

APPENDIX B 2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

Name of Project: Renovations to former Play Shelter
Address: GTCC Secondary Data Hub
601 East Main Street
Jamestown, NC 27282
Owner / Authorized Agent: OWNER: Guilford Technical Community College
AGENT: Howard Reginald Lee
601 East Main Street
Jamestown, NC 27282
Phone: (336) 334-4822
Email: hrlree2@gtcc.edu
Owned by: City/County
Code Enforcement Jurisdiction: Guilford County, North Carolina

CONTACT: CHARLES A. PEARCE, AIA, LEED AP BD+C
DESIGNER FIRM NAME LICENSE # TELEPHONE# E-MAIL
ARCHITECTURAL Ebel Sulpher Pearce & Associates, PA Charles Pearce, AIA NC 9400 (336) 273-0083 charles@espaarchitects.com
CIVIL NA
ELECTRICAL Tied Engineering Consultants, Inc. Perry V. Gullidge, PE NC 14488 (336) 454-0225 ext. 18 pgullidge@tridingemco.com
FIRE ALARM Tied Engineering Consultants, Inc. Perry V. Gullidge, PE NC 14488 (336) 454-0225 ext. 18 pgullidge@tridingemco.com
PLUMBING NA
MECHANICAL Tied Engineering Consultants, Inc. Perry V. Gullidge, PE NC 14488 (336) 454-0225 ext. 18 pgullidge@tridingemco.com
SPRINKLER-STANDPIPE NA
STRUCTURAL McCarroll Structures, PLLC Matthew C. Ridda, PE NC 39775 (336) 337-6901 matt@mc CarrollStructures.com
RETAINING WALLS > 5' High NA
FIRE PROTECTION NA
LANDSCAPE ARCHITECT NA

2018 NC BUILDING CODE: []
2018 NC EXISTING BUILDING CODE: [] Prescriptive [] Alteration Level III
Constructed: (date) 1979 Current Use(s) (Ch 3): Utility (U)
Renovated: (date) 2020 Proposed Use(s) (Ch 3): Business (B)
OCCUPANCY CATEGORY (Table 1604.5): Current: II Proposed: II

Basic Building Data

CONSTRUCTION TYPE: V-B
SPRINKLERS: NO NFPA: N/A
STANDPIPES: NO CLASS: N/A
PRIMARY FIRE DISTRICT: NO
FLOOD HAZARD AREA: NO
SPECIAL INSPECTIONS: NO

Gross Building Area Table

LOCATION EXISTING (Sq Ft) NEW (Sq Ft) Subtotal
First Floor 238 SF 250 SF 488 SF
TOTAL 488 SF

Primary Occupancy Classification(s):

Primary Occupancy: Business - B
Accessory Occupancy Classification: N/A
Incidental Uses (TABLE 509): N/A
Special Uses (Chapter 4 - List Code Sections): N/A
Special Provisions (Chapter 5 - List Code Sections): N/A
Mixed Occupancy: No Separation: N/A Exception: N/A

Non-Separated Use (508.3) Separated Use (508.4)
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.

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 per Unlimited
First Floor Business 488 SF 9,000 SF 75% 15,750 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 = 99'-6" (F)
b. Total Building Perimeter = 99'-8" (P)
c. Ratio (F/P) = 1 (F/P)
d. W = Minimum width of public way = 30 (W)
506.3.3 If = (99'-8" x 1) / (30' x 1) = 3.30 x 30' = 99'
506.2.1 Aa = At + (Ns x If) = 9,000 + (9,000 x 75%) = 15,750
2. Unlimited area applicable under condition 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 parking garages must comply with 506.5.4. The maximum area of traffic control towers must comply with 412.3.1
5. Frontage increase is based on un-sprinklered area value of Table 506.2

Allowable Height:

ALLOWABLE SHOWN ON PLANS CODE REFERENCE
Building Height in Feet (Table 504.3) 40'-0" 14'-6" N/A
Building Height in Stories (Table 504.4) 2 STORIES 1 STORY N/A

1. Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4

FIRE PROTECTION REQUIREMENTS:

Table with columns: Building Element, Fire Separation Distance (Feet) Table 602, RATING, Detail # and Sheet #, Design # for Rated Assembly, Design # for Rated Penetrations, Design # for Rated Joints.
Table 601: Structural Frame, Bearing Walls, Exterior, Interior, Non-Bearing Walls and Partitions, Floor Construction, Floor Ceiling Assembly, Columns Supporting Floors, Roof Construction, Roof Ceiling Assembly, Columns Supporting Roof, Shaft Enclosures - Exit, Shaft Enclosures - Other, Corridor Separation, Occupancy/ Fire Barrier Separation, Party/Fire Wall Separation, Smoke Partition, Tenant / Dwelling Unit/ Sleeping Unit Separation, Incidental Use Separation.

