

DESIGN-BUILD: REQUEST FOR QUALIFICATIONS (RFQ) ADVERTISEMENT FOR OWNER

Adopted by the State Building Commission on June 25, 2019

Amended by the State Construction Office August 8, 2022

Department/Agency	Rowan-Cabarrus Community College
Project Title	Fire Training Phase III
Design-Build Services	Design-Build Services
Scope of Work	This Request for Qualifications (RFQ) is for Design-Build Services associated with the planning, design, permitting, and construction of the Rowan-Cabarrus Community College Fire Training Center, Phase III Project located at the College's North Campus in Salisbury, North Carolina. The \$5,000,000 project is funded through the United States Department of Housing and Urban Development (HUD) Office of Community Planning and Development Program and shall comply with all applicable HUD requirements. The project scope generally includes construction of an approximately 10,000 SF Operational Support Building, renovation of Building N131 to provide new restroom facilities, site development, utility extensions, fencing, gates, site security improvements, hose drying facilities, dumpster enclosure, stormwater infrastructure, parking, drives, sidewalks, and other supporting exterior improvements. The Operational Support Building will include student, faculty, and staff restrooms, locker rooms, showers, laundry facilities, office space, workshop areas, apparatus garage space, decontamination training facilities, storage areas, and an outdoor classroom pavilion. The Design-Builder shall update the Fire Training Center Master Plan, seek all required approvals, administer the design and construction process, provide commissioning support, and deliver a fully operational facility. The project will be delivered utilizing the Design-Build method and administered under North Carolina State Construction Office requirements. Specific project requirements are identified in the Owner's Design Criteria dated July 28, 2026.
Project Site	Parcel ID: 063 013, Pin: 5668-01-09-0335, Rowan-Cabarrus Community College 1333 Jake Alexander Blvd. S., Salisbury, NC 28146
Schedule	October 2026, 24 months
Contact	Ronda Holland
Telephone	704-216-3455
Email	collegeenvironment@rccc.edu
Total Project Budget	\$5,000,000
Source of Funds	Federal Department of Housing and Urban Development (HUD)
Approved OC-25 #	NCCCS No. 2874 Approved July 2024, SCO Project 31569
Publish Date	Friday, July 31, 2026
Closing Date	Tuesday, September 1, 2026, 2:00 pm
Submit Electronic your Electronic Submittal (Adobe.pdf format) to:	Ronda Holland collegeenvironment@rccc.edu Please identify the Project Title in the subject line of your e-mail
Physical Location for Fed Ex/UPS Delivery (Delivery Address):	<u>Hard copies are not accepted at this time.</u>

NC Licensing Statement	In order to offer Construction Services (General Contracting, Electrical Contracting, Plumbing, Heating and Fire Sprinkler Contracting, or Landscape Contracting) and Design Services (Architecture, Engineering, or Landscape Architecture) as part of the response to this RFQ, the proposing firms must be properly licensed to provide Construction Services and Design Services in the State of North Carolina. More information on the North Carolina state boards may be found at the following websites: CONSTRUCTION: NC Licensing Board for General Contractors: https://nclbgc.org NC State Board of Examiners of Electrical Contractors: https://www.ncbeec.org NC State Board of Examiners of Plumbing, Heating and Fire Sprinkler Contractors: https://www.nclicensing.org NC Landscape Contractors' Licensing Board: https://nclclb.com DESIGN: 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)
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SUBMITTAL CRITERIA

Proposing firms must submit an electronic copy of the complete submittal package in Adobe.pdf format (20 MG max) to the email address provided: collegeenvironment@rcccc.edu ***Hard copies are not accepted at this time.***

Firms must be registered and active with the North Carolina Electronic Vendor Portal prior to submitting a proposal. <https://evp.nc.gov/> Failure to register may result in disqualification.

Each package shall include:

