PB22-0100			
TORDORNUS	Town Planning, Zonir 501 Longboat 94	of Longboat Key g & Building Department Bay Isles Road Key, Florida 34228 11-316-1966 -316-1970 Fax	SLOG ARTHUT PLANG
DATE:12/06/2022	ATTN: _ St. Regis LBP	Resource	
ROM: Jhors Prieto			
Company: Moss Constructio			
Phone: 941-376-8307	Email:	jprieto@mosscm.com	
BUILDING / FEMA	ED FOR CONSIDERATIONS "ECS"- Prive S Project The E CODES / TRADES (C DELECTRICAL	te Provider (3 rd Parte) Private Pr IN	ng Reviews
TEMS INCLUDED IN THIS TRA	Transwittel + Calculation Iculations and shop drav Detail 11 Metal Parapet	vings. Referenced building at Ballroom.	plan
plan requirements Sheet A3-	H-30 / Section 1 Siding	over 2x2 Aluminum Tubes	
INFORMATION Reviewed For Cod	al ON 14 le Compliance	RECEN	
by "ECS"		DEC 1520 TOWN OF LONGE	22



TRANSMITTAL FORM

Town of Longboat Key Planning, Zoning & Building Department 501 Bay Isles Road Longboat Key, Florida 34228 941-316-1966 941-316-1970 Fax

Company: Moss Constructio	onEma	jprieto@mosso	
Phone: 941-376-8307	Ema	jprieto@mosso	
		an	cm.com
SITE LOCATION/ADDRESS:		xico Dr.	
THE FOLLOWING IS SUBMITT		RATION BY PZB ST	AFF
RESPONSE TO COMMENTS			RECEIVED
REVISIONS / RE-SUBMITTAL	S		Town of Longboat Key Planning, Zoning & Building 12/19/2022 11:45:34 AM
APPLICABL	E CODES / TRADI	ES (Check All That A	apply):
BUILDING / FEMA	ELECTRICAL	☐HVAC ☐GAS PIPING	□PLUMBING □FIRE MARSHAL
ITEMS INCLUDED IN THIS TRA	ANSMITTAL:		
Ballroom: S/S Engineered ca			ced building plan
requirements Sheet A8-02 /	Detali 11 Metal Pal	apet at Ballroom.	

SUBMITTAL COVER PAGE

PROJECT #1112108 - St Regis Longboat Key Resort and Residences

Date:	November 04, 2022				
Submittal:	054000-002326-2 - H- Ballroom Terrace Ceiling Framing SD				
Submittal No.:	054000-002326-2	GC NOTES:			
Section:	054000				
Submittal Type:					
Architect / Engineer:	SB Architects				
Contractor:	Moss & Associates, LLC				
Sub-Contractor:	Moraca Builders Inc				

	St. Regis Resort	ARCHITECT'S/ENGINEER'S REVIEW		
prior to subm within this su	fy this submittal data has been reviewed and approved ission to the Architect and the information contained bmittal has been checked and coordinated with the s of the Work and the Contract Documents.	PRODUCTS ENGINEERED BY OTHERS		
	ED	Review of drawings and/or calculations for pre-engineered products or systems is solely to ascertain that loads, deflection		
	AND RESUBMIT	limits, and other design criteria given in Contract Documents have been utilized and to review effect of loads imposed by such products on the primary structure. The engineer retained		
	ED AS NOTED	by the supplier is solely responsible for preparing calculations, reviewing shop drawings, and ensuring the compatibility of		
	ED AS NOTED	the product with the primary building structure as it relates to their design intent. Neither this stamp nor any comments		
	/IEWED	made by DeSimone authorizes changes to the Contract Documents. DeSimone's review does not indicate approval		
M	OSS AND ASSOSIATES, LLC	of an assembly of which the reviewed item is a component.		
	CONSTRUCTION MANAGER	No Exception Taken		
Submittal #	002326	Make corrections Noted, No Resubmission required		
Date	November 04, 2022	Make corrections Noted, Submit Revised Record Copy		
	· · · · · · · · · · · · · · · · · · ·	Revise and Resubmit		
Ву	Jhors Prieto	Rejected- See Remarks		
		DESIMONE CONSULTING ENGINEERS		
		BySachin Sreedhara Date <u>11/15/2022</u>		
Х				





Cold-formed (Light Gauge) Steel Shop Drawings for: St. Regis - Longboat Key Resort & Residences 1601 GULF OF MEXICO DRIVE, LONGBOAT KEY, FL

GENERAL NOTES:

1.0 NOMENCLATURE - For framing nomenclature refer to AISI S201-12 E1 (North American Standard for Cold Formed Steel Framing - Product Data) Commentary Section C1 Product Designators. For abbreviations reference General Notes of Architectural and Structural Drawings

1.1 CONSTRUCTION - Construction of cold-formed steel shall conform to AISI S200-12 (North American Standard for Cold Formed Steel Framing - General Provisions). This document and other referenced materials applicable to cold formed framing are available or download, free of charge, at: http://www.cfsei.org/free-publications

1.2 MATERIAL - Materials used to construct the conditions detailed herein shall be supplied by a manufacturer that is a member in good standing of the SFIA, SSMA or other organization with a third-party code compliance certification program or by a manufacturer that can certify and demonstrate compliance with ASTM C955, AISI \$100-16, AISI \$240-15 and AISI \$200-12.

1.3 DIMENSIONS - Dimensions and elevations contained herein are for design reference only. Contract drawings should be used in determining exact distances and all dimensions should be field verified before construction.

1.4 PRIMARY STRUCTURE DESIGN - StructureSmith LLC is not responsible for the design of the primary structure. Futhermore, StructureSmith LLC does not assume liability for claims arising from the failure of the primary structure or elements designed by others. The Designer of Record shall verify the adequacy of the primary structure includes forces and loads transferred to the primary structure by the cold formed framing shown herein.

1.5 ERECTION - Construction loads shall not exceed design live loads. Contractor shall take precaution not to exceed the design loads. Construction loads have not been considered herein. Temporary bracing shall be provided and remain in place until the work is completely stabilized. Lateral and torsional bracing shall be installed at the time when framing in erected.

1.6 GENERAL CONDITIONS - Use of these drawings constitutes acceptance of StructureSmith LLC's General Conditions. A copy is provided at the time of proposal or transmitted with these drawings. A copy is available upon request.

CONNECTIONS:

2.0 SCREWS - All Screw connections shall conform with AISI S240-15 Section D1 -Screw Connections.

2.1 WELDING - All welded connections shall conform with AISI S240-15 Section D2 - Welded Connections and AWS D1.3. All welded connections shall have a minimum throat thickness (t) equal to or greater than the thickness of the thinnest connected part. Use a zinc rich paint on all welded connections to provided adequate corrosion resistance per paint manufacturers recommendations. Follow safe welding procedures in AWS D19.0 and ANSI Z49.1

Arch: Calculation are in separate submittal

2.2 OTHER FASTENERS - All Powder Actuated Fasteners (PAF's), Powder Driven Fasteners (PDF's), Gas Actuated Fasteners (GAF's), masonry screws, adhesive anchors, expansion anchors shall be installed in compliance with the fastener manufacturer's recommendations. Installer to follow safety and installation procedures and install fasteners in compliance with spacing, edge distance and embedment dimensions provided by the manufacturer.

2.3 FASTENER SCHEDULE

	SUBSTRATE(S)	DESCRIPTION	PRODUCT	(CODE REPOR	EDGE DISTANCE	SPACING (min.)	
	EXTERIOR METAL TRACK	#10-16 or #10-15 x 5/8" 📭 PAN HEAD	ITW BUILDEX "TEKS" PRIMESOURCE "DART GRABBER SELF DRILLI HILTI KWIK-ELEY	IS" ICC NG ICC	ESR-1976 ESR-1408 ESR-1271 ESR-2196	5/16'	5/8''	
	exterior stud to stud	#10-16 or #10-15 x 5/8" HEX HEAD 🖛						
-	CONCRETE OR GROUTED CMU HIGH LOAD COND.	0.157"Ø x 1-1/4"	RAMSET True Embed "TE" HILTI X-U		ESR-1799 ESR-2269	3"	4"	
	MASONRY (CMU)	1/4"x1" EMBEDMENT	ITW BUILDEX TAPCON Advanced Threadform Tech Hillti Kwik Con II Powers Tapper +	nology NO	A 16-1222.06 A 12-0625.05 A 15-0629.06	2"	4"	
	CONCRETE OR GROUTED CMU	1/4'x1-3/4'' EMBEDMENT	ITW BUILDEX TAPCON Advanced Threadform Tech Hilti Kwik Con II Powers Tapper +	nology NO,	A 16-1222.06 A 12-0625.05 A 15-0629.06	3"	4''	
	OMEN	<u>CLATU</u>	<u>re stud</u>) PR	OFIL	<u>ES:</u>		
	05162-43 (33ksi) Joctural Profile	¥ [Member Depth (Web Size) AISI 2-1/2" 250 3-5/8" 362 6" 600 8" 800	Member Type Studs	AISI \$137 \$162 \$200 \$250 \$300 \$350	Flange Width 1-3/8" 1-5/8" 2" 2-1/2" 3" 3-1/2"		
		<u>a</u>	■ Standard AISI S200 Profile	Tracks	T125 T200 T250 T300 T350	1-1/4" 2" 2-1/2" 3" 3-1/2"	_	EIVED
			Thickness	Design Thickness	Minimum Thickness	Color Code White	Planning, Z	Longboat Key oning & Buildin 2 11:45:49 AM
I		600S162-43-:	Milckness Gauge 33 20	.0346"	.0329"			
	<u></u>	E III 	Mils Gauge	.0346" .0451" .0566" .0713" .1017" .1242"	.0329" .0428" .0538" .0677" .0969" .1180"	Yellow Green Orange Red Blue		

HEADERS & SILLS:

3.0 HEADERS - All Headers must be constructed and installed in accordance with AISI S240-15. All headers and beams are to be constructed with UNPUNCHED material only. Splicing is not permitted.

WALL FRAMING:

4.0 WALLS & FRAMING - Wall Framing shall conform to AISI S240-15 General Provisions and AISI S240-15 Wall Stud Design.

4.1 STUDS - Studs shall be cut by shearing or sawing. No heat cutting or orching is permitted. Studs shall not be notched or otherwise deformed unless stated herein.

DESIGN CRITERIA:

5.0 Shop drawings are designed for compliance with:

Building Code: Florida Building Code 2020 (7th Edition) Wind Standard: ASCE 7-16

Cold-Formed Steel Design Specification: AISI S100-16

5.1 Deflection Criteria:

Exterior Walls = L/360 (Stucco)

* A 0.7 multiplier on service loads was used deflection calculations

5.2 Dead Loads:

Exterior Walls: 12 psf

5.3 Wind Criteria (Components & Cladding)

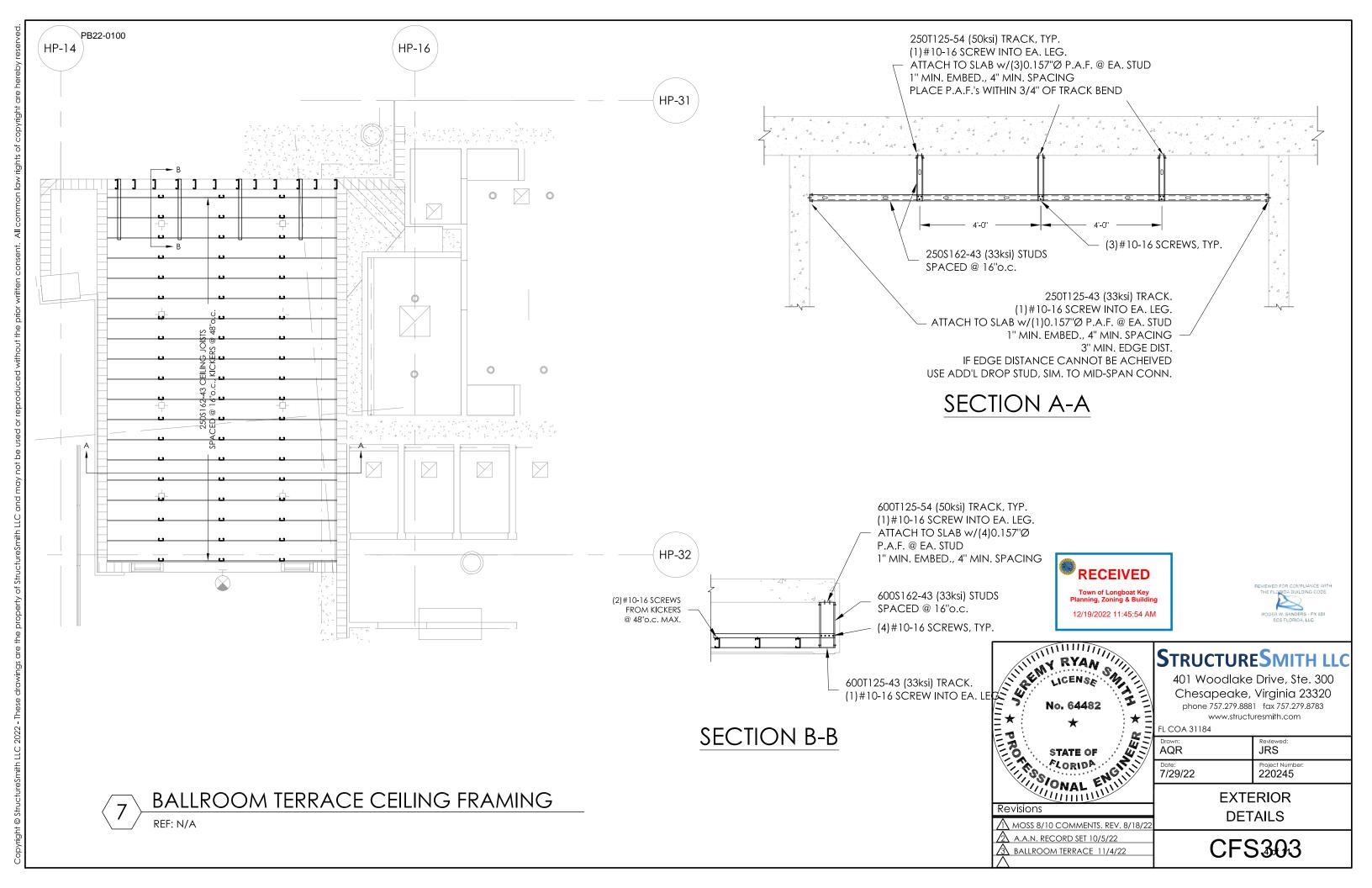
- Risk Cat. II, Velocity = 150mph (3 sec.), Exp. C, Kzt = 1.0,
- Kd = 0.85, Enclosed Blda,
- (Calculations checked for loads provided in RFI0411)

Sheet Index:

CFS100 - General Notes

- CFS300 CFS302 Wall & Ceiling Sections
- CFS303 Ballroom Terrace Ceiling
- CFS304 CFS309 Wall & Ceiling Sections CFS500 - CFS501 Framing Details

No. 64482	Chesapeake, phone 757.279.888 www.structu FL COA 31184	Drive, Ste. 300 Virginia 23320 1 fax 757.279.8783 Jresmith.com
STATE OF	Drawn: AQR	Reviewed: JRS
CORIDA CALL	Date: 7/29/22	Project Number: 220245
Revisions		ERAL TES
MOSS 8/10 COMMENTS. REV. 8/18/22 A.A.N. RECORD SET 10/5/22 BALLROOM TERRACE 11/4/22	CFS	6100



SUBMITTAL COVER PAGE

PROJECT #1112108 - St Regis Longboat Key Resort and Residences

Date:	November 04, 2022	
Submittal:	054000-002338-1 - H- Ballroom Terrace Ceilir	ng Framing Calculations
Submittal No.:	054000-002338-1	GC NOTES:
Section:	054000	
Submittal Type:		
Architect / Engineer:	SB Architects	
Contractor:	Moss & Associates, LLC	
Sub-Contractor:	Moraca Builders Inc	

	St. Regis Resor	t & Residences			
	CONTRACTOR'S REVIEW	ARCHITECT'S/ENGINEER'S REVIEW			
prior to subm within this su	ify this submittal data has been reviewed and approved hission to the Architect and the information contained bmittal has been checked and coordinated with the s of the Work and the Contract Documents.	PRODUCTS ENGINEERED BY OTHERS			
		Review of drawings and/or calculations for pre-engineered products or systems is solely to ascertain that loads, deflection limits, and other design criteria given in Contract Documents			
	AND RESUBMIT	have been utilized and to review effect of loads imposed by such products on the primary structure. The engineer retained			
	ED AS NOTED	by the supplier is solely responsible for preparing calculations, reviewing shop drawings, and ensuring the compatibility of			
	ED AS NOTED	the product with the primary building structure as it relates to their design intent. Neither this stamp nor any comments			
	/IEWED	made by DeSimone authorizes changes to the Contract Documents. DeSimone's review does not indicate approval			
M	OSS AND ASSOSIATES, LLC	of an assembly of which the reviewed item is a component.			
	CONSTRUCTION MANAGER	No Exception Taken			
Submittal #	002338	Make corrections Noted, No Resubmission required			
Date	November 04, 2022	Make corrections Noted, Submit Revised Record Copy			
Dale		Revise and Resubmit			
Ву	Jhors Prieto	Rejected- See Remarks			
		DESIMONE CONSULTING ENGINEERS			
		By <u>Dharahas Rakasi</u> Date <u>11/15/2022</u>			
Х					







Cold-Formed Steel Shop Drawings & Calculations for:

StructureSmith Project #: 220245

St. Regis Longboat Key Hotel & Residences Rev 3. Ballroom Terrace Ceiling Longboat Key, FL

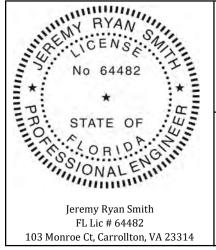
Calculation Cover Page

Signed & seal below constitutes certification for entire calculation package contained herein.

4-Nov-22

Submitted by: J. Ryan Smith, P.E. Principal





I hereby certify that this engineering report was prepared by me and under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Florida. (License No. 64482)

11/4/2022(signature)(date)This item has been digitally signed & sealed by J. Ryan Smith, P.E. on11/04/22Printed copies of this document are not considered signed &sealed and the signature must be verified on any electronic copies.

Firm COA 31184

StructureSmith LLC 401 Woodlake Dr. Ste. 300 Chesapeake, VA 23320 757-693-4141

My license renewal date is February 28, 2023

StructureSmith, PLLC NC Firm P-1507 6 of 11 Project Name:

Model: Ballroom Terrace Ceiling Framing (-95psf x 0.6 -18psf DL) - Duplicate -

Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 4.2.0.13

			(o = 435.3 ft-lb		1265		I = 0.30	/ 11/'4
100.00 lb/ft 100.0	0 lb/ft 100.00 lb/ft		ds have not been ds have not been					
1 R2	R3 R4	<u>Bric</u> Spa	lging Connector Axia n KyLy,	al Fle	<u>Metho</u> xual, stortio		<u>100</u> Connector	Stress Ratio
4.00 4.	4.00	Left	Span NA		I, 48.0	II	N/A	-
		Mid	dle NA	Ful	I, 48.0	"	N/A	-
		Rigl	nt Span NA	Ful	I, 48.0	n	N/A	-
	IVED	We	o Crippling	Bearing	Ра	м		
Town of Lo	ngboat Key	Sup	port Load (lb)	(in)	(lb)	(ft-lbs)	Max Int.	Stiffener?
Planning, Zoni	ng & Building	R1	160.0	2.00	361.4	0.0	0.23	NO
12/19/2022 1	1:46:03 AM	R2	440.0	4.00	810.0	160.0	0.52	NO
		R3	440.0	1.00	579.7	160.0	0.64	NO
		R4	160.0		287.3	0.0	0.29	NO
		"*" ć	after support mea	ns punched	near	support		
	Code Check F	Required	Allowed	Interact	ion	Notes		
Left Span	Max. Axial, lbs	0.0(t)	-	0%		КФ=0.00	lb-in/in Ma	x KL/r = N/A
	Max. Shear, lbs	240.0	1265.5	19%				
Max. Mo	oment (MaFy, Ma-dist), ft-lbs	160.0	435.3	37%		MaFy (co	ntrol),ΚΦ=(0.00 lb-in/in
	Moment Stability, ft-lbs	128.0	435.3	29%		Shace 24	10 Mama	at 160 0
	Shear/Moment Axial/Moment	0.41 0.37	1.00 1.00	41% 37%			0.0, Momer c), Moment	
	Deflection Span, in	0.37	meets L/1404-		U			100.0
Middle Span	Max. Axial, lbs	0.0(t)	-	0%		KΦ=0.00 lb	o-in/in Ma⊻	$KI/r = N/\Delta$
	Max. Shear, lbs	200.0	1265.5	16%		0.00 lb		
Max. Mor	nent (MaFy, Ma-dist), ft-lbs	160.0	435.3	37%	I	MaFy (cont	trol),ΚΦ=0.	00 lb-in/in
	Moment Stability, ft-lbs	40.0	435.3	9%			,	
	Shear/Moment	0.40	1.00	40%	:	Shear 200.	0, Moment	160.0
	Axial/Moment	0.37	1.00	37%		Axial 0.0(c)), Moment [·]	160.0
	Deflection Span, in	0.003 -	-meets L/18564					
Right Span	Max. Axial, lbs	0.0(t)	-	0%		KΦ=0.00 lb	o-in/in Max	KL/r = N/A
	Max. Shear, lbs	240.0	1265.5	19%				
Max. Mo	ment (MaFy, Ma-dist), ft-lbs	160.0	435.3	37%		MaFy (con	trol),ΚΦ=0	.00 lb-in/in
	Moment Stability, ft-lbs	128.0	435.3	29%				
		0.41	1.00	41%		Shear 240.	.0, Moment	t 160.0
	Shear/Moment							
	Shear/Moment Axial/Moment Deflection Span, in	0.37	1.00 meets L/1404	37%		Axial 0.0(c), Moment	160.0

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	160.0	By Others & Anchorage Designed by Engineer	NA	NA
R2	0.0	440.0	By Others & Anchorage Designed by Engineer	NA	NA

www.strongtie.com

Date: 11/04/2022

R3	0.0	440.0	By Others & Anchorage Designed by Engineer	NA	NA	
R4	0.0	160.0	By Others & Anchorage Designed by Engineer	NA	NA	
* Reference catalog for connector and anchor requirement notes as well as screw placement requirements						



STRUCTURESMITH, LLC

Track Leg Bending / Hanging Stud (Tension) Allowable Loads

 $P_{max (lbs)} = 2 * [(0.6*F_y)*(Stud Spacing - Fastener Spacing)*(t²)] / [6*GAP]$

Distance Between Bend in Track and Center of Fastener	0.75 in.
Max. Fastener Spacing	4 in.
Head of Fastener	0.312 in.

Allowable Loads

	Yield						
Stud	Strength	33 mil	43 mil	54 mil	68 mil	97 mil	118 mil
Spacing	(ksi)	0.033	0.0451	0.0566	0.0713	0.1017	0.1242
8	33	48	90	142	226	460	686
0	50	73	137	216	342	696	1039
12	33	97	181	285	452	919	1371
12	50	147	274	431	685	1393	2078
16	33	145	271	427	678	1379	2057
10	50	220	411	647	1027	2089	3116

440lbs rxsn>> 647lbs OK



BASE MATERIAL	POWDER-ACTUATED FASTENER	INSTALLATION METHOD	LOAD DATA	
Steel	X-U and X-U 15 Fasteners	Standard	Table 2	
Steel	X-U Fastener	Through cold-formed steel clip angle	Table 7	
Normal Weight Consists	X-U Fastener	Standard	Table 3	
Normal-Weight Concrete	X-O Fastener	DX-KWIK	Table 4	
Hollow Core Precast Concrete	X-U Fastener	Standard	Table 3	
Sand-lightweight Concrete	X-U Fastener	Standard		
3-inch Deep Composite Floor Deck Panel	X-U Fastener	Standard	Table 5	
1 ¹ / ₂ -inch Deep Composite Floor Deck Panel	X-U Fastener	Standard		
Hollow Concrete Masonry Units	X-U Fastener	Standard	Table C	
Grout-Filled Concrete Masonry Units	X-U Fastener	Standard	Table 6	

TABLE 1—APPLICATION DESCRIPTIONS

TABLE 2-ALLOWABLE LOADS FOR FASTENERS DRIVEN INTO STEEL^{1,2} (lbf)

	FASTENER					ST	EEL THIC	KNESS (i	n.)			
DESCRIPTION		DIAMETER (in.)	³ / ₁	16	1/ ¹ /	4	3/	8	1	2	≥ "	³ / ₄
		()	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
Universal Knurled Shank	X-U ⁶	0.157	500	720	775	720	935	720	900	720	350 ⁴ 275 ³	375 ⁴ 350 ³
Universal Knurled Shank	X-U 15	0.145	155	400	230	395	420	450	365⁵	500 ⁵	365 ⁵	400 ⁵

For SI: 1 inch = 25.4 mm, 1 lbf = 4.4 N; 1 ksi = 6.9 MPa.

¹Allowable load capacities are based on base steel with minimum yield strength (F_y) of 36 ksi and minimum tensile strength (F_u) of 58 ksi. ²The fasteners must be driven to where the point of the fastener penetrates through the steel base material, unless otherwise noted.

³Based upon minimum point penetration of ³/₈ inch.

⁴Based upon minimum point penetration of ½ inch.

⁵Based upon minimum point penetration of $^{15}/_{32}$ inch.

⁶Allowable loads are applicable to static and seismic loads in accordance with Section 4.1.

TABLE 3—ALLOWABLE LOADS FOR FASTENERS DRIVEN INTO NORMAL-WEIGHT CONCRETE^{1,2} (lbf)

	FASTENER		MINIMUM		CONC	RETE COMPR	RESSIVE STRI	ENGTH	
DESCRIPTION		DIAMETER	EMBEDMENT (in.)	2000) psi	400	0 psi	6000) psi
		()	(111.)	Tension	Shear	Tension	Shear	Tension	Shear
			³ / ₄	100	125	100	125	105	205
Universal	X-U	0.157	1	165	190	170	225	110 ³	280 ³
Knurled Shank	X-0	0.157	1 ¹ / ₄	240	310	280	310	180	425
			1 ¹ / ₂	275	420	325	420	-	Ι

For **SI:** 1 inch = 25.4 mm, 1 **I**bf = 4.4 N, 1 psi = 6895 Pa.

¹Unless otherwise noted, values apply to normal weight cast-in-place concrete. Fasteners must not be driven until the concrete has reached the designated minimum compressive strength.

²Unless otherwise noted, concrete thickness must be a minimum of 3 times the embedment depth of the fastener.