Percentage of Wall Opening Calculations

Fire Separation Distance (Feet) from Property Line, Degree of Openings Protection (Table 705.8), Allowable Area (%), Actual Shown on Plans (%)
NORTH Elevation > 30 FEET No Limit 0%
EAST Elevation > 30 FEET No Limit 0%
SOUTH Elevation > 30 FEET No Limit 0%
WEST Elevation > 30 FEET No Limit 0%

Life Safety System Requirements:

EMERGENCY LIGHTING: [] YES [] NO CARBON MONOXIDE DETECTION: [] YES [] NO NC BC - 915 (no fuel-burning appliances)
EXIT SIGNS: [] YES [] NO
FIRE ALARM: [] YES [] NO
SMOKE DETECTION SYSTEM: [] YES [] NO
PANIC HARDWARE: [] YES [] NO NC BC - 1010.1.1, 1010.1.2, 1010.1.3

Life Safety Plan Requirements:

Life Safety Plan Sheet G3.1
[] FIRE AND/OR SMOKE RATED WALL LOCATIONS (Chapter 7)
[] ASSUMED AND REAL PROPERTY LINE LOCATIONS (if not on site plan)
[] EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8)
[] OCCUPANCY LOSS FOR EACH AREA AS IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1004.1.1) (Refer to Occupancy Summary Sheet G3.1)
[] OCCUPANT LOADS FOR EACH AREA
[] EXIT ACCESS TRAVEL DISTANCES (1017)
[] COMMON PATH OF TRAVEL DISTANCES (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 (1010.1.1.10)
[] 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 1-2 (407.5)
[] NOTE ANY CODE EXCEPTIONS OR TABLE NOTES THAT MAY HAVE BEEN UTILIZED REGARDING THE ITEMS ABOVE

EXIT REQUIREMENTS:

NUMBER AND ARRANGEMENT OF EXITS:
FLOOR, ROOM, OR SPACE DESIGNATION, MINIMUM NUMBER OF EXITS, SHOWN ON PLANS, TRAVEL DISTANCE, EXIT ACCESS TRAVEL DISTANCE (TABLE 1017.2), ACTUAL TRAVEL DISTANCE SHOWN ON PLANS, ARRANGEMENT MEANS OF EGRESS (SECTION 1007.1.1), REQUIRED DISTANCE BETWEEN EXIT DOORS (MIN), ACTUAL DISTANCE SHOWN ON PLANS
First Floor: 1 REQUIRED, 1 SHOWN ON PLANS, 200 FEET TRAVEL DISTANCE, 37'-4" FT ACTUAL TRAVEL DISTANCE SHOWN ON PLANS, 1006.3.2 Exception #2 REQUIRED DISTANCE, 1006.3.2 Exception #2 ACTUAL DISTANCE SHOWN ON PLANS

1 CORRIDOR DEAD ENDS (SECTION 1020.4)
2 STORIES WITH ONE EXIT (TABLE 1006.2.1); SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY (TABLE 1006.3.2(2))
3 COMMON PATH OF EGRESS TRAVEL (SECTION 1006.2.1)

Means of Egress Sizing:

USE GROUP OR SPACE DESCRIPTION, AREA, AREA PER OCCUPANT, CALCULATED OCCUPANT LOAD, EGRESS WIDTH PER OCCUPANT, REQUIRED WIDTH, ACTUAL WIDTH SHOWN ON PLANS
First Floor: 488 SF AREA, Refer to G3.1 AREA PER OCCUPANT, 6 CALCULATED OCCUPANT LOAD, 0.3 STAIR, 0.2 OTHER EGRESS WIDTH PER OCCUPANT, NA STAIR, .12 IN OTHER REQUIRED WIDTH, NA STAIR, 41 IN OTHER ACTUAL WIDTH SHOWN ON PLANS

1 SEE TABLE 1004.1.2 TO DETERMINE WHETHER NET OR GROSS AREA IS APPLICABLE
2 MINIMUM STAIRWAY WIDTH (SECTION 1005.3.1); MINIMUM CORRIDOR WIDTH (TABLE 1005.3.2); MINIMUM DOOR WIDTH (SECTION 1005.3.2)
3 MINIMUM WIDTH EXIT PASSAGEWAY (SECTION 1024)
4 SEE SECTION 1005.6 FOR CONVERGING EGRESS
5 THE LOSS OF ONE MEANS OF EGRESS SHALL NOT REDUCE THE AVAILABLE CAPACITY TO LESS THAN 50 PERCENT OF THE TOTAL REQUIRED (SECTION 1005.5)
6 ASSEMBLY OCCUPANCIES (SECTION 1029)

Accessible Parking

LOT OR PARKING AREA, TOTAL # OF PARKING SPACES, # OF ACCESSIBLE SPACES PROVIDED, TOTAL # ACCESSIBLE PROVIDED
Existing Parking: 6 REQUIRED, 6 PROVIDED, 6 TOTAL # ACCESSIBLE PROVIDED

Plumbing Fixture Requirements N/A

USE, WATERCLOSETS, URINALS, LAVATORIES, SHOWERS/TUBS, DRINKING FOUNTAINS, MALE, FEMALE, UNISEX, REGULAR, ACCESSIBLE
First Floor: Existing, New, Required, TOTAL

