

APPENDIX B

BUILDING CODE SUMMARY (2018 North Carolina State Building Code)
 NAME OF PROJECT: RENOVATIONS TO GRACE BAPTIST CHURCH (MESHAW BUILDING - ALTERNATE M-1,M-2)
 ADDRESS: 1401 N. COLLEGE RD, WILMINGTON, NC 28405
 PROPOSED USE: A-3 (ASSEMBLY) E-MAIL: shawn@hostetlerarchitecture.com
 OWNER OR AUTHORIZED AGENT: ROGER HAYDEN PHONE: (910) 233-0404 EMAIL: rhayden@wilmingtonchristian.com
 OWNED BY: CITY/COUNTY PRIVATE STATE
 CODE ENFORCEMENT JURISDICTION: CITY COUNTY

LEAD DESIGN PROFESSIONAL: HOSTETLER ARCHITECTURE, PLLC
 DESIGNER: SHAWN E. HOSTETLER LICENSE NO. 11926 TELEPHONE NO. (910) 612-1119
 ARCHITECTURAL: HOSTETLER ARCHITECTURE NAME: SHAWN E. HOSTETLER LICENSE NO. 11926 TELEPHONE NO. (910) 612-1119
 CIVIL: NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE (XXX) XXX-XXXX
 ELECTRICAL: MCDOWELL CONSULTING ENG. GREGORY L. MCDOWELL 018518 (910) 270-3747
 FIRE ALARM: MCDOWELL CONSULTING ENG. GREGORY L. MCDOWELL 018518 (910) 270-3747
 PLUMBING: MCDOWELL CONSULTING ENG. STEVEN H. EVERHART 23933 (910) 270-3747
 MECHANICAL: MCDOWELL CONSULTING ENG. STEVEN H. EVERHART 23933 (910) 270-3747
 SPRINK-STANDPIPE: NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE (XXX) XXX-XXXX
 STRUCTURAL: A STRUCTURAL GUY JASON R. WADE 036807 (919) 451-0974
 PRECAST: NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE (XXX) XXX-XXXX
 TRUSS: NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE (XXX) XXX-XXXX
 OTHER: NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE (XXX) XXX-XXXX

YEAR EDITION OF CODE:
 2018 NORTH CAROLINA STATE BUILDING CODE
 NEW CONSTRUCTION RENOVATION (EXISTING BLDG) UPFIT ALTERATION ADDITION

BUILDING DATA (FROM SHELL BUILDING CONSTRUCTION 2012)

CONSTRUCTION TYPE: I-A I-B II-A II-B III-A III-B
 IV-A IV-B V-A V-B

MIXED CONSTRUCTION: NO YES PARTIAL TYPES

SPRINKLERS: NO YES CLASS I WET NFPA 13 NFPA 13R NFPA 13D

STANDPIPES: NO YES CLASS I WET DRY CLASS COMBINED

FIRE DISTRICT: NO YES

BUILDING HEIGHT: 26'-0" FEET 1 NO. OF STORIES(S) UNLIMITED PER

MEZZANINE: NO YES (EXISTING)

HIGH RISE: NO YES CENTRAL REFERENCE SHEET NO. (IF PROVIDED)

GROSS BUILDING AREA:	EXISTING (SQ. FT.)	NEW (SQ. FT.)	SUBTOTAL
FLOOR			
6TH FLOOR			
5TH FLOOR			
4TH FLOOR			
3RD FLOOR			
2ND FLOOR			
MEZZANINE:			
1ST FLOOR	30,005 SF		30,005 SF
BASEMENT	N/A		N/A
TOTAL	30,005 SF		30,005 SF

ALLOWABLE AREA

PRIMARY OCCUPANCY:
 A-1 A-2 A-3 A-4 A-5 HIGH-HAZARD H-1 H-2 H-3 H-4
 BUSINESS EDUCATIONAL F-1 F-2 I-1 I-2 I-3 I-4 I-3 USE CONDITION 1 2
 H-5 INSTITUTIONAL L-1 L-2 L-3 L-4 I-3 USE CONDITION 1 2
 3 4 5
 MERCANTILE R-1 R-2 R-3 R-4 S-1 S-2 HIGH-PILED
 UTILITY AND MISCELLANEOUS PARKING GARAGE OPEN ENCLOSED REPAIR