³This allowable load value also applies to normal weight hollow core concrete slabs with f_c of 6600 psi and minimum dimensions shown in Figure 6, when installed in accordance with Section 4.2.4.

3x170 = 510lb cap > 440lb rxn OK



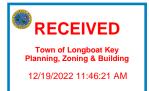
Fasteners (Screws and Welds)

Screw Table Notes

- 1. Allowable screw connection capacities are based upon section E4 of the AISI S100-07, North American Specification for the Design of Cold-Formed Steel Structural Members.
- 2. When connecting materials of different steel thicknesses or tensile strengths, use the lowest values. Tabulated values assume two sheets of equal thickness are connected.
- 3. Screw shear and tension capacities were developed using published screw manufacturer data and evaluation reports available at the time of publications.
- 4. A nominal shear stress of 42.85 ksi and a nominal tension stress of 40.84 ksi were used for calculations based on screw manufacturer data.
- 5. Screw capacities are based upon Allowable Strength Design (ASD) and include safety factor of 3.0.
- 6. When multiple fasteners are used, screws are assumed to have a center-to-center spacing of at least 3 times the nominal diameter (d).
- 7. Screws are assumed to have a center of screw to edge of steel dimension of at least 1.5 times the nominal diameter (d) of the screw.
- 8. Tension capacity is based upon the lesser of pullout capacity in sheet closest to screw tip, or pullover capacity for sheet closest to screw head (based upon head diameter).
- 9. Note that for all tension values calculated in screw table, pullover values have been reduced by 50%, assuming eccentrically loaded connections that produce a non-uniform pullover force of the fastener.
- 10. Screw capacities are governed by a conservative estimate of screw capacity, not by sheet steel failure.
- 11. For higher screw capacities, especially for screw strength, use specific screws from specific manufacturers. See manufacturers' data for specific allowable values and installation instructions.

	Allowable Screw Connection Capacity (Pounds per Screw)											
	Yield	Tensile	# 6	Screw	# 8	Screw	# 10	Screw	# 12	Screw	1/4"	Screw
Thickness (Mils)	Strength, Fy	Strength, Fu	(0.138" Dia	, 5/16" Head)	(0.164" Dia	, 5/16" Head)	(0.190" Dia,	0.340" Head)	(0.216" Dia,	0.340" Head)	(0.250" Dia,	0.409" Head)
(inits)	(ksi)	(ksi)	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension
18	33	33	44	24	48	29	52	33	55	38	60	44
27	33	33	82	37	89	43	96	50	102	57	110	66
30	33	33	95	40	103	48	111	55	118	63	127	73
33	33	45	151	61	164	72	177	84	188	95	203	110
43	33	45	214	79	244	94	263	109	280	124	302	144
54	33	45	214	100	302	118	370	137	394	156	424	180
54	50	65	214	144	302	171	405	198	523	225	613	261
68	33	45	214	125	302	149	405	173	523	196	600	227
68	50	65	214	181	302	215	405	249	523	284	701	328
97	33	45	214	179	302	213	405	246	523	280	701	324
97	50	65	214	204	302	288	405	356	523	405	701	468
118	33	45	214	204	302	260	405	301	523	342	701	396
118	50	65	214	204	302	288	405	386	523	494	701	572

2x253 = 506lb cap > 440 lb rxn OK





TRANSMITTAL FORM

Town of Longboat Key Planning, Zoning & Building Department 501 Bay Isles Road Longboat Key, Florida 34228 941-316-1966 941-316-1970 Fax

ROM: Jhors Prieto			
Company: Moss Constru	uction		
Phone: 941-376-8307	Ema	ail:jprieto@moss	cm.com
SITE LOCATION/ADDRESS		xico Dr.	
PERMIT NUMBER: PB2	22-0100		
THE FOLLOWING IS SUBN	ITTED FOR CONSIDE	RATION BY PZB ST	AFF
RESPONSE TO COMMEN	ITS		• RECEIVED
REVISIONS / RE-SUBMIT	TALS		Town of Longboat Key Planning, Zoning & Building 12/19/2022 11:46:24 AN
OTHER:			12/19/2022 11.40.24 Aiv
APPLIC	ABLE CODES / TRADI	ES (Check All That A	Apply):
BUILDING / FEMA	□ELECTRICAL □GAS VENTING	☐HVAC ☐GAS PIPING	□PLUMBING □FIRE MARSHAL
TEMS INCLUDED IN THIS	TRANSMITTAL:		
	d calculations and sho	n drawings Poforon	
Ballroom: S/S Engineere	u calculations and sho	rapet at Ballroom.	ced building plan

[®] St. Regis - Longboat Key Resort & Residences 1601 GULF OF MEXICO DRIVE, LONGBOAT KEY, FL

GENERAL NOTES:

1.0 NOMENCLATURE - For framing nomenclature refer to AISI S201-12 E1 (North American Standard for Cold Formed Steel Framing - Product Data) Commentary Section C1 Product Designators. For abbreviations reference General Notes of Architectural and Structural Drawings

1.1 CONSTRUCTION - Construction of cold-formed steel shall conform to AISI S200-12 (North American Standard for Cold Formed Steel Framing - General Provisions). This document and other referenced materials applicable to cold formed framing are available or download, free of charge, at: http://www.cfsei.org/free-publications

1.2 MATERIAL - Materials used to construct the conditions detailed herein shall be supplied by a manufacturer that is a member in good standing of the SFIA, SSMA or other organization with a third- party code compliance certification program or by a manufacturer that can certify and demonstrate compliance with ASTM C955, AISI S100-16, AISI S240-15 and AISI S200-12.

1.3 DIMENSIONS - Dimensions and elevations contained herein are for design reference only. Contract drawings should be used in determining exact distances and all dimensions should be field verified before construction.

1.4 PRIMARY STRUCTURE DESIGN - StructureSmith LLC is not responsible for the design of the primary structure. Futhermore, StructureSmith LLC does not assume liability for claims arising from the failure of the primary structure or elements designed by others. The Designer of Record shall verify the adequacy of the primary structure includes forces and loads transferred to the primary structure by the cold formed framing shown herein.

1.5 ERECTION - Construction loads shall not exceed design live loads. Contractor shall take precaution not to exceed the design loads. Construction loads have not been considered herein. Temporary bracing shall be provided and remain in place until the work is completely stabilized. Lateral and torsional bracing shall be installed at the time when framing in erected.

1.6 GENERAL CONDITIONS - Use of these drawings constitutes acceptance of StructureSmith LLC's General Conditions. A copy is provided at the time of proposal or transmitted with these drawings. A copy is available upon request.

CONNECTIONS:

2.0 SCREWS - All Screw connections shall conform with AISI S240-15 Section D1 - Screw Connections.

2.1 WELDING - All welded connections shall conform with AISI S240-15 Section D2 - Welded Connections and AWS D1.3. All welded connections shall have a minimum throat thickness (t) equal to or greater than the thickness of the thinnest connected part. Use a zinc rich paint on all welded connections to provided adequate corrosion resistance per paint manufacturers recommendations. Follow safe welding procedures in AWS D19.0 and ANSI Z49.1 2.2 OTHER FASTENERS - All Powder Actuated Fasteners (PAF's), Powder Driven Fasteners (PDF's), Gas Actuated Fasteners (GAF's), masonry screws, adhesive anchors, expansion anchors shall be installed in compliance with the fastener manufacturer's recommendations. Installer to follow safety and installation procedures and install fasteners in compliance with spacing, edge distance and embedment dimensions provided by the manufacturer.

2.3 FASTENER SCHEDULE

	SUBSTRATE(S)	DESCRIPTION	PRODUCT	CODE REPORT	edge DISTANCE	SPACING (min.)	
	EXTERIOR METAL TRACK	#10-16 or #10-15 x 5/8" 🏾 🖚 PAN HEAD	ITW BUILDEX "TEKS" PRIMESOURCE "DARTS" GRABBER SELF DRILLING HILTI KWIK-FLEX	ICC ESR-1976 ICC ESR-1408 ICC ESR-1271	5/16'	5/8''	
SCREWS	EXTERIOR STUD TO STUD	#10-16 or #10-15 x 5/8" HEX HEAD					
PAF's* [PDF's]	CONCRETE OR GROUTED CMU HIGH LOAD COND.	0.157"Ø x 1-1/4"	RAMSET True Embedment "TE" HILTI X-U	ICC ESR-1799 ICC ESR-2269	3"	4''	
r screws	MASONRY (CMU)	1/4"x1" Embedment	ITW BUILDEX TAPCON w/ Advanced Threadform Technology Hilfi Kwik Con II Powers Tapper +	NOA 16-1222.06 NOA 12-0625.05 NOA 15-0629.06	2"	4''	
MASONRY	CONCRETE OR GROUTED CMU	1/4"x1-3/4" EMBEDMENT	ITW BUILDEX TAPCON w/ Advanced Threadform Technology Hilti Kwik Con II Powers Tapper +	NOA 16-1222.06 NOA 12-0625.05 NOA 15-0629.06	3"	4''	
600	OMEN DS162-43 (33ksi) uctural Profile			tember Type AISI S137 Studs 2200 S250	Flange Width 1-3/8" 1-5/8" 2" 2-1/2"		
	'			S300 S350 T125 T200 T250 T300 T300 T350	3" 3-1/2" 1-1/4" 2" 2-1/2" 3" 3-1/2"		
	g	승이 162-43 - S			·		
		E 6005162-43 - 5 E 6005162-5 E 6005162-5 E 6005162-5 E 6005162-5 E 6005162-5 E 6005162-5 E 600	Thickness Mils Gauge E Th 33 20 - 43 18 - 54 16 - 68 14 -	ickness Thickness C 0346" .0329" V 0451" .0428" Y 0566" .0538" C 0713" .0677" C	Color Code Vhite ellow Green Drange ed	Town of Long Planning, Zoning 12/19/2022 11:	boat Ke J & Build

HEADERS & SILLS:

3.0 HEADERS - All Headers must be constructed and installed in accordance with AISI S240-15. All headers and beams are to be constructed with UNPUNCHED material only. Splicing is not permitted.

WALL FRAMING:

4.0 WALLS & FRAMING - Wall Framing shall conform to AISI S240-15 General Provisions and AISI S240-15 Wall Stud Design.

4.1 STUDS - Studs shall be cut by shearing or sawing. No heat cutting or torching is permitted. Studs shall not be notched or otherwise deformed unless stated herein.

DESIGN CRITERIA:

5.0 Shop drawings are designed for compliance with:

Building Code: Florida Building Code 2020 (7th Edition) Wind Standard: ASCE 7-16

Cold-Formed Steel Design Specification: AISI \$100-16

5.1 Deflection Criteria:

Exterior Walls = L/360 (Stucco)

* A 0.7 multiplier on service loads was used deflection calculations

5.2 Dead Loads:

Exterior Walls: 12 psf

5.3 Wind Criteria (Components & Cladding)

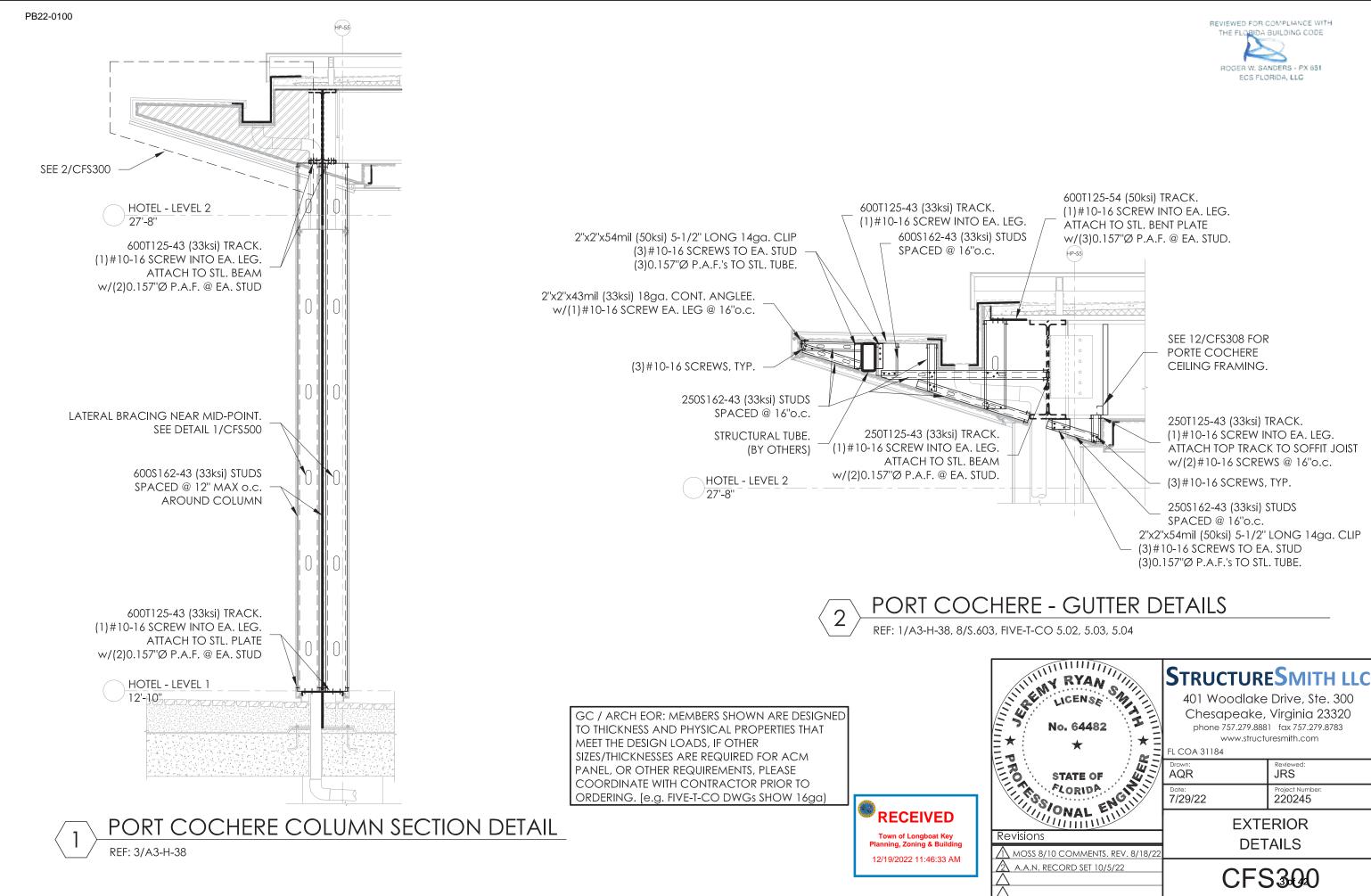
- Risk Cat. II, Velocity = 150mph (3 sec.), Exp. C, Kzt = 1.0,
- Kd = 0.85, Enclosed Bldg.
- (Calculations checked for loads provided in RFI0411)

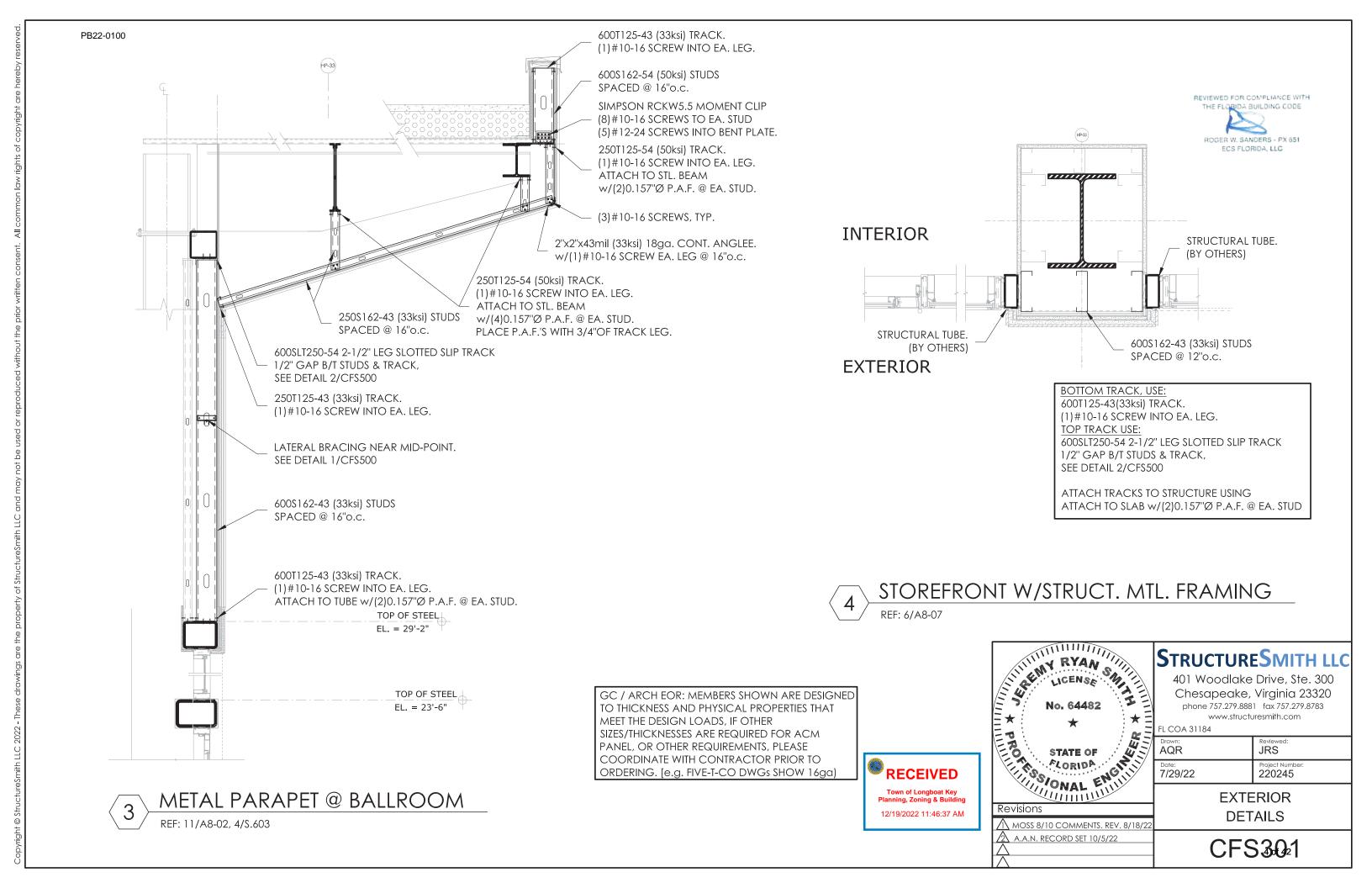
Sheet Index:

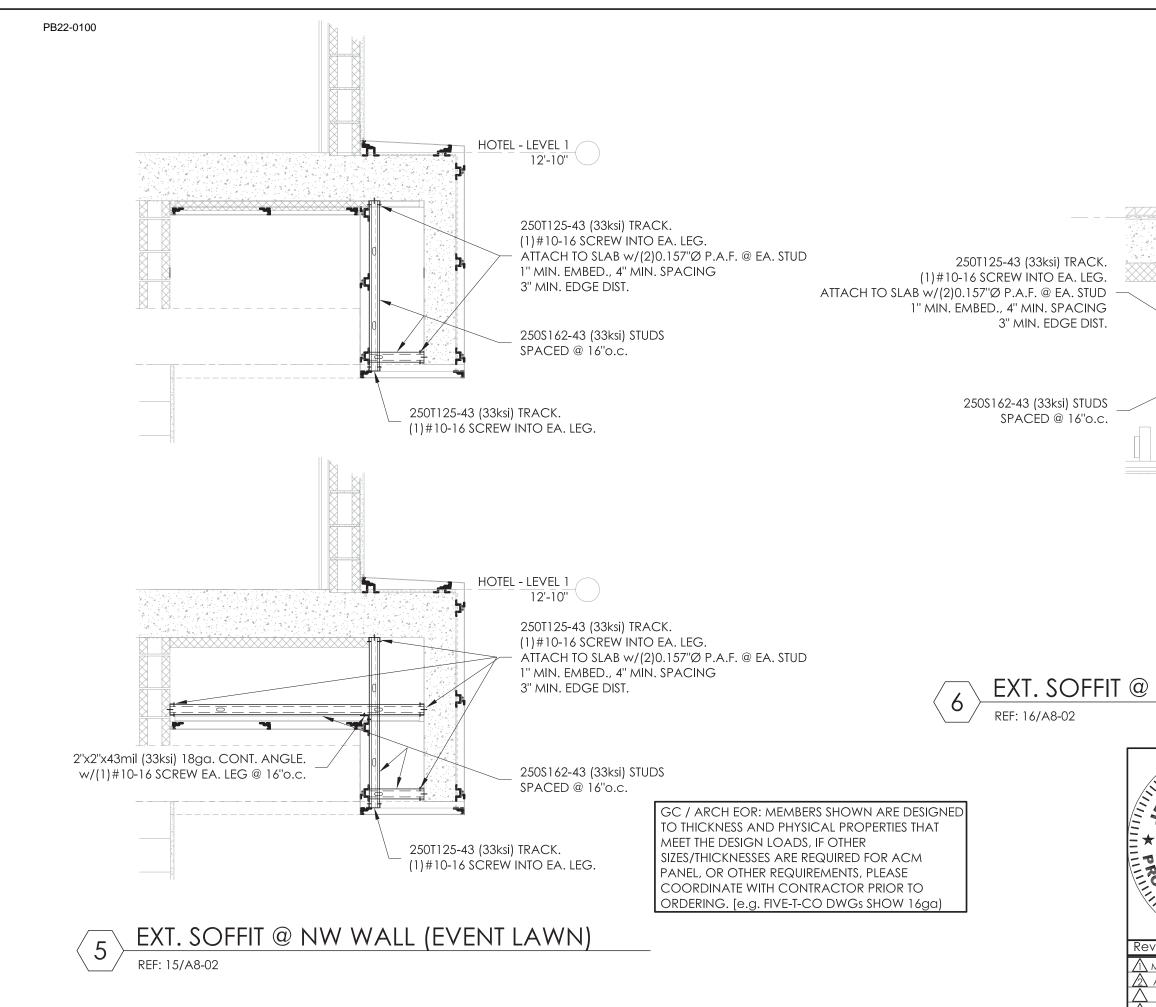
- CFS100 General Notes
- CFS300 CFS309 Wall & Ceiling Sections
- CFS500 CFS501 Framing Details



No. 64482	401 Woodlake Chesapeake, phone 757.279.888	ESMITH LLC Drive, Ste. 300 Virginia 23320 1 fax 757.279.8783 Jresmith.com	
STATE OF		Reviewed: JRS	
Pint Disigned by to W 8 bryth UNITE-US 6-5th mar 10 bryth ot #A014100t 100 71006396620 0002EEX 5 Britting Sprith	Date: 7/29/22	Project Number: 220245	
Revisions	GENERAL		
MOSS 8/10 COMMENTS. REV. 8/18/22	NOTES		
A.A.N. RECORD SET 10/5/22	CFS	S100	







REVIEWED FOR COMPLIANCE WITH THE FLOBIDA BUILDING CODE ROGER W. SANDERS - PX 651 ECS FLORIDA, LLC he ste HOTEL - LEVEL 2 27'-8" RECEIVED Town of Longboat Key Planning, Zoning & Building 12/19/2022 11:46:40 AM EXT. SOFFIT @ NW WALL (EVENT LAWN) No. 64482 STRUCTURESMITH LLC 401 Woodlake Drive, Ste. 300 Chesapeake, Virginia 23320 phone 757.279.8881 fax 757.279.8783 www.structuresmith.com STATE OF CORIDA FL COA 31184 Drawn: AQR Reviewed: Proiect Numbe 7/29/22 220245 **EXTERIOR** Revisions DETAILS MOSS 8/10 COMMENTS. REV. 8/18/2 A.A.N. RECORD SET 10/5/22 CFS302

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ight © StructureSmith LLC 2022 - Th