SPECIAL APPROVALS:

LOCAL JURISDICTION: NONE
DEPT OF INSURANCE: NONE
OSC: NONE
DPI: NONE
ICC: NONE
OTHER WITH DESCRIPTION: NONE

STRUCTURAL DESIGN: Existing Structure No Changes

DESIGN LOADS: SEE STRUCTURAL DRAWINGS
Importance Factors: WIND (W) N/A, SNOW (S) N/A, SEISMIC (E) N/A
Live Loads: ROOF N/A psf, MEZZANINE N/A psf, FLOORS: 2-3 N/A psf
Snow Load: N/A psf
Wind Load: BASIC WIND SPEED N/A mph (ASCE-7), EXPOSURE CATEGORY N/A, WIND BASE SHEARS (or MWFRS) Vx = N/A, Vy = N/A
SEISMIC DESIGN CATEGORY [] A [] B [] C [] D
PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS: OCCUPANCY CATEGORY (TABLE 1604.5) N/A
SPECTRAL RESPONSE ACCELERATION Sp = %g, S1 = %g
SITE CLASSIFICATION [] D [] 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 Vx = N/A, Vy = N/A
ANALYSIS PROCEDURE SIMPLIFIED, EQUIVALENT LATERAL FORCE, MODAL
ARCHITECTURAL MECHANICAL COMPONENTS ANCHORED? N/A
LATERAL DESIGN CONTROL: EARTHQUAKE, WIND
SOIL BEARING CAPACITIES: FIELD TEST (Provide copy of test report) N/A PSF, PRESUMPTIVE BEARING CAPACITY N/A PSF, PILE SIZE, TYPE, AND CAPACITY N/A

ENERGY SUMMARY:

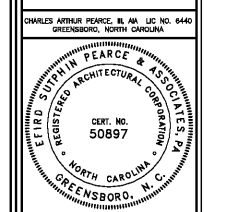
Energy Requirements: THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED PORTIONS OF THE PROJECT INFORMATION FOR THE PLAN DATA SHEET, IF PERFORMANCE METHOD. STATE THE ANNUAL ENERGY COST FOR THE STANDARD REFERENCE DESIGN VS ANNUAL ENERGY COST FOR PROPOSED DESIGN.

Existing building envelope complies with code: [] (If checked the remainder of this section is not applicable)
Exempt Building: [] Provide code or statutory reference. Level 3 Alternates - Section 908.1 of the 2018 NCBC permit existing building alteration without requiring the entire building to comply with NC Energy Code
CLIMATE ZONE: [] 4A - Guilford County

METHOD OF COMPLIANCE:

- [] PRESCRIPTIVE (ENERGY CODE)
[] PERFORMANCE (ENERGY CODE)
[] PRESCRIPTIVE (SHRAE 90)
[] PERFORMANCE (SHRAE 90)
[] OTHER

Roof / ceiling Assembly: WOOD TRUSS w/ WOOD SHEATHING, FELT, SHINGLES
DESCRIPTION OF ASSEMBLY: OUTSIDE AIR SHINGLES 0.17, FELT 0.06, 1-1/2" SHEATHING 0.33, SPRAY INSULATION 44.8, 5/8" GYPSUM BOARD 0.58, INSIDE AIR 0.61
TOTAL R = 39.76
U-VALUE OF TOTAL ASSEMBLY: 0.025
R-VALUE OF INSULATION: 44.80
SKYLIGHTS IN EACH ASSEMBLY: N/A
U-VALUE OF SKYLIGHT: VISIBLE LIGHT TRANSMITTANCE TOTAL SF OF SKYLIGHTS IN EACH ASSEMBLY:
EXTERIOR WALL: CEMENT BOARD SIDING w/ SHEATHING, WOOD STUDS, SPRAY INSUL AND GYP BD
DESCRIPTION OF ASSEMBLY: OUTSIDE AIR SIDING 0.44, MOISTURE BARRIER 0.03, 5-1/2" SPRAY INSULATION 35.00, 5/8" GYPSUM BOARD 0.56, INSIDE AIR 0.61
TOTAL R = 22.78
U-VALUE OF TOTAL ASSEMBLY = 0.044
R-VALUE OF INSULATION = 35.00
OPENINGS (WINDOWS OR DOORS WITH GLAZING)
U-VALUE OF ASSEMBLY -
SOLAR HEAT GAIN COEFFICIENT -
PROTECTION FACTOR -
Low e REQUIRED -
DOOR R-VALUES (Aluminum, INSULATED): R9
WALLS BELOW GRADE (EACH ASSEMBLY) N/A
FLOORS OVER UNCONDITIONED SPACE (EACH ASSEMBLY) N/A
FLOOR SLAB ON GRADE N/A



Renovations to Former Play Shelter
GTCC Secondary Data Hub
601 East Main Street
Jamestown, NC 27282
Drawing Title: Building Code Summary
By: [] Revision: []
PROJECT NUMBER: 2020-008
DATE: May 4, 2020
Sheet: G2.1