

### BUILDING CODE ANALYSIS - 2017 FLORIDA BUILDING CODE

# CODE SUMMARY (APPLICABLE CODES) 1. BUILDING CODE: 2017 FLORIDA BUILDING CODE 2. PLUMBING CODE: 2017 PLUMBING CODE

3. ENERGY CODE: 2017 FLORIDA ENERGY CONSERVATION CODE AND AMMENDMENTS

2017 FLORIDA MECHANICAL CODE 4. MECH. CODE: 2017 NFPA 101, 2015 EDITION 5. LIFE SAFETY:

6. FIRE CODE:

2011 NATIONAL ELECTRIC CODE 7. ELEC. CODE: 8. ACCESSIBILITY 2017 FLORIDA BUILDING CODE, ACCESSIBILITY CODE REFERENCE: FHA - FAIR HOUSING ACCESSIBILITY GUIDELINES ANSI A11.7.1, 2003 EDITION

2017 FLORIDA FIRE PREVENTION CODE

9. NFPA 101, STANDARD FOR PORTABLE FIRE EXTINGUISHERS, 2014 **EDITION** 

**GENERAL CODE PARAMETERS** 

		DEODITOOOL		
DESCRIPTION	REQUIRED OR ALLOWABLE	THIS PROJECT	REFERENCE FBC 2014	REMARKS
ONSTRUCTION TYPE	TYPE V (B)	TYPE V (B)	TABLE 503	
SE / CCUPANCY	A-3	A-3	CH. 3	
RE RATING	0	0	TABLE 601	
CCUPANCY EPARATION	Y	Y	TABLE 508.4	
PRINKLER	NO	NO	SEC 903.2.1.3	
IN NO. OF EXITS	2	2	TABLE 1015.1/1021.2	
IN. CORRIDOR IDTH	44 INCHES	58 INCHES	SEC 1005.1 TABLE 1018.2	
AX. NO STORIES	1	1	TABLE 503	
EIGHT LIMIT	40'	24' 7"	TABLE 503	
AX FLOOR AREA	6,000 SF	4,229 SF	TABLE 503	
IND SPEED	130-140 MPH	130-140 MPH	SEC. 1609	
EISMIC ZONE	-	-	-	SEE STRUCT.

<u>G</u>	GENERAL CODE PARAMETERS POOL PAVILION											
DESCRIPTION	REQUIRED OR ALLOWABLE	THIS PROJECT	REFERENCE FBC 2014									
CONSTRUCTION TYPE	TYPE V (B)	TYPE V (B)	TABLE 503									
USE / OCCUPANCY	A-3	A-3	CH. 3									
FIRE RATING	0	0	TABLE 601									
OCCUPANCY SEPARATION	N	N	TABLE 508.4									
SPRINKLER	NO	NO	SEC 903.2.1.3									
MIN NO. OF EXITS	-	-	TABLE 1021.2									
MIN. CORRIDOR WIDTH	-	-	SEC 1005.1 TABLE 1018.2									
MAX. NO STORIES	1	1	TABLE 503									
HEIGHT LIMIT	40'	18' 11 1/2"	TABLE 503									
MAX FLOOR AREA	6,000 SF	1,359 SF	TABLE 503									
WIND SPEED	130-140 MPH	130-140 MPH	SEC. 1609									

SEISMIC ZONE

표		TOTAL	EGRESS	WIDTH PER PE	ERSON SERVED (REQ'D.)	EGRESS	WIDTH PROVIDED	
EGRESS WIDTH	OCCUPANCY CLASSIFICATION	OCCUPANTS (PER OCCUPANT LOAD CALC.)	STAIRW (IN. PER OCC	-	EXIT DOOR WIDTH (INCHES PER OCCUPANT)	STAIRWAYS	EXIT DOOR WIDTH	
EG	A-3	150 (WORST CASE)	0.3 (0 OCCU	PANTS) =	0.2 (150 OCCUPANT) = 30"	S) 0	99"	
		MEAN	IS OF EG	]				
	OCCUPANCY CLASSIFICATION	I OCA	TION		(. TRAVEL DISTANCE EXIT (ALLOWABLE)	MAX. TRAVEL DISTANC	•	

SPRINK.

OCCUPANT

29

18

42

10

30

151

OCCUPANT

38'-8"

PLUMBING FIXTURES REQ'D - IBC 2012 TABLE 2902.1										
OCCUPANCY CLASSIFICATION LOCATION			WATER CLOSETS (URINALS 419.2)		LAVAT	ORIES	DRINKING			
OLAGOII IOATION	LOOATION	MALE FEMALE URINALS		URINALS	MALE	FEMALE	FOUNTAIN	SERVICE SINK		
A-3	CLUBHOUSE	1 PER 125	1 PER 65		1 PER 200	1 PER 200	1 PER 500	1		
TOTAL OCCUPANTS = 1	51	75	75		75	75				
FIXTURES REQUIRED		1	2	-	1	1	1	1		
FIXTURES PROVIDED		1	2	-	1	2	1 HI /1 LOW	1		
TOTAL OCCUPANTS = 1 FIXTURES REQUIRED				-		75 1	1	1		

OCCUPANT

5 NET

100 GROSS

100 GROSS

100 GROSS

100 GROSS

15 NET

15 NET

15 NET

15 NET

300 GROSS

50 GROSS

AREA PER OCCUPANT

TOTAL AREA

4,293 SF

1,359 SF

OCCUPANT LOAD TABLE 1004.1.1

FLOOR AREA

145 SF

152 SF

127 SF

140 SF

185 SF

272 SF

630 SF

152 SF

446 SF

22 SF

757 SF

FLOOR AREA

COVERED

UNENCLOSED

472 SF

1,016 SF

OCCUPANT LOAD TABLE 1004.1.1

**POOL PAVILION** 

**CLUBHOUSE** 

**FUNCTION OF SPACE** 

BUSINESS

BUSINESS

BUSINESS

**BUSINESS** 

ASSEMBLY -

**MECHANICAL** 

**EXERCISE ROOM** 

**FUNCTION OF SPACE** 

**ENCLOSED AREA** 

3,821 SF

CLASS-C REQUIREMENTS AS DEFINED IN FBC SECTION 803.

UNSPRINK.

CLUBHOUSE

SPACE NAME

OFFICE

GATHERING

COVERED PATIO

SPACE NAME

BUILDING

CLUBHOUSE

POOL PAVILION

MECHANICAL

FITNESS

MINIMUM FLAME SPREAD INTERIOR FINISHES										
SPACE DESCRIPTION NONSPRINKLERED	WALLS AND CEILINGS	NOTE	FLOORS	NOTE						
EXIT ENCLOSURES-EXIT PASSAGEWAYS	A	NONE IN PROJECT	CLASS II	NONE IN PROJECT						
CORRIDORS	A	NONE IN PROJECT	CLASS II	NONE IN PROJECT						
ROOMS AND ENCLOSED SPACES	С		DOCFF-1	"PILL TEST"						

FROM TABLE 705.8 - [FBC 2014]										
MAXIMUM AREA	OF EXTERIOR WALL OPENINGS:									
FIRE SEPARATION DISTANCE	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA								
30' OR GREATER	UNPROTECTED, SPRINKLERED	NO LIMIT								
20' TO LESS THAN 25'	UNPROTECTED, SPRINKLERED	NOT REQUIRED								

COVERED UNENCLOSED AREA	DECK	1,016 SF	15 GROSS	73
ANCILLAF	RY BUILDING G	ROSS AR	REA LEGEN	<u>ND</u>

INTERIOR FINISH REQUIREMENTS	
ALL INTERIOR FINISHES SHALL COMPLY W/ FBC 2017, CHAPTER 8. GROUP A-3 OCCUPANCY SHALL BE	
ALL INTERIOR FINISHES SHALL COMPLY W/ FBC 2017, CHAPTER 8. GROUP A-3 OCCUPANCY SHALL BE REQUIRED TO BE CLASS-C FOR ALL ROOMS & ENCLOSED SPACES PER FBC TABLE 803.9 & SHALL COMPLY W/	

<b>ENERGY CONSERVATIO</b>	)
<b>REQUIREMENTS</b>	
2017 F.B.C ENERGY CONSERVATION	

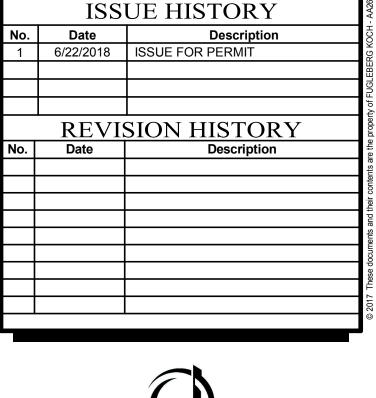
THE BUILDING THERMAL ENVELOPE SHALL BE DURABLY SEALED TO LIMIT INFILTRATION. THE SEALING METHODS

CHAPTER 402.4

BETWEEN DISSIMILAR MATERIALS SHALL ALLOW FOR DIFFERENTIAL EXPANSION AND CONTRACTION. THE FOLLOWING SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED OR OTHERWISE SEALED WITH AN AIR BARRIER MATERIAL, SUITABLE FILM OR SOLID MATERIAL:

- 1- ALL JOINTS, SEAMS AND PENETRATIONS 2- SITE-BUILT WINDOWS, DOORS AND SKYLIGHTS. 3- OPENINGS BETWEEN WINDOWS AND DOOR
- ASSEMBLIES AND THEIR RESPECTIVES JAMBS AND 4- UTILITY PENETRATIONS. 5- DROPPED CEILINGS OR CHASES ADJACENT TO THE
- THERMAL ENVELOPE. 6- KNEE WALLS. 7- WALLS AND CEILINGS SEPARATING A GARAGE FROM
- CONDITIONED SPACES. 8- BEHIND TUBS AND SHOWERS ON EXTERIOR WALLS
  9- COMMON WALLS BETWEEN DWELLING UNITS.
- 10- ATTIC ACCESS OPENINGS. 11- RIM JOIST JUNCTION.
- 12- OTHER SOURCES OF INFILTRATION.

LIDE DEGI	CTANC	E DATING E	ם ב	JIREMENTS							
I IIXL-IXLOI		R TABLE 60		<u> JIIXLIVILINI X</u>	1	FLORIDA PRO	DUCT APPROV	VAL CHECKLIST -			
		OUSE - TYPE V(B)	<u>· · /</u>			[FBC 2017] (CL	<u>.UBHOUSE &amp; P</u>	OOL PAVILION)			
OTDUOTUDAL FRANC		-	REQUI	IRED PROVIDED		CATEGORY / SUBCATEGORY	MANUFACTURER	PRODUCT DESCRIPTION	DESIGN PRESSURE +/-	WIND BORNE DEBRIS PROTECTION	APPROVAL NUMBER(S)
STRUCTURAL FRAME INCLUDING COLUMNS		SSES	0	0		A. EXTERIOR DOORS					
						SWINGING	WINDSOR REPUBLIC DOORS	STEEL EXT. DOOR DL416	+65 / -65	NO	FL 14963
BEARING WALLS:	D TABLE 000		0	0		SWINGING FRENCH	MASONITE	GLASS	+43.0 / -45.0	NO	FL 4940.5
EXTERIOR (PER	R TABLE 602	)									
INTERIOR			0								
NONDE ADINO WALLO	AND DARTITION	· .			1	B. WINDOWS					
NONBEARING WALLS		_				DOUBLE HUNG	JELD-WEN WINDOWS	DOUBLE HUNG V-4500	+50.0 / -50.0	NO	FL 16309.1
EXTERIOR (PER		,	0			FIXED	JELD-WEN WINDOWS	FIXED V-4500	+50.0 / -50.0	NO	FL 14784.3
INTERIOR (PER	SECTION 60	J2)	0	0		C DANIEL WALL					
FLOOD CONOTRUCTION	ON				1	C. PANEL WALL SIDING	JAMES HARDIE	HARDIE PLANK LAP SIDING	NI/A	NO	FL 13192.2-R2
FLOOR CONSTRUCTION INCLUDING SUPPORT		JOISTS	0	0		METAL PANELS	BERRIDGE	THIN LINE WALL PANEL	+187 / -135	NO	
					4						FL 14669.9-R1
DOOF CONCEDUCTIO	M.					STOREFRONT	KAWNEER NA	TRIFAB 350 STOREFRONT	+30 / -30	NO	FL 10388.1 FL 13265-R1
ROOF CONSTRUCTIO	<u> </u>		0	0		SOFFITS	JAMES HARDIE	HARDIE SOFFITS	N/A	NO	
					1	SIDING	JAMES HARDIE	HARDIE PANEL SIDING	N/A	NO	FL 1322.2-R1
SEPARATION DISTAN	CE (PER TABLE 6	02)	0	0							
10' <u>&lt;</u> X < 30' TYF	PE V(A)					D. ROOFING PRODUCTS					
						UNDERLAYMENTS	W.R. GRACE	ICE & WATER SHIELD HT	N/A	NO	FL 298.1
					J	METAL SOFFITS	BERRIDGE	THIN LINE WALL PANEL	+187 / -135	NO	FL 14669.9-R1
						ROOF VENT	OWENS CORNING	VENT SURE ROOF VENTILATION	N/A	NO	FL 10758.3 R-3
D INTEDIO		IEO				ROOF VENT	THOMPSON ARCH METAL	OFF RIDGE VENT	N/A	NO	FL 5219.1 R-2
<u>ND INTERIOF</u> T	KFINISE	<u>1ES</u>	_			ROOFING	OWENS CORNING	TRUE DEFINITION DURATION	N/A	NO	FL 10674.1 R-8
NOTE	FLOORS	NOTE				METAL ROOF	BERRIDGE	CEE-LEAK PANEL			



PERMIT REVIEW STAMP

FUGLEBERG KOCH 2555 Temple Trail, Winter Park, FL 32789 (407) 629-0595 www. fuglebergkoch.com

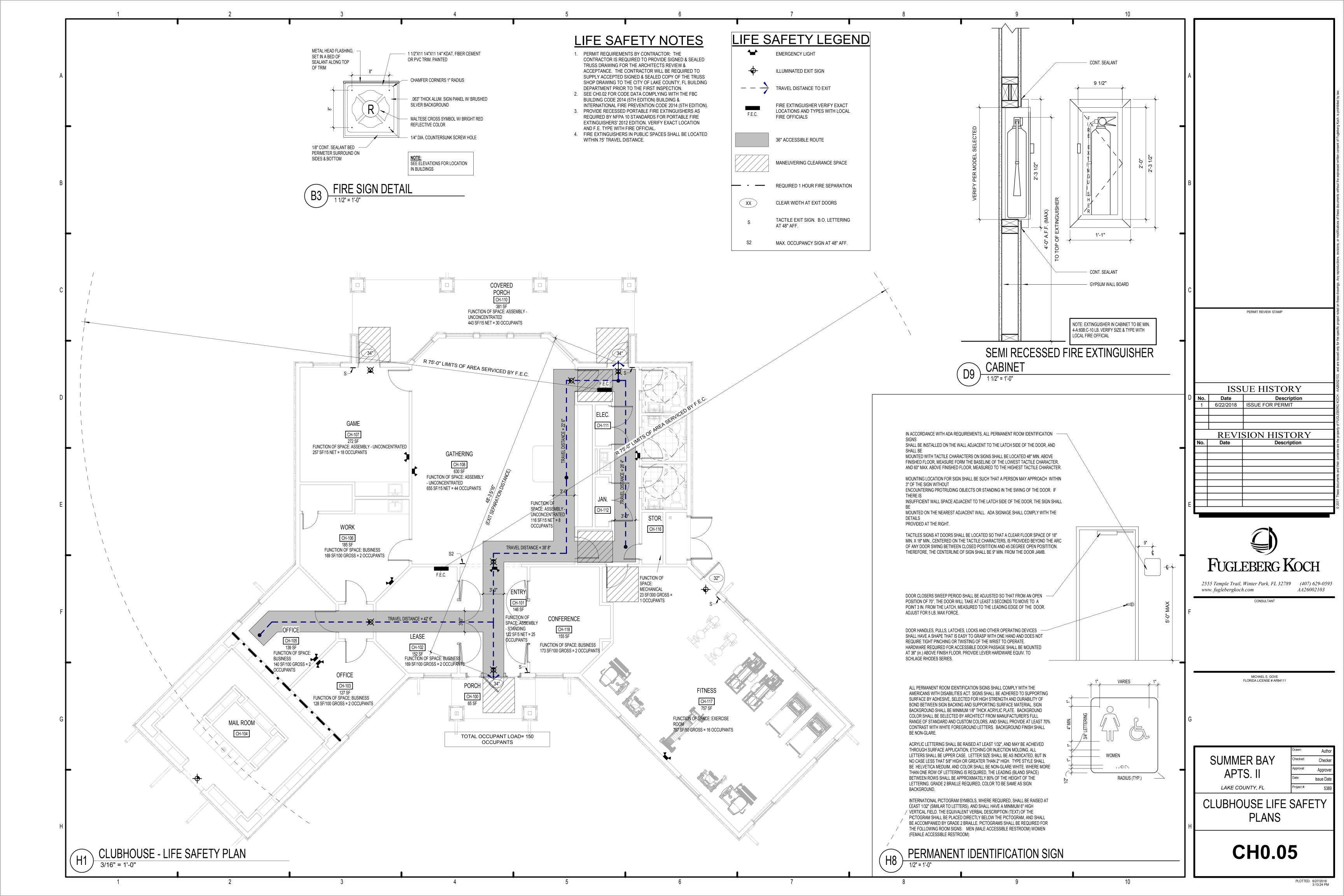
MICHAEL E. GOVE FLORIDA LICENSE # AR94111

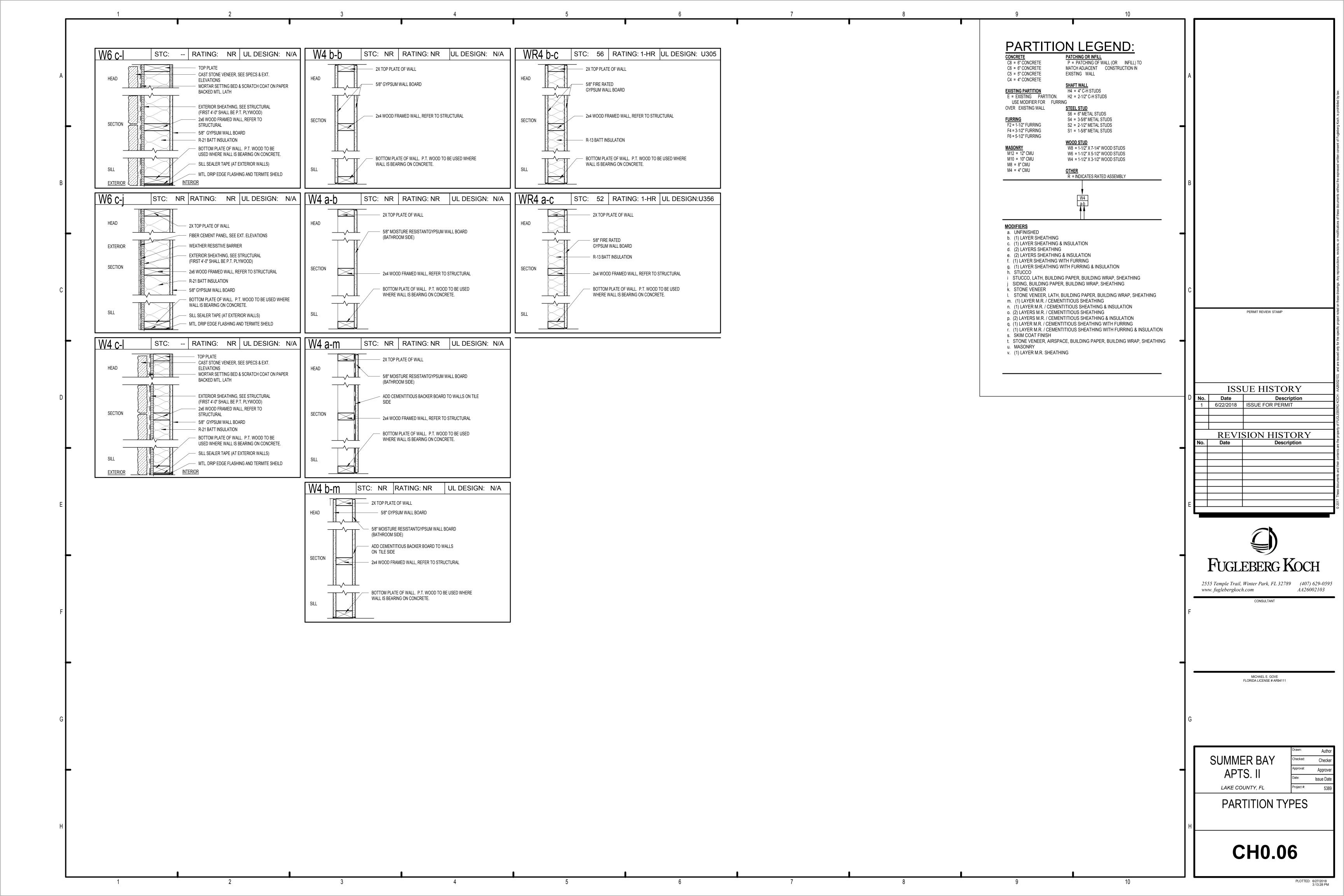
SUMMER BAY LAKE COUNTY, FL

> CODE ANALYSIS -CLUBHOUSE

CH0.02

Issue Date



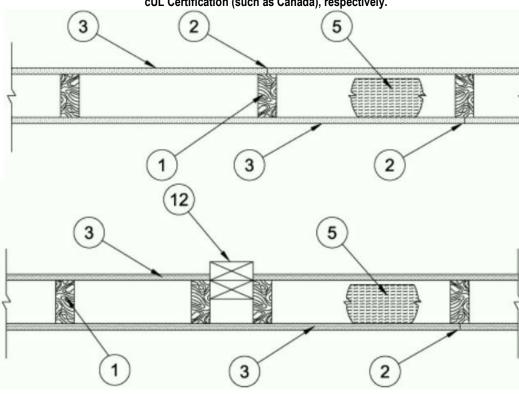


Bearing Wall Rating — 1 Hr

Finish Rating — See Items 3, 3A, 3D, 3E, 3F, 3G, 3H, 3J and 3L. STC Rating - 56 (See Item 9)

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Wood Studs — Nom 2 by 4 in. spaced 16 in. OC max, effectively firestopped.

2. Joints and Nail-Heads — Joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when square edge boards are used. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with the joints reinforced with paper tape. Nailheads exposed or covered with joint compound

3. **Gypsum Board\*** — 5/8 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths other than 48 in., gypsum panels are to be installed horizontally. For an alternate method of attachment of gypsum panels, refer to Item 6, 6A or 6B, Steel Framing Members\*.

When Item 6,6B, or 6C Steel Framing Members\*, are used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

When Item 6A, Steel Framing Members\*, is used, two layers of gypsum panels attached to furring channels. Base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC. Face layer attached to furring channels with 1-5/8 in. long Type S bugle-head steel screws spaced 12 in. OC. All joints in face layers staggered with joints in base layers. One layer of gypsum board attached to opposite side of wood stud without furring channels as described in Item 3.

When Item 7, resilient channels are used, 5/8 in. thick, 4 ft wide gypsum panels applied vertically. Screw attached furring channels with 1 in. long, self-drilling, self-tapping Type S or S-12 steel screws spaced 8 in. OC, vertical joints located midway between studs.

ACADIA DRYWALL SUPPLIES LTD — Type X (finish rating 22 min), 5/8 Type X, Moisture Resistant Type X, Gypsum Sheathing Type X, Mold & Mildew Resistant Type X and Mold & Mildew Resistant AR Type X, Type Blueglass Exterior Sheathing

AMERICAN GYPSUM CO — Types AGX-1(finish rating 23 min.), M-Glass (finish rating 23 min.), Type AGX-11 (finish rating 26 min), Type LightRoc (finish rating 22 min) or Type AG-C **BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO** — Type DBX-1 (finish rating 24 min). CERTAINTEED GYPSUM INC — Type 1, Type SF3 (finish rating 20 min) or FRPC, Type C or Type X (finish

rating 26 min), Type EGRG or GlasRoc (finish rating 23 min) **CGC INC** — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type

SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRC (finish rating 24 min), Type WRX (finish rating 24 min). CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC6A (finish rating 34 min),

Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX (finish rating 21 min). GEORGIA-PACIFIC GYPSUM L L C — Type 5 (finish rating 26 min), Type 6 (finish rating 23 min), Type 9 (finish rating 26 min), Type C (finish rating 26 min), Type DGG (finish rating 20 min), Type GPFS1 (finish rating 20 min), Type GPFS2 (finish rating 20 min), Type GPFS6 (finish rating 26 min), Type DS, Type DAP, Type DD (finish rating 20 min), Type DA, Type DAPC, Type LS (finish rating 23 min), Type X, Veneer Plaster Base -Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type LWX (finish rating 22 min), Veneer Plaster Base-Type LWX (finish rating 22 min), Water Rated-Type LWX (finish rating 22 min), Sheathing Type-LWX (finish rating 22 min), Soffit-Type LWX (finish rating 22 min), Type DGLW (finish rating 22 min), Water Rated-Type DGLW (finish rating 22 min), Sheathing Type- DGLW (finish rating 22 min), Soffit-Type DGLW (finish rating 22 min), Type LWX (finish rating 22 min), Type LW2X (finish rating 22 min), Veneer Plaster Base -Type LW2X (finish rating 22 min), Water Rated - Type LW2X (finish rating 22 min), Sheathing - Type LW2X

(finish rating 22 min), Soffit - Type LW2X (finish rating 22 min), Type DGL2W (finish rating 22 min), Water Rated - Type DGL2W (finish rating 22 min), Sheathing - Type DGL2W (finish rating 22 min). NATIONAL GYPSUM CO — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min), Type FSL (finish rating 24 min), Type FSW-

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-2 (finish rating 20 min), PG-3 (finish rating 20 min), Types PG-3W, PG-5W (finish rating 20 min), Type PG-4 (finish rating 20 min), Type PG-6 (finish rating 23 min), Types PG-3WS, PG-5WS, PGS-WRS (finish rating 20 min), Types PG-5, PG-9 (finish

rating 26 min), PG-11 or Type PG-C. PANEL REY S A — Type GREX, PRX; Types RHX, MDX, ETX (finish rating 22 min)

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1 (finish rating 26 min)

**THAI GYPSUM PRODUCTS PCL** — Type C, Type X (finish rating 26 min) UNITED STATES GYPSUM CO — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type FRX-G (finish rating 29 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type SCX (finish rating 24 min), Type SGX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type ULIX (finish rating 20 min).

**USG MEXICO S A DE C V** — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), SCX (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type ULX (finish rating 22 min). 3A. **Gypsum Board\*** — (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or

tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of

board. When used in widths of other than 48 in., gypsum boards are to be installed horizontally. AMERICAN GYPSUM CO — Types AGX-1 (finish rating 25 min.), M-Glass (finish rating 25 min.), Type AG-C (finish rating 25 min.).

**CERTAINTEED GYPSUM INC** — Type C or Type X (finish rating 26 min).

**CGC INC** — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type WRC (finish rating 24 min), Type WRX (finish

UNITED STATES GYPSUM CO — Type AR (finish rating 24 min), Type SCX (finish rating 24 min), Type SGX (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type FRX-G (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min). **USG MEXICO S A DE C V** — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type SCX, Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 3B. Gypsum Board\* — (As an alternate to Item 3) — Nom 3/4 in. thick, installed with 1-7/8 in. long cement coated nails as described in Item 3 or 1-3/8 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A.

**CGC INC** — Types AR, IP-AR. **UNITED STATES GYPSUM CO** — Types AR, IP-AR.

**USG MEXICO S A DE C V** — Types AR, IP-AR. 3C. Gypsum Board\* — (As an alternate to Items 3, 3A and 3B) — 5/8 in. thick, 2 ft wide, tongue and groove edge, applied horizontally to one side of the assembly. Installed with 1-7/8 in. long cement coated nails as described in Item 3 or 1-1/4 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A. Joint covering (Item 2) not required.

CGC INC — Type SHX. **UNITED STATES GYPSUM CO** — Type SHX.

**USG MEXICO S A DE C V** — Type SHX. 3D. **Gypsum Board\*** — (As an alternate to Items 3, 3A, 3B, or 3C — not shown) For Direct Application to Studs Only- Nom 5/8 in, thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs or tabs may be used in lieu of or in addition to the lead batten strips or optional at other locations. Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards underneath screw locations prior to the installation of the screws. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade

**RAY-BAR ENGINEERING CORP** — Type RB-LBG (finish rating 24 min). 3E. **Gypsum Board\*** — (As an alternate to Items 3, 3A, 3B, 3C, and 3D) — 5/8 in. thick gypsum panels, with square edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last 2 screws 1 and 4 in. from edge of board or nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths of other than 48 in., gypsum boards are to be installed horizontally. **GEORGIA-PACIFIC GYPSUM L L C** — GreenGlass Type X (finish rating 23 min).

3F, Gypsum Board\* — (As an alternate to Items 3, 3A, 3B, 3C, 3D, and 3E) - 5/8 in, glass-mat faced with square edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC around the perimeter and in the field with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Nails shall be placed 1 inch and 3 inch from horizontal joints and 7 inch OC thereafter.

**UNITED STATES GYPSUM CO** — Type USGX (finish rating 22 min.) 3G. **Gypsum Board\*** — (As an alternate to Items 3 through 3F) - 5/8 in. thick paper surfaced applied vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.

**GEORGIA-PACIFIC GYPSUM L L C** — Type X ComfortGuard Sound Deadening Gypsum Board (finish rating 3H. Gypsum Board\* — (As an alternate to Items 3) - Not to be used with items 6 or 7. 5/8 in. thick paper surfaced applied vertically only. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long,

0.0915 in. shank diam and 15/64 in. diam heads. NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board 3I. Gypsum Board \* — (As an alternate to Items 3 through 3H, not shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Panel joints covered with paper tape and two layers of joint compound.

Nailheads covered with two layers of joint compound PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES (finish rating 20 min). 3J. Gypsum Board\* — (As an alternate to Items 3) - Not to be used with items 6 or 7. 5/8 in. thick paper surfaced applied vertically only. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.

**CERTAINTEED GYPSUM INC** — Type SilentFX 3K. Gypsum Board\* — (As an alternate to Item 3) - 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 8 in. OC with the last screw 1 in. from the edge of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally. NATIONAL GYPSUM CO — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min).

3L. **Gypsum Board\*** — (As an alternate to Item 3) For Direct Application to Studs Only- Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, max 5/16 in. diam by max 0.140 in. thick. compression fitted or adhered over the screw heads. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D".

MAYCO INDUSTRIES INC — "X-Ray Shielded Gypsum" 3M. Gypsum Board\* — (As an alternate to Items 3) For Direct Application to Studs Only- For use as the base layer or as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4.

RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall 3N. **Gypsum Board\*** — (As an alternate to Item 3) — 5/8 in. thick, 4 ft. wide, applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Secured as described in

**CERTAINTEED GYPSUM INC** — 5/8" Easi-Lite Type X (finish rating 24 min) 30. **Wall and Partition Facings and Accessories\*** — (As an alternate to Item 3, not shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Panel joints covered with paper tape and two layers of joint

compound. Nailheads covered with two layers of joint compound. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527 (finish rating 24 min). 3P. **Gypsum Board\*** — (As an alternate to Item 3, not shown) - Two layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by wood studs. Horizontal joints on the same sidebetween face and base layers need not be staggered. Base layer gypsum panels fastened to studs with 1-1/4 in. long drywall nails spaced 8 in. OC. Face layer gypsum panels fastened to studs with 1-7/8 in. long drywall nails spaced 8 in. OC starting

**NATIONAL GYPSUM CO** — Type FSW (finish rating 25 min) 4. Steel Corner Fasteners — (Optional) — For use at wall corners. Channel shaped, 2 in. long by 1 in. high on the back side with two 1/8 in. wide cleats protruding into the 5/8 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the gypsum board, no greater than 2 in. from corner of gypsum board, max spacing 16 in. OC. Nailed to adjacent stud through tab

using No. 6d cement coated nails. 5. Batts and Blankets\* — (Optional - Required when Item 6A is used (RC-1)) Glass fiber or mineral wool insulation. Placed to completely or partially fill the stud cavities. When Item 6A is used, glass fiber or mineral wool insulation shall be friction-fitted to completely fill the stud cavities.

using one No. 6d cement coated nail per fastener. Corners of wall board shall be nailed to top and bottom plate

CERTAINTEED CORP KNAUF INSULATION LLC

with a 4" stagger.

JOHNS MANVILLE INTERNATIONAL INC KNAUF INSULATION LLC MANSON INSULATION INC

OWENS CORNING HT INC, DIV OF OWENS CORNING — Corning Fiberglas Corp. **ROCK WOOL MANUFACTURING CO** — Delta Board. **ROXUL INC** — Acoustical Fire Batts

**THERMAFIBER INC** — Type SAFB. 5A. Fiber, Sprayed\* — (Not shown - Not for use with Item 6) As an alternate to Batts and Blankets (Item 5) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5

lb/ft3, in accordance with the application instructions supplied with the product. When Item 6B is used, Fiber, Sprayed shall be INS735, INS745, INS765LD or INS770LD. U S GREENFIBER L L C — INS735& INS745 for use with wet or dry application. INS510LD, INS515LD, INS541LD, INS735, INS745, INS765LD, and INS770LD are to be used for dry application only. 5B. Fiber, Sprayed\* — (Not shown - Not for use with Item 6) As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed

cavity. Minimum dry density of 4.3 pounds per cubic ft. **NU-WOOL CO INC** — Cellulose Insulation 5C. Batts and Blankets\* — Required for use with resilient channels, Item 7, 3 in. thick mineral wool batts, friction-fitted to fill interior of wall.