1. Profile of each key firm on the team (design-builder, contractor(s), designer(s), etc.). Include firm history, ownership, description of services, location, staff size, and record of successfully completed projects without major legal or technical problems.
2. Resume of each key personnel represented on the team (design-builder, contractor(s), designer(s), etc.). Identify licenses (with numbers) and qualifications.
3. Examples of experience in each of these areas:
 - a. Projects with scope similar to proposed project, successfully completed by team members (firms and/or personnel).
 - b. Design-Build projects successfully delivered by team members (firms and/or personnel).
 - c. Collaboration between team members (firm and/or personnel).
4. Examples of recent experience with estimating project cost. Include examples of design-build projects with comparisons between initial design-build estimate and final cost.
5. Examples of recent experience with adhering to project schedules. Include examples of design-build projects with comparison between initial schedule and final delivery date.
6. Understanding of the project location as exhibited by past experience in the geographic area and/or with the client. Indicate the team's proximity to the project area.
7. Quantifiable description of current workload and available resources to successfully complete this project.
8. Description, with examples if applicable, of process for successfully delivering this proposed project. Address each phase of project (design, pre-construction, and construction). Include explanation of project team selection, practices, and procedures to ensure quality and other factors that may be applicable. The following project team selection options are permitted. The governmental entity may specify which option shall be used. If the governmental entity does not specify, the project team selection shall consist of either of the following:
 - a. A list of the licensed contractors, licensed subcontractors, and licensed design professionals whom the design-builder proposes to use for the project's design and construction. If this project team selection option is used, the design-builder may self-perform some or all of the work with employees of the design-builder and, without bidding, also enter into negotiated subcontracts to perform some or all of the work with subcontractors, including, but not exclusively with, those identified in the list. In submitting its list, the design-builder may, but is not required to, include one or more unlicensed subcontractors the design-builder proposes to use. If this project team selection option is used, the design-builder may, at its election and with or without the use of negotiated subcontracts, accept bids for the selection of one or more of its first-tier subcontractors.
 - b. A list of the licensed contractors and design professionals whom the design-builder proposes to use for the project's design and construction and an outline of the strategy the design-builder plans to use for open subcontractor selection based upon the provisions of Article 8 of Chapter 143 of the General Statutes. If this project team selection option is used, the design-builder may also self-perform some of the work with employees of the design-builder but shall not enter into negotiated contracts with first-tier subcontractors.

9. Certifications:

- a. A letter, dated within the last 30 days, from your surety company, signed by their Attorney in Fact, verifying their willingness to issue sufficient payment and performance bonds for this project, on behalf of your firms or its agent licensed to do business in North Carolina, and verifying your company's capability and capacity based on your current value of work. Surety company bond rating shall be rated "A" or better under the A.M. Best Rating system or The Federal Treasury List.
- b. Written certification by the design-builder that each licensed design professional included as part of the team was selected based solely on qualifications without regard to fee. Include evidence that a qualifications-based selection (QBS) process was utilized.

10. Additional information as requested by the Owner or deemed appropriate by the Design-Builder.

11. A Letter of Interest – no more than two (2) pages.

12. Two (2) letters of recommendation from prior public sector clients, on their letterhead, for similar projects. These letters should include a current phone number where this individual can be reached for comment.

13. Signed copies of all addendums issued to this advertisement.

14. A completed and signed W-9 form.

SELECTION CRITERIA

In selecting the Design-Build Firm, the College's Selection Committee will take into consideration qualifying factors addressed below with their relative weighting:

1. Specialized or appropriate expertise in the specific type of project. 25%
2. An understanding of the Owner's Project Requirements and the location in which the project will be executed. 25%
3. Past performance on similar projects. 10%
4. Qualifications and experience of proposed staff and consultant team. 10%
5. Quality of the Design-build qualifications (short list) and presentation, and answers to questions during any interviews (final interview). 20%
6. Demonstrated understanding of the College's Facilities Design Manual. 10%

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1. Introduction

This RCCC Owner's Project Requirements document is to capture, in writing, the initial concept for the roughly \$5,000,000 Federal Department of Housing and Urban Development (HUD) funded **Fire Training Center, Phase III Project** to be constructed on the College's North Campus in Salisbury, NC. These Owner's Project Requirements shall inform prospective Design-Builders on 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, and guide the design of the project. This document will be included by reference in any future contracts for this project.

2. Vision

The project is envisioned to include the construction of the following in Priority Order:

1. **Restrooms** for students, faculty, and staff.
2. **Garage Space** for the Fire Engine and Other Vehicles.
3. **Workshop Space** for SCBAs and turn-out gear.
4. **Locker Rooms and Showers** for students, faculty, and staff.
5. **Decontamination Training Space.**
6. **Office Space** for Faculty and staff.
7. **Security** – a more secure facility perimeter.
8. **Hose Drying Rack.**
9. **Garbage and Ash Handling.**
10. **Covered Pallet and Other Storage.**

As envisioned the projects includes the project scope consists of three primary components:

- **Operational Support Building (approximately 9,000 SF)**
- **Building 131 Restrooms (approximately 200 SF)**
- **Exterior Program Elements**

Specific goals for the project and individual buildings are addressed in this document. The scope of work will include conceptual design budget, and schedule development, schematic design, design development, construction documents, construction administration, project close-out, warranty period management (1 year), and performance verification.

General guidelines for design and standards are included in the College's Facility Design Manual, February 2024 edition. This Manual is available on the College's website under About Rowan-Cabarrus/Divisions of the College/College Environment/Planning & Capital Projects: <https://www.rccc.edu>

The project will include site development, building construction, and fit-out yielding fully functional facilities. The Designer shall seek all required approvals, handle bidding, and administer the construction under a design-build delivery model. The project will be designed and administered as a

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formal project under State Construction Office requirements with monitoring oversight by State Construction.