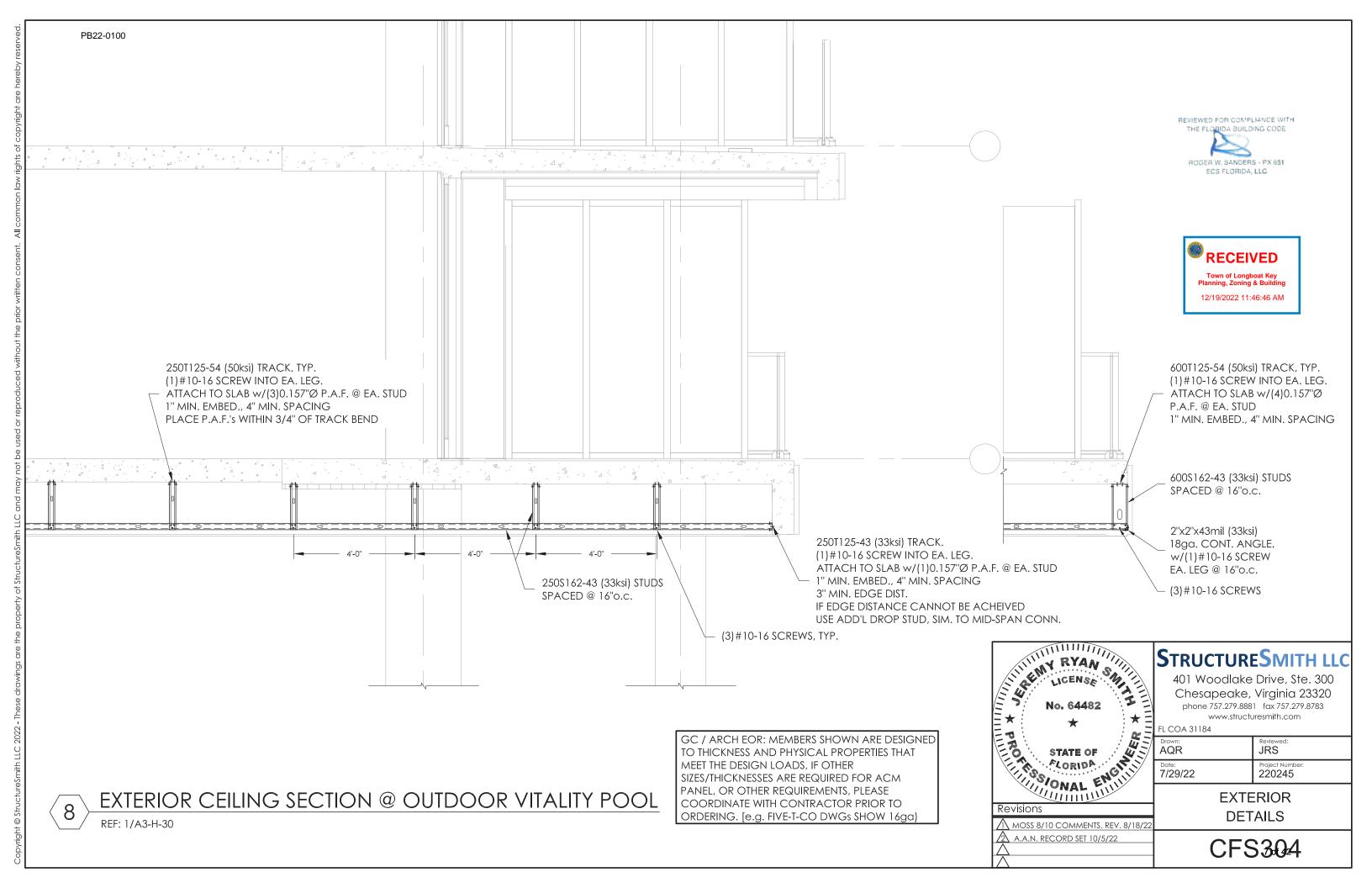


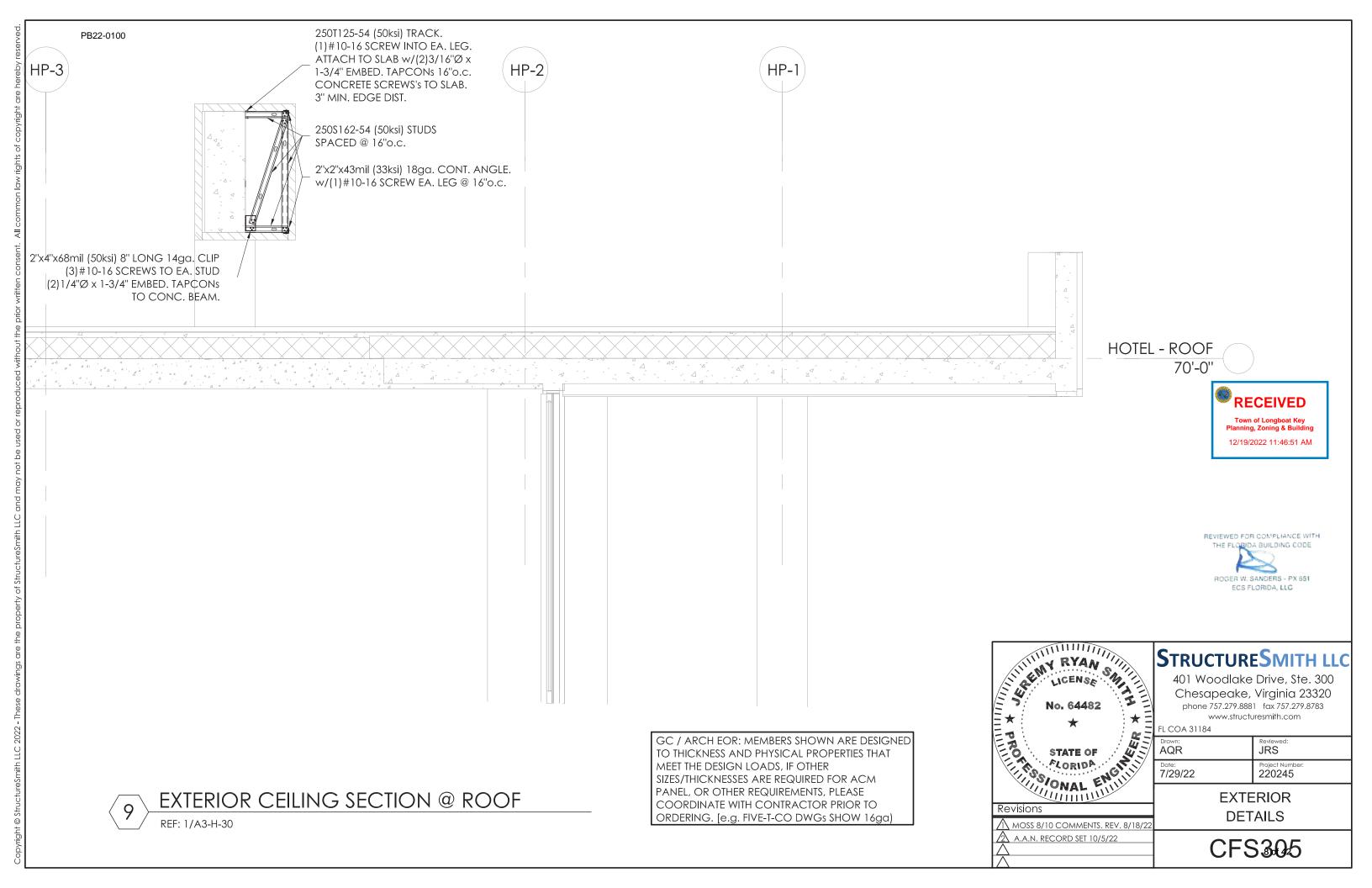


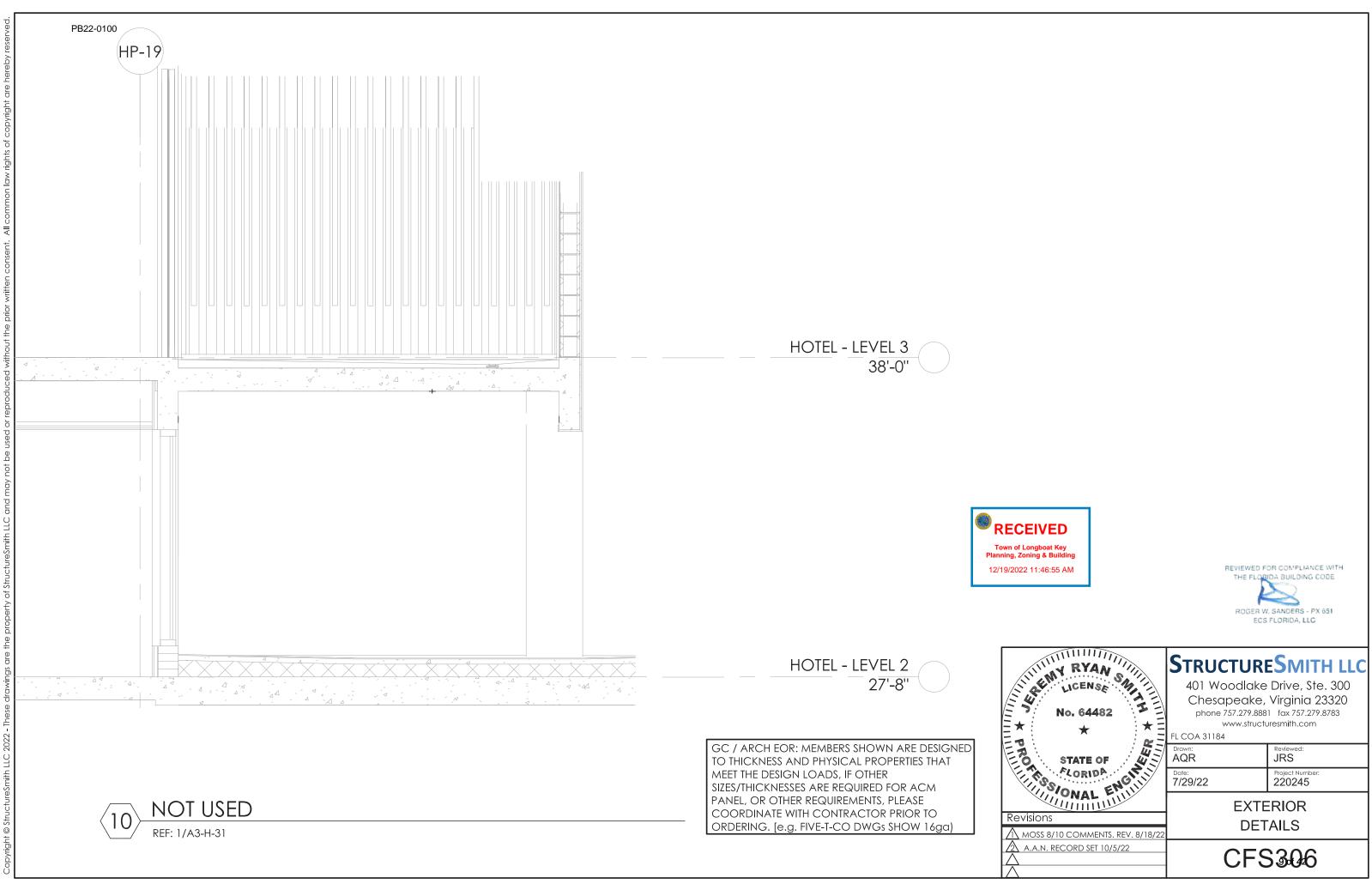
Town of Longboat Key Planning, Zoning & Building 12/19/2022 11:46:43 AM

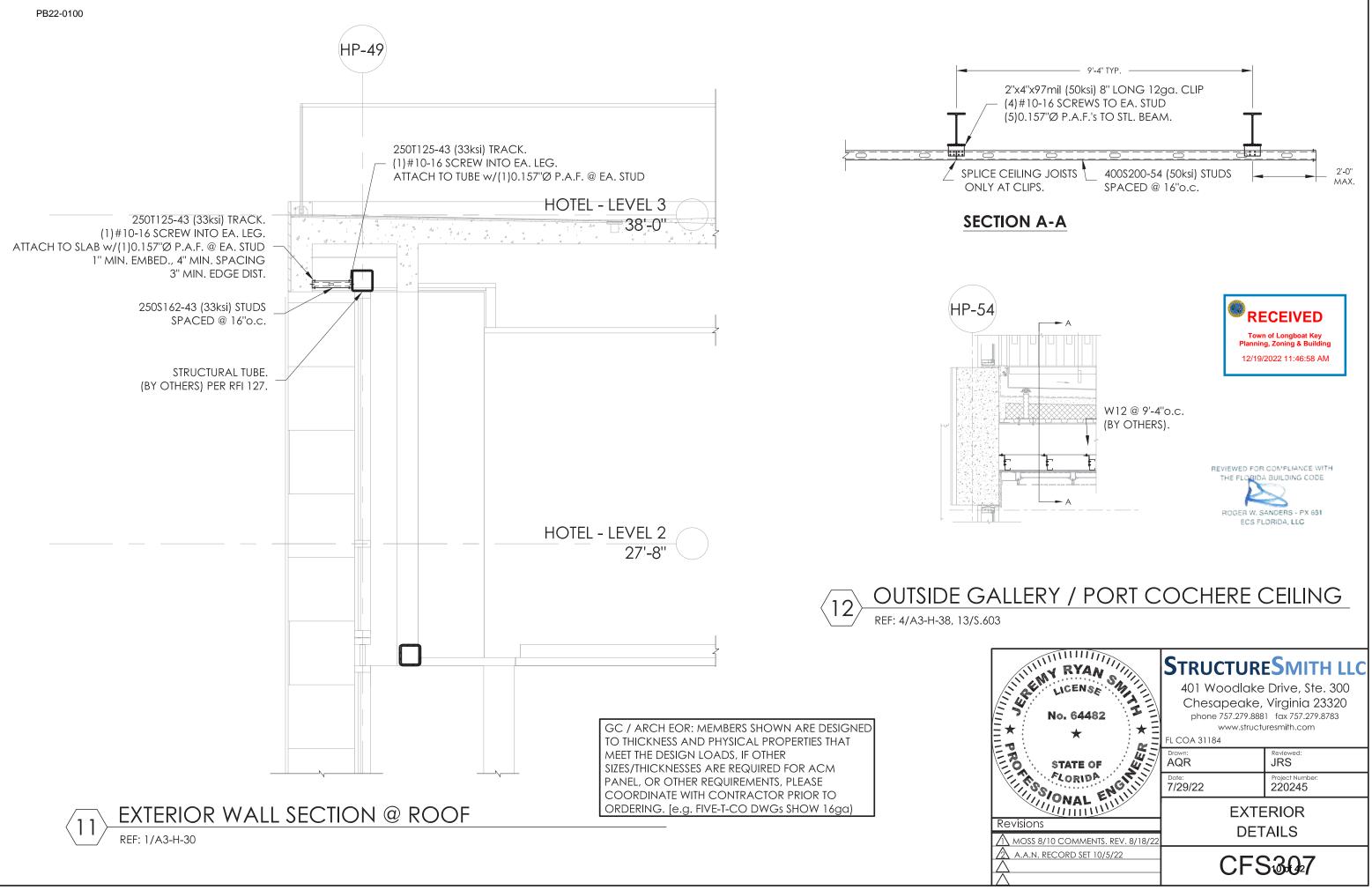
REVIEWED FOR COMPLIANCE WITH THE FLORIDA BUILDING CODE ROGER W. SANDERS - PX 651 ECS FLORIDA, LLC

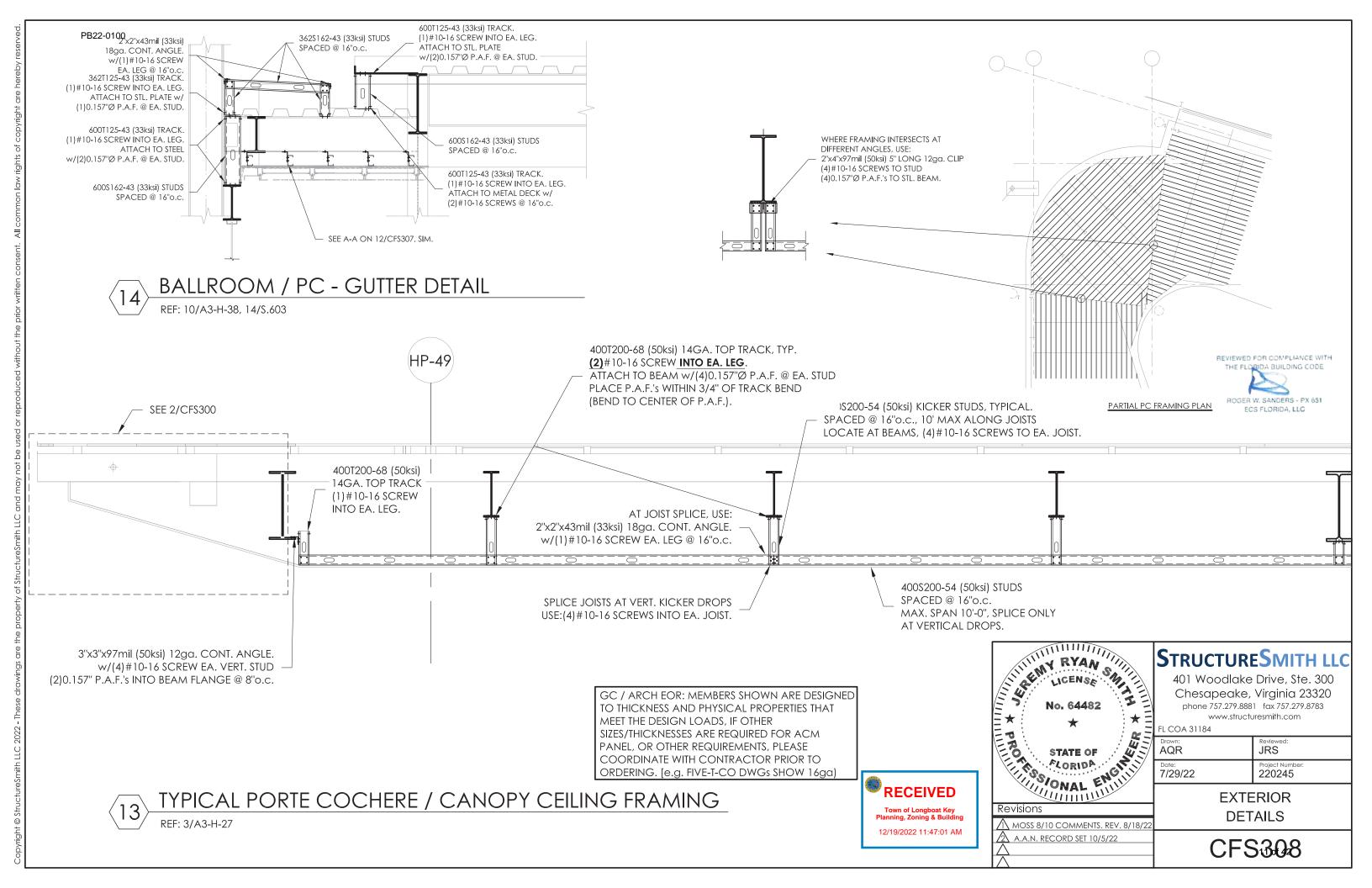


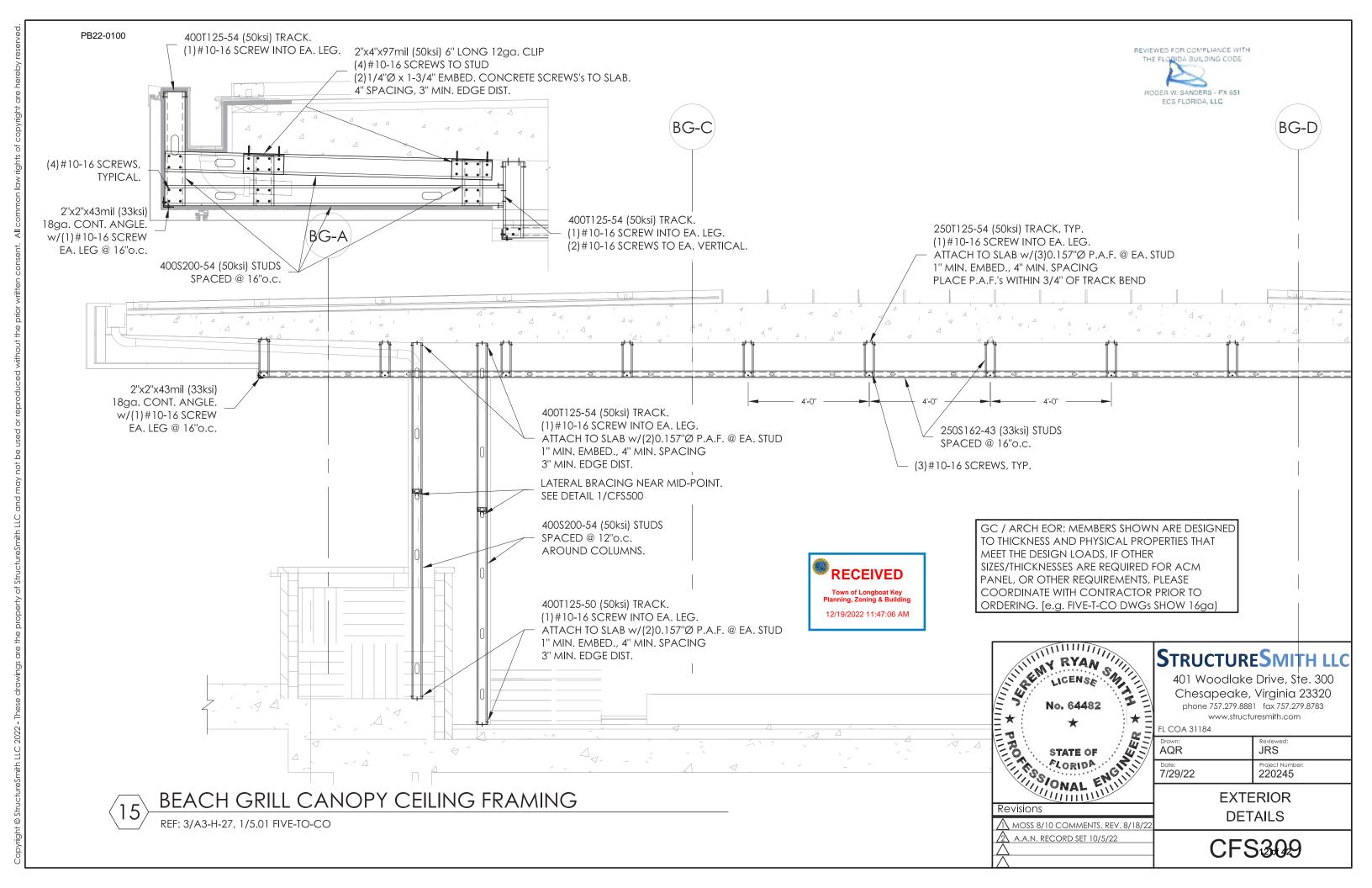


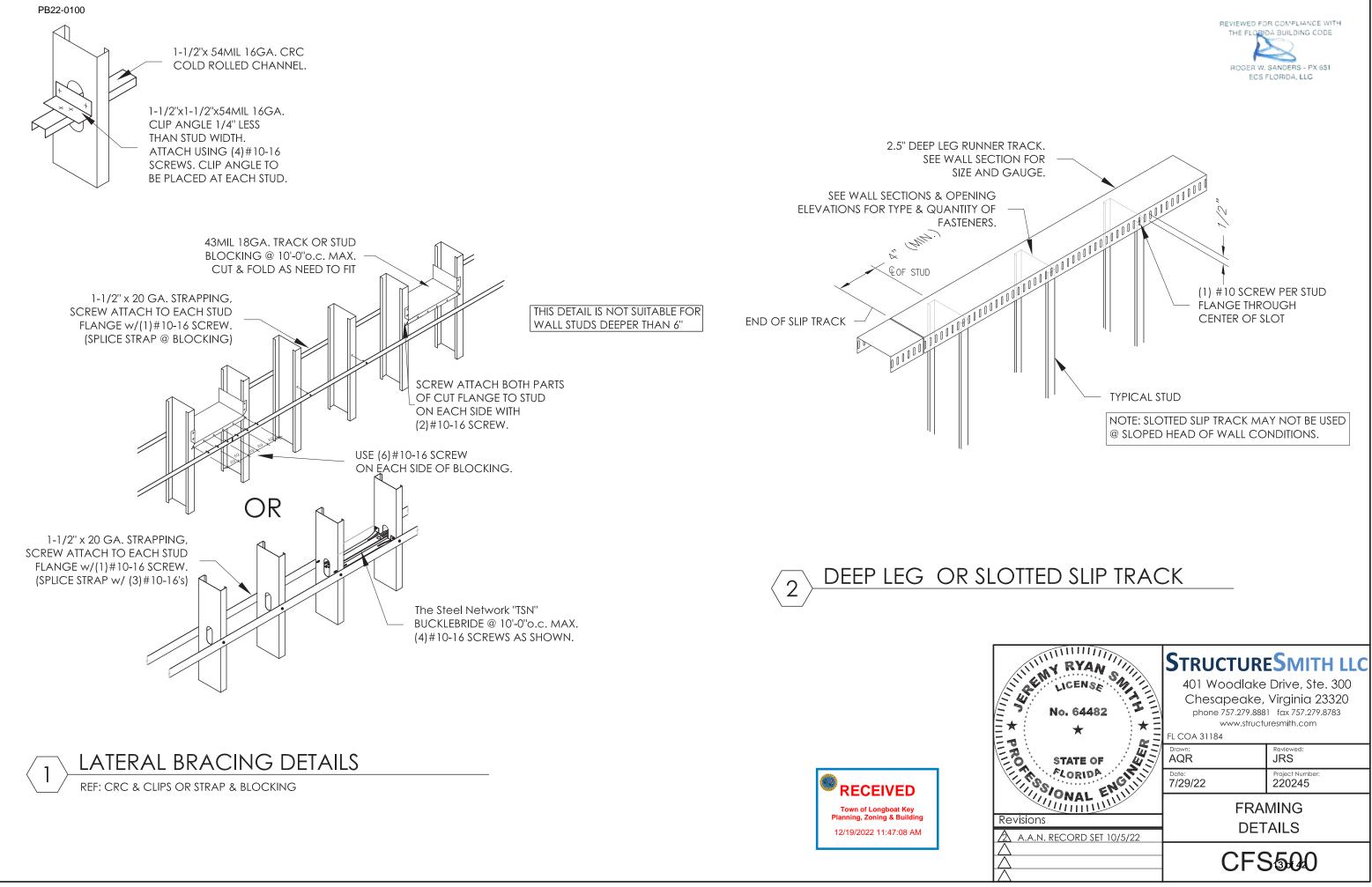
















Cold-Formed Steel Shop Drawings & Calculations for:

StructureSmith Project #: 220245

St. Regis Longboat Key Hotel & Residences

Longboat Key, FL

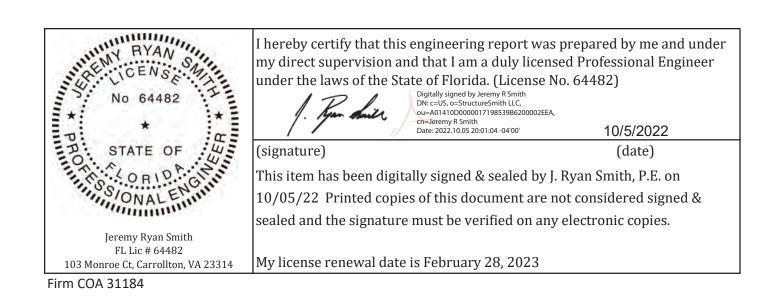
Calculation Cover Page

Signed & seal below constitutes certification for entire calculation package contained herein.

