# **Building Code Summary Addition**

Name of Project:	Pitt County Office Park (	Community Center and Gyr	mnasium		
Address:	4561 County Home Road,	Greenville, NC			
Proposed Use:	Assembly				
Owner or Authorized	Agent: <u>James G. Hite</u>	Phone No. (252)	757-0333	e-mail jgh@hiteass	soc.com
Owned by:	X City/Cou	nty Private		tate	
Code Enforcement J	urisdiction: X City	County	S	tate	
LEAD DESIGN F	PROFESSIONAL:	James G. Hite, AIA		_	
Designer	Firm	Name	License #	Telephone #	e-mail
Architectural	Hite Associates	James G. Hite, AIA	NC 3754	(252) 757-0333	jgh@hiteassoc.com
Civil	Rivers & Associates	Stephen Janowski, P.E.	NC 12324	(252) 714-3002	sjanowski@riversandassociates.co
Electrical	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Fire Alarm	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Plumbing	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Mechanical	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Sprinkler-Standpipe	NA				
Structural	Queen Engineering	Bruce Queen, P.E.	NC 018991	(919) 420-0480	bruce@qedpa.net
Retaining Walls>5' Hig	gh NA				
Other	NA				
		Nteration Repair	Renovati	Off	
CONSTRUCTED	ORIGINAL USE	<b>=</b>			
RENOVATED _	CURRENT US	E PROPOSED	USE		
	CURRENT US	E PROPOSED	USE		
BUILDING DATA	CURRENT US	PROPOSED	USE		
BUILDING DATA				·	
BUILDING DATA Construction Type:	I-AII-A		V - A		
BUILDING DATA Construction Type:  Mixed Construction	☐ I-A	□ III-A □ IV	V - A		
BUILDING DATA  Construction Type:  Mixed Construction	☐ I-A	□ III-A □ IV			
BUILDING DATA  Construction Type:  Mixed Construction Type:  Mixed Construction Type:	☐ I-A ☐ II-A ☐ II-B ☐ II-B ☐ INO	☐ III-A ☐ IV ☐ III-B ☐ Yes Types _	V-A V-B NFPA	13R NFPA 13D	
BUILDING DATA Construction Type:  Mixed Construction Type:  Mixed Construction Type:	I-A II-A II-B  Onstruction: XNo	☐ III-A ☐ IV ☐ III-B ☐ Yes Types _ ☐ Partial XNFPA 13	V-A V-B NFPA	13R NFPA 13D	
BUILDING DATA Construction Type:  Mixed Construction Type:  Mixed Construction Type:  Sprinklers: Ground Floor  Equipment Platform Standpipes:			V-A V-B  NFPA	13R NFPA 13D 13R NFPA 13D et Dry	
BUILDING DATA Construction Type:	I-A		V-A V-B  NFPA  III We	13R NFPA 13D 13R NFPA 13D et Dry	
BUILDING DATA Construction Type:  Mixed Construction Type:  Mixed Construction Type:  Mixed Construction Sprinklers: Ground Floor  Equipment Platform Standpipes: Fire District:	I-A	III-A   IV   III-B   Yes Types   Partial   X NFPA 13   Class   I   II   Flood Haza	V-A V-B  NFPA  III We	13R NFPA 13D 13R NFPA 13D et Dry	
BUILDING DATA Construction Type:  Mixed Construction Type:  Mixed Construction Type:  Mixed Construction Sprinklers: Ground Floor  Equipment Platform Standpipes: Fire District: Building Height:	I-A II-A I-B X II-B onstruction: X No  No Yes No Yes X No Yes No X Yes Feet: 32' X No Yes	III-A   IV   III-B   Yes Types   Partial   X NFPA 13   Class   I   II   Flood Haza	V-A V-B  NFPA  III We	13R NFPA 13D 13R NFPA 13D et Dry	

Third Floor	
Second Floor	
First Floor	25,611
Total	25,611

This Separation is not exempt as a Non-Separated Use (see exceptions)