3. Conceptual Project Budget

Design Costs:	\$400,000
Construction Costs:	\$3,900,000
Contingency:	\$200,000
Other Contracts	\$500,000
Total	\$5,000,000

Funding for the project is provided by the US Department of Housing and Urban Development (HUD) under their Office of Community Planning and Development Program. The entire project will comply with HUD's requirements.

4. Design-Build/CX Scopes of Work

The project will include site development, building construction, and fit-out yielding fully functional facilities. The Design-Builder shall seek all required approvals including zoning, annexation, handle bidding, and administer the construction under a Design-Build delivery model. The project will be designed and administered as a formal project under State Construction Office requirements.

4.1. Design Phase:

- 4.1.1. The Design-Builder's initial effort will include updating the Fire Training Center Master Plan last updated by Ewing Cole Planners in 2022, and further developing coordinated building and training prop layout, stormwater, roadways/drives, parking, pedestrian connectivity, security plans and other elements of the Fire Training Center. This will require approval of the Owner.
- 4.1.2. After approval of the Fire Training Center Master Plan the Design-Builder will complete the following sub-phases for the project and all associated sitework, including: conceptual design, schematic design, design development, and construction documents, up to the Approval to Bid, all of which require approval by the Owner, the State Construction Office, and the AHJ.
- 4.1.3. The Pre-construction efforts by the Design-Builder includes cost estimating, constructability reviews, clash detection, sustainability reviews, materials and finishes analysis, value-engineering, and construction bid package development at each sub-phase.
- 4.1.4. The Commissioning Agent's first effort includes systems design review, sustainability review, and energy modeling at each sub-phase.

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- 4.1.5. The Design-Build Team will employ or contract with a PHIUS Certified Professional (CPHC) and Well Building WELL Accredited Professional (WELL AP) Accredited Professional (WELL AP) to guide the design and preconstruction processes to ensure the Projects Sustainability Goals are achieved.

4.2. Construction Phase:

- 4.2.1. The Design-Builders's scope of work during the Construction Phase includes bidding construction administration, contracting, construction management, project close-out, warranty period management (1 year), and assistance with performance verification.
- 4.2.2. 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).
- 4.2.3. The Design-Build Team will employ or contract with individuals certified in both PHIUS and Well Building to guide and inspect the construction taking place in the field to ensure the projects sustainability goals are being achieved.

5. General Project Requirements

5.1. Owner Directives

- 5.1.1. All aspects of the project design shall comply with the College's Facilities Design Manual, February 2024 edition.
- 1.1.1. The project will be conceptualized and designed in a highly integrated approach, with the Owner, Tenant, Design-Builder, and Commissioning Agent as equal partners in the effort.
- 1.1.2. As a formal project and over \$2,000,000 the project will be administered under State Construction Office (SCO) requirements, however, the following will be required:
 - 1.1.2.1. Standard SCO Design-Build Contract will be utilized, with scope requirements of the Owner, beyond those of SCO, carried as Additional Services.
- 1.1.3. Full third-party enhanced commissioning will be required for the Operational Support Building, including the building envelope water testing, and building air pressure test.
- 1.1.4. The construction of the project will be accomplished by the Design-Build delivery method.
- 1.1.5. Standards: The design, construction, commissioning, and performance verification of the Operational Support Building will follow two particular sustainable design programs and the FEMA Emergency Shelter Guidelines. Key components of which will be considered for inclusion are:
 - 1.1.5.1. WELL Building v2 will guide the design of the building, without the intent of seeking certification under their program. This will include:
 - 1.1.5.1.1. Air
 - 1.1.5.1.2. Water
 - 1.1.5.1.3. Light

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- 1.1.5.1.4. Movement
- 1.1.5.1.5. Thermal Comfort
- 1.1.5.1.6. Sound
- 1.1.5.1.7. Materials

1.1.5.2. The 2021 PHIUS CORE Building Standard will guide the design of all buildings, without the intent of seeking Certification under that standard. This will include meeting the following:

- 1.1.5.2.1. Passive Conservation Requirements.
- 1.1.5.2.2. Airtightness Requirements.
- 1.1.5.2.3. Active Conservation Requirements.
- 1.1.5.2.4. Renewable Energy Requirements.
- 1.1.5.2.5. Moisture Design Criteria.

1.1.5.3. FEMA P-361, Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms, Third Edition (2015) shall guide the design of a multi-use space (or spaces) within the building as a Tornado Shelter, capable of providing shelter space for the anticipated number of occupants of the building, and driver training pad during a normal teaching day. The spaces(s) shall be labeled in the documents as such and shall have appropriate signage.