**THERMAFIBER INC** — Type SAFB 5D. Glass Fiber Insulation — (As an alternate to Item 5C) — 3 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, friction-fitted to fill the interior of the wall. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

5E. Batts and Blankets\* — (Required for use with Wall and Partition Facings and Accessories, Item 3D) — Glass fiber insulation, nom 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke developed of 50 or less, friction-fitted to completely fill the stud cavities. See Batts and Blankets Category (BKNV) for names of manufacturers.

5F. Fiber, Sprayed\* — (Optional, Not Shown - Not for use with Item 6, 6A or 6B). As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied granulated mineral fiber material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See **Fiber**, **Sprayed** (CCAZ).

TEXAS AMERROCK PARTNERS L P, DBA AMERROCK PRODUCTS — Rockwool 5G. Fiber, Sprayed\* — (Optional, Not Shown - Not for use with Items6, 6A or 6B). As an alternate to Batts and Blankets (Item 5) and Item 5A - Brown Colored Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed stud cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft3. INTERNATIONAL CELLULOSE CORP — Celbar-RL

6. Steel Framing Members (Optional, Not Shown)\* — Furring channels and Steel Framing Members as described below:

a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3. b. Steel Framing Members\* — Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring

b. Steel Framing Members\* — Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC. RSIC-1 clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips PAC INTERNATIONAL INC — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

6A. Steel Framing Members (Optional, Not Shown)\* — Furring channels and Steel Framing Members on one side of studs as described below a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to study as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as

b. Steel Framing Members\* — used to attach furring channels (Item 6Aa) to one side of studs only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips. KINETICS NOISE CONTROL INC — Type Isomax.

described in Item 3.

6B. Steel Framing Members — (Optional, Not Shown)\* — Furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

b. Steel Framing Members\* — Used to attach furring channels (Item 6Ba) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. PLITEQ INC — Type Genie Clip

6C. Steel Framing Members — (Optional, Not Shown)\* — Furring channels and resilient sound isolation clip as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to study as described in Item b. Ends of adjoining channels overlapped 6 in. and secured together with four self-tapping No. 8x1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Gypsum board attached to furring channels as described in Item 3. Side joint furring channels shall be attached to studs with RESILMOUNT Sound Isolation Clips located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge.

b. Steel Framing Members\* — Resilient sound isolation clip used to attach furring channels (Item 6Ca) to studs. Clips spaced 16 in. OC., and secured to studs with No. 10 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

7. Furring Channel — Optional - Not Shown - For use on one side of the wall - Resilient channels, 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. When resilient channels are used, insulation, Items 5C or 5D is required.

8. Caulking and Sealants — (not shown, optional) A bead of acoustical sealant applied around the partition perimeter for sound control.

9. STC Rating — The STC Rating of the wall assembly is 56 when it is constructed as described by Items 1 through 6, except:

A. Item 2, above - Nailheads Shall be covered with joint compound. B. Item 2, above - Joints As described, shall be covered with fiber tape and joint compound. C. Item 5, above - Batts and Blankets\* The cavities formed by the studs shall be friction fit with R-19 unfaced

fiberglass insulation batts measuring 6-1/4 in. thick and 15-1/4 in. wide. D. Item 6, above - Steel Framing Members\* Type RSIC-1 clips shall be used to attach gypsum board to studs on either side of the wall assembly. E. Item 8, above - Caulking and Sealants (not shown) A bead of acoustical sealant shall be applied around the partition perimeter for sound control.

F. Steel Corner Fasteners (Item 4), Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not evaluated as alternatives for obtaining STC rating.

10. Wall and Partition Facings and Accessories\* — (Optional, Not shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 510.

11. Cementitious Backer Units\* — (Optional Item Not Shown - For Use On Face Of 1 Hr Systems With All Standard Items Required) - 7/16 in., 1/2 in., 5/8 in., 3/4 in. or 1 in. thick, min. 32 in. wide.- Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with cement board screws of adequate length to penetrate stud by a minimum of 3/8 in. for steel framing members, and a minimum of 3/4 in. for wood framing members spaced a max of 8 in. OC. When 4 ft. wide boards are used, horizontal joints need not be backed by framing.

NATIONAL GYPSUM CO — Type DuraBacker, PermaBase, DuraBacker Plus, or PermaBase Plus

12. Non-Bearing Wall Partition Intersection — (Optional) —Two nominal 2 by 4 in. studs or nominal 2 by 6 in. studs nailed together with two 3 in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

13. Mesh Netting — (Not shown) - Any thin, woven or non-woven fibrous netting material attached with staples to the outer face of one row of studs to facilitate the installation of the sprayed fiber from the opposite

14. Mineral and Fiber Board\* — (Optional, Not shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing with 2 in. long Type W steel screws, spaced 12 in. OC. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. HOMASOTE CO — Homasote Type 440-32

14A. Mineral and Fiber Board\* — (Optional, Not shown) — For use with Items 14B-14E) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing with minimum 1-3/8 in. long ring shanked nails or 1-1/4 in. long Type W steel screws, spaced 12 in. OC along board edges and 24 in. OC in field of board along intermediate framing. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. HOMASOTE CO — Homasote Type 440-32

14B. Glass Fiber Insulation — (For use with Item 14A) — 3-1/2 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, placed to fill the interior of the wall. See Batts and Blankets (BKNV or BZJZ) categories for names of Classified companies.

14C. Batts and Blankets\* — (As an alternate to Item 14B, For use with Item 14A), 3 in. thick mineral wool batts, placed to fill interior of wall, attached to the 3-1/2 in. face of the studs with staples placed 24 in. OC. THERMAFIBER INC — Type SAFB

14D. Adhesive — (For use with Item 14A) - Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 14A).

14E. Gypsum Board\* — (For use with Item 14A) - 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 14A) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 14A). Secured to outermost studs and bearing plates with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound. Finish Rating 30 Min. AMERICAN GYPSUM CO — Type AG-C

CERTAINTEED GYPSUM INC — Type FRPC, Type C CGC INC — Types C, IP-X2, IPC-AR CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C NATIONAL GYPSUM CO — Types FSK-C, FSW-C PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-C. PANEL REY S A — Type PRC THAI GYPSUM PRODUCTS PCL — Type C UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

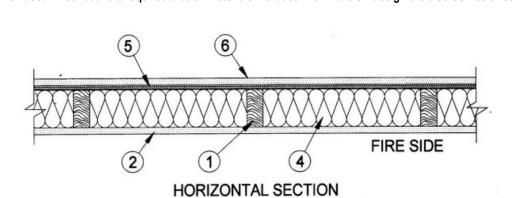
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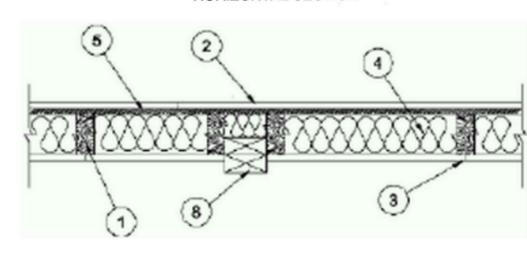
Design No. U356

(Exposed to Fire on Interior Face Only) Bearing Wall Rating — 1 Hr

June 27, 2014

Finish Rating — 23 Min or 25 Min (See Item 2C) When used in Canada it is required that all materials included within the UL design are also cUL certified.





1. Wood Studs — Nom 2 by 4 in. spaced 16 in. OC with two 2 by 4 in. top and one 2 by 4 in. bottom plates. Studs laterally-braced by wood structural panel sheathing (Item 5). When Mineral and Fiber Boards\* (Item 5A) are considered as bracing for the studs, the load is restricted to 76% of allowable axial load. Walls effectively

fire stopped at top and bottom of wall. 2. Gypsum Board\* —Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. Nom 5/8 in. thick, 4 ft wide, applied vertically and nailed to studs and bearing plates 7 in. OC with 6d cement-coated nails, 1-7/8 in. long with 1/4 in. diam head. When Item 7, Steel Framing Members\*, is used, gypsum panels attached to furring channels with 1 in. long

Type S bugle-head steel screws spaced 12 in. OC. When Item 7A, 7B, or 7C Steel Framing Members\*, is used, two layers of gypsum panels attached to furring channels. Base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC. Face layer attached to furring channels with 1-5/8 in.

long Type S bugle-head steel screws spaced 12 in. OC. All joints in face layers staggered with joints in base layers. ACADIA DRYWALL SUPPLIES LTD (View Classification) — CKNX.R25370 AMERICAN GYPSUM CO (View Classification) — CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) CKNX.R19374 **CERTAINTEED GYPSUM INC** (View Classification) — CKNX.R3660 **CGC INC** (View Classification) — CKNX.R19751

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C (View Classification) — CKNX.R18482 GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNX.R2717 **LOADMASTER SYSTEMS INC** (View Classification) — CKNX.R11809 NATIONAL GYPSUM CO (View Classification) — CKNX.R3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNX.R7094 PANEL REY S A (View Classification) — CKNX.R21796 SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (View Classification) — CKNX.R19262

THAI GYPSUM PRODUCTS PCL (View Classification) — CKNX.R27517 **UNITED STATES GYPSUM CO** (View Classification) — CKNX.R1319 **USG MEXICO S A DE C V** (View Classification) — CKNX.R16089

2A. Gypsum Board\* — (As an alternate to Item 2, not shown) - Any 5/8 in. thick 4 ft wide gypsum panels that are eligible for use in Design Nos. L501, G512 or U305, supplied by the Classified Companies listed below shown in the Gypsum Board\* (CKNX) category. Applied vertically and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. CGC INC

UNITED STATES GYPSUM CO

**CERTAINTEED GYPSUM INC** — Type C or Type X

USG MEXICO S A DE C V 2B. Gypsum Board\* — (As an alternate to Item 2, not shown) - 5/8 in. thick 4 ft wide gypsum panels applied vertically and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. ACADIA DRYWALL SUPPLIES LTD — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing **AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C

Sheathing Type-X, Soffit-Type X, Type X ComfortGuard Sound Deadening Gypsum Board. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-11, PGS-WRS. **THAI GYPSUM PRODUCTS PCL** — Type C or Type X 2C. Gypsum Board\* — (As an alternate to Item 2, not shown) - For Use with Item 5A only - 5/8 in. thick 4 ft wide gypsum panels applied horizontally and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screws 1 in.and 4 in. from edges of

**GEORGIA-PACIFIC GYPSUM L L C** — Types X, Veneer Plaster Base-Type X, Water Rated-Type X,

board. Finish Rating is 25 min. ACADIA DRYWALL SUPPLIES LTD — 5/8 Type X, Type Blueglass Exterior Sheathing **GEORGIA-PACIFIC GYPSUM L L C** — Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X.Soffit-Type X

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-11, PGS-WRS. 2D. Gypsum Board\* — (As an alternate to Item 2) - Not to be used with item 7. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically only and fastened to the studs and plates with 6d cement coated nails 1-7/8 in. long, 0.0915 in, shank diam and 1/4 in, diam heads, 7 in, OC, NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board

**2E Gypsum Board\*** — (As an alternate to Items 2 through 2D) — Nominal 5/8 in. thick, 4 ft wide panels, secured as described in Item 2. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES.

2F. Gypsum Board\* — (As an alternate to Item 2) - Not to be used with item 7. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically only and fastened to the studs and plates with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam heads, 7 in. OC. **CERTAINTEED GYPSUM INC** — Type SilentFX

**2G. Wall and Partition Facings and Accessories\*** — (As an alternate to Items 2 through 2F) — Nominal 5/8 in. thick, 4 ft wide panels, secured as described in Item 2. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527. 3. Joints and Nailheads — (Not Shown) — Wallboard joints covered with tape and joint compound. Nail

heads covered with joint compound. **4. Batts and Blankets\*** — Mineral fiber or glass fiber insulation, 3-1/2 in. thick, pressure fit to fill wall cavities between studs and plates. Mineral fiber insulation to be unfaced and to have a min density of 3 pcf. Glass fiber insulation to be faced with aluminum foil or kraft paper and to have a min density of 0.9 pcf (min R-13 thermal insulation rating). See Batts and Blankets\* (BKNV) Category in the Building Materials Directory and Batts and Blankets\*

(BZJZ) Category in the Fire Resistance Directory for names of Classified Companies. **4A. Fiber, Sprayed\*** — As an alternate to Batts and Blankets (Item 4) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product. **U S GREENFIBER L L C** — INS735& INS745 for use with wet or dry application. INS510LD, INS515LD, INS541LD, INS735, INS745, INS765LD, and INS770LD are to be used for dry application only. **4B. Fiber, Sprayed\*** — As an alternate to Item 4 and 4A — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 4.58 lb/ft3. **NU-WOOL CO INC** — Cellulose Insulation

**4C. Fiber, Sprayed\*** — As an alternate to Batts and Blankets (Item 4) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall

be 4.30 lbs/ft3. INTERNATIONAL CELLULOSE CORP — Celbar-RL

**5. Wood Structural Panel Sheathing** — Min 7/16 in. thick, 4 ft wide wood structural panels, min grade "C-D" or "Sheathing" . Installed with long dimension of sheet (strength axis) or face grain of plywood parallel with or perpendicular to studs. Vertical joints centered on studs. Horizontal joints backed with nom 2 by 4 in. wood blocking. Attached to studs on exterior side of wall with 6d cement coated box nails spaced 6 in. OC at perimeter of panels and 12 in. OC along interior studs.

**5A. Mineral and Fiber Boards\*** — As an alternate to Item 5 - Min 1/2 in. thick, 4 ft wide sheathing, installed vertically to studs. Vertical joints centered on studs. Horizontal joints backed with nom 2 by 4 in. wood blocking. Attached to studs on exterior side of wall with 1-1/2 in. long galvanized roofing nails spaced 6 in. OC at perimeter of panels and 12 in. OC along interior studs. As an option a weather resistive barrier may be applied over the Mineral and Fiber Boards.

**GEORGIA-PACIFIC PANEL PRODUCTS L L C** — Types FiberBrace or QuietBrace **6. Exterior Facings** — Installed in accordance with the manufacturer's installation instructions. One of the following exterior facings is to be applied over the sheathing:

**A. Vinyl Siding** — Molded Plastic\* — Contoured rigid vinyl siding having a flame spread value of 20 or See Molded Plastic (BTAT) category in the Building Materials Directory for names of manufacturers. **B. Particle Board Siding** — Hardboard exterior sidings including patterned panel or lap siding. C. Wood Structural Panel or Lap Siding — APA Rated Siding, Exterior, plywood, OSB or composite panels with veneer faces and structural wood core, per PS 1 or APA Standard PRP-108, including textured, rough sawn, medium density overlay, brushed, grooved and lap siding.

**D. Cementitious Stucco** — Portland cement or synthetic stucco systems with self-furring metal lath or

adhesive base coat. Thickness from 3/8 to 3/4 in., depending on system. E. Brick Veneer — Any type on nom 4 in. wide brick veneer. When brick veneer is used, the rating is applicable with exposure on either face. Brick veneer fastened with corrugated metal wall ties attached over sheathing to wood studs with 8d nail per tie: ties spaced not more than each sixth course of brick and max 32 in. OC horizontally. One in. air space provided between brick veneer and sheathing. F. Exterior Insulation and Finish System (EIFS) — Nom 1 in. Foamed Plastic\* insulation bearing the UL Classification Marking, attached over sheathing and finished with coating system, or Portland cement or synthetic stucco systems, in accordance with manufacturer's instructions. See Foamed Plastic (BRYX and CCVW) categories for names of Classified companies.

G. Siding — Aluminum or steel siding attached over sheathing to studs. H. Fiber-Cement Siding — Fiber-cement exterior sidings including smooth and patterned panel or lap

7. Steel Framing Members — (Optional, Not Shown)\* — Furring Channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board

attached to furring channels as described in Item 2. **b. Steel Framing Members\*** — Used to attach furring channels (Item 7A) to studs . Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.

PAC INTERNATIONAL INC — Types RSIC-1, RSIC-1 (2.75). **7A. Steel Framing Members (Optional, Not Shown)\*** — Furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs.

Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Two layers of gypsum board attached to furring channels as described in Item 2.

**b. Steel Framing Members\*** — Used to attach furring channels (Item 7Aa) to interior side of studs. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring

channels are friction fitted into clips. **KINETICS NOISE CONTROL INC** — Type Isomax. **7B. Steel Framing Members\*** — (Optional, Not Shown) - Furring channels and Steel Framing Members

as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 2. **b. Steel Framing Members\*** — Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

**PLITEQ INC** — Type Genie Clip **7C. Steel Framing Members** — (Optional, Not Shown)\* - Furring channels and resilient sound isolation clip as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs.

Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured together with four self-tapping No. 8x1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Gypsum board attached to furring channels as described in Item 2. Side joint furring channels shall be attached to studs with RESILMOUNT Sound Isolation Clips - Type A237R located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side

joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge. b. Steel Framing Members\* — Resilient sound isolation clip used to attach furring channels (Item 7Ca) to studs. Clips spaced 16 in. OC., and secured to studs with No. 10 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R 8. Non-Bearing Wall Partition Intersection — (Optional) Two nominal 2 by 4 in. stud or nominal 2 by 6 in. stud nailed together with two 3in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max 16 in. OC. vertically.

Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood

max. 16 in. OC. vertically. Maximum one non-bearing wall partition interLast Updated on 2014-06-27

bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a

\*Bearing the UL Classification Mark

# ASSEMBLY SOUND RATINGS

WALL ASSEMBLY (UL ASSEMBLY) SEE LS PLANS	STC RATING	IIC RATING	TEST NUMBER/STANDARD
U305	56	N/A	BW-35ST 1969/GEIGER AND HAMME
U356	52	N/A	BW-35ST 1969/GEIGER AND HAMME

PERMIT REVIEW STAMP **ISSUE HISTORY** Date 6/22/2018 ISSUE FOR PERMIT REVISION HISTORY Date Description

FUGLEBERG KOCH 2555 Temple Trail, Winter Park, FL 32789 (407) 629-0595 www.fuglebergkoch.com

MICHAEL E. GOVE

FLORIDA LICENSE # AR9411

**SUMMER BAY** 

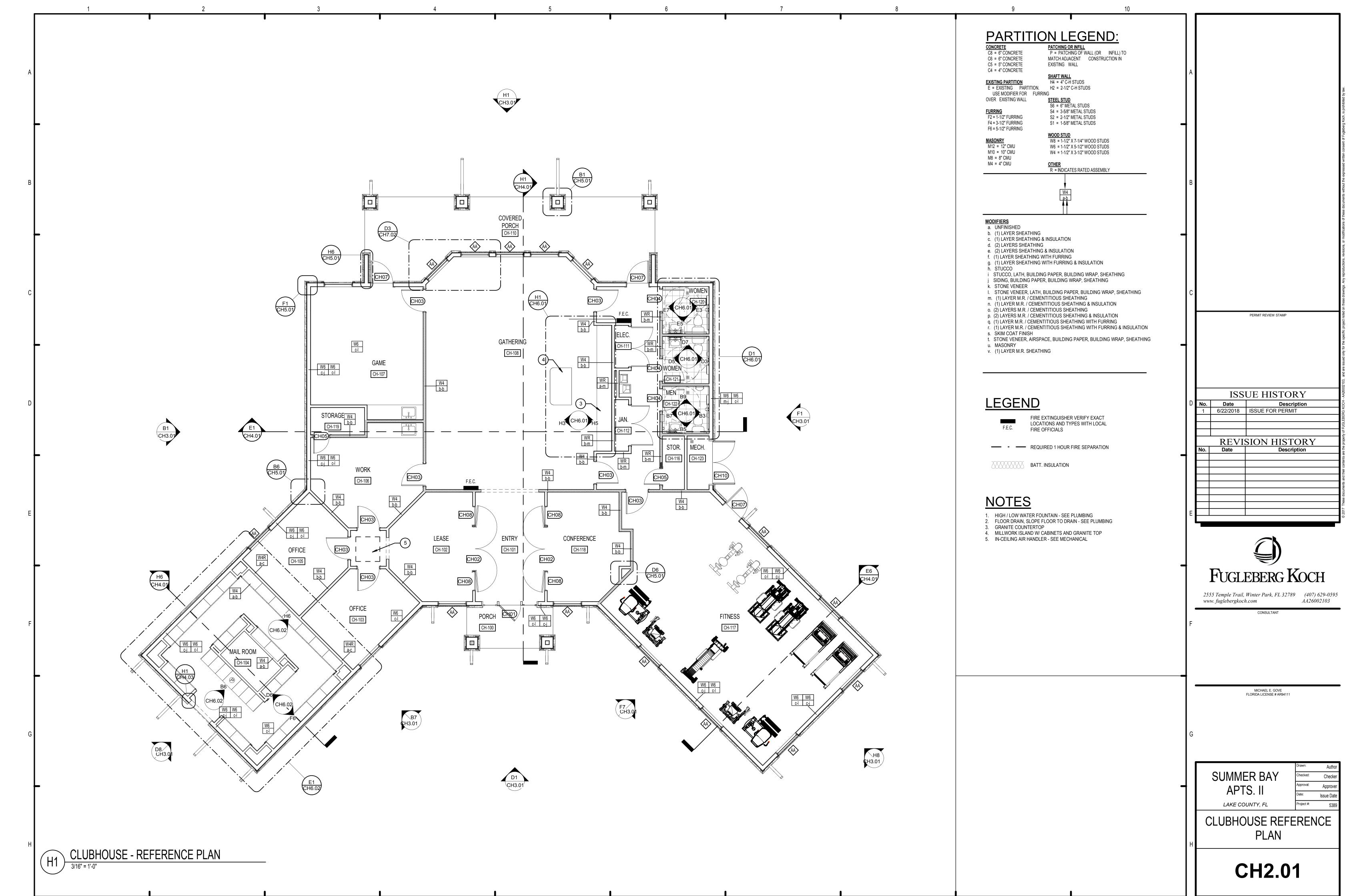
LAKE COUNTY, FL

UL REFERENCE DIRECTORY - WALL SYSTEMS

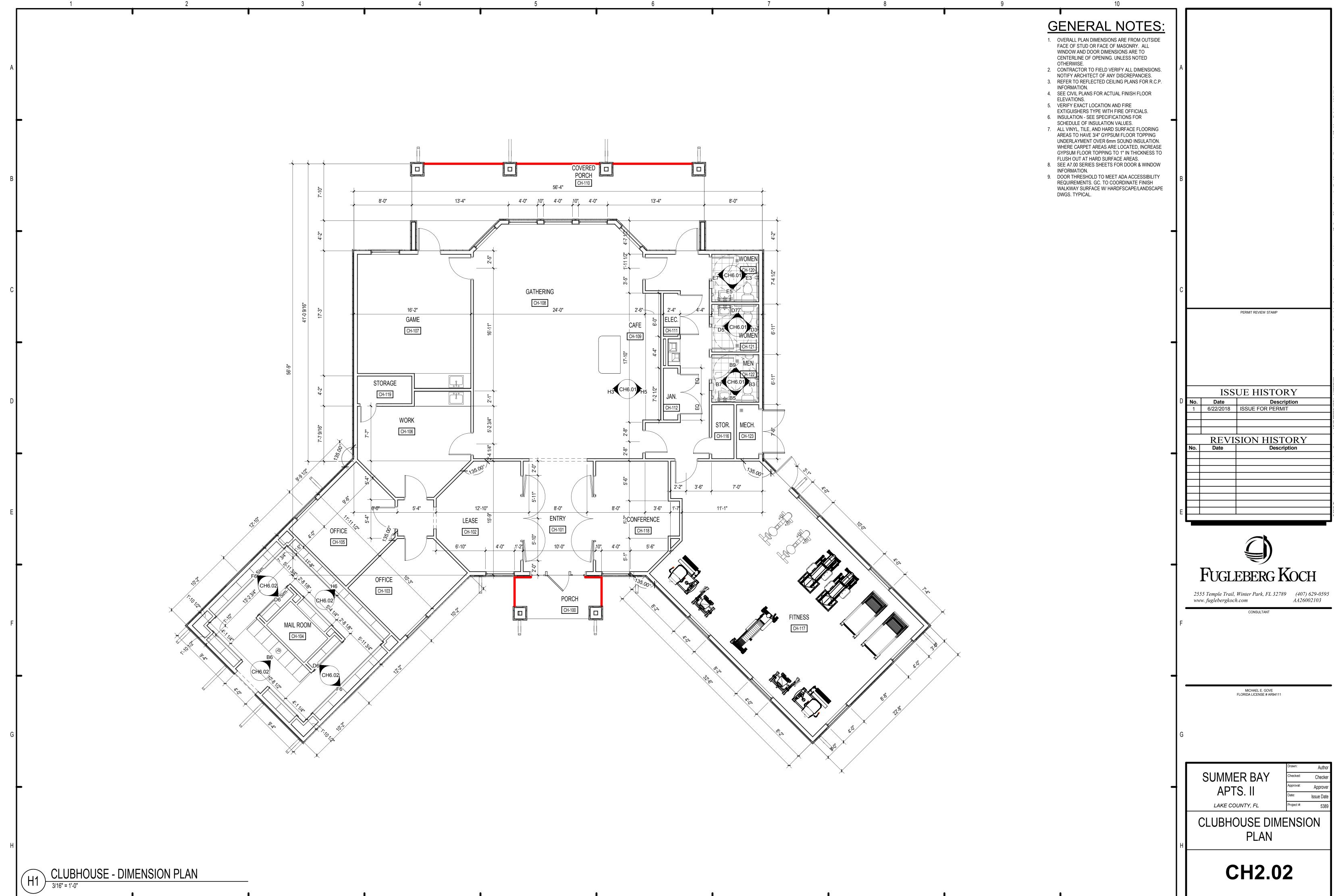
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Approve

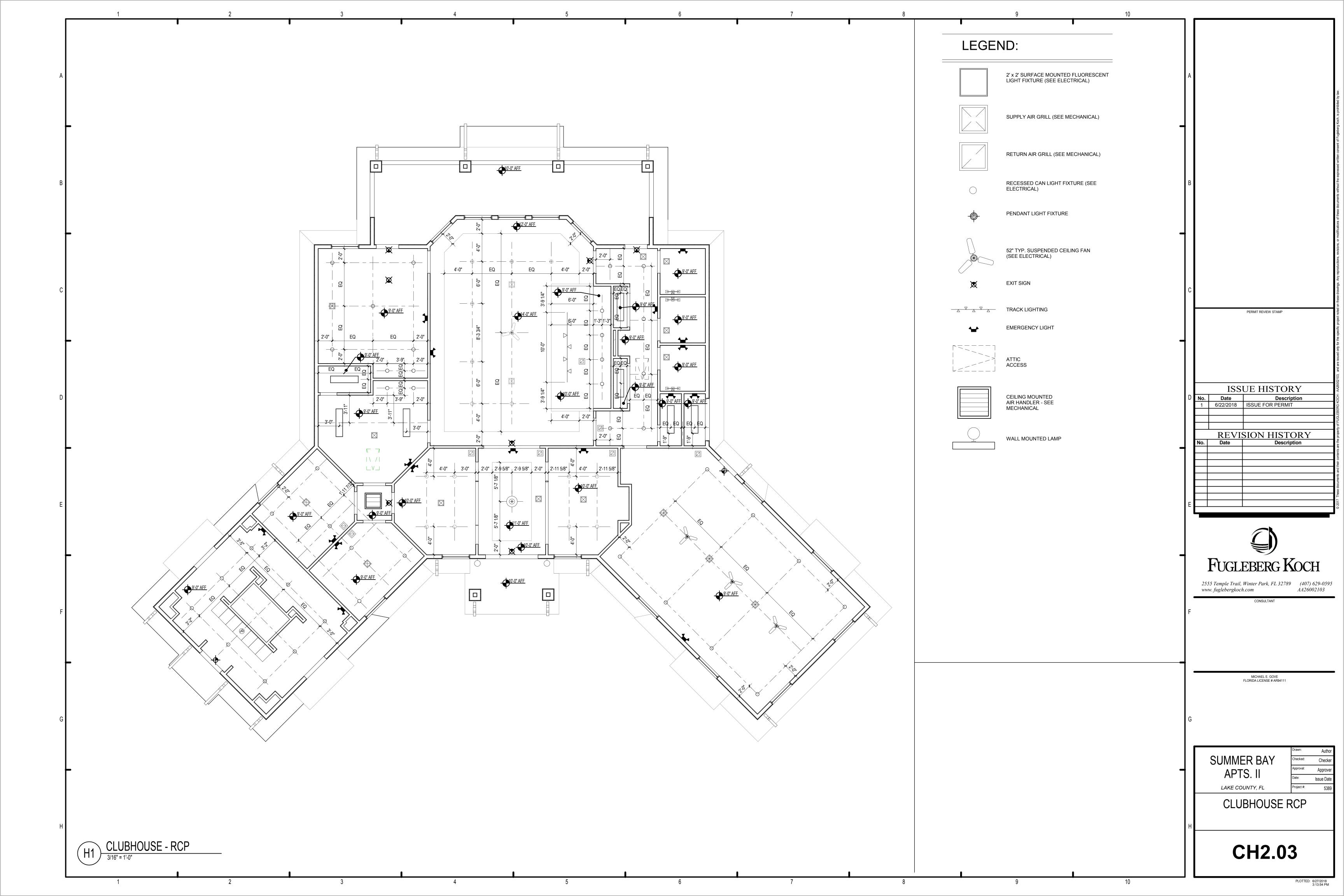
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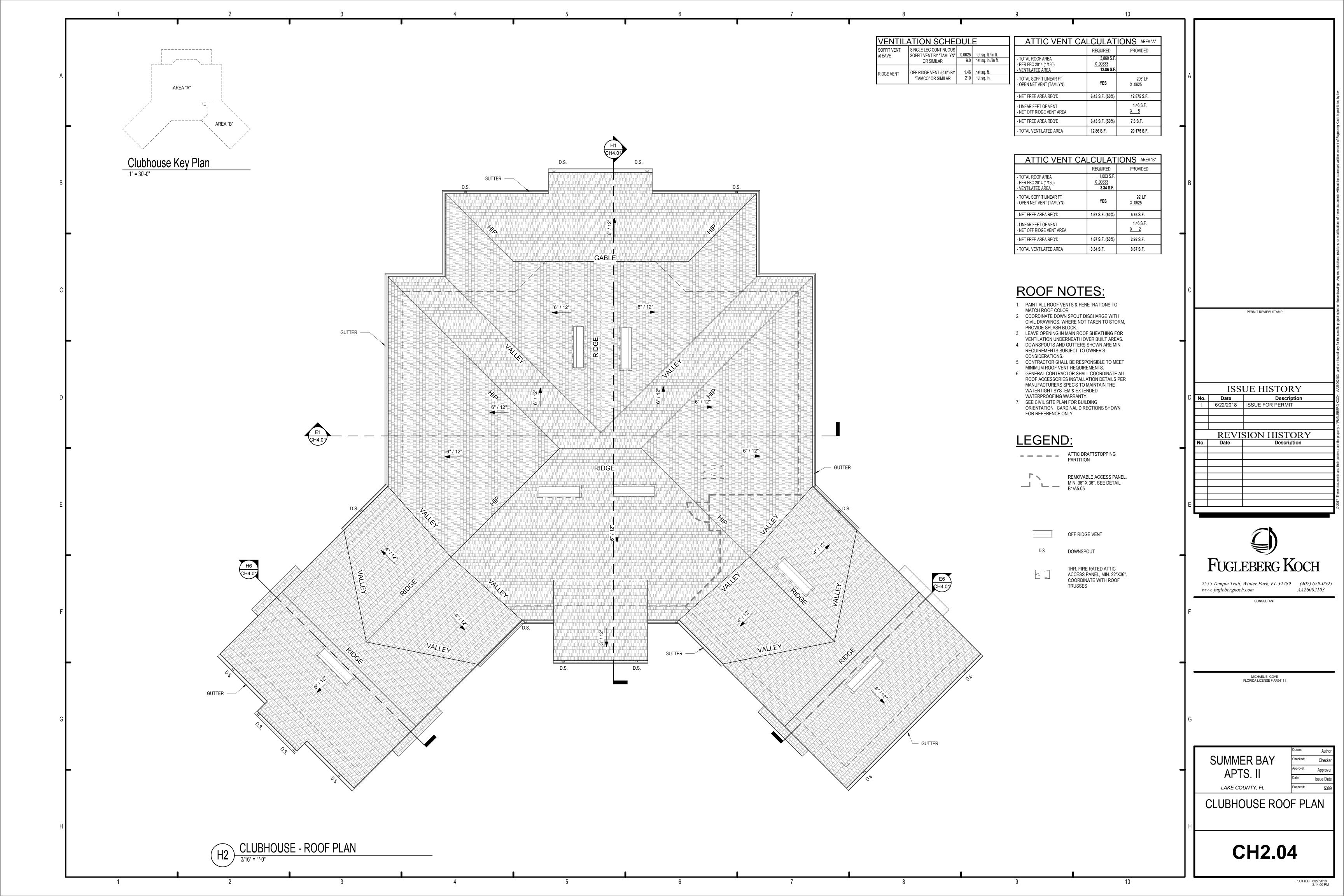


