty and staff; and occasionally for special events.
 - The parking facility will be a permit only garage and no parking equipment will be required initially.
 - The parking structure will be designed for future parking access and revenue control system.
 - It is anticipated that the revenue control system will be either pay-on-foot or a pay-in-lane system; an attendant and booth are not anticipated.
 - A vehicle counting system will be used that detects vehicle directional movement by way of magnetic induction loops embedded in the concrete floors and the use of over- head mounted ultrasonic detectors. The count system will monitor the number of spaces available within the garage which will be displayed on a changeable message electronic LED sign for user convenience.
- Signage:
 - Exterior signage will identify the parking ramp and will be illuminated.
 - Interior signage will be provided as needed to direct vehicles to parking and exits, and to direct pedestrians to the stair towers and elevators.
 - Wayfinding signage will include column or wall mounted signs per level indicating level number and a custom reminder theme specific to each level.

- Signage will be provided at the stair-elevator towers, at accessible parking spaces, and at small car only spaces.
- A car count system will be used to activate a "FULL" sign at the structure's entrance and provide parking availability as described above.
- LED signs will include "ENTER", "EXIT", and the level counting and "RAMP FULL" signs described above.

Architectural Design

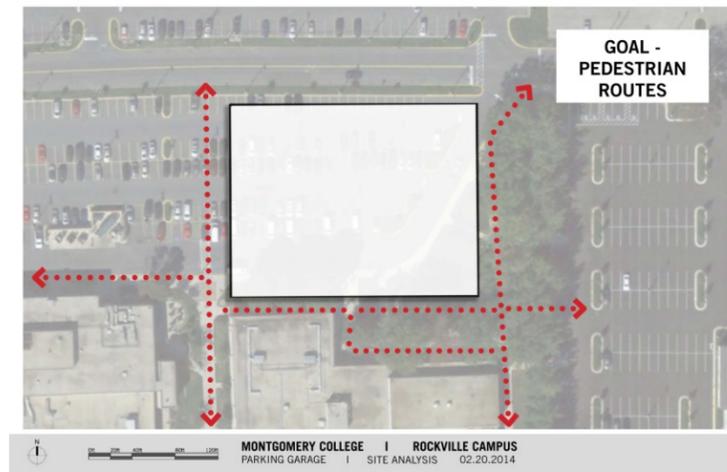
SITE GOALS: In siting a proposed garage, the following objectives were established as goals for a successful building. These goals were established before fully understanding the technicalities of the design and have served as an underpinning logic for all design decisions. It should be noted that these are no design proposals and other documentation has been developed with specific issues in mind.



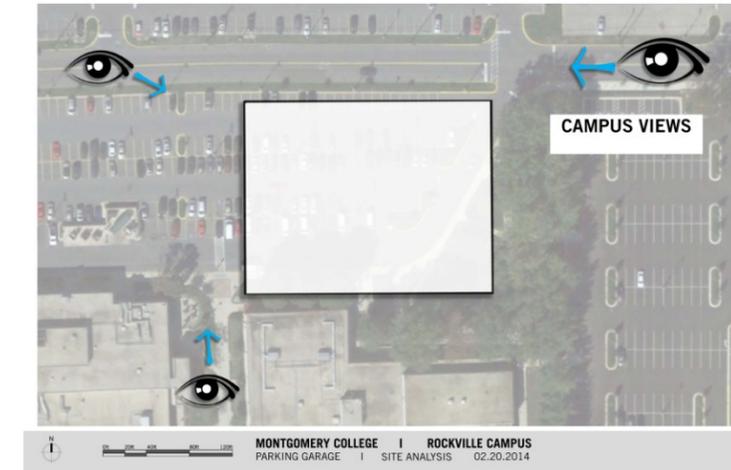
The existing pedestrian "spine between the campus center and the PE building serves as a front "yard" for this portion of the campus. The primary frontage and access of the garage will embrace this zone and a large pedestrian plaza will be created to serve the commuting population of the campus. The space at the South East edge of the garage will provide tranquil space away from the busy areas of the campus.



There are a number of existing trees immediately on or adjacent to this site. It is important to save as many mature trees as possible. Existing trees will be enhanced by new trees lining the southern edge of campus drive and a creating a welcoming tree covered plaza at the west edge of the garage



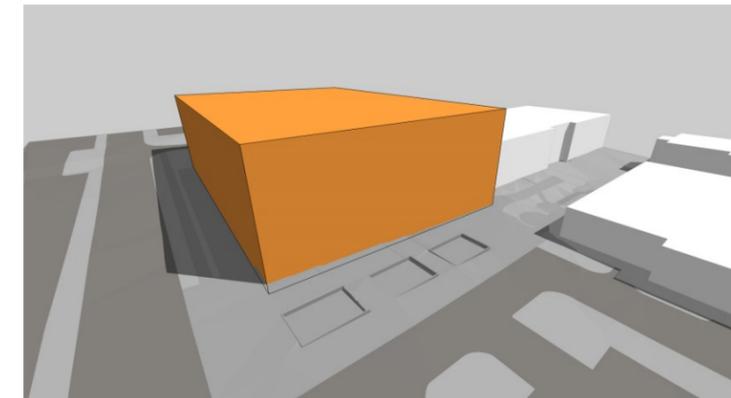
The existing pedestrian routes are an important connection between the perimeter campus lots and the heart of the campus. The proposed design will recreates these pathways around the new building and maintain these connections.



