Moseley

The Town of Black Mountain

Conceptual Narratives for the Black Mountain Golf Maintenance Building

November 21st, 2025

ARCHITECTURAL SCHEMATIC DESIGN NARRATIVE

The Town of Black Mountain Golf Maintenance Building will be a one story building with exterior brick and metal panel Pre-Engineered Metal Building (PEMB) with sloped standing seam metal roofs. The building will be approximately 4,000 square feet in area. The building will be designed in accordance with the 2018 Edition of the North Carolina Building Code (NCBC). The primary use groups are
Business (B), Storage (S-1), and Hazardous (H-1). The construction type is IIB, non-combustible construction. The Maintenance Building will house office space for the Golf Course Maintenance Staff, Storage, and Work Spaces.

The project site will be located on 9th Street near the existing storage building. Stormwater provisions for the site will be accommodated within the convenience center's existing structures. Parking will be provided. As part of the site design, parts of the existing green and tee boxes will need to be relocated.

The exterior walls will consist of cold form metal studs with batt insulation and brick and metal panel veneer. The interior face of the exterior walls will have 5/8" gypsum wall board in office areas and 8" Concrete Block in storage and work areas up to ten feet. Any exterior windows will consist of aluminum window system with 1" insulated, low-e, tempered glazing.

The sloped roof system will consist of standing seam metal roof on the PEMB roof purlins with vapor barrier and batt insulation.

Interior partitions will primarily consist of 5/8" gypsum wall board on 3 5/8" galvanized steel studs In the office areas, extending 6" above the highest adjacent ceiling. Interior concrete masonry unit walls will consist of 8" concrete masonry units in storage and work areas.

All exterior doors will be aluminum doors with 1" insulated glazing. Exterior roll up doors will be manually operated with steel slates. Interior doors will be metal, set in fully welded painted steel frames. Side lights will be 1/4" tempered vision glazing. Exterior and interior doors will be 3'-0" wide by 7'-0" high.

Appliances including stoves, refrigerators, microwaves, and coffee pots will be provided by the owner outside of the construction contract. Equipment including copiers, printers, computers, and vending machines will be provided by the owner outside of the construction contract. Furniture including workstations, chairs, open metal shelving, and file cabinets will be provided by the owner under a separate furniture contract.

INTERIOR FINISHES NARRATIVE

The office areas will receive LVT flooring with rubber base, painted walls, and lay-in acoustical panel ceiling. Storage and work rooms will receive a sealed concrete floor and exposed to structure ceiling space. Toilet rooms and wet areas will include porcelain pavers or ceramic tile and base on the floors and a tile wainscot on the walls with paint above. General casework will have a plastic laminate finish on counters and cabinetry. Counters in spaces with sinks or lavatories such as the break room and toilet rooms will have solid surface counters. Counters in shop areas will consist of maple butcher block. Casework in shop areas will be constructed of moisture resistant substrates since they will not be installed in fully conditioned spaces.

STRUCTURAL SCHEMATIC DESIGN NARRATIVE

DESIGN CODES
2018 North Carolina Building Code
ASCE 7-16

STRUCTURAL DESIGN CRITERIA
Risk Category II
Anticipated Lateral System: Steel Ordinary Moment Frames (Not Specifically Detailed for Seismic Resistance)

STRUCTURAL LOADING
Roof Live Load:
- Unoccupied: 20 psf

Floor Live Load:
- Offices: 50 psf + 15 psf for moveable partitions
- Mechanical Spaces: designed for anticipated weight of equipment (150 psf)
- Light Storage: 125 psf
- 1st Floor Corridors: 100 psf
- Vehicle bays: dependent on anticipated vehicle usage

ROOF CONSTRUCTION
Typical roof construction will be standing seem metal roof over insulation over cold-formed steel "Z" shaped purlins. Purlins will be supported by steel bent frames.

FIRST FLOOR CONSTRUCTION
The first floor will consist of a 6" normal-weight concrete slab on grade, reinforced #4 rebar in each direction. The slab will be placed over a 15 mil vapor barrier and 6" of ABC stone base.

