

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)**
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: **PHALANX CROOSFIT**
 Address: **2649 HWY 87 S., CAMERON, NC** Zip Code: **28326**
 Owner/Authorized Agent: **EQUAGEN PLLC** Phone #: (919) 267-3004 E-Mail: info@equagen.com
 Owned By: City/County Private State
 Code Enforcement Jurisdiction: City CAMERON County HARNETT State NC

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Civil	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Electrical	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Fire Alarm	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Plumbing	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Mechanical	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Sprinkler-Standpipe	N/A				
Structural	Equagen PLLC	RABIN P. OJHA	042307	(919)267-3004	rabin.ojha@equagen.com
Retaining Walls >5' High	N/A				
Other					

2018 NC BUILDING CODE: New Building Addition Renovation
 1st Time Interior Completion
 Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
 Phased Construction - Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements

2018 NC EXISTING BUILDING CODE: EXISTING: Prescriptive Repair Chapter 14
 Alteration: Level I Level II Level III
 Historic Property Change of Use

CONSTRUCTED: (date) N/A CURRENT OCCUPANCY(S) (Ch. 3): N/A
 RENOVATED: (date) N/A PROPOSED OCCUPANCY(S) (Ch. 3): B
 RISK CATEGORY (Table 1604.5): Current: I II III IV
 Proposed: I II III IV

BASIC BUILDING DATA
Construction Type: I-A II-A III-A IV V-A
 I-B II-B III-B V-B
Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D
Standpipes: No Yes Class I II III Wet Dry
Fire District: No Yes **Flood Hazard Area:** No Yes
Special Inspections Required: No Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3rd Floor	-	-	-
2nd Floor	-	-	-
Mezzanine	-	589.57	589.57
1st Floor	-	12096.00	12096.00
Basement	-	-	-
TOTAL	-	12096.00	12096.00

ALLOWABLE AREA

Primary Occupancy Classification(s):
 Assembly A-1 A-2 A-3 A-4 A-5
 Business B
 Educational E
 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 Condition 1 2
 I-2 Condition 1 2
 I-3 Condition 1 2 3 4 5
 I-4
 Mercantile M
 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 U

Accessory Occupancy Classification(s): N/A
 Incidental Uses (Table 509): N/A
Special Uses (Chapter 4 - List Code Sections): 411
Special Provisions: (Chapter 5 - List Code Sections): N/A
Mixed Occupancy: No Yes Separation: _____ Hr. Exception: _____

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.

Actual Area of Occupancy A + Actual Area of Occupancy B ≤ 1
 Allowable Area of Occupancy A Allowable Area of Occupancy B
 _____ + _____ = _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA	(C) AREA FOR FRONTAGE INCREASE 1.5	(D) ALLOWABLE AREA PER STORY OR UNLIMITED 2.3
1	OFFICE AND SHOP	12096.00	9000	50%	13500
2					

1 Frontage area increases from Section 506.3 are computed thus:
 a. Perimeter which fronts a public way or open space having 20 feet minimum width = 460 (F)
 b. Total Building Perimeter = 460 (P)
 c. Ratio (F/P) = 1.0 (F/P)
 d. W = Minimum width of public way = 20 FT (W)
 e. Percent of frontage increase If = 100[F/P - 0.25] x W/30 = 50 (%)
 2 Unlimited area applicable under conditions of Section 507.
 3 Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
 4 The maximum area of open parking garages must comply with Table 406.5.4.
 5 Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

BUILDING HEIGHT IN FEET (TABLE 504.3)	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE 1
Building Height in Feet (Table 504.3) 2	40	25	TABLE 504.3
Building Height in Stories (Table 504.4) 3	2	1	TABLE 504.4

1 Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.
 2 The maximum height of air traffic control towers must comply with Table 412.3.1.
 3 The maximum height of open parking garages must comply with Table 406.5.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	PROVIDED (W/REDUCTION)	DETAIL # AND SHEET #	DESIGN # RATED ASSEMBLY	SHEET # FOR PENETRATION	FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0HR					
Bearing Walls							
Exterior							
North	30+	0HR					
East	30+	0HR					
West	30+	0HR					
South	30+	0HR					
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North	30+	0HR					
East	30+	0HR					
West	30+	0HR					
South	30+	0HR					
Interior walls and partitions							
Floor Construction							
Including supporting beams and joists							
Floor Ceiling Assembly							
Columns Supporting Floors							
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy/Fire Barrier Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Smoke Partition							
Tenant/Dwelling Unit/Sleeping Unit Separation							
Incidental Use Separation							

* Indicate section number permitting reduction

ACCESSIBLE DWELLING UNITS (SECTION 1107)

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
N/A							

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
			REGULAR WITH 5' ACCESS AISLE	132' ACCESS AISLE	8' ACCESS AISLE	
2420 SF	4	4	3	-	1	4
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

