BUILDING CODE SUMMARY

APPENDIX B: 2015 North Carolina Existing Building Code - Work Area Compliance Method: Alteration - Level 2

Name of Project: Western Carolina University Moore Hall Ground Floor Renovation
Address: Moore Hall Building, Cullowhee, North Carolina — Zip Code: 28723
Proposed Use: Office
Owner/Authorized Agent: Matt Ketchum, AIA - WCU Director of Capital Projects — Phone: 828.227.2345 — E-mail: mjketchum@email.wcu.com
Owned By: ☐ City/County ☐ Private ■ State
Code Enforcement Jurisdiction: ☐ City: Waynesville ☐ County: ■ State

LEAD DESIGN PROFESSIONAL: Lindsey S. Rhoden, AIA

DESIGNER	FIRM	NAME	LICENSE#	TELEPHONE#	EMAIL
Architectural	McMillan Pazdan Smith	Lindsey Rhoden, AIA	11731	828.398.5016	lrhoden@mcmillanpazdansmith.com
Civil					
Structural					
Electrical	Optima Engineering	Brandon L. Miller	28297	704.338.1292	bmiller@optimapa.com
Fire Alarm	Optima Engineering	Brandon L. Miller	28297	704.338.1292	bmiller@optimapa.com
Plumbing	Optima Engineering	George C. Fowler	26023	704.338.1292	gfowler@optimapa.com
Mechanical	Optima Engineering	Ronald V. Almond	17228	704.338.1292	ralmond@optimapa.com
Sprinkler/Standpipe	Optima Engineering	George C. Fowler	26023	704.338.1292	gfowler@optimapa.com
Retaing Walls >5' High					
Other					

PROJECT SUMMARY:

Building Description:
Located on Western Carolina University's Cullowhee, NC campus, the Moore building was originally constructed in 1922 as a residence hall with a two-story dining room and kitchen addition off the north west portion of the building completed in 1929. The building ceased to function as a residence hall and with interior renovations in 1985, 1993 and 1994 the ground floor was upfitted to house the department of Heath and Human Sciences. After the opening of a new dedicated facility in 2012 the Health and Human Sciences department vacated the building and it has remained unoccupied since. The building is comprised of steel beams and columns with concrete slabs and load bearing masonry exterior walls.

Scope of Work Details:
Phase I work will include gut demolition of the ground floor. New interior partitions and upfit for IT work and storage areas, new bathrooms and associated mechanical, electrical and plumbing. Basic HVAC, lighting and corridor partitions in area to be used as swing space for other campus departments office and work areas in a future phase. The scope of work on the ground floor is separated by a 2 hr fire barrier as well as a 2 hr horizontal assembly from the remaining upper three stories of the existing building which are unoccupied.

TYPE OF WORK BEING PERFORMED:

NEW CONSTRUCTION: ☐ New Construction ☐ Addition ■ Upfit
EXISTING: ☐ Reconstruction ■ Alteration (No Change of Use) ☐ Repair ■ Renovation
CONSTRUCTED: 1922 — ORIGINAL USE(S) (Ch 3): RESIDENTIAL
CURRENT USE(S) (Ch 3): BUSINESS
RENOVATED: 1994 — PROPOSED USE(S) (Ch 3): BUSINESS

CODE INFORMATION - NCSBC:

Building Code: ■ 2012 North Carolina State Building Code (NCSBC) ☐ 2012 Chapter 34 (attached summary evaluation) ■ 2015 NC Existing Building Code
New Building: ☐ New Building ☐ First time interior completion (upfit) ☐ Shell Building ☐ Addition
Existing Building: ☐ Change of use/occupancy ■ Building/tenant space interior completion (alteration/renovation)
CONSTRUCTED: 1922 — ORIGINAL USE(S) (Ch 3): RESIDENTIAL