1.1.5.4. Crime Prevention Through Environmental Design (CPTED). CPTED Principals should be considered at the perimeter to the site in recognition of the attractive nuisance potential of the site and previous theft at the existing facilities. In particular, consider passive deterrents to entry onto the site such as signage, video surveillance, gates, fencing, swales, berms, landscaping, and hardscaping (boulders) along the Navigation Way frontage.

1.2. Approvals

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.

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

1.2.3. Other Permits as required by AHJ.

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

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.

1.4. Basis of Design

1.4.1. The Project will be designed using the February 2024 RCCC Design Manual. Any discrepancies between this document and the guidelines within the Design Manual shall be noted and discussed with the owner for verification.

1.4.2. 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

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be Schlage Everest “R” Small Format. Coordinate with Scott Adamczak with Allegion at (704.894.0728) to develop the door hardware schedule.

- 1.4.3. 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. Coordinate with Tommy McColgan at Magnum Security (803.566.3301) to develop the door hardware schedule.
- 1.4.4. Video Surveillance system will be IP Configure, and all cameras and associated hardware will be approved by IP Configure for integration into that system.
- 1.4.5. 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.
- 1.4.6. Interior and Exterior Wayfinding Signage will use the College Standard APCO Arcadia Signs as basis of design and as Owner’s Preferred Alternate in Bid Documents.
- 1.4.7. Site furnishings (benches, tables, trash cans, bollards, etc.) will use the College Standard LeisureCraft, High Point Series as basis of design and as Owner’s Preferred Alternate in Bid Documents.
- 1.4.8. Exterior Emergency Phone will use Talk-A-Phone Economy Wall Mount for Blue Light Call Station ETP-WM/E as the basis of design and as the Owner’s Preferred Alternate in Bid Documents.

6. OPERATIONS SUPPORT BUILDING ~ 10,000 SF

6.1. Functional Intent

The Operational Support Building is intended to support both hands-on training, reinforcing best practices for contaminant exposure reduction following fire and hazardous materials incidents, as well as general support of the Fire Training Center. The program will include a “Clean side” and “Dirty side” concept for limiting cross contamination due to combustion-related contaminants present on the turn-out gear and equipment firefighters carry away from fires. The Operational Support Building shall include, at minimum the following Core Program Elements:

6.1.1. Restrooms to support activities at the Fire Training Center

6.1.2. Laundry Facilities - Facilities to yield a fully NFPA 1851 compliant facility, to include:

6.1.2.1. Large commercial laundry extractors and dryers suitable for firefighter PPE. NFPA 1851 Compliant Pellerin Milnor Corporation Gear Guardian or similar

6.1.2.2. NFPA Compliant Non-tumble Turn-out Gear and Equipment Drying racks. NFPA 1851 Compliant Pellerin Milnor Corporation Gear Guardian Drying Cabinet or similar

6.1.2.3. Storage & Post Cleaning Handling

6.1.2.3.1. Clean Storage

- Dedicated, ventilated storage room or lockers.
- Clean PPE stored separate from dirty intake or wash area.
- No UV exposure or ozone producing devices.

6.1.2.3.2. Reassembly Area

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- Bench or table for reuniting shells and liners post drying.
- Inspection lighting installed.

6.1.3. Locker Rooms

6.1.3.1. Room Count 2 Locker Count 48

6.1.4. Shower Rooms

6.1.4.1. Configuration 2 (Men & Women) Shower Count 6 total

6.1.5. Outdoor Classroom/Field Decontamination Training Area - An outdoor training component shall be incorporated providing the capability to set up a temporary, fully capable, field decontamination alley in a covered space for all-weather instruction, a classroom set to support teaching with portable classroom technology, and tables and benches to provide a shaded break area for other activities occurring at the Fire Training Center. This space shall consist of:

- Covered, open-sided area
- Concrete paving
- Water supply and drainage infrastructure
- Power and data
- A vending niche capable of accommodating at drink and snack vending machines.
- An exterior water fountain with bottle filling station.
- Fire Extinguisher and AED Cabinets

6.1.6. Workshop - A space capable of supporting the maintenance functions for SCBAs, Turn-out Gear and other equipment required for the operation of the Fire Training Center.

- Sufficient power
- Both clean (for SCBAs) and oiled (for tools) Compressed Air
- SCBA Breathing Air Containment Fill Station
- Work Benches
- SCBA Storage
- Turn-out Gear Storage
- Tool Storage
- Adjacent to Garage with both a roll-up door to facilitate moving large equipment, and a swung personnel door.