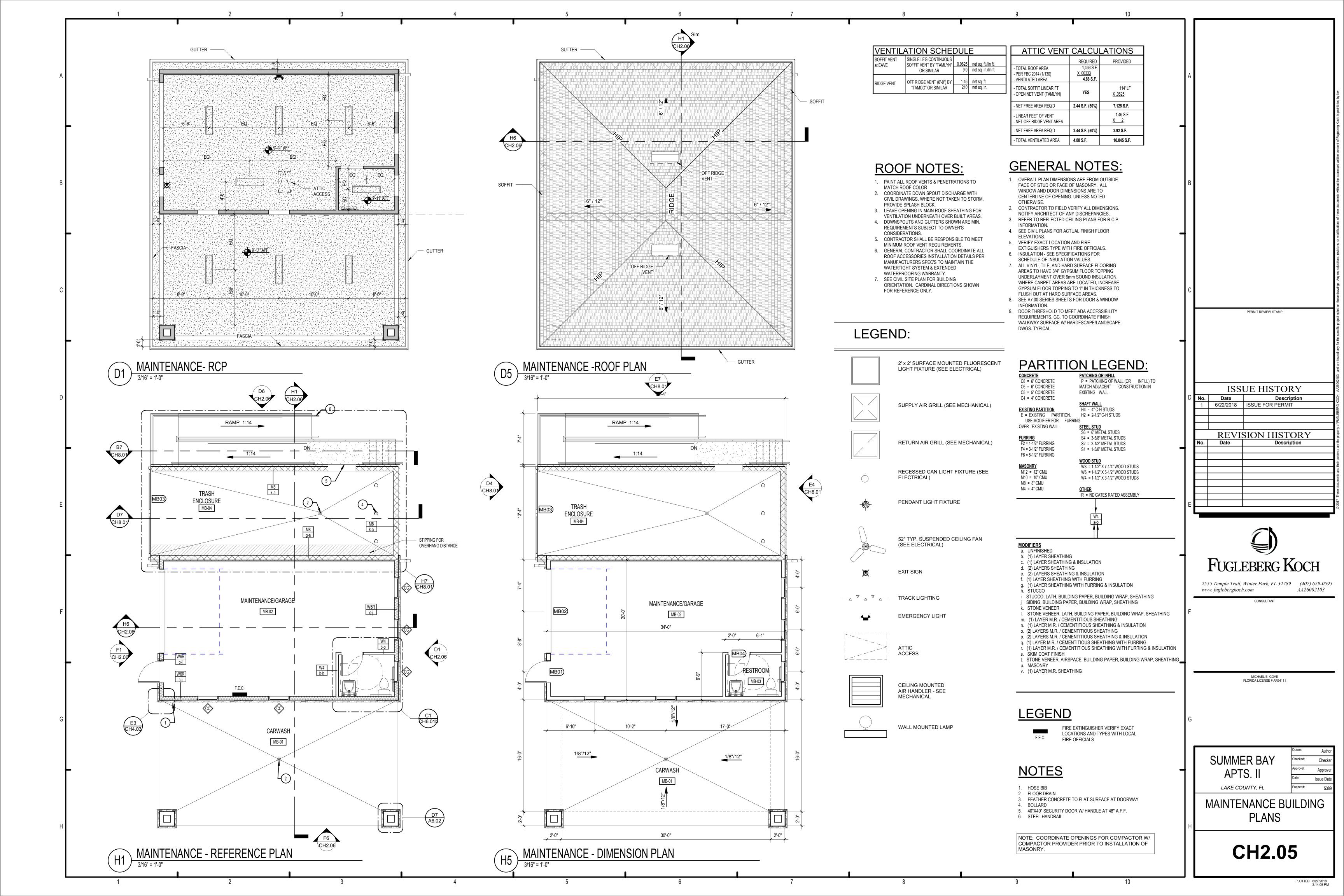
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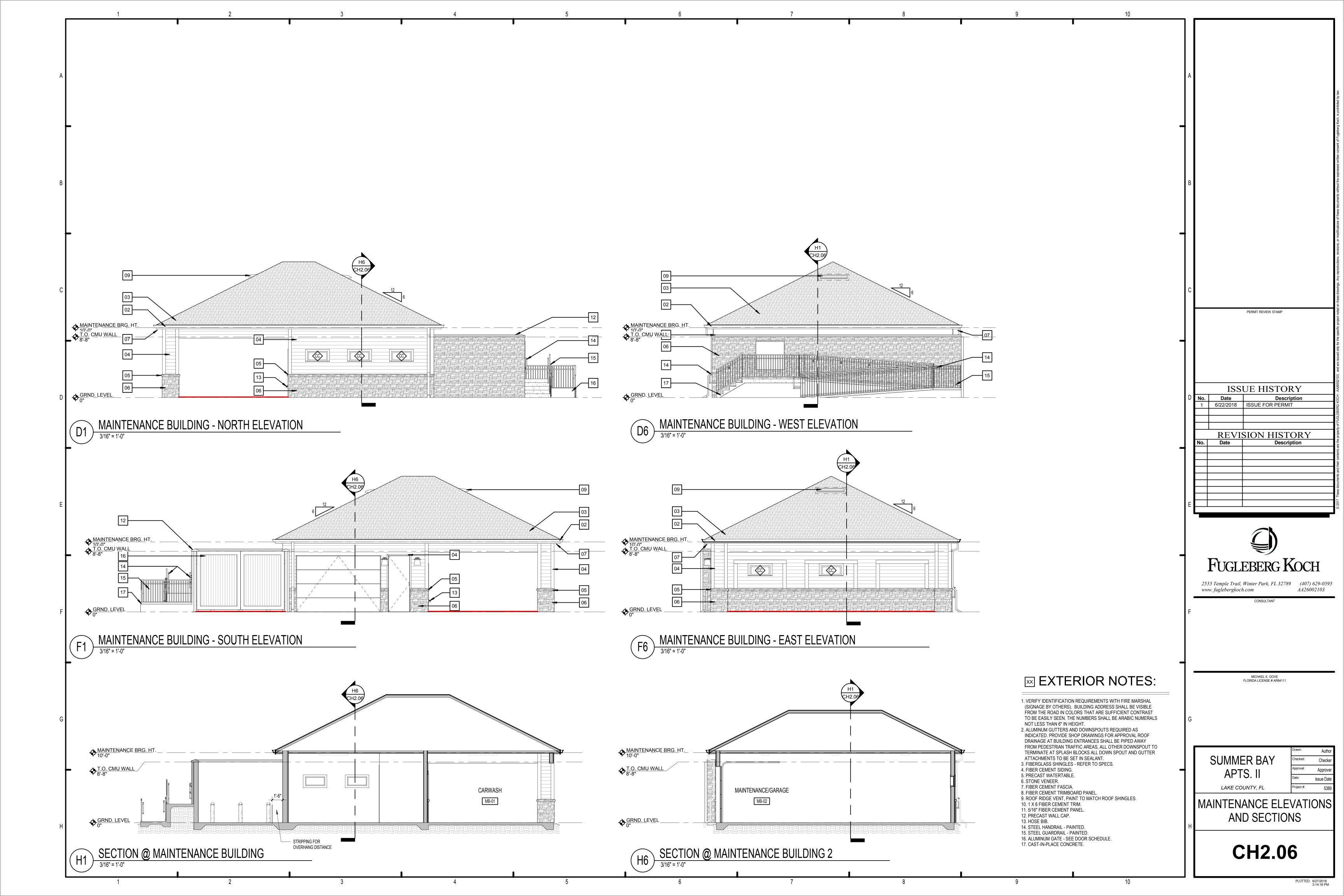


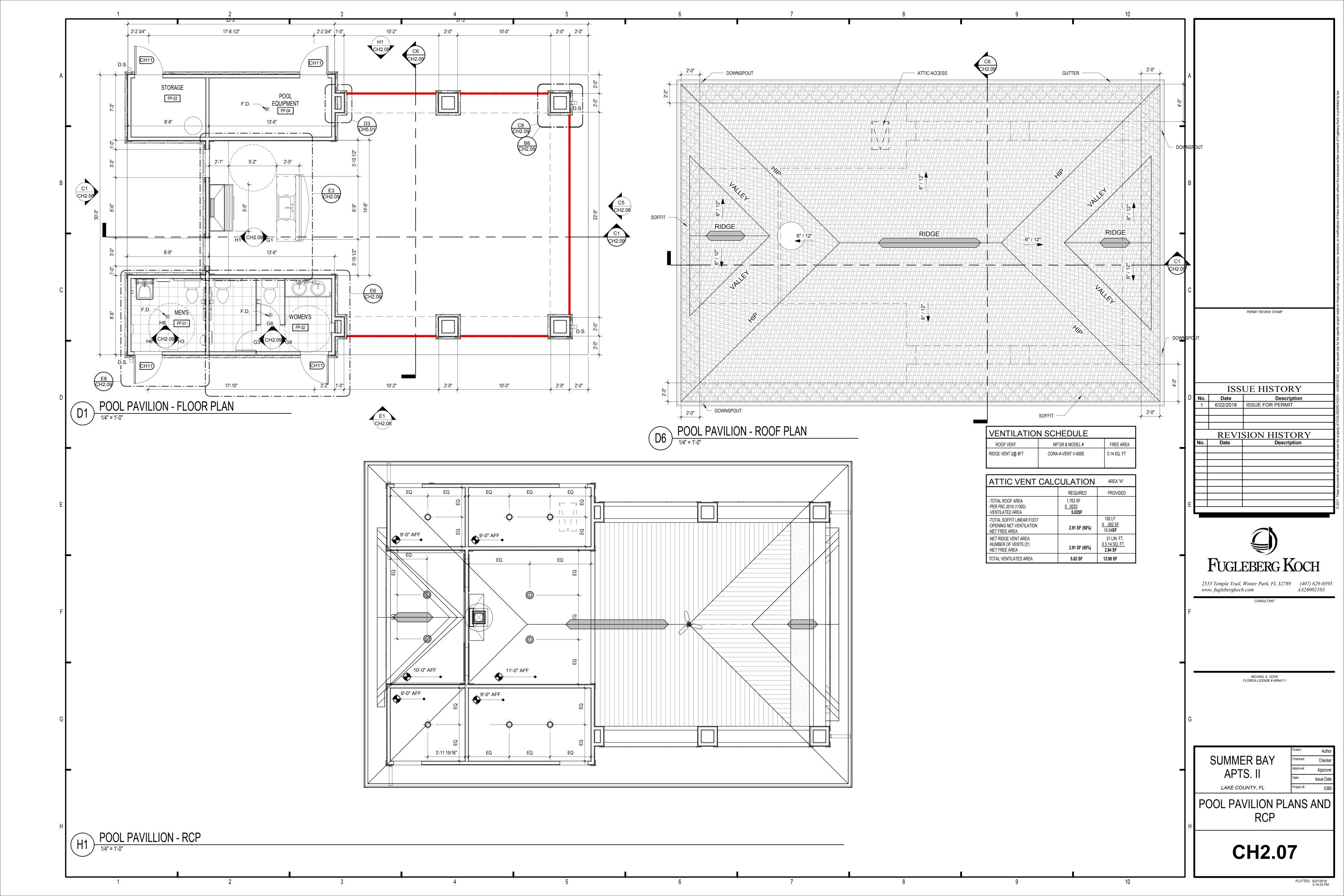
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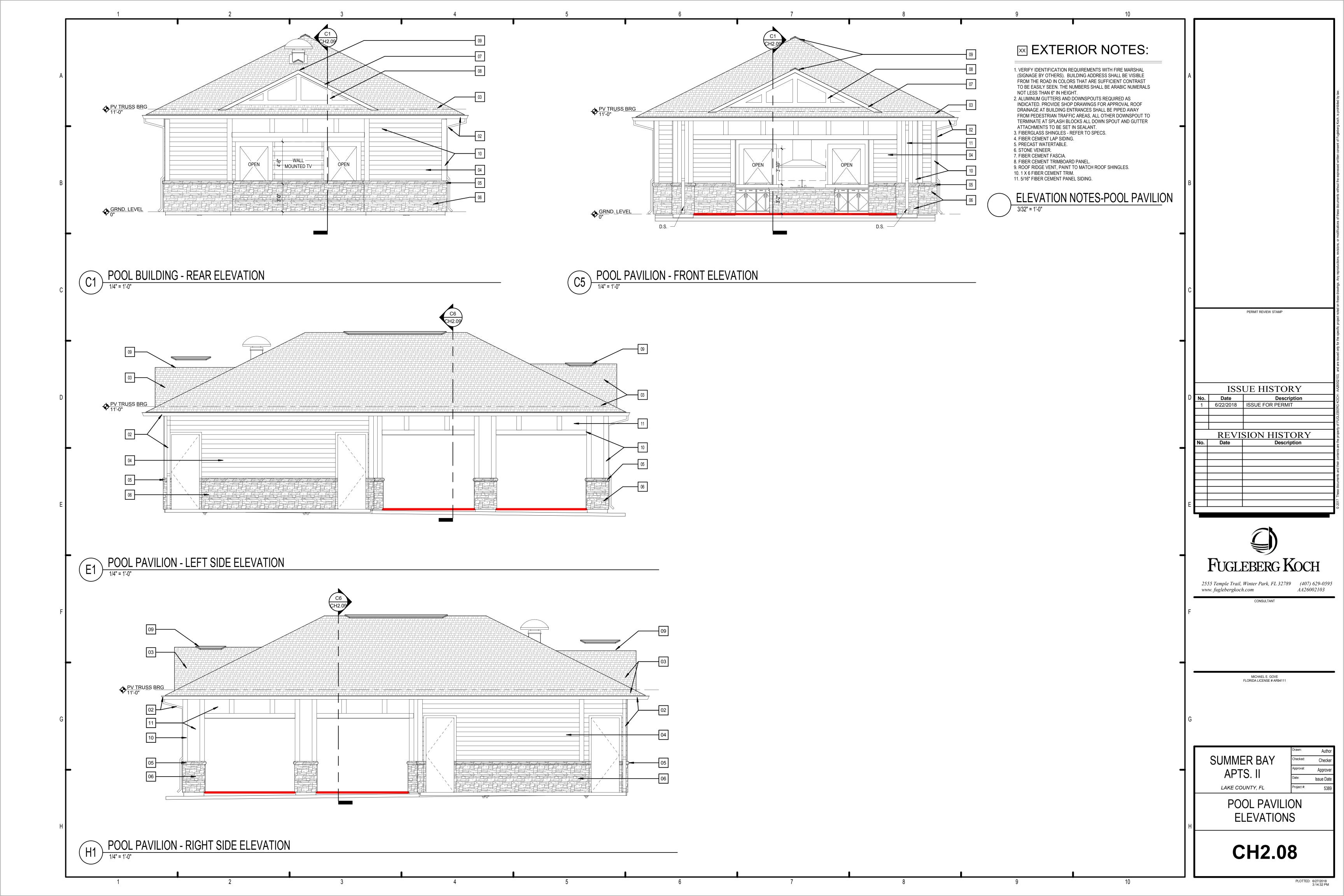


