RFP # 121-082624JA

Department/Agency	**Rowan-Cabarrus Community College**
Project Title	**Automotive Building Design**
Design Services	**Architectural Design Services**
Scope	**This request for proposals is for architectural design services for the construction of the $25,000,000 Automotive Building at Rowan-Cabarrus Community College's (RCCC) North Campus in Salisbury, NC. The project is envisioned to include the design and construction of one (1) new building.** **This new building will house Classrooms, Labs, Offices, and Support Spaces necessary to support the growth of automotive programs allowing them to support the local automotive industry's workforce needs with state-of-the-art educational opportunities located on North Campus adjacent to the planned Technology Building. The plan calls for existing Automotive programs to relocate into spaces configured to support the latest in automotive technologies. Space Program includes expansion space to allow for expected increased enrollment resulting from dual enrollment with Rowan-Salisbury Schools planned CTE High School, new auto-body and paint booth capabilities, and a new Heavy Diesel Technology program. The building is envisioned to be a 45,000-square-foot, single-story building with high bay spaces with large access doors, and adequate power, cooling, ventilation, and compressed air to facilitate the frequent upgrade of the evolving automotive industry. The building is planned to be located on an undeveloped parcel on North Campus in Salisbury, NC. It is envisioned to be a pre-engineered metal building with a front facade enhanced with metal and brick to integrate into the design aesthetic of North Campus. It will be a high-performing building. The project assumes the extension of all utilities (power, data, water, sewer) to the site from the Technology Building. It will have a large concrete paved working yard and an associated 30-vehicle fenced storage area. This estimate assumes Planning funding in FY 2025 and Construction Funding in FY 2026.** **Specific goals for the project are addressed in the Draft Technology Education Complex Owners Project Requirements dated August 26, 2024. The scope of work for this selection will include conceptual design, schematic design, design development, construction documents, construction administration, and project close-out. The project will include site development, building construction, and fit-out yielding a fully functional facility. This Architect shall seek all required approvals, handle bidding, and administer the construction under a CM at Risk delivery model. The project will be designed and administered under State Construction Office requirements.**
Contact	**Ronda Holland**
Telephone	**704-216-3455**
Email	**ronda.holland@rccc.edu**
Total Project Budget	**$25,000,000 Total Project Budget (inclusive of all soft costs)**
Source of Funds	**Rowan County Bond**
Approved OC-25 #	
Publish Date	**August 26, 2024**
Closing Date	**September 24, 2024 @ 2:00 PM**
Submittal Packages should be transmitted to:	**Electronic submissions only (Read Receipt Requested) to:** **Email: ronda.holland@rccc.edu**
NC Licensing Statement	In order to offer architectural, engineering, or landscape architectural services in response to this solicitation, the proposing firm must be properly licensed to practice Architecture, Engineering, or Landscape Architecture in the State of North Carolina. More information on the North Carolina state boards may be found at the following websites: **NC Board of Architecture:** (http://www.ncbarch.org) **NC Board of Examiners for Engineers & Surveyors:** (http://www.ncbels.org) **NC Board of Landscape Architects:** (http://www.ncbola.org) **HUB firms are encouraged to submit proposals for this project.**

Rowan-Cabarrus Community College intends to select an Architectural Design firm to design the project. In selecting the Architect, the College's Selection Committee will take into consideration qualifying factors such as:

SELECTING CRITERIA

In selecting the architectural firm, the College's Selection Committee will take into consideration qualifying factors addressed below with their relative weighting:

1. **Expertise and previous experience in the design of innovative, high-efficiency educational/institutional facilities (both Higher Education and K-12). 25%**
2. **Demonstrated understanding of requirements under which Rowan-Cabarrus Community College must execute its capital projects, including the RCCC Facilities Design Manual, the State Construction Manual and associated forms, NCCCS Capital Improvement Guide, and the State Construction Office (SCO) project administration, including the Interscope System, contractor pre-qualification, contracting, plan review, dispute resolution, and HUB tracking and reporting. 20%**
3. **Demonstrated mastery of the following critical concepts in the design of public educational facilities: High efficiency facilities (near net zero), Crime Prevention through Environmental Design (CPTED) and building security systems; integrated design; creation of cost-efficient, flexible teaching spaces; and life cycle costing in the selection of construction materials and systems. 20%**
4. **Technical expertise in the following areas of building science: Passive House Institute US (PHIUS) Passive Building Standard, and/or WELL Building v2 design standards; low impact site design; noise control; geothermal systems; and displacement ventilation. 20%**
5. **Qualifications and experience of proposed staff and consultant team. 10%**
6. **Quality of the proposal, including the inclusion of all the Submittal Requirements addressed below. 5%**
7. **After Selection Committee Members' votes have been tallied and averaged, one half (1/2) additional point will be awarded to Historically Underutilized Business (HUB) certified proposers. Teams with at least one HUB certified sub-consultant (necessary to support the effort of this contract), will be awarded one half (1/2) additional point. A maximum of one (1) additional point may be granted under this criterion.**

SUBMITTAL REQUIREMENTS

Submit one (1) electronic copy of the submittal package in Adobe.pdf format. Electronic submissions only (Read Receipt Requested). Each package shall include, in the following order:

1. **A Letter of Interest – no more than one page. Letter of interest should include Architectural License Number, E-Procure number, and SCO Vendor Number.**
2. **A design approach for the project, including discussion of achieving near net zero energy use; implementing CPTED to design a secure facility; and, selecting materials to achieve optimal acoustics for an educational environment. Include an organization chart demonstrating an understanding of the College/SCO/Architect/CMR/Commissioning Agent relationship.**
3. **A proposed Gantt Chart Schedule for the Project from Conceptual Design through Completion.**
4. **A minimum of 3 (but no more than 6) single page (front and back) examples of similar projects, including photos and/or renderings, a description of pertinent elements, estimated and constructed cost (for completed projects), and design and construction durations (in months).**
5. **3 letters of recommendation from prior Higher Education clients, on their letterhead, for similar projects.**
6. **A listing of key sub-consultants to support the effort of this contract (Specialty Architects/Designers, Electrical, Mechanical, Structural, Civil Engineers, Cost Consultant, Scheduling Consultant).**
7. **Resumes of key staff (Project Architects, Construction Administrators, Landscape Architect, Electrical Engineer, Mechanical Engineer, Structural Engineer, Civil Engineer) proposed to support the design effort, including an indication of other projects on which that individual will be concurrently assigned, and those anticipated project completion dates.**
8. **Standard Form 254 (SF 254) for the Architect and major sub-consultants -- The current Standard Form 254 template is located at http://www.nc-sco.com/forms.aspx which is the State Building Commission approved form.**
9. **Historically Underutilized Business (HUB) Certification for any entity proposed to support the effort of this contract.**
10. **Signed copy of all addendums issued to this advertisement.**

Electronic submissions only (Read Receipt Requested).

Rowan-Cabarrus Community College

Automotive Building

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Owner's Project Requirements

August 26, 2024

Rowan-Cabarrus Community College

Automotive Center

Owner's Project Requirements

8/26/2024

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Rowan-Cabarrus Community College

College Environment Division

Department of Planning and Capital Projects

2024

Rowan-Cabarrus Community College

Automotive Center

Owner's Project Requirements

8/26/2024

1. Introduction

This Draft RCCC Owner's Project Requirements document captures in writing the initial concept for the Automotive Building for Rowan-Cabarrus Community College's North Campus in Salisbury, NC. This project is estimated to cost $25,000,000, however only funding for the design and preconstruction efforts has currently been allocated. These Owner's Project Requirements shall inform prospective Architects, Construction Managers at Risk (CMR), Commissioning Agents (Cx), Sustainability Consultants, etc. of the goals and requirements the Owner has created for the project. They should use this document to evaluate their interest in the project, select their proposed teams, and guide the writing of their proposals in response to the Request for Proposals (RFP) to show their alignment with the Owner's stated goals.