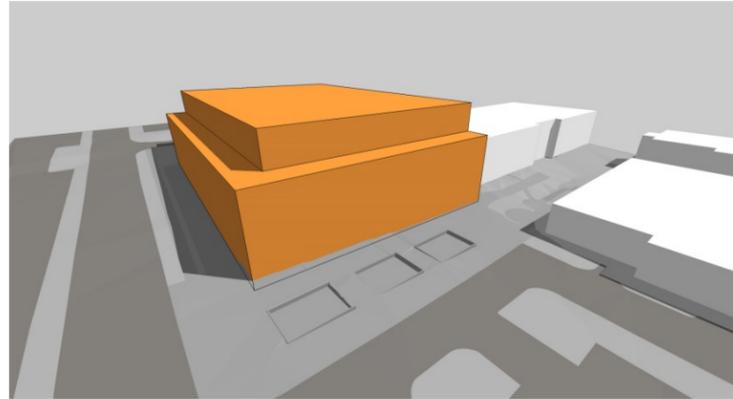
The prominence of this site, at the entry to campus, brings a sensitive aspect of building design to the forefront of all design decisions. The North East corner of the garage will be a visual gateway for entry to the campus. The presence of the garage from the pedestrian “spine” to the south will be carefully studied to allow the building to relate to the existing context. Finally, the view from the west along campus drive will expose (2) prominent façades of the building that will carefully be studied in regards to massing and materiality.

MASSING STUDY: The following sequence of (6) steps is a study illustrating the measures for Sketch Up model showing progression in reducing mass. This will serve as a basis for a meeting with the community to introduce the basis of the garage design.

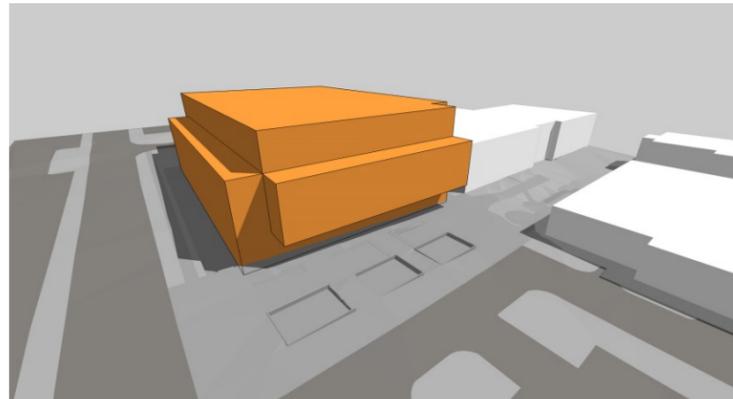
STEP 1: The maximum volume allowed on this site is a 75 foot high box as measured from the center of the building along Campus Drive. The visual weight of this massing is extreme when viewed from either approach and does not relate to the context of the campus buildings.



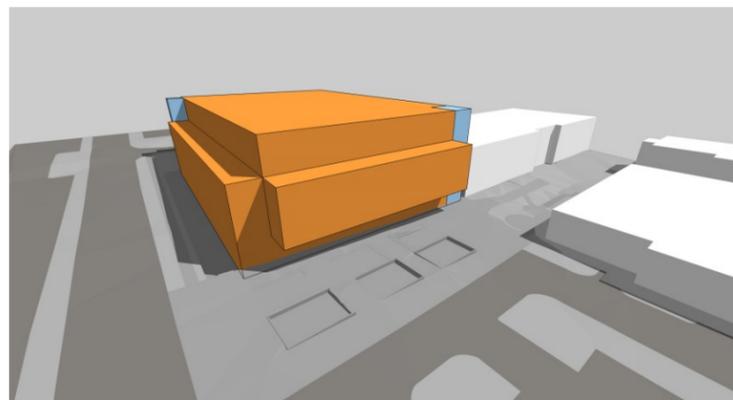
STEP 2: In order to decrease the visual mass of this building, we have proposed stepping back the upper level along the north (campus Drive) and east (Pedestrian Spine) elevations.



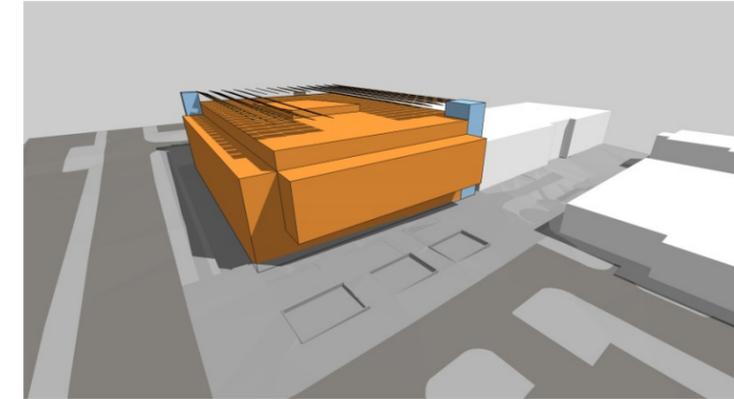
STEP 3: The corners of the garage – where parking is not accessible, will be relieved in an additional attempt to reduce the massing. This will serve to decrease the overall length of the garage by a significant distance.