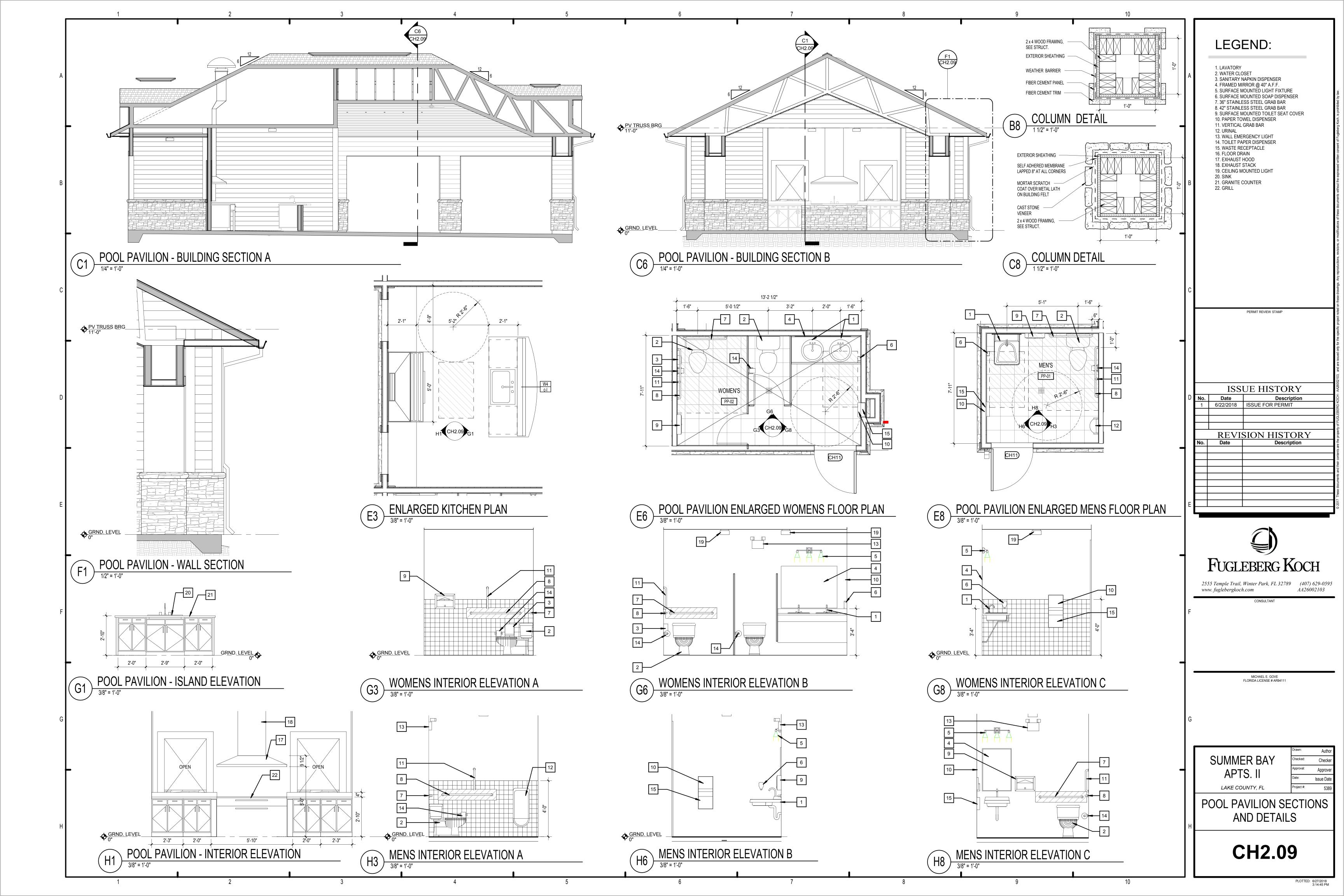


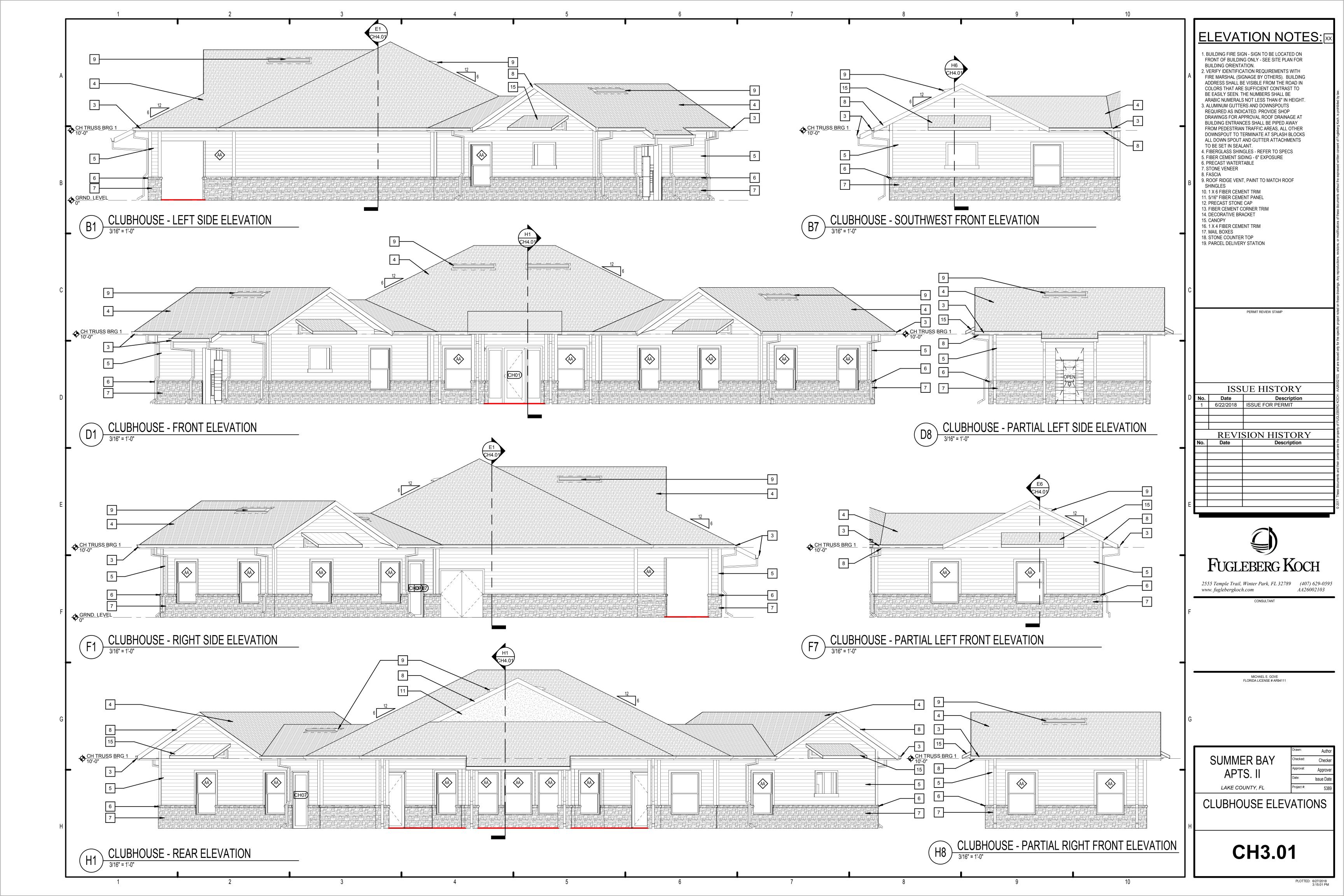


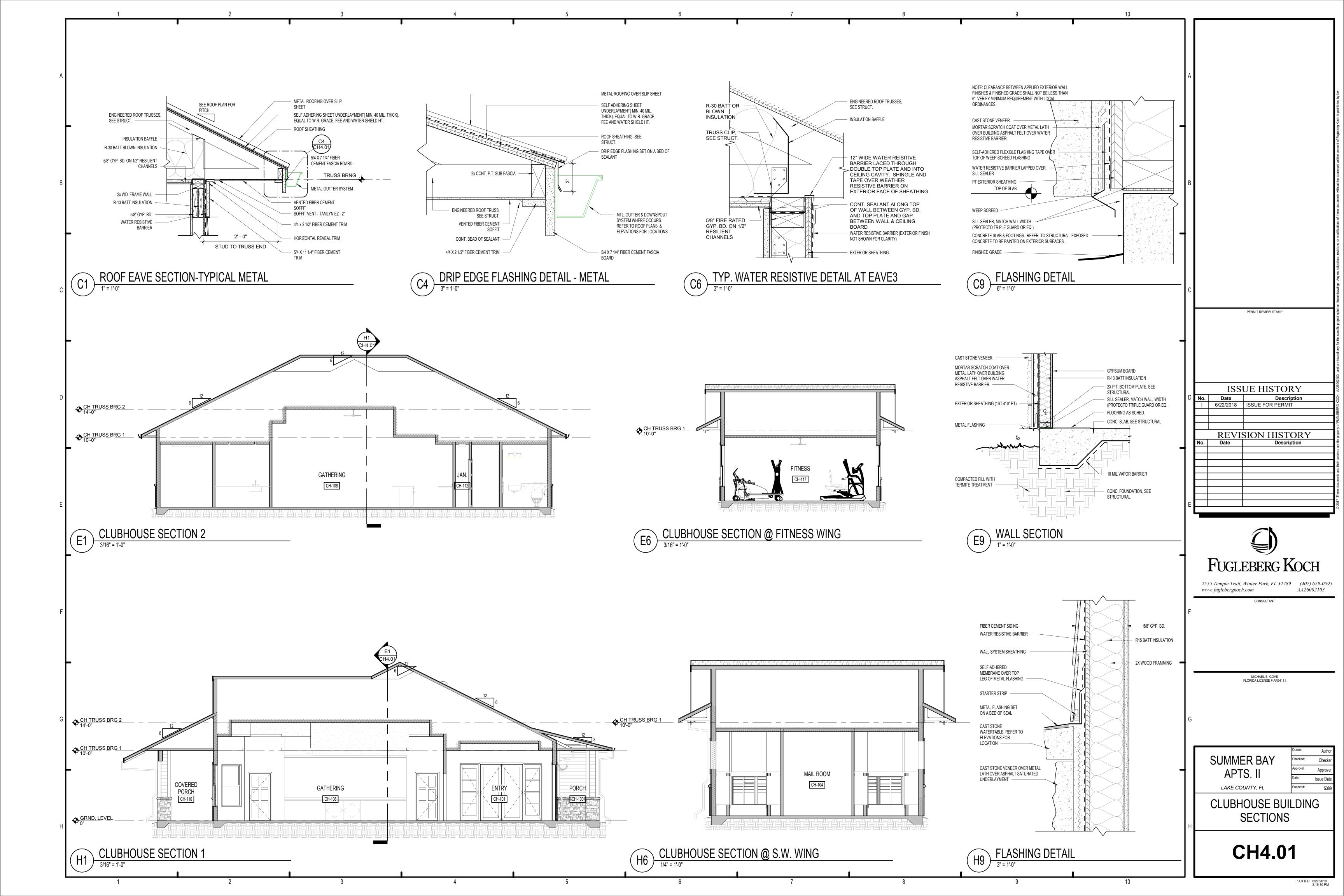


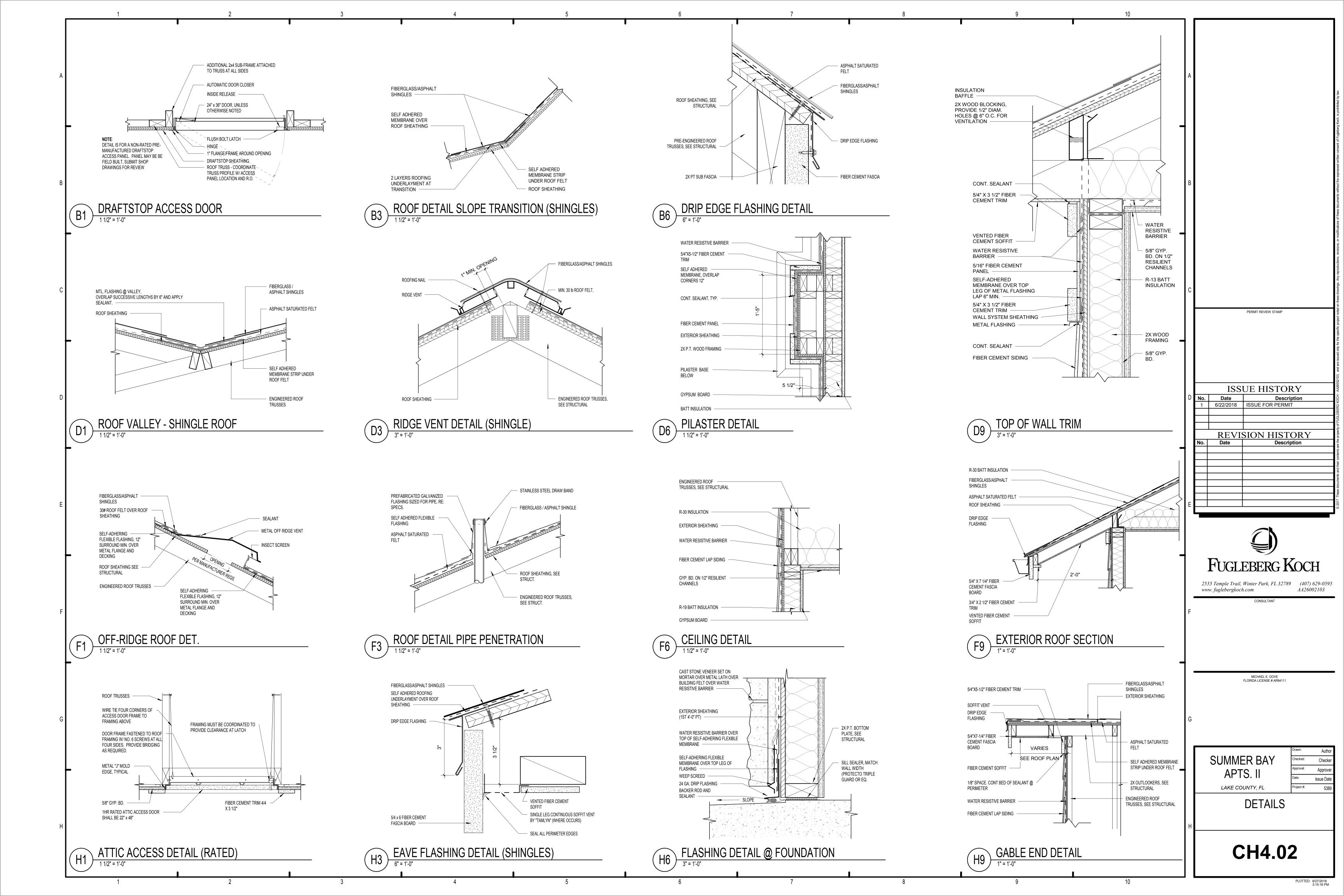


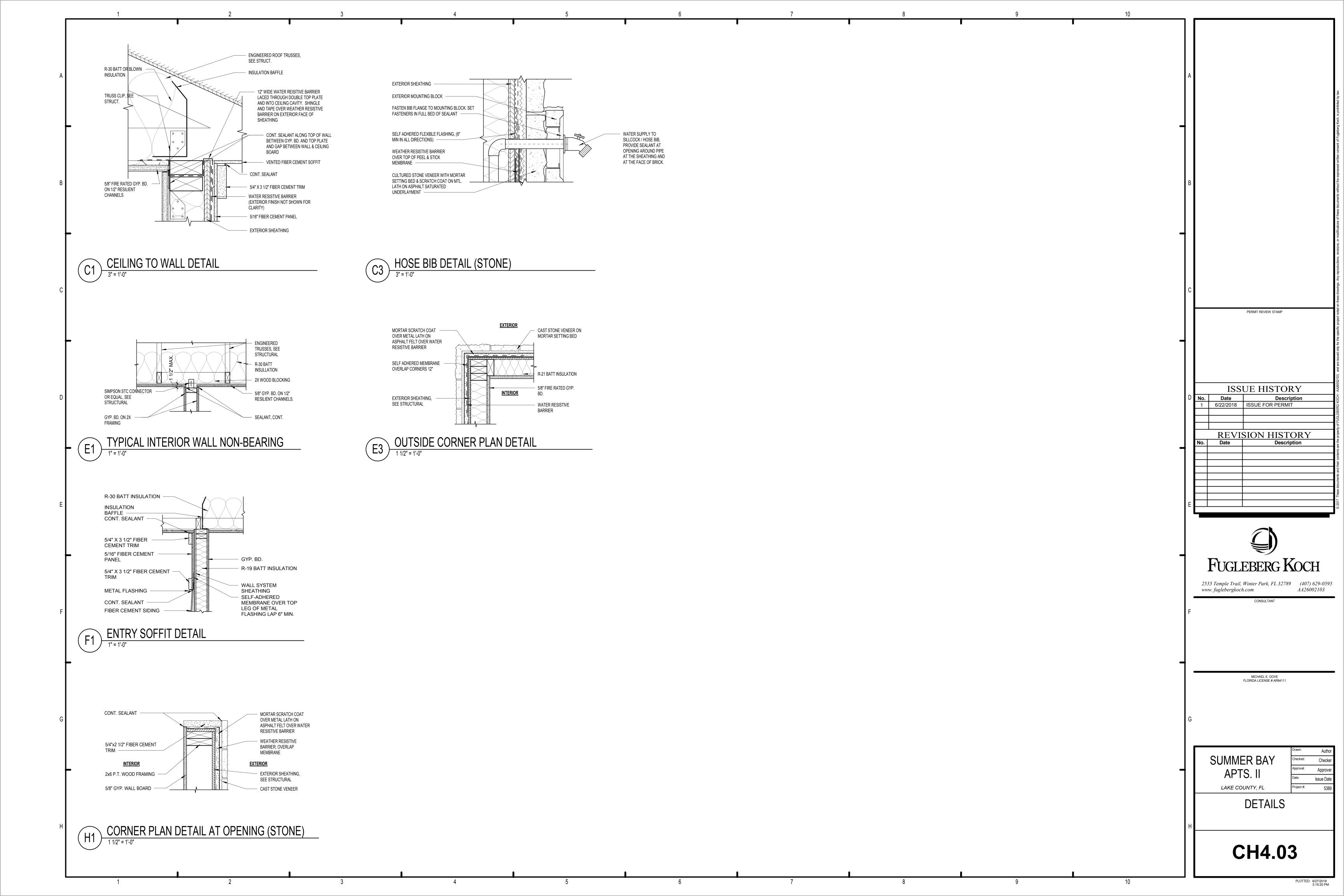


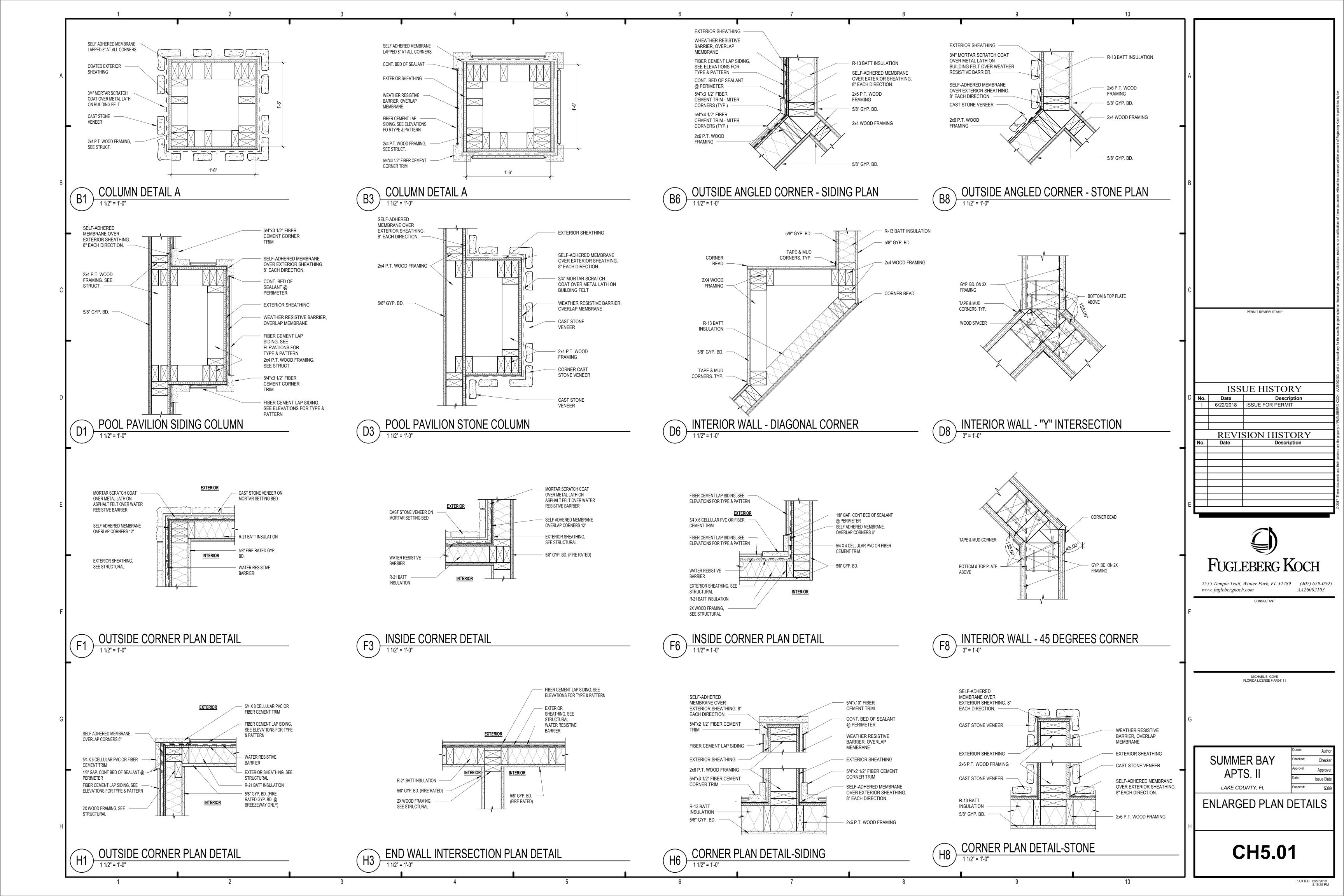


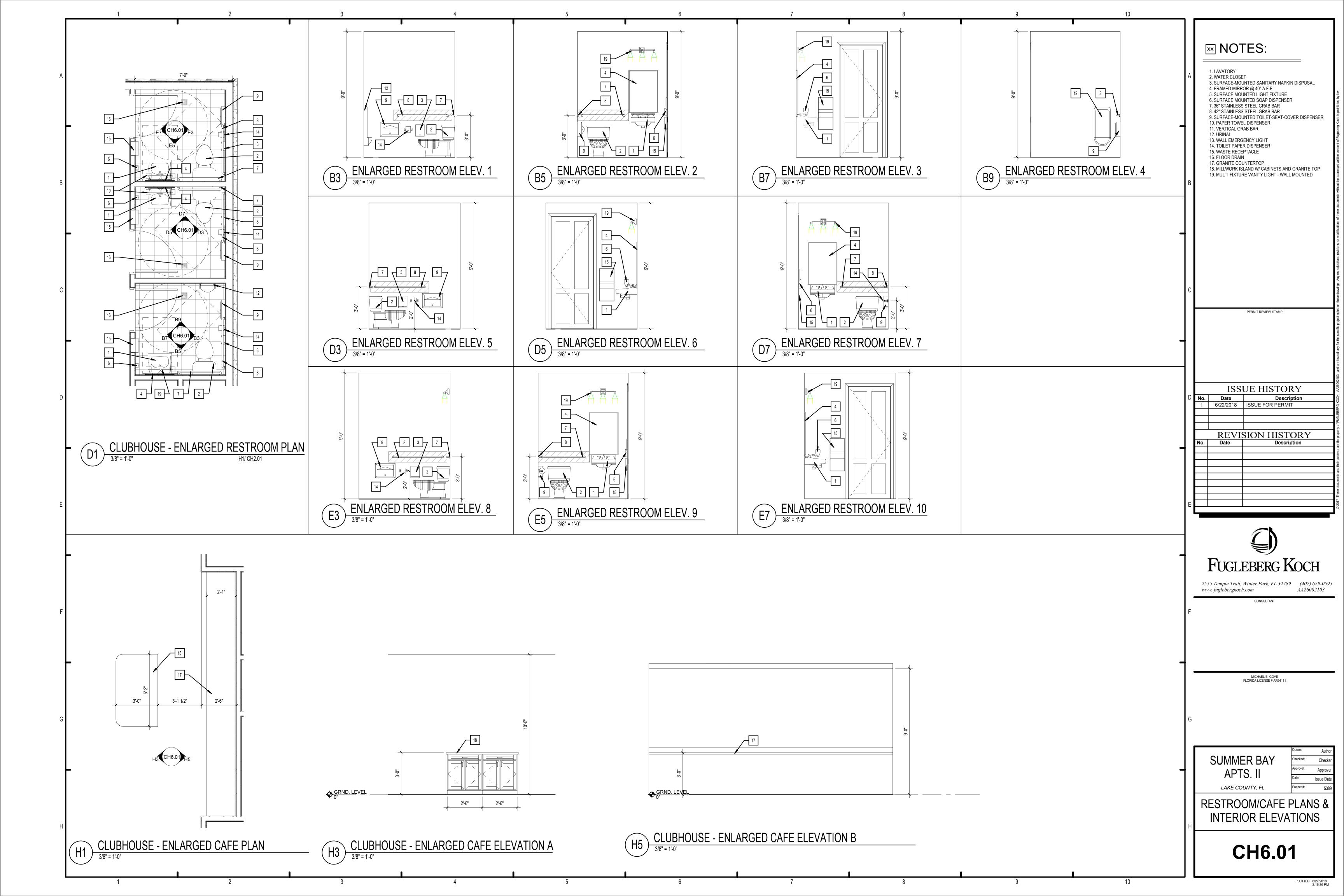


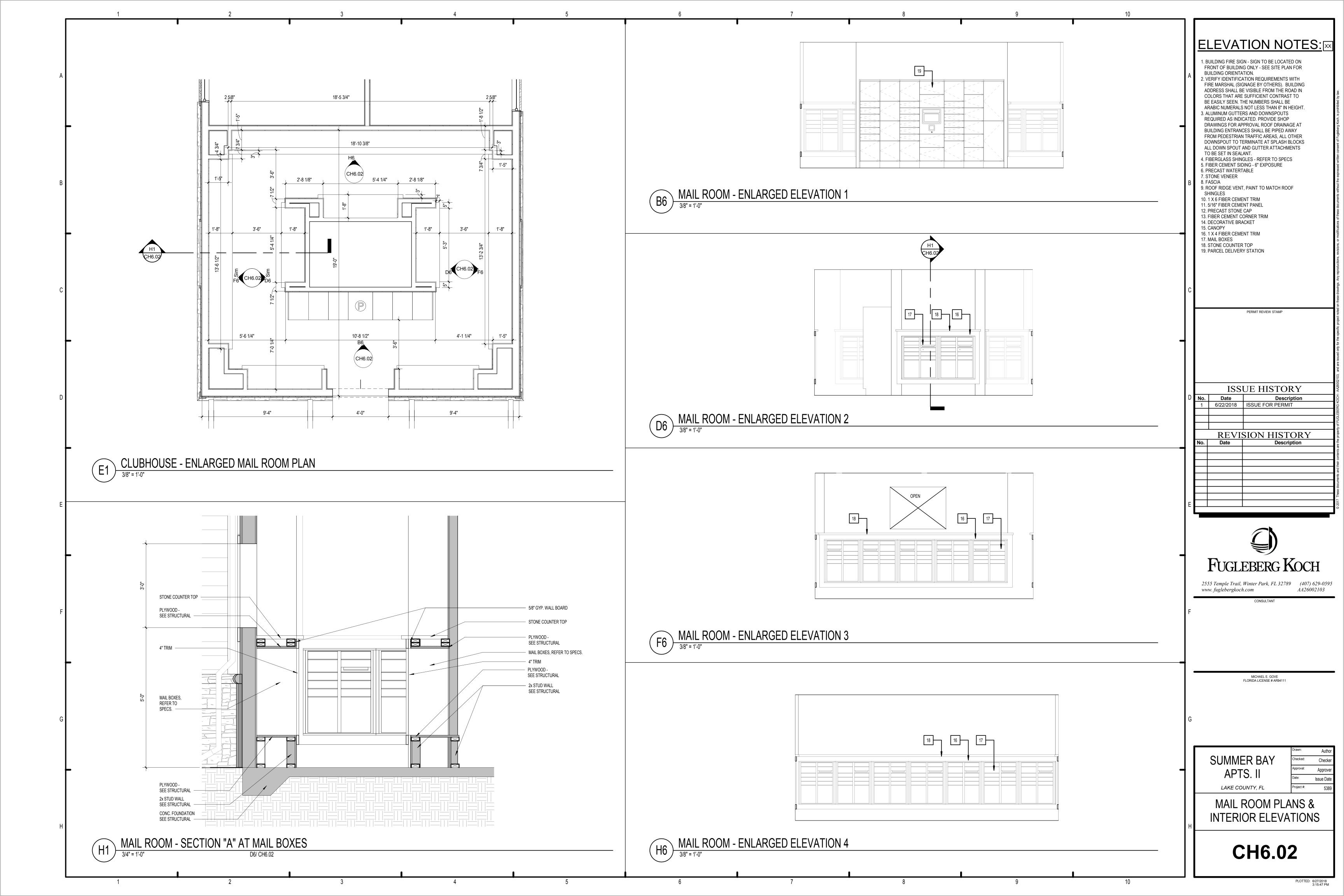


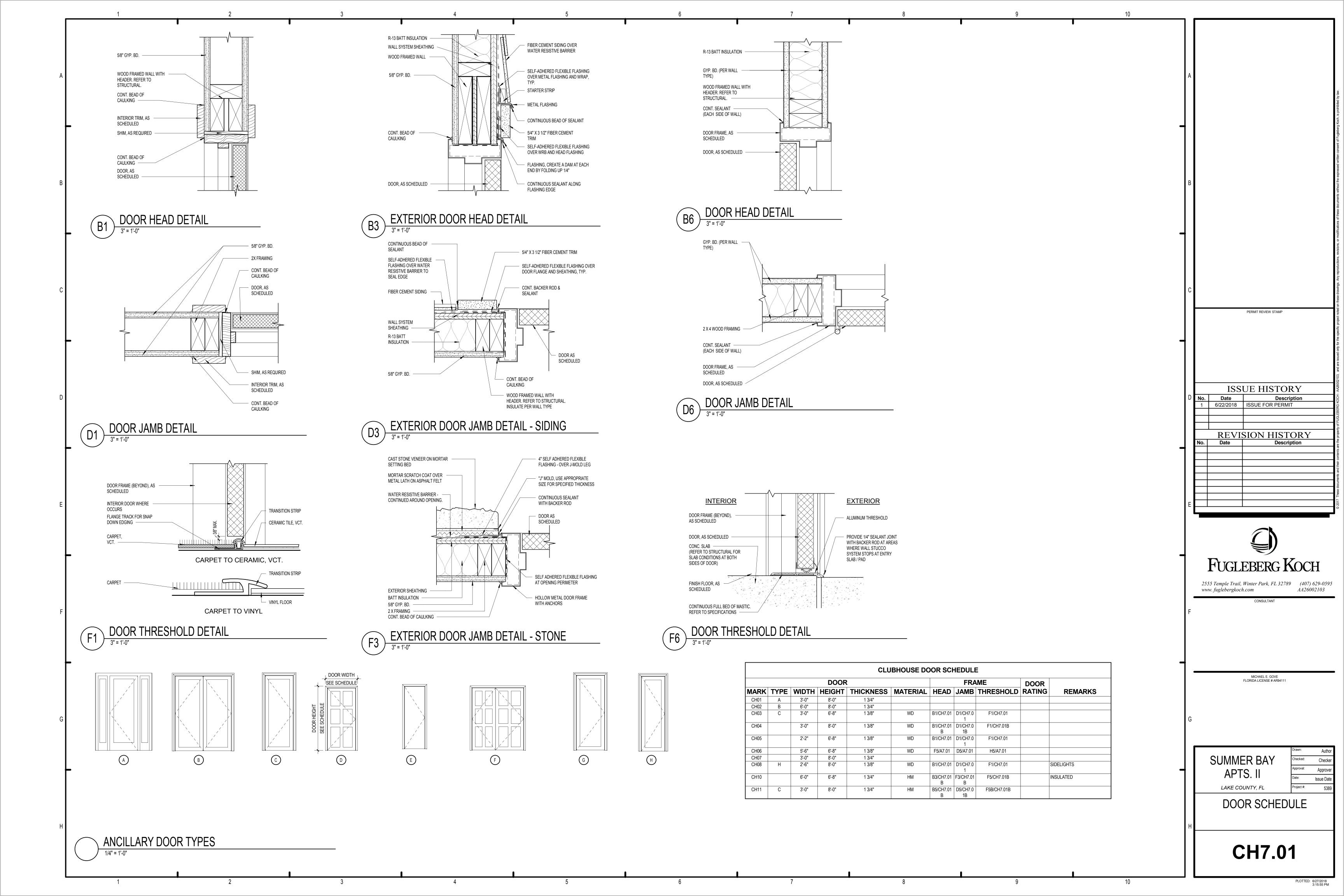


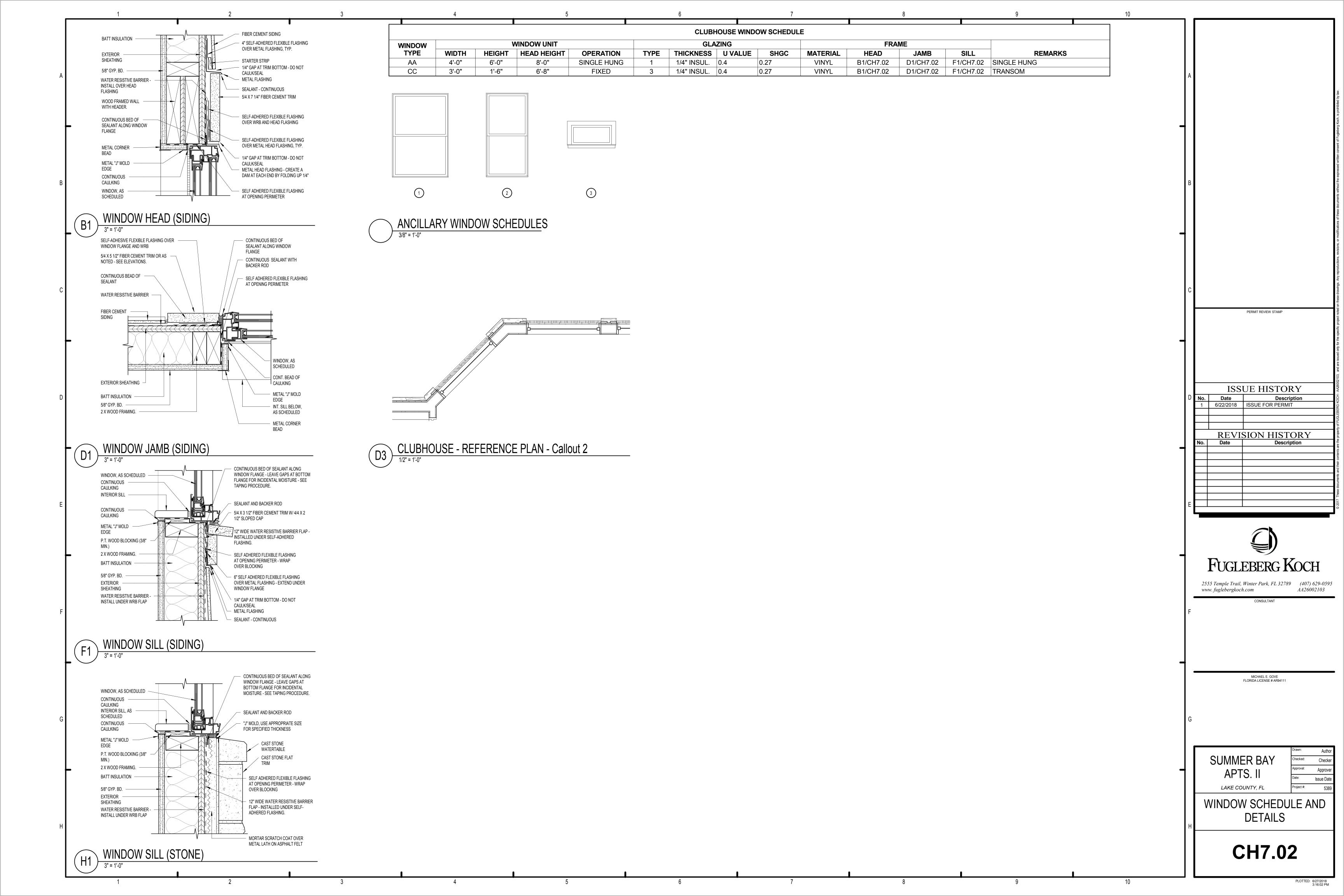


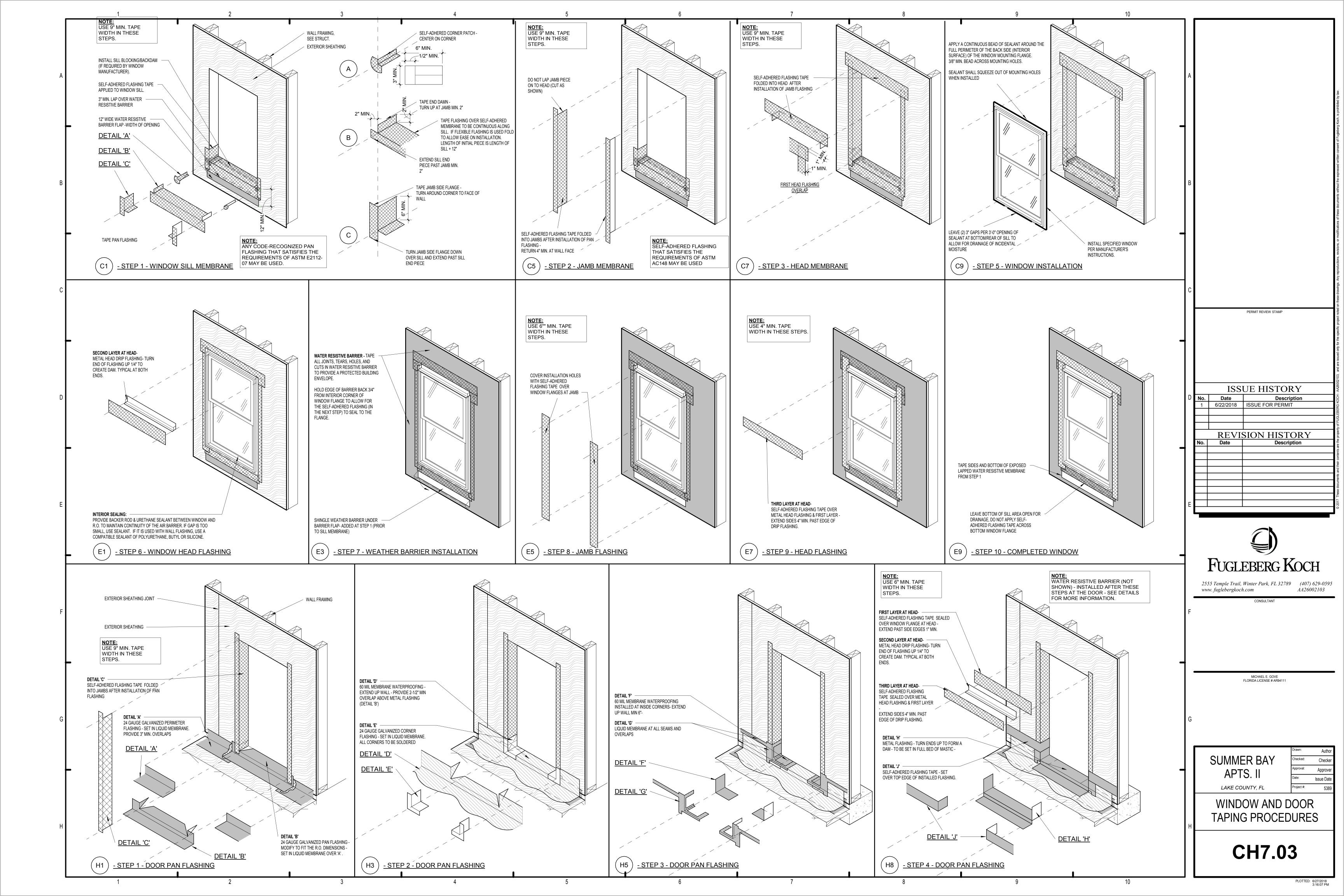












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			WALLS											NG	
		FLOOR	BASE	CROWN	NOR	TH	EAS	Т	SOU	ITH	WES	ST .			
MARK	SPACE DESIGNATION	MATERIAL	MATERIAL	MOLDING	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	REMARKS
CH-100	PORCH	S. CONC.	_		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-101	ENTRY	LVT	WD		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-102	LEASE	CARPET	WD			PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-103	OFFICE	CARPET	WD		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-104	MAIL ROOM	CONC	FC			PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-105	OFFICE	CARPET	WD		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-106	WORK	VCT	VCT		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-107	GAME	LVT	WD		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-108	GATHERING	LVT	WD		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-109	CAFE														
CH-110	COVERED PORCH	CONC	-		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-111	ELEC.	CONC	VCT		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-112	JAN.	CONC	-		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-113	Room														
CH-116	STOR.	CONC	VCT		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-117	FITNESS	RUBBER	WD		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-118	CONFERENCE	CARPET	WD		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-119	STORAGE														
CH-120	WOMEN	TILE	TILE		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-121	WOMEN	TILE	TILE		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-122	MEN	TILE	TILE		GWB	PT	GWD	PT	GWB	PT	GWB	PT	GWB	PT	
CH-123	MECH.														

ISSUE HISTORY

Description

1 6/22/2018 ISSUE FOR PERMIT

REVISION HISTORY

No. Date Description

REVISION HISTORY

No. Date Description

FUGLEBERG KOCH

2555 Temple Trail, Winter Park, FL 32789 (407) 629-0595

www. figlebergkoch.com

CONSULTANT

SUMMER BAY APTS. II

FINISH SCHEDULE -

CLUBHOUSE

Issue Date

MICHAEL E. GOVE FLORIDA LICENSE # AR94111

CH7.04

 $\frac{1}{3}$   $\frac{1}{4}$   $\frac{1}{5}$   $\frac{1}{6}$   $\frac{7}{8}$   $\frac{1}{8}$   $\frac{1}{9}$   $\frac{1}{10}$ 

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. GUTHERMAN STRUCTURAL, INC. IS NOT RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION OR FOR RELATED SAFETY PRECAUTIONS AND PROGRAMS.

### CODES AND STANDARDS

- 1. WIND LOADS AS PER:
- A. FLORIDA BUILDING CODE 6TH EDITION (2017) WITH AN ULTIMATE DESIGN WIND SPEED OF 139 MPH, EXPOSURE B, NOMINAL DESIGN WIND SPEED OF 107 MPH, +/-0.18 INTERNAL PRESSURE COEFFICIENT, AND BUILDING RISK CATEGORY II.
- B. THIS BUILDING IS DESIGNED AS AN ENCLOSED BUILDING.
- 2. THE PROJECT WAS DESIGNED IN ACCORDANCE WITH THE:
- A. FLORIDA BUILDING CODE 6TH EDITION (2017).
- B. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318/ 2011 EDITION).
- C. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315/ LATEST EDITION).
- D. NATIONAL DESIGN SPECIFICATION, WOOD CONSTRUCTION NDS/2012
- 3. ARCHITECTURAL AND MECHANICAL DRAWINGS:
  - THE STRUCTURAL DRAWINGS ARE PART OF THE CONTRACT DOCUMENTS AND DO NOT BY THEMSELVES PROVIDE ALL THE INFORMATION REQUIRED TO PROPERLY COMPLETE THE PROJECT STRUCTURE. THE GENERAL CONTRACTOR SHALL CONSULT THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND COORDINATE THE INFORMATION CONTAINED IN THESE DRAWINGS WITH THE STRUCTURAL DRAWINGS TO PROPERLY CONSTRUCT THE PROJECT.
  - REFER TO ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWINGS FOR ADDITIONAL OPENINGS, DEPRESSIONS, FINISHES, INSERTS, BOLTS SETTINGS, DRAINS, REGLETS, ETC.
- BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK, THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS TO PROPERLY SIZE OR FIT THE WORK. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED BY THE OWNER RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT.
- D. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH ANY WORK.
- ALL STRUCTURES HAVE BEEN DESIGNED TO RESIST THE DESIGN LOADS LISTED ONLY AS COMPLETED STRUCTURES. THE GENERAL CONTRACTOR SHALL FULLY BRACE AND OTHERWISE PROTECT WORK IN PROGRESS UNTIL THE STRUCTURES ARE COMPLETED. THE GENERAL CONTRACTOR SHALL ALSO INSURE THAT ITS OPERATIONS AND PROCEDURES PROVIDE NO LOADING GREATER THAN THE DESIGN LOADS LISTED ON ANY MEMBER.

### 4. SECTIONS AND DETAILS:

- ALL DETAILS, SECTIONS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE SHOWN.
- THRESHOLD INSPECTIONS SHALL BE PERFORMED DURING CONSTRUCTION OF THIS BUILDING AS REQUIRED BY SECTION 110.8 OF FBC.
- 6. MATERIALS AND ASSEMBLY TEST AS FOLLOWS:
  - A. EXTERIOR WINDOWS, SLIDING AND PATIO GLASS DOORS SHALL BE TESTED BY AN APPROVED INDEPENDENT TESTING LABORATORY, AND SHALL BE LABFLED WITH AN APPROVED LABFL IDENTIFYING THE MANUFACTURER. PERFORMANCE CHARACTERISTICS AND APPROVED PRODUCT CERTIFICATION AGENCY, TESTING LABORATORY, EVALUATION ENTITY OR FLORIDA STATE WIDE PRODUCT APPROVAL NUMBER TO INDICATE COMPLIANCE WITH THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:
    - ANSI/AAMA/NWWDA 101/I.S. 2-97 OR TAS 202 (HVHZ SHALL COMPLY WITH TAS 202)
  - EXTERIOR DOOR ASSEMBLIES SHALL BE TESTED FOR STRUCTURAL INTEGRITY IN ACCORDANCE WITH ASTM E330 AT A LOAD OF 1.5 TIMES THE REQUIRED DESIGN PRESSURE LOAD. THE LOAD SHALL BE SUSTAINED FOR 10 SECONDS WITH NO PERMANENT DEFORMATION OF ANY MAIN FRAME OR PANEL MEMBER IN EXCESS OF 0.4 PERCENT OF ITS SPAN AFTER THE LOAD IS REMOVED. HVHZ SHALL COMPLY WITH TAS 202. AFTER EACH SPECIFIED LOADING, THERE SHALL BE NO GLASS BREAKAGE. PERMANENT DAMAGE TO FASTENERS. HARDWARE PARTS, OR ANY OTHER DAMAGE, WHICH CAUSES THE DOOR TO BE
  - C. SECTIONAL GARAGE DOORS SHALL BE TESTED FOR DETERMINATION OF STRUCTURAL PERFORMANCE UNDER UNIFORM STATIC AIR PRESSURE DIFFERENCE IN ACCORDANCE WITH ANSI/DASMA 115 OR TAS 201,202 AND
  - CUSTOM (ONE OF A KIND) EXTERIOR DOOR ASSEMBLIES SHALL BE TESTED BY AN APPROVED TESTING LABORATORY OR BE ENGINEERED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES.
  - WINDOW AND DOOR ASSEMBLIES SHALL BE ANCHORED IN ACCORDANCE WITH THE PUBLISHED MANUFACTURER'S RECOMMENDATIONS TO ACHIEVE THE DESIGN PRESSURE SPECIFIED. SUBSTITUTE ANCHORING SYSTEM USED FOR SUBSTRATES NOT SPECIFIED BY THE FENSTRATION MANUFACTURER SHALL PROVIDE EQUAL OR GREATER ANCHORING PERFORMANCE AS DEMONSTRATED BY ACCEPTED ENGINEERING PRACTICE.

# SPECIALTY ENGINEERED PRODUCTS

- 1. THE GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE THE PROPER SUBMISSION OF SPECIALTY ENGINEERED SHOP DRAWINGS WHICH SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT THE SPECIALTY ENGINEERED SHOP DRAWINGS ARE SUBMITTED IN A TIMELY MANNER SO AS TO ALLOW REVIEWS AND RESUBMISSIONS AS REQUIRED. ALL SPECIALTY ENGINEERED PRODUCTS SHALL BE DESIGNED FOR THE APPROPRIATE GRAVITY LOADS AND WIND LOADS INCLUDING UPLIFT AND LATERAL LOADS. INTERIOR SPECIALTY PRODUCTS SHALL BE DESIGNED FOR LATERAL LOADS TO ASSURE STABILITY. SPECIALTY ENGINEERED PRODUCTS SHALL BE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
  - A. LIGHT GAUGE METAL, INCLUDING BUT NOT LIMITED TO, SOFFITS, CLADDING, CEILINGS, ETC.
  - MISCELLANEOUS METALS INCLUDING STEEL STAIRS, MECHANICAL EQUIPMENT SUPPORTS, FRAMES THAT SUPPORT MACHINES, PIPES OR OTHER STRUCTURAL METAL USED FOR SUPPORT OF MECHANICAL SYSTEMS.
  - MISCELLANEOUS HANGERS, CHANDELIERS, CABINETS, METAL FRAMES, LADDERS, RIGGING, HANGING WALLS, RAILINGS, GLAZING FRAMES, CLADDING SUCH AS STONE, PRECAST, ALUMINUM, METAL PANELS, CABLE BARRIER SYSTEMS, ETC. OR ANY OTHER MISCELLANEOUS PRODUCT REQUIRED BY ANY OF THE CONSTRUCTION

D. IN ADDITION TO THE LOADS SHOWN IN THE DESIGN LOAD SCHEDULE, THE SPECIALTY ENGINEER SHALL DESIGN FOR THE WEIGHT OF ALL MECHANICAL. PLUMBING AND ELECTRICAL EQUIPMENT AND FIXTURES, AS WELL AS CHANDELIER FIXTURES, BAR CABINETS, AND ART WORK / MOBILES.

GENERAL CONTRACTOR TO INCLUDE IN THEIR BID THE COST OF THE ABOVE NOTED SPECIALTY ENGINEERING.

# FOUNDATION

- 1. ALL SITE PREPARATION AND EXCAVATION WORK IS TO BE PERFORMED IN STRICT ACCORDANCE WITH THE:
- REPORT ON SOILS AND FOUNDATION INVESTIGATION PREPARED BY ECS FLORIDA, LLC REPORT NUMBER 24:6036, DATED APRIL 26, 2017
- 2. THE BUILDING SITE SHOULD BE EXCAVATED TO THE DEPTH AND EXTENT INDICATED IN THE SOILS REPORT. ALL SUBGRADES SHALL BE APPROVED IN WRITING BY THE SOILS ENGINEER PRIOR TO BACKFILLING.
- BOTTOM OF FOOTINGS TO BEAR ON CONTROLLED COMPACTED FILL CAPABLE OF SAFELY SUPPORTING 2000 PSF.
- 4. SOILS SUPPORTING ALL FOOTINGS MUST BE INSPECTED AND APPROVED BY A REGISTERED SOILS ENGINEER BEFORE COMMENCING WORK. APPROVAL IN WRITING MUST INDICATE THE SOIL IS ADEQUATE TO SAFELY SUSTAIN SPECIFIED SOIL BEARING PRESSURE.
- 5. BOTTOM OF ALL FOOTINGS SHALL BEAR 1'-O" BELOW ADJACENT GRADE TYP. MAKE ADJUSTMENTS AS NEEDED SO BOTTOM OF EXTERIOR FOOTINGS SHALL BE MINIMUM 12-INCHES BELOW EXTERIOR FINISH GRADE.
- 6. EXCAVATION & BACKFILL:
  - A. ALL EXCAVATION SHALL BE KEPT DRY. EXCAVATE TO DEPTHS AND DIMENSIONS INDICATED. TAKE EVERY PRECAUTION TO GUARD AGAINST ANY MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES, UTILITIES,
  - PROVIDE ANY BRACING OR SHORING NECESSARY TO AVOID SETTLEMENT OR DISPLACEMENT OF EXISTING FOUNDATION OR STRUCTURES.