Special Uses (Chapter 4 - List code Sections): <u>NA</u>

Special Provisions (Chapter 5 - List code Sections): <u>NA</u>

Equipment Platform

Total	25,611
ALLOWABLE AREA	Α
Primary Occupancy:	
Assembly	☐ A-1
	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
	Utility and Miscellaneous
Accessory Occupanc	y Classification(s): <u>Business, S-1</u>
Incidental Uses (Table	9 509): <u>NA</u>

Mixed Occupancy:	☐ No <b>X</b> Ye	s Separation:	Hr:	Exception:
X Non-Separat	ed Use (508.3)			

Non-Separated Use (508.3)

The required type of construction of 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

	0	- +	0	=	0 < 1.00
STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA <sub>4</sub>	(C) AREA FOR OPEN SPACE INCREASE 1,5	(D) ALLOWABLE AREA OR UNLIMITED 2,3
1	Assembly (A-3)	25,611	38,000	6,783	44,783

Allowable Area of Occupancy A Allowable Area of Occupancy B

- 1 Frontage increases from Section 506.2 are computed thus:
- a. Perimeter which fronts a public way or open space having 20 feet minimum width = 698 (F)
- b. TotalBuilding Perimeter = 724 (P)
- c. Ratio (F/P) = 0.964 (F/P) d. W= Minimum width of public way = 30 (W)
- 2 Unlimited area applicable under conditions of Section 507.
- 3 Maximum Building Area = total number of stories in the building x D (506.2)
- 4 The maximum area of parking garages must comply with 406.5.4. The maximum area of air traffic control towers must comply with 412.3.1.
- 5 Frontage increase is based on the unsprinkled area value in Table 506.2.

#### ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	Feet 75	32	
Building Height in Stories (Table 504.4)	Stories 3	1	

#### FIRE PROTECTION REQUIREMENTS

BUILDING	FIRE	RATING		DETAIL NO.	DESIGN NO.	DESIGN NO.	DESIGN
ELEMENT	SEPARATION DISTANCE (FEET)	REQ'D	PROVIDED (W/ * REDUCTION)	AND SHEET NO.	FOR RATED ASSEMBLY	FOR RATED PENETRATION	NO. FOR RATED JOIST
Structural frame, including columns, girders, trusses		NA	NA	NA	NA	NA	NA
Bearing walls							
Exterior							
North	>30	NA	NA	NA	NA	NA	NA
East	>30	NA	NA	NA	NA	NA	NA
West	>30	NA	NA	NA	NA	NA	NA
South	>30	NA	NA	NA	NA	NA	NA
Interior		NA	NA	NA	NA	NA	NA
Nonbearing walls and partitions Exterior							
North	>30	NA	NA	NA	NA	NA	NA
East	>30	NA	NA	NA	NA	NA	NA
West	>30	NA	NA	NA	NA	NA	NA
South	>30	NA	NA	NA	NA	NA	NA
Interior		NA	NA	NA	NA	NA	NA
Floor construction including support beams and joist		NA	NA	NA	NA	NA	NA
Above Corridor		NA	NA	NA	NA	NA	NA
Columns Supporting Floors							
Roof construction including support beams and joist		NA	NA	NA	NA	NA	NA
Roof Ceiling Assembly		NA	NA	NA	NA	NA	NA
Columns Supporting Roof		NA	NA	NA	NA	NA	NA
Shafts - Exit		NA	NA	NA	NA	NA	NA
Shafts - Other		NA	NA	NA	NA	NA	NA
Corridor Separation		NA	NA	NA	NA	NA	NA
Occupancy Separation		NA	NA	NA	NA	NA	NA
Party/Fire Wall Separation		NA	NA	NA	NA	NA	NA
Fire Barrier Separation		NA	NA	NA	NA	NA	NA
Smoke Partition		NA	NA	NA	NA	NA	NA
Tenant Separation		NA	NA	NA	NA	NA	NA
Incidental Use Separation		NA	NA	NA	NA	NA	NA