BASIC BUILDING DATA

Construction Type (Table 601): ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A ☐ I-B ☐ II-B ■ III-B ☐ V-B
Sprinklers (Chapter 9): ☐ No ■ Partial ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes (Section 905): ■ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District (Local Ordinance): ■ No ☐ Yes (Primary) Flood Hazard Area (Appendix G): ■ No ☐ Yes
Building Height (Table 503): 52'-1"
Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	RENO/ALT (SQ FT)	SUB-TOTAL (SQ FT)
Ground Floor	6,468 SF	N/A	6,468 SF	6,468 SF
1st Floor	18,432 SF	N/A	N/A	18,432 SF
2nd Floor	14,097 SF	N/A	N/A	14,097 SF
3rd Floor	14,097 SF	N/A	N/A	14,097 SF
TOTAL	53,094 SF	N/A	6,468 SF	53,094 SF

ALLOWABLE AREA/OCCUPANCY CLASSIFICATION

Primary Occupancy (Chapter 3):
Assembly: ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
■ Business
☐ Educational
Factory ☐ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ Mercantile
Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage ■ S-1 Moderate ■ S-2 Low ☐ High-Piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
☐ Utility and Miscellaneous

Accessory Occupancy (Section 508):
Assembly: ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☐ Business
☐ Educational
Factory ☐ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ Mercantile
Residential ☐ R-1 R-2 R-3 R-4
Storage ☐ S-1 Moderate ☐ S-2 Low ☐ High-Piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
☐ Utility and Miscellaneous

INCIDENTAL USES (Table 508.2.5):
- ☐ Furnace room where any piece of equipment is over 400,000 BTU per hour input
- ☐ Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower
- ☐ Refrigerant machine room (Automatic Sprinkler Provided)
- ☐ Hydrogen cutoff rooms, not classified as Group H
- ☐ Incinerator rooms
- ☐ Paint shops, not classified as Group H, located in occupancies other than Group F
- ☐ Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy
- ☐ Laundry rooms over 100 square feet
- ☐ Group I-3 cells equipped with padded surfaces
- ☐ Group I-2 waste and linen collection rooms
- ☐ Waste and linen collection rooms over 100 square feet
- ☐ Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power supplies
- ☐ Rooms containing fire pumps
- ☐ Group I-2 storage rooms over 100 square feet
- ☐ Group I-2 commercial kitchens
- ☐ Group I-2 laundries equal to or less than 100 square feet
- ☐ Group I-2 rooms or spaces that contain fuel-fired heating equipment

Special Uses: ☐ 402 ☐ 403 ☐ 404 ☐ 405 ☐ 406 ☐ 407 ☐ 408 ☐ 409 ☐ 410 ☐ 411 ☐ 412 ☐ 413 ☐ 414 ☐ 415 ☐ 416 ☐ 417 ☐ 418 ☐ 419 ☐ 420 ☐ 421 ☐ 422 ☐ 423 ☐ 424 ☐ 425 ☐ 426 ☐ 427
Special Provisions: ☐ 509.2 ☐ 509.3 ☐ 509.4 ☐ 509.5 ☐ 509.6 ☐ 509.7 ☐ 509.8 ☐ 509.9
Mixed Occupancy: ☐ No ■ Yes Separation: 2 HR Exception:

☐ Incidental Use Separation (508.2.5)
This separation is not exempt as a Non-Separated Use (see exceptions).

☐ Non-Separated Use (508.3)
The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

■ Separated Use (508.4) - See below for area calculations
For each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} < 1$$

$$\text{Ground Floor} = \frac{2{,}580}{19{,}000} + \frac{1{,}807}{17{,}500} + \frac{2{,}801}{26{,}000} = 0.35 \quad < 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503 AREA	(C) AREA FOR OPEN SPACE INCREASE	(D) AREA FOR SPRINKLER INCREASE	(E) ALLOWABLE AREA OR UNLIMITED	(F) MAXIMUM BUILDING AREA
Basement	Business (Group B)	2,580 SF	19,000	-	-	-	
Basement	Storage (Group S-1)	1,807 SF	17,500	-	-	-	
Basement	Storage (Group S-2)	2,801 SF	26,000	-	-	-	
1st Floor	Business (Group B) - Unoccupied	18,432 SF	19,000	-	-	-	[illegible]00
2nd Floor	Business (Group B) - Unoccupied	14,097 SF	19,000	-	-		
3rd Floor	Business (Group B) - Unoccupied	14,097 SF	19,000	-			
TOTAL		53,094 SF					