6.1.7. Garage - A drive through garage space, ideally two bays, amply sized to park the College Fire Engine, Utility Vehicle, and a Fork Truck. Requirements include:

- Compressed Air
- A storage Mezzanine
- EV Charging capability
- Flammable liquids storage

6.1.8. Faculty Support Areas – Areas to support the faculty and staff who operate the facility. Including:

- A small lobby
- An Office for the Fire Training Center Director

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- Two (2) Touchdown Spaces (Cubicles) for Fire Training Center Faculty
- A Work/Break Room to support Fire Training Center Operations
- Faculty Locker-room (1) (Locker Count 4) and Showers (Shower Count 1).

6.2. Design Concept

6.2.1. Space Program

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Building Core						
1	Lobby	100	5	500	500	
2	Unisex Public Restroom	1	80	80	160	
2	Locker/Shower Room	1	80	80	160	For Faculty and Staff
1	Open Office Suite	5	70	350	350	Reception Counter, Cubicles
1	Directors Office	1	125	125	125	
1	Work/Break Room	4	40	160	160	Printer, Counter, Microwave, Refrigerator, Coffee, Table, Chairs
2	Classroom - 24 seat	24		775	1550	
1	Male Locker/Dressing Room (24 lockers)	12			500	
1	Female Locker/Dressing Room (24 lockers)	12			500	
3	Male Showers	2			Inc. above	
2	Female Showers	2			Inc. above	
3	Male Restrooms	3			Inc. above	
2	Female Restrooms	3			Inc. above	
1	Laundry Room				250	
	Drying Room				150	
	Laundry Storage				200	

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2	Workshop				500	Best Available Refuge Area for use in high wind emergencies
1	SCBA Storage				200	
1	Turn-out Gear Storage				250	
	Tool Storage				150	
2	Garage Bay	1	2000	2000	2000	Drive Through
1	Storage Mezzanine				Inc.	
	Garage Equipment Storage	1	400	400	400	
1	Mechanical/Electrical Room	1	300	300	300	Space for air compressors
1	Data/Telephone Closet (MDF)	1	60	60	60	
1	Custodial	1	175	175	175	
Subtotal					8640	
Circulation and Walls		18%			1555.2	Include corridors
Gross Area Total					10,195	

6.3. Building Design Intent

6.3.1. Building Aesthetic

6.3.1.1. The Building will be constructed in the simple, utilitarian aesthetic, utilizing rectangular block form, a flat roof with raised parapet.

6.3.2. Concept

6.3.2.1. We believe this building may be a candidate for a pre-engineered and offsite manufactured metal building taking its design cues from the many examples of similar buildings designed as fire stations. To achieve the FEMA P-361, Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms, Third Edition (2015) we believe special pre-engineered panels may be required for portions of the building.

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6.3.2.2. The building will be designed with the goal to achieve total energy utilization of less than 25 Energy Use Intensity (EUI), with a goal for completely offsetting energy utilization with future rooftop PV generated electrical energy.

6.3.3. Structure

6.3.3.1. Vertical Structure

6.3.3.1.1. Structural Steel.

6.3.3.1.2. Slabs

6.3.3.1.2.1. Slab on Grade under conditioned space: Cast-in-place concrete over insulated moisture barrier membrane.

6.3.3.1.2.2. Slab on Grade under unconditioned space: Cast in place concrete over moisture barrier membrane.

6.3.3.1.2.3. Slab under the garage area shall be designed for fully loaded fire apparatus.

6.3.3.2. Roofs

6.3.3.2.1. Preferred low slope roof decks shall be insulated metal sandwich panels.

6.4. Envelope

6.4.1. Walls: Prefinished insulated steel panels.

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

6.4.2. Fenestration:

6.4.2.1. Windows – Thermally broken aluminum window system with insulated, low E glass.

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

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

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

6.4.2.5. Doors, windows, and storefront which, when broken out, could provide easy access into the building will have shatter-resistant glazing.

6.4.3. Roofs

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

6.4.3.2. Roof Material TPO

6.4.4. Factor passive bird deterrents into the design of all potential nuisance areas.

6.5. Interior

6.5.1. Walls

6.5.1.1. GWB walls in offices, and corridors. Painted. (or prefinished metal panels) – insulated where necessary for sound control).

