TABLE 5-1 FLOOD HAZARD INFORMATION & FLOOD LOADS

FLOOD HAZARD AREA

Base Flood Elevation AE12 MSL
Design Flood Elevation 14 MSL

NON HIGH-VELOCITY WAVE ACTION

Elevation of Lowest Proposed Floor 15.5 MSL Meet ASCE 24 Section 2.6.2.1/ 2.6.2.2
Dry floodproofing ☒ no ☐ yes per ASCE 24

HIGH-VELOCITY WAVE ACTION

Elevation of Lowest Proposed Floor MSL Meet ASCE 24 Section 2.6.2.1/ 2.6.2.2
Flotation resistant ☒ no ☐ yes per ASCE 24
Breakaway wall ☒ no ☐ yes per ASCE 24

TABLE 5-2 SOILS & SITE

SOILS INVESTIGATION (If required)	☐ no ☒ yes	per IBC 1803.2
SOILS CLASSIFICATION		
Site Class	F	per IBC 1613.3.2
Classes Soil of Materials (UCS System)	SM	per IBC 1803.5.1
Allowable Footing Bearing Pressure	2,000 psf	
MINIMUM DESIGN SOIL BEARING LOAD	2000 psf	per IBC table 1806.2
SOILS CLASSIFICATION		
Subgrade: 96 Percent	☐ ASTM D698 ☒ ASTM D1557 ☐ AASHTO (only for paving & roads)	
Base: 100 Percent	☐ ASTM D698 ☒ ASTM D1557 ☐ AASHTO (only for paving & roads)	
Other: Percent	☐ ASTM D698 ☐ ASTM D1557 ☐ AASHTO (only for paving & roads)	
MINIMUM DESIGN SOIL LATERAL LOAD	45 psf	per IBC table 1610.1
FOOTINGS		
Undisturbed footings	☐ no ☒ yes	
Compacted Fill Material	☐ no ☒ yes	per IBC 1804.5
ELEVATIONS		
Elevation of Water Table:	9'-0" +/- MSL	
Elevation of lowest footing:	11.45' MSL	
Elevation of lowest floor or basement	15'-6" MSL	

TABLE 5-3 BASIC BUILDING CODE INFORMATION

CONSTRUCTION CLASSIFICATION	Type: VB (IBC 602)		
OCCUPANCY GROUP (indicate all) (Note IBC 506.5)	A-3, B, S-1 (IBC 302)		
OCCUPANCY GROUP (indicate most restrictive)	A-3 (IBC Table 503)		
Does building require Incidental Use Area Separation?	☒ no ☐ yes	(IBC 509.1)	
Does building have Accessory Occupancy (ies)? If so, what percent of story is Accessory Occupancy? STORAGE	☐ no ☒ yes	(IBC 508.2)	406 SF 7.0 %
Mixed Occupancy	☐ no ☒ yes	(IBC 508)	
Non separated	☐ no ☒ yes	(IBC 508.3)	
Separated	☒ no ☐ yes	(IBC 508.4) (IBC 506.5)	

OTHER FIRE PROTECTION SYSTEMS, DEVICES or FEATURES
If the building has any special or notable fire protection or safety feature or hazard the designers should list them here, describe the performance characteristics and refer to location in construction documents. (e.g. fire extinguishers, smoke evacuation/control/compartments. Note IBC 414.1.3)

TABLE 5-4 BUILDING AREA

AREA LIMIT BY TABLE 503 OF IBC (Do not indicate increases for sprinklers & street frontage.)	9000 SF (area limitation per story)
AREA MODIFICATION FROM EQUATION 5-1 OF IBC (Insert equation from IBC 506.1 with completed calculations in this box)	9,444 SF (maximum modified area per story)
Equation 5-1: Aa = At + [At x If] + [At x Is] Aa = Alowable area per story (square feet) At = Tabular area per story in accordance with Table 503 If = Area increase factor due to frontage (percent) as calculated in accordance with Section 506.2 Is = Area increase due to sprinkler protection as calculated in accordance with Section 506.3 Repeat equation for each story of differing occupancies, IBC 506.5.2)	
	9,444 SF (maximum area per story)
TOTAL ALLOWED AREA OF BUILDING (summary of all stories)	9,444 SF
AREA AS DESIGNED PER STORY (Repeat for each story)	5,781 + 1,160 covered porch SF (area per story)
TOTAL DESIGNED AREA OF BUILDING	5,781 + 1,160 covered porch SF

TABLE 5-5 BUILDING HEIGHT

	AS DESIGNED		AS ALLOWED BY IBC	
	In Feet	In Stories	In Feet	In Stories
Without and Allowable Increase (per IBC Table 503)	28'-0" to ridge	1	40'-0"	1
Allowable Height Increase (per IBC 504.2	0	0	0	0
Total Height, including any Allowable Increase	28'-0" to ridge	1	40'-0"	1

TABLE 5-6 BUILDING DESIGN OCCUPANT LOAD

		A	B	C	D
Stories & Levels	Function of Space (1)	Floor Area (2) (specify NSF or GSF)	Max Area allowed /Occupant (3) (specify NSF or GSF)	Persons on floor for this Function (4)	Design Occupant Load
1	Assembly concentrated	974 NSF	7 NET	139	139
1	Assembly unconcentrated	978 NSF	15 NET	66	66
1	Business Areas	3921 GSF	100 GSF	40	40
1	Accessory storage areas, mechanical equipment room	433 GSF	300 GSF	3	3
Total Building Design Occupant Load					248