- 1. ALL CONCRETE SHALL BE READY MIX AND MEET THE FOLLOWING REQUIREMENTS:
- A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. SLUMPS SHALL BE 4-INCHES MINIMUM AND 6-INCHES MAXIMUM. CONCRETE SHALL HAVE 3 PERCENT AIR ENTRAINMENT.
- ALL CONCRETE TO HAVE MAXIMUM WATER/CEMENT RATIO OF 0.55. JOBSITE WATER SHALL NOT BE ADDED.
- 2. ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE ACI BUILDING CODE (ACI 318/ 2011 EDITION), THE ACI DETAILING MANUAL (ACI 315/1994 EDITION), AND THE SPECIFICATIONS FOR STRUCTURAL
- 3. SUBMIT ALL REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL PRIOR TO ANY FABRICATION.

CONCRETE FOR BUILDINGS (ACI 301/ LATEST EDITION).

- 4. CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS REQUIRED BY ACI SPECIFICATIONS.
- WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A 1064, UNLESS OTHERWISE SPECIFIED. PLACE FABRIC 2" CLEAR FROM TOP OF THE SLAB IN SLAB ON GRADE AND SUPPORT ON SLAB BOLSTERS SPACED AT 3'-0" O.C.
- 6. LAP ALL BARS WITH CLASS B TENSION LAP SPLICE UNLESS OTHERWISE NOTED ON DRAWINGS. LAP ALL WWF A MINIMUM OF 12 INCHES (UNLESS OTHERWISE
- 7. REINFORCING BARS:
- ALL REINFORCING STEEL SHALL BE MANUFACTURED FROM HIGH STRENGTH BILLET STEEL CONFORMING TO ASTM DESIGNATION A 615
- B. AT CORNERS OF CONCRETE WALLS, BEAMS AND CONTINUOUS WALL FOOTINGS, PROVIDE (1-#5 OR MATCHING) HORIZONTAL BARS X 5'-0" BENT BAR FOR EACH HÖRIZONTAL BAR SCHEDULED AT EACH FACE.
- C. WHERE COLUMNS ARE AN INTEGRAL PART OF CONCRETE WALLS, WALL REINFORCEMENT SHALL BE CONTINUOUS THRU THE COLUMNS.
- D. ALL HOOKS SHOWN IN REINFORCEMENT SHALL BE ACI RECOMMENDED
- 8. FOR GRADE BEAMS LAP ALL TOP STEEL AT MID-SPAN AND LAP BOTTOM STEEL OVER SUPPORT.

HOOKS UNLESS OTHERWISE NOTED.

9. CONSTRUCTION JOINTS IN STRUCTURAL SLABS AND BEAMS SHALL BE AT MID-SPAN AND KEY JOINTED WITH REINFORCING CONTINUOUS ACROSS JOINT AND ADDITIONAL SHEAR FRICTION REINFORCING. CONSTRUCTION JOINT LOCATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. CONSTRUCTION JOINTS IN POST-TENSION SLABS SHALL BE LOCATED AND DESIGNED BY SPECIALTY ENGINEER.

# POST-TENSION CONCRETE

- ENGAGE THE SERVICES OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA TO PREPARE AND SUBMIT COMPLETE SHOP DRAWINGS AND COMPLETE STRUCTURAL DESIGN COMPUTATIONS, INCLUDING STRESS LOSS CALCULATIONS AND DESIGN FOR ALL VERTICAL LOAD SUPPORT INCLUDING GRAVITY, AND UPLIFT FROM SHEAR WALLS. DRAWINGS SHALL BE SIGNED AND BEAR THE DELEGATED ENGINEER'S PROFESSIONAL SEAL. POST-TENSION SHOP DRAWINGS SHALL INCLUDE REBAR LAYOUT PLAN AND ANY ADDITIONAL REINFORCING NECESSARY FROM POST-TENSION SPECIALTY ENGINEER RESULTING FROM SPECIALTY ENGINEERS CALCULATIONS.
- PRE-STRESSING SHALL CONFORM TO THE STANDARDS OF THE ACI BUILDING CODE 318/2011 EDITION.
- POST TENSIONING CABLES SHALL HAVE A CORROSION PROTECTION SYSTEM, WHICH IS IN ACCORDANCE WITH THE RECOMMENDATION OF PRESTRESSED CONCRETE INSTITUTE FOR CABLES USED IN A CORROSIVE ENVIRONMENT.
- TENDONS FOR PRE-STRESSING SHALL CONFORM TO THE ASTM SPECIFICATION A416 OR A421 AND SHALL BE 270K GRADE WITH A MINIMUM ULTIMATE STRENGTH OF 270,000 PSI AND A YIELD STRENGTH OF 240,000 PSI.
- ALL TENDONS SHALL BE UNBONDED.
- CONSTRUCTION JOINTS IN POST-TENSIONED MEMBERS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER, PRIOR TO CONSTRUCTION.

- ALL STRUCTURAL WOOD MEMBERS ARE DESIGNED AS "DRY-USE". MOISTURE CONTENT MUST BE 19% OR LESS. STORE WOOD FRAMING ABOVE GROUND AND UNDER TARPS WITH PROPER AIR CIRCULATION.
- ALL LUMBER SHALL BE SOUTHERN PINE SPECIES #2 GRADE OR APPROVED EQUAL. ALLOWABLE DESIGN STRESSES SHALL FOLLOW NATIONAL DESIGN SPECIFICATION (NDS) (LATEST EDITION).
- HEADERS AT NON BEARING CONDITIONS SHALL BE AS FOLLOWS:
  - HEADER OPENING SIZE UP TO 4' -0" (2) 2" X 6" 4'- 0" TO 6'- 0" (2) 2" X 8" 6'- 0" TO 9'- 0" (2) 2" X 10"
- PROVIDE SP ACQ PRESSURE TREATED LUMBER IN ACCORDANCE WITH AWPA STANDARDS TO A MINIMUM 0.40 PCF RETENTION WHERE LUMBER IS IN CONTACT WITH CONCRETE/MASONRY OR OUTSIDE OF BUILDING. ALL METAL CONNECTORS IN CONTACT WITH PRESSURE TREADED LUMBER SHALL BE GALVANIZED WITH A RATING OF G-185 AND CONFORM TO ASTM A653. ALL NAILS AND SCREWS USED WITH PRESSURE TREATED LUMBER ARE TO BE HOT-DIPPED GALVANIZED AND TO CONFORM TO ASTM A153 CLASS D. ELECTROGALVANIZED FASTENERS SHALL HAVE A CLASS RATING PER ASTM B695 NO LESS THAN 55. ALUMINUM NOT TO BE USED IN DIRECT CONTACT WITH ACQ TREATED LUMBER.

### WOOD (CONT.)

5. PLYWOOD SHEATHING:

SHEATHING

- A. FLOOR: USE 3/4" T&G APA 24oc STURD-I-FLOOR, EXP. 1
- PLYWOOD SUB-FLOOR SHEATHING. B. WALL: Use 7/16" ZIP WALL SHEATHING. 32/16 RATED. EXP. 1.
- C. ROOF: Use (15/32") 32/16 RATED, EXP. 1, PLYWOOD OR OSB
- D. SEE FRAMING PLANS FOR NAILING AND/OR BLOCKING REQUIREMENTS. USE 8'- 0" LONG X 4'-0" WIDE SHEETS WITH LENGTH ACROSS FRAMING. STAGGER PANEL END JOINTS 4'-0" TYP., ALLOW 1/8" SPACE ALONG PANEL EDGES AND END JOINTS.
- E. FLOOR SHEATHING TO BE SCREWED WITH #10 WOOD SCREWS AT 6" O.C. AND GLUED FOR PARTIAL COMPOSITE ACTION. SELECT ADHESIVE WITH APA AFG-01 SPECIFICATION AND FOLLOW APA RECOMMENDATIONS.
- SEE FRAMING PLANS FOR DIAPHRAGM NAILING TYPE, SIZE, SPACING AND
- WOOD CONNECTIONS ALL NAILS USED FOR STRUCTURAL FRAMING MEMBERS SHALL BE COMMON WIRE, U.N.O. ALL NAILS, TRUSS HANGERS, TRUSS ANCHORS AND STRAPS SHALL BE GALVANIZED FOR CORROSIVE RESISTANCE. ALL METAL STRAPS MUST BE INSTALLED WITH EQUAL LENGTHS ABOUT THE JOINT LINE. USE SIMPSON STRONG-TIE CONNECTOR PRODUCTS OR APPROVED EQUAL. TOE NAILING WILL NOT BE PERMITTED

- ALL MICROLLAM LVL BEAMS TO
- A. BE ENGINEERED AND MANUFACTURED BY TRUS JOIST WEYERHAEUSER (TJW) OR APPROVED EQUAL. TEMPORARY BRACING TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE CONTINUOUS SUPPORT OF THE COMPRESSION EDGE AND PROVIDE LATERAL SUPPORT AT ALL BEARINGS. THE MINIMUM ALLOWABLE STRESSES FOR MICROLLAM BEAMS ARE AS FOLLOWS:
  - Fb = 2,600 PSI Fv = 285 PSI E = 1,900,000 PSI
- B. CONNECT: (2) PLY LVL W/3 ROWS OF 16d COMMON NAILS AT 12" O/C;
- C. CONNECT:(3) PLY LVL W/3 ROWS OF 16d COMMON NAILS AT 12" O/C, EACH FACE;

### 2. ALL PARALLAM PSL BEAMS TO

- BE ENGINEERED AND MANUFACTURED BY TRUS JOIST WEYERHAEUSER (TJW) OR APPROVED EQUAL. TEMPORARY BRACING TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE CONTINUOUS SUPPORT OF THE COMPRESSION EDGE AND PROVIDE LATERAL SUPPORT AT ALL BEARINGS. THE MINIMUM ALLOWABLE STRESSES FOR PARALLAM BEAMS ARE AS FOLLOWS:
  - Fb = 2,900 PSI Fv = 290 PSI E = 2,000,000 PSI
- B. ALL EXPOSED EXTERIOR PARALLAM BEAMS ARE TO BE WOLMANIZED PRESSURE TREATED FOR A SERVICE LEVEL 2 EXPOSURE. ALL OTHER PARALLAM BEAMS ARE TO BE WOLMANIZED PRESSURE TREATED FOR A SERVICE LEVEL 1 EXPOSURE.
- 3. ALL PARALLAM PSL COLUMNS TO
  - A. BE ENGINEERED AND MANUFACTURED BY TRUS JOIST WEYERHAEUSER (TJW) OR APPROVED EQUAL. TEMPORARY BRACING TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. THE MINIMUM ALLOWABLE PROPERTIES FOR PARALLAM COLUMNS THE MINIMUM ALLOWABLE STRESSES ARE AS FOLLOWS:
  - Fb = 2,400 PSI FcII = 2500 PSI E = 1,800,000 PSI
  - B. ALL EXPOSED EXTERIOR PARALLAM COLUMNS ARE TO BE WOLMANIZED PRESSURE TREATED FOR A SERVICE LEVEL 2 EXPOSURE. ALL OTHER PARALLAM COLUMNS ARE TO BE WOLMANIZED PRESSURE TREATED FOR A SERVICE LEVEL 1 EXPOSURE.
- 4. ALL STRUCTURAL TIMBER TO
  - A. SOUTHERN PINE SPECIES, #2 GRADE (MINIMUM) OR APPROVED EQUAL.
  - BE DESIGNED PER THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S (AITC)"TIMBER CONSTRUCTION MANUAL" AND AMERICAN FOREST & PAPER ASSOCIATION'S (AFPA) NATIONAL DESIGN SPECIFICATION".
  - PROVIDE SP ACQ PRESSURE TREATED LUMBER IN ACCORDANCE WITH AWPA STANDARDS TO A MINIMUM 0.40 PCF RETENTION WHERE LUMBER IS IN CONTACT WITH CONCRETE/MASONRY OR OUTSIDE OF BUILDING. ALL METAL CONNECTORS IN CONTACT WITH PRESSURE TREADED LUMBER SHALL BE GALVANIZED WITH A RATING OF G-185 AND CONFORM TO ASTM A653. ALL NAILS AND SCREWS USED WITH PRESSURE TREATED LUMBER ARE TO BE HOT-DIPPED GALVANIZED AND TO CONFORM TO ASTM A153 CLASS D. ELECTROGALVANIZED FASTENERS SHALL HAVE A CLASS RATING PER ASTM B695 NO LESS THAN 55. ALUMINUM NOT TO BE USED IN DIRECT CONTACT WITH ACQ TREATED LUMBER.
- ALL GLUED LAMINATED BEAMS SHALL BE VISUALLY GRADED SOUTHERN PINE OR APPROVED EQUAL AND:
  - A. BE DESIGNED AND MANUFACTURED WITH ANSI/AITC A.190.1-2007, THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S (AITC)"TIMBER CONSTRUCTION MANUAL", AMERICAN FOREST & PAPER ASSOCIATION'S (AFPA) NATIONAL DESIGN SPECIFICATION", AND AMERICAN PLYWOOD ASSOCAITION-ENGINEERED WOOD SYSTEMS STANDARDS.
- B. GLUE LAMINATED BEAM ADHESIVES TO CONFORM WITH ASTM D2559-92.
- C. THE MINIMUM ALLOWABLE PROPERTIES FOR GLUED LAMINATED BEAMS ARE AS FOLLOWS:
- Fv = 240 PSIFb = 2,400 PSI $E = 1.7 \times 106 PSI$
- D. BE PRESSURE TREATED WITH A WATER BORNE PRESERVATIVE FOR EXTERIOR USE OR WHEN IN CONTACT WITH CONCRETE OR MASONRY PER AITC 109-90 AND AMERICAN WOOD PRESERVERS C-28 STANDARDS.
- ALL TIMBER AND GLUE LAMINATED BEAM CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND CODES AS SPECIFIED BELOW:
- NATIONAL LUMBER MANUFACTURERS ASSOCIATION: NATIONAL DESIGN SPECIFICATION FOR STRESS GRADE LUMBER AND ITS FASTENINGS.
- ALL TIMBER AND GLUE LAMINATED CONNECTIONS ARE TO BE MADE USING PREFABRICATED STEEL CONNECTORS. TOE NAILING WILL NOT BE PERMITTED. SUBMIT MANUFACTURER'S DATA FOR APPROVAL. FASTENERS TO BE AS MANUFACTURED BY HECKMANN, SIMPSON STRONG-TIE OR APPROVED EQUAL.
- GLUE LAMINATED CONSTRUCTION: DESIGN, FABRICATION AND CONSTRUCTION OF STRUCTURAL GLUE LAMINATED. TIMBER SHALL CONFORM WITH THE FOLLOWING
- A. PROVIDE FACTORY GLUED TIMBER UNITS, PRODUCED BY AN AITC OR APA-EWS LICENSED FIRM QUALIFIED TO APPLY THE AITC OR APA-EWS QUALITY INSPECTED TRADEMARK.
- B. SUBMIT SHOP DRAWINGS SHOWING FULL DIMENSIONS OF EACH MEMBER AND LAYOUT OF ENTIRE STRUCTURAL SYSTEM. SHOW DETAILS OF CONNECTION, CONNECTORS AND ACCESSORIES. INDICATE SPECIES AND STRESS GRADE OF LUMBER AND TYPE OF ADHESIVES.
- C. KEEP GLUE LAMINATED BEAMS DRY DURING DELIVERY, STORAGE, HANDLING, ERECTION, AND UNTIL THE BUILDING ENCLOSURE IS
- APPEARANCE SHALL BE INDUSTRIAL GRADE. EXCEPT EXPOSED MEMBERS AS NOTED ON DRAWINGS, WHICH SHALL HAVE ARCHITECTURAL E. CONTRACTOR SHALL PROVIDE CONNECTION HARDWARE REQUIRED
- (INDICATED ON PLANS OR NOT) TO PROPERLY JOIN MEMBERS TO EACH OTHER AND TO THEIR SUPPORTS. CONNECTIONS SHALL BE CAPABLE OF TRANSFERRING THE APPLIED LOAD TO THE SUPPORTING MEMBERS. STEEL PLATES, ANGLES, OR OTHER SHAPES SHALL CONFORM TO ASTM A 36, AND BOLTS SHALL CONFORM TO ASTM A-325. LAG SCREWS, SHEAR PLATES, SPLIT RINGS, ETC. CONNECTORS SHALL CONFORM TO THE
- CONNECTING HARDWARE SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION CONFORMING WITH ASTM A 123.

"AMERICAN FOREST AND PAPER ASSOCIATION".

### WOOD TRUSSES

- 1. WOOD ROOF TRUSSES AND WOOD FLOOR TRUSSES ARE TO BE DESIGNED FOR THE WOOD FABRICATOR BY A PROFESSIONAL SPECIALTY ENGINEER REGISTERED IN THE STATE OF FLORIDA. SEALED CALCULATIONS AND LAYOUT DRAWINGS ARE TO BE SUBMITTED FOR APPROVAL. TRUSS FABRICATOR TO PROVIDE ALL TRUSS-TO-TRUSS HANGERS AS REQUIRED TO RESIST GRAVITY AND UPLIFT REACTION. (UPLIFT LOADING SHALL USE COMPONENTS & CLADDING WIND FORCES.)
- WOOD TRUSSES SHALL BE BRACED AND ERECTED IN ACCORDANCE WITH THE 2008 EDITION OF THE BUILDING COMPONENT SAFETY INFORMATION GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING &
  - LATERAL BRACING FOR EACH TRUSS WEB MEMBER AS REQUIRED.
  - A MINIMUM OF TWO ROWS OF DIAGONAL BRACING IS REQUIRED, ONE
- 3. THE BOTTOM CHORDS SHALL BE BRACED BY CONTINUOUS LATERAL BRACING SPACED AT 8'-0" ON CENTER WITH A CEILING ATTACHED TO BOTTOM OF TRUSSES. IF NO CEILING IS ATTACHED TO BOTTOM OF TRUSSES, BRACING SHALL BE MINIMUM 2X4 @ 36" ON CENTER NAILED TO THE LATERAL BRACES SHALL BE LOCATED AT EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED
- - EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20-FOOT INTERVALS.
- DO NOT CUT, DRILL OR NOTCH ROOF OR FLOOR TRUSSES WITHOUT WRITTEN APPROVAL FROM TRUSS ENGINEER. COORDINATE MECHANICAL, ELECTRICAL, PLUMBING, ETC. SIZES AND LOCATIONS WITH TRUSS LAYOUT PRIOR TO
- DESIGN SPECIFICATION(S) FOR WOOD CONSTRUCTION, AF & PA. AND NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION,
- DO NOT OVERLOAD FLOOR OR ROOF TRUSSES WITH BUILDING MATERIALS.
- CONNECTOR PLATES SHALL BE MANUFACTURED BY A WTCA MEMBER PLATE SUPPLIER AND SHALL MEET OR EXCEED ASTM A653/A653M REQUIREMENTS FOR STRUCTURAL STEEL

### SHOP DRAWINGS

- THE SHOP DRAWINGS SHALL BE SUBMITTED IN COMPLETE PACKAGES FOR THE FOLLOWING:
- B. POST—TENSIONED CONCRETE
- . PRE-ENGINEERED WOOD TRUSSES
- GC SHALL ENGAGE THE SERVICES OF A CONTINUOUS ROD TIE DOWN SYSTEM COMPANY TO PROVIDE SIGNED AND SEALED DESIGN DOCUMENT FOR ALL SHEAR WALL ANCHORS AND UNIFORM SPACED

DESIGN LOAD SCHEDULE

(ALL LOADS SHOWN ARE IN POUNDS PER SQ. FT.)

COMPONENT

OP CHORD DEAD

BOTTOM CHORD DEAD

OTAL DEAD LOAD

SCHEDULED FASTENER

8d COMMON NAIL

10d COMMON NAIL

6d COOLER NAIL

**ASTENER SUBSTITUTIONS:** 

ALL NAILS ARE COMMON NAILS, UNLESS NOTED OTHERWISE. THE FOLLOWING

<u>ALTERNATE FASTENER</u>

8d RING SHANK NAIL

10d RING SHANK NAIL

0.131 P-NAIL

0.148 P-NAIL

8d SCREW SHANK NAIL

10d SCREW SHANK NAIL

#6 x 1 1/4" TYPE S OR W DRYWALL SCREW

FASTENERS ARE ACCEPTABLE SUBSTITUTIONS. THE ALTERNATE FASTENERS

SHALL BE SPACED AT THE SAME SPACING AS THE SCHEDULED FASTENERS.

OTAL LIVE LOAD

OTAL LOAD

ROOF WIND PRESSURE (PSF) Vasd											
EFFECTIVE WIND	ROOF AREA										
AREA (SQ. FT.)	1	2	3								
10	+12.2/-19.4	+12.2/-33.7	+12.2/-49.8								
20	+11.1/-18.8	+11.1/-31.0	+11.1/-46.6								
50	+9.7/-18.1	+9.7/-27.4	+9.7/-42.3								
100	+9.6/-17.6	+9.6/-24.7	+9.6/-39.1								

- 2. +: INDICATES WIND PRESSURE -: INDICATES WIND SUCTION
- 3. WALL DISTANCE A = 3.0 FT
- 4. FOR EFFECTIVE WIND AREAS BETWEEN THOSE GIVEN ABOVE THE LOAD MAY BE INTERPOLATED, OTHERWISE USE THE
- EFFECTIVE WIND AREA

DOOR & WINDOW	WIND PRESSUR	E (PSF) Vasc								
SIZE OF WALL	WALL AREA									
OPENING (SQ. FT.)	4	5								
10	+21.2/-23.0	+21.2/-28.3								
20	+20.2/-22.0	+20.2/-26.4								
50	+18.9/-20.7	+18.9/-23.9								
100	+18.0/-19.8	+18.0/-22.0								

- 1. WIND DESIGN PER FBC-2017 6TH EDITION
- 4. FOR WALL OPENINGS BETWEEN THOSE GIVEN ABOVE THE LOAD MAY BE INTERPOLATED, OTHERWISE USE THE LOAD ASSOCIATED WITH THE LOWER

(COMPONENTS AND CLADDING)

WALL ELEVATION

PLYWOOD SHEATHING NAILING SCHEDUL NAIL SIZE NAIL SPACING ZONE ROOF (2) (3) 8d RING SHANK 6" @ EDGES, 12" @ INTERMEDIATE SUPPORTS Bd RING SHANK 6" @ EDGES, 12" @ INTERMEDIATE SUPPORTS ROOF (5) 6" @ EDGES, 12" @ INTERMEDIATE SUPPORTS WALL (4) 6" @ EDGES, 12" @ INTERMEDIATE SUPPORTS WALL

- BRACING OF METAL PLATE CONNECTED WOOD TRUSSES. JOINTLY PRODUCED BY WTCA AND TRUSS PLATE INSTITUTE. BRACING IN THE PLANE OF THE
  - THE TRUSS FABRICATOR SHALL PROVIDE AND LOCATE CONTINUOUS
- B. LATERAL BRACING SHALL BE RESTRAINED BY DIAGONAL BRACING (MIN. 2" THICK NOMINAL LUMBER). THIS BRACING IS TO BE CONTINUOUS.
- AT EACH VERTICAL WEB MEMBER CLOSEST TO BEARING LOCATIONS.
- THE TOP OF THE BOTTOM CHORD. DIAGONALS PLACED AT 45 DEGREES TO AT 20 FOOT INTERVALS.
- 4. TOP CHORD BRACING:
  - A. IF PLYWOOD DECKING IS APPLIED DIRECTLY TO TOP CHORD, PROPERLY LAPPED AND NAILED TO DEVELOP DIAPHRAGM ACTION, BRACING IS NOT
  - B. IF PURLINS ARE USED, DIAGONAL TOP CHORD BRACING IS REQUIRED AT
- TRUSSES SHALL BE MANUFACTURED & DESIGNED IN ACCORDANCE WITH NATIONAL
- ANSI/TPI 1-2007, AND THE LOCAL CODE JURISDICTIONS.

- A. CONCRETE MIX DESIGNS
- PRE-ENGINEERED WOOD SYSTEMS (I.E. TJI, PARALLAM, MIRCROLAM, ETC.) CONTINUOUS ROD TIE DOWN SYSTEM
- PRE-ENGINEERED ITEMS SHALL BE SUBMITTED SIGNED AND SEALED BY A SPECIALTY ENGINEER REGISTERED IN THE STATE OF FLORIDA.

ROOF WIND PRESSURE (PSF) Vasd											
EFFECTIVE WIND	ROOF AREA										
AREA (SQ. FT.)	1	3									
10	+12.2/-19.4	+12.2/-33.7	+12.2/-49.8								
20	+11.1/-18.8	+11.1/-31.0	+11.1/-46.6								
50	+9.7/-18.1	+9.7/-27.4	+9.7/-42.3								
100	+9.6/-17.6	+9.6/-24.7	+9.6/-39.1								

ROOF TIE DOWN UPLIFT RODS.

- 1. WIND DESIGN PER FBC-2017 6TH EDITION
- (COMPONENTS AND CLADDING)
  - LOAD ASSOCIATED WITH THE LOWER

- 2. +: INDICATES WIND PRESSURE -: INDICATES WIND SUCTION

3. WALL DISTANCE A = 3.0 FT

WALL OPENING AREA.

CORNER DISTANCE, A = 3.0 FEET

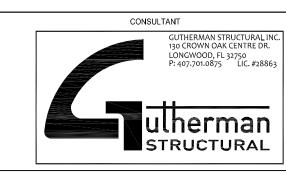
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John Gutherman Jr., P.E. FL. REG. #60880

SUMMER BAY

LAKE COUNTY, FL

STRUCTURAL NOTES AND SCHEDULES

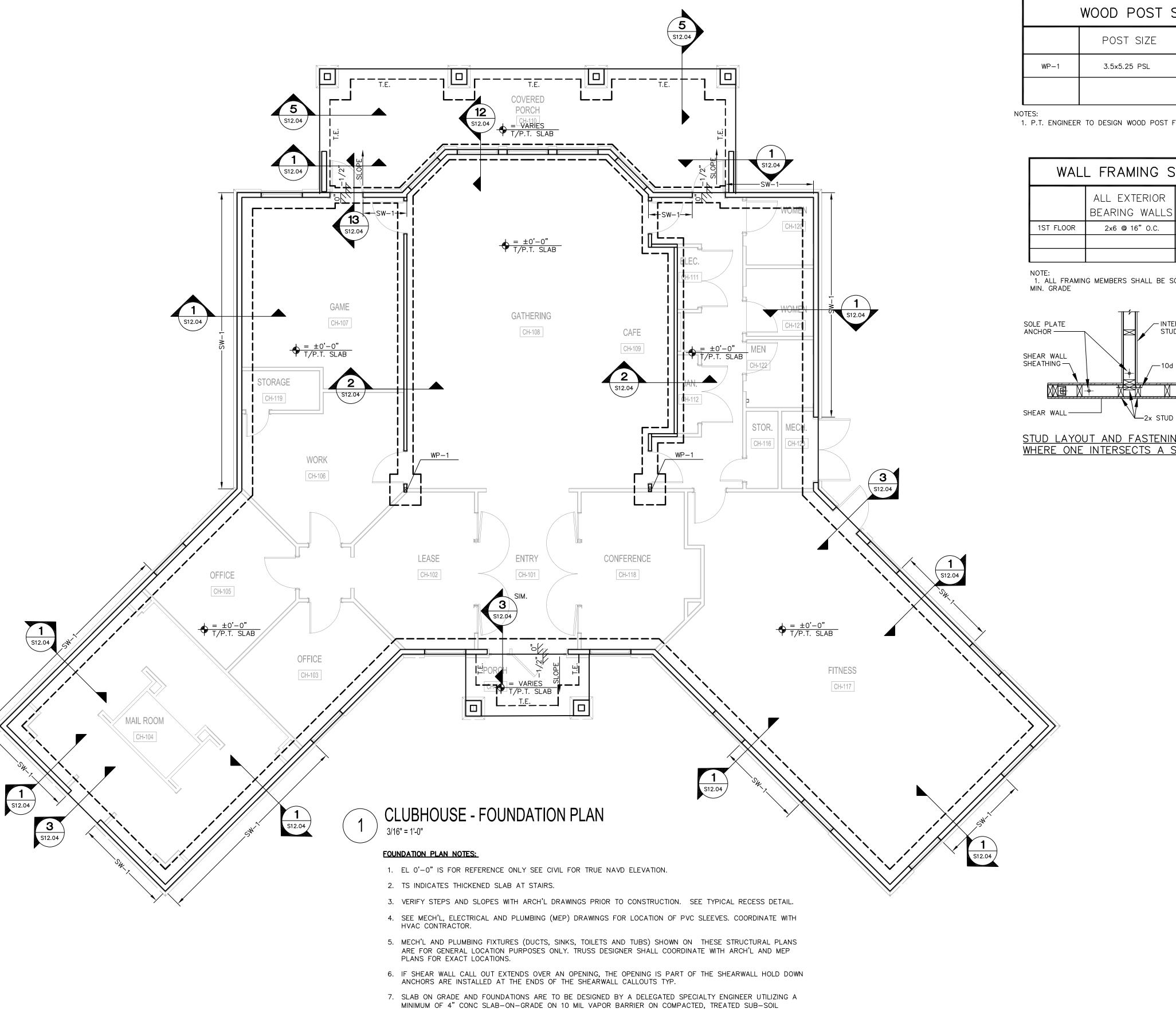
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JGUTHERMAN |

06/22/2018

oroval: JGUTHERMAN



(TYPICAL). EXTERIOR FOUNDATION EDGES SHALL BE MINIMUM 12" WIDE, AND CHAMPHORED BACK TO SLAB WITH

A 45' SLOPE. EXTERIOR EDGES SHALL EXTEND A MINIMUM OF 18" BELOW TOP OF GRADE. ALL INTERIOR

8. UPLIFT FOOTING (NOT SHOWN FOR CLARITY) SHALL BE PROVIDED BELOW EACH END OF SHEAR WALLS PER THE

SHEAR WALL SCHEDULE. THESE FOOTINGS ARE INDEPENDENT OF THE POST TENSIONS SYSTEM, AND ALL UPLIFT ANCHORS SHALL EXTEND THROUGH THE P.T. SLAB AND ATTACH TO THESE UPLIFT RESISTING FOUNDATIONS.

INTERIOR

EDGE NAILING

5/8" TYPE "X" GYPSUM 6d COOLER OR 6d COOLER OR SHEATHING BOARD WALLBOARD NAIL @ 4" O.C. WALLBOARD NAIL @ 7" O.C.

BASE CONNECTION AT B.O. SHEAR WALL

BOTTOM SILL PLATE ATTACHMENT

5/8"ø ANCHOR BOLTS 5" EMBED AT 24" O.C.

PSL AT WALL ENDS

(3)2X6 MIN.

CONNECTOR AT END OF WALL AND TO TOP PLATE

HDU4

FIELD NAILING

THICKENED SLABS BELOW WALLS SHALL BE A MINIMUM OF 12" THICK TYP.

SHEATHING MATERIAL

9. SLOPE PORCH SLAB PER ARCH'L DRAWINGS.

FIELD NAILING

10d AT 12" O.C.

**EXTERIOR** 

EDGE NAILING

10d AT 6" O.C.

SHEATHING MATERIAL

5/8" PLYWOOD

LOCATION

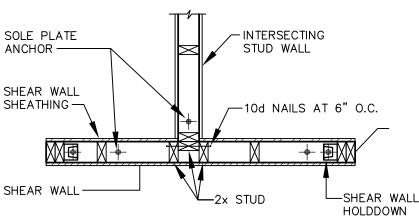
EXTERIOR SW

WOOD POST SCHEDULE POST BASE/CAP ABU46 WITH 5/8"Ø ANCHOR TO CONCRETE/CC CAP

1. P.T. ENGINEER TO DESIGN WOOD POST FOOTING FOR A NET UPLIFT = 2.8 KIPS.

WALL FRAMING SCHEDULE											
ALL EXTERIOR ALL INTERIOR BEARING WALLS BEARING WALL											
1ST FLOOR	2x6 @ 16" O.C.	2x4 @ 16" O.C.									