1 Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = N/A (F)
b. Total Building Perimeter = N/A (P)
c. Ratio (F/P) = N/A
d. W = Minimum width of public way = N/A (W)
e. Percent of frontage increase I_f = 100 [F/P - 0.25] x W/30 = N/A (%)
2 The sprinkler increase per Section 506.3 is as follows:
a. Multi-story building I_s = 200 percent
b. Single story building I_s = 300 percent
3 Unlimited area applicable under conditions of Sections 507.
4 Maximum Building Area = total number of stories in the building x E (508.4).
5 The maximum area of open parking garages must comply with 406.3.5. The maximum area of air traffic control towers must comply with 412.1.2.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
Type of Construction	Type III-B		Type III-B	Table 601
Building Height in Feet	55'	-	52'-1"	Table 503
Building Height in Stories	3 Story	-	3 Stories	Table 503

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D (HR)	RATING PROVIDED (W/ REDUCTION) EXISTING	RATING PROVIDED NEW	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY EXISTING	DESIGN # FOR RATED ASSEMBLY NEW	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
Structural frame, including columns, girders, trusses		0	0	N/A	-	-		-	-
Bearing walls									
Exterior									
North	X ≥ 30	2	2	N/A	-	.b	-	SEE M502 & E002	-
East	X ≥ 30	2	2	N/A	-	.b	-	SEE M502 & E002	-
West	X ≥ 30	2	2	N/A	-	.b	-	SEE M502 & E002	-
South	X ≥ 30	2	2	N/A	-	.b	-	SEE M502 & E002	-
Interior		0	N/A	N/A	-	-	-	SEE M502 & E002	-
Nonbearing walls and partitions									
Exterior									
North	X ≥ 30	0	NC	N/A	-	-	-	-	-
East	X ≥ 30	0	NC	N/A	-	-	-	-	-
West	X ≥ 30	0	NC	N/A	-	-	-	-	-
South	X ≥ 30	0	NC	N/A	-	-	-	-	-
Interior Walls and Partitions		0	0	0	A003	-	-	-	-
Floor construction Including supporting beams and joists		0	2	N/A	3/A200	.d		-	.c
Roof construction Including supporting beams and joists		0	N/A	N/A	-	-		-	-
Shafts Enclosures - Exit		2	2	2	A003	-	U419	-	-
Shafts Enclosures - Other		2	N/A	N/A	-	-	-	-	-
Corridor Separation		0	1	0[a]	A003	-	-	-	-
Occupancy Separation		1 & 2	N/A	1 & 2[b]	A003, G210 & G211	U448	U448 & U419	W-J-8007 & SEE M502 & E002	-
Party/Fire Wall Separation		N/A	N/A	N/A	-	-		-	-
Smoke Barrier Separation		N/A	N/A	N/A	-	-		-	-
Tenant Separation		N/A	N/A	N/A	-	-		-	-
Incidental Use Separation		N/A	-	-	-	-		-	-

a. 0 hour corridor fire-resistance rated per table 1018.1 - Ground floor level is separated from above by a 2 HR fire-rated horizontal floor/ceiling assmebly at ceiling.
b. Existing brick wall exceeds most strict rating requirement of 2 HRS per table 720.1(2), item # 1-1.1.
c. See headwall detail 3/A200
d. Prescriptive compliance method per table 720.1(3), item # 6-4.1.