STEP 5: Glazed vertical circulation cores will be placed in Northeast and Southwest corners of the garage. These will serve as a transparent vertical element and will be set off from the more opaque façade treatment of the garage.



STEP 6: Finally, the overall height of the garage can be reduced to handrail height of the upper level. A PV array may be placed above this level to provide alternative energy source and shading for vehicles parked on the rooftop. The extension up of the central bay will offset some of the parking spaces sacrificed in the steps for reducing of garage massing



DESIGN SUMMARY

- The overall exterior aesthetic expression of the garage has been developed using a series of louvers and panels. These systems have been applied to the facades in a composition that relates to the massing strategies as well as focusing specific attitude to the orientation of each façade
- The panels and Louvers are arranged on a structural steel frame on standoffs anchored to the concrete garage structure. This frame provides layers where offset spacing of the architectural skin is staggered to provide subtle variation in the façade.
 - (i) The louvers will be aluminum and provided in a combination of (2) predominant colors. The louvers will be either a formed shape or extrusion and will measure approximate 2" wide x 10" deep. A majority of the louvers will be clear anodized with interment louvers recurring as white accents. The manipulation of color patterning is intended to provide variation and reference some of the design aesthetics of the Science Center.
 - 1. Basis of Design is Construction Specialties, SunControls Fixed Sunshade Rectangular Tube Profile
 - (ii) The Metal Panels will be composed in a 60" width and a 30" width. By playing these widths off each other as well as open void space, a patterning affect will reduce the overall scale of both the building and the more opaque panel zones.
 - 1. Basis of Design:
 - a. 60" wide panels: Firestone UNA-CLAD Composite Metal Panel, Series 1200, Color: Titatium (to closely match MC Science Center)
 - b. 30" wide Panels: Firestone UNA-CLAD Composite Metal Panel, Series 1200, Color: Birch (to closely match MC Science Center)
- A masonry base will extend beneath the entire garage and step accordingly with the grade. A darker brick tone will be used to closely match the materials used on the MC Science Center.
 - (i) Basis of Design: Belden Brick, 470-479 Dark Range Smooth
- NORTH AND WEST FACADES:
 - The North façade of the building: fronting on Campus Drive, and the East façade, facing the campus pedestrian spine and the future location of the Student Services Building. Are the most visible and expressive facades.
 - The panels have been applied predominantly to these facades for both expressive and screening purposes..
 - (i) On the West, the panels clad the portion of the garage above the arcade – a reference to the bay-window-effect as seen on the elevations of the science center.
 - (ii) On the North façade, the panels have been applied in zones to break down the visual length of this façade.
 - There is a variation in depth between the panels and the louvers, with the panels set closer to the garage by about 12". By playing with this reveal, the louvers become a unifying element that wraps the Northwest corner of the garage.

- The arcade at the west façade will be articulated in several ways to manipulate the scale of the space.
 - (i) The second level of the garage will extend into the arcade to create a zone of “compression” By varying space, the overall proportion of height to width will feel more comfortable and scaled to the size of the visitor
 - (ii) The ceiling element that will include integrated colored lighting. The inclusion of a faced material in this ceiling will tie the space to the overall aesthetic of the garage.
 - (iii) The base in the area of the arcade will be articulated differently than the rest of the building. The brick will be formed into a series of niches that will hold concrete benches to allow covered seating along the pedestrian and commuter drop off/pick up zone. Additionally, Bike racks will be installed in the covered arcade space for the bike riding campus population.
- EAST FACADE:
 - The vehicular entrance to the garage is from the East façade. The existing topography rises steeply up to Parking Lot #3 and the garage is submerged below grade by one level. This results in a less massive façade that can be dealt with in a unique way using the louvers and panels.
 - Additionally, a security office will be located at the grade level to provide a monitoring presence for the entrance/exit and pedestrian activity in this area.
 - The northern portion of the east façade will be comprised of metal panels patterned to match the west and North facades. This patterning will extend to the ground level (as the office enclosure). Glazing between the metal panels will be consistent with this patterning and provide ample views for the security office.
 - The southern portion of this façade will be treated with vertical louvers to match other locations in the garage.
 - It is important to announce the garage from the east approach along campus drive. This is done by a applied graphic to the glazed stair tower that will be internally illuminated by the egress lighting
 - An accent band of finely spaced louvers will visually connect the stair tower graphic to the entrance opening. Color and/or lighting for this accent band will be studied as the design develops.
 - The brick base will extend across the lower portions of this façade as well.
- SOUTH FACADE:
 - The south of the garage will be treated with louvers. Because this elevations is obscured from the primary campus views and seen only on the oblique, the louvers will offer adequate screening presenting a strategy in reducing the overall cost.
 - The louvers will be composed in a staggered layering approach consistent with the remainder of the garage
 - At the pedestrian level, the brick base will step with the grade

ARCHITECTURAL OUTLINE SPECIFICATION

1. DIVISION 03 – CONCRETE
 - Special care and workmanship should be taken to provide a clean and refined architectural concrete finish to be limited to specific areas:
 - Stairs: Provide single column cast-in-place concrete stair with s.s. cable handrails.
 - Exposed concrete columns at arcade
 - Provide alternate pricing from pigmentation of concrete garage structure color to be dark grey as an optional study
2. DIVISION 04 – MASONRY
 - UNIT MASONRY:

- Brick base, provide running bonds with 5” opening between bricks, walls to be crenelated at arcade to achieve stability. Grout/Reinforce all cores to stabilize as required. Keep opens free and clear of mortar or any other obstructions
 - CMU Infill Walls as required
3. DIVISION 05 – METALS
 - METAL FABRICATIONS
 - RAILINGS
 - (i) ¼” S.S. Cable at perimeter of all parking decks, engineered to provide 6000 # load
 - (ii) S.S. Pipe and ½” S.S. cable at all egress stairs
 - FRAMES FOR FACADES
 - Mild Steel Mill Shapes, anchor to embed plates in concrete, all exterior steel to be hot-dip galvanized and painted with high performance coating
 - LOUVERS
 - Aluminum louvers. Provide with finishes as listed:
 - (i) 75% clear anodized finish
 - (ii) 20% White anodized Finish
 4. DIVISION 07 – THERMAL AND MOISTURE PROTECTION
 - ROOFING AND SIDING PANELS
 - White TPO Roofing on 5” Min Polyiso Insul, Stair Towers. Slope Insulation to drain to Scupper
 - METAL WALL PANELS
 - Exterior Metal Panels
 - (i) B.O.D. Centria FormaBond II
 - 1. Colors to be clear Anodized and Grey Anodized. Sizes per architectural drawings
 - 2. Provide integral backing panel to screen fastening from rear
 5. DIVISION 08 – OPENINGS
 - DOORS AND FRAMES
 - Medium Stile Aluminum doors with full glass panels at all circulation cores
 - (i) Electrified hardware typical All doors, to be tied into security system
 - Insulated metal doors and frames as required for mechanical spaces, paint
 - All hardware, keying and sequence of securities operations to be coordinated with the Owner
 - ENTRANCES, STOREFRONTS, AND CURTAIN WALLS
 - Offset Glazed, clear anodized Curtain wall System
 - (i) B.O.D.: EFCO 5600
 - GLAZING
 - 1” Clear IGU
 - (i) B.O.D. Solar Ban 70
 - (ii) Grey Ceramic Dot Frit at 40% all surfaces above Level 02
 6. DIVISION 09 – FINISHES
 - EXTERIOR PAINTING:
 - All exposed steel to be hot dip galvanized prior to fabrication and cold galvanized for any field connections.
 - Apply high performance coating to all galvanized steel.
 - (i) Semi-Gloss black finish,
 - (ii) Suitable for high zinc base substrate.
 - (iii) Preferred provider: Tnemec
 - INTERIOR PAINTING
 - Under side of slab to be painted white. All columns and beams to be left as exposed concrete
 - All MEP infrastructure other than conduit to be painted
 7. DIVISION 14 – CONVEYING EQUIPMENT
 - ELEVATORS
 - Provide (2) elevators :
 - (i) Capacity: 3000 pounds
 - (ii) Speed: 200 fpm

- (iii) Glass Backed Cars
- (iv) All metal finished to be woven stainless steel
- Provide non-proprietary machine room less elevator,
 - (i) preferred vendors are:
 1. (Quality Elevator) Minnesota Elevator and Canton put together complete elevator packages.
 2. Controller manufactures: MCE, Elevator Controls, VMI, Smart Rise and GAL.
 3. Machines: Hollister Whitney, or Imperial
 4. Fixture vendor: Innovation Industries."
 - Shaft
 - (i) Shaft enclosure to be glass
 - (ii) Shaft Structure to be structural steel tube.
 1. Structure to be self-supported vertical cantilever
 2. Limit all rail bracing to 4" x 4" structural tubing to avoid cants
 - Elevator manufacturer, steel erector and glazier to coordinate all aspects of glass shaft and structural steel prior to fabrication of any component

PROJECT LOCATION

The proposed parking garage location is on the northern portion of the Rockville Campus of Montgomery College. It is located in Parking Lot #4, just south of North Campus Drive and just north of the Campus Center. See sheet SDP-1.



On the West End of the Parking Lot, Looking East

HOURS OF OPERATION

The parking garage will operate during all hours of the day, despite normal college hours being 6 AM to midnight.

MASTERPLAN

The Rockville Campus of Montgomery College was founded in 1965 and is the College's second campus. The main campus is situated on approximately 82 acres with 19 academic and administrative buildings.

In order to address new opportunities and challenges, the College undertook a comprehensive update of its College-wide Facilities Master Plan to support its increasing enrollment, define facilities needs, and justify major new facilities initiatives anticipated as a result of this effort. The major components of the Master Plan are the Germantown, Rockville and Takoma Park/Silver Spring Campuses, Workforce Development and Continuing Education, and Central Administration. The time frame for the Facilities Master Plan is ten years, 2006 to 2016, and the time frame for twenty-year Land Use Plan extends out to 2026. The overarching goal of the Facilities Master Plan is to establish a framework for development of capital projects to support the role, mission, and academic vision of Montgomery College. Both the 2002-2012 and 2006-2016 Facilities Master plans proposed net projects on the Rockville Campus, adding to the Campus net assignable square foot space inventory and responding to the 10-year space deficiencies of each plan. The near term projects are essentially the same in both plans with the same new and renovated buildings. However, the 2006-2016 Facilities Master Plan shifts the location of the Student Services Center to the north and calls for the consolidation of humanities programs in a new facility that replaces the Technical Center. In comparison to the 2002-2012 Facilities Master Plan, the updated 2006-2016 Facilities Master Plan also calls for a stronger emphasis on outdoor space with a central green mall and proposes larger parking structures in two locations, north and south of the Campus core.