1. ALL FRAMING MEMBERS SHALL BE SOUTHERN YELLOW PINE #2 MIN. GRADE



STUD LAYOUT AND FASTENING AT LOCATION WHERE ONE INTERSECTS A SHEAR WALL



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**ISSUE HISTORY** 

**REVISION HISTORY** 

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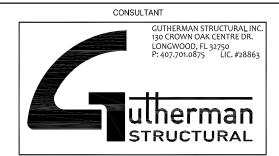
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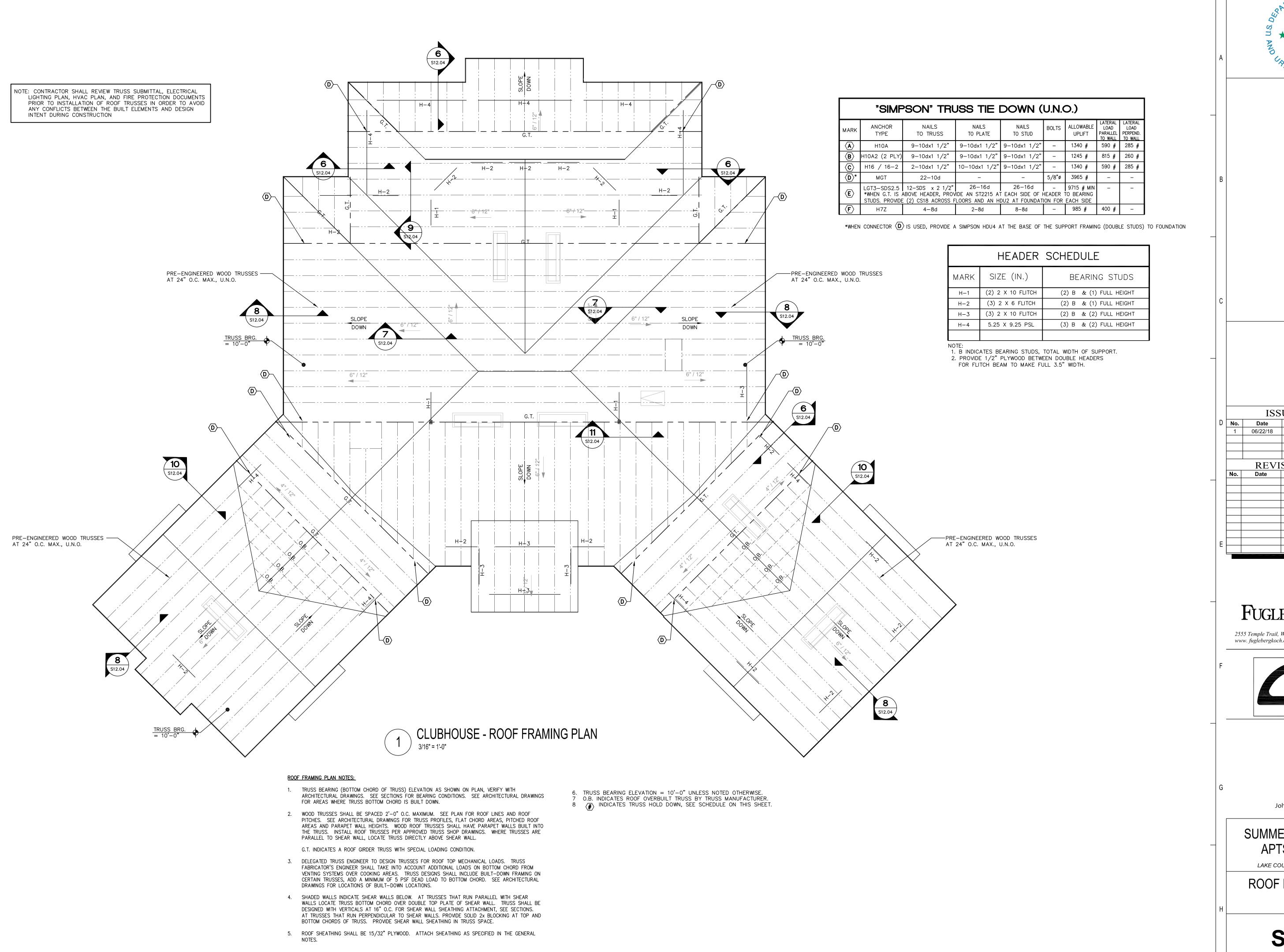
SUMMER BAY

ecked: JGUTHERMAN <sup>proval:</sup> JGUTHERMAN 06/22/2018 LAKE COUNTY, FL

FOUNDATION PLAN

**S12.01** 

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> CONSULTANT JUTHERMAN STRUCTURAL IN 30 CROWN OAK CENTRE DR.

> > John Gutherman Jr., P.E. FL. REG. #60880

SUMMER BAY

LAKE COUNTY, FL

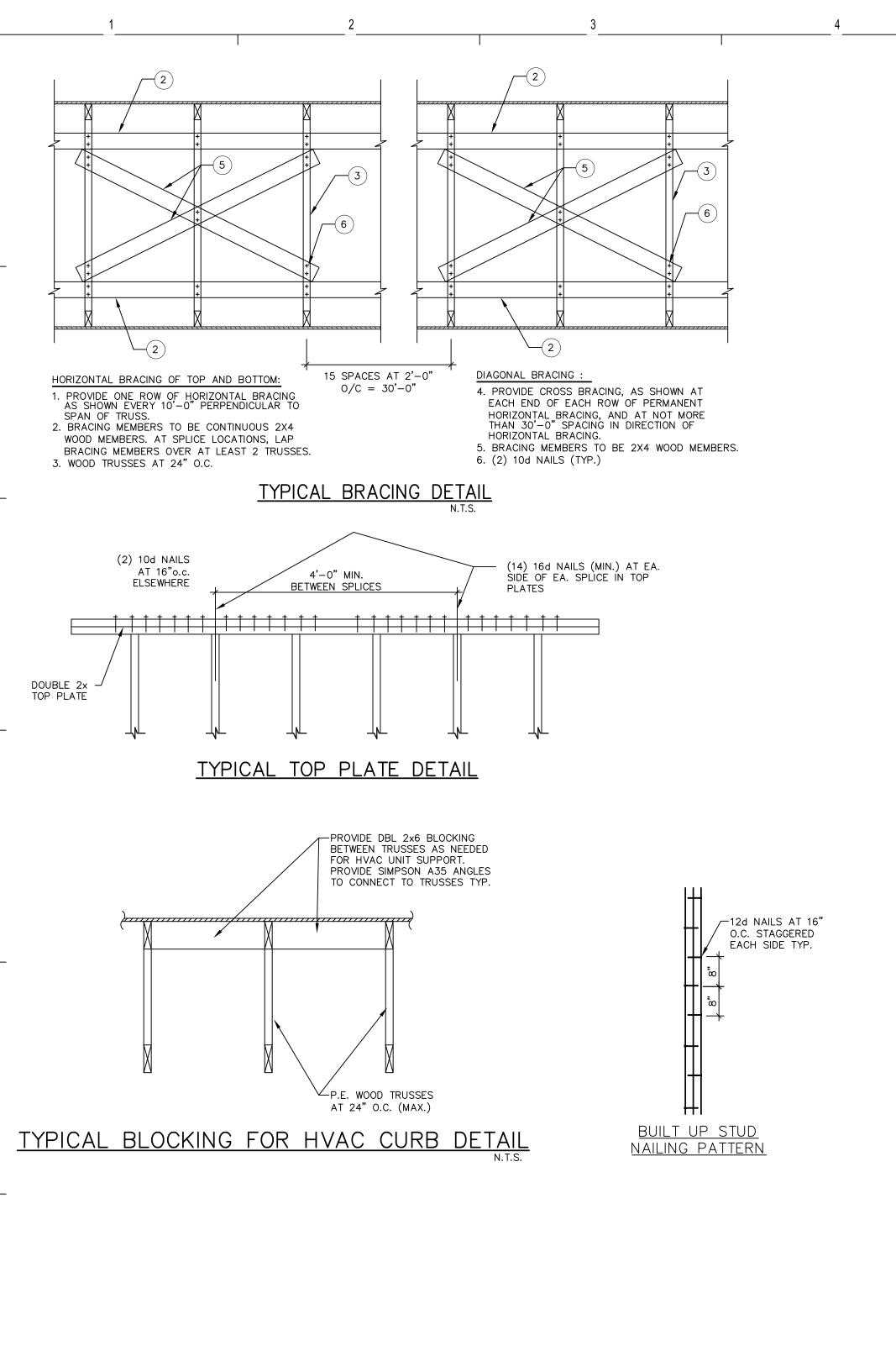
ROOF FRAMING PLAN

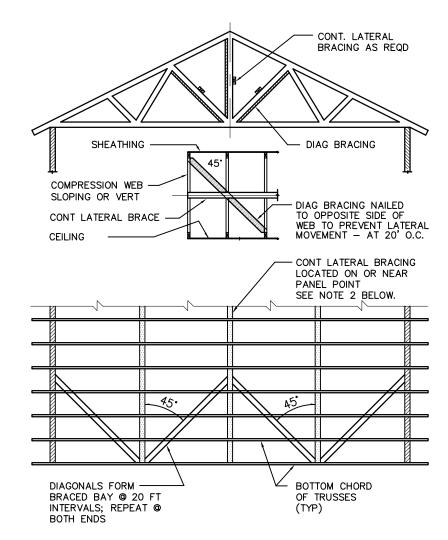
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ecked: JGUTHERMAN

06/22/2018

Approval: JGUTHERMAN





LOWER CAPACITY -

SHEAR WALL

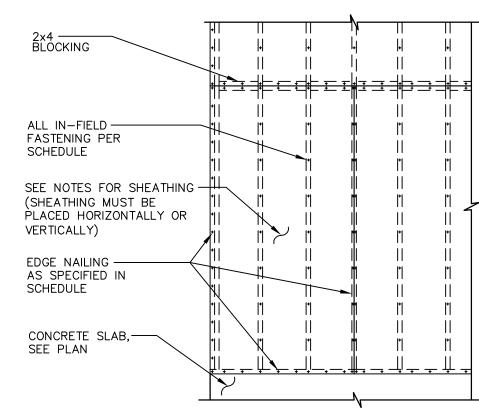
SHEAR WALL

PANEL

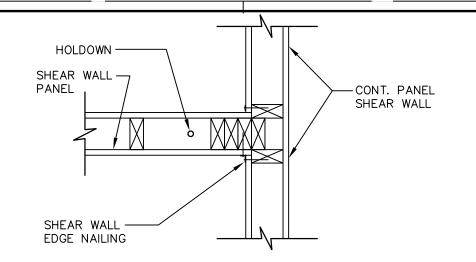
N.T.S.

- 1. WOOD TRUSSES SHALL BE BRACED AND ERECTED IN ACCORDANCE WITH THE "TRUSS PLATE INSTITUTE" BRACING WOOD TRUSSES: COMMENTARY AND RECOMMENDATIONS. HIB-91, BRACING IN THE PLAN OF THE WEB MEMBERS :
- a. THE TRUSS FABRICATOR SHALL PROVIDE AND LOCATE CONTINUOUS LATERAL BRACING FOR EACH TRUSS WEB MEMBER AS REQUIRED.
- b. LATERAL BRACING SHALL BE RESTRAINED BY DIAGONAL BRACING (MIN. 2" THICK NOMINAL LUMBER). THIS BRACING IS TO BE CONTINUOUS.
- c. A MINIMUM OF TWO ROWS OF DIAGONAL BRACING IS REQUIRED, ONE AT EACH VERTICAL WEB MEMBER CLOSEST TO BEARING LOCATIONS.
- 2. THE BOTTOM CHORDS SHALL BE BRACED BY CONTINUOUS LATERAL BRACING SPACED AT 8'-0" O. C. WITH A CEILING ATTACHED TO BOTTOM OF TRUSSES. OR IF NO CEILING IS ATTACHED TO BOTTOM OF TRUSSES BRACING SHALL BE MIN. 2 x 4 @ 36" O.C. NAILED TO THE TOP OF THE BOTTOM CHORD. DIAGONALS PLACED AT 45° TO THE LATERAL BRACES SHALL BE LOCATED AT EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20 FOOT INTERVALS.
- 3. TOP CHORD BRACING:
- a. IF PLYWOOD DECKING IS APPLIED DIRECTLY TO TOP CHORD, PROPERLY LAPPED AND NAILED TO DEVELOP DIAPRAGHM ACTION, BRACING IS NOT REQUIRED.
- b. IF PURLINS ARE USED, DIAGONAL TOP CHORD BRACING IS REQUIRED AT EACH END. IF BUILDING EXCEEDS 80 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20 FOOT INTERVALS.

# WOOD TRUSS BRACING DETAIL

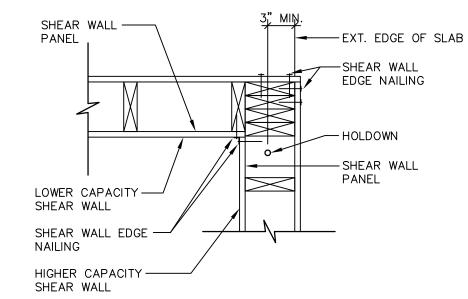


SHEATHING ATTACHMENT SCHEDULE



# INTERSECTING SHEAR WALLS

ADDITIONAL STUDS MAY BE REQUIRED AT END. SEE TYPICAL SHEAR WALL HOLDOWN DETAILS.



# SHEAR WALLS @ INSIDE CORNER

- 1. ONE HOLDOWN MAY BE DESIGNED FOR BOTH SHEAR WALLS SHOWN. SEE BRACING PLAN.
- 2. ADDITIONAL STUDS MAY BE REQUIRED AT THE CORNER. SEE TYPICAL SHEAR WALL HOLDOWN ELEVATIONS.

----- EXT. EDGE OF SLAB

EDGE NAILING

- HOLDOWN

SHEAR WALLS @ OUTSIDE CORNER

1. ONE HOLDOWN MAY BE DESIGNED FOR BOTH SHEAR WALLS

CONTRACTOR SHALL PROVIDE A CONTINUOUS ROD TIE

ROOF TRUSS BEARING WALLS FOR CONTINUOUS ROOF

ALL PRODUCTS MUST BE SIGNED AND SEALED BY THE

SPECIALTY DESIGN PROFESSIONAL, BEING ABLE TO MEET

OR EXCEED THE SCHEDULED UPLIFT LOADS SPECIFIED IN

DOWN SYSTEM USING CLP ROD SYSTEMS, SIMPSON RTUD

TAKE UP DEVICES, OR OTHER SIMILAR PRODUCTS. THESE

SHALL BE USED AT ENDS OF SHEAR WALLS, AND FOR ALL

2. ADDITIONAL STUDS MAY BE REQUIRED AT THE CORNER.

SEE TYPICAL SHEAR WALL HOLDOWN ELEVATIONS.

CONTINUOUS TIE DOWN ROD SYSTEMS:

UPLIFT HOLD DOWN CONNECTIONS.

THE SHEAR WALL SCHEDULE.

SHOWN. SEE BRACING PLAN.

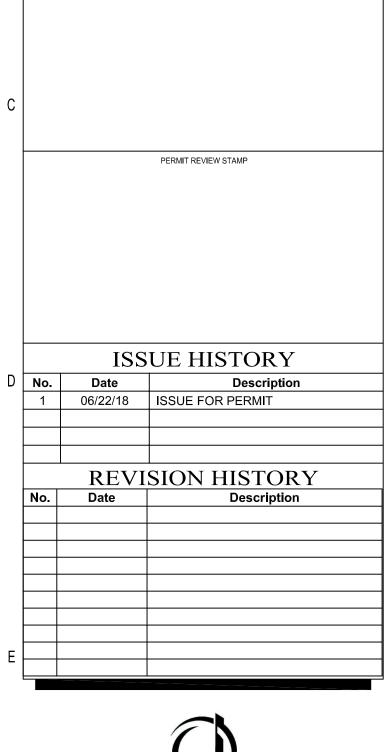
- HIGHER CAPACITY

SHEAR WALL

- . SEE BRACING PLAN FOR TYPE & LOCATION OF SHEAR WALL; SEE SHEAR WALL SCHEDULE FOR NAILING REQUIREMENTS. . SEE BRACING PLAN & TYPICAL SHEAR WALL HOLDOWN ELEVATION FOR END CONNECTION AND FRAMING REQUIRED AT EACH FLOOR.
- 3. NAIL ALL STUDS AT INTERSECTIONS TOGETHER W/ .148"ø imes 3" NAILS @ 4" o.c. (STAGGER WHEN POSSIBLE). 4. SHEAR WALL EDGE NAILING TO BE STAGGERED WHEN POSSIBLE







DELETE IF NON-HUD PROJECT / OR CLIENT LOGO HERE



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 (407) 629-0595

 www. fuglebergkoch.com
 AA26002103



John Gutherman Jr., P.E. FL. REG. #60880

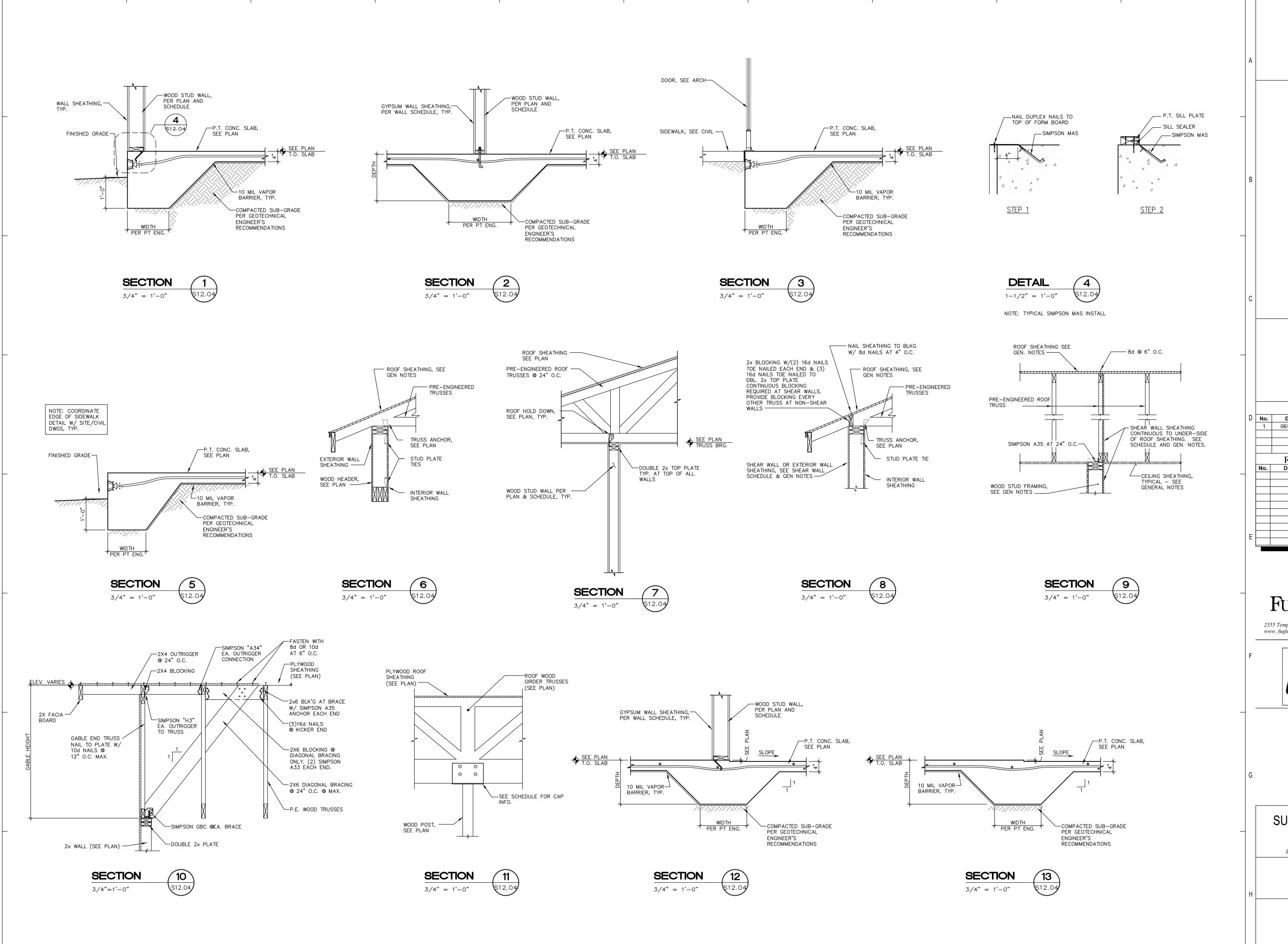
SUMMER BAY APTS. II

JGUTHERMAN oroval: JGUTHERMAN 06/22/2018 LAKE COUNTY, FL

TYPICAL DETAILS

**S12.03** 

PLOTTED: 6/23/2017 12:38:28 PM





ISSUE HISTORY Date 06/22/18 ISSUE FOR PERMIT **REVISION HISTORY** Date Description

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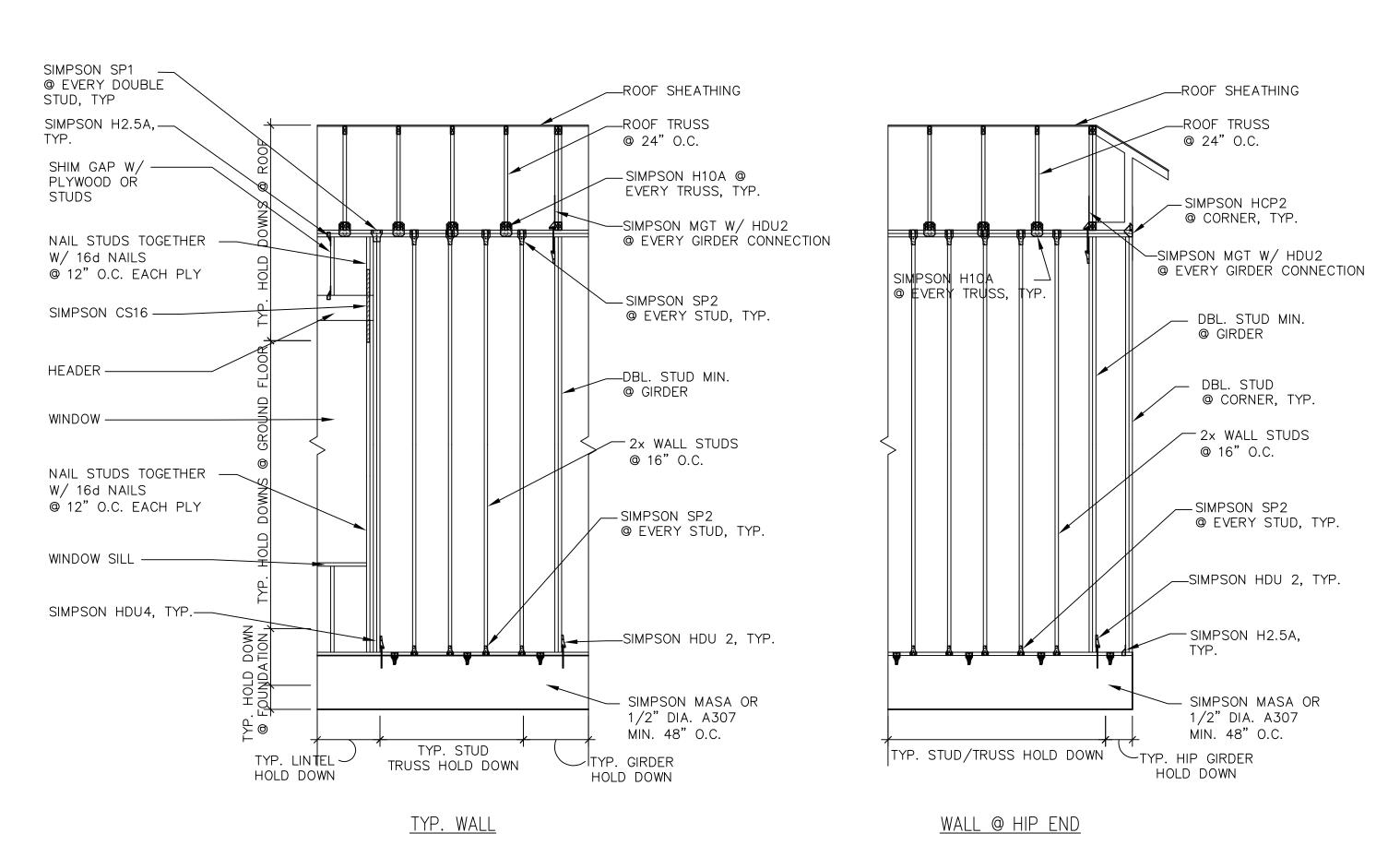
John Gutherman Jr., P.E. FL. REG. #60880

SUMMER BAY APTS. II

<sup>cked:</sup> JGUTHERMAN <sup>Approval:</sup> JGUTHERMAN 06/22/2018 LAKE COUNTY, FL

STRUCTURAL SECTIONS

**S12.04** 



1) Typ. 1 Story Brg. Stud Wall Hold Down (Exterior Side View)
1/8"=1'-0"

WALL DETAILS SHOWN FOR STRAPPING OF BUILDING WITHOUT CLP OR SIMILAR CONT. ROD TIE DOWN SYSTEM ONLY. IF CONTINUOUS ROD TIE DOWN SYSTEM IS USED, THESE DETAILS CAN BE IGNORED

A	THENT OK HOUSING LAND URBAN DEVELOR
В	
С	PERMIT REVIEW STAMP
D	ISSUE HISTORY  No. Date Description  1 06/22/18 ISSUE FOR PERMIT  REVISION HISTORY  No. Date Description
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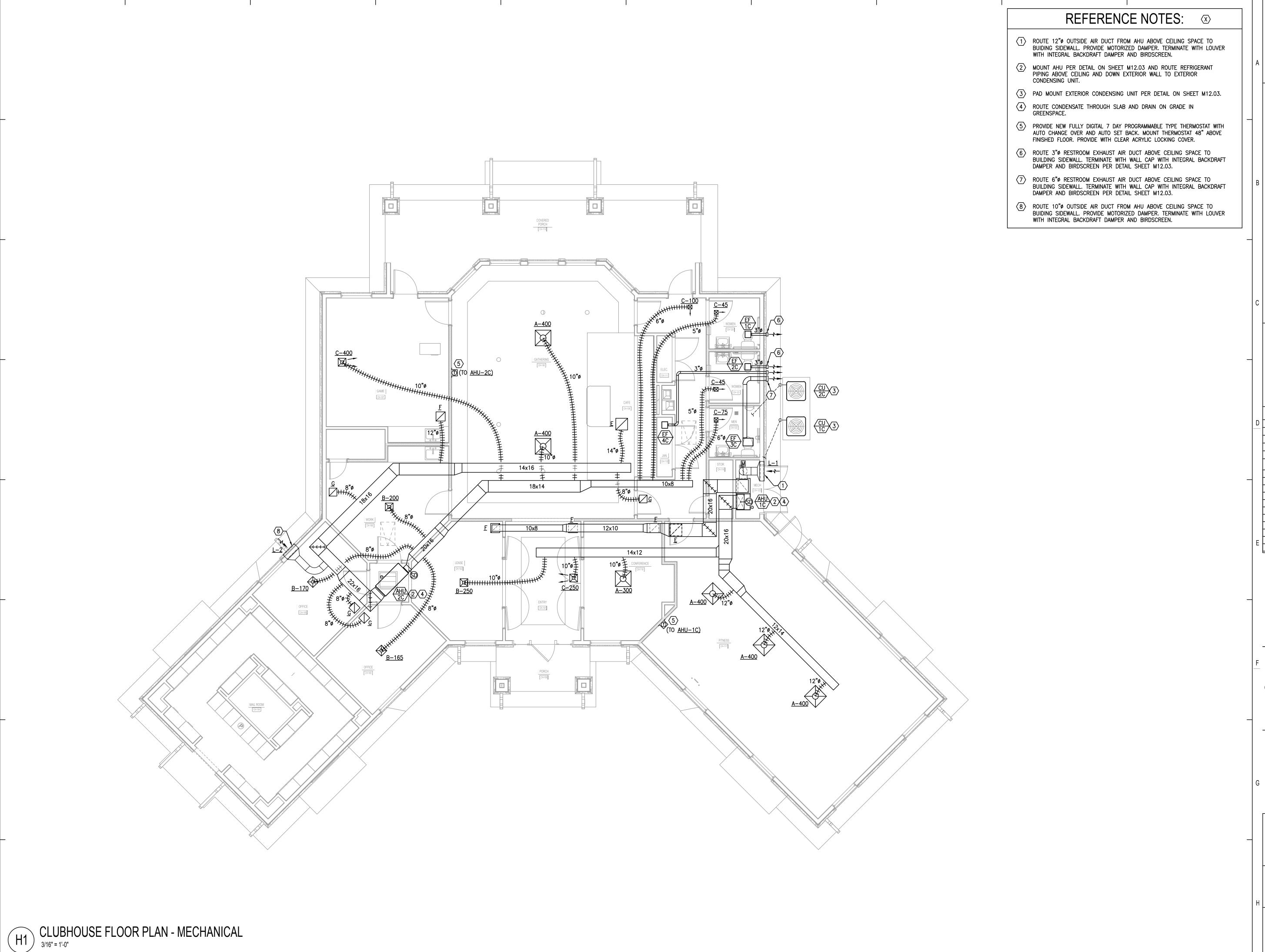
LAKE COUNTY, FL