FOUNDATION SYSTEM
Shallow foundations, consisting of spread footings at columns and turned down slab edges at exterior walls, will be used to support the structure. Tops of footings are expected to be set at 2' below finished floor elevation unless the proximity of utilities or grading warrants a lower elevation.

LATERAL SYSTEM
The lateral system will primarily be steel moment frames, not specifically detailed for seismic resistance. Each of the bent frames, located between each bay, will be used as a moment frame. Cable tension bracing or steel portal frames will be used between the bent frames to provide lateral resistance. Cable tension bracing will be used at the roof to distribute lateral loads from the roof into the wall elements.

MECHANICAL SCHEMATIC DESIGN NARRATIVE

General Provisions

The mechanical portion of the work will consist of providing heating, cooling, ventilation, and exhaust for the building.

All mechanical work will be in accordance with the 2018 Edition of the North Carolina Mechanical Code (NCMC)

Design Conditions

The following data will serve as the basis of design in sizing the mechanical equipment:

Design outside air conditions (per ASHRAE):
Summer: 95°F DB/76°F WB (Refrigerant circuit sized for ambient of 105°F)
Winter: 14°F DB

	OCCUPIED	UNOCCUPIED
General Space Heating:	72°F	60°F
General Space Cooling:	75°F	85°F

Mechanical System

The building size and use lends itself to a Split System heat pumps with auxiliary electric reheat. Number of units will depend on how many storage areas are to receive heat. Electric Radiant Heaters will be used in areas where only heat is to be provided. Toilet rooms will have independent exhaust, interlocked with lights switch with delay off feature. Wall exhaust fans will be provided where exhaust in storage and shop areas are needed.

Building Automation System

A web-based direct digital control (DDC) building automation system (BAS) will be provided. The system allows for control strategies that optimize performance and reduce energy costs of the various HVAC systems. A web-based BAS also allows for external monitoring as well as integration with other building systems.

PLUMBING SCHEMATIC DESIGN NARRATIVE

Plumbing Fixtures and Equipment

Plumbing fixtures will be high efficiency commercial grade units and specified to reduce water consumption. Fixtures accessible to the physically handicapped will be indicated where required by the building code. Toilets will be floor mounted units, toilet room lavatories will be wall hung units and urinals will be wall hung units. Counter top lavatories will be stainless steel self-rimming units. All flushing and public hand washing fixtures will utilize hard-wired sensor operated activation.

Domestic Water Piping System

A reduced pressure zone (RPZ) backflow preventer will be installed on the incoming water service line to prevent potential contamination of the public water supply. A flow test will be conducted to determine available pressures at the site. Once flow test data is available, determination can be made if domestic booster pumps are required. Domestic cold water, hot water, and hot water recirculation piping will be copper.

Electric tank type water heaters will provide domestic hot water to the facility. Hot

water temperatures will be maintained throughout the system by a domestic hot water circulation pump. The temperature of the domestic hot water system will be monitored by the building automation system.

Sanitary Piping System

The sanitary system will be designed to discharge by gravity to the site sanitary sewer system. Piping systems will be service weight cast iron no-hub above floor and hub and spigot or Schedule 40 PVC below ground.

ELECTRICAL SCHEMATIC DESIGN NARRATIVE

GENERAL PROVISIONS

The electrical portion of the work will consist of providing building power, lighting, and limited communication raceways and boxes.

All electrical work shall be in compliance with all applicable Federal, State, and local laws and regulations governing standards of design, construction, workmanship and material. Electrical work shall be in compliance with the latest-adopted National Electrical Code (NEC).

ELECTRICAL SERVICE

The building power will be obtained from a 400A,208Y/120-volt three phase electrical service.

LIGHTING

Lighting will be installed in accordance with the recommended Illumination Engineering Society (IES) Standards.

A complete system of artificial interior lighting shall be provided for all spaces. In general, all interior lighting shall be LED. Local switches for control of lighting shall be provided to serve each individual space. As an energy-saving measure, spaces such as offices and conference rooms will be provided with motion sensors to automatically turn lights off when not occupied (this is also required by the International Energy Conservation Code(IECC)). Daylighting controls will be provided in accordance with the required daylight zones as defined by the IECC.