2. Vision

The Project is envisioned as:

A new building housing Classrooms, Labs, Offices, and Support Spaces necessary to support the growth of automotive programs allowing them to support the local automotive industry's workforce needs with state-of-the-art educational opportunities located on North Campus adjacent to the planned Technology Building. The plan calls for existing Automotive programs to relocate into spaces configured to support the latest in automotive technologies. Space Program includes expansion space to allow for expected increased enrollment resulting from dual enrollment with Rowan-Salisbury Schools planned CTE High School, new auto-body capabilities, and a new Heavy Diesel Technology program. The building is envisioned to be a 45,000-square-foot, single-story building with high bay spaces with large access doors, and adequate power, cooling, ventilation, and compressed air to facilitate the frequent upgrade of the evolving automotive industry. The building is planned to be on an undeveloped parcel on North Campus in Salisbury, NC. It is envisioned to be a pre-engineered metal building with a front facade enhanced with metal and brick to integrate into the design aesthetic of North Campus. It will be a high-performing building. The project assumes the extension of all utilities (power, data, water, sewer) to the site from the Technology Building. It will have a large concrete paved working yard, and an associated 30-vehicle fenced storage area. This estimate assumes Planning funding in FY 2025 and Construction Funding in FY 2026.

Specific goals for the project and individual buildings are addressed in this document.

3. Designer/CMR/CX/Sustainability Scopes of Work

The project will include site development, building construction, and fit-out yielding fully functional facilities. The Architect shall seek all required approvals, handle bidding, and administer the construction under a CM at Risk delivery model. The project will be designed and administered as a formal project and under State Construction Office requirements. The funding allocated to this project necessitates splitting the scopes of work of the Designer, Construction Manager at Risk, Commissioning Agent, and the Sustainability Consultant into phases.

3.1. Phase I (Design):

3.1.1. The Designer's initial effort will include conceptual design, schematic design, design development, and construction documents up to the approval to bid by the State Construction Office.

3.1.2. The Construction Manager's pre-construction effort includes cost estimating, constructability reviews, materials and finishes selections, value-engineering, and construction bid package development.

3.1.3. The Commissioning Agent's first effort includes systems design review and energy modeling.

3.1.4. Sustainability Consultant(s) (PHUIS and Well Building) efforts will include developing requirements for each phase of design as outlined in the owner's goals.

3.2. Phase II (Construction):

3.2.1. The Designer's subsequent scope of work after the full funding for construction is approved then includes bidding assistance, construction administration, project close-out, assistance with warranty period management (1 year), and performance verification.

3.2.2. The Construction Manager's follow-on scope of work includes bidding, contracting, construction management, project close-out, warranty period management (1 year), and assistance with performance verification.

3.2.3. The Commissioning Agent's work in this phase includes shop drawing review, field inspections, system start-up verification, project close-out review, supervision of systems training by the CM and Vendors, and performance verification (1 year).

3.2.4. Sustainability Consultant(s) (PHUIS and Well Building) includes monitoring adherence to requirements as established during the design phases.

4. General Project Requirements

4.1. General Requirements

4.1.1. Owner Directives and Goals

4.1.1.1. Directives

4.1.1.1.1. All aspects of the project design shall comply with the College's February 2024 Facilities Design Manual.

4.1.1.1.2. Ensure CO2 levels in classroom, lab, office, and meeting spaces do not exceed 750ppm through the prescriptive application goal of no less than 15 CFM per person in each discrete space.

4.1.1.1.3. The project will be conceptualized and designed in a highly integrated approach, with the Owner, Tenant, Architect, Construction Manager, and Commissioning Agent as equal partners in the effort.

4.1.1.1.4. As a formal project and over $2,000,000 the project will be administered under State Construction Office (SCO) requirements, and the Standard SCO Design Contract will be utilized for Design, Construction Administration, and Closeout Phases, with scope requirements of the Owner, beyond those of SCO, carried as Additional Services.

4.1.1.1.5. Full 3rd party enhanced commissioning will be required, including the building envelope commissioning with air pressure test.