Checked: JGUTHERMAN
Approval: JGUTHERMAN
Date: 06/22/2018
Project #: 5389

STRUCTURAL DETAILS

**S12.05** 

	1		TIONS	3		<u> </u>	1 FOFN	ID.	9 10 	
		ABBREVIA	TIONS		GENERAL NOTES		LEGEN	טא		
						SHHAHA	SUPPLY DIFFUSER. (4-WAY)	$\langle X \rangle$	REFERENCE NOTES	
A	ABV ADJ	ABOVE ADJUSTABLE	SA	SUPPLY AIR SUPPLY FAN	INSTALL EQUIPMENT AND MATERIALS IN COMPLIANCE WITH MANUFACTURER'S MINIMUM CLEARANCE REQUIREMENTS AND RECOMMENDATIONS.	\$ <del>\\\\</del>	RETURN OR OUTDOOR AIR GRILLE	♦	REFERENCE NOTE - MULTI-DISCIPLINE SHEETS	
	AF AFF	AIRFOIL ABOVE FINISHED FLOOR	SDT SD	SMOKE DETECTOR SUPPLY DIFFUSER	2. COMPLY WITH THE LATEST EDITIONS OF NFPA AND THE LATEST ADOPTED EDITION FLORIDA BUILDING CODE (MECHANICAL, PLUMBING AND GAS).	<u> </u>	EXHAUST GRILLE	<b>-</b> √-	FLOW DIRECTION	i de la companya de l
	AC ACU	AIR CONDITIONING UNIT	SDMP SQ.FT.	SMOKE DAMPER SQUARE FOOT	3. ALL MATERIALS SHALL FIT THE SPACE AVAILABLE. VERIFY DIMENSIONS AND CLEARANCES	, <u> </u>		•	INDICATES POINT OF CONNECTION BETWEEN NEW AND EXISTING.	prohibited by
	AHU AP	AIR HANDLING UNIT ACCESS PANEL	SR STR	SUPPLY REGISTER STARTER	ON BUILDING PLANS PRIOR TO COMMENCING WORK.  4. CONTRACTOR IS RESPONSIBLE FOR TESTING AND BALANCING OF AIR SYSTEMS IN		SUPPLY DUCT UP SECTION (RECTANGULAR)	$lue{egin{array}{c}}$	POINT OF DISCONNECT	d, PLC is 1
	BAS BI	BUILDING AUTOMATION SYSTEM BACKWARD INCLINE	SWSI SZ	SINGLE WIDTH, SINGLE INLET SINGLE ZONE	ACCORDANCE WITH AABC GUIDELINES. A TEST AND BALANCE REPORT SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.		RETURN DUCT UP SECTION (RECTANGULAR)	cws	CONDENSER WATER SUPPLY PIPING.	— Indisperiging Kor
	BLDG BHP	BUILDING BRAKE HORSEPOWER	TEFC TEMP	TOTALLY ENCLOSED FAN COOLED TEMPERATURE	5. PROVIDE 45 DEGREE BRANCH TAKE-OFF PER SMACNA FIG. 2-8 ON ALL RECTANGULAR DUCT TAKE-OFFS.	<u>'</u>	EVILABLET PUET UP CECTION (PECTANGUI AP)	CWR	CONDENSER WATER RETURN PIPING.	consent of F
	BTUH CD	BRITISH THERMAL UNIT PER HOUR CONDENSATE DRAIN	TG T/0	TRANSFER GRILLE TRANSFER OPENING ABOVE CEILING	6. PROVIDE AND INSTALL DUCT MOUNTED HINGED ACCESS DOORS FOR ALL SMOKE AND/OR FIRE DAMPERS, NOT OTHERWISE ACCESSIBLE.	<u> </u>	EXHAUST DUCT UP SECTION (RECTANGULAR)	BCWS	BUILDING CONDENSER WATER SUPPLY PIPING.	sed written c
В	CFM CLG	CUBIC FEET PER MINUTE CEILING	T'STAT TYP	THERMOSTAT TYPICAL	7. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING AND SHALL COORDINATE WITH		SUPPLY DUCT DOWN SECTION (RECTANGULAR)	BCWR	BUILDING CONDENSER WATER RETURN PIPING.	B In the expres
	CW CWR	CHILLED WATER CHILLED WATER RETURN	VFDC	VARIABLE FREQUENCY DRIVE CONTROLLER	ALL OTHER TRADES PRIOR TO OR INSTALLING EQUIPMENT AND MATERIALS.  8. COORDINATE ALL HVAC SYSTEM DRAWINGS WITH EXISTING/NEW TRUSS TO AVOID		RETURN DUCT DOWN SECTION (RECTANGULAR)	CHWS	CHILLED WATER SUPPLY PIPING.	ments witho
	CWS CONC	CHILLED WATER SUPPLY CONCRETE	VAV VS	VARIABLE AIR VOLUME VARIABLE SPEED	INTERFERENCE BETWEEN MECHANICAL SYSTEMS AND ROOF STRUCTURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH TRUSS INTERFERENCE THAT OCCURS IN THE FIELD DURING CONSTRUCTION. COORDINATE IN ADVANCE. DUCT SIZES	, 	EXHAUST DUCT DOWN SECTION (RECTANGULAR)	CHWR	CHILLED WATER RETURN PIPING.	of these door
	COND CONT	CONDENSATE CONTINUOUS	w w/	WATTS WITH	MAY BE REVISED TO FIT TRUSS SYSTEM SO LONG AS THE EQUIVALENT INSIDE CROSS SECTIONAL AREA IS NOT DECREASED.	<del> </del>	ENTINOSI DOOL DOWN SECTION (NEOWNOODIN)	HWS	HEATING WATER SUPPLY PIPING.	— Codifications
	CO COP	CARBON MONOXIDE COEFFICIENT OF PERFORMANCE	W/O WB	WITHOUT WETBULB	9. GAUGES AND CONSTRUCTION FOR DUCTWORK SHALL CONFORM TO THE LATEST EDITION OF SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS,		SUPPLY DUCT UP SECTION (ROUND).			Wisions, or m
	CU DB	CONDENSING UNIT DRYBULB	ZD	ZONE DAMPER	10. TRANSITION RECTANGULAR DUCTWORK ON BOTTOM AND SIDES. MAINTAIN TOP OF DUCTWORK LEVEL AND HIGH AS POSSIBLE. FLEXIBLE DUCT RUN-OUTS TO CEILING	7	SUPPLY DUCT DOWN SECTION (ROUND).		HEATING WATER RETURN PIPING.	oductions, re
	DWDI DWGS	DOUBLE WIDTH, DOUBLE INLET DRAWINGS			DIFFUSERS SHALL BE AS STRAIGHT AS POSSIBLE AND FREE OF SAGS & KINKS. FLEX DUCT SHALL BE THE SAME SIZE AS THE DIFFUSER NECK IT SERVES.		LINEAD CLOT DIFFLICED	—— CD ——	CONDENSATE DRAIN PIPING.	gs. Any repr
С	DX EF	DIRECT EXPANSION EXHAUST FAN			11. ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS. SPIN-IN FITTINGS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.		LINEAR SLOT DIFFUSER	—— к —— ∏ FS	REFRIGERANT PIPING	C   less drawin
	EXH EA	EXHAUST EACH ENTERING AIR TEMPERATURE			12. THE CONTRACTOR SHALL FULFILL ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS AND SHALL COMPLETE THE WORK SHOWN ON THESE DRAWINGS. ALL SYSTEMS SHALL	++++++\x_	EXISTING LINEAR SLOT DIFFUSER (LIGHT LINETYPE)  RECTANGULAR DUCTWORK WITH TAKE—OFF, BALANCING	<u> </u>	FLOW SENSOR.	PERMIT REVIEW STAMP
	EER ELECT	ENERGY EFFICIENCY RATIO  ELECTRICAL			BE FINISHED, TESTED AND BALANCED, ADJUSTED, AND PROVEN TO BE FULLY OPERATIONAL AND USEABLE.	A/B	DAMPER AND INSULATED FLEXIBLE ROUND DUCT. SAME SIZE AS DIFFUSER INLET UNLESS NOTED OTHERWISE. FIRST DIMENSION IS THAT OF SIDE SHOWN.	SP	STATIC PRESSURE TRANSMITTER ASSEMBLY.	specific proj
_	ENT	ENTERING EQUAL			13. ADJUST ALL DIFFUSERS IN CORRIDORS OR WITHIN THREE (3) FEET OF A WALL TO PROVIDE 2-WAY OR 3-WAY BLOW AWAY FROM OR PARALLEL TO WALLS. ALL	AØ	ROUND DUCTWORK.	<u> </u>		— and for the
	ER FWT	EXHAUST REGISTER ENTERING WATER TEMPERATURE			DIFFUSERS SHALL HAVE 4-WAY BLOW UNLESS NOTED OTHERWISE.  14. PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS		CONICAL FITTING WITH DAMPER ON BRANCH CONNECTION TO RECTANGULAR MAIN (PROVIDE DAMPER IN LOW PRESSURE DUCTWORK ONLY).	L=1/4W, MIN. 4" W	RECTANGULAR BRANCH DUCT CONNECTION. (PROVIDE BALANCING DAMPER AT ALL BRANCH CONNECTIONS)	nd are issued
	FC FCU	FORWARD CURVED FAN COIL UNIT			SHALL BE PAINTED FLAT BLACK.  15. ALL DAMPERS IN AND ABOVE CEILING SHALL BE ACCESSIBLE. CONTRACTOR SHALL		EXISTING DUCTWORK TO REMAIN (LIGHT LINETYPE)		BIVANCIT CONNECTIONS)	26002103. a
D	FD FL	FIRE DAMPER FLOOR			COORDINATE ALL ACCESS PANELS IN CEILINGS OR WALLS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND INTERIOR DRAWINGS FOR PROPER LOCATION.	<u> </u>	,	<del>-</del> - <del>- •</del>	– TEE (PLAN, UP, DOWN).	ISSUE HISTORY  D No. Date Description
	FLEX FPM	FLEXIBLE CONNECTOR OR DUCT FEET PER MINUTE			16. MOUNT THERMOSTATS WHERE INDICATED ON PLANS 48" A.F.F. UNLESS NOTED OTHERWISE. IN HANDICAPPED ACCESSIBLE AREAS, MOUNT CONTROLS AT 48" ABOVE FINISHED FLOOR.	₽ R ₽	DUCT OFFSETS UP (RISE) IN DIRECTION INDICATED.	_ ~ ~	ELBOW (PLAN, UP, DOWN).	1 06/22/2018 ISSUE FOR PERMIT
	F/S FT. H₂0	COMBINATION FIRE AND SMOKE DAMPER FEET WATER GAUGE			17. COORDINATE DUCTWORK AND PIPING WITH PLUMBING, FIRE PROTECTION AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ANY	D_	DUCT OFFSETS DOWN (DROP) IN DIRECTION INDICATED.	$\longrightarrow\!$	VALVE.	uy of FUGLE
	r GA GAL	DEGREES FAHRENHEIT GAUGE GALLON			ADDITIONAL EXPENSE TO THE CONTRACT.  18. SEAL ALL TRANSVERSE JOINTS AND FITTINGS WITH DUCT SEALER.		OPPOSED BLADE VOLUME DAMPER (OBD).	— <del>—</del> ——————————————————————————————————	TWO WAY MOTORIZED CONTROL VALVE.	No. Date Description
	GALV GPM	GALVANIZED GALLONS PER MINUTE			19. TRAP AND ROUTE CONDENSATE DRAINS LINES, FULL SIZE OF UNIT CONNECTION, AS INDICATED. SLOPE 1/8" PER FOOT.		MANUAL DAMPER	— <del>—</del>	THREE WAY MOTORIZED CONTROL VALVE.	their contents
	HP HTWR	HORSEPOWER HIGH TEMPERATURE HOT WATER RETURN			20. ALTERNATE MANUFACTURERS AND MODELS WILL BE REVIEWED. THERE MAY BE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL CHANGES RESULTING FROM THE		FLEXIBLE DUCT CONNECTION.		PRESSURE REDUCING VALVE.	uments and i
	HTWS HW	HIGH TEMPERATURE HOT WATER SUPPLY HOT WATER			ALTERNATES. THE COST OF IMPLEMENTING AND ENGINEERING THESE CHANGES SHALL BE BORNE BY THE MECHANICAL SUBCONTRACTOR.	 			FLOW CONTROL VALVE.	These doc
E	HWR HWS	HOT WATER RETURN HOT WATER SUPPLY			21. PIPE AND DUCT ROUTING SHOWN IS SCHEMATIC. PROVIDE ANY ADDITIONAL OFFSETS AND FITTINGS, INCLUDING DIVIDED DUCTS, REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES AS ENCOUNTERED IN THE FIELD.		FIRE DAMPER WITH ACCESS PANEL.	<u>—</u> Б—	BALL VALVE FOR PIPING 2—INCHES AND SMALLER, BUTTERFLY VALVE FOR PIPING 2—1/2 INCHES AND	E CONTRACTOR OF THE PROPERTY O
	HVAC HV IN.WG	HEATING VENTILATING AND AIR CONDITIONING HEATING AND VENTILATING INCHES WATER GAGE			22. COORDINATE CEILING MOUNTED AIR DEVICE LOCATION WITH REFLECTED CEILING PLAN AND OTHER TRADES.		COMBINATION FIRE/SMOKE DAMPER WITH ACCESS PANEL.	——  <i>y</i> / ——	LARGER. BUTTERFLY VALVE.	
	KW LAT	KILOWATTS LEAVING AIR TEMPERATURE			23. ALL CONTROL WIRING AND CONDUIT SHALL COMPLY WITH NEC DIVISION 16 SPECIFICATIONS.	<u> </u>	EXISTING DUCTWORK TO BE REMOVED (DASHED LINETYPE)		CHECK VALVE.	
	LD LWT	LINEAR DIFFUSER LEAVING WATER TEMPERATURE			24. PROVIDE MATERIALS WHICH HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS WHEN TESTED IN ACCORD WITH ASTM E84.		DUCT MOUNTED SMOKE DETECTOR PROVIDED AND WIRED BY ELECTRICAL CONTRACTOR AND INSTALLED IN DUCT BY MECHANICAL CONTRACTOR. REFER TO SPECIFICATIONS FOR		STRAINER.	FUGLEBERG KOCH
	MAX MBH	MAXIMUM 1000 X BTUH			25. SLEEVE AND FIRE STOP PENETRATIONS THROUGH FIRE RATED SYSTEMS TO MAINTAIN		CONTROL REQUIREMENTS.	<b>→</b>	BALANCE VALVE WITH INTEGRAL TAPS FOR CONNECTION OF DIFFERENTIAL PRESSURE METER. VALVE SHALL	2555 Temple Trail, Winter Park, FL 32789 (407) 629-0595
	MIN MVD	MINIMUM MANUAL VOLUME DAMPER			RATING OF SYSTEM. USE MINIMUM GALVANIZED STEEL GAUGE DUCT AS REQUIRED TO MAINTAIN RATING OF SYSTEM.  26. THE TABC SHALL BE EMPLOYED DIRECTLY BY THE GENERAL CONTRACTOR WHO SHALL	<u>A−100</u>	AIR DEVICE TAG MARK—CFM		HAVE NAMEPLATE INDICATING WATER FLOW RATE VERSUS VALVE PRESSURE DROP.	www. fuglebergkoch.com  CONSULTANT  2555 Temple Trail, Winter Park, FL 32/89 (40/) 629-0595  BR569  CONSULTANT
F	MZ N.T.S.	MULTI-ZONE NOT TO SCALE			BE SOLELY RESPONSIBLE FOR ITS PERFORMANCE AND THE TIMELY SCHEDULE OF ITS OPERATION.	Ц	SIDEWALL TRANSFER GRILLE		AUTOMATIC FLOW CONTROL VALVE WITH INTEGRAL TEMPERATURE AND PRESSURE TEST PORTS.	F • • • • • • • • • • • • • • • • • • •
	OA OBMVD	OUTSIDE AIR OPPOSED BLADE MANUAL VOLUME DAMPER			27. WHERE THE EXHAUST DUCT IS CONCEALED WITHIN THE BUILDING CONSTRUCTION, THE EQUIVALENT LENGTH OF THE DUCT SHALL BE IDENTIFIED ON A PERMENANT LABEL OR TAG. THE LABEL OR TAG SHALL BE LOCATED WITHIN 6 FEET OF THE EXHAUST DUCT		SIDEWALL SUPPLY REGISTER	————	UNION.	Joseph, Lawrence & Co  Consulting Engineers
	OPD PROP	OPEN DRIP PROOF PROPELLER			CONNECTION.		SIDEWALL RETURN GRILLE OR OUTSIDE AIR LOUVER		VENTURI FLOW METER.	1180 HARWOOD AVE. SUITE 3000 ALTAMONTE SPRINGS, FLORIDA 32714
_	PCR	PRE—CONDITIONED AIR SYSTEM RETURN WATER				LŊ	SIDEWALL RETORN GRILLE OR OUTSIDE AIR LOOVER	<u> </u>	PRESSURE AND/OR TEMPERATURE PORT	TEL: 321.972.4466 WWW.JLCENG.COM CA NO. 28730
	PCS PD	PERCENT PRESSURE DROP					SIDEWALL EXHAUST GRILLE		THERMOMETER.	JLC 17.0137.00
	PERF. PL. PLBG	PERFORATED PLATE PLUMBING				ET	WALL MOUNTED DDC TEMPERATURE SENSOR MOUNT 48" ABOVE FINISHED FLOOR.		PRESSURE GAUGE WITH GAUGE COCK.	
	PSIA PSIG	POUNDS PER SQUARE INCH ABSOLUTE POUNDS PER SQUARE INCH				T	WALL MOUNTED THERMOSTAT MOUNT 48" ABOVE FINISHED FLOOR.	T		
<u>ن</u> ا	RA	GAUGE RETURN AIR				<u>-</u>	WALL MOUNTED CO SENSOR		FLEXIBLE CONNECTION.	G
	RD REG	RADIATION DAMPER REGISTER				•	MOUNT 48" ABOVE FINISHED FLOOR.  WALL MOUNTED DDC HUMIDITY SENSOR		PRESSURE RELIEF VALVE.	Adam Joseph Barney P.E. #:69124
	REQ'D RG	REQUIRED RETURN AIR GRILLE				(H)	MOUNT 48" ABOVE FINISHED FLOOR.	M	MOTORIZED ACTUATOR	SUMMER BAY    Drawn:   MJR/KCM   Checked: BLS/AJB
	RH RPM	RELATIVE HUMIDITY REVOLUTIONS PER MINUTE				⊕ <sup>s</sup>	WALL MOUNTED HUMIDISTAT SENSOR MOUNT 48" ABOVE FINISHED FLOOR.		OPENING IN WALL ABOVE CEILING.	APTS. II  Approval: BLS/AJB  Date: 06/22/2018
	rr Rtu	RETURN AIR REGISTER ROOFTOP UNIT				AB	PHOTO DETAIL OR SECTION IDENTIFICATION TARGET  A = DETAIL NUMBER.  B = SHEET NUMBER ON WHICH DETAIL IS LOCATED.	EQUIPMENT TYPE	Т	LAKE COUNTY, FL Project #: 5389
							B = SHEET NUMBER ON WHICH DETAIL IS LOCATED.  RADIATION DAMPER INSTALLED	TYPE MARK		SYMBOL LEGEND -
Н						SHAND RD	IN AIR DEVICE  RADIATION DAMPER INSTALLED	<b>▼</b> UC	1" DOOR UNDER CUT. ARROW INDICATES DIRECTION OF FLOW	MECHANICAL H
					NOTE:	₹ RD	IN DUCT.		NOTE:	
					GENERAL NOTES ON THIS MECHANICAL SHEET ARE FOR GENERAL REFERENCE PURPOSES ONLY. ALL OF THESE NOTES MAY NOT BE USED FOR THIS PROJECT.		ELBOW WITH TURNING VANES		SYMBOLS SHOWN ON THIS MECHANICAL LEGEND ARE REFERENCE PURPOSES ONLY. ALL OF THESE SYMBOMAY NOT BE USED FOR THIS PROJECT.	
					NOIES MAI NOI DE USED FUR IMIS PROJECT.			1	INIAI INOI DE USEU FUR INIS PRUJEUI.	



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CONSULTAN

Joseph, Lawrence & Co
Consulting Engineers

1180 HARWOOD AVE. SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
TEL: 321.972.4466
WWW.JLCENG.COM
CA NO. 28730

JLC 17.0137.00

Adam Joseph Barney P.E. #:69124

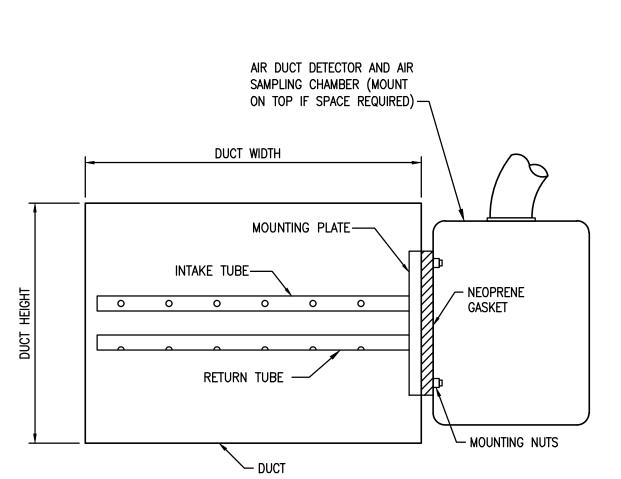
SUMMER BAY APTS. II

LAKE COUNTY, FL

CLUBHOUSE FLOOR PLAN MECHANICAL

06/22/2018

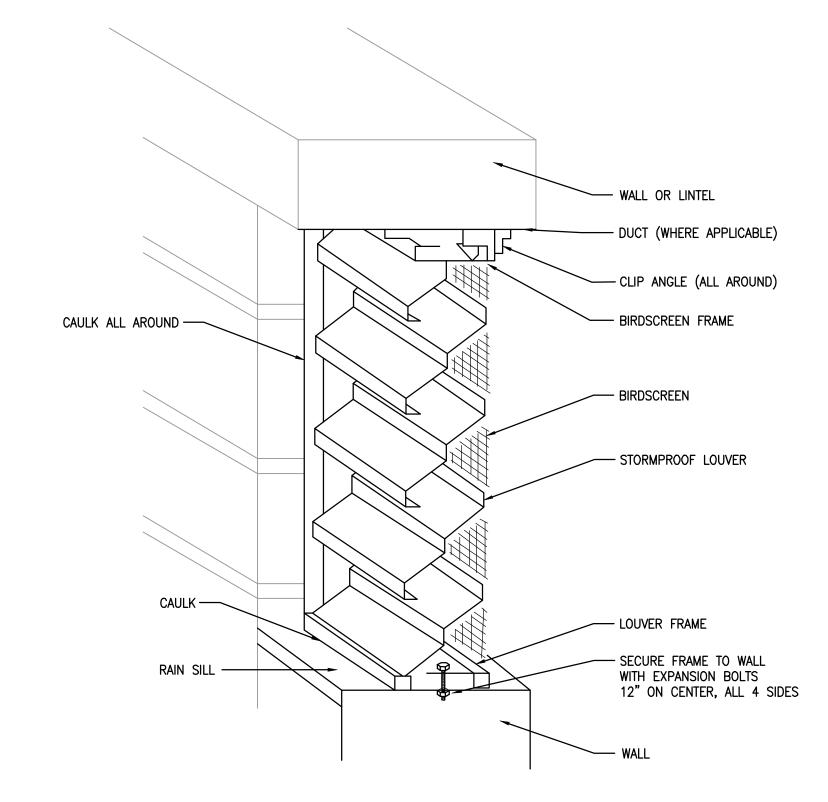
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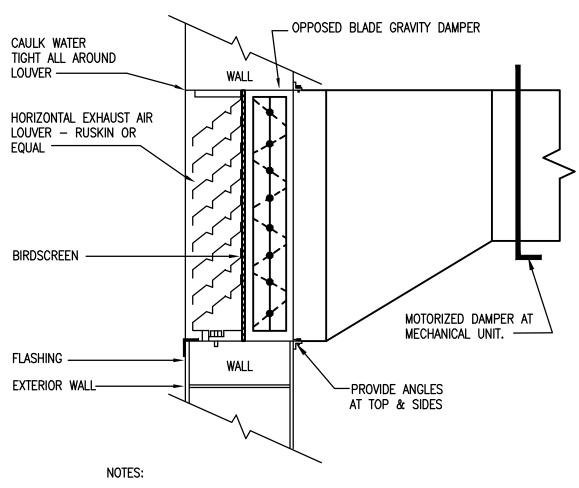
- 1. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
- 2. PROVIDE ACCESS DOOR AT SAMPLING TUBES.

NTS

SMOKE DETECTOR DETAIL

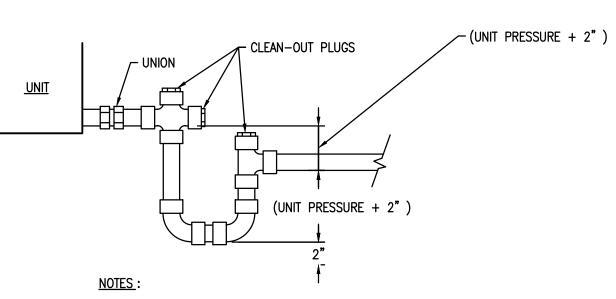


TYPICAL WALL LOUVER DETAIL



1. PROTECT OPENING PER FLORIDA BUILDING CODE -MECHANICAL SECTION 401.5 AND 401.6

SIDEWALL LOUVER DETAIL NTS



- 1. CONDENSATE DRAIN SHALL BE PIPED FULL SIZE OF UNIT CONNECTION.
- 2. CONDENSATE PANS SHALL BE INSTALLED WITH ADEQUATE PITCH TO ENSURE POSITIVE DRAINAGE OF ACCUMILATED CONDENSATE.
- 3. TRAP CONDENSATE AND DISCHARGE PER PLAN.

CONDENSATE DRAIN DETAIL NTS

### FLEX DUCT SCHEDULE CFM FLEX SIZE 0 - 35 4**"**ø 36 - 60 5**"**ø 61 - 100 6"ø 101 - 140 7**"**ø 141 - 210 8"ø 211 - 280 9**"**ø 281 - 400 10**"**ø 401 - 600 12**"**ø 601 - 900 14**"**ø 901 - 1,300 16**"**ø 1,300 - 1,700 18**"**ø

AIR BAL	AN(	CE
EXHAUST:		
EF-1C	60	CFM
EF-2C	60	CFM
EF-3C	60	CFM
EF-4C	60	CFM
EXHAUST TOTAL:	240	CFM
MAKEUP AIR:		
	450	OFM
AHU-1C AHU-2C		CFM CFM
ANU-ZC	340	CFM
MAKEUP TOTAL:	790	CFM
BLDG. PRESSURE	= +55	50
(WITH ALL FANS	ACTIVAT	ED)

OUTSIDE AIR CALCULATIONS													
CLASSIFICATION	OCC. FACTOR OCCUPANCY/ 1000 SQFT.		2 VALUES BLE 6-1	SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	OUTDOOR AIR REQUIRED	OUTDOOR AIF SUPPLIED						
	(PERSONS)	Rp Ra		Az	Pz	(CFM)	(CFM)						
GAME	20	7.5	0.18	257	5	83.7	85						
GATHERING	100	7.5	0.06	773	25*	233.8	170						
FITNESS	40	20	0.06	756	20*	445.3	450						
LEASING AREA	5	5	0.06	894	3*	71	75						
CORRIDOR	-	-	0.06	152	_	9.1	10						
TOTAL				2,832	50	842.9	790						

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1. VENTILATION BREATHING ZONE FORMULA: Vbz = Rp \* Pz + Ra \* Az Pz = OCCUPANCY FACTOR \* SPACE AREA

\* SPACE LOAD NUMBER BY ARCHITECT

	LOUVER SCHEDULE													
MARK	RK SERVICE AIR FLOW (CFM) FREE AREA (SF) W x H (IN) MAX. VELOCITY IN FPM MAX. PRESSURE DROP (IN H2O) MANUFACTURER & MODEL NO. NOTES													
L-1	OUTSIDE AIR	450	0.9	30"x12"	500	0.36	RUSKIN ELF3675DXD	1. & 2.						
L-2	OUTSIDE AIR	370	0.74	24"x12"	500	0.36	RUSKIN ELF3675DXD	1. & 2.						

1. PROVIDE BIRD SCREEN.

2. PROVIDE GRAVITY BACK DRAFT DAMPER ON INTERIOR SIDE OF LOUVER.

	AIR DEVICE SCHEDULE												
MARK	DESCRIPTION	FACE SIZE	MATERIAL	MANUFACTURER & MODEL NO.	NOTES								
Α	SUPPLY DIFFUSER - CEILING	24"x24"	SEE PLAN	ALUMINUM	METALAIRE 5800-1 AL	1. & 2.							
В	SUPPLY DIFFUSER - CEILING	12"x12"	SEE PLAN	ALUMINUM	METALAIRE 5800-1 AL	1. & 2.							
С	SUPPLY DIFFUSER - CEILING	12 <b>"</b> x12"	SEE PLAN	ALUMINUM	METALAIRE LM-1	1. & 2.							
D	SUPPLY DIFFUSER - CEILING	6"x6"	SEE PLAN	ALUMINUM	METALAIRE LM-1	1. & 2.							
E	LOUVERED RETURN AIR GRILLE	18"x18"	SEE PLAN	ALUMINUM	METALAIRE RH	1. & 2.							
F	LOUVERED RETURN AIR GRILLE	14"x14"	SEE PLAN	ALUMINUM	METALAIRE RH	1. & 2.							
G	LOUVERED RETURN AIR GRILLE	12"x12"	SEE PLAN	ALUMINUM	METALAIRE RH	1. & 2.							

1. COORIDINATE SURFACE FINISHES WITH ARCHITECTURAL DRAWINGS.

	FAN SCHEDULE													
MARK	MARK AREA SERVED TYPE CFM T.S.P. WATTS R.P.M. VOLTS/PH SONES MANUFACTURER & MODEL NO. NOTES													
EF-1C	WOMEN CH-113	CABINET	60	0.25	50	2,175	120/1ø	4.0	AIRKING AS70	1 2 & 4				
EF-2C	WOMEN CH-114	CABINET	60	0.25	50	2,175	120/1ø	4.0	AIRKING AS70	1 2 & 4				
EF-3C	MEN CH-115	CABINET	100	0.25	75.2	890	120/1ø	1.7	COOK GC-162	1 2 & 4				
EF-4C	JANITOR CH-112	CABINET	60	0.25	50	2,175	120/1ø	4.0	AIRKING AS70	1 2 & 4				

1. EXHAUST FAN TO BE CONTROLLED BY INDIVIDUAL SWITCH.

2. PROVIDE WITH VIBRATION ISOLATOR KIT, INTEGRAL BACKDRAFT DAMPER, & ALUMINUM WALL CAP.

3. FAN TO BE CONTROLLED BY OCCUPANCY SENSOR.

4. PROVIDE WITH FACTORY SPEED CONTROLLER.

	DX SPLIT AIR HANDLING UNIT SCHEDULE																					
	FAN COOLING COIL						FILTERS E			ELECTRIC HEATING COIL SINGLE POINT UNIT ELEC. REQUIREMENTS				UNIT INFORMATION								
MARK	LOCATION SERVED	TOTAL AIR FLOW (CFM)	OUTSIDE AIR FLOW (CFM)	EXTERNAL STATIC PRESS. (IN.WG.)	DRIVE TYPE	HP	ENTERING AIR TEMP. (F DB/WB)	LEAVING AIR TEMP. (F DB/WB)		TYPE	EFFICIENCY	THICKNESS	NO. OF STAGES	TOTAL KW		CINIOLE		UNIT SIZE (H"xW"xD")	OPERATING WEIGHT (LBS.)	MANUFACTURER	MODEL NUMBER	NOTES
AHU-1C	ENTRY, FITNESS	2,000	450	0.3	DIRECT	1	77.6/64.7	56.0/54.0	60,000	THROWAWAY	25%-30%	1"	1	8	240/1	45	45	58"x24.5"x21"	167	GOODMAN	ASPT61D14	1, 2
AHU-2C	GATHERING, GAME	2,000	340	0.3	DIRECT	1	77.6/64.7	56.0/54.0	60,000	THROWAWAY	25%-30%	1"	1	8	240/1	45	45	58"x24.5"x21"	167	GOODMAN	ASPT61D14	1, 2

1. PROVIDE COMPLETE WITH 7-DAY PROGRAMMABLE THERMOSTAT WITH NIGHT SET BACK.

2. ROUTE AND SIZE REFRIGERANT LINES PER MANUFACTURES REQUIREMENTS.

3. DISCONNECT SWITCH TO BE PROVIDED BY DIVISION 16.

	DX SPLIT CONDENSING UNIT SCHEDULE (HEAT PUMP)																	
MARK	LOCATION	COMPRESSOR			CONDE	nser fans	ELECTRICAL							UNIT INFORMATION	UNIT INFORMATION			
		OUTDOOR DESIGN TEMP. (F')	QTY.	CAPACITY STEPS %	QTY.	NOMINAL HP	VOLTAGE/ PHASE	COMPRESSOR RLA EACH		FLA (EA.)	MCA	MOCP	SEER	UNIT SIZE (H"xW"xD")	OPERATING WEIGHT (LBS.)	MANUFACTURER	MODEL NUMBER	NOTES
-1C	EXTERIOR	95°	1	100	1	1/4	208/1	25.0	1	1.5	32.8	50	14	38"x35"x35"	260	GOODMAN	GSZ140601AA	1. & 2.
-2C	EXTERIOR	95*	1	100	1	1/4	208/1	25.0	1	1.5	32.8	50	14	38"x35"x35"	260	GOODMAN	GSZ140601AA	1. & 2.

PROVIDE COMPLETE WITH TIME DELAY RELAY AND ANTI-SHORT CYCLE TIMER.

DISCONNECT SWITCH TO BE PROVIDED BY DIVISION 16.

FUGLEBERG KOCH

PERMIT REVIEW STAMP

**ISSUE HISTORY** 

**REVISION HISTORY** 

Description

 No.
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 06/22/2018
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Date

2555 Temple Trail, Winter Park, FL 32789 (407) 629-0595 www. fuglebergkoch.com BR569

Consulting Engineers 1180 HARWOOD AVE. SUITE 3000 ALTAMONTE SPRINGS, FLORIDA 32714 TEL: 321.972.4466 WWW.JLCENG.COM

JLC 17.0137.00

Adam Joseph Barney P.E. #:69124

**SUMMER BAY** 

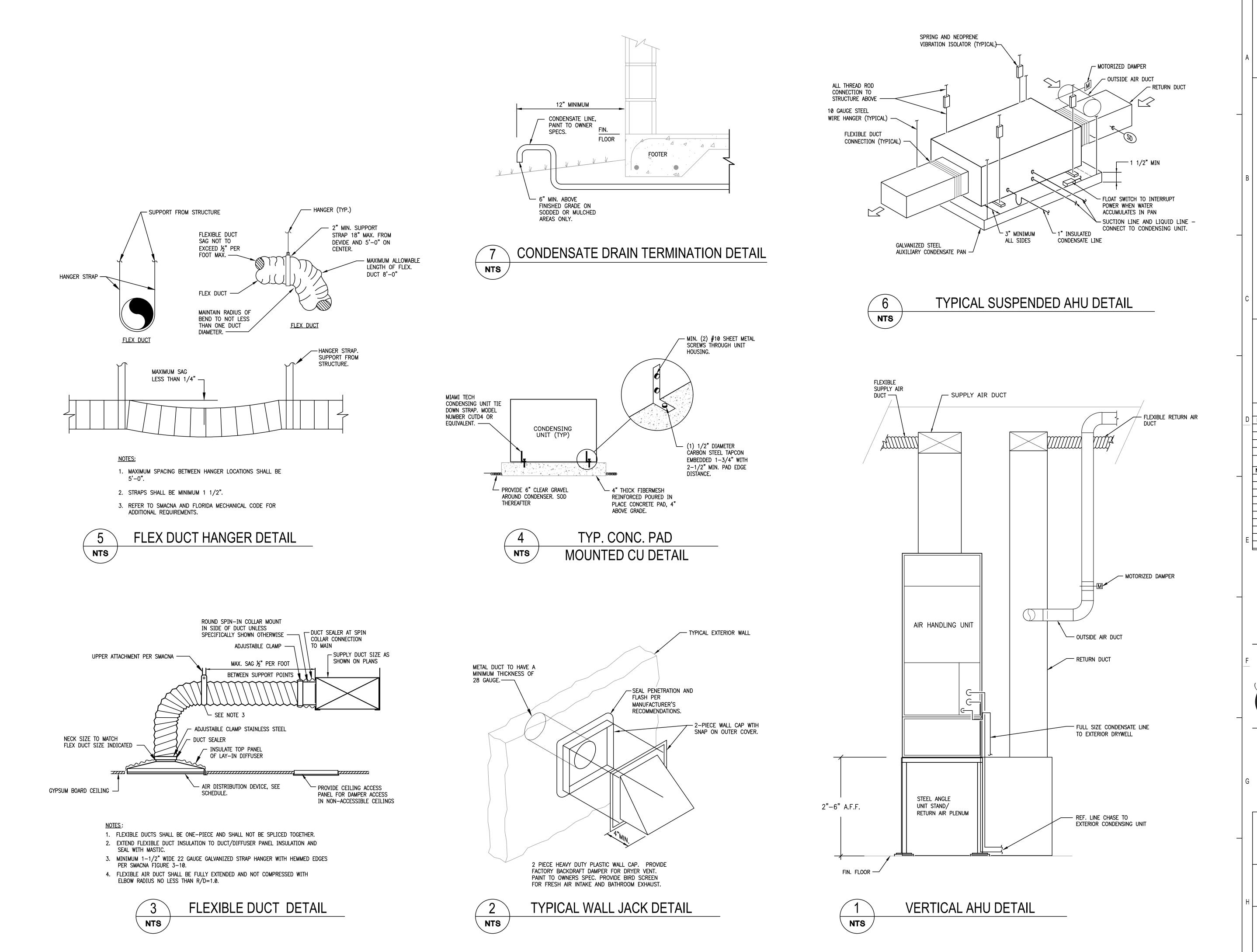
Approval: BLS/AJB LAKE COUNTY, FL

BLS/AJB

06/22/2018

**CLUBHOUSE MECHANICAL** SCHEDULES & DETAILS

M12.02



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> Adam Joseph Barney P.E. #:69124