The 2002-2012 Facilities Master Plan for the Rockville campus outlined a strategy for the campus that would establish a physical framework for growth. This framework worked toward the provision of a hierarchy of open and built space, the design of quality of life space on campus, and consolidation and expansion of student service functions.

One of the major challenges for the College in the next ten-year planning period will be to correct deficiencies in the amount of, and the quality of, its academic spaces. Almost half of the Rockville Campus was constructed during the mid-to-late 1960's and while these facilities have been maintained at a high level, some buildings have ceased to be functionally adequate. The Rockville Campus also has critical shortages of quality of life spaces. As demands for academic and administrative space have increased, spaces such as meeting rooms, break-out areas, outdoor gathering areas, student lounges, and group study areas have been reduced or converted to teaching spaces. While classrooms are valuable academic spaces, the experience of learning and teaching is not limited to the classroom. Students and faculty require spaces that allow informal educational experiences and these areas are ideal places to learn collaboration and communicate skills and opportunities.

To address these and other challenges, and to establish a coherent, logical framework for development of capital projects, the Facilities Master Plan has established goals and priorities. This Facilities Master Plan for the Rockville Campus focuses on:

- Providing sufficient and adequate space—classrooms, labs, offices, study, meeting rooms, and support facilities—based on existing and projected needs, so that each and every area can contribute creatively and productively every day to helping students change their lives;
- Co-locating departments and functions rationally so that students, visitors, and the College community itself benefits from the ease, energy, and excitement generated by the synergy of proximity;
- Presenting students the needed range of opportunities to study and learn collaboratively in supportive environments with the special assistance of faculty, librarians, counselors, and staff;
- Affording students opportunities to meet and develop socially through formal programs of leadership, recreation, and athletics, and informally in inviting indoor and outdoor spaces;

- Maximizing the land resources available on the campus while retaining its unique character, quality, and setting, and yet meeting the needs of the large numbers of students, faculty, staff, and visitors who come to the campus every day;
- Inviting students, faculty, staff, and visitors to participate in the varied campus and College activities by organizing the campus—including buildings, parking, outdoor athletic facilities, and circulation for pedestrians—to make their experience pleasant and successful; and
- Anticipating the campus' future development beyond the ten-year planning horizon.

The Facilities Master Plan for the Rockville Campus is designed to support a 6.3% increase in enrollment through construction of approximately 330,000 nsf (461,000 gsf) of new space, and the renovation and reallocation of additional space in existing campus buildings. The physical goals of the Facilities Master Plan include enhancement of the entrances to the campus, creation of open space to enhance the campus environment, provision of additional space to meet the College's needs, and renovation of existing buildings.

The Proposed Parking Garage project complies with the Montgomery College Facilities Master Plan for 2006 to 2016.

SIDEWALKS AND PATHS

Most buildings within the Rockville Campus are within a ten minute walk of each other, according to the Facilities Master Plan for 2006-2016.

Much of the existing pavement around the existing parking lot will be demolished and replaced with concrete sidewalk in a design to promote the integration of efficient on-site pedestrian circulation and integration with, and enhancement of, pedestrian access to and from the parking garage.

TYPICAL ROADWAY SECTIONS

No typical roadways are proposed for the Parking Garage project. There is, however, a proposed garage entryway and existing asphalt parking lot that will be repaved.

HISTORICAL PROPERTIES

There are no historical properties impacted by the project.

CONSTRUCTION PHASING

The new parking garage will be constructed as an individual project and is not part of a phased project.

PUBLIC LAND

The Rockville Campus does not contain any public land.

PROJECT FUNDING

The project will be bond financed.

PUBLIC PARKLAND

The project will not affect any public parkland.

GENERAL LOCATION

The Rockville Campus is the largest and most centrally located of the three Montgomery College campuses. It is located in a suburban setting north of the city center of Rockville, between the Rockville and Shady Grove Metro stations. Although situated just off and accessed from MD 355/Hungerford Drive, the campus has little frontage on this major thoroughfare. Along its southern edge, across Mannakee Street, the campus faces a large property owned by the Montgomery County Public School system, the Carver Educational Services Center (CESC). Further west along Mannakee Street is the residential neighborhood of Anderson Park, primarily consisting of single-family homes. Directly north of campus is the College Gardens apartment complex. The eastern edge of campus is bordered by residential scale office buildings fronting MD 355. The William's Company owns the property adjacent to the northeast corner of the campus, with utility easements running across the northern side of the campus.

SITE DEVELOPMENT PLAN

A Site Development Plan, SDP-1, is attached with this Mandatory Referral submission. The site plan contains a summary of site data, existing property lines, proposed building setbacks, and limits of the proposed site improvements.

UTILITIES AND RIGHTS-OF-WAY PLAN

The location of existing utilities and associated rights of way are shown on URW-1.