4.1.1.1.6. The construction of the project will be accomplished by the Construction Manager at Risk delivery method.

4.1.1.1.7. The design, construction, commissioning, and performance verification of the buildings will follow two specific sustainable design programs, key components of which will be determined during the planning phase of design. They are:

4.1.1.1.7.1. WELL Building v2 from which the project will be required to address particular areas of concern, which are:

4.1.1.1.7.1.1. Air
4.1.1.1.7.1.2. Water
4.1.1.1.7.1.3. Light
4.1.1.1.7.1.4. Movement
4.1.1.1.7.1.5. Thermal Comfort
4.1.1.1.7.1.6. Sound
4.1.1.1.7.1.7. Materials

4.1.1.1.7.2. The 2021 PHIUS Passive Building Standard will guide the design of all buildings, but without the intent of

seeking Certification under that standard. This will include meeting the following:

4.1.1.1.7.2.1. Passive Conservation Requirements;
4.1.1.1.7.2.2. Airtightness Requirements;
4.1.1.1.7.2.3. Active Conservation Requirements;
4.1.1.1.7.2.4. Renewable Energy Requirements;
4.1.1.1.7.2.5. Moisture Design Criteria.

4.1.1.2. FEMA P-361, Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms, Third Edition (2015) shall guide the design of certain multi-use spaces within each building, capable of providing shelter space for the number of occupants of the building, and shall be labeled in the documents as such and shall have appropriate signage. The intent is only that the structure and envelope are to be designed to this standard, without seeking certification that all criteria are met.

4.1.1.3. Goals:

4.1.1.3.1. The facility achieves total (including site) energy utilization of less than 30 EUI, which, with onsite generated PV electricity should yield a net zero facility.

4.1.1.3.2. The building will be an integral part of the new south-side campus expansion and will fit into the design esthetics of the Technology Education Complex and Career & College Promise Building.

4.1.1.3.3. The building will house the College's Automotive program, including twelve (12) automotive bays, an autobody shop with a paint booth, and spaces to support a new, heavy diesel program.

4.1.1.3.4. Construct the building envelope to achieve an air tightness of 0.060 CFM50/per SF or less.

4.1.1.3.5. The drives and select parking areas will be a to a standard that will accommodate frequent trips of heavy vehicles.

4.1.1.3.6. The vehicle storage areas will be shielded from the view of passers-by through grade changes and landscaping.

4.1.1.3.7. The project will have full rooftop solar and some solar parking canopies for electrical generation.

4.1.1.3.8. The project HVAC system will be a ground source heat pump system.

4.1.1.3.9. The building will have central battery/UPS backup for emergency lighting and life-safety systems instead of a traditional generator.

4.1.2. Approvals

4.1.2.1. The project is located within the City Limits of the City of Salisbury, NC, and will require the city's development approval. Design elements of the

project may necessitate an amendment to the Conditional Overlay District Zoning which covers the North Campus.

4.1.2.2. Rowan County is the Authority Having Jurisdiction (AHJ) and will issue Building Permits and perform building inspections.

4.1.2.3. Other Permits as required by AHJ.

4.1.2.4. SCO will perform plan review in addition to that performed by the local AHJ.

4.1.3. Drawing Requirements: RCCC will require AutoCAD/vector-based editable copies of drawing files as well as PDF copies of all stages of project development from schematic design through project closeout.

4.1.4. Basis of Design

4.1.4.1. Door hardware to use Allegion family of products (Schlage, Von Duprin, LCN, etc.) as the basis of design and as the Owner's Preferred Alternate in Bid Documents. Keying system to be Schlage Everest "R" Small Format. Coordinate with Scott Adamczak with Allegion at (704.894.0728) to develop the door hardware schedule.

4.1.4.2. The Electronic Access Control system shall be Avigilon, with installation by an authorized integrator. All associated hardware will be approved by Avigilon for integration into their system.

4.1.4.3. The Video Surveillance system will be IP Configure, and all cameras and associated hardware will be approved by IP Configure for integration into that system.

4.1.4.4. Fire Alarm and Mass Notification system will be an expansion of the North Campus Notifier voice-annunciated fire alarm system, with installation by an authorized Notifier integrator.

4.1.4.5. Interior and exterior Wayfinding and Directional Signage will use the College Standard APCO Signs as the basis of design and as the Owner's Preferred Alternate in Bid Documents.

4.1.4.6. Site furnishings (benches, trash cans, bollards, etc.) will use the College Standard of North Carolina-based LeisureCraft Holding, LLC. "High Point Series" as the basis of design and as the Owner's Preferred Alternate in Bid Documents.