SECONDARY OCCUPANCY: A-2

SPECIAL OCCUPANCY:
 S-2 ENCLOSED PARKING GARAGE W/ S-2 OPEN PARKING ABOVE UNLIMITED HEIGHT FOR B, M, AND R
 PARKING BENEATH R R-2 TYPE IIA R-2 TYPE IIA OPEN PARKING BENEATH A, I, B, M AND R
 S-2 ENCLOSED PARKING WITH A, B, M OR R ABOVE

MIXED OCCUPANCY: NO YES SEPARATION: 4 HR (EXISTING) EXCEPTION: NOT APPLICABLE

NON-SEPARATED MIXED OCCUPANCY (302.3.2 EXCEPTION)
 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 MIXED OCCUPANCY (507.3.1) - A-2 IS UNLIMITED BY THE QUOTED SECTION
 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.

STORY NO.	DESCRIPTION AND USE	(A) BLDG. AREA PER STORY (ACTUAL)	(B) TABLE 503 AREA (PERMITTED)	(C) AREA FOR OPEN SPACE INCREASE 1	(D) AREA FOR SPRINKLER INCREASE 2	(E) ALLOWABLE AREA OR UNLIMITED 3	(F) MAXIMUM BUILDING AREA 4
ONE	ASSEMBLY A-3	19,670 GSF	EXISTING	EXISTING	N/A	N/A	EXISTING
ONE	ASSEMBLY A-2	10,335 GSF	EXISTING	EXISTING	N/A	N/A	EXISTING

¹OPEN SPACE AREA INCREASES FROM SECTION 506.2 ARE COMPUTED THUS:
 A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM WIDTH = 360 L.F. (F)
 B. TOTAL BUILDING PERIMETER = 645 L.F. (F)
 C. RATIO (F/P) = 1.0 (F/P)
 D. W = MINIMUM WIDTH OF PUBLIC WAY = 20' (W), BUT USE 30' BECAUSE W/30 CANNOT EXCEED 1.0
 E. PERCENT OF FRONTAGE INCREASE 1 = (360/645 - 0.25) X 30/30 = 30% THEREFORE, 1.30% X 7,000 SF = 9,100 SF

²THE SPRINKLER INCREASE FROM SECTION 506.3 IS AS FOLLOWS:
 A. MULTI-STORY BUILDING 1 = 200 PERCENT
 B. SINGLE-STORY BUILDING 1 = 300 PERCENT

³UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTIONS GROUP B, F, M, S, A-4 (507.1, 507.2, 507.3, 507.5); GROUP A MOTION PICTURE (507.8); MALLS (402.6); AND H-2 AIRCRAFT PAINT HANGERS (507.6).

⁴MAXIMUM BUILDING AREA = TOTAL NUMBER OF STORIES IN THE BUILDING X E BUT NOT GREATER THAN 3 X E.

⁵THE MAXIMUM AREA OF PARKING GARAGES MUST COMPLY WITH 406.3.5. THE MAXIMUM AREA OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH 412.1.2.

ALLOWABLE HEIGHT

TYPE OF CONSTRUCTION	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
TYPE II-B	N/A		TYPE II-B	
BUILDING HEIGHT IN FEET	55 FEET	FEET= H + 20"	26 FEET	SECT. 504.2
BUILDING HEIGHT IN STORIES	2 STORIES	STORIES+1=	1 STORY	SECT. 504.2

CLASSIFICATION OF WORK:
 ALTERATION: LEVEL 1 (RENOVATION) LEVEL 2 (ALTERATION) LEVEL 3 (RECONSTRUCTION)