5-0ct-22



Submitted by: J. Ryan Smith, P.E. Principal



StructureSmith, LLC FL COA #31184 SC COA 5436 AZ Firm 19645 StructureSmith LLC 401 Woodlake Dr. Ste. 300 Chesapeake, VA 23320 757-693-4141 StructureSmith, PLLC NC Firm P-1507 14 of 42





Component and cladding ultimate wind pressures (For $15 < h \le 30'$)

Roof	Surface Pressure (psf)			
Area	<10 sf			
Negative Zone 1	-87.03			
Negative Zone 2	-131.94			
Negative Zone 3	-131.94			
Positive Zone 1	47.72			
Positive Zones 2 & 3	60.64			
Overhang Zone 1&2	-95.45			
Overhang Zone 3	-95.45			

Overhang soffit pressure equals adjacent wall pressure reduced by internal pressure of 34.6 psf

Parapet	Solid Parapet Pressure (psf)
Parapet (Field)	155.70
Parapet (Corner)	155.70

Walls	Surface Pressure (psf)				
Area	10	500			
Negative Zone 4	-86.46	-71.31			
Negative Zone 5	-101.62	-71.31			
Positive Zone 4 & 5	81.41	66.25			

-86.45 x 0.6 = 51.8psf -101.62 x 0.6 = 60.97psf +81.41 x 0.6 = 48.85psf

Component and cladding ultimate wind pressures (For $h \leq 15$)

Roof	Surface Pressure (psf)
Area	<10 sf
Negative Zone 1	-77.14
Negative Zone 2	-116.96
Negative Zone 3	-116.96
Positive Zone 1	42.30
Positive Zones 2 & 3	53.75
Overhang Zone 1&2	-84.61
Overhang Zone 3	-84.61

Overhang soffit pressure equals adjacent wall pressure reduced by internal pressure of 34.6 psf

Parapet	Solid Parapet Pressure (ps	sf)
Parapet (Field)	141.30	
Parapet (Corner)	141.30	

Walls	Surface Pressure (psf)						
Area	10	500					
Negative Zone 4	-76.65	-63.21					
Negative Zone 5	-90.08	-63.21					
Positive Zone 4 & 5	72.17	58.73					

RECEIVED Town of Longboat Key Planning, Zoning & Building 12/19/2022 11:47:13 AM

-76.65 x 0.6 = -46.0psf
-90.08 x 0.6 = -54.05psf
+72.17 x 0.6 = 43.30psf



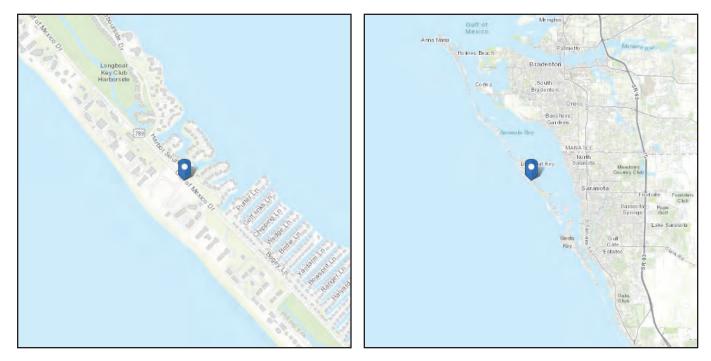
ASCE 7 Hazards Report

Address: 1620 Gulf of Mexico Dr Longboat Key, Florida 34228 Standard:ASCE/SEI 7-16Risk Category:IISoil Class:D - Stiff Soil

 Elevation:
 11.3 ft (NAVD 88)

 Latitude:
 27.352584

 Longitude:
 -82.610305



Wind

Results:

Wind Speed	150 Vmph
10-year MRI	82 Vmph
25-year MRI	98 Vmph
50-year MRI	112 Vmph
100-year MRI	124 Vmph



Data Source: Date Accessed: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2 Wed Jun 08 2022

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings shall be protected against wind-borne debris as specified in Section 26.12.3.

Project Name: 220245 - St Regis Longboat Key Exterior Framing Model: C&C Wind Code: ASCE 7-16

Page 1 of 1 Date: 07/30/2022 Simpson Strong-Tie® CFS Designer™ 4.2.0.13

WIND LOAD 150 mph, Ex			of Heigh	nt = 35.0 ft					
K _{zt} at Base =	1		-						
$K_{d} = 0.85$, R	oof Slope	e 0.0 degre	es						
Enclosed Bu	ilding, G	C _{pi} = 0.18							
WALL COM	PONENT	S AND CI		G per ASCE	7-16 Figure :	30 3-1			
Tributary			by Zone		in to rigato (00.0 1		R	ECEIVED
Area (ft2)	Zone	e 4 (+/-)		_ Zone 5 (+/-	·)				wn of Longboat Key hing, Zoning & Building
10 ft ²	0.90)/-0.99		0.90/-1.26	;			12/1	9/2022 11:47:22 AM
50 ft ²	0.79	9/-0.88		0.79/-1.04					
500 ft ²	0.63	8/-0.72		0.63/-0.72					
Height					Tributary	Wind	Pressures	(psf) by Zor	<u>ne ()</u>
z (ft)	Kz	K _{zt}	Ke	K _e q _z (psf)		Windward	l (4,5) Leev	ward (4) L	eeward (5)
0 - 35) - 35 1.19 1.00 1.00		1.00	58.45	10	63.1	-(68.4	-84.2
					50	56.6 -6		61.9	-71.2
					500	47.3	-:	52.6	-52.6
<u>PARAPETS</u>				GC	Cp by Case a	OR EQL			S GREATER THAN WN IN RFI0411
Tributar	у	Case A		Cas	e A	Cas	e B	Ca	se B
Area	((Zone 4/-2)		(Zone 4	or 5/-3)	(Zone -4/4 or 5)		(Zone -	5/4 or 5)
(ft2)	F	-ront/-Back	[Front/-	-Back	-Front	/Back	-Fron	t/Back
10 ft ²		0.90/-2.30		0.90/-	3.20	-0.99	/0.90	-1.26	6/0.90
50 ft ²		0.79/-1.93		0.79/-	2.46	-0.88	/0.79	-1.04	ł/0.79
500 ft ²		0.63/-1.40		0.63/-	1.40	-0.72	/0.63	-0.72	2/0.63
					Wind	Pressures	(psf) by Cas	e and Zone	0
Top of									<u></u>
Parapet					Tributary	Case A	Case A	Case B	Case B
(ft)	Kz	K _{zt-p}	Ke	q h-p	Area (ft2)	(4/-2)	(4 or 5/-3)	(-4/4 or 5) (-5/4 or 5)
70	1.35	1.00	1.00	65.94	10	211.0	270.3	-124.6	-142.4
					50	179.3	214.3	-110.1	-120.7
					500	133.9	133.9	-89.0	-89.0

The GCp Values

Do Not Always Vary Linearly between these Areas in Figures 30.3-1 through 30.5-1.

Therefore, Interpolation of These Calculated Values is Not Recommended.

WIND LOAD - ASCE 7-16

158 mph, Exposure D, Mean Roof Height = 30.0 ft

 K_{zt} at Base = 1

 K_{d} = 1.00 , Roof Slope 2.0 degrees

Enclosed Building, $GC_{pi} = 0.18$

(Wind Loads Shown are for Alternate Basic Load Combinations Using Allowable Stress Design and are Multiplied by a Factor of 0.6 to convert to ASD)

WALL COMPONENTS AND CLADDING per ASCE7-16 Figure 30.3-1

Tributary		<u>GCp I</u>	oy Zone	2	Ū				RECEIVED	
Area (ft2)	Zone	e 4 (+/-)		Zone 5 (+/-))				Town of Longboat Key	
10 ft ²	0.90	0/-0.99		0.90/-1.26					nning, Zoning & Building	
50 ft ²	0.79	9/-0.88		0.79/-1.04				12	2/19/2022 11:47:25 AM	
500 ft ²	0.63	3/-0.72	0.63/-0.72							
Height					Tributory	Wind Pr) by Zon	<u>e ()</u>		
z (ft)	Kz	K _{zt}	K _e	q _z (psf)	Tributary Area (ft2)	Windward (4	5) Leeward	d (4) Le	eeward (5)	
0 - 30	1.16	1.00	1.00	00 74.27 10		48.1	-52.1		-64.2	
					50	43.2	-47.2	2	-54.3	
					500	36.1	-40.1		-40.1	
PARAPETS										
				GC	p by Case a	and Zone				
Tributar	ributary Case A			Case	Α	Case B		Cas	e B	
Area		(Zone 4/-2)		(Zone 4 d	or 5/-3)	(Zone -4/4 or 5)		(Zone -5/4 or 5)		
(ft2)		Front/-Back		Front/-	Back	-Front/Ba	ck	-Front	/Back	
10 ft ²		0.90/-2.30		0.90/-:	3.20	-0.99/0.9	0	-1.26/0.90		
50 ft ²		0.79/-1.93		0.79/-2	2.46	-0.88/0.7	9	-1.04	/0.79	
500 ft ²		0.63/-1.40		0.63/-	1.40	-0.72/0.6	3	-0.72	/0.63	
					Wind	Pressures (pst) by Case an	d Zone (()	
Top of							· · · · · · · · · · · · · · · · · · ·			
Parapet					Tributary	Case A	Case A	Case B	Case B	
(ft)	Kz	K _{zt-p}	K _e	q _{h-p}	Area (ft2)	(4/-2) (4 or 5/-3) (·	-4/4 or 5)	(-5/4 or 5)	
30	1.16	1.00	1.00	74.27	10	142.6	182.7	-84.2	-96.3	
					50	121.2	144.8	-74.4	-81.6	
					500	90.5	90.5	-60.2	-60.2	

The GCp Values

Do Not Always Vary Linearly between these Areas in Figures 30.3-1 through 30.5-1.

Therefore, Interpolation of These Calculated Values is Not Recommended.

ROOF COMPONENTS AND CLADDING - Gable ROOF

ASCE7-16 Figure 30.3-2A

 K_{h} = 1.16; K_{zt} at roof = 1.00; K_{e} = 1.00; q_{h} = 74.27 psf

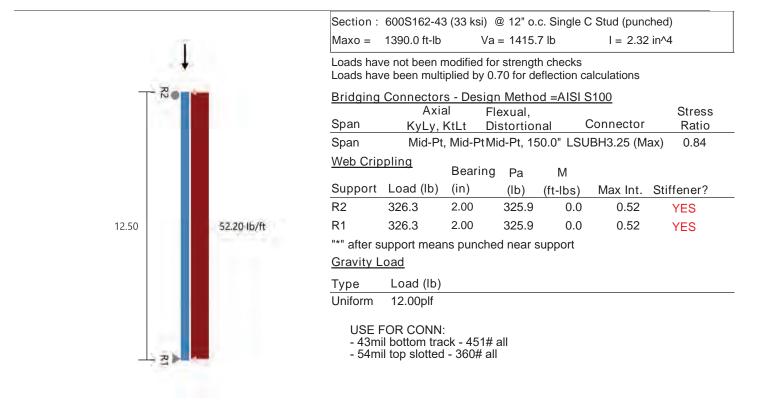
Project Name: 220245 - St Regis Longboat Key Exterior Framing Model: C&C Wind Code: ASCE 7-16 Page 2 of 2 Date: 08/20/2022

Simpson Strong-Tie® CFS Designer™ 4.2.0.13

	Р	ositive Pre	ssure, p (p	sf)		Negative Pressure, p (psf)					
	A=1	0	A=100			A=10		00	A=50	00	
Zone	GC_p	р	GC_p	р	GC_{p}	р	GC_p	р	GC_{p}	р	
Roof 1	0.30	21.39	0.20	16.93	-1.70	-83.78	-1.29	-65.42	-1.00	-52.59	
Roof 2	0.30	21.39	0.20	16.93	-2.30	-110.52	-1.77	-86.91	-1.40	-70.41	
Roof 3	0.30	21.39	0.20	16.93	-3.20	-150.63	-2.14	-103.41	-1.40	-70.41	
Roof 1'	0.30	21.39	0.20	16.93	-0.90	-48.13	-0.90	-48.13	-0.55	-32.56	
Overhang Zone 1					-1.70	-83.78	-1.60	-79.33	-1.00	-52.59	
Overhang Zone 2					-2.30	-110.52	-1.10	-57.04	-1.10	-57.04	
Overhang Zone 3					-3.20	-150.63	-1.96	-95.55	-1.10	-57.04	



Simpson Strong-Tie® CFS Designer™ 4.2.0.13

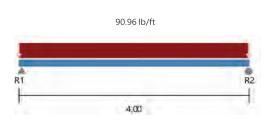


		Code Check	Required	Allowed	Interaction	Notes		
Span		Max. Axial, lbs	150.0(c)	2342.4(c)	6%	KΦ=0.00 lb-in/in Max	KL/r = 130	
		Max. Shear, lbs	326.3	1240.3	26%	Shear (Punched)		
Ν	Max. Moment (MaFy, Ma-dist), ft-lbs		1019.5	1205.1	85%	Ma-dist (control),KΦ=0.00 lb-in/in		
		Moment Stability, ft-lbs	1019.5	1054.2	97%			
	Shear/Mc		0.73	1.00	73%	Shear 0.0, Moment 1	019.5	
		Axial/Moment 1.00 1.00		100%	Axial 76.2(c), Moment 1019.3			
		Deflection Span, in	pan, in 0.294meets					
Support	Rx(lb)	Ry(lb)	Simpso	on Strong-Tie Con	nector	Connector Interaction	Anchor Interaction	
R2	326.3	0.0 By	Others & A	nchorage Designe	d by Engineer	NA	NA	
R1	326.3	150.0 By	Others & A	nchorage Designe	d by Engineer	NA	NA	
* Referenc	e catalog fo	r connector and anchor	requirement	t notes as well as s	crew placemen	t requirements		



Project Name: 220245 - St Regis Longboat Key Exterior Framing

Simpson Strong-Tie® CFS Designer™ 4.2.0.13



SIMPSON STRONG-TIE COMPANY INC.

Maxo =	= 435.3 ft-lb Va = 1265.5 lb I = 0.30 in^4									
	Loads have not been modified for strength checks Loads have not been modified for deflection calculations									
Bridging Connectors - Design Method =AISI S100										
Span	Axia KyLy, I		lexual, istortioi	nal	Connector	Stress Ratio				
Span	NA	N	one, 48.	0"	N/A	-				
Web Crip	pling	Bearing	Ра	М						
Support	Load (lb)	(in)	(lb)	(ft-lbs)	Max Int.	Stiffener?				
R1	181.9	1.00	287.3	0.0	0.33	NO				
R2	181.9	1.00	287.3	0.0	0.33	NO				
"*" after s	upport mear	ns punche	d near s	support						

Section: 250S162-43 (33 ksi) @ 16" o.c. Single C Stud (punched)

	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, Ibs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	181.9	394.2	46%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	181.9	435.3	42%	MaFy (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	181.9	396.5	46%	
	Shear/Moment	0.46	1.00	46%	Shear 181.9, Moment 0.0
	Axial/Moment	0.42	1.00	42%	Axial 0.0(c), Moment 181.9
	Deflection Span, in	0.059	meets L/816		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	181.9	By Others & Anchorage Designed by Engineer	NA	NA
R2	0.0	181.9	By Others & Anchorage Designed by Engineer	NA	NA
* Reference	e catalog for	connector and	anchor requirement notes as well as screw placement rec	quirements	



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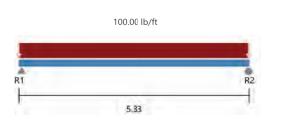
Project Name: 220245 - St Regis Longboat Key Exterior Framing Model: Ballroom Ext Ceilng Slope (-97.6x0.6ASD) Code: 2012 NASPEC [AISI S100-2012]

Г

						250S162-43 435.3 ft-lb	•	,	2 16" o 1265	•	C Stud (p	,
78,13 lb/ft	r 78.1	78.13 13 lb/ft jb/ft		Loa	ads hav	re not been re not been	modifi	ied fo	r strer	ngth check	(S	
2.75	RT I	R2 1.00		<u>Bri</u> Sp		<u>Connector</u> Axia KyLy,	al	Fle	<u>Metho</u> kual, tortio		<u>8100</u> Connector	Stress Ratio
				Let	ft Cant.	NA		Nor	ne, 33.	0"	N/A	-
				Sp	an	NA	None, 5 None, 1		ne, 58.	0"	N/A	-
		RECEI	VED	Rig	ght Can	t. NA			ne, 12.	0"	N/A	-
		Town of Long Planning, Zoning		<u>We</u>	eb Crip	oling	Bear	ing	Ра	М		
		12/19/2022 11	:47:36 AM	Su	pport	Load (Ib)	(in)		(lb)	(ft-lbs)	Max Int.	Stiffener?
				R1		456.6	2.00		675.1	295.4	0.78	NO
				R2		213.7	2.00		675.1	39.1	0.23	NO
				"*"	after su	pport mea	ns pun	ched	near	support		
		Code C	check Re	quired	All	owed	Inte	eracti	on l	Notes		
_eft Can	t.	Max. Ax	ial, lbs	0.0(t)		-		0%		KΦ=0.00	lb-in/in Max	KL/r = N/A
Max. Moment (MaFy, Ma-dist), ft-lbs 29			214.9	3	394.2		55%		Shear (Pu	inched)		
			295.4	4	435.3		68%		MaFy (со	ntrol),ΚΦ=().00 lb-in/in	
		188.6		397.8		47%						
		Shear/M		0.87 1.00 87%					1.9, Momer			
		Axial/M		0.68		1.00		68%			c), Moment	295.4
		Deflection C		0.183	mee	ets L/360				2 x Cantile	ever	
Span		Max. Axi		0.0(t)		-		0%				KL/r = N/A
		Max. She		241.8		94.2		61%		Shear (Pu		
	Max. Momei	nt (MaFy, Ma-dist)		295.4		35.3	68%		ſ	MaFy (control),KΦ=0.00 lb-in/in		.00 lb-in/in
		Moment Stability		97.5		89.2		25%				
		Shear/Me		0.91		1.00		91%			.8, Momen	
		Axial/Me		0.68		1.00	(68%	/	4xiai 0.0(c), Moment	295.4
		Deflection Sp		0.016	meet	s L/3517		001		14 0.00		
Right Ca	nt.	Max. Ax		0.0(t)		-		0%				k KL/r = N/A
	Max Mama	Max. She		78.1		394.2 125.2		20%		Shear (Pu		00 lh in/in
	wax. wome	nt (MaFy, Ma-dist) Moment Stability		39.1 24.9		435.3 397.8		9% 6%		иагу (со	ιιιοι),κΦ=().00 lb-in/in
		Shear/M		24.9 0.22		1.00		6% 22%		Shear 78	1, Moment	39.1
		Axial/M		0.22		1.00		22 <i>%</i>			c), Moment	
		Deflection C		0.011		ts L/2196		070		2 x Cantile		
Support	Rx(lb)	Ry(lb)		Simpso	on Stro	ng-Tie Cor	nnecto	r			onnector eraction	Anchor Interactior
R1	0.0	456.6	By Oth	-		ge Designe			er		NA	NA
R2	0.0	213.8	-			ge Designe	-	-			NA	NA

Project Name: 220245 - St Regis Longboat Key Exterior Framing Model: Event Lawn Ceiling Studs (-95psf x0.6 -18) Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 4.2.0.13



Section: 250S162-43 (33 ksi) @ 16" o.c. Single C Stud (punched) Maxo = 435.3 ft-lb Va = 1265.5 lb I = 0.30 in^4								
Loads have not been modified for strength checks Loads have not been modified for deflection calculations								
Bridging Connectors - Design Method =AISI S100 Axial Flexual, Stress								
Span	KyLy, KtLt		Distortional		Connector	Ratio		
Span	NA		None, 64.0"		N/A	-		
Web Crippling Bearing Pa M								
Support	Load (lb)	(in)	(lb)	(ft-lbs)	Max Int.	Stiffener?		
R1	266.7	1.00	287.3	0.0	0.48	NO		
R2	266.7	1.00	287.3	0.0	0.48	NO		
"*" after support means punched near support								
ed Allowed Interaction Notes								

	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, Ibs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	266.7	394.2	68%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	355.5	435.3	82%	MaFy (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	355.5	363.7	98%	
	Shear/Moment	0.82	1.00	82%	Shear 0.0, Moment 355.5
	Axial/Moment	0.82	1.00	82%	Axial 0.0(c), Moment 355.5
	Deflection Span, in	0.204	meets L/313		

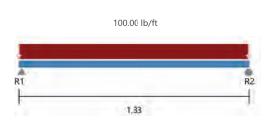
Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction		
R1	0.0	266.7	By Others & Anchorage Designed by Engineer	NA	NA		
R2	0.0	266.7	By Others & Anchorage Designed by Engineer	NA	NA		
* Reference catalog for connector and anchor requirement notes as well as screw placement requirements							



Project Name: 220245 - St Regis Longboat Key Exterior Framing Model: Event Lawn Small Ceiling Studs (-95psf x0.6 -18) Code: 2012 NASPEC [AISI S100-2012]

Date: 07/30/2022

Simpson Strong-Tie® CFS Designer™ 4.2.0.13



Maxo =	435.3 ft-lb	Va	= 1265.	.5 lb	I = 0.30 in^4			
Loads have not been modified for strength checks Loads have not been modified for deflection calculations								
Bridging Connectors - Design Method =AISI S100								
Span	Axial Span KyLy, KtLt			Flexual, Distortional		Stress Ratio		
Span			None, 16.0"		N/A	-		
Web Crippling Bea			Ра	М				
Support	Load (lb)	(in)	(lb)	(ft-lbs)	Max Int.	Stiffener?		
R1	66.5	1.00	287.3	0.0	0.12	NO		
R2	66.5	1.00	287.3	0.0	0.12	NO		
"*" after support means punched near support								

Section: 250S162-43 (33 ksi) @ 16" o.c. Single C Stud (punched)

	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, Ibs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	66.5	394.2	17%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs		435.3	5%	MaFy (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	22.1	397.8	6%	
	Shear/Moment	0.17	1.00	17%	Shear 66.5, Moment 0.0
	Axial/Moment	0.05	1.00	5%	Axial 0.0(c), Moment 22.1
	Deflection Span, in	0.001	meets L/20196		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction		
R1	0.0	66.5	By Others & Anchorage Designed by Engineer	NA	NA		
R2	0.0	66.5	By Others & Anchorage Designed by Engineer	NA	NA		
* Reference catalog for connector and anchor requirement notes as well as screw placement requirements							



Project Name: 220245 - St Regis Longboat Key Exterior Framing Model: Beach Grill Ceiling Framing (-95psf x 0.6 -18psf DL) - Duplicate -

Code: 2012 NASPEC [AISI S100-2012]

				tion: 250S162-43 to = 435.3 ft-lb		16" o.c. Singl 1265.5 lb	e C Stud (u I = 0.3	
100.00 lb/ft	100.00 lb/ft	100.00 lb/ft		ds have not been ds have not been				
R	↓ R2	R3 R4	Brid	lging Connector Axia			<u>S100</u>	Stress
-	1	1 1	Spa	n KyLy, I		ortional	Connector	Ratio
4.00	4.00	4.00	Left	Span NA	Full,	48.0"	N/A	-
			Mide	dle NA	Full,	48.0"	N/A	-
			Righ	nt Span NA	Full,	48.0"	N/A	-
			Web	<u>Crippling</u>	_ .			
			0			Pa M	••	0
	use 54mil to	o track into slab		port Load (Ib)		(lb) (ft-lbs)	Max Int.	
(647# all tens	ion, 3 PAF to slab	R1	160.0		61.4 0.0		NO
	510# all ten	sion	R2	440.0	4.00 8	10.0 160.	0 0.52	NO
			R3	440.0	1.00 5	79.7 160.	0 0.64	NO
			R4	160.0	1.00 2	.87.3 0.0	0.29	NO
			"*" a	fter support mear	ns punched	near support		
		Code Check R	Required	Allowed	Interactio	on Notes		
Left Span	ו	Max. Axial, lbs	0.0(t)	-	0%	КФ=0.0	0 lb-in/in Ma	ax KL/r = N/A
		Max. Shear, lbs	240.0	1265.5	19%			
	Max. Mome	nt (MaFy, Ma-dist), ft-lbs	160.0	435.3	37% MaFy (control),KΦ=0.			0.00 lb-in/in
		Moment Stability, ft-lbs	128.0	435.3	29%		//	
		Shear/Moment	0.41	1.00	41%		40.0, Mome	ent 160.0
		Axial/Moment	0.37	1.00	37%)(c), Momer	
		Deflection Span, in	0.034	meets L/1404			(-),	
Middle Spa	an	Max. Axial, lbs	0.0(t)	-	0%	KΦ=0 00	lb-in/in Max	KL/r = N/A
		Max. Shear, lbs	200.0	1265.5	16%	1(\$ 0.00		
Ν	Jax Momen	t (MaFy, Ma-dist), ft-lbs	160.0	435.3	37%	MaEv (co	ntrol),KΦ=0	00 lb-in/in
		Moment Stability, ft-lbs	40.0	435.3	9%		11101),114 0	
		Shear/Moment	0.40	1.00	40%	Shear 20	0.0, Momen	t 160 0
		Axial/Moment	0.37	1.00	37%		c), Moment	
		Deflection Span, in		-meets L/18564	0170	7 5 101 0.0(0), momon	100.0
Right Spar	n	Max. Axial, lbs	0.0(t)	-	0%	<u> </u>	Ib-in/in Max	KKL/r = N/A
i tigin opai		Max. Axial, ibs	240.0	1265.5	19%	ιτΨ=0.00		
r	Max Momon	t (MaFy, Ma-dist), ft-lbs	240.0 160.0	435.3	37%	MaEv (or	ontrol),ΚΦ=() 00 lb-in/in
I		Moment Stability, ft-lbs	128.0	435.3	29%	ivial y (CC	παοη,κψ-ι	
		Shear/Moment				Chase 04	0.0 Мана	* 160.0
			0.41	1.00	41%		0.0, Momer	
		Axial/Moment	0.37	1.00	37%	Axial 0.0	(c), Moment	160.0
		Deflection Span, in	0.034	meets L/1404				
Support	Rx(lb)	Ry(lb)	Simpsor	n Strong-Tie Cor	nector		onnector	Anchor Interaction
R1	0.0	•		chorage Designe			NA	NA
R2	0.0	440.0 By C	Others & An	chorage Designe	d by Engine	er	NA	NA
SIMPSON STR	RONG-TIE COM	PANY INC.			Г	A		www.strongtie.com

SIMPSON STRONG-TIE COMPANY INC.