4.1.4.7. Emergency Phone/Camera Poles will use Talk-A-Phone Interior Emergency Phone and Exterior Emergency Phone/Camera Poles as the basis of design and as the Owner's Preferred Alternate in Bid Documents.

4.2. Project Specific Elements – Space Program

4.2.1. Labs

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
			Labs			
1	Supervisory Office	2	80	160	160	
12	Automotive Service Bays	12	100	1,200	15,100	10 Auto Lifts, 2 light Truck Lifts plus 700 sf Equipment Storage
1	Automotive Mechanics Lab	20	50	1,000	1,000	
2	Heavy Diesel Service Bays	12	300	3,600	7,200	
1	Associated Classroom	24	25	600	600	
	Heavy Diesel Storage	1	600	600	0	
1	Large Material Storage	1	300	500	500	
1	Small Material Storage	1	100	100	100	
1	Drive Train Lab	20	50	1,000	1,000	Internal Combustion and Electric
2	Drive Train Lab Large Material Storage	1	250	250	500	
1	Body Repair Lab	20	100	2,000	2,000	
1	Body Repair Large Equipment Storage	1	250	250	250	
1	Body Repair Lab Material Storage	1	150	150	150	
2	Painting Booth	8	75	600	1,200	
2	Paint Prep Room	8	75	600	1,200	
2	Paint Prep Storage	1	250	250	500	
1	Flammable Liquids Storage	1	200	200	200	
1	Tool Storage	1	200	200	200	
				Subtotal Program Space	**31,860**	
				Circulation and Walls	**4,800**	15%
				Gross Area Total	**36,700**	

4.2.2. Classrooms

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Shared Classrooms						
2	Small General Classroom	20	30	600	1,200	
2	Small Classroom Storage	1	N/A	20	40	
1	Computer Classroom	20	35	700	700	Storm Shelter located in the interior of the building
1	Computer Classroom Storage	1	N/A	200	200	
				Subtotal Program Space	**2,140**	
				Circulation and Walls	**330**	15%
				Gross Area Total	**2,500**	

4.2.3. Student Support

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Student Support						
1	Informal Collaboration Space	8	20	160	160	
1	Vending Area	3	30	90	90	3 Vending Machines, Counter, Sink, Microwave
1	Student Lounge	10	20	200	200	
				Subtotal Program Space	**450**	
				Circulation and Walls	**90**	18%
				Gross Area Total	**600**	

4.2.4. Faculty Support

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Faculty Support Spaces						
2	Program Chair Office	1	125	125	250	
1	Full-time Faculty Cubicles	6	100	600	600	
1	Part Time Faculty Cubicles	6	80	480	480	
1	Medium Conf. Room	10	25	250	250	
1	Work/Break Room	10	40	400	400	
				Subtotal Core	**1,980**	
				Circulation and Walls	**360**	18%
				Gross Area Total	**2,400**	

4.2.5. Building Core

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
			Core			
1	Lobby	100	3	300	300	Includes Seminar Room Prefunction Space
1	Men's Public Restroom	6	20	120	120	
1	Woman's Public Restroom	6	20	120	120	
1	Unisex Public Restroom	1	80	80	80	
1	Lobby Classroom Room	50	30	1500	1,500	Movable partition splitting space, two technology packages, countertops with
2	Classroom Stor	1	N/A	40	80	
1	Electrical Room	1	120	120	120	
1	Mechanical Room	1	200	200	200	
1	Air Compressor Room	1	80	80	80	
1	Data/Telephone (MDF)	1	100	100	100	
1	Custodial Equip/Storage	1	100	100	100	
1	Custodial Closet	1	60	60	60	
				Subtotal Program Space	2,560	
				Circulation and Walls	470	18%
				Gross Area Total	3,100	

4.2.6. Total Facility Summary

Description	Gross Square Footage	Notes
Building Core	3,100	
Faculty Support Spaces	2,400	
Student Support	600	
Shared Classrooms	2,500	
Labs	36,700	
Total Facility Square Footage	45,300	

4.3. General Building Requirements

4.3.1. Building Aesthetic

4.3.1.1. The building will all be constructed in the design aesthetic, significantly coordinating with the existing buildings on campus utilizing rectangular block form, flat roofs, and three colors of brick.