Light fixtures will be provided per the following:

A. Offices - General office: Recessed 2'x4' or 2'x2' light fixtures.
B. Storage areas – Chain hung industrial fixtures, wet location listed
C. Work/Truck Bays - Chain hung industrial fixtures, wet location listed

Emergency lighting and exit lighting for all paths of egress within and outside the building will be provided by the generator via an automatic transfer switch.

DEVICES, CONDUITS, AND CONDUCTORS

All devices such as light switches and receptacles shall have a minimum rating of 20 amps. Device covers shall be constructed of stainless steel in office areas.

Conduits shall be used for all systems 25-volts and higher. Minimum trade size conduit allowed shall be ¾". All conduits shall be concealed where possible. The classification of conduit usage shall be as follows:

Underground/under-floor slab – PVC Schedule 40.

Interior – Electrical Metallic Tubing with steel fittings.

Conduit shall be run exposed.

Branch circuit wiring for power and light shall generally be type THHN/THWN. All conductors No. 10 AWG and smaller shall be solid copper. All conductors No. 8 AWG and larger shall be stranded copper. All power conductors shall be insulated for 600 volts.

TELEPHONE AND DATA SYSTEMS

Data and telephone outlet locations will be coordinated with the client. Conduit and box systems with cabling will be provided at locations desired by the owner.