PROJECT COMPLIANCE:
 1. SECTION 803 - NOT APPLICABLE
 2. SECTION 804 - SPRINKLER SYSTEMS ARE NOT PRESENT OR REQUIRED
 3. SECTION 805 - DOES NOT APPLY TO SINGLE TENANT BUILDINGS ACCORDING TO 805.1
 4. SECTION 807 - THE NEW STRUCTURE AND DECK AT ROOF REPAIR COMPLY WITH CURRENT BLDG CODE
 5. SECTION 808 - EXISTING, REBUILT RESTROOMS HAVE BEEN ALTERED TO MEET CHAPTER 11 REQUIREMENTS, RAMPS ADDED AT NEW GYM FLOOR
 6. SECTION 809 - REFER TO THE MECHANICAL DRAWINGS, ALL ALTERED SPACES MEET CURRENT VENTILATION REQUIREMENTS
 7. SECTION 810 - ALTERATIONS HAVE NOT INCREASED THE OCCUPANCY OF THE BUILDING
 8. SECTION 811 - LEVEL 2 ALTERATIONS TO THE EXISTING BUILDING DO NOT REQUIRE COMPLIANCE WITH THE IECC 2012 ENERGY CODE, HOWEVER ALTERATIONS COMPLY WITH THE IECC.

FIRE PROTECTION REQUIREMENTS:
 LIFE SAFETY PLAN SHEET NO., IF PROVIDED SHEET G100

	RATING REQ'D	W/SPRINKLER REDUCTION	DETAIL NO. AND SHEET NO.	DETAIL NO. FOR RATED ASSEMBLY SEE NO. 4	DESIGN NO. FOR RATED PENETRATIONS	DETAIL NO. FOR RATED JOINT SEE NO. 4
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES						
NONBEARING WALLS AND PARTITIONS						
EXTERIOR						
INTERIOR						
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS						
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS						

FIRE RATED ASSEMBLIES

	REQUIRED HOURLY	DETAIL NO. AND SHEET NO.	DESIGN NO. FOR RATED PENETRATIONS ⁴	DESIGN NO. FOR RATED ASSEMBLIES ⁴
INTERIOR WALLS:				
BEARING	0			
NON-BEARING	0			
CEILING-FLOOR ASSEMBLY:	0			
BEAMS:	0			
COLUMNS:	0			
CEILING-ROOF ASSEMBLY:	N/A			
SHAFTS-EXIT:	N/A			
SHAFTS-OTHER:	N/A (EXISTING NOT RATED)			
CORRIDOR SEPARATION:	N/A			
OCCUPANCY SEPARATION:	N/A			
PARTY/FIRE WALL SEPARATION:	N/A			
SMOKE BARRIER SEPARATION:	0			
TENANT SEPARATION:	N/A			
AREA OF RESCUE ASSISTANCE CONTROL AREA: (TABLE 414.2.2)	N/A			

FOOTNOTES:
 1. REQUIRED IF WALL TO PROPERTY LINE OR ASSUMED LINE IS LESS THAN 30 FEET.
 2. ALL FIRE RATED WALLS SHALL BE IDENTIFIED ON PLANS BY HATCHING, SHADING, ETC.; SHOW LEGEND.
 3. IDENTIFY CODE SECTION WHEN USING ANY SPECIAL EXCEPTIONS, ETC.
 4. REPRODUCE FULL UL OR OTHER APPROVED AGENCIES DETAILS OR REPRODUCTIONS OF RATED ASSEMBLIES/PENETRATIONS ON THE DRAWINGS.