4.3.2. Structure

4.3.2.1. Vertical Structure

4.3.2.1.1. Structural steel.

4.3.2.2. Slabs

4.3.2.2.1. Slab on Grade: Cast in place concrete over moisture/vapor barrier membrane.

4.3.2.2.2. Elevated: Concrete fill on metal pan, hollow core concrete plank (w/ topping), or precast double "T" (w/ topping).

4.3.2.3. Roofs

4.3.2.3.1. Preferred low-slope metal roof decks. Concrete fill on metal pan, hollow core concrete plank (w/ topping), or precast double "T" (w/ topping) should be considered for storm shelter areas.

4.3.2.3.2. Highly sloped roof areas, which are to be utilized only in building entry elements to assist in wayfinding, may be metal deck.

4.3.3. Envelope

4.3.3.1. Walls:

4.3.3.1.1. Insulated metal panel; or,

4.3.3.1.2. Masonry, preferably in a natural (unpainted) finish with architectural enhancement to blend with the North Campus aesthetic, specifically the Advanced Manufacturing Building.

4.3.3.2. Highly insulated and sealed at the perimeter to control the movement of heat, vapor, air, and free water.

4.3.3.3. Fenestration:

4.3.3.3.1. Curtainwall/Windows – Thermally broken aluminum system with insulated, low E glass.

4.3.3.3.2. Storefront – Thermally broken, insulated, Low E glass

4.3.3.3.3. Storefront Doors – Wide Stile, Insulated, Low E Glass, configured for electric hardware, piano hinges, power transfer, and stainless-steel hardware.

4.3.3.3.4. Intrusion-resistant glass at or similar to standard Env1627 Class 3. in areas where forceful entry is considered a risk.

4.3.3.3.5. Steel Doors – Insulated, galvanized, morticed hardware, configured for electric hardware, anti-tamper hardware

4.3.3.4. Roofs

4.3.3.4.1. Highly insulated and sealed to control the movement of heat, vapor, air, and free water.

4.3.3.4.2. PVC membrane with a 20-year material warranty.

4.3.3.5. Factor passive bird deterrent into the design of all potential nuisance areas.

4.3.4. Interior

4.3.4.1. Walls

4.3.4.1.1. CMU Walls for lab spaces. Sealed and Painted

4.3.4.1.2. GWB walls in general classrooms, offices, and corridors. Painted

4.3.4.1.3. Glazed Ceramic Tile on restroom walls to the ceiling. These walls should be patterned with cost effective solution including no less than two colors of tiles.

4.3.4.2. Ceilings – Shall be appropriate for the use of the space and shall consider:

4.3.4.2.1. Sound Control

4.3.4.2.2. Maintainability

4.3.4.2.3. Cost Efficiency

4.3.4.2.4. Aesthetics

4.3.4.2.5. Security – Restroom ceilings will have suspended gypsum ceilings to prevent access to the above-ceiling plenum.

4.3.4.3. Stairs

4.3.4.3.1. A stair will extend up to the roof level to provide access to the roof. Access to the stair leading to the roof level will be via a normally secured door at the highest publicly accessible stair landing.

4.3.4.4. Floors

4.3.4.4.1. Terrazzo –Shall be the standard for high-traffic public spaces. This system shall be designed by an expert in these systems.

4.3.4.4.2. Carpet Tiles - Office Space, Conference Rooms, Seminar Rooms, Computer Classrooms,

4.3.4.4.3. Porcelain Tile - Restrooms with an appropriate underlayment to avoid cracking shall be considered for all restrooms.

4.3.4.4.4. Resilient Flooring – Classrooms, clean Labs, Break Rooms, consider a sustainable resilient flooring material such as linoleum, or limestone dust-based tiles. VCT is not acceptable.

4.3.4.4.5. Sealed Concrete – shall be used in dirty or wet Labs, and back-of-house spaces such as Custodial Closets, Storage Rooms, Mechanical Rooms, Electrical Rooms, Data Facilities, etc.