### PERCENTAGE OF WALL AREA CALCULATIONS

FIRE SEPARATION DISTANCE FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA	ACTUAL SHOWN ON PLANS
>30	Unprotected, Nonsprinkled	No Limit	NA

### LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:	No	X
Exit Signs:	No	X
Fire Alarm:	No	X
Smoke Detection Systems:	□ No	X

Carbon Monoxide Detesction:  $oxed{\square}$  No  $oxed{X}$  Yes

#### Life Safety Plan Sheet #: \_\_LS-001

- $\overline{\mathbf{X}}$  Fire and/or smoke rated wall-locations (Chapter 7)
- Assumed and real property line locations
- Exterior wall opening area with respect to distance to assumed property lines (705.8)
- X Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.2)
- X Occupant loads for each area X Exit access travel distances (1017)
- X Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
- Dead end lengths (1020.4)
- X Clear exit widths for each exit door
- Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- $\square$  A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- $\mathbf{X}$  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

#### ACCESSIBLE DWELLING UNITS (SECTION 1107)

LOT OR Parking area	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	TOTAL NO. OF PARKING SPACES		NO. OF ACCESSIBI	TOTAL NO. ACCESSIBLE		
PARKING AREA	REQUIRED	REQUIRED PROVIDED REGULAR WITH 5' ACCESS AISLE			VAN SPACES WITH	
				132" ACCESS AISLE	8' ACCESS AISLE	
Existing		0			0	0
New		107			5	5
TOTAL		125			5	5

#### PLUMBING FIXTURE REQUIREMENTS - ENTIRE FACILITY

		WATER	CLOSETS	URINALS	LAVATORIES		SHOWERS/	DRINKING	FOUNTAINS
USE		MALE	FEMALE		MALE	FEMALE	TUBS	REGULAR	ACCESSIBLE
	NEW	4	11	3	4	4		2	2
Assembly	EXISTING	0	0	0	0	0		0	0
	REQ'D	4	11	3	4	4		2	2
	NEW								
	EXISTING								
	REQ'D								
	NEW								
	EXISTING								
	REQ'D								

### SPECIAL APPROVALS

Special approval:	(Local Jurisdiction, Departme	nt of Insurance, SBC	CCI, ICC, etc., describe	below)
None				

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.

## Method of Compliance:

Performance (Energy Code) Prescriptive (ASHRAE 90.1)

#### THERMAL ENVELOPE

## Description of assembly

U-Value of total assembly 0.052 R-Value of insulation Openings (windows or doors with glazing) Openings (windows) U-Value of total assembly 0.45

projection factor Door R-Values

total square footage of skylights in each assembly N/A

## Exterior Walls (each assembly)

METAL PANEL / AIR SPACE / SPRAYED INSULATION / 5/8" GYPBOARD Description of assembly 0.0476

R-Value of insulation Openings (windows or doors with glazing) U-Value of total assembly 0.45

shading Coefficient projection factor

#### Description of assembly U-Value of total assembly

Floor over unconditioned space (each assembly) - NOT USED Description of assembly -

U-Value of total assembly R-Value of insulation -

Door R-Values Walls below grade - NOT USED

U-Value of total assembly = 0.21 R-Value of insulation - N/A

### **ENERGY SUMMARY**

#### ENERGY REQUIREMENTS:

X Prescriptive (Energy Code)

Performance (ASHRAE 90.1)

### Roof/ceiling Assembly (each assembly)

Description of assembly METAL DECK / BATT INSULATION / ACOUSTICAL TILE 0.031 U-Value of total assembly R-Value of insulation Skylights in each assembly U-Value of skylight

## Exterior Walls (each assembly)

BRICK / AIR SPACE / SPRAYED INSULATION / 5/8" GYPBOARD solar heat gain coefficient

N/A

U-Value of total assembly Openings (windows)

## R-Value of insulation

Floor slab on grade Description of assembly = 4" thick concrete slab

Horizontal/vertical requirement

slab heated - NO