6.5.1.2. Prefinished Metal-skin Panels for locker rooms, workshops, storage rooms, and garage spaces.

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- 6.5.1.3. Glazed Ceramic Tile on waterproof membrane over moisture resistant substrate on restroom walls to the ceiling. These walls should be patterned with no less than two colors.
- 6.5.2. Ceilings – Shall be appropriate for the use of the space and shall consider:
 - 6.5.2.1. Sound Control
 - 6.5.2.2. Maintainability
 - 6.5.2.3. Cost Efficiency
 - 6.5.2.4. Aesthetics
- 6.5.3. Floors
 - 6.5.3.1. Colored, Polished Concrete –For high traffic public spaces, offices, and work/break room.
 - 6.5.3.2. Porcelain Tile - Restrooms will receive this tile with an appropriate underlayment to avoid cracking.
 - 6.5.3.3. Sealed Concrete – shall be used in laundry, workshop, garage, custodial closets, storage rooms, mechanical rooms, electrical rooms, data facilities, etc.
- 6.5.4. Interior Fenestration
 - 6.5.4.1. Doors: Shall be hollow metal, painted
 - 6.5.4.1.1. Doors to workshops, garage, and associated storage rooms shall be a minimum of 40” wide.
 - 6.5.4.2. Door Frames: Shall be hollow metal.
 - 6.5.4.2.1. Include sidelights on all Office Spaces, Work/Break Room, and Workshop. 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 shatter resistant.
 - 6.5.4.2.2. Where appropriate, doors should have transom lights to move natural daylight from the perimeter into interior spaces.
 - 6.5.4.3. Interior Windows: Interior Windows are to have hollow metal frames. Where appropriate to mitigate sound, double-paned glass shall be utilized.
 - 6.5.4.4. Window Shading systems: Windows between classrooms, conference rooms, etc., and labs will be provided with window blinds.
- 6.5.5. Fit Out
 - 6.5.5.1. Restrooms
 - 6.5.5.1.1. Toilet Partitions:
 - 6.5.5.1.1.1. Minimum 3/4” thick solid phenolic or HDPE panels, moisture-resistant, with stainless steel hardware.
 - 6.5.5.1.1.2. Floor-mounted, overhead-braced system with concealed fasteners.
 - 6.5.5.1.1.3. Color and finish to match campus standards; provide privacy strips at all gaps.
 - 6.5.5.1.2. Vanities - Solid surface countertops with integral backsplashes and wrap-around finished edges.
 - 6.5.5.1.2.1. Provide concealed blocking for all wall-mounted accessories.

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- 6.5.5.1.2.2. Include 6" diameter trash openings with bullnose edge detail.
- 6.5.5.1.2.3. All countertops are to be solid surface material.
- 6.5.5.1.3. Networking Equipment
 - 6.5.5.1.3.1. Racks, including rack mounted cooling and power systems
 - 6.5.5.1.3.2. Uninterruptable Power Supplies
- 6.5.5.1.4. Window Shading Systems
 - 6.5.5.1.4.1. Teaching spaces will be provided with roll-down, dual translucent and black-out shades.
 - 6.5.5.1.4.2. Other spaces will be provided with roll-down translucent shades.
- 6.5.5.1.5. Furnishings, Fixtures, and Equipment (Shown in Plans, Owner Furnished and Installed)
 - 6.5.5.1.5.1. All work benches will be movable furniture.
 - 6.5.5.1.5.2. All Storeroom shelving will be movable, modular metal shelving.
 - 6.5.5.1.5.3. Cubicles
 - 6.5.5.1.5.4. Office Furniture

6.6. Systems

6.6.1. General:

- 6.6.1.1. Install individual metering into all utilities servicing the building. Meters should tie into the Campus BAS.

6.6.2. Lighting

- 6.6.2.1. LED lighting throughout.
- 6.6.2.2. LED area wall packs and floodlights on building exterior.
- 6.6.2.3. Consider lighting temperatures that are appropriate to the needs of the application.

6.6.3. Electric:

- 6.6.3.1. The building shall be designed to accommodate a future PV solar installation. Ideally, these will be sized to completely offset the electrical power requirements for the entire facility, including a battery system to store power for nighttime.
- 6.6.3.2. A centralized emergency power battery system will be installed to provide for all emergency lighting and power needs.

6.6.4. HVAC System

- 6.6.4.1. Will be a packaged ground source heat pump system with heat recovery hot water heating.
- 6.6.4.2. The Mechanical Room(s) will be located on the exterior wall of the building and designed to facilitate the maintenance and replacement of equipment.
- 6.6.4.3. Ventilation
 - 6.6.4.3.1. Zoning
 - 6.6.4.3.1.1. The buildings will be segregated into "clean" and "contaminated" zones to address airborne contaminants endemic in firefighting.
 - 6.6.4.3.1.2. The garage will be tempered space with no cooling.
 - 6.6.4.3.1.3. The laundry space will have dedicated exhaust to be compliant with NFPA 1851.

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

6.6.4.3.3. Office spaces should be serviced by ventilation designed to ensure CO2 levels do not exceed 750ppm at the occupied level through the prescriptive application goal of no less than 15 CFM per person in each discrete space.

6.6.4.3.4. High Volume Low-Speed Fans will be considered for efficient movement of air in the Garage space and Outdoor Classroom/Field Decontamination Training Area. These shall be equipped with occupancy sensors and other controls to ensure they only operate when needed.