4.3.4.5. Interior Fenestration

4.3.4.5.1. Doors: Shall be solid wood in lobby area and hollow metal doors in other areas.

1.1.1.1.1. Extra heavy-duty performance.

1.1.1.1.2. Doors to labs and associated storage rooms shall be a minimum of 40" wide.

1.1.1.1.3. Door Frames: Shall be hollow metal

1.1.1.1.4. Minimum extra heavy-duty (Level 2) frames.

1.1.1.1.5. To include sidelights on all Classroom, Lab, Conference, and Office Spaces. Sidelights shall be no more than 12" in width and should have panes no larger than 200 square inches. Panes located such that they could be broken out to open the door should be intrusion-resistant at or similar to standard EN356 P2A.

1.1.1.1.6. Where appropriate doorsways should have transom lights to move natural daylight from the perimeter into interior spaces.

1.1.1.1.7. Interior Windows: Interior Windows are to have hollow metal frames. Where appropriate to mitigate sound, double-paned glass shall be utilized.

1.1.1.1.8. Window Shading systems: Windows between classrooms, conference rooms, etc., and labs will be provided with window blinds.

4.3.4.6. Fit Out

4.3.4.6.1. All classrooms and conference rooms to receive chair rail.

4.3.4.6.2. All countertops are to be a solid surface material.

4.3.4.6.3. Window Shading systems

4.3.4.6.3.1. Classrooms and Conference Rooms will be provided with roll-down, duel translucent and black-out shades.

4.3.4.6.3.2. Other spaces will be provided with roll-down translucent shades.

4.3.5. Systems

4.3.5.1. General:

4.3.5.1.1. Install individual metering into all utilities servicing each building. Meters should tie into the Campus BAS.

4.3.5.2. Lighting

4.3.5.2.1. Consider lighting temperatures that are appropriate to the needs of the application.

4.3.5.3. Electric:

4.3.5.3.1. A percentage of electrical receptacles in public spaces shall include USB charging.

4.3.5.3.2. Rooftop Solar:

4.3.5.3.3. Parking Lot Solar

4.3.5.4. Chill and Hot Water Plant

4.3.5.4.1. An individual geothermal system with heat pumps to serve the chill and hot water needs of the building.

4.3.5.4.2. Geothermal well fields will be located under paved parking areas. These fields will be designed such that they can be expanded if the system needs to be enlarged.

4.3.5.4.3. The Mechanical Room(s) will be designed to facilitate the maintenance and replacement of equipment.

4.3.5.5. Ventilation

4.3.5.5.1. Provide a zoned hydronic 4-pipe HVAC System.

4.3.5.5.2. Mechanical Room(s) will be designed to facilitate the maintenance and replacement of equipment.

4.3.5.5.3. Controls to be Tridium Niagara integrated into the existing North Campus Building Management System.

4.3.5.5.4. Classrooms, Conference Rooms, and Office Spaces should be serviced by a displacement method ventilation designed to ensure CO2 levels in classroom, lab, office, and meeting spaces do not exceed 750ppm through the prescriptive application goal of no less than 15 CFM per person in each discrete space.

4.3.5.5.5. High Volume Low-Speed Fans will be considered for efficient movement of air in large-volume lab spaces. These shall be equipped with occupancy sensors and other controls to ensure they only operate when needed.

4.3.5.5.6. Chill beams may be considered for use in the large-volume lab spaces together with the high-volume low-speed fans as appropriate.

4.3.5.5.7. Ensure the differing exhaust ventilation requirements for all lab spaces are addressed very carefully.

4.3.5.6. Plumbing

4.3.5.6.1. Provide hose bibs at strategic locations on the exterior of each building.

4.3.5.6.2. Provide interior hose bibs in Lab and other spaces where appropriate.

4.3.5.6.3. Eye wash stations shall be installed in Lab spaces, where appropriate. Sloped flooring drains shall be installed to support eye wash stations.

4.3.5.7. Life Safety:

4.3.5.7.1. Fire Alarm: Provide a fully functional (all points and sensors) voice annunciated Fire Alarm System with Mass Notification. System to comply with State Construction Office Requirements. The system shall integrate into the existing campus-wide system.