Several existing gas mains are within a Transcontinental Gas Pipeline Corp Right of Way that is located beneath the North Parking lots and travel in a southwesterly to northeasterly direction. The City of Rockville has an existing sanitary sewer with a 15-foot wide easement on the west side of campus. It travels south along the outside of Campus Drive, continues South of the pond, and crosses Mannakee Street. An existing 12" water main is located underneath Campus Drive, at the northwestern corner of the campus, and follows counter-clockwise, where it leaves Campus Drive south of the pond towards Mannakee Street.

The proposed parking garage is located over an existing 15 inch reinforced concrete stormwater conveyance pipe. Accordingly, the project will include a relocation of this pipe, as well as new pipe to connect the new garage building, the stormwater management facilities, and existing stormwater systems. There will be roughly 820 LF of new stormwater pipe.

The project also entails nearly 1,515 LF of new 12" water pipe. Most of this new water pipe is an upgrade to the existing 8" water main that is north of the proposed building along Campus Drive and travels south along the western side of the proposed garage and the Physical Education Building.

Other proposed utilities include about 260 LF of 12" proposed sanitary sewer, to connect the proposed garage to the existing system west of the Physical Education Building. Also, a new 290 LF communications line and two new vaults will be installed on the western side of the parking garage.

VEHICULAR AND PEDESTRIAN CIRCULATION PLAN

The Rockville Campus is bounded by MD 355 (Hungerford Drive) to the east and Mannakee Street to the south. Direct access to the campus is provided via a signalized entranceway intersection along Hungerford Drive at North Campus Drive and two unsignalized entranceway intersections along Mannakee Street at South Campus Drive.

Inside the campus is a U-shaped ring road, Campus Drive, which serves the main parking lots on the

north, west and south sides of campus.

The campus is served by public transportation both on and off-campus. These services include a Washington Metropolitan Area Transit Authority (WMATA) Metro bus route and two Montgomery County Ride-On bus routes that provide connections to two rail stations on the WMATA Red Line. Bus stops and shelters are provided on campus for these transit systems.

A Vehicle and Pedestrian Plan, VPP-1, is attached.

NATURAL RESOURCE INVENTORY/FOREST STAND DELINEATION (NRI/FSD PLAN)

A natural resource inventory and forest stand delineation plan has been prepared for the project area as well the entire College Campus (Plan #2006-00028). The NRI/FSD shows the existing environmental resources within the project limits and adjacent land. The approved Natural Resource Inventory and Forest Stand Delineation (Plan #2014-00019) for the project site is attached with this Mandatory Referral Submission.

No forested areas are located within the Parking Garage project limits but there are approximately 155 trees located within the project area. The only forested area within the College's property is near the outfall to the existing stormwater management pond. The wooded areas along Mannakee Street are classified as tree stands.

SPECIAL PROTECTION AREA

The project is not located in a Special Protection Area.

PRELIMINARY FOREST CONSERVATION PLAN

Forest Conservation will be required as part of the Science West renovation project. Approximately 25,000 SF of afforestation credit is required. A combination of Critical Root Zone Credit and shade/ornamental tree planting will be used to meet this requirement. Individual tree replacement will also be required in accordance with the City's requirements. At this time, 55 significant trees will need to be replaced. Proposed site landscaping will satisfy this requirement. The forest conservation plans will be developed and based on the Natural Resource Inventory/Forest Stand Delineation plan (Plan #2014-00019) approved by the City of Rockville Forestry Department.

Preliminary Forest Conservation Plans, sheets FC101 and FC102, are attached for review.

TOPOGRAPHIC MAP

The proposed parking garage building is located near the highest point of the campus, adjacent to the parking beside the athletic field. The site slopes gradually downward from the northeast to the southwest, from an elevation of approximately 468' to an elevation of approximately 444'.

See sheet VF-101 for the existing conditions topographic information.

PRELIMINARY STORMWATER MANAGEMENT CONCEPT PLAN

The stormwater management will be subject to review and approval by the Montgomery County Government Department of Transportation. According to their Storm Drain Design Criteria, stormwater management for the Proposed Parking Garage project must be designed for the 10-year storm.

Based on the Maryland Department of the Environment criteria, this project is considered "Redevelopment" since the amount of existing impervious area within the project area is greater than 40%. Under the City of Rockville's Stormwater Ordinance, the project will be required to treat 1.8 inches of rainfall over the project area to meet the

Environmental Site Design (ESD) requirements. As such, the required ESD Treatment Volume is 13,873 cubic feet. The proposed limits of disturbance of this project is approximately 3.53 acres. The project's construction generates a total of 2.24 acres of impervious area of which 0.51 acres consists of net increase impervious coverage and 1.73 acres consists of replaced impervious area. See sheet SWM-101 for the Stormwater Management Concept Plan.

Four (4) micro-bioretenion facilities will be used to treat stormwater runoff within the project area. The first three are located just west of the proposed parking garage. These facilities will be Planter Box Type facilities. The intended design is to interconnect these facilities and equalize flow between them. This would allow SWM #1 through #3 to provide a combined 3,728 cubic feet of ESD treatment. Since the flow would be equalized between the three drainage areas and facilities, every drainage area would have the full 2.60 inches of runoff treated for the respective drainage area. Each of these three micro-bioretenion facilities will contain an overflow inlet with a top elevation 12-inches above the surface of the facility to allow excess run-off to be diverted into the on-site storm drain system. In addition, underdrains will be provided within each facility to convey filtered water into the downstream storm drain system. The fourth facility is located between the Physical Education Building and the ball field (to the east), and provides 3,068 cubic feet of treatment volume.