6.6.5.Plumbing

6.6.5.1. Water Heating:

6.6.5.1.1. Heat recovery water heating (with electric resistant heat back-up)

6.6.5.2. Provide appropriate floor drains with associated grease traps for garage spaces.

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

6.6.5.4. Provide interior hose bibs in the Garage and other spaces where appropriate.

6.6.5.5. An eye wash stations shall be installed in Garage space. Sloped flooring and floor drains shall be installed to support eye wash stations.

6.6.6.Compressed Air

6.6.6.1. Provide Air Compressors for the following:

6.6.6.1.1. Breathing Air Quality Air for SCBA in compliance with NFPA 1989 in the Workshop.

6.6.6.1.2. General use compressed air to operate equipment in the Garage and the Workshop.

6.6.7.Life Safety:

6.6.7.1. Fire Alarm: Provide a fully functional voice annunciated Fire Alarm System with Mass Notification to comply with State Construction Office Requirements. The system shall fully integrate (all points and sensors) into the existing campus-wide system. It is intended that the main panel for the entire Fire Training Center be located in this building (may require relocation from Building N131).

6.6.7.2. Mass Notification: Provide a fully functioning Emergency Mass Notification System integrated into the existing campus-wide system. Ensure system is fully legible throughout the Fire Training Center (including exterior spaces). Include one central dispatch/control station to be located at the in the Faculty Cubicle Area. This system will also serve as a Public Address System for the Fire Training Center. It is intended that the main panel for the entire Fire Training Center be located in this building (may require relocation from Building N131).

6.6.7.3. Fire Sprinkling: Building will be fire sprinkled. System to comply with State Construction Office Requirements.

6.6.8.Data/Telecommunications:

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

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the building. It is intended that the racks and servers/switches for the entire Fire Training Center be located in this building (may require relocation from Building N131).

- 6.6.8.2. Provide all data conduits, cabling, terminations, racks, and associated permanently installed equipment (UPS, etc.).
- 6.6.8.3. Provide fully functioning Electronic Access Control integrated into the existing campus-wide system for
 - 6.6.8.3.1. The following doors will be provided with card readers:
 - 6.6.8.3.1.1. Front door;
 - 6.6.8.3.1.2. Office suite door
 - 6.6.8.3.1.3. Interior Door from the the Garage into the building.
 - 6.6.8.3.2. All other exterior doors leading into the building shall be equipped with open/closed sensors tied into the Electronic Access Control System.
- 6.6.8.4. Provide fully functioning Video Surveillance integrated into the existing campus-wide system.
 - 6.6.8.4.1. All interior access points to the building will be observed from within public spaces (lobbies, corridors) and the garage.
 - 6.6.8.4.2. The exterior of the building will be viewed, with a particular emphasis on routes leading to building entrances.
 - 6.6.8.4.3. Driveways into the Fire Training Center.
- 6.6.8.5. Provide an Blue-Light Emergency Phone attached to the building.

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7. Building N131 Restrooms –160 SF

7.1. General Description: Build-out two individual Restrooms within the existing envelope of Modular Classroom Building N131. Adjust the classroom door location as necessary.

7.2. Project Specific Elements

7.2.1. Space Program

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Core						
2	Unisex Public Restroom	1	80	80	160	
Subtotal					160	
Circulation and Walls					0	
Gross Area Total					160	

7.3. Building Requirements

7.3.1. Structure: None

7.3.2. Envelope: None

7.3.3. Interior

7.3.3.1. Walls

7.3.3.1.1. Water Resistant Drywall over metal stud. Fiber Reinforced Panels

7.3.3.1.2. Blocking as necessary to support wall mounted loads.

7.3.3.1.3. Floors

7.3.3.1.3.1. LVT

7.3.3.1.4. Fit-out

7.3.3.1.4.1. Simple vanity cabinet

7.3.3.1.4.2. Framed Vanity Mirror

7.3.3.1.4.3. Restroom accessories following College Standards

7.3.3.1.5. Interior Fenestration: None

7.3.4. Systems

7.3.4.1. Lighting

7.3.4.1.1. Provide emergency lighting.

7.3.4.1.2. Occupancy sensor light switch tied into lighting and exhaust ventilation.

7.3.4.2. Ventilation

7.3.4.2.1. Tie into existing building ventilations system.

7.3.4.2.2. Add appropriate exhaust ventilation.

7.3.4.3. Plumbing

7.3.4.3.1. Provide vanity sink and toilets/urinals

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- 7.3.4.3.2. Provide appropriate floor drains.
- 7.3.4.4. Life Safety:
 - 7.3.4.4.1. Fire Alarm: Appropriately modify the system installed in a previous project. Move the Network Panel to the new Operations Support Building.
 - 7.3.4.4.2. Mass Notification: Appropriately modify the system installed in a previous project. Move the Network Panel to the new Operations Support Building.
- 7.3.4.5. Data/Telecommunications:
 - 7.3.4.5.1. Data Network: Move the Data Server Rack to the new Operations Support Building and provide an extension back to this Building.
 - 7.3.4.5.2. Provide fully functioning Video Surveillance of each entry into the building, as well as the surrounding site.