FIRE PROTECTION REQUIREMENTS

LIFE SAFETY SYSTEM:
 EMERGENCY LIGHTING: NO YES
 EXIT SIGNS: NO YES
 SMOKE DETECTION SYSTEMS: NO YES
 PANIC HARDWARE: NO YES
 FIRE ALARM: NO YES

EXIT REQUIREMENTS:
 DEAD END-PERMITTED: 20 FEET
 TRAVEL DISTANCE-PERMITTED: 200 FEET (SEE LIFE SAFETY PLAN FOR ACTUAL TRAVEL DISTANCES)

SPACE DESCRIPTION	AREA - SF	AREA PER OCCUPANT (TABLE 1004.1.1)	OCCUPANT LOAD	EXIT WIDTH (SECTION 1005.1)	EXIT SHOWN ON PLAN	EXIT QUANTITY
FIRST FLOOR	19,670	(EXISTING BLEACHER SEATING - 800)	800 X 0.2 = 160'	72"		4 PROVIDED
FIRST FLOOR	10,335	N/A (NO WORK THIS AREA)				

DESIGN LOADS:
 CLASSIFICATION OF BUILDING: CATEGORY/USE GROUP V (I, II, III)
 LIVE LOAD: ROOF 20 PSF, ATTIC N/A PSF, MEZZANINE N/A PSF, FLOOR 40 PSF
 SNOW LOAD: FLAT-ROOF LOAD 10 PSF, EXPOSURE FACTOR 1.0, IMPORTANCE FACTOR 1.0
 WIND LOAD: BASIC SPEED 110 MPH, EXPOSURE FACTOR 1.0, IMPORTANCE FACTOR 1.0, COMPONENTS AND CLADDING "B", SITE CLASS F, IMPORTANCE FACTOR 1.0
 EARTHQUAKE LOAD: WIND BASE SHEARS (FOR MWFRS) Vx= 28.1K Vy= 39.2K

PLUMBING REQUIREMENTS: (NO PLUMBING ALTERATIONS)

TOTAL SQ. FEET	FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT	TOTAL OCCUPANT LOAD FOR THE SPACE	RATIO MALE AND FEMALE	TOTAL MALE	TOTAL FEMALE
REFER TO PLUMBING DRAWINGS						
OCCUPANCY USE	WATER CLOSET M F, URINALS, LAVS., SINKING FOUNTAINS					
REFER TO PLUMBING DRAWINGS				0		*PER SECTION 5902.2, EXCEPTION 2 (ADDITIONAL TOILET ROOM PROVIDED)

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 AND SHALL SIGN THE DESIGNER'S STATEMENT FOR THE APPROPRIATE PORTION, AS REQUIRED BY G.S. 143-151.33. IF ENERGY COST BUDGET METHOD, STATE THE ANNUAL ENERGY COST BUDGET VS. ALLOWABLE ANNUAL ENERGY COST BUDGET.

THERMAL ENVELOPE

METHOD OF COMPLIANCE: PRESCRIPTIVE PERFORMANCE ENERGY COST BUDGET

ROOF/CEILING ASSEMBLY: DESCRIPTION OF ASSEMBLY ASPHALT SHINGLES, 30# ROOF FELT, 5/8" PLYWOOD ROOF DECK, ENGINEERED ROOF TRUSS, 5/8" GYPSUM BOARD W/ BLOWN-IN FIBERGLASS INSULATION

EXTERIOR WALLS: DESCRIPTION OF ASSEMBLY VINYL/FIBER CEMENT SIDING, 7/16" ON WOOD STUDS W/ R19 FIBERGLASS BATT INSUL.

FLOORS SLAB ON GRADE: DESCRIPTION OF ASSEMBLY 4" SLAB ON GRADE W/ 24" PERIMETER INSUL.

DESIGNER STATEMENT:
 TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE THERMAL ENVELOPE REQUIREMENTS OF THE NORTH CAROLINA STATE BUILDING CODE, VOLUME X-ENERGY.

SIGNED: SHAWN E. HOSTETLER, A.I.A.
NAME: SHAWN E. HOSTETLER, A.I.A.
TITLE: PRINCIPAL, KOT HOSTETLER ARCHITECTS, PLLC.



CONSULTANTS

RENOVATIONS TO
GRACE BAPTIST CHURCH
 WILMINGTON NORTH CAROLINA



CONSTRUCTION DOCUMENTS : 02.08.19

REVISIONS

MARK	DATE	DESCRIPTION
△		
△		
△		
△		

DRAWN BY: **PROJ. MGR:**

SHEET CONTENT