SPACE	EXIST'G	WATERCLOSETS			URINALS			LAVATORIES			SHOWERS / TUBS	DRINKING FOUNTAINS
		MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX		
NEW	3	3	-	-	-	-	2	2	-	-	2	-
REQ'D	-	-	1	-	-	-	1	-	-	-	1	-

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
30' + (N.W.E)	UNPROTECTED	UNLIMITED	
10' (S)	PROTECTED	UNLIMITED	N/A

LIFE SAFETY SYSTEM REQUIREMENTS
 Emergency Lighting: No Yes
 Exit Signs: No Yes
 Fire Alarm: No Yes
 Smoke Detection Systems: No Yes Partial
 Carbon Monoxide Detection: No Yes

LIFE SAFETY PLAN REQUIREMENTS
 Life Safety Plan Sheet #: A105, E101

Fire and/or smoke rated wall locations (Chapter 7)
 Assumed and real property line locations (if not on the site plan)
 Exterior wall opening area with respect to distance to assumed property lines (705.8)
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
 Occupant loads for each area
 Exit access travel distances (1017)
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
 Dead end lengths (1020.4)
 Clear exit widths for each exit door
 Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
 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 (1010.1.10)
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
 Location of doors with electromagnetic egress locks (1010.1.9.9)
 Location of doors equipped with hold-open devices
 Location of emergency escape windows (1030)
 The square footage of each fire area (202)
 The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
 Note any code exceptions or table notes that may have been utilized regarding the items above

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)**

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone

winter dry bulb: 47 F
 summer dry bulb: 80 F

Interior design conditions

winter dry bulb: 55 F
 summer dry bulb: 54 F
 relative humidity: 58 %

Building heating load: 308 MBH

Building cooling load:

Mechanical Spacing Conditioning System

Unitary description of unit: _____
 heating efficiency: _____
 cooling efficiency: _____
 size category of unit: ONE 4.3 AND 2 TON MINI-SPLIT UNIT
 Boiler Size category. If oversized, state reason: _____
 Chiller Size category. If oversized, state reason: _____

List equipment efficiencies:

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)**

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code Performance Prescriptive
 ASHRAE 90.1 Performance Prescriptive

Lighting schedule (each fixture type) ONE 4.3 AND 2 TON MINI-SPLIT UNIT
 lamp type required in fixture: STRIP LED LIGHT
 number of lamps in fixture: SINGLE LAMP IN ONE FIXTURE
 total wattage per fixture: 40 W PER FIXTURE
 total interior wattage specified vs. allowed (whole building or space by space): 2780W SPECIFIED VS 3175W ALLOWED (BUILDING AREA METHOD)
 total exterior wattage specified vs. allowed: N/A

Additional Efficiency Package Options (When using the 2018 NCECC; not required for ASHRAE 90.1)

- C406.2 More Efficient HVAC Equipment Performance
- C406.3 Reduced Lighting Power Density
- C406.4 Enhanced Digital Lighting Controls
- C406.5 On-Site Renewable Energy
- C406.6 Dedicated Outdoor Air System
- C406.7 Reduced Energy Use in Service Water Heating

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)**

DESIGN LOADS:

Importance Factors: Snow (IS) 1.00
 Seismic (IE) 1.00
Live Loads: Roof 20 psf
 Mezzanine _____ psf
 Floor 100 psf (MAIN FLOOR)
Ground Snow Load: 10 psf
Wind Load: Ultimate Wind Speed 120 mph (ASCE-7)
 Exposure Category C

SEISMIC DESIGN CATEGORY: A B C D

Provide the following Seismic Design Parameters:
 Risk Category (Table 1604.5) I II III IV
 Spectral Response Acceleration SS 20.5 %g S1 9.3 %g

Site Classification (ASCE 7) A B C D E F
 Data Source: Field Test Presumptive Historical Data

Basic structural system
 Bearing Wall Dual w/Special Moment Frame
 Building Frame Dual w/Intermediate R/C or Special Steel
 Moment Frame Inverted Pendulum
 Simplified Equivalent Lateral Force Dynamic

Analysis Procedure: Simplified Equivalent Lateral Force Dynamic
Architectural, Mechanical, Components anchored? Yes No

LATERAL DESIGN CONTROL: Earthquake Wind

SOIL BEARING CAPACITIES:
 Field Test (provide copy of test report) _____ psf
 Presumptive Bearing capacity 1500 psf
 Pile size, type, and capacity _____

NO.	DATE	DESCRIPTIONS
0	05/02/2023	SUBMITTAL

APPENDIX B

SITE ADDRESS:
 2649 Highway 87 S. Cameron,
 North Carolina 28326



**2018 APPENDIX B
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STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)**

EQUAGEN ENGINEERING & INSPECTIONS
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 CARY, NC 27511
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 EMAIL: MOTI.KC@EQUAGEN.COM

DRAWN BY:	SK
CHECKED BY:	MKC
DATE:	05/15/2023
SCALE:	AS SHOWN
S102	22-4006