FOOTNOTES:
1. Provide the complete name of the Function of space using the left column of Table 1004.1.2 of the IBC.
2. Design Area per each occupant of this function on this floor in either Gross or Net square footage
3. Allowed Floor Areas in SF per Occupant per right column in Table 1004.1.2 of the IBC.
4. Divide Column A (2) by Column B (3) for each function and enter result, rounded up to the nearest whole person (4)
5. Subtotal all Column C values for this floor to yield the Design Occupant Load (5)
6. Total Building Design Occupant Load - sum of all Column D value (6)

TABLE 5-7 GENERAL FIRE PROTECTION REQUIREMENTS

SEPARATIONS		
Fireblocking Required	☐ no ☒ yes	per IBC Section 718
Draftstopping Required	☐ no ☒ yes	per IBC Section 718
Smoke Control System Required	☒ no ☐ yes	per IBC Section 513
Smoke Barriers Required	☒ no ☐ yes	per IBC Sections 407 and 408
Smoke Partitions Required	☒ no ☐ yes	per IBC Sections 407 and 408
Fire Partition Required	☒ no ☐ yes	per IBC Section 708
Fire Barrier Required	☒ no ☐ yes	per IBC Section 707
ALARM & DETECTION		
Fire Alarm System Required	☐ no ☒ yes	per IFC Section 907
Emergency Alarm System Required	☐ no ☒ yes	per IFC Section 908
SUPPRESSION		
Standpipes Required	☒ no ☐ yes	per IFC Section 905
Sprinklers Required	☒ no ☐ yes	per IFC Section 903
Sprinklers Provided	☒ no ☐ yes	
Portable Extinguishers Required	☐ no ☒ yes	per IFC Section 906
Other Suppression Systems Required	☒ no ☐ yes	per IFC Section 904
Smoke & Heat Vents Required	☒ no ☐ yes	per IFC Section 910
OTHER: *(Indicate other provided fire and life safety features not listed above, if any)*		

TABLE 5-8 FIRE RESISTANCE RATING OF BUILDING ELEMENTS

BUILDING ELEMENT	Rating As Required (in hours)	Rating As Designed (in hours)	Testing Agency & Design No. (UL, FM, etc)	Designers Wall/Partition Key Code
Structural Frame (per IBC Table 601)	0	0	NA	NA
Bearing Walls Exterior Interior (per IBC Table 601)	0	0		
Nonbearing Walls & Partitions Exterior Interior (per IBC Table 601 & 602) Note footnote "e" from Table 601	0	0		
Floor Construction including supporting beams & joists (per IBC Table 601)	0	0		
Roof Construction including supporting beams & joists (per IBC Table 601)	0	0		
Fire Walls (per IBC Table 706)		NA		
Fire Barriers (per IBC Table 707)				
Shaft Enclosures (per IBC Table 713)				
Fire Partitions (per IBC Table 708)				
Opening & Protective Fitting by Category (fire shutters, doors, etc per IBC Section 716)				
Other (as required by Designer)				

TABLE 5-9 STRUCTURAL DESIGN INFORMATION

RISK CATEGORY IV		per IBC 1803.2
LIVE LOADS		
Floor Life Load	F_L = 100, 50 psf attic PSF	List the F_L for each occupancy
Roof Live Load	R_L = 20 PSF	
Ground Snow Load	p_g = 5 PSF	IBC Figure 1608.2 (or ASCE 7)
WIND LOADS		
Analysis Procedure	CHAPTER 27	ASCE 7 or IBC 1609.6
Ultimate Design Wind Speed	V_{ULT} = 158 MPH	IBC Fig's. 1609A-1609C
Exposure Category	B	IBC 1609.4.3
Internal Pressure Coefficient	GC_{pi} = +/- 0.18	ASCE 7
External Pressure Coefficient	GC_p = VARIES	ASCE 7
SEISMIC LOADS		
Seismic Importance Factor	I_e = 1.5	ASCE 7 Table 1.5-2
Site Class	D	IBC 1613.3.2
Mapped Spectral Response Acceleration	S_s = 1.054	S_1 = 0.334
Design Spectral Response Acceleration Parameters	S_{DS} = 0.758	S_{D1} = 0.386
Seismic Design Category	D	IBC Table 1613.3.5(1) & 1613.3.5(2)
Basic Seismic Force Resisting System	LIGHT FRAMED WOOD WALLS SHEATHED WITH WOOD STRUC. PANELS	
Design Base Shear	20 KIPS	
Seismic Response Coefficient(s)	C_s = 0.175	ASCE 7
Response Modification Factors(s)	R = 6.5	ASCE 7
Analysis Procedure	EQUIV. LATERAL FORCE	

ARCHITECTURAL-MECHANICAL-ETC. LOADS
Provide as applicable: architectural items, mechanical, plumbing, etc. per ASCE 7

SPECIAL LOADS
Provide as applicable: abnormal items, moving loads, impact, hoisting, etc. per ASCE

liollio architecture
147 Wappoo Creek Drive
Suite 400
Charleston, SC 29412
P 843.762.2222

△	Revision Date	Description

Town of James Island

TOWN HALL

1122 Dills Bluff Road
Charleston, SC 29412

Project Number:	15102
Checked By:	JGC
Drawn By:	EGB
Date:	04/03/17
Scale:	

G002
CODE REVIEW

Other Plans @ WWW.LDLine.com
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