4.3.5.7.2. Mass Notification: Provide a fully functioning Emergency Mass Notification System integrated into the existing campus-wide system. Mass notification shall be ADA-compliant (audible and visual), with strategically placed digital message boards. Include one central dispatch/control station to be located at the Owner's direction.

4.3.5.7.3. Fire Sprinkling: All buildings will be fire-sprinkled. Systems to comply with State Construction Office Requirements.

4.3.5.8. Data/Telecommunications:

4.3.5.8.1. Data Network: Provide extension from the nearest existing main (not branch) fiber-optic data trunk into a Main Distribution Facility (MDF) strategically located within the building.

4.3.5.8.2. Provide all data conduit, cabling, terminations, racks, and associated permanently installed equipment (UPS, etc.).

4.3.5.8.3. Provide fully functioning Electronic Access Control integrated into the existing campus-wide system.

4.3.5.8.4. Provide fully functioning Video Surveillance integrated into the existing campus-wide system.

4.4. Site Requirements (General)

4.4.1. Landscaping: Include a diverse, native-focused, landscaping package around the site, including parking lot islands. The landscaping package should blend with existing campus landscaping.

4.4.2. Provide Emergency Phone/Camera/Speaker Poles: Strategically locate these in an ADA accessible curbed island in each parking lot adjacent to each facility. Infrastructure should include power and data from the nearest building, ideally within 300 feet of the MDF inside the facility so that standard copper data cable may be used.

4.4.3. Electric Vehicle Charging Stations: One duel, Level 2 (220V) Electric Vehicle Charging Stations shall be installed close to the building with infrastructure to support future additional stations.

4.4.4. Site furnishings: Benches, tables, chairs, trash cans, bollards, etc. shall be located strategically on the Site Plan, and shall be furnished and installed by the Contractor. All to be secured to a slab/foundation.

4.4.5. Sidewalks: Sidewalks will connect the building and parking lot to the network of campus sidewalks.

4.4.6. Fencing: Will be provided around the vehicle storage parking area.

4.5. Roadways, Drives, and Parking Lots

4.5.1. Roadways

4.5.1.1. Roadway extensions shall be connected to the existing roads to provide a logical, efficient flow of traffic through and around the campus while minimizing pedestrian crossings.

4.5.1.2. Carefully consider the use of heavy-duty pavement to support the traffic through the campus.

4.5.1.3. Sidewalks will be constructed along every roadway connecting to the sidewalk/path network on the campus.

4.5.2. Driveways: Drives serving buses, deliveries, and waste removal will be constructed from heavy-duty pavement designed for the appropriate number of daily trips.

4.5.3. Parking

4.5.3.1. Parking space count shall follow the local development ordinance. Consideration should be given to consolidating the majority of these spaces into centralized lots serving the needs of the campus.

4.5.3.2. Parking shall be divided into Standard, Handicapped, and Electric Vehicle Parking.

4.5.3.3. Parking lot lighting shall be served and controlled from the adjacent building.

4.5.3.4. A minimum of five, but not less than 10% of the total parking space count (up to a maximum of 10) parking spaces will be covered with solar canopies.

4.5.3.5. Permeable paving will be considered where appropriate.

4.6. Utility Extensions: Utility extensions shall be located to minimize the impact on future roadways and structures, while providing necessary access points and pull boxes for shutoffs, maintenance, and new installations.

4.6.1. Electrical Power: Solar will be tied in behind the meter of the building.

4.6.2. Potable Water: No specific requirements

4.6.3. Fire Main: No specific requirements

4.6.4. Irrigation Water

4.6.4.1. The use of irrigation should minimize through the thoughtful selection of planting and turf, swales, etc.

4.6.5. Storm Water

4.6.5.1. Necessary stormwater detention/retention ponds will be carefully designed to become campus amenities that protect and enhance the groundwater, natural wetlands, and streams on campus.

4.6.6. Sewer: No specific requirements

4.6.7. Gas

4.6.7.1. Prefer electric water heating offset by solar PV installations.

4.6.8. Data: Each facility will be served by a branch line from the College network fiber optic data backbone into MDF.

4.6.9. **Solar:** Each facility shall have rooftop and parking lot canopy solar installations as part of the project design. Ideally, these will be sized to completely offset the electrical power requirements of the buildings.