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Project Name: 220245 - St Regis Longboat Key Exterior Framing	Page 2 of 2
Model: Beach Grill Ceiling Framing (-95psf x 0.6 -18psf DL) - Duplicate -	Date: 07/30/2022
Code: 2012 NASPEC [AISI S100-2012]	Simpson Strong-Tie® CFS Designer™ 4.2.0.13

R3	0.0	440.0	By Others & Anchorage Designed by Engineer	NA	NA					
R4	0.0	160.0	By Others & Anchorage Designed by Engineer	NA	NA					
* Referen	* Reference catalog for connector and anchor requirement notes as well as screw placement requirements									



Project Name: 220245 - St Regis Longboat Key Exterior Framing Model: Exterior Furred Ceiling Framing (-95psf x 0.6 -18psf DL) Code: 2012 NASPEC [AISI S100-2012]

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				on: 162S162-43 = 250.9 ft-lb	-	i) @ 16" ′a = 777.′	-	C Stud (ur I = 0.1	-		
100.00 lb/ft	100.00 lb/ft	100.00 lb/ft	Loads have not been modified for strength checks Loads have not been modified for deflection calculations								
t	R2	R3 R4	<u>Bridgi</u> Span	ing Connectors Axia	al	<u>gn Meth</u> Flexual, Distortio		3 <u>100</u> Connector	Stress Ratio		
3.50	3.50	3.50	Left S	KyLy, I pan NA		Full, 42.0	inai	N/A	-		
00,12	90.0	966	Middle			Full, 42.0		N/A	_		
			Right			Full, 42.0		N/A	-		
			-	Crippling	Bearir		М	N/A	-		
			Suppo	ort Load (Ib)	(in)	(lb)	(ft-lbs)	Max Int.	Stiffener?		
T			R1	140.0	2.00	374.3	/	0.19	NO		
		L 8" LONG CLIP	R2	385.0	4.00	823.3			NO		
		85 use (3)paf	R3	385.0	1.00	589.2	122.5		NO		
W	vith 510# a	all	R4	140.0	1.00	297.6	0.0	0.24	NO		
				er support mear	ns puncl	hed near	support				
		Code Check R		Allowed			Notes				
Left Span		Max. Axial, lbs	0.0(t)	-		0%		lb-in/in Ma	x KL/r = N/A		
		Max. Shear, lbs	210.0	777.1		27%					
r	Max. Mome	nt (MaFy, Ma-dist), ft-lbs	122.5	250.9	49%		MaFy (co	ntrol),ΚΦ=	0.00 lb-in/in		
		Moment Stability, ft-lbs	98.0	250.9	:	39%		·			
		Shear/Moment	0.56	1.00	:	56%	Shear 21	0.0, Mome	nt 122.5		
		Axial/Moment	0.49	1.00		49%	Axial 0.0(c), Momen	t 122.5		
		Deflection Span, in	0.054 -	-meets L/784							
Middle Spai	n	Max. Axial, lbs	0.0(t)	-	C)%	КФ=0.00 II	o-in/in Max	KL/r = N/A		
		Max. Shear, lbs	175.0	777.1		3%					
Μ		t (MaFy, Ma-dist), ft-lbs	122.5	250.9			MaFy (con	trol),KΦ=0	.00 lb-in/in		
		Moment Stability, ft-lbs	30.6	250.9		2%					
		Shear/Moment	0.54	1.00				.0, Momen			
		Axial/Moment	0.49	1.00	4	9%	Axial 0.0(c), Moment	122.5		
		Deflection Span, in		eets L/10362							
Right Span		Max. Axial, lbs	0.0(t)	-			KΦ=0.00 I	b-in/in Max	KL/r = N/A		
		Max. Shear, lbs	210.0	777.1		7%					
N	lax. Momen	t (MaFy, Ma-dist), ft-lbs	122.5	250.9			MaFy (cor	itrol),KΦ=0	.00 lb-in/in		
		Moment Stability, ft-lbs	98.0	250.9		9%	0	0.14	+ 100 F		
		Shear/Moment	0.56	1.00				.0, Momen			
		Axial/Moment	0.49	1.00	4	9%	AXIAI U.U(C	e), Moment	122.5		
		Deflection Span, in	0.054	meets L/784							
Support	Rx(lb)	Ry(lb)	Simpson S	Strong-Tie Con	inector			nnector eraction	Anchor Interactio		
R1	0.0	140.0 By C	thers & Anch	norage Designe	d by En	gineer		NA	NA		
R2	0.0	385.0 By C	thers & Anch	norage Designe	d by En	aineer		NA	NA		

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Project Name: 220245 - St Regis Longboat Key Exterior Framing	Page 2 of 2
Model: Exterior Furred Ceiling Framing (-95psf x 0.6 -18psf DL) - Duplicate	
Code: 2012 NASPEC [AISI S100-2012]	Simpson Strong-Tie® CFS Designer™ 4.2.0.13

R3	0.0	385.0	By Others & Anchorage Designed by Engineer	NA	NA					
R4	0.0	140.0	By Others & Anchorage Designed by Engineer	NA	NA					
* Referen	* Reference catalog for connector and anchor requirement notes as well as screw placement requirements									



Project Name: 220245 - St Regis Longboat Key Exterior Framing

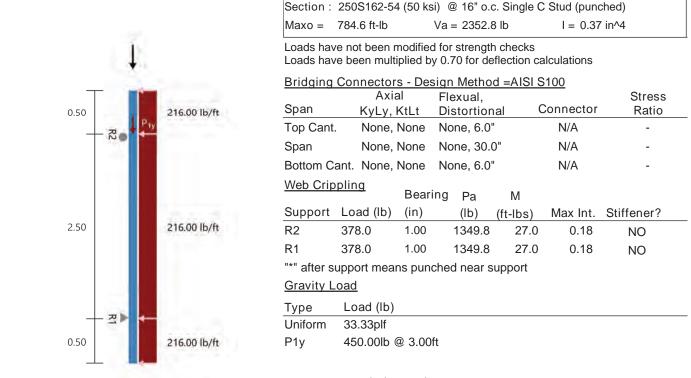
Model: Stone Support Framing

Code: 2012 NASPEC [AISI S100-2012]

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Simpson Strong-Tie® CFS Designer™ 4.2.0.13



use 68mil clip with 2 tapcons 407lb allow, 645# for pair

			tapcons in	tension - Ol	X
	Code Check	Required	Allowed	Interaction	Notes
Top Cant.	Max. Axial, Ibs	466.7(c)	7766.8(c)	6%	KΦ=0.00 lb-in/in Max KL/r = 26
	Max. Shear, lbs	108.0	564.6	19%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	27.0	784.6	3%	MaFy (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	17.2	718.7	2%	
	Shear/Moment	0.19	1.00	19%	Shear 108.0, Moment 27.0
	Axial/Moment	0.10	1.00	10%	Axial 466.7(c), Moment 27.0
	Deflection Cant., in	0.006	meets L/2091		2 x Cantilever
Span	Max. Axial, lbs	550.0(c)	5944.1(c)	9%	KΦ=0.00 lb-in/in Max KL/r = 49
	Max. Shear, lbs	270.0	564.6	48%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	141.8	784.6	18%	MaFy (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	141.8	718.7	20%	
	Shear/Moment	0.48	1.00	48%	Shear 270.0, Moment 27.0
	Axial/Moment	0.28	1.00	28%	Axial 508.9(c), Moment 141.7
	Deflection Span, in	0.010	meets L/3047		
Bottom Ca	ant. Max. Axial, Ibs	16.7(t)	9454.7(t)	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	108.0	564.6	19%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	27.0	784.6	3%	MaFy (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	17.2	718.7	2%	
	Shear/Moment	0.19	1.00	19%	Shear 108.0, Moment 27.0
	Axial/Moment	0.04	1.00	4%	Axial 16.7(t), Moment 27.0
	Deflection Cant., in	0.006	meets L/2091		2 x Cantilever



Project Name: 220245 - St Regis Longboat Key Exterior Framing
Model: Stone Support Framing
Code: 2012 NASPEC [AISI S100-2012]

PB22-0100

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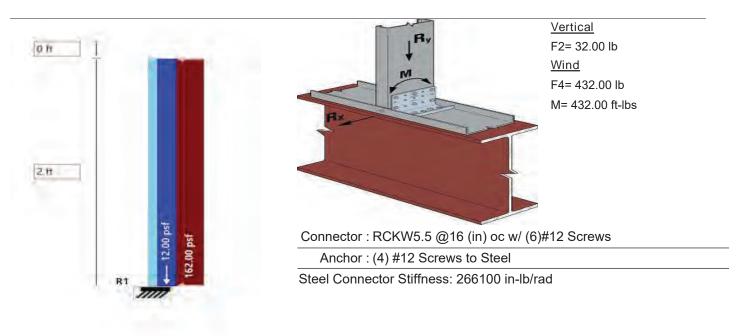
Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction				
R2	378.0	0.0	By Others & Anchorage Designed by Engineer	NA	NA				
R1	378.0	566.7	By Others & Anchorage Designed by Engineer	NA	NA				
* Reference	* Reference catalog for connector and anchor requirement notes as well as screw placement requirements								

use 68mil clip with (2) tapcons, tension allow 407lbs > 378



Project Name: 220245 - St Regis Longboat Key Exterior Framing Model: KneeWall @ Ballroom Parapet Code: 2012 NASPEC [AISI S100-2012]

Page 1 of 1 Date: 07/30/2022 Simpson Strong-Tie® CFS Designer™ 4.2.0.13



Section :600S162-54 (50 ksi) Single C Stud @ 16 "o.c.Maxo= 2527.1 ft-lbVa= 2822.9 lbPa = 7891.0 lbsMoment of Inertia, I=2.86 in^4Loads have NOT been modified for strength checks

Loads have been multiplied by 0.70 for wind deflection calculations

Stud Bracing (KyLy,KtLt) Distance: 24 " o.c.

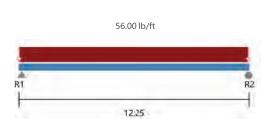
Distortional Buckling Inputs: $k\phi = 0$ lb-in/in; Lm = None

	l l	Nind Req'd	Capacity	Interaction	
Member	Axial, Ibs	32.00	7891.0	0.41%	
(ASD)	Shear, Ibs	432.00	1947.4	22.18%	
	Moment, ft-Ibs	432.00	2158.0	20.02%	
	Shear/Moment	0.229	1.000	22.90%	
	Axial/Moment	0.204	1.000	20.40%	* RECEIVED
	Deflection Member, in	0.006			Town of Longboat Key Planning, Zoning & Building
	Deflection Connector, in	0.327			12/19/2022 11:48:21 AM
	Total Deflection, in	0.333			
	L/	L/144			
Connector	Shear, Ibs	432.00	1295	33.36%	
& Anchorage	Moment, in-Ibs	5184.00	6430	80.62%	
	Shear/Moment			87.25%	

*Loads for anchors converted to LRFD for design per ACI 318-14 chapter 17

Project Name: 220245 - St Regis Longboat Key Exterior Framing Model: PC Column Wrap Framing (-93psf x 0.6) Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 4.2.0.13



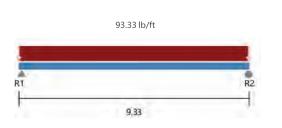
	Section:	600S162-43	3 (33 k	si) @ 1	12" c	.c. Singl	le C Stud (un	punched)	
	Maxo =	1390.0 ft-lb		Va = 1	415.	7 lb	l = 2.32	2 in^4	
		ave not been ave not been				0			
	Bridging	<u>Connector</u> Axia				d =AISI	<u>S100</u>	Stress	
R2	Span	KyLy, I		Flexu Disto	,	nal	Connector	Ratio	
Į.	Span	NA		Mid-P	't, 1∠	17.0" SI	JBH3.25 (Ma	ıx) -	
	Web Cri	ppling	Beari	ing P	a	М			
	Support	Load (lb)	(in)	(b)	(ft-lbs)	Max Int.	Stiffener?	
	R1	343.0	2.00	32	5.9	0.0	0.55	YES	
	R2	343.0	4.00	42	0.3	0.0	0.42	NO	
	"*" after s	support mear	ns pune	ched ne	ear s	support			
Code Check	Required A	llowed	Inte	ractior	n N	lotes			
Max. Axial, lbs	0.0(t)	-		0%	ł	Φ=0.00	lb-in/in Max	KL/r = N/A	
/lax. Shear, lbs	343.0	1415.7		24%					

Span	Max. Axial, lbs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	343.0	1415.7	24%	
	Max. Moment (MaFy, Ma-dist), ft-lbs	1050.4	1205.1	87%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	1050.4	1068.0	98%	
	Shear/Moment	0.76	1.00	76%	Shear 0.0, Moment 1050.4
	Axial/Moment	0.76	1.00	76%	Axial 0.0(c), Moment 1050.4
	Deflection Span, in	0.415	meets L/354		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	343.0	By Others & Anchorage Designed by Engineer	NA	NA
R2	0.0	343.0	By Others & Anchorage Designed by Engineer	NA	NA
* Reference	catalog for	connector and	anchor requirement notes as well as screw placement red	quirements	



Simpson Strong-Tie® CFS Designer™ 4.2.0.13



Section: 400S200-54 (50 ksi) @ 16" o.c. Single C Stud (punched)							
Maxo =	1368.8 ft-lb	V	′a = 3371	.6 lb	I = 1.29) in^4	
Loads have not been modified for strength checks Loads have not been modified for deflection calculations							
Bridging	<u>Connector</u> Axia		<u> </u>	od =AISI	<u>S100</u>	Stress	
Span	KyLy, I		Flexual, Distortio	nal	Connector	Ratio	
Span	NA		Mid-Pt, 1	12.0"	N/A	-	
Web Crip	pling	Bearir	ng Pa	М			
Support	Load (lb)	(in)	(lb)	(ft-lbs)	Max Int.	Stiffener?	
R1	435.5	2.00	783.0	0.0	0.29	NO	
R2	435.5	4.00	1002.1	0.0	0.23	NO	
"*" after support means punched near support							
ed Allowed Interaction Notes							

	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, Ibs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	435.5	1222.8	36%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	1016.2	1368.8	74%	MaFy (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	1016.2	1345.0	76%	
	Shear/Moment	0.74	1.00	74%	Shear 0.0, Moment 1016.2
	Axial/Moment	0.74	1.00	74%	Axial 0.0(c), Moment 1016.2
	Deflection Span, in	0.418	meets L/268		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	435.5	By Others & Anchorage Designed by Engineer	NA	NA
R2	0.0	435.5	By Others & Anchorage Designed by Engineer	NA	NA
* Reference	catalog for	connector and	anchor requirement notes as well as screw placement req	uirements	

USE 68mil TOP TRACK w 4#10 - 1018# allowable tension on track, 4pafs - 1100# allow



Project Name: 220245 - St Regis Longboat Key Exterior Framing

Model: Porte Cochere - Ceiling Framing (-86.6psf x 0.6 -18psf DL) - Duplicate

Code: 2012 NASPEC [AISI S100-2012]

Section:	400S200-54	(50 ksi) @ 16	5" o.c. Sin	gle C Stud (punched)	
Maxo =	1368.8 ft-lb	Va = 337	71.6 lb	I = 1.29 in^4	

Loads have not been modified for strength checks Loads have not been modified for deflection calculations

Bridging	Bridging Connectors - Design Method =AISI S100								
	Axia	al	Flexual,			Stress			
Span	KyLy, I	KtLt	Distortion	nal (Connector	Ratio			
Left Span	NA		None, 112	2.0"	N/A	-			
Right Spa	n NA		None, 112	2.0"	N/A	-			
Web Crip	pling	_							
		Bear	ing Pa	Μ					
Support	Load (lb)	(in)	(lb)	(ft-lbs)	Max Int.	Stiffener?			
R1	326.7	2.00	783.0	0.0	0.22	NO			
R2	1008.9	4.00	1813.5	1016.2	0.78	NO			
R3	326.7	1.00	628.1	0.0	0.27	NO			

"*" after support means punched near support

	Code Check R	equired	Allowed	Interaction	Notes
Left Span	Max. Axial, lbs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	544.4	1222.8	45%	Shear (Punched)
Max. Mom	ent (MaFy, Ma-dist), ft-lbs	1016.2	1368.8	74%	MaFy (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	571.6	978.0	58%	
	Shear/Moment	0.87	1.00	87%	Shear 544.4, Moment 1016.2
	Axial/Moment	0.74	1.00	74%	Axial 0.0(c), Moment 1016.2
	Deflection Span, in	0.174	meets L/644		
Right Span	Max. Axial, lbs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	544.4	1222.8	45%	Shear (Punched)
Max. Mome	nt (MaFy, Ma-dist), ft-lbs	1016.2	1368.8	74%	MaFy (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	571.6	978.0	58%	
	Shear/Moment	0.87	1.00	87%	Shear 544.4, Moment 1016.2
	Axial/Moment	0.74	1.00	74%	Axial 0.0(c), Moment 1016.2
	Deflection Span, in	0.174	meets L/644		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	326.7	By Others & Anchorage Designed by Engineer	NA	NA
R2	0.0	1008.9	By Others & Anchorage Designed by Engineer	NA	NA
R3	0.0	326.7	By Others & Anchorage Designed by Engineer	NA	NA
* Reference	e catalog for	connector and	anchor requirement notes as well as screw placement red	quirements	

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Clip Angle Bending (Tension) Allowable Loads

 $P_{max (lbs)} = [(0.6*F_y)*(Bending Width)*(t^2)] / [6*GAP]$

Distance Between Bend in Clip and Edge of Fastener

0.5 in.

Allowable Loads

Clip	Yield			Clip Th	ickness		
Length	Strength	33 mil	43 mil	54 mil	68 mil	97 mil	118 mil
(in)	(ksi)	0.0346	0.0451	0.0566	0.0713	0.1017	0.1242
1 1/2	33	12	20	32	50	102	153
11/2	50	18	31	48	76	155	231
2	33	16	27	42	67	137	204
2	50	24	41	64	102	207	309
3	33	24	40	63	101	205	305
5	50	36	61	96	153	310	463
4	33	32	54	85	134	273	407
4	50	48	81	128	203	414	617
5	33	40	67	106	168	341	509
ر ا	50	66	112	176	280	569	848
6	33	47	81	127	201	410	611
0	50	72	122	192	305	621	926
7	33	55	94	148	235	478	713
<i>'</i>	50	84	142	224	356	724	1080
8	33	63	107	169	268	546	814
0	50	96	163	256	407	827	1234
9	33	71	121	190	302	614	916
5	50	108	183	288	458	931	1388
10	33	79	134	211	336	683	1018
10	50	120	203	320	508	1034	1543
11	33	87	148	233	369	751	1120
	50	132	224	352	559	1138	1697
12	33	95	161	254	403	819	1222
12	50	144	244	384	610	1241	1851



STRUCTURESMITH, LLC

Track to Stud Connection Calculations

Ref: AISI S240-15

<u>Eq. B3.2.5.1-1</u> (Track Thickness is EQUAL OR GREATER than Stud Thickness, both flanges connected)

$P_{nst} = Ct$	$t^{2}F_{y}\left(1-C_{R}\sqrt{\frac{R}{t}}\right)\left(1+C_{N}\sqrt{\frac{N}{t}}\right)\left(1-C_{N}\sqrt{\frac{N}{t}$	$C_{h}\sqrt{\frac{h}{t}}$ (Eq. B2.2-1)
C =	3.7	
C = C _R =	0.19	
C _N =	0.74	
C _h =	0.019	

Depth	33mil	43mil	43mil	54mil	68mil	97mil	118mil
2.500"	fy=33ksi	fy=33ksi	fy=50ksi	fy=50ksi	fy=50ksi	fy=50ksi	fy=50ksi
T125	293	485	735	1084	1453	1453	1453
T150	315	521	789	1162	1556	1556	1556
T200	354	584	885	1301	1738	1738	1738
T250	381	626	949	1393	1860	1860	1860
T300	381	626	949	1393	1860	1860	1860
T350	381	626	949	1393	1860	1860	1860

Depth	33mil	43mil	43mil	54mil	68mil	97mil	118mil
4.000"	fy=33ksi	fy=33ksi	fy=50ksi	fy=50ksi	fy=50ksi	fy=50ksi	fy=50ksi
T125	281	468	710	1052	1415	1415	1415
T150	302	502	761	1127	1514	1514	1514
T200	339	563	853	1260	1690	1690	1690
T250	364	603	914	1349	1807	1807	1807
T300	364	603	914	1349	1807	1807	1807
T350	364	603	914	1349	1807	1807	1807

Depth	33mil	43mil	43mil	54mil	68mil	97mil	118mil
6.000"	fy=33ksi	fy=33ksi	fy=50ksi	fy=50ksi	fy=50ksi	fy=50ksi	fy=50ksi
T125	268	451	683	1018	1375	1375	1375
T150	288	483	732	1090	1470	1470	1470
T200	323	541	819	1217	1638	1638	1638
T250	347	579	877	1302	1751	1751	1751
T300	347	579	877	1302	1751	1751	1751
T350	347	579	877	1302	1751	1751	1751

Depth	33mil	43mil	43mil	54mil	68mil	97mil	118mil
8.000"	fy=33ksi	fy=33ksi	fy=50ksi	fy=50ksi	fy=50ksi	fy=50ksi	fy=50ksi
T125	N/A	436	660	990	1341	1341	1341
T150	N/A	467	707	1059	1433	1433	1433
T200	N/A	522	791	1181	1595	1595	1595
T250	N/A	559	846	1263	1705	1705	1705
T300	N/A	559	846	1263	1705	1705	1705
T350	N/A	559	846	1263	1705	1705	1705





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MaxTrak[™] (SLT) Slotted Deflection Track for structural wall framing

The ClarkDietrich MaxTrak (SLT) system is a head-of-wall deflection track that is used for framing exterior curtain walls and non-load bearing interior walls. This system allows for vertical live load movement of the primary structure without transferring axial loads to the wall studs.

The MaxTrak system is attached to the wall studs through vertical slots using waferhead screws creating a positive connection that allows for vertical movement and also eliminates the requirement for lateral bracing near the top of the wall stud.

The slots in the track's legs are designed for a total allowable vertical movement of 1-1/2" ($\frac{3}{4}$ "±). The MaxTrak system must be designed to take the end reaction of the wall studs (point loads) by using the allowable loads below.

Product Data & Ordering Information:

Material:	Yield Strength:	Grade 33ksi for 33mils & 43mils	
		Grade 50ksi for 54mils & 68mils	
	Coating:	CP60 per ASTM C955 (G90 Available)	•
	33mils: 20 Ga.(S	TR), 0.0346" Design Thickness, 0.0329" Min. Thickness	
	43mils: 18 Gaug	e, 0.0451" Design Thickness, 0.0428" Min. Thickness	
	54mils: 16 Gaug	e, 0.0566" Design Thickness, 0.0538" Min. Thickness	
	68mils: 14 Gaug	e, 0.0713" Design Thickness, 0.0677" Min. Thickness	

Dimensions: 2-1/2" legs with an inside depth equal to the depth of the stud

- Available in 2-1/2", 3-5/8", 4", 6" and 8" width systems
- Vertical slots are 0.22" wide x 1-1/2" long and spaced every 1"o.c.
- Track length = 10'-0''

ASTM & Code Standards:

- ASTM A1003, C645, C754, C955, C1002, C1007, E119, E814 and E1966.
- ATI CCRR-0205
- ANSI / UL 2079 and MaxTrak UL approved systems (See UL Fire Resistance Directory 42XE)
- MSDS & Product Certification Information is available at www.clarkdietrich.com

MaxTrak Allowable Lateral Loads:

Section Thickness	Loads for single stud more than 12" from end of track.	Loads for single stud within 12" of end of track. (without splice)
33mil (20ga)	156 lbs.	100 lbs.
43mil (18ga)	205 lbs.	133 lbs.
54mil (16ga)	360 lbs.	237 lbs.
68mil (14ga)	537 lbs.	355 lbs.
The second second second the second she below	need would be award to the calestand alatted tweak th	talua a a

The minimum wall stud thickness must be equal to the selected slotted track thickness

- #8 min. wafer head screws shall be used for 33 mil material sections. #10 min. wafer head screws for 43 mil and thicker sections - MaxTrak allowable lateral loads are based on a maximum gap between the top of the stud and the web of the track of 7/8"

For MaxTrak maximum wall height charts, connection details, and fire rated assembly details on either of these systems, refer to: http://www.clarkdietrich.com/MaxTrak

GREEN Benefits and Recycled Content:

For more information on requesting LEED MR2, MR4 and MR 5 Credits, please contact Tech Support at 888-437-3244 or visit www.clarkdietrich.com

CD-MaxTrak-STR © 06/30/14 ClarkDietrich Building Systems

Calculating slip track point load:

(wind pressure PSF) x (spacing FT) x (wall stud length FT) / 2 Example 1: (5 PSF) x (1.33 FT) x (9.5 FT) / 2 = 31.7 lbs. Example 2: (25 PSF) x (2 FT) x (20.0 FT) / 2 = 500 lbs.

Point Load (P) =

		5 5
Contractor Information	Architect Information	
Name:	Name:	
Contact:	Contact:	
Phone:	Phone:	
Fax:	Fax: 37 of 4	2
	Name: Contact: Phone:	Name:Name:Contact:Contact:Phone:Phone:Fax:Fax:

05.40.00 (Cold-Formed Metal Framing)



- Allows up to 1-1/2" (³/₄"±) vertical deflection
- ATI CCRR-0205
- UL Approved 1 & 2 hour systems
- Guideline at center of vertical slots



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Track Leg Bending / Hanging Stud (Tension) Allowable Loads

 $P_{max (lbs)} = 2 * [(0.6*F_y)*(Stud Spacing - Fastener Spacing)*(t²)] / [6*GAP]$

Distance Between Bend in Track and Center of Fastener	0.75 in.
Max. Fastener Spacing	4 in.
Head of Fastener	0.312 in.

Allowable Loads

	Yield		Track Thickness							
Stud	Strength	33 mil	43 mil	54 mil	68 mil	97 mil	118 mil			
Spacing	(ksi)	0.033	0.0451	0.0566	0.0713	0.1017	0.1242			
8	33	48	90	142	226	460	686			
0	50	73	137	216	342	696	1039			
12	33	97	181	285	452	919	1371			
12	50	147	274	431	685	1393	2078			
16	33	145	271	427	678	1379	2057			
16	50	220	411	647	1027	2089	3116			

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BASE MATERIAL	POWDER-ACTUATED FASTENER	INSTALLATION METHOD	LOAD DATA	
Steel	X-U and X-U 15 Fasteners	Standard	Table 2	
Steel	X-U Fastener	Through cold-formed steel clip angle	Table 7	
Normal Weight Concrete	X-U Fastener	Standard	Table 3	
Normal-Weight Concrete	X-O Fastener	DX-KWIK	Table 4	
Hollow Core Precast Concrete	X-U Fastener	Standard	Table 3	
Sand-lightweight Concrete	X-U Fastener	Standard		
3-inch Deep Composite Floor Deck Panel	X-U Fastener	Standard	Table 5	
1 ¹ / ₂ -inch Deep Composite Floor Deck Panel	X-U Fastener	Standard	-	
Hollow Concrete Masonry Units	X-U Fastener	Standard	Table 6	
Grout-Filled Concrete Masonry Units	X-U Fastener	Standard	- Table 6	

TABLE 1—APPLICATION DESCRIPTIONS

TABLE 2-ALLOWABLE LOADS FOR FASTENERS DRIVEN INTO STEEL^{1,2} (Ibf)

	FASTENER		STEEL THICKNESS (in.)										
DESCRIPTION		DIAMETER (in.)	³ / ₁	³ / ₁₆		³ / ₁₆ ¹ / ₄		³ / ₈		¹ / ₂		$\geq {}^{3}/_{4}$	
		(111.)	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	
Universal Knurled Shank	X-U ⁶	0.157	500	720	775	720	935	720	900	720	350 ⁴ 275 ³	375 ⁴ 350 ³	
Universal Knurled Shank	X - U 15	0.145	155	400	230	395	420	450	365⁵	500 ⁵	365⁵	400 ⁵	

For SI: 1 inch = 25.4 mm, 1 lbf = 4.4 N; 1 ksi = 6.9 MPa.

¹Allowable load capacities are based on base steel with minimum yield strength (F_{γ}) of 36 ksi and minimum tensile strength (F_{u}) of 58 ksi. ²The fasteners must be driven to where the point of the fastener penetrates through the steel base material, unless otherwise noted.

³Based upon minimum point penetration of ³/₈ inch.