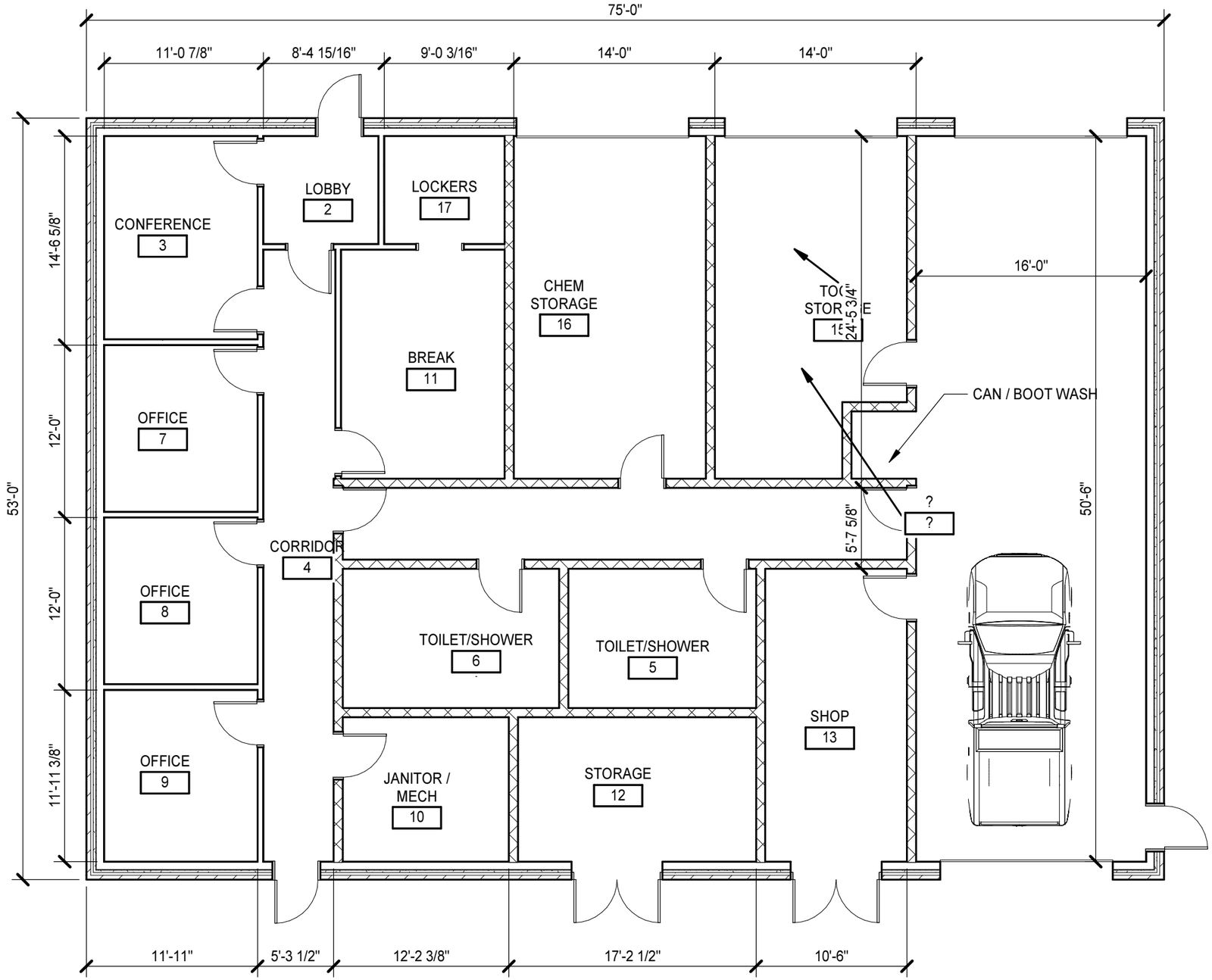
Moseley

GOLF COURSE MAINTENANCE BUILDING
BLACK MOUNTAIN, NC
BUDGET ESTIMATE

November 21, 2025

Since we have no control over the cost of labor and materials, current market conditions, or competitive bidding, we cannot guarantee the accuracy of this estimate of probable construction costs.

CONSTRUCTION COSTS			
One Story Building	4,000 SF @	$250.00	$1,000,000
Site work (no off-site improvements)	1.0 AC @	$450,000	$450,000
Construction Cost Subtotal		$362.50	**$1,450,000**
OTHER COSTS			
Misc Building Systems			
Furniture Allowance ($30 PSF)			$120,000
Graphics & Signage ($1.25 PSF)			$5,000
Voice and data systems ($8 PSF)			$32,000
Appliances			$10,000
Site Improvements			
Permitting and Utility Connection Allowance			$15,000
Utility Relocation Costs			Not included
Environmental mitigation cost			Not included
Legal/ILA, Plans and closing fees			Not included
Property Acquisition Allowance			Not included
Legal Expenses			Not included
Financing Expenses			Not included
Design soft costs			
Architectural/Engineering Services			$140,000
Furniture Design Services			$9,600
Boundary and Topographic Survey			included in A/E services cost
Construction soft costs			
Moving Expenses Allowance			Not included
Geotech/const materials testing			$10,875
Special/third party inspect (0.75% of constr cost)			$10,875
Other Costs Subtotal			**$353,350**
Project Cost Subtotal			**$1,803,350**
Contingency (10%)			$181,000
TOTAL			**$1,984,350**



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GOLF COURSE MAINTENACE BUILDING
TOWN OF BLACK MOUNTAIN
PROJECT NUMBER 652359

A1

FLOOR PLAN



PRELIMINARY
- FOR REVIEW PURPOSES ONLY -
DO NOT USE FOR CONSTRUCTION

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NO.	DATE	BY	DESCRIPTION

GOLF COURSE MAINTENANCE FACILITY

TOWN OF BLACK MOUNTAIN

BUNCOMBE COUNTY, NORTH CAROLINA

GRAPHIC SCALE 20 0 10 20 40 — DIVISION VALUE = 20 FEET (ORIGINAL SIZE: 24"x36")

OFFICE MANAGER	DESIGNER
M. CATHEY	L. ROBERSON
PROJECT MANAGER	REVIEWER
B. CATHEY	U. GARRISON

CONCEPTUAL SCHEMATIC DESIGN PLAN - OPTION A

DATE	PROJECT #	FUNDING #
NOVEMBER 2025	25.00155	N/A

SHEET
C-101

25.00155 - TOWN OF BLACK MOUNTAIN - GOLF COURSE MAINTENANCE FACILITY %% - SHEET C-101

P:\2025\25.00155-BLACKMOUNC-GOLF COURSE MAINTENANCE FACILITY\DRAWINGS\SHEETS\25.00155 - C-101 CONCEPTUAL PLAN-OPTION A.DWG PLOT DATE 11/21/2025 5:11 PM GRACIE RUDISILL