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8. Exterior Elements

8.1. Hose Drying Rack:

8.1.1. In compliance with NFPA 1962

8.2. Dumpster Enclosure for Garbage and Ash Waste

8.2.1. A masonry dumpster enclosure, sufficiently sized to accommodate two dumpsters will be constructed. The enclosure will be partitioned by a masonry, fire resistant wall segregating the Ash Container from the Garbage Container.

8.2.2. The enclosure will be clearly labeled to avoid any confusion about where ashes are to be disposed.

8.2.3. The enclosure will be provided with a hose bib.

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9. Site Requirements

9.1. General Requirements:

- 9.1.1.A Sidewalk will be constructed extending from the building to the Navigation Way Extension.
- 9.1.2.As a minimum, lighting illumination levels will meet the Illuminating Engineering Society (IES) guidelines.
- 9.1.3.Construct necessary storm water handling/retention/detention structures.
- 1.1.1.Carefully consider the use of heavy-duty concrete pavement to support the anticipated traffic through the site.

9.2. Development

- 9.2.1.All turf covered slopes should be designed to be within the operating envelope of riding lawnmowers. Any such slopes exceeding that should be provided with retaining walls.
- 9.2.2.Grass areas shall be minimized, particularly where maintenance will be a challenge. Drought tolerant, native, ground covering plant materials are preferred.
- 9.2.3.Swales and berms will be constructed in the Navigation Way frontage to serve as an offroad access deterrent.
- 9.2.4.Consider the use of strategically placed boulders to discourage vehicular access to the site.

9.3. Landscaping:

- 9.3.1.None anticipated adjacent to the building.
- 9.3.2.Mimic the landscaping at the existing gated entrance to the Fire Training Center.
- 9.3.3.In conjunction with other security measures, strategically placed landscaping will be installed along the Navigation Way frontage to delineate the site and discourage access to the site.

9.4. Fencing and Gates:

- 9.4.1.Site:
 - 9.4.1.1. The perimeter of the Training site shall be fenced.
 - 9.4.1.1.1. Areas adjacent to gates shall have black metallic fence similar to that of the existing entrance off College Drive.
 - 9.4.1.1.2. Roadway Frontage shall a 4' picket fence along the new Navigation Way
 - 9.4.1.1.3. Forested areas shall have 6'-0" tall, galvanized chain link
 - 9.4.1.2. Gates:
 - 9.4.1.2.1. Provide lockable gates at the pedestrian access point from Navigation Way.
 - 9.4.1.2.2. Where necessary, provide strategically placed, lockable, emergency access gates to provide access for emergency vehicles or lawn mowing equipment.

9.5. Driveways

- 9.5.1.Drives will be constructed from heavy-duty concrete pavement designed for the appropriate number of daily trips. Drives will have sidewalks leading from the campus network of sidewalks to those serving the parking area and nearest building.

9.6. Apron

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9.6.1. A heavy duty concrete apron will be constructed around the building

9.7. Parking

9.7.1. Parking spaces will be constructed along the front face of the building.

9.7.2. Parking lot lighting shall be served and controlled from the adjacent building with overriding light level sensors.

9.7.3. Permeable paving will be considered where appropriate to reduce required stormwater systems.

9.7.4. Provide sidewalks leading to the nearest building or campus network of sidewalks.

9.8. Signage

9.8.1. At the Navigation Way Entrance, the Driver Training Range will receive campus standard fixed wayfinding sign identifying the facility and building names.

9.8.2. All traffic signage and roadway striping shall meet NC DOT requirements.

9.9. 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. Except where noted, all utilities shall follow the NC DOT-constructed roadway from Julian Rad. to the Site.

9.9.1. Electrical Power: The site is served by its own electrical transformer and will be separately metered.

9.9.2. Sewer: The Driver Training site will be served from the sewer main along the Navigation Way extension.

9.9.3. Potable Water: The site will be served by a separately metered connection from the water main along the Navigation Way extension.

9.9.4. Fire Main: The Site is already served by Fire Main from College Drive.

9.9.5. Irrigation Water: No irrigation is envisioned for this site.

9.9.6. Storm Water

9.9.6.1. All stormwater generated on the site will be treated onsite before being introduced into waterways.

9.9.6.2. As a minimum, stormwater systems should be sized to retain the first 1.5 inches of runoff from the site.

9.9.7. Gas - None Anticipated. Prefer electric water heating offset by solar PV installations.

9.9.8. Data: The Fiber Optic Data Backbone will be extended from the Navigation Way Extension.