⁴Based upon minimum point penetration of $\frac{1}{2}$ inch. ⁵Based upon minimum point penetration of $\frac{15}{32}$ inch.

⁶Allowable loads are applicable to static and seismic loads in accordance with Section 4.1.

TABLE 3—ALLOWABLE LOADS FOR FASTENERS DRIVEN INTO NORMAL-WEIGHT CONCRETE ^{1,2} (Ibf	f)
--	----

	FASTENER	-	MINIMUM		CONC	RETE COMPR	ESSIVE STRI	ENGTH	
DESCRIPTION		DIAMETER (in.)		2000) psi	4000) psi	6000) psi
		()	(in.)	Tension	Shear	Tension	Shear	Tension	Shear
			³ / ₄	100	125	100	125	105	205
Universal	X-U	0.157	1	165	190	170	225	110 ³	280 ³
Knurled Shank		0.157	1 ¹ / ₄	240	310	280	310	180	425
			1 ¹ / ₂	275	420	325	420	-	-

For SI: 1 inch = 25.4 mm, 1 lbf = 4.4 N, 1 psi = 6895 Pa.

¹Unless otherwise noted, values apply to normal weight cast-in-place concrete. Fasteners must not be driven until the concrete has reached the designated minimum compressive strength.

²Unless otherwise noted, concrete thickness must be a minimum of 3 times the embedment depth of the fastener.

³This allowable load value also applies to normal weight hollow core concrete slabs with f'_c of 6600 psi and minimum dimensions shown in Figure 6, when installed in accordance with Section 4.2.4.



TABLE 4—ALLOWABLE LOADS FOR FASTENERS DRIVEN INTO NORMAL-WEIGHT CONCRETE USING DX-KWIK^{1,2,3} (Ibf)

	FASTENER SHANK				CONCRETE COMPRESSIVE STRENGTH				
DESCRIPTION				4,000 psi		6,	000 psi		
		(in.) (in.)	()	Tension	Shear	Tension	Shear		
Universal Knurled Shank	X-U 47 P8 w/ DX-KWIK	0.157	1 ¹ / ₂	395	405	360	570		

For **SI**: 1 inch = 25.4 mm, 1 lbf = 4.4 N, 1 psi = 6895 Pa.

¹X-U Fastener is installed using the DX-KWIK drilled pilot hole installation procedure described in Section 4.2.4. ²Pilot holes must not be drilled until the concrete has reached the designated minimum compressive strength. ³Concrete thickness must be a minimum of 3 times the embedment depth of the fastener.

TABLE 5—ALLOWABLE LOADS FOR FASTENERS DRIVEN INTO MINIMUM $f'_c = 3000 \text{ psi}$ STRUCTURAL SAND-LIGHTWEIGHT CONCRETE WITH OR WITHOUT METAL DECK¹ (Ibf)

	FASTENER		MINIMUM			FASTENER LOCATION						
DESCRIPTION		DIAMETER (in.)		Installs	d into	Insta	lled Throu	gh Metal	Deck Pan	el into Cor	ncrete⁵	
		()	(in.)	Installed into Concrete⁴		3-inch deep composite floor deck panel ²			1 ¹ / ₂ -inch deep composi floor deck panel ³			
					Tension			Tension				
				Tension	Shear	Upper Flute	Lower Flute	Shear	Upper Flute	Lower Flute	Shear	
			³ / ₄	125	115	130	95	245	95	95	370	
Universal		0 1 5 7	1	205	260	215	155	330	125	125	415	
Knurled Shank	│ <u>^</u> -0	X-U 0.157	1 ¹ / ₄	315	435	295	200	375	-	-	-	
			1 ¹ / ₂	425	475	400	260	430	-	_	_	

For **SI:** 1 inch = 25.4 mm, 1 lbf = 4.4 N, 1 psi = 6895 Pa.

¹Fasteners must not be driven until the concrete has reached the designated minimum compressive strength.

²The steel deck profile for the 3-inch deep composite floor deck panel has a minimum thickness of 0.0359 inch (0.91 mm) and a minimum F_y of 33 ksi. Lower and upper flute width must be a minimum of $3^7/_8$ inches. Figure 3 shows the nominal flute dimensions, fastener locations, and load orientations for the deck panel profile. Sand-lightweight concrete fill above top of steel deck panel must be minimum $3^1/_4$ inches thick. ³The steel deck profile for the $1^1/_2$ -inch deep composite floor deck panel has a minimum thickness of 0.0359 inch (0.91 mm) and a minimum F_y of 33 ksi. Lower flute and upper flute widths must be a minimum of $1^3/_4$ inch and $3^1/_2$ inch, respectively. This deck panel may also be inverted as shown in Figure 5. Figures 4 and 5 show the nominal flute dimensions, fastener locations, and load orientations for the deck panel profile. Sand-lightweight concrete fill above top of steel deck panel must be minimum for the deck panel may also be inverted as shown in Figure 5. Figures 4 and 5 show the nominal flute dimensions, fastener locations, and load orientations for the deck panel profile. Sand-lightweight concrete fill above top of steel deck panel must be minimum $2^1/_2$ inches thick.

⁴Concrete thickness must be a minimum of 3 times the embedment depth of the fastener.

⁵Minimum allowable spacing parallel to the deck flutes is 5.1 inches.

TABLE 6—ALLOWABLE LOADS FOR FASTENERS DRIVEN INTO CONCRETE MASONRY UNITS^{1,2,3} (Ibf)

FASTENER	FASTENER		MINIMUM		HOLLO	W CMU		GROUT-FILLED CMU					
DESCRIPTION		DIAMETER (in.)	EMBEDMENT (in.)	Face Shell		Mortar	Joint ⁴	Face	Shell	Mortar Joint ⁴		Top of Grouted Cell ⁶	
				Tension	Shear ⁷	Tension	Shear⁵	Tension	Shear ⁷	Tension	Shear⁵	Tension	Shear ⁷
Universal Knurled Shank	X-U	0.157	1	70	85	25	70	225	220	150	190	165	240

¹The tabulated allowable load values are for fasteners installed in masonry conforming to the requirements of Section 3.3 of this report. ²No more than one low-velocity fastener may be installed in an individual concrete masonry unit cell. The fastener must be installed a minimum of 4 inches from the edge of the wall.

³Fastener can be located in the face shell or mortar joint as shown in Figure 7 of this report.

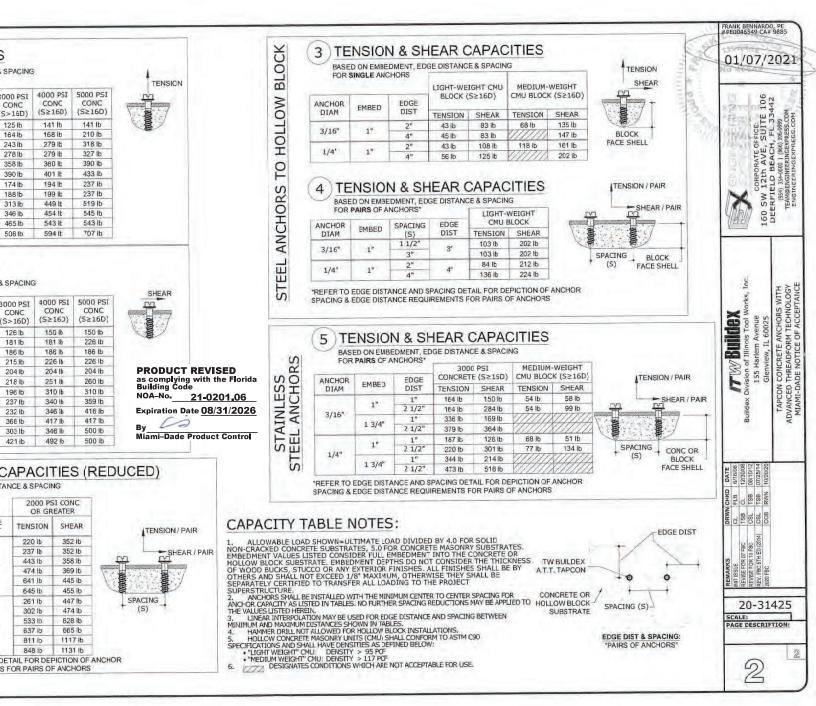
⁴Fasteners must be installed a minimum of 8 inches from the end of the wall. Multiple fasteners in a bed joint must be spaced a minimum of 8 inches.

⁵Shear load direction can be horizontal or vertical (bed joint or T-Joint) along the CMU wall plane.

⁶Fastener located in center of grouted cell installed vertically.

⁷Shear load can be in any direction.







Fasteners (Screws and Welds)

Screw Table Notes

- 1. Allowable screw connection capacities are based upon section E4 of the AISI S100-07, North American Specification for the Design of Cold-Formed Steel Structural Members.
- 2. When connecting materials of different steel thicknesses or tensile strengths, use the lowest values. Tabulated values assume two sheets of equal thickness are connected.
- 3. Screw shear and tension capacities were developed using published screw manufacturer data and evaluation reports available at the time of publications.
- 4. A nominal shear stress of 42.85 ksi and a nominal tension stress of 40.84 ksi were used for calculations based on screw manufacturer data.
- 5. Screw capacities are based upon Allowable Strength Design (ASD) and include safety factor of 3.0.
- 6. When multiple fasteners are used, screws are assumed to have a center-to-center spacing of at least 3 times the nominal diameter (d).
- 7. Screws are assumed to have a center of screw to edge of steel dimension of at least 1.5 times the nominal diameter (d) of the screw.
- 8. Tension capacity is based upon the lesser of pullout capacity in sheet closest to screw tip, or pullover capacity for sheet closest to screw head (based upon head diameter).
- 9. Note that for all tension values calculated in screw table, pullover values have been reduced by 50%, assuming eccentrically loaded connections that produce a non-uniform pullover force of the fastener.
- 10. Screw capacities are governed by a conservative estimate of screw capacity, not by sheet steel failure.
- 11. For higher screw capacities, especially for screw strength, use specific screws from specific manufacturers. See manufacturers' data for specific allowable values and installation instructions.

	Allowable Screw Connection Capacity (Pounds per Screw)											
	Yield	Tensile	# 6	Screw	# 8 Screw		# 10 Screw		# 12 Screw		1/4" Screw	
Thickness (Mils)	Strength, Fy	Strength, Fu	' (0.138" Dia, 5/16" Head)		(0.164" Dia, 5/16" Head)		(0.190" Dia, 0.340" Head)		(0.216" Dia, 0.340" Head)		(0.250" Dia, 0.409" Head)	
(inits)	(ksi)	(ksi)	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension
18	33	33	44	24	48	29	52	33	55	38	60	44
27	33	33	82	37	89	43	96	50	102	57	110	66
30	33	33	95	40	103	48	111	55	118	63	127	73
33	33	45	151	61	164	72	177	84	188	95	203	110
43	33	45	214	79	244	94	263	109	280	124	302	144
54	33	45	214	100	302	118	370	137	394	156	424	180
54	50	65	214	144	302	171	405	198	523	225	613	261
68	33	45	214	125	302	149	405	173	523	196	600	227
68	50	65	214	181	302	215	405	249	523	284	701	328
97	33	45	214	179	302	213	405	246	523	280	701	324
97	50	65	214	204	302	288	405	356	523	405	701	468
118	33	45	214	204	302	260	405	301	523	342	701	396
118	50	65	214	204	302	288	405	386	523	494	701	572





Vision: To be the Healthiest State in the Nation

December 19, 2022

Charles Whittall S.R. LBK LLC 7940 Via Dellagio Way Suite 200 Orlando, FL 32819

RE: Receipt of Application for Initial Public Swimming Pool Operating Permit for Longboat Key Hotel & Residences Mid Level Spa, Permit Number 58-60-2623309 1601 Gulf of Mexico Drive, Longboat Key

Dear Sir or Madam:

This letter acknowledges receipt of the initial application for the above referenced public swimming pool on December 16, 2022.

You have met the preliminary submittal requirements of Chapter 514.03(1), Florida Statutes (FS), and may file an application for a public pool construction permit with the appropriate local building authority. The Department will review the application for completeness and notify you and the building authority of any critical health and safety Code inconsistencies which may be found in the proposal as submitted that must be addressed before an operating permit can be issued. The Florida Department of Health (FDOH) may request additional information within thirty (30) days.

Please provide this office with any changes to the application or to the plans as submitted. After construction is completed, and prior to opening the pool, this office must conduct an Initial Inspection. Provide at least five (5) working days' notice to schedule the Initial Inspection.

The following information is required before an Operating Permit will be issued:

- 1. A set of plans and specification as approved for construction by the local building authority.
- 2. A copy of the Final Inspection from the local building authority, as defined by Florida Statutes, Chapter 553, Section 71.
- 3. The Annual Operating Permit fee due at the time of final inspection.

Thank you for your cooperation in this matter. If you have any questions, please contact Jennifer Clemente at 941.861.3310.

Sincerely,

/Jennifer Clemente Environmental Health Supervisor

cc: Building Official, Town of Longboat Key Jennifer Clemente, Environmental Specialist III James E LePetrie, Jr., Wet Engineering





Vision: To be the Healthiest State in the Nation

December 19, 2022

Charles Whittall S.R. LBK LLC 7940 Via Dellagio Way Suite 200 Orlando, FL 32819

RE: Receipt of Application for Initial Public Swimming Pool Operating Permit for Longboat Key Hotel & Residences Adult Spa, Permit Number 58-60-2623312 1601 Gulf of Mexico Drive, Longboat Key

Dear Sir or Madam:

This letter acknowledges receipt of the initial application for the above referenced public swimming pool on December 16, 2022.

You have met the preliminary submittal requirements of Chapter 514.03(1), Florida Statutes (FS), and may file an application for a public pool construction permit with the appropriate local building authority. The Department will review the application for completeness and notify you and the building authority of any critical health and safety Code inconsistencies which may be found in the proposal as submitted that must be addressed before an operating permit can be issued. The Florida Department of Health (FDOH) may request additional information within thirty (30) days.

Please provide this office with any changes to the application or to the plans as submitted. After construction is completed, and prior to opening the pool, this office must conduct an Initial Inspection. Provide at least five (5) working days' notice to schedule the Initial Inspection.

The following information is required before an Operating Permit will be issued:

- 1. A set of plans and specification as approved for construction by the local building authority.
- 2. A copy of the Final Inspection from the local building authority, as defined by Florida Statutes, Chapter 553, Section 71.
- 3. The Annual Operating Permit fee due at the time of final inspection.

Thank you for your cooperation in this matter. If you have any questions, please contact Jennifer Clemente at 941.861.3310.

Sincerely,

/Jennifer Clemente Environmental Health Supervisor

cc: Building Official, Town of Longboat Key Jennifer Clemente, Environmental Specialist III James E LePetrie, Jr., Wet Engineering





Vision: To be the Healthiest State in the Nation

December 19, 2022

Charles Whittall S.R. LBK LLC 7940 Via Dellagio Way Suite 200 Orlando, FL 32819

RE: Receipt of Application for Initial Public Swimming Pool Operating Permit for Longboat Key Hotel & Residences Adult Pool, Permit Number 58-60-2623320 1601 Gulf of Mexico Drive, Longboat Key

Dear Sir or Madam:

This letter acknowledges receipt of the initial application for the above referenced public swimming pool on December 16, 2022.

You have met the preliminary submittal requirements of Chapter 514.03(1), Florida Statutes (FS), and may file an application for a public pool construction permit with the appropriate local building authority. The Department will review the application for completeness and notify you and the building authority of any critical health and safety Code inconsistencies which may be found in the proposal as submitted that must be addressed before an operating permit can be issued. The Florida Department of Health (FDOH) may request additional information within thirty (30) days.

Please provide this office with any changes to the application or to the plans as submitted. After construction is completed, and prior to opening the pool, this office must conduct an Initial Inspection. Provide at least five (5) working days' notice to schedule the Initial Inspection.

The following information is required before an Operating Permit will be issued:

- 1. A set of plans and specification as approved for construction by the local building authority.
- 2. A copy of the Final Inspection from the local building authority, as defined by Florida Statutes, Chapter 553, Section 71.
- 3. The Annual Operating Permit fee due at the time of final inspection.

Thank you for your cooperation in this matter. If you have any questions, please contact Jennifer Clemente at 941.861.3310.

Sincerely,

/Jennifer Clemente Environmental Health Supervisor

cc: Building Official, Town of Longboat Key Jennifer Clemente, Environmental Specialist III James E LePetrie, Jr., Wet Engineering





Vision: To be the Healthiest State in the Nation

December 19, 2022

Charles Whittall S.R. LBK LLC 7940 Via Dellagio Way Suite 200 Orlando, FL 32819

RE: Receipt of Application for Initial Public Swimming Pool Operating Permit for Longboat Key Hotel & Residences Mid Level Pool, Permit Number 58-60-2623326 1601 Gulf of Mexico Drive, Longboat Key

Dear Sir or Madam:

This letter acknowledges receipt of the initial application for the above referenced public swimming pool on December 16, 2022.

You have met the preliminary submittal requirements of Chapter 514.03(1), Florida Statutes (FS), and may file an application for a public pool construction permit with the appropriate local building authority. The Department will review the application for completeness and notify you and the building authority of any critical health and safety Code inconsistencies which may be found in the proposal as submitted that must be addressed before an operating permit can be issued. The Florida Department of Health (FDOH) may request additional information within thirty (30) days.

Please provide this office with any changes to the application or to the plans as submitted. After construction is completed, and prior to opening the pool, this office must conduct an Initial Inspection. Provide at least five (5) working days' notice to schedule the Initial Inspection.

The following information is required before an Operating Permit will be issued:

- 1. A set of plans and specification as approved for construction by the local building authority.
- 2. A copy of the Final Inspection from the local building authority, as defined by Florida Statutes, Chapter 553, Section 71.
- 3. The Annual Operating Permit fee due at the time of final inspection.

Thank you for your cooperation in this matter. If you have any questions, please contact Jennifer Clemente at 941.861.3310.

Sincerely,

/Jennifer Clemente Environmental Health Supervisor

cc: Building Official, Town of Longboat Key Jennifer Clemente, Environmental Specialist III James E LePetrie, Jr., Wet Engineering





Vision: To be the Healthiest State in the Nation

December 19, 2022

Charles Whittall S.R. LBK LLC 7940 Via Dellagio Way Suite 200 Orlando, FL 32819

RE: Receipt of Application for Initial Public Swimming Pool Operating Permit for Longboat Key Hotel & Residences Residential Spa, Permit Number 58-60-2623333 1601 Gulf of Mexico Drive, Longboat Key

Dear Sir or Madam:

This letter acknowledges receipt of the initial application for the above referenced public swimming pool on December 16, 2022.

You have met the preliminary submittal requirements of Chapter 514.03(1), Florida Statutes (FS), and may file an application for a public pool construction permit with the appropriate local building authority. The Department will review the application for completeness and notify you and the building authority of any critical health and safety Code inconsistencies which may be found in the proposal as submitted that must be addressed before an operating permit can be issued. The Florida Department of Health (FDOH) may request additional information within thirty (30) days.

Please provide this office with any changes to the application or to the plans as submitted. After construction is completed, and prior to opening the pool, this office must conduct an Initial Inspection. Provide at least five (5) working days' notice to schedule the Initial Inspection.

The following information is required before an Operating Permit will be issued:

- 1. A set of plans and specification as approved for construction by the local building authority.
- 2. A copy of the Final Inspection from the local building authority, as defined by Florida Statutes, Chapter 553, Section 71.
- 3. The Annual Operating Permit fee due at the time of final inspection.

Thank you for your cooperation in this matter. If you have any questions, please contact Jennifer Clemente at 941.861.3310.

Sincerely,

Jennifer Clemente Environmental Health Supervisor

cc: Building Official, Town of Longboat Key Jennifer Clemente, Environmental Specialist III James E LePetrie, Jr., Wet Engineering





Vision: To be the Healthiest State in the Nation

December 19, 2022

Charles Whittall S.R. LBK LLC 7940 Via Dellagio Way Suite 200 Orlando, FL 32819

RE: Receipt of Application for Initial Public Swimming Pool Operating Permit for Longboat Key Hotel & Residences Residential Pool, Permit Number 58-60-2623336 1601 Gulf of Mexico Drive, Longboat Key

Dear Sir or Madam:

This letter acknowledges receipt of the initial application for the above referenced public swimming pool on December 16, 2022.

You have met the preliminary submittal requirements of Chapter 514.03(1), Florida Statutes (FS), and may file an application for a public pool construction permit with the appropriate local building authority. The Department will review the application for completeness and notify you and the building authority of any critical health and safety Code inconsistencies which may be found in the proposal as submitted that must be addressed before an operating permit can be issued. The Florida Department of Health (FDOH) may request additional information within thirty (30) days.

Please provide this office with any changes to the application or to the plans as submitted. After construction is completed, and prior to opening the pool, this office must conduct an Initial Inspection. Provide at least five (5) working days' notice to schedule the Initial Inspection.

The following information is required before an Operating Permit will be issued:

- 1. A set of plans and specification as approved for construction by the local building authority.
- 2. A copy of the Final Inspection from the local building authority, as defined by Florida Statutes, Chapter 553, Section 71.
- 3. The Annual Operating Permit fee due at the time of final inspection.

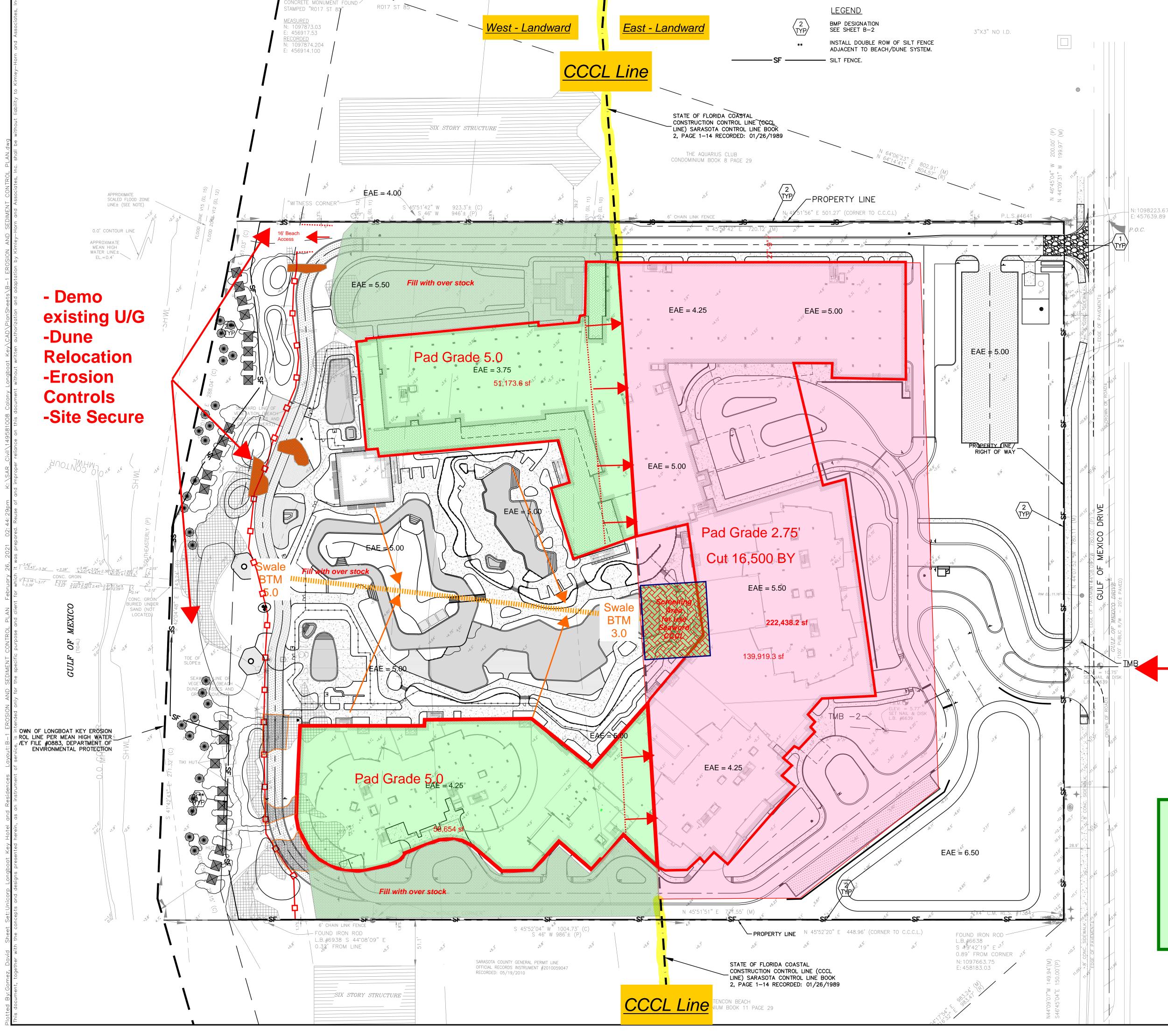
Thank you for your cooperation in this matter. If you have any questions, please contact Jennifer Clemente at 941.861.3310.