A SWM Concept Plan, SWM-1, is attached for review.

LEED (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN)

Montgomery College is not formally pursuing a Leadership in Energy and Environmental Design (LEED) rating for this renovation. However, the project is being designed to meet many LEED equivalent criteria. The project will seek as close to LEED Silver as possible. Since a parking garage does not qualify as a applicable building typology, we will be closely following these guidelines and targeting a LEED Silver rating (a preliminary checklist is included in this section). The design team will develop a specific sustainable design strategy together with the college during Design Development.

Per the Green Building Regulations (Chapter 5 of the City Code: Building & Building Regulations, Article XIV), All new construction of non-residential and multi-unit residential buildings shall achieve at least twenty-five (25) points in the appropriate LEED® 2009 rating system with at least five (5) points earned from the following list (applicable credits are highlighted in **bold**):

- **SS c5.1: Site Development - Protect or Restore Habitat: The reforestation plan for the project will replace any disturbed or removed trees. New landscaping in the east and west of the garage will be provided using native plantings and trees**
- **SS c5.2: Site Development - Maximize Open Space: A large pedestrian plaza will be provided along the west side of the garage with landscaped zones in the bio-retention facilities. The storm water management areas will become landscape features and provide a natural and shaded area for seating and gathering areas as well as commuter drop off and pick up zones.**
- **SS c6.1: Storm water Design - Quantity Control: Recent SWM pond was sized on campus to account for the area of this project. The use of bio retention on-site will also contribute to this credit.**
- **SS c6.2: Storm water Design - Quality Control: Design criteria must be calculated, but the "spirit" of this credit will be achieved.**
- **SS c7.1: Heat Island - Non-roof: Selections for paved areas will target low albedo materials.**
- **SS c7.2: Heat Island – Roof: Top tier of garage will consider the use of low albedo surfaces.**
- WE c2: Innovative Wastewater Technologies: n/a

LANDSCAPE PLAN

Landscape Design

The landscape design for the Montgomery College site is one element of the overall plan for the campus. The building and its landscape is to be developed as an amenity that integrates the building and site into the campus as a whole. Locating the building on this site at the center of campus allows the building to act as the center point of two quads, reshapes the north of the Bioscience Quad into a more attractive landscape, and provides a link to the parking lots to the east and west. The landscape creates distinct spaces outside of the building which reflect the connections with the varying site adjacencies. To the south, the building and landscape present a formal face, elevated above the Bioscience Quad. The north south path to the east of the building connects the two quads with a series of small gardens. The north side of the building is largely left untouched with the exception of the connection point at the existing and new entries.

- Materials are representative of similar situations on the campus. Plant materials reflect the design guidelines, LEED criteria for native plants, and the desire for a low maintenance landscape.
- Canopy trees are 3 1/2-inch caliper; understory trees are 10-foot height.
- Shrubs, perennials and bulbs are various sizes and locations.
- The site must meet the criteria set forth in the Maryland and Montgomery County codes.

Soil Preparation:

- Imported topsoil with approved imported sandy loam as required to provide required quantities with 15% approved organic material for use in backfill for planters and plantings.
- Amended topsoil with approved imported sandy loam as required to provide required quantities with 15% approved organic material for use in backfill for planters and plantings.

Site Work

The site hardscape and furnishings vary based on the site design. They also vary based on the nature of the space within the building itself, as described above.

Walkways

- Pedestrian cast in place concrete: Sidewalk
 - a) Base: 5-inch aggregate
 - b) Base: 6-inch concrete, 6x6 WWF
 - c) Surface: medium broom finish, scored at 3'-6" intervals
- Vehicular cast in place concrete: Driveable walkways
 - a) Base: 12-inch aggregate
 - b) Base: 8-inch concrete, 6x6 WWF
 - c) Surface: medium broom finish, scored at 3'-6" intervals
- Pedestrian concrete pavers: Building terraces and walkways
 - a) Sub base: 6-inch 95-percent compacted sub grade
 - b) Base: 6-inch compacted aggregate base
 - c) Slab: 5-inch concrete slab, 6x6 WWF

- d) Setting Bed: 3/4-inch asphalt
- e) Joint: hand tight, sand swept
- f) Size: 2 3/8-inch thick.