WALL LEGENDS

Check if the following are present and indicated by a wall legend on all plans:
☐ Fire Walls 706
■ Fire Barriers 707 (Existing)
■ Shaft Enclosure 708 (New & Existing)
☐ Fire Partitions 709
☐ Smoke Barriers 710
☐ Smoke Partitions 711
☐ No rated walls are present

LIFE SAFETY SYSTEM REQUIREMENTS: (EXISTING OR NEW)*

Emergency Lighting (S1006): ☐ No ■ Yes
Exit Signs (S1011): ☐ No ■ Yes
Fire Alarm (S907, NFPA 72-07): ☐ No ■ Yes
Smoke Detection Systems (S907): ☐ No ■ Yes ☐ Partial
Panic Hardware (S1008.1.10): ☐ No ■ Yes
Life Safety System Generator: (S2702.2): ■ No ☐ Yes
* Life Safety components shall remain operational during all phases of construction.

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: G010

- ■ Fire and/or smoke rated wall locations (Chapter 7)
- ☐ Assumed and real property line locations (See Site Plan)
- ☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
- ☐ Existing structures within 30' of the proposed building
- ■ Occupancy types of each area as it relates to occupant load calculation (Table 1004.1.1)
- ■ Occupant loads for each area
- ■ Exit access travel distances (1016)
- ■ Common path of travel distances (1014.3 & 1028.8)
- ☐ Dead end lengths (1018.4)
- ■ Clear exit widths for each exit door
- ■ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)
- ■ Actual occupant load for each exit door
- ■ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- ■ Location of doors with panic hardware (1008.1.10)
- ☐ Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
- ☐ Location of doors with electromagnetic egress locks (1008.1.9.7)
- ☐ Location of doors equipped with hold-open devices
- ☐ Location of emergency escape windows (1029)
- ■ The square footage of each fire area (902)
- ☐ The square footage of each smoke compartment (407.4)

* Note any code exceptions or table notes that may have been utilized regarding the items above

NUMBER AND ARRANGEMENT OF EXITS

(WORK AREA ONLY)

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM NUMBER OF EXITS: REQUIRED (1021.2 (SINGLE EXIT 1021.2))	MINIMUM NUMBER OF EXITS: SHOWN ON PLANS	TRAVEL DISTANCE: ALLOWABLE TRAVEL DISTANCE (TABLE 1016.1)	TRAVEL DISTANCE: ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	ARRANGEMENT MEANS OF EGRESS (SECTION 1015.2): REQUIRED DISTANCE BETWEEN EXIT DOORS	ARRANGEMENT MEANS OF EGRESS: ACTUAL DISTANCE SHOWN ON PLANS
Basement	2	2	250 ft	77 ft	43 ft	83 ft
Business Space (Group B)	2	2	250 ft	77 ft	25 ft	83 ft
Storage Space (Group S-1)	1	1	100 ft	99 ft	NA	NA
Storage Space (Group S-2)	1	1	100 ft	80 ft	NA	NA

1 Corridor dead ends (Section 1018.4)
2 Buildings with single exits (Table 1021.2), Spaces with one means of egress (Table 1015.1).
3 Common Path of Travel (Section 1014.3)

OCCUPANT LOAD AND EXIT WIDTH

(WORK AREA ONLY)

USE GROUP OR SPACE DESCRIPTION	(A) AREA SQ. FT.	(B) AREA PER OCCUPANT	(1004.1.1) CALCULATED OCCUPANT LOAD (A/B)	(C) EGRESS WIDTH PER OCCUPANT (SECTION 1005.1): STAIRS	LEVEL	REQUIRED WIDTH (SECTION 1005.1) (A/B) x C: STAIRS	LEVEL	ACTUAL WIDTH SHOWN ON PLANS: STAIRS	LEVEL
Business (Group B)	2,580 SF	100	26 occs	0.2	0.2	-	11	-	92
Storage (Group S-1)	1,807 SF	300	7 occs						
Storage (Group S-2)	1,875 SF	300	10 occs						
Accessory (S-2 - Mech.)	70 SF	300	1 occs						
Accessory (S-2 - Elec.)	136 SF	300	1 occs						
TOTAL	6,468 SF		45 occs						