Sincerely,

/Jennifer Clemente Environmental Health Supervisor

cc: Building Official, Town of Longboat Key Jennifer Clemente, Environmental Specialist III James E LePetrie, Jr., Wet Engineering







GRAPHIC SCALE IN FEET 50

Hours of Construction:
 Monday through Saturday
 8:00am to 5:pm
 Except closed on Federal Holidays

2. Site will remain safely secured witha 6' fence with opaque screening atareas visible.

3. Parking will be near site entrance within property limits

4. Noise should be minor with little to no ground vibration

5. Site Controller is Kauffman
Construction and Seth Bloom is the
emergency/ primary contact for concern
Cell (941)210-9777

Secondary notifier for concern is Unicorp George Giebel (407)999-9985

Site Entrance 1621 Gulf of Mexico Drive



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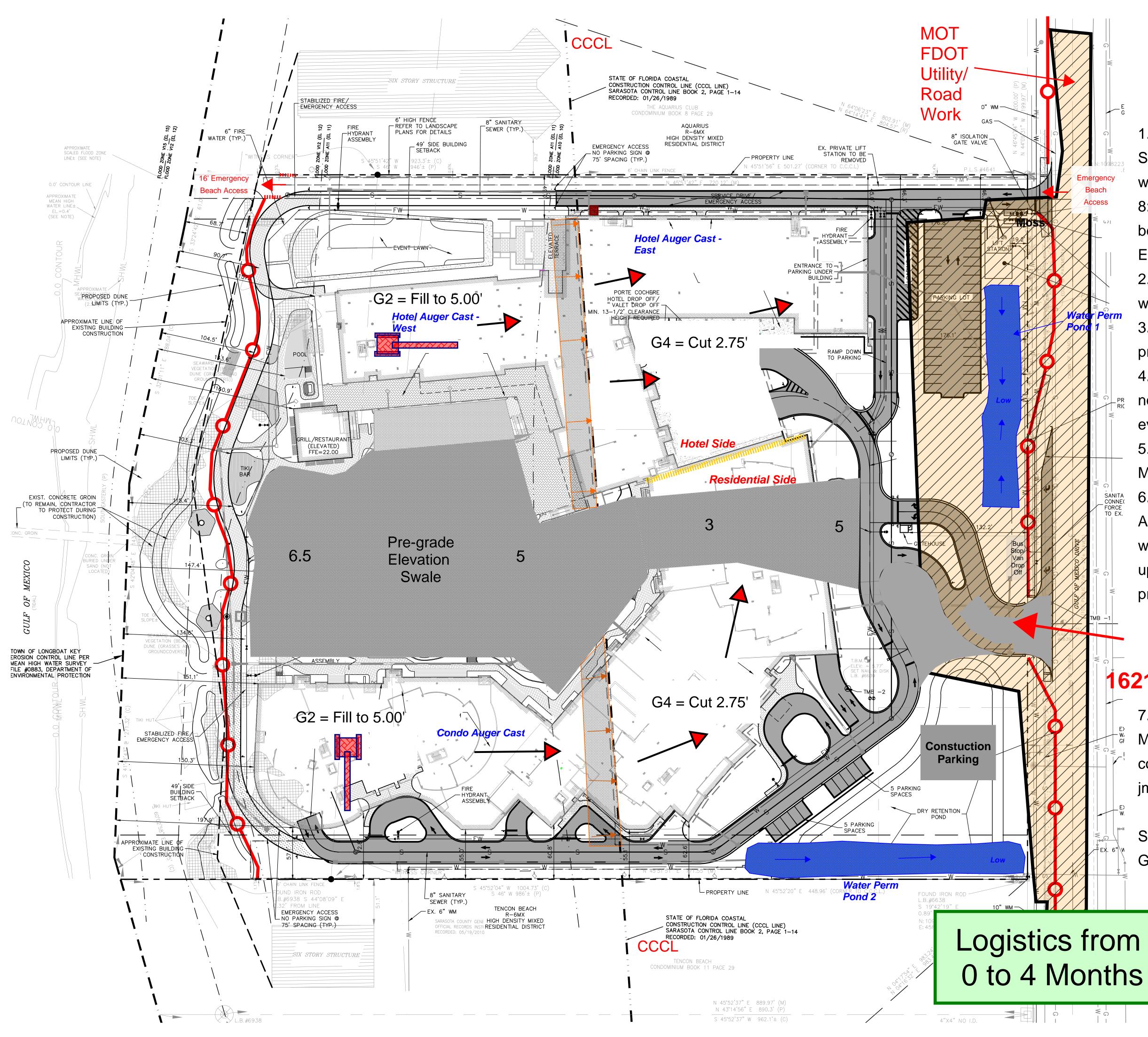


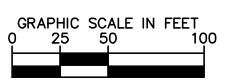
LICENSED PROFESSIONAL		BRITT L. STEPHENS, P.E.	
KHA PROJECT	DATE	FEB. 2021	
149581008	FFD 0001	Scale AS SHOWN	

-ONGBOAT KEY HOTEL	AND RESIDENCES	PREPARED FOR

SHEET NUM

B-1







Hours of Construction: Monday through
 Saturday 7:00 am to 6:00 pm - Construction Noise
 will be minimized between the hours of 7:00 am to
 8:00am and 5:00 pm to 6:00pm and will remain
 below 85 decibels at the property line.
 Except closed on Federal Holidays

2. Site will remain safely secured with a 6' fence with opaque screening at areas visible.

3. Parking will be near site entrance within property limits at the SE corner

4. Noise should be minor with a constant drilling noise little to no ground vibration. Concrete trucks every 45 mins pumping with small trailer pumps

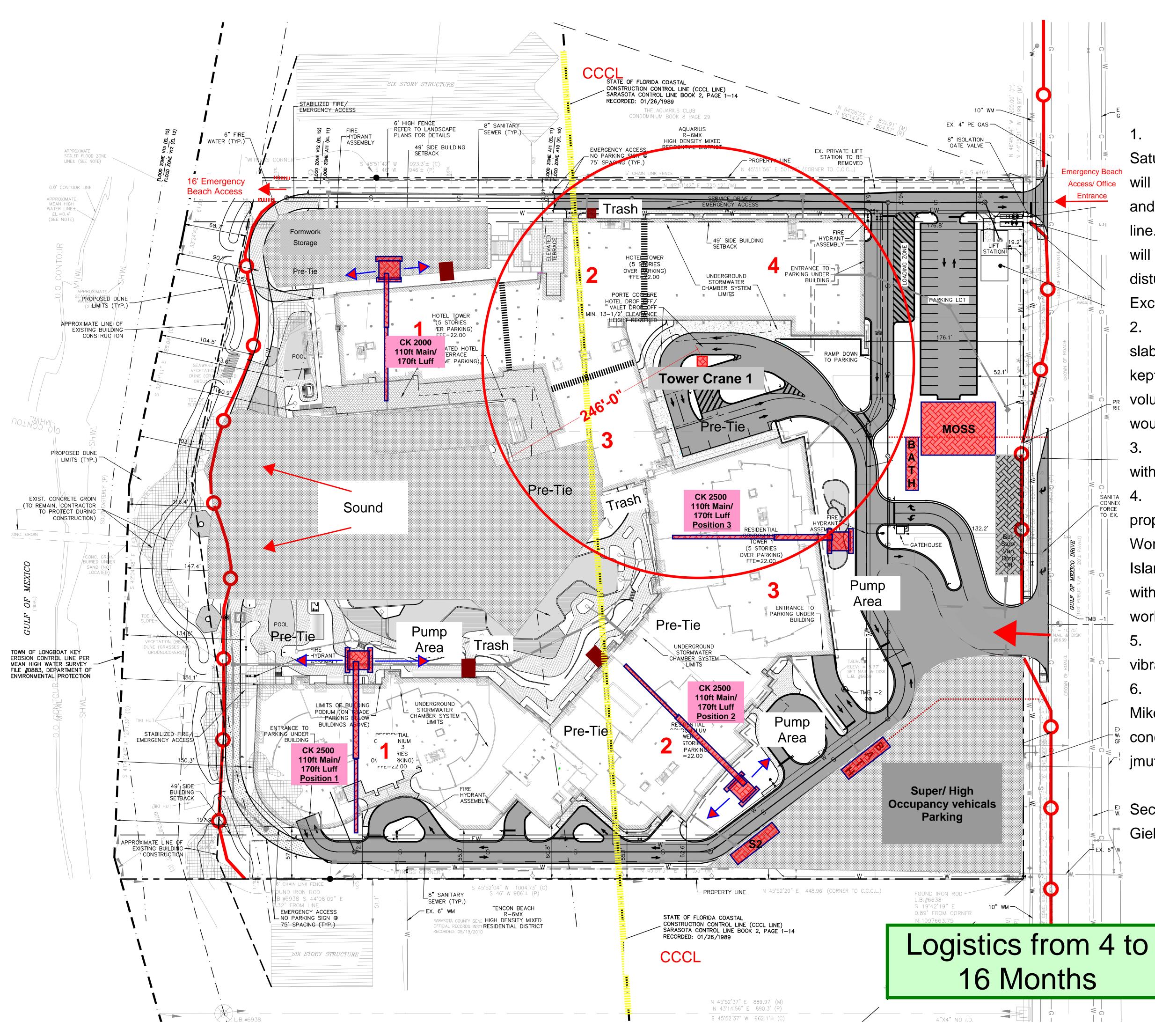
Little to no ground vibration - Vibration
 Monitoring will be utilized near occupied residences
 Weekly Notification email will be sent updating
 Aquirius, Tencon, and the Town of Longboat Key
 with expected noise, weekend work, key milestones
 upcoming. This will occur throughout the life of the
 project.

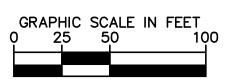
Site Entrance 1621 Gulf of Mexico Drive

7. Site Controller is Moss and Associates and
Mike Ogorek is the emergency/ primary contact for
concern Cell (813)758-7056 and email
jmutchler@mosscm.com

Secondary notifier for concern is Unicorp George Giebel (407)999-9985









Hours of Construction: Monday through
 Saturday 7:00am to 6:00 pm - Construction Noise
 will be minimized outside the hours of 8am to 5pm
 and will remain below 85 decibels at the property
 line. Site Lighting adjacent to occupied Residences
 will remain off outside those hours to minimize
 disturbance .

Except closed on Federal Holidays

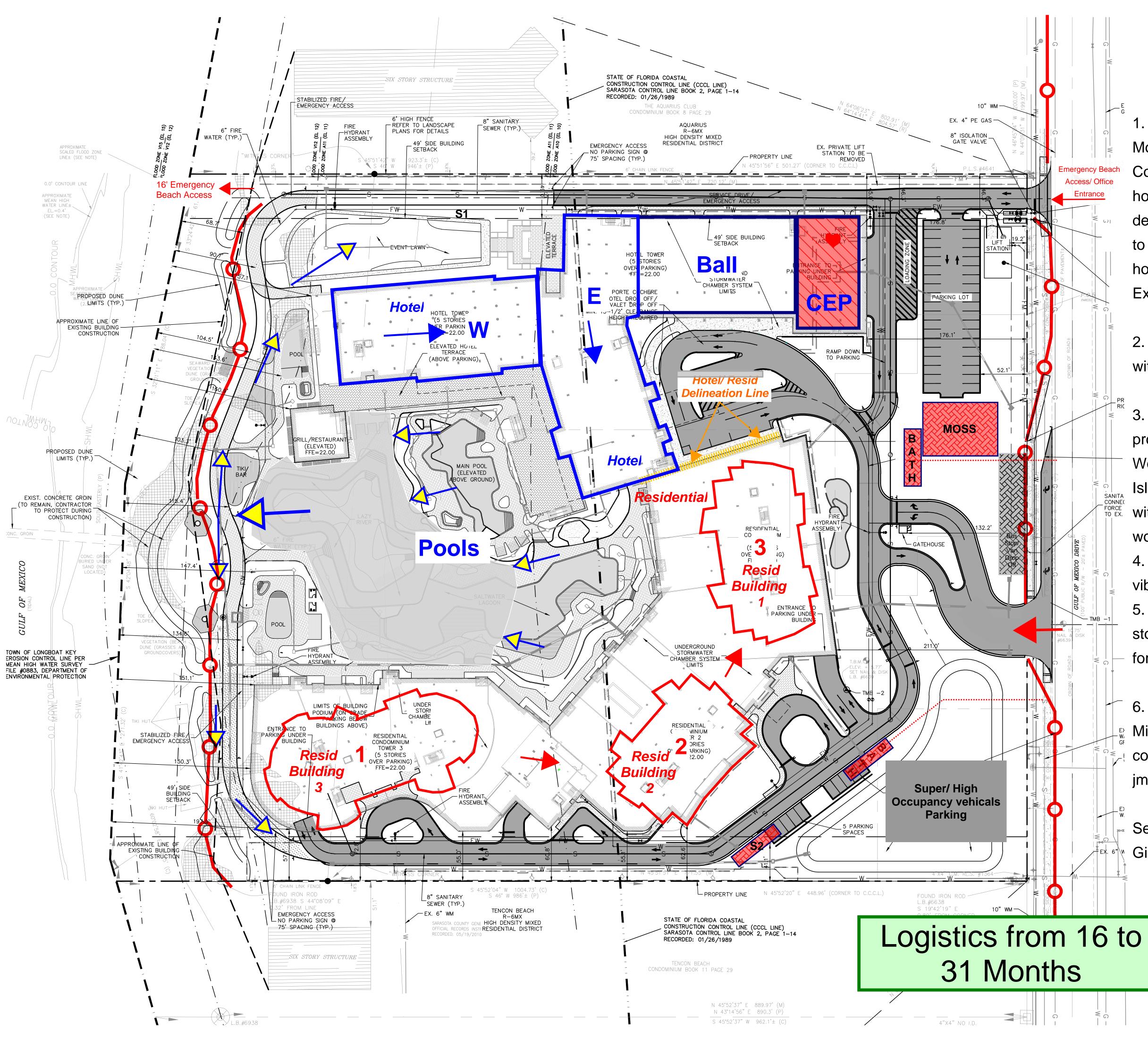
 Early work permits will be applied for on large slab pours (approximately 9). Lighting would be kept low and not facing occupied buildings. Low volume pumps and white noise back up alarms would be utilized to minimize disturbance.

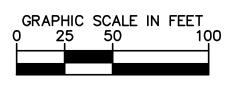
3. Site will remain safely secured with a 6' fence with opaque screening at areas visible.

- 4. Parking will be near the SE Corner within property limits for high occupancy and Supervisors.
 Workers will park offsite and Bused in to minimize Island traffic. Bus and material unloading will occur with the property limits (except for permitted DOT work)
- 5. Noise should be minor with little to no ground vibration Vibration Monitoring will be utilized
 6. Site Controller is Moss and Associates and Mike Ogorek is the emergency/ primary contact for concern cell (813)758-7056 and email jmutchler@mosscm.com

Secondary notifier for concern is Unicorp GeorgeGiebel (407)999-9985









Hours of Construction:

Monday through Saturday 7:00am to 6:00 pm -Construction Noise will be minimized outside the hours of 8am to 5pm and will remain below 85 decibels at the property line. Site Lighting adjacent to occupied Residences will remain off outside those hours to minimize disturbance.

Except closed on Federal Holidays

Site will remain safely secured with a 6' fence 2. with opaque screening at areas visible.

Parking will be near the SE Corner within 3. property limits for high occupancy and Supervisors. Workers will park offsite and Bused in to minimize Island traffic. Bus and material unloading will occur with the property limits (except for permitted DOT work)

Noise should be minor with little to no ground 4. vibration

Ground floor parking garage will be utilized for 5. storage and any construction internal elevators used for vertical loading during this phase

Site Controller is Moss and Associates and 6. Mike Ogorek is the emergency/ primary contact for concern cell (813)758-7056 and email jmutchler@mosscm.com

Secondary notifier for concern is Unicorp George Giebel (407)999-9985





FEMA

NATIONAL FLOOD INSURANCE PROGRAM

ELEVATION CERTIFICATE

AND

INSTRUCTIONS

2019 EDITION

U.S. DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency National Flood Insurance Program

ELEVATION CERTIFICATE AND INSTRUCTIONS

Paperwork Reduction Act Notice

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). NOTE: Do not send your completed form to this address.

Privacy Act Statement

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/ FEMA-003 – National Flood Insurance Program Files System or Records Notice 73 Fed. Reg. 77747 (December 19, 2008); DHS/ FEMA/NFIP/LOMA-1 – National Flood Insurance Program (NFIP) Letter of Map Amendment (LOMA) System of Records Notice 71 Fed. Reg. 7990 (February 15, 2006); and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or the applicant may be subject to higher premium rates for flood insurance. Information will only be released as permitted by law.

Purpose of the Elevation Certificate

The Elevation Certificate is an important administrative tool of the National Flood Insurance Program (NFIP). It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

The Elevation Certificate is required in order to properly rate Post-FIRM buildings, which are buildings constructed after publication of the Flood Insurance Rate Map (FIRM), located in flood insurance Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. The Elevation Certificate is not required for Pre-FIRM buildings unless the building is being rated under the optional Post-FIRM flood insurance rules.

As part of the agreement for making flood insurance available in a community, the NEIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the Federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent grade elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request. A LOMA or LOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 package, whichever is appropriate.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, nonresidential buildings can be floodproofed up to or above the Base Flood Elevation (BFE). A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

Additional guidance can be found in FEMA Publication 467-1, Floodplain Management Bulletin: Elevation Certificate, available on FEMA's website at https://www.fema.gov/media-library/assets/documents/3539?id=1727.

Important: Follow the instructions on pages 1-9.

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SECTION A – PROPERTY INFORMATION	, , ,	R INSURANCE COMPANY USE							
A1. Building Owner's Name		licy Number:							
SR LBK II LLC		-							
A2 Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Company NAIC Number: Box No.									
1601 Gulf of Mexico Drive									
CityStateZIP CodeLongboat KeyFlorida34228									
		220							
A3. Property Description (Lot and Block Numbers, Tax Parcel Number Parcel ID 0009041240, Public Records of Sarasota County (Hotel Buil									
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential									
A5. Latitude/Longitude: Lat. 27°21'10.44" Long82°36'43.	22" Horizontal Datum: [NAD 1927 🛛 NAD 1983							
A6. Attach at least 2 photographs of the building if the Certificate is be	ng used to obtain flood insuranc	e.							
A7. Building Diagram Number 7									
A8. For a building with a crawlspace or enclosure(s):									
a) Square footage of crawlspace or enclosure(s)	N/A sq ft								
b) Number of permanent flood openings in the crawlspace or enclo	osure(s) within 1.0 foot above ad	jacent grade N/A							
c) Total net area of flood openings in A8.b N/A sq in									
d) Engineered flood openings? Yes No									
A9. For a building with an attached garage:	A9. For a building with an attached garage:								
a) Square footage of attached garage N/A	sq ft								
b) Number of permanent flood openings in the attached garage wit	hin 1.0 foot above adjacent grad	le N/A							
c) Total net area of flood openings in A9.b N/A	sq in								
d) Engineered flood openings?	-								
SECTION B - FLOOD INSURANCE RA	TE MAP (FIRM) INFORMATIO	NC							
B1. NFIP Community Name & Community Number B2. Cou	inty Name	B3. State							
Town of Longboat Key 125126 Saraso	a	Florida							
B4. Map/Panel B5. Suffix B6. FIRM Index B7. FIRM Panel Date Effective/	Zone(s) (Zon	e Flood Elevation(s) e AO, use Base Flood Depth)							
12115C0126 F 11-04-2016 Revised Date		/ AE=11' / VE=12'							
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:									
☐ FIS Profile ⊠ FIRM ☐ Community Determined ☐ Other/Source:									
B11. Indicate elevation datum used for BFE in Item B9: 🔲 NGVD 192	9 🖂 NAVD 1988 🔲 Other	/Source:							
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? 🗌 Yes 🔀 No									
Designation Date: N/A CBRS OPA									

ELEVATION CERTIFICA		OMB No. 1660-0008 Expiration Date: November 30, 2022			
IMPORTANT: In these spaces, c	copy the corresponding	information fro	om Section A.	FOR	INSURANCE COMPANY USE
Building Street Address (including 1601 Gulf of Mexico Drive	g Apt., Unit, Suite, and/or	Bldg. No.) or P.	O. Route and Box No		y Number:
City Longboat Key	Comp	pany NAIC Number			
SECT	ION C - BUILDING ELE	EVATION INFO	ORMATION (SURVE	Y REQUIR	ED)
C1. Building elevations are bas *A new Elevation Certificate		0	Building Under Co		Finished Construction
C2. Elevations – Zones A1–A30 Complete Items C2.a–h be Benchmark Utilized: NGS A	low according to the build	ling diagram spe	(with BFE), AR, AR/A ecified in Item A7. In I Datum: NAVD 88	., AR/AE, AR Puerto Rico	₹/A1–A30, AR/AH, AR/AO. only, enter meters.
Indicate elevation datum us					
	NAVD 1988 Other/S	, -			
Datum used for building ele			or the BFE.		
					heck the measurement used.
a) Top of bottom floor (incl	0 / 1	ace, or enclosu	re floor)	10.0	i feet inters
b) Top of the next higher f	loor			22.9	⊠ feet □ meters
c) Bottom of the lowest ho	rizontal structural member	r (V Zones only)	18.4	🗙 feet 🗌 meters
d) Attached garage (top of	f slab)			Ν/Λ	🗙 feet 🗌 meters
e) Lowest elevation of mac (Describe type of equipr	chinery or equipment serv ment and location in Com		ıg	N/A	🗙 feet 🗌 meters
f) Lowest adjacent (finishe	ed) grade next to building	(LAG)		8.7	⊠ feet
g) Highest adjacent (finish				8.9	⊠ feet ☐ meters
	, .				
 h) Lowest adjacent grade a structural support 	at lowest elevation of deci	K of Stairs, inclu	ding	8.0	⊠ feet □ meters
SEC	TION D - SURVEYOR,	ENGINEER, C	R ARCHITECT CE	RTIFICATIO	DN .
This certification is to be signed I certify that the information on t statement may be punishable by	this Certificate represents	my best efforts	to interpret the data a	ed by law to av <i>ailable. I u</i>	certify elevation information. Inderstand that any false
Were latitude and longitude in S		ensed land surv	veyor? 🛛 Yes 🗌		Check here if attachments.
Certifier's Name		License Numb	ber		STATE OF FLORIDA
Charles M. Arnett		LS6884			ES M. AP
Title Professional Surveyor and Map	6.0F			<u> </u>	A ense Num
	per				C 6884 0 ×
Company Name GeoPoint Surveying, Inc.					
Address					STATE OF
213 Hobbs Street				34	FLORIDA
City		State	ZIP Code		Milonal and
Tampa	Digitally signed by Charles Arnett	Florida	33619		Surveyor Unit
Signature Charles M. Aunth	Date: 2023.02.09	Date	Telephone	Ext.	
Signature second	14:21:52 -05'00'	02-09-2023	(813) 248-88		
Copy all pages of this Elevation C		nts for (1) comm	unity official, (2) insura	ance agent/c	ompany, and (3) building owner.
Comments (including type of equ A5. Latitude and Longitude: Det C2. Reference Benchmark is NC C2. e) No machinery is installed Pictures taken during field visit of *There is no Newer Elevation Ce	ermined by Google Earth. GS Benchmark Designatic l at this time and the buildi on 01/09/2023.	on A 715 / PID E ing is currently o	DL1844, NAVD88 Ele under construction.	vation = 7.74	4'

OMB No. 1660-0008 Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the correspo	FC	OR INSURANCE COMPANY USE		
Building Street Address (including Apt., Unit, Suite, 1601 Gulf of Mexico Drive	and/or Bldg. No.) or	r P.O. Route and Bo	ox No. Po	blicy Number:
City Longboat Key	Stat e Florida	ZIP Cod e 34228	Co	ompany NAIC Number
SECTION E – BUILDING FOR Z	ELEVATION INFO			QUIRED)
For Zones AO and A (without BFE), complete Items complete Sections A, B,and C. For Items E1–E4, us enter meters.				
 E1. Provide elevation information for the following a the highest adjacent grade (HAG) and the lower a) Top of bottom floor (including basement, 	and check the appro est adjacent grade ('	priate boxes to sho LAG).	w whether the	e elevation is above or below
crawlspace, or enclosure) is b) Top of bottom floor (including basement,		feet	meters	above or below the HAG.
crawlspace, or enclosure) is		feet		above or below the LAG.
E2. For Building Diagrams 6–9 with permanent floo the next higher floor (elevation C2.b in the diagrams) of the building is	od openings provide	d in Section A Items	_	see pages 1–2 of Instructions),
E3. Attached garage (top of slab) is		feet	meters	above or below the HAG.
E4. Top of platform of machinery and/or equipment servicing the building is	t	feet	meters	above or below the HAG.
E5. Zone AO only: If no flood depth number is avai floodplain management ordinance?				dance with the community's ify this information in Section G.
SECTION F – PROPERTY C	OWNER (OR OWNE	ER'S REPRESENTA	ATIVE) CERT	IFICATION
The property owner or owner's authorized represen community-issued BFE) or Zone AO must sign here	itative who complete e. The statements in	es Sections A, B, an Sections A, B, and	d E for Zone E are correct	A (without a FEMA-issued or to the best of my knowledge.
Property Owner or Owner's Authorized Representation	tive's Name			
Address		City	State	ZIP Code
Signature		Date	Telepl	hone
Comments				
				Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008 Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corre	PORTANT: In these spaces, copy the corresponding information from Section A.								
Building Street Address (including Apt., Unit, Su 1601 Gulf of Mexico Drive	uite, and/or Bldg. No.) or	r P.O. Route and Box N	No. Policy Number:						
City	State	ZIP Code	Company NAIC Number						
Longboat Key	Florida	34228							
SECTIO	ON G – COMMUNITY IN	FORMATION (OPTIO	NAL)						
The local official who is authorized by law or or Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, en	Certificate. Complete th								
G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)									
G2. A community official completed Secti or Zone AO.	on E for a building locate	ed in Zone A (without a	a FEMA-issued or community-issued BFE)						
G3. The following information (Items G4-	G10) is provided for con	nmunity floodplain mar	nagement purposes.						
G4. Permit Number	G5. Date Permit Issue	∍d	G6. Date Certificate of Compliance/Occupancy Issued						
G7. This permit has been issued for:									
G8 Elevation of as-built lowest floor (including of the building:	j basement)	[] feet [] meters Datum						
G9. BFE or (in Zone AO) depth of flooding at t	the building site:	[] feet 🔲 meters Datum						
G10. Community's design flood elevation:		[feet meters Datum						
Local Official's Name		Title							
Community Name		Telephone							
Signature		Date							
Comments (including type of equipment and loc	cation, per C2(e), if appli	icable)							
			Check here if attachments.						

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008 Expiration Date: November 30, 2022

IMPORTANT: In these spaces, co	FOR INSURANCE COMPANY USE		
Building Street Address (including 1601 Gulf of Mexico Drive	o. Policy Number:		
City	State	ZIP Code	Company NAIC Number
Longboat Key	Florida	34228	

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One Caption Front View

Clear Photo One



Photo Two Caption Left View

FEMA Form 086-0-33 (12/19)

BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008 Expiration Date: November 30, 2022

MADODTANT. In these second			
IMPORTANT: In these spaces, co	FOR INSURANCE COMPANY USE		
Building Street Address (including 1601 Gulf of Mexico Drive	lo. Policy Number:		
City	State	ZIP Code	Company NAIC Number
Longboat Key	Florida	34228	

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

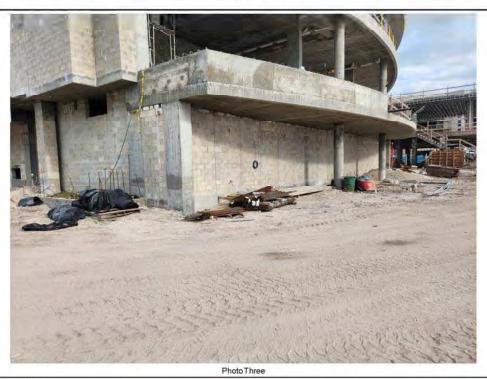


Photo Three Caption Rear View

Clear Photo Three



Photo Four Caption Right View

Clear Photo Four

Instructions for Completing the Elevation Certificate

The Elevation Certificate is to be completed by a land surveyor, engineer, or architect who is authorized by law to certify elevation information when elevation information is required for Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO. Community officials who are authorized by law or ordinance to provide floodplain management information may also complete this form. For Zones AO and A (without BFE), a community official, a property owner, or an owner's representative may provide information on this certificate, unless the elevations are intended for use in supporting a request for a LOMA or LOMR-F. Certified elevations must be included if the purpose of completing the Elevation Certificate is to obtain a LOMA or LOMR-F.