- Vehicular concrete pavers: Building terraces and walkways
 - a) Sub base: 6-inch 95-percent compacted sub grade
 - b) Base: 8-inch compacted aggregate base
 - c) Slab: 8-inch concrete slab, 6x6 WWF
 - d) Setting Bed: 3/4-inch asphalt
 - e) Joint: hand tight, sand swept
 - f) Size: 3-inch thick.
- Metal grate: Equipment yard deck
 - a) Kadee stainless steel grating
 - b) Model: KD58

Site stairs

- Concrete stairs:
 - a) Sub base: 95-percent compacted sub grade
 - b) Base: compacted aggregate base
 - c) Cast in place concrete steps, 6x6 WWF

Railings

- Stainless steel railings:
 - a) 1 3/4-inch stainless steel handrail
 - b) 1 1/2-inch by 3/4-inch channel
 - c) 1-inch by 3/4-inch steel bar post at 5-feet on center +/-
 - d) Space vertical members as required by code for structural loading

Site wall

- Brick walls:
 - a) Sub base: 95-percent compacted sub grade
 - b) Base: compacted aggregate base
 - c) Foundation drain
 - d) Cast in place concrete footer
 - e) Cast in place concrete stem wall
 - f) Brick veneer
 - g) Precast stone cap
- Concrete walls:
 - a) Sub base: 95-percent compacted sub grade
 - b) Base: compacted aggregate base
 - c) Foundation drain
 - d) Cast in place concrete footer
 - e) Cast in place concrete site wall
- At grade planters: Gravel mulch

- a) Source: Aggtrans
- b) Color: gray-tan
- c) Size: 3/8-inch, angular stone

Site furniture

- Trash receptacle
 - a) Manufacturer: Landscape Forms, 800-521-2546
 - b) Model: Plexus II, 30-gallon, side opening
 - c) Mounting: Surface
 - d) Lid: Spun top with ash tray
 - e) Finish: Titanium
- Recycling receptacle
 - Manufacturer: Landscape Forms, 800-521-2546
 - Model: Plexus II, 30-gallon, side opening
 - Mounting: Surface
 - Lid: Spun top without ash tray
 - Finish: Ocean
 - Decal: Provide white recycling decal
- Bike rack
 - a) Manufacturer: Landscape Forms, 800-521-2546
 - b) Model: Ring bike rack
 - c) Color: Powder coated titanium
- Bollard
 - d) Manufacturer: Hess America, 864-487-3535
 - e) Model: Regor, direct embedded
 - f) Color: Graphite grey

LIGHTING PLAN

1. Interior Lighting

- All interior spaces in the building shall be provided with lighting fixtures designed to enhance the aesthetics of the building, while providing lighting for safety and security that meets or exceeds the current standards as defined by the Illuminating Engineering Society of North America (IESNA) Handbook, Ninth Edition. In general, interior lighting fixtures will utilize fluorescent type light sources wherever practical. The fluorescent fixtures shall utilize solid state electronic ballasts with no more than 10% THD and high efficiency T5, GE Starcoat, Ecolux, or Philips Silhouette series lamps. Fluorescent lamps shall have a minimum color rendering index (CRI) of 78 and a correlating color temperature of 4,100 Kelvin. Where acrylic lenses are specified, they shall be 0.125 inches nominal thickness.
- Exit lights shall be specified with energy efficient, non-visible type, light emitting diode (LED) source. The exit signs shall have red colored letters.
- A list of the various lighting fixture types, utilization areas, recommended illumination levels, etc. is provided in Table below:

| Space Description | Lighting Level (FC) | Lighting Description |
|---------------------------------|---------------------------|--|
| General Storage | 20 | Recessed 2 x 4, 1 x 4, or 2 x 2 fluorescent troffer with acrylic lens. |
| Housekeeping Closets | 30 | Surface or pendant mounted industrial fluorescent with wireguard. |
| Lobby | 20 | Recessed downlights, wall mounted fluorescent decorative wall sconce. |
| Mechanical and Electrical Rooms | 30 general 50 at equip | Surface or chain mounted industrial fluorescents with wireguard. |
| Elevator Machine Rooms | 30 general 50 at equip | Surface or chain mounted industrial fluorescents with wireguard. |
| Stairs | 15 | Surface mounted fluorescent. |
| Garage | 1.0 | Surface mounted LED or fluorescent. |

2. Emergency Lighting

- Emergency lighting shall be provided throughout the facility. Selected lighting fixtures and all exit signs shall be served from the life safety emergency electrical system. Emergency lighting shall be provided in all egress, paths, stairs, mechanical, electrical, and telecommunications rooms.

3. Site Lighting

- Exterior street and walkway lighting shall satisfy the local standards. Exterior lighting levels shall be maintained at 0.5 footcandles average.
- Lighting around the perimeter of the building shall be metal halide site lighting poles and decorative wall sconces at main entrances.
- The control for exterior street and walkway lighting shall be enabled by a central contactor controlled by a photoelectric cell. This will provide dusk to dawn lighting and turn the lights off automatically during the day.

| Space Description | Lighting Level (FC) | Lighting Description |
|-------------------|---------------------|---|
| Site | 0.5 | Decorative poles and wall sconces around perimeter of building. |

OVERALL CONCEPT DEVELOPMENT PLAN

The Parking Garage Project is part of the Montgomery College Facilities Master Plan for 2006 to 2016.

NOISE ABATEMENT

During construction the contractor will be required to follow all City of Rockville noise ordinances. Any impact of noise during construction will affect the adjacent college buildings. As a result it will be important to control both noise and other disturbances to students. Once construction is complete it is expected that any noise generated will be typical of that of a typical college parking area.

TRAFFIC IMPACT STATEMENT

The parking garage will not generate any new trips to the college campus, and as such, a Traffic Impact Statement is not required. However, the College is currently conducting a study on the project's impact on nearby intersections.

Appendix A – Exhibits

Appendix B – Lighting Cut Sheets