1 See Table 1004.1.1 to determine whether net or gross area is applicable
See definition "Area, Gross" and "Area, Net" (Section 1002)
2 Minimum stairway width (Section 1009.1); min. corridor width (Section 1018.2; min. door width (Section 1008.1.1)
3 Minimum width of exit passageway (Section 1023.2)
4 See Section 1004.5 for converging exits.
5 The loss of one means of egress shall not reduce the available capacity to less than 50 percent of the total required (Section 1005.1)
6 Assembly occupancies (Section 1028)
7 Spaces within occupancies or use groups shall be calculated independently. (Ex. Lobbies, lounges, break rooms, conference rooms). (See CD1.2 for all space calculations)

ACCESSIBLE DWELLING UNITS (SECTION 1107)

(NOT APPLICABLE)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
-	-	-	-	-	-	-	-

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES: REQUIRED	PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	8' ACCESS AISLE	TOTAL ACCESSIBLE PROVIDED
Parking Area*	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-

* Existing accessible parking is provided. The scope of the project provides an accessible route from the building's entrance to the parking area.

STRUCTURAL DESIGN

(NO CHANGES TO STRUCTURAL LOADS)

DESIGN LOADS:
Importance Factors: Wind (I_W) - ; Snow (I_S) - ; Seismic (I_E) -
Live Loads: Roof - ; Mezzanine - ; Floor -
Ground Snow Load: -
Wind Load: Basic Wind Speed - ; Exposure Category - ; Wind Base Shears (for MWFRS) V_x = N/A V_y = N/A
SEISMIC DESIGN CATEGORY: ☐ A ☐ B ☐ C ☐ D
Provide the following Seismic Design Parameters:
Occupancy Category (Table 1604.5) ☐ I ☐ II ☐ III ☐ IV
Spectral Response Acceleration S_S 58%g S_1 25%g
Site Classification (Table 1613.5.2) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F
Data Source: ☐ Field Test ☐ Presumptive ☐ Historical Data
Basic Structural System (check one)
☐ Bearing Wall ☐ Dual w/ Special Moment Frame
☐ Building Frame ☐ Dual w/ Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Seismic Base Shear V_x = 12k V_y = 12k
Analysis Procedure ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? Yes No ☐
LATERAL DESIGN CONTROL: ☐ Earthquake ☐ Wind n/a Existing Building
SOIL BEARING CAPACITIES:
Field test (provide copy of test report) -
Presumptive bearing capacity -
Pile Size, type, and capacity -
SPECIAL INSPECTIONS REQUIRED: ☐ Yes ☐ No

PLUMBING FIXTURE REQUIREMENTS

USE	OCC. LOAD	WATER CLOSETS: MALE	FEMALE	UNISEX	URINALS	LAVATORIES: MALE	FEMALE	UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS: REGULAR	ACCESSIBLE
Existing		-	-	-	-	-	-	-	-	-	-
Business	26	1/25 < 50		-	-	1/40 < 80		-	-	25-100 = 1	
	13M / 13FM	0.52	0.52	-	-	0.33	0.33	-	-	0.13	0.13
Storage (S-1)	7	1/100		-	-	1/100		-	-	-	
	4M / 3FM	0.04	0.03	-	-	0.04	0.03	-	-	-	-
Storage (S-2)*	12	1/100		-	-	1/100		-	-	-	
	6M / 6FM	0.06	0.06	-	-	0.06	0.06	-	-	-	-
Subtotals	-	0.62	0.61	-	-	0.43	0.42	-	-	0.13	0.13
Required totals	45	1	1	-	-	1	1	-	-	1	1

Existing toilet facilities are being removed and new provided
*Occupant load includes accessory Mechanical and Electrical areas

SPECIAL APPROVALS

SPECIAL APPROVAL: (Local Jurisdiction, Department of Insurance, OSC, DPI, DFS, ICC, etc., describe below)
1. North Carolina State Construction Office - Life Safety Review

SPECIAL INSPECTIONS

■ No special inspections required for this project ☐ Special inspections required

The following sheets comprise the required schedule of Special Inspections for this project. The construction divisions which require special inspections for this project are as follows:

- ☐ IT-1 Verification of Soils
- ☐ IT-2 Excavation and Fill
- ☐ IT-3 Piling and Drilling Piers
- ☐ IT-4 Modular Retaining Walls
- ☐ IT-5 Reinforced Concrete
- ☐ IT-6 Post Tension Slab
- ☐ IT-7 Pre-cast Concrete Erection
- ☐ IT-8 Pre-stressed Concrete
- ☐ IT-9 Inspection of Pre-cast Fabricators
- ☐ IT-10 Inspection of Structural Steel Fabricators
- ☐ IT-11 Structural Masonry
- ☐ IT-12 Welding
- ☐ IT-13 High Strength Bolts & Steel Framing
- ☐ IT-14 Sprayed Fire-Resistance Materials
- ☐ IT-15 Exterior Insulation and Finish System
- ☐ IT-16 Seismic Resistance
- ☐ IT-17 Smoke Control
- ☐ IT-18 Detention Basin
- ☐ IT-19 Special Cases
- ☐ IT-20 >5 ft. Retaining Wall

ENERGY SUMMARY

(NO CHANGES TO THE THERMAL ENVELOPE)

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs. annual energy cost for the proposed design.

Climate Zone: ☐ 3 [illegible] ☐ 5
Method of Compliance
☐ Prescriptive (Energy Code)
☐ Performance (Energy Code)
☐ Prescriptive (ASHRAE 90.1)
☐ Performance (ASHRAE 90.1)

THERMAL ENVELOPE: (NCECC Chapter 4 and [illegible])
Roof/ceiling Assembly (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A
Skylights in each assembly: N/A
U-Value of skylight: N/A
Total square footage of skylights in each assembly: N/A

Exterior Walls (each assembly)
Description of assembly
U-Value of total assembly
R-Value of insulation
Openings (windows or doors with glazing)
U-Value of assembly: N/A
Solar Heat Gain Coefficient: N/A
Projection factor: N/A
Door R-values: No doors w/ glazing

Walls below grade (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A

Floors over unconditioned space (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A

Floors slab on grade
Description of assembly:
U-Value of total assembly: N/R
R-Value of insulation: N/R
Horizontal/Vertical requirement: N/R
Slab heated: N/R

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone: 4A
Winter Dry Bulb: 14.7°F
Summer Dry Bulb: 85.9°F
Interior design conditions:
Winter Dry Bulb: 72°F
Summer Dry Bulb: 75°F
Relative Humidity: 50%
Building heating load: Refer to specifications and schedules
Building cooling load: Refer to specifications and schedules
Mechanical Spacing Conditioning System:
Unitary: Ductless Split Sytems, Fans and Electric Unit Heaters. Refer to specifications and schedules for sizes & efficiencies.
Description of unit: N/A
Heating efficiency: N/A
Cooling efficiency: N/A
Heat output of unit: N/A
Cooling output of unit: N/A
Boiler:
Total boiler output. If oversized, state reason: N/A
Chiller:
Total chiller capacity. If oversized, state reason: N/A
List equipment efficiencies: N/A

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT
Method of Compliance: Refer to specifications and schedules
Energy Code: ■ Prescriptive ☐ Performance
ASHRAE 90.1: ☐ Prescriptive ☐ Performance
Lighting Schedule: Refer to specifications and schedules
Lamp type required in fixture
Number of lamps required
Ballast type used in the fixture
Number of ballast in fixtures
Total wattage per fixture

Total of interior wattage specified vs. allowed (space by space): 1,910W specified vs 2,458W allowed
Total of exterior wattage specified vs. allowed: N/A

Additional Prescriptive Compliance: Refer to specifications and schedules
- ☐ 506.2.1 More Efficient Mechanical Equipment
- ■ 506.2.2 Reduced Lighting Power Density
- ☐ 506.2.3 Energy Recovery Ventilation Systems
- ☐ 506.2.4 Higher Efficiency Service Water Heating
- ☐ 506.2.5 On-Site Supply of Renewable Energy
- ☐ 506.2.6 Automatic Daylighting Control Systems

mcmillan pazdan smith ARCHITECTURE
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MOORE HALL GROUND FLOOR RENOVATION
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