The property owner, the owner's representative, or local official who is authorized by law to administer the community floodplain ordinance can complete Section A and Section B. The partially completed form can then be given to the land surveyor, engineer, or architect to complete Section C. The land surveyor, engineer, or architect should verify the information provided by the property owner or owner's representative to ensure that this certificate is complete.

In Puerto Rico only, elevations for building information and flood hazard information may be entered in meters.

SECTION A – PROPERTY INFORMATION

Items A1–A4. This section identifies the building, its location, and its owner. Enter the name(s) of the building owner(s), the building's complete street address, and the lot and block numbers. If the building's address is different from the owner's address, enter the address of the building being certified. If the address is a rural route or a Post Office box number, enter the lot and block numbers, the tax parcel number, the legal description, or an abbreviated location description based on distance and direction from a fixed point of reference. For the purposes of this certificate, "building" means both a building and a manufactured (mobile) home.

A map may be attached to this certificate to show the location of the building on the property. A tax map, FIRM, or detailed community map is appropriate. If no map is available, provide a sketch of the property location, and the location of the building on the property. Include appropriate landmarks such as nearby roads, intersections, and bodies of water. For building use, indicate whether the building is residential, non-residential, an addition to an existing residential or non-residential building, an accessory building (e.g., garage), or other type of structure. Use the Comments area of the appropriate section if needed, or attach additional comments.

Item A5. Provide latitude and longitude coordinates for the center of the front of the building. Use either decimal degrees (e.g., 39.5043°, -110.7585°) or degrees, minutes, seconds (e.g., 39° 30' 15.5", -110° 45' 30.7") format. If decimal degrees are used, provide coordinates to at least 5 decimal places or better. When using degrees, minutes, seconds, provide seconds to at least 1 decimal place or better. The latitude and longitude coordinates must be accurate within 66 feet. When the latitude and longitude are provided by a surveyor, check the "Yes" box in Section D and indicate the method used to determine the latitude and longitude in the Comments area of Section D. If the Elevation Certificate is being certified by other than a licensed surveyor, engineer, or architect, this information is not required. Provide the type of datum used to obtain the latitude and longitude. FEMA prefers the use of NAD 1983.

Item A6. If the Elevation Certificate is being used to obtain flood insurance through the NFIP, the certifier must provide at least 2 photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in Section A. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least 2 additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least $3" \times 3"$. Digital photographs are acceptable.

Item A7. Select the diagram on pages 7–9 that best represents the building. Then enter the diagram number and use the diagram to identify and determine the appropriate elevations requested in Items C2.a–h. If you are unsure of the correct diagram, select the diagram that most closely resembles the building being certified.

Item A8.a. Provide the square footage of the crawlspace or enclosure(s) below the lowest elevated floor of an elevated building with or without permanent flood openings. Take the measurement from the outside of the crawlspace or enclosure(s). Examples of elevated buildings constructed with crawlspace and enclosure(s) are shown in Diagrams 6–9

on pages 8–9. Diagrams 2A, 2B, 4, and 9 should be used for a building constructed with a crawlspace floor that is below the exterior grade on all sides.

Items A8.b–d. Enter in Item A8.b the number of permanent flood openings in the crawlspace or enclosure(s) that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. (A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention.) If the interior grade elevation is used, note this in the Comments area of Section D. Estimate the total net area of all such permanent flood openings in square inches, excluding any bars, louvers, or other covers of the permanent flood openings, and enter the total in Item A8.c. If the net area cannot be reasonably estimated, provide the size of the flood openings without consideration of any covers and indicate in the Comments area the type of cover that exists in the flood openings. Indicate in Item A8.d whether the flood openings are engineered. If applicable, attach a copy of the Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES), if you have it. If the crawlspace or enclosure(s) have no permanent flood openings, or if the openings are not within 1.0 foot above adjacent grade, enter "N/A" for not applicable in Items A8.b–c.

Item A9.a. Provide the square footage of the attached garage with or without permanent flood openings. Take the measurement from the outside of the garage.

Items A9.b–d. Enter in Item A9.b the number of permanent flood openings in the attached garage that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. (A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention.) If the interior grade elevation is used, note this in the Comments area of Section D. This Includes any openings that are in the garage door that are no higher than 1.0 foot above the adjacent grade. Estimate the total net area of all such permanent flood openings in square inches and enter the total in Item A9.c. If the net area cannot be reasonably estimated, provide the size of the flood openings without consideration of any covers and indicate in the Comments area the type of cover that exists in the flood openings. Indicate in Item A9.d whether the flood openings are engineered. If applicable, attach a copy of the Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES), if you have it. If the garage has no permanent flood openings, or if the openings are not within 1.0 foot above adjacent grade, enter "N/A" for not applicable in Items A9.b–c.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Complete the Elevation Certificate on the basis of the FIRM in effect at the time of the certification.

The information for Section B is obtained by reviewing the FIRM panel that includes the building's location. Information about the current FIRM is available from the Federal Emergency Management Agency (FEMA) by calling 1-800-358-9616. If a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR-F) has been issued by FEMA, please provide the letter date and case number in the Comments area of Section D or Section G, as appropriate.

For a building in an area that has been annexed by one community but is shown on another community's FIRM, enter the community name and 6-digit number of the annexing community in Item B1, the name of the county or new county, if necessary, in Item B2, and the FIRM index date for the annexing community in Item B6. Enter information from the actual FIRM panel that shows the building location, even if it is the FIRM for the previous jurisdiction, in Items B4, B5, B7, B8, and B9.

If the map in effect at the time of the building's construction was other than the current FIRM, and you have the past map information pertaining to the building, provide the information in the Comments area of Section D.

Item B1. NFIP Community Name & Community Number. Enter the complete name of the community in which the building is located and the associated 6-digit community number. For a newly incorporated community, use the name and 6-digit number of the new community. Under the NFIP, a "community" is any State or area or political subdivision thereof, or any Indian tribe or authorized native organization, that has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction. To determine the current community number, see the NFIP *Community Status Book*, available on FEMA's web site at https://www.fema.gov/national-flood-insurance-program-community-status-book, or call 1-800-358-9616.

Item B2. County Name. Enter the name of the county or counties in which the community is located. For an unincorporated area of a county, enter "unincorporated area." For an independent city, enter "independent city."

Item B3. State. Enter the 2-letter state abbreviation (for example, VA, TX, CA).

Items B4–B5. Map/Panel Number and Suffix. Enter the 10-character "Map Number" or "Community Panel Number" shown on the FIRM where the building or manufactured (mobile) home is located. For maps in a county-wide format, the sixth character of the "Map Number" is the letter "C" followed by a 4-digit map number. For maps not in a county-wide format, enter the "Community Panel Number" shown on the FIRM.

Item B6. FIRM Index Date. Enter the effective date or the map revised date shown on the FIRM Index.

Item B7. FIRM Panel Effective/Revised Date. Enter the map effective date or the map revised date shown on the FIRM panel. This will be the latest of all dates shown on the map. The current FIRM panel effective date can be determined by calling 1-800-358-9616.

Item B8. Flood Zone(s). Enter the flood zone, or flood zones, in which the building is located. All flood zones containing the letter "A" or "V" are considered Special Flood Hazard Areas. The flood zones are A, AE, A1–A30, V, VE, V1–V30, AH, AO, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. Each flood zone is defined in the legend of the FIRM panel on which it appears.

Item B9. Base Flood Elevation(s). Using the appropriate Flood Insurance Study (FIS) Profile, Floodway Data Table, or FIRM panel, locate the property and enter the BFE (or base flood depth) of the building site. If the building is located in more than 1 flood zone in Item B8, list all appropriate BFEs in Item B9. BFEs are shown on a FIRM or FIS Profile for Zones A1–A30, AE, AH, V1–V30, VE, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO; flood depth numbers are shown for Zone AO. Use the AR BFE if the building is located in any of Zones AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO. In A or V zones where BFEs are not provided on the FIRM, BFEs may be available from another source. For example, the community may have established BFEs or obtained BFE data from other sources for the building site. For subdivisions and other developments of more than 50 lots or 5 acres, establishment of BFEs is required by the community's floodplain management ordinance. If a BFE is obtained from another source, enter the BFE in Item B9. In an A Zone where BFEs are not available, complete Section E and enter N/A for Section B, Item B9. Enter the BFE to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Item B10. Indicate the source of the BFE that you entered in Item B9. If the BFE is from a source other than FIS Profile, FIRM, or community, describe the source of the BFE.

Item B11. Indicate the elevation datum to which the elevations on the applicable FIRM are referenced as shown on the map legend. The vertical datum is shown in the Map Legend and/or the Notes to Users on the FIRM.

Item B12. Indicate whether the building is located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA). (OPAs are portions of coastal barriers that are owned by Federal, State, or local governments or by certain non-profit organizations and used primarily for natural resources protection.) Federal flood insurance is prohibited in designated CBRS areas or OPAs for buildings or manufactured (mobile) homes built or substantially improved after the date of the CBRS or OPA designation. For the first CBRS designations, that date is October 1, 1983. Information about CBRS areas and OPAs may be obtained on the FEMA web site at https://www.fema.gov/national-flood-insurance-program/coastal-barrier-resources-system.

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

Complete Section C if the building is located in any of Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO, or if this certificate is being used to support a request for a LOMA or LOMR-F. If the building is located in Zone AO or Zone A (without BFE), complete Section E instead. To ensure that all required elevations are obtained, it may be necessary to enter the building (for instance, if the building has a basement or sunken living room, split-level construction, or machinery and equipment).

Surveyors may not be able to gain access to some crawlspaces to shoot the elevation of the crawlspace floor. If access to the crawlspace is limited or cannot be gained, follow one of these procedures.

• Use a yardstick or tape measure to measure the height from the floor of the crawlspace to the "next higher floor," and then subtract the crawlspace height from the elevation of the "next higher floor." If there is no access to the

crawlspace, use the exterior grade next to the structure to measure the height of the crawlspace to the "next higher floor."

- Contact the local floodplain administrator of the community in which the building is located. The community may have documentation of the elevation of the crawlspace floor as part of the permit issued for the building.
- If the property owner has documentation or knows the height of the crawlspace floor to the next higher floor, try to verify this by looking inside the crawlspace through any openings or vents.

In all 3 cases, use the Comments area of Section D to provide the elevation and a brief description of how the elevation was obtained.

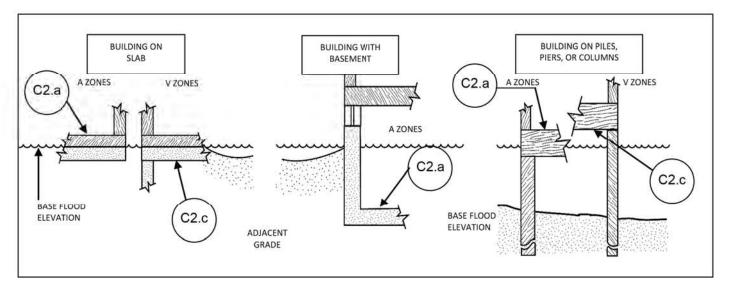
Item C1. Indicate whether the elevations to be entered in this section are based on construction drawings, a building under construction, or finished construction. For either of the first 2 choices, a post-construction Elevation Certificate will be required when construction is complete. If the building is under construction, include only those elevations that can be surveyed in Items C2.a–h. Use the Comments area of Section D to provide elevations obtained from the construction plans or drawings. Select "Finished Construction" only when all machinery and/or equipment such as furnaces, hot water heaters, heat pumps, air conditioners, and clevators and their associated equipment have been installed and the grading around the building is completed.

Item C2. A field survey is required for Items C2.a–h. Most control networks will assign a unique identifier for each benchmark. For example, the National Geodetic Survey uses the Permanent Identifier (PID). For the benchmark utilized, provide the PID or other unique identifier assigned by the maintainer of the benchmark. For GPS survey, indicate the benchmark used for the base station, the Continuously Operating Reference Stations (CORS) sites used for an On-line Positioning User Service (OPUS) solution (also attach the OPUS report), or the name of the Real Time Network used.

Also provide the vertical datum for the benchmark elevation. All elevations for the certificate, including the elevations for ltems C2.a–h, must use the same datum on which the BFE is based. Show the conversion from the field survey datum used if it differs from the datum used for the BFE entered in Item B9 and indicate the conversion software used. Show the datum conversion, if applicable, in the Comments area of Section D.

For property experiencing ground subsidence, the most recent reference mark elevations must be used for determining building elevations. However, when subsidence is involved, the BFE should not be adjusted. Enter elevations in Items C2.a–h to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Items C2.a–d. Enter the building elevations (excluding the attached garage) indicated by the selected building diagram (Item A7) in Items C2.a–c. If there is an attached garage, enter the elevation for top of attached garage slab in Item C2.d. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) If the building is located in a V zone on the FIRM, complete Item C2.c. If the flood zone cannot be determined, enter elevations for all of Items C2.a–h. For buildings in A zones, elevations a, b, d, and e should be measured at the top of the floor. For buildings in V zones, elevation c must be measured at the bottom of the lowest horizontal structural member of the floor (see drawing below). For buildings elevated on a crawlspace, Diagrams 8 and 9, enter the elevation



of the top of the crawlspace floor in Item C2.a, whether or not the crawlspace has permanent flood openings (flood vents). If any item does not apply to the building, enter "N/A" for not applicable.

Item C2.e. Enter the lowest platform elevation of at least 1 of the following machinery and equipment items: elevators and their associated equipment, furnaces, hot water heaters, heat pumps, and air conditioners in an attached garage or enclosure or on an open utility platform that provides utility services for the building. Note that elevations for these specific machinery and equipment items are required in order to rate the building for flood insurance. Local floodplain management officials are required to ensure that <u>all</u> machinery and equipment servicing the building are protected from flooding. Thus, local officials may require that elevation information for all machinery and equipment, including ductwork, be documented on the Elevation Certificate. If the machinery and/or equipment is mounted to a wall, pile, etc., enter the platform elevation of the machinery and/or equipment. Indicate machinery/equipment type and its general location, e.g., on floor inside garage or on platform affixed to exterior wall, in the Comments area of Section D or Section G, as appropriate. *If this item does not apply to the building, enter "N/A" for not applicable.*

Items C2.f–g. Enter the elevation of the ground, sidewalk, or patio slab immediately next to the building. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

Item C2.h. Enter the lowest grade elevation at the deck support or stairs. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

Complete as indicated. This section of the Elevation Certificate may be signed by only a land surveyor, engineer, or architect who is authorized by law to certify elevation information. Place your license number, your seal (as allowed by the State licensing board), your signature, and the date in the box in Section D. You are certifying that the information on this certificate represents your best efforts to interpret the data available and that you understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. Use the Comments area of Section D to provide datum, elevation, openings, or other relevant information not specified elsewhere on the certificate.

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

Complete Section E if the building is located in Zone AO or Zone A (without BFE). Otherwise, complete Section C instead. Explain in the Section F Comments area if the measurement provided under Items E1–E4 is based on the "natural grade."

Items E1.a and b. Enter in Item E1.a the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG). Enter in Item E1.b the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the lowest adjacent grade (LAG). For buildings in Zone AO, the community's floodplain management ordinance requires the lowest floor of the building be elevated above the highest adjacent grade at least as high as the depth number on the FIRM. Buildings in Zone A (without BFE) may qualify for a lower insurance rate if an engineered BFE is developed at the site.

Item E2. For Building Diagrams 6–9 with permanent flood openings (see pages 8–9), enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the next higher floor or elevated floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG).

Item E3. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, for the top of attached garage slab. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) *If this item does not apply to the building, enter "N/A" for not applicable.*

Item E4. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, of the platform elevation that supports the machinery and/or equipment servicing the building. Indicate machinery/equipment type in the Comments area of Section F. *If this item does not apply to the building, enter "N/A" for not applicable.*

Item E5. For those communities where this base flood depth is not available, the community will need to determine whether the top of the bottom floor is elevated in accordance with the community's floodplain management ordinance.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

Complete as indicated. This section is provided for certification of measurements taken by a property owner or property owner's representative when responding to Sections A, B, and E. The address entered in this section must be the actual mailing address of the property owner or property owner's representative who provided the information on the certificate.

SECTION G - COMMUNITY INFORMATION (OPTIONAL)

Complete as indicated. The community official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Section C may be filled in by the local official as provided in the instructions below for Item G1. If the authorized community official completes Sections C. E. or G. complete the appropriate item(s) and sign this section.

Check **Item G1** if Section C is completed with elevation data from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. Indicate the source of the elevation data and the date obtained in the Comments area of Section G. If you are both a community official and a licensed land surveyor, engineer, or architect authorized by law to certify elevation information, and you performed the actual survey for a building in Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/ A, AR/A1–A30, AR/AE, AR/AH, or AR/AO, you must also complete Section D.

Check **Item G2** if information is entered in Section E by the community for a building in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

Check **Item G3** if the information in Items G4–G10 has been completed for community floodplain management purposes to document the as-built lowest floor elevation of the building. Section C of the Elevation Certificate records the elevation of various building components but does not determine the lowest floor of the building or whether the building, as constructed, complies with the community's floodplain management ordinance. This must be done by the community. Items G4–G10 provide a way to document these determinations.

Item G4. Permit Number. Enter the permit number or other identifier to key the Elevation Certificate to the permit issued for the building.

Item G5. Date Permit Issued. Enter the date the permit was issued for the building.

Item G6. Date Certificate of Compliance/Occupancy Issued. Enter the date that the Certificate of Compliance or Occupancy or similar written official documentation of as-built lowest floor elevation was issued by the community as evidence that all work authorized by the floodplain development permit has been completed in accordance with the community's floodplain management laws or ordinances.

Item G7. New Construction or Substantial Improvement. Check the applicable box. "Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a building, the cost of which equals or exceeds 50 percent of the market value of the building before the start of construction of the improvement. The term includes buildings that have incurred substantial damage, regardless of the actual repair work performed.

Item G8. As-built lowest floor elevation. Enter the elevation of the lowest floor (including basement) when the construction of the building is completed and a final inspection has been made to confirm that the building is built in accordance with the permit, the approved plans, and the community's floodplain management laws or ordinances. Indicate the elevation datum used.

Item G9. BFE. Using the appropriate FIRM panel, FIS Profile, or other data source, locate the property and enter the BFE (or base flood depth) of the building site. Indicate the elevation datum used.

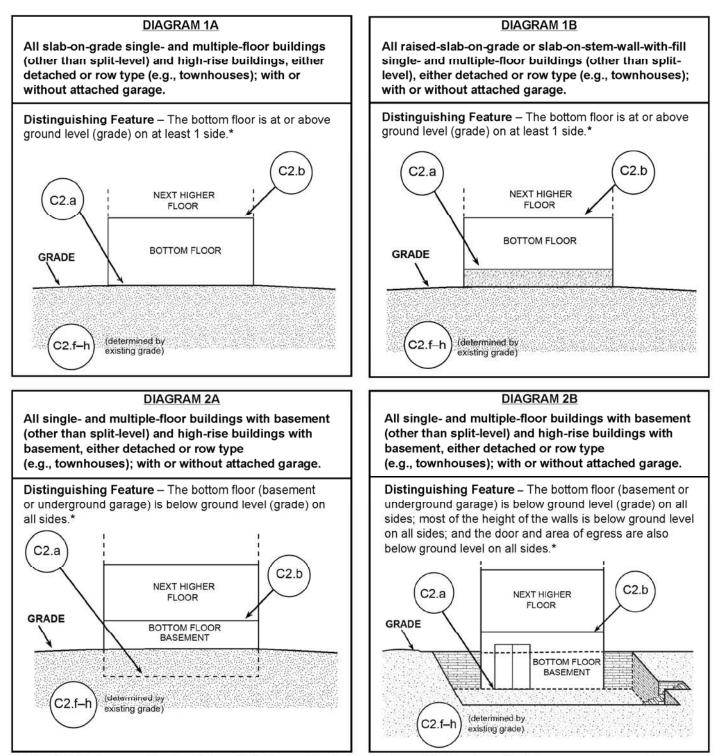
Item G10. Community's design flood elevation. Enter the elevation (including freeboard above the BFE) to which the community requires the lowest floor to be elevated. Indicate the elevation datum used.

Enter your name, title, and telephone number, and the name of the community. Sign and enter the date in the appropriate blanks.

Building Diagrams

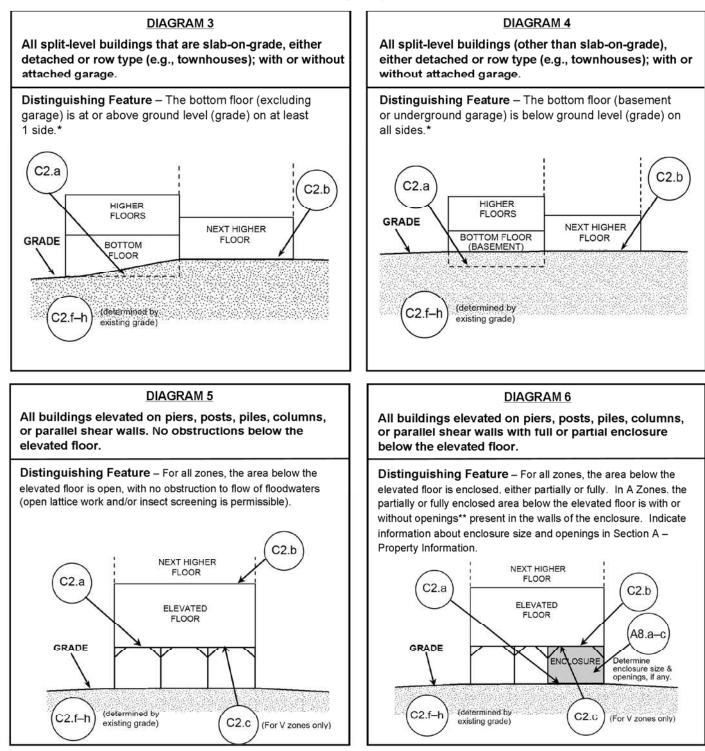
The following diagrams illustrate various types of buildings. Compare the features of the building being certified with the features shown in the diagrams and select the diagram most applicable. Enter the diagram number in Item A7, the square footage of crawlspace or enclosure(s) and the area of flood openings in square inches in Items A8.a–c, the square footage of attached garage and the area of flood openings in square inches in Items A9.a–c, and the elevations in Items C2.a–h.

In A zones, the floor elevation is taken at the top finished surface of the floor indicated; in V zones, the floor elevation is taken at the bottom of the lowest horizontal structural member (see drawing in instructions for Section C).



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

Building Diagrams



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least 1 side is at or above grade. The principal use of this building is located in the elevated floors of the building.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or tully. In A \angle ones, the partially or fully enclosed area below the elevated floor is with or without openings^{**} present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information

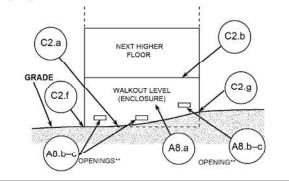


DIAGRAM 8

All buildings elevated on a crawlspace with the floor of the crawlspace at or above grade on at least 1 side, with or without an attached garage.

Distinguishing Feature – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawlspace is with or without openings** present in the walls of the crawlspace. Indicate information about crawlspace size and openings in Section A – Property Information.

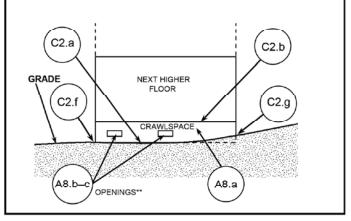
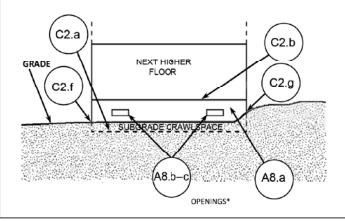


DIAGRAM 9

All buildings (other than split-level) elevated on a subgrade crawlspace, with or without attached garage.

Distinguishing Feature – The bottom (crawlspace) floor is below ground level (grade) on all sides.* (If the distance from the crawlspace floor to the top of the next higher floor is more than 5 feet, or the crawlspace floor is more than 2 feet below the grade [LAG] on all sides, use Diagram 2A or 2B.)



- * A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.
- ** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.



TOWN OF LONGBOAT KEY

Planning, Zoning & Building 501 Bay Isles Road Longboat Key, FL 34228 (941) 316-1966 FAX (941) 316-1970 www.longboatkey.org

Incorporated November 14, 1955

Memo of EC Review for Correctness and Completion

The attached FEMA Elevation Certificate for the following address has been reviewed by this office.

1601 GULF OF MEXICO DR (HOTEL)

(PERMIT:

The items noted below are not correct on the attached form and should read as entered on this page.

		For Insurance Company Use:						
A1. Building Owner's Name					Policy Number			
A2.	Building Street Address (including A	pt., Unit, Suite, and/or Bldg.	No.) or P.O. Route and	Company NAIC Number				
-	City	State	ZIP Code					
A3.	B. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Update per final parcel ID							
A5. A6. A7.	Building Use (e.g., Residential, Nor Latitude/Longitude: Lat. Long. Attach at least 2 photographs of the Building Diagram Number: <u>6??</u> For a building with a crawlspace of	Horizontal building if the Certificate is b enclosure(s):	I Datum: NAD 1927 being used to obtain floo A9.	NAD 1983				
 a) Square footage of crawlspace or enclosure(s) sq ft b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade c) Total net area of flood openings in A8.b sq in d) Engineered flood openings? Yes No 			b) c) d)	 b) No. of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 				
	S	ECTION B - FLOOD INSU	JRANCE RATE MAR	P (FIRM) INFORMAT	ION			
B1. NFIP Community Name & Community Number B2. County Name			County Name	B3. State				
B	4. Map/Panel Number B5, Suffi	x B6. FIRM Index Date	B7. FIRM Panel Effective/Revised D	ate B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use base flood depth)			
1.	Indicate the source of the Base Floor FIS FIRM Indicate elevation datum used for BF Is the building located in a Coastal B Yes No	Community Determined E in Item B9: N	Oth GVD 1929 NAVD 1988	er (Describe) 8 Other (De				
Local Official's Name: Patti Fige, CBO, CFM, LEED AP BD+C			Title: E	Title: Building Official				
Community Name: Town of Longboat Key			Telepho	Telephone: 941-361-6411 x2521				
Signature:			Date: I	DRAFT 11/13/2023	NOT FINISHED CONSTRUCTION RETURN TO EC CERTIFIER			
Sig								

C2.c: Need CCCL certificate;

C2.e; design information should be included in comments, if possible, or verified prior to FC; D: no attachments