**CLUBHOUSE MECHANICAL** 

**DETAILS** 

M12.03

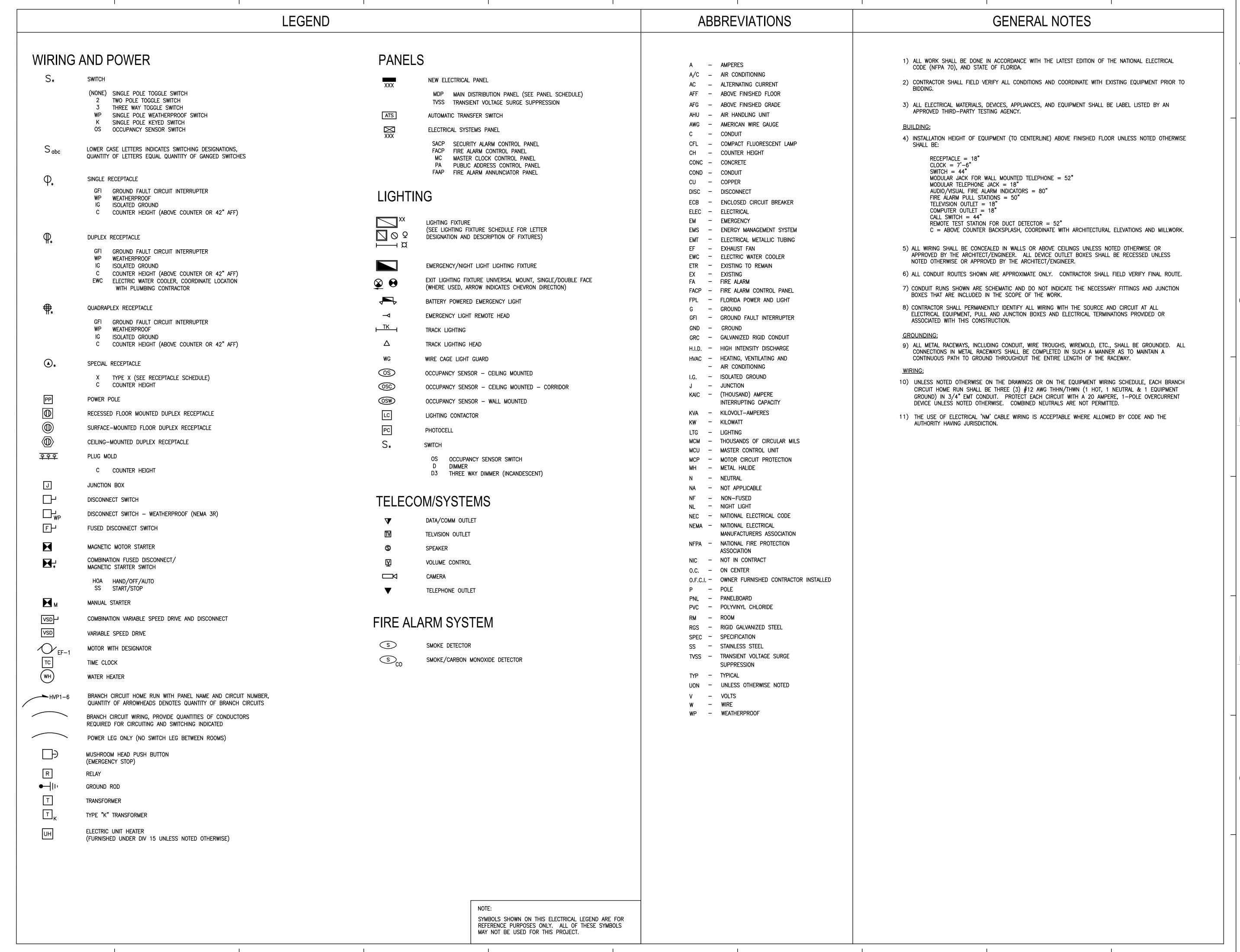
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Blake Lawrence Suddeth P.E. #: 69060

Checked: BLS/AJB

Approval: BLS/AJB

Date: 06/22/2018

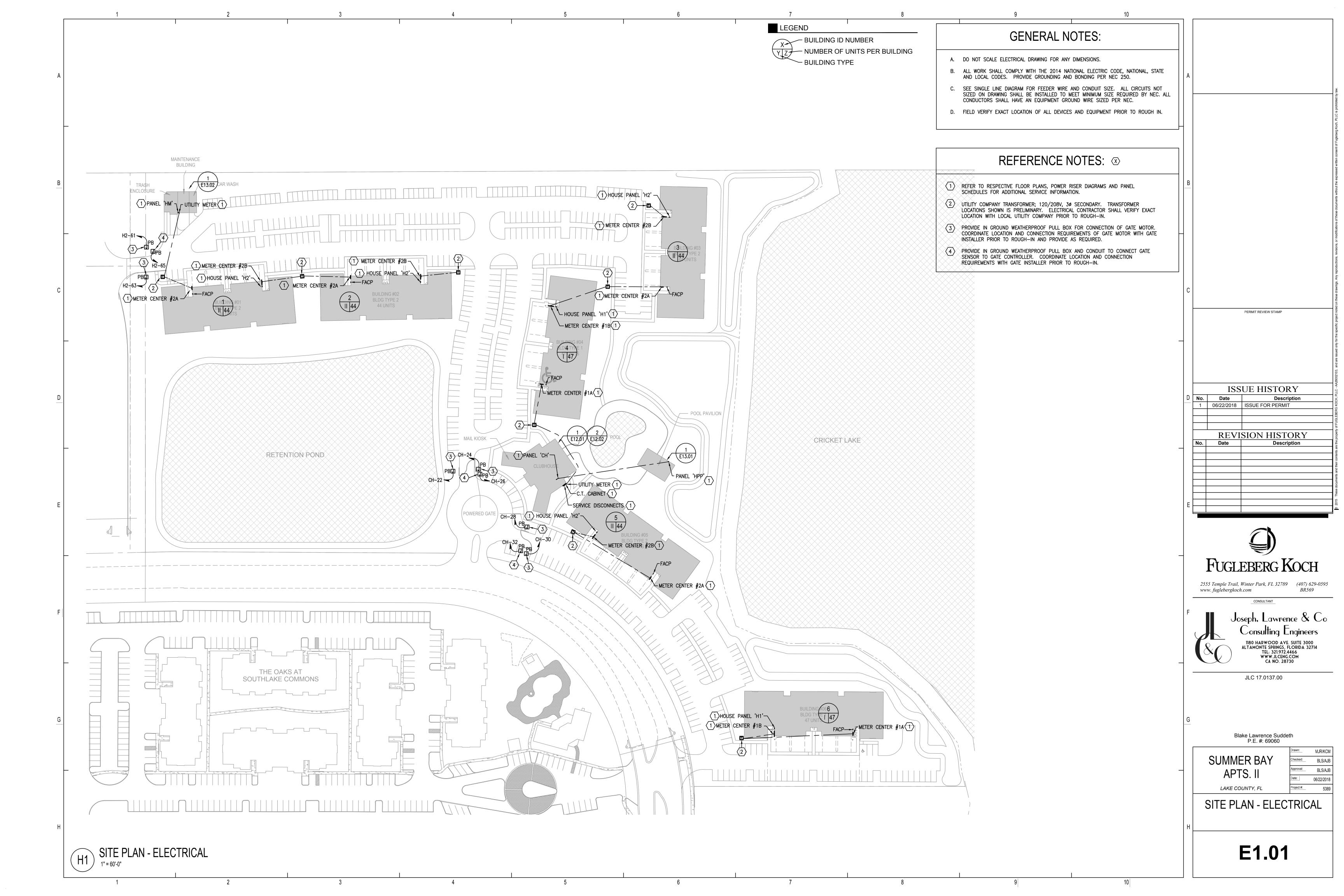
Project #: 5389

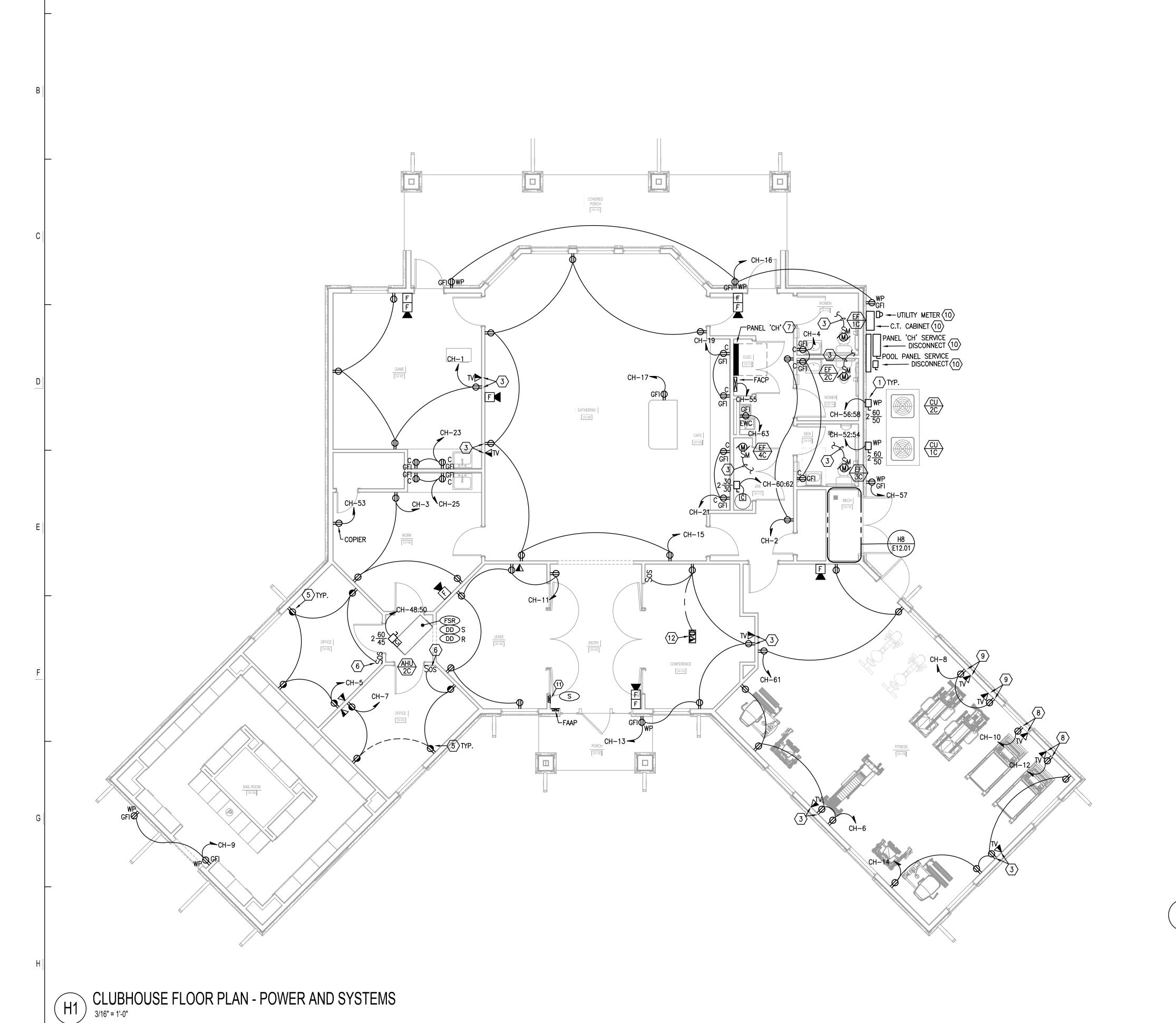
**SUMMER BAY** 

LAKE COUNTY, FL

SYMBOL LEGEND AND **GENERAL NOTES** 

E0.01



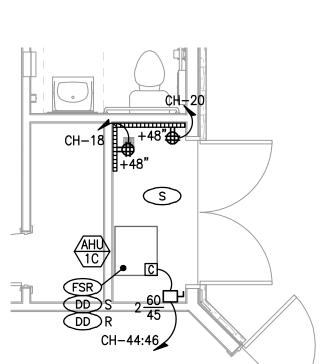


# **GENERAL NOTES:**

- A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.
- B. ALL WORK SHALL COMPLY WITH THE 2014 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.
- C. SEE SINGLE LINE DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC. ALL CONDUCTORS SHALL HAVE AN EQUIPMENT GROUND WIRE SIZED PER NEC.
- D. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.
- E. SOUND SYSTEM SPEAKERS TO BE TIED INTO FIRE ALARM SYSTEM SUCH THAT SPEAKERS AUTOMATICALLY TURN OFF WHEN FIRE ALARM SYSTEM IS TRIGGERED.

# REFERENCE NOTES: 🗵

- ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT AND FUSE REQUIREMENTS FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH—IN AND PROVIDE AS REQUIRED. COORDINATE LOCATION OF DISCONNECT WITH OWNER AND MECHANICAL CONTRACTOR PRIOR TO ROUGH—IN. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES.
- 2 CONNECT 120V FRACTIONAL HORSEPOWER EXHAUST FAN TO LOCAL LIGHTING CIRCUIT AND CONTROLS. FAN SHALL OPERATE SIMULTANEOUSLY WITH LIGHTS.
- PROVIDE 120V RECEPTACLE AND TELEVISION OUTLET FOR WALL MOUNTED TELEVISION. COORDINATE MOUNTING HEIGHT AND LOCATION WITH OWNER/EQUIPMENT INSTALLER PRIOR TO ROUGH—IN.
- COORDINATE DISCONNECT, METER, AND C.T. CABINET LOCATION WITH OWNER, CIVIL CONTRACTOR, AND UTILITY COMPANY PRIOR TO ROUGH-IN.
- CONNECT 120V RECEPTACLE IN OFFICE SPACE VIA WALL MOUNTED VACANCY SENSOR. SENSOR SHALL "TURN OFF" RECEPTACLES IF SPACE IS UNOCCUPIED FOR 20 MINUTES. RECEPTACLES SHALL BE VISUALLY MARKED AS REQUIRED TO DIFFERENTIATE CONTROLLED RECEPTACLES FROM UNCONTROLLED RECEPTACLES. INSTALLATION SHALL COMPLY WITH FLORIDA BUILDING CODE SECTION C405.7.1, 2014 EDITION AND ASHRAE STANDARD 90.1.
- MOUNT OCCUPANCY SENSOR FOR RECEPTACLES UNDER COMMON COVERPLATE WITH ROOM LIGHTING CONTROLS. REFER TO LIGHTING PLAN FOR ADDITIONAL INFORMATION.
- COORDINATE EXACT LOCATION WITH THE ELECTRIC UTILITY AND ARCHITECTURAL PLANS. VERIFY 3'-0" CLEARANCE EXISTS IN FRONT OF HOUSE PANEL. A MAXIMUM OF 6'-6" SHALL BE MAINTAINED FROM GRADE TO THE CENTER OF THE HIGHEST METER.
- PROVIDE DEDICATED 120V DUPLEX RECEPTACLE, CAT5e, AND COAX CABLE FOR CONNECTION OF TREADMILL. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH EQUIPMENT INSTALLER PRIOR TO ROUGH—IN.
- PROVIDE 120V DUPLEX RECEPTACLE, CAT5e, AND COAX CABLE FOR CONNECTION OF FITNESS EQUIPMENT. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH EQUIPMENT INSTALLER PRIOR TO ROUGH—IN.
- ELECTRICAL SERVICE EQUIPMENT LOCATION. REFER TO POWER RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- PROVIDE AREA OF REFUGE TWO—WAY COMMUNICATIONS BASE STATION AS REQUIRED BY 2017 6TH EDITION FBC AND 2015 NFPA 101 LIFE SAFETY CODE. COORDINATE LOCATION WITH OWNER AND AUTHORITY HAVING JURISDICTION. SYSTEM SHALL HAVE TIMED DIAL—OUT CAPABILITY TO A MONITORING LOCATION OR 911. SYSTEM SHALL INCLUDE BOTH AUDIBLE AND VISIBLE SIGNALS.
- COORDINATE FLOOR BOX SPECIFICATIONS AND LOCATION WITH OWNER PRIOR TO ROUGH—IN. PROVIDE ALL DEVICES, DIVIDERS, COVERPLATES, ETC. FOR A COMPLETE INSTALLATION



H8 ENLARGED PLAN - CLUBHOUSE MECHANICAL ROOM

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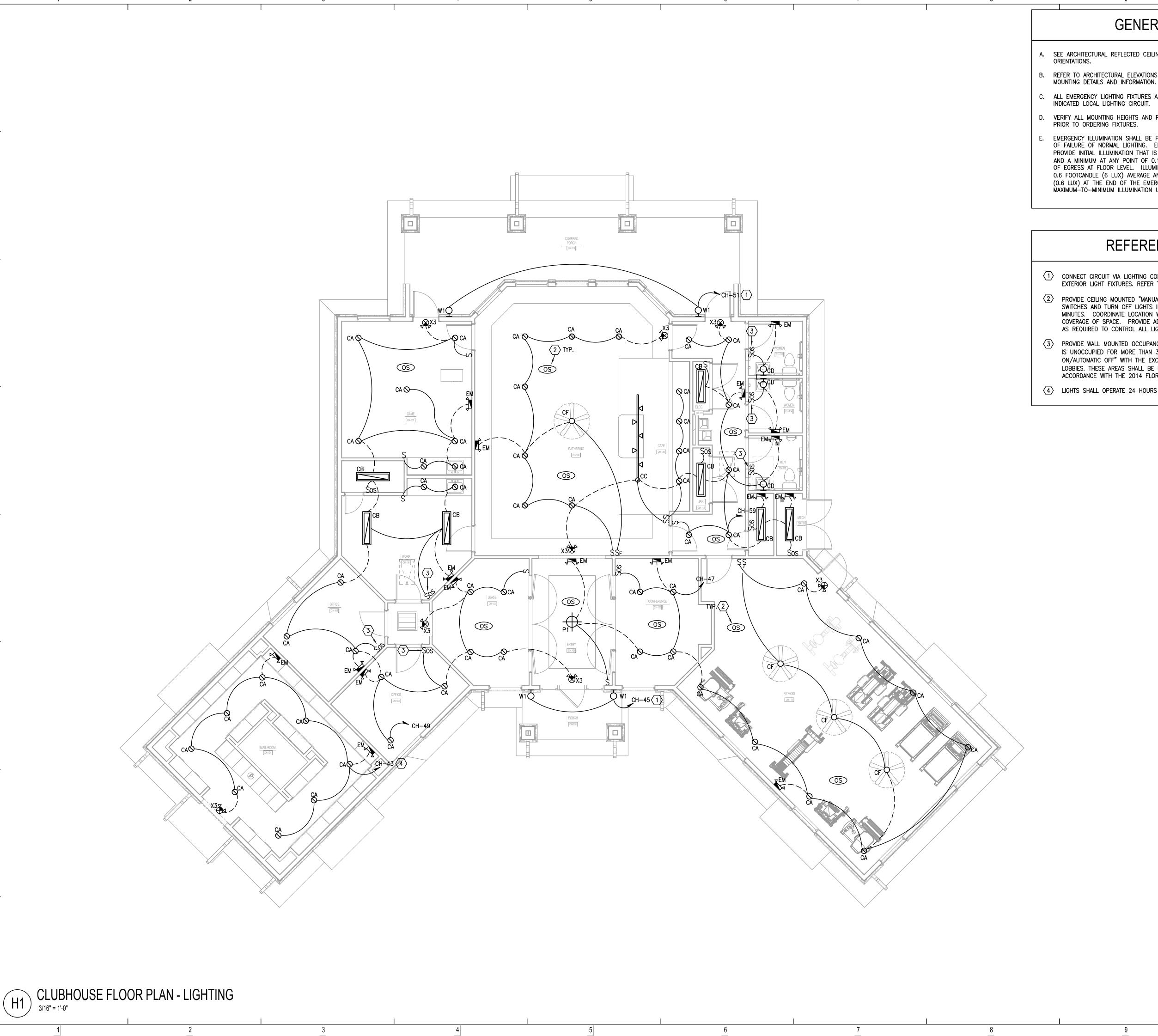
Blake Lawrence Suddeth P.E. #: 69060

SUMMER BAY APTS. II

CLUBHOUSE FLOOR PLAN

06/22/2018

POWER AND SYSTEMS



# **GENERAL NOTES:**

- A. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT FIXTURE LOCATIONS AND
- B. REFER TO ARCHITECTURAL ELEVATIONS AND SECTIONS FOR ADDITIONAL LIGHTING FIXTURE
- C. ALL EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS SHALL BE CONNECTED "HOT" TO THE INDICATED LOCAL LIGHTING CIRCUIT.
- D. VERIFY ALL MOUNTING HEIGHTS AND PENDANT LENGTHS WITH ARCHITECT AND ENGINEER PRIOR TO ORDERING FIXTURES.
- E. EMERGENCY ILLUMINATION SHALL BE PROVIDED FOR A PERIOD OF 90 MINUTES IN THE EVENT OF FAILURE OF NORMAL LIGHTING. EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL ILLUMINATION THAT IS AT LEAST AN AVERAGE OF 1 FOOTCANDLE (10 LUX) AND A MINIMUM AT ANY POINT OF 0.1 FOOTCANDLE (1 LUX) MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FOOTCANDLE (6 LUX) AVERAGE AND A MINIMUM AT ANY POINT OF 0.06 FOOTCANDLE (0.6 LUX) AT THE END OF THE EMERGENCY LIGHTING TIME DURATION. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40:1 SHALL NOT BE EXCEEDED.

# REFERENCE NOTES: (X)

- (1) CONNECT CIRCUIT VIA LIGHTING CONTACTOR 'LC1' FOR AUTOMATIC CONTROL OF EXTERIOR LIGHT FIXTURES. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
- PROVIDE CEILING MOUNTED "MANUAL ON" VACANCY SENSOR TO OVERRIDE WALL SWITCHES AND TURN OFF LIGHTS IF ROOM IS UNOCCUPIED FOR MORE THAN 30 MINUTES. COORDINATE LOCATION WITH CONDITIONS IN FIELD TO PROVIDE MAXIMUM COVERAGE OF SPACE. PROVIDE ADDITIONAL SENSORS, RELAYS, POWER PACKS, ETC. AS REQUIRED TO CONTROL ALL LIGHTS IN ROOM.
- 3 PROVIDE WALL MOUNTED OCCUPANCY SENSOR SWITCH TO TURN OFF LIGHTS IF ROOM IS UNOCCUPIED FOR MORE THAN 30 MINUTES. CONTROLS SHALL BE "MANUAL ON/AUTOMATIC OFF" WITH THE EXCEPTION OF RESTROOMS, PUBLIC CORRIDORS, AND LOBBIES. THESE AREAS SHALL BE FULLY "AUTOMATIC ON/AUTOMATIC OFF" IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODE 5TH EDITION.
- 4 LIGHTS SHALL OPERATE 24 HOURS FOR SECURITY PURPOSES.

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JLC 17.0137.00

Bl**åkle**rhakosæpte Bardeyth P.E. #:69020

**SUMMER BAY** APTS. II

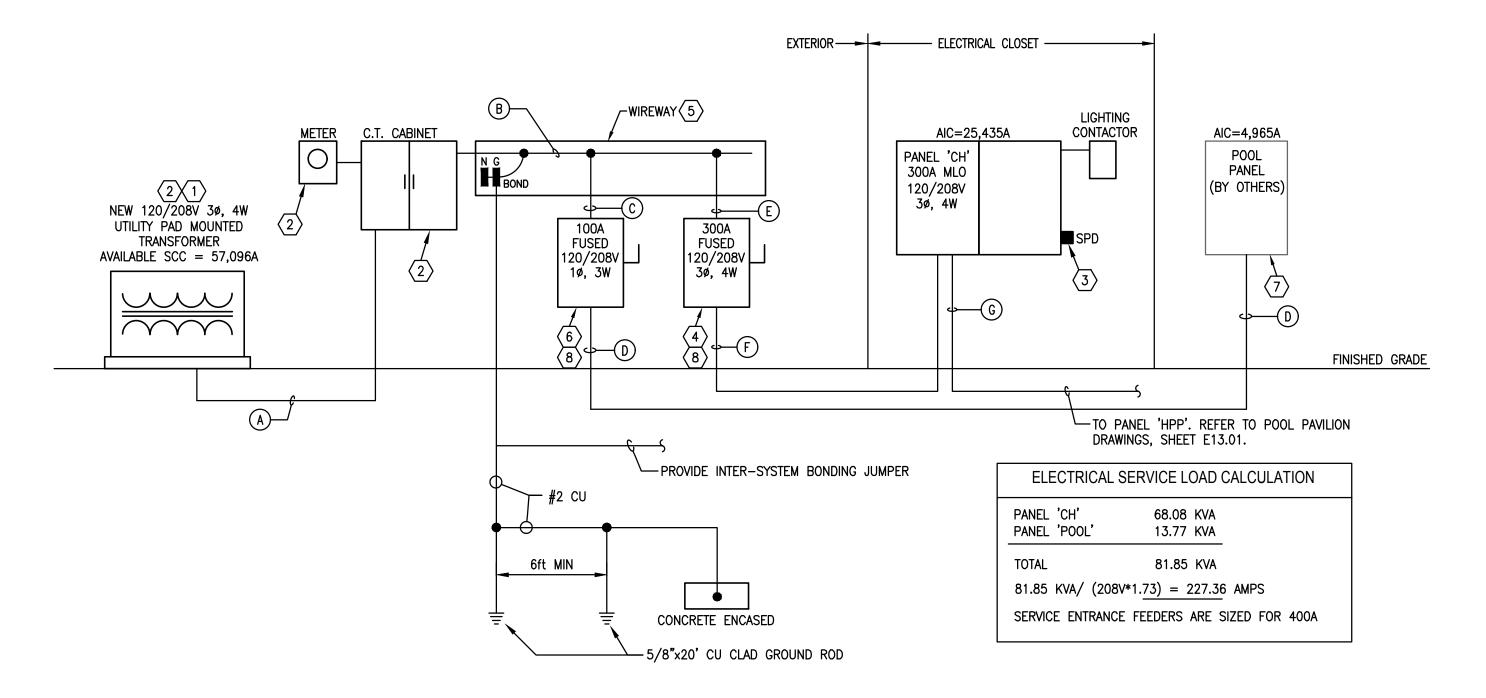
LAKE COUNTY, FL

CLUBHOUSE FLOOR PLAN LIGHTING

06/22/2018

# CONDUIT & CONDUCTOR SIZES: ⊗

- A 2 SETS [(4)#250 kcmil AL., IN 2-1/2°C.]
- B) 2 SETS [(4)#250 kcmil AL., (1)#1/0 AWG AL. GND.]
- © (3)#1/0 AWG AL., IN 2"C.
- D (3)#1/0 AWG AL., 1#6 AWG AL. GND., IN 2"C.
- (4)#500 kcmil AL., IN 3-1/2°C.
- (4)#500 kcmil AL., (1)#2 AWG. AL. GND., IN 3-1/2°C.
- G (3)#1 AWG AL., (1)#6 AWG AL. GND., IN 1-1/2"C.



CLUBHOUSE - POWER RISER DIAGRAM

# **GENERAL NOTES:**

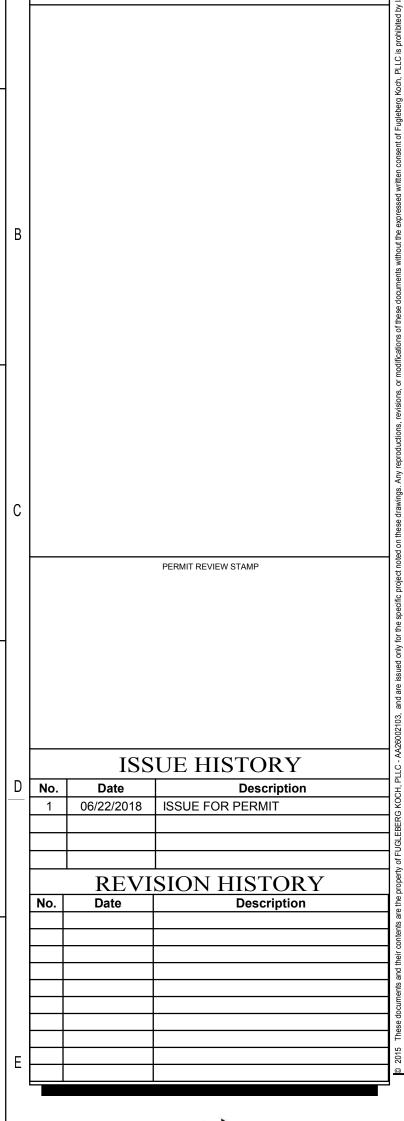
- A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.
- B. ALL WORK SHALL COMPLY WITH THE 2014 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250
- C. COORDINATE ALL WORK WITH LOCAL UTILITY COMPANY.

# REFERENCE NOTES: **(X)**

- REFER TO SITE PLAN ELECTRICAL, SHEET E1.01 FOR LOCATION OF UTILITY TRANSFORMER.
- COORDINATE ALL CONNECTION REQUIREMENTS OF NEW SERVICE WITH LOCAL UTILITY COMPANY PRIOR TO ROUGH—IN AND PROVIDE AS REQUIRED.
- PROVIDE HARD WIRED SURGE PROTECTIVE DEVICE OF SAME MANUFACTURER AS DISCONNECT SWITCH.
- PROVIDE 400A, 120/208V, 3Ø, 4W, NEMA 3R, SERVICE ENTRANCE RATED DISCONNECT SWITCH FUSED AT 300AMPS. COORDINATE ALL REQUIREMENTS WITH UTILITY COMPANY PRIOR TO ROUGH—IN AND PROVIDE AS REQUIRED. PROVIDE PHENOLIC LABELING AT EACH DISCONNECT FOR SERVICE AS REQUIRED BY NEC.
- PROVIDE NEMA 3R WIREWAY SIZED AS REQUIRED PER NEC. MINIMUM LENGTH TO BE
- PROVIDE 100A, 120/208V, 1ø, 3W, NEMA 3R, SERVICE ENTRANCE RATED DISCONNECT SWITCH FUSED AT 100AMPS FOR POOL PANEL. COORDINATE ALL REQUIREMENTS WITH UTILITY COMPANY PRIOR TO ROUGH—IN AND PROVIDE AS REQUIRED. PROVIDE PHENOLIC LABELING AT EACH DISCONNECT FOR SERVICE AS REQUIRED BY NEC.
- POOL PANEL TO BE PROVIDED BY POOL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE LOCATION AND REQUIREMENTS WITH POOL CONTRACTOR AND POOL EQUIPMENT DRAWINGS PRIOR TO ROUGH—IN.
- 8 BOND NEUTRAL AND GROUND SERVICE CONDUCTORS IN SERVICE DISCONNECT SWITCH PER NEC 250.

NOTE:

PER FEC C405.6.3 (2017 ED) ALL CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS ARE
DESIGNED FOR A MAXIMUM OF 5% VOLTAGE DROP TOTAL.





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SUMMER BAY APTS. II

LAKE COUNTY, FL

CLUBHOUSE RISER DIAGRAMS - ELECTRICAL

			PA	١N	EL	. 'Cŀ	<del>I' (</del>	FIR	ST	SE	EC	TI:	10	۷)				
LOCATION: ELECTRICAL ROOM	VO	LTAG	:	120/	208V	3ø	4W		МІ	I. AIC R	ATIN	G:	4	12K /	AIC		NOTES:	
TYPE: SQUARE 'D' - TYPE NQ	MA	AINS:	,	300A		MLO 🔲	MCB		МО	UNTING:			S	SURFA	ACE		PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS	ĺ
FED FROM: SERVICE DISCONNECT	LU	GS:	[	] SU	B-FE	ED 🗆	FEED-	-THRU	EN	CLOSURI	Ξ:		١	NEMA	1			
CIRCUIT DESCRIPTION	NOTES		RANCH NEUT			BKR	LOAD KVA	PHAS ø	E LOAI KVA		R		RANCH NEUT			NOTES	CIRCUIT DESCRIPTION	CKT
1 RECEPS - GAME ROOM		12	12	12	1/2"	20/1	0.72	A	0.3	5 20,	/1	12	12	12	1/2"		RECEPS - CORRIDOR	2
3 RECEPS - WORK ROOM		12	12	12	1/2"	20/1	0.54	В	0.5	4 20,	/1	12	12	12	1/2"		RECEPS -BATHROOMS	4
5 RECEPS - OFFICE		12	12	12	1/2"	20/1	0.72	С	0.7	2 20,	/1	12	12	12	1/2"		RECEPS - FITNESS AREA	6
7 RECEPS - OFFICE		12	12	12	1/2"	20/1	0.72	Α	1.00	20,	/1	12	12	12	1/2"		FITNESS EQUIPMENT	8
9 RECEPS - MAIL AND PACKAGE ROOM		12	12	12	1/2"	20/1	0.36	В	1.50	20,	/1	12	12	12	1/2"		TREADMILL	10
11 RECEPS - ENTRY/LEASING		12	12	12	1/2"	20/1	0.90	С	1.50	20,	/1	12	12	12	1/2"		TREADMILL	12
13 RECEPS - EXTERIOR/CONFERENCE		12	12	12	1/2"	20/1	0.90	Α	0.7	2 20,	/1	12	12	12	1/2"		RECEPS - FITNESS AREA	14
15 RECEPS - GATHERING ROOM		12	12	12	1/2"	20/1	1.08	В	0.5	4 20,	/1	12	12	12	1/2"		RECEPS - EXTERIOR	16
17 RECEPS - CAFE ISLAND		12	12	12	1/2"	20/1	0.18	С	0.3	5 20,	/1	12	12	12	1/2"		πв	18
19 RECEPS - CAFE COUNTER		12	12	12	1/2"	20/1	0.36	Α	0.3	5 20,	/1	12	12	12	1/2"		πв	20
21 RECEPS - CAFE COUNTER		12	12	12	1/2"	20/1	0.36	В	1.20	20,	/1	10	10	10	3/4"		GATE MOTOR	22
23 RECEPS - GAME ROOM COUNTER		12	12	12	1/2"	20/1	0.36	С	1.20	20,	/1	10	10	10	3/4"		GATE MOTOR	24
25 RECEPS - WORK ROOM COUNTER		12	12	12	1/2"	20/1	0.36	A	0.5	20,	/1	10	10	10	3/4"		GATE SENSOR	26
27 SPARE		-	-	-	-	20/1	_	В	1.20	20,	/1	10	10	10	3/4"		GATE MOTOR	28
29 SPARE		-	-	-	-	20/1	_	С	1.20	20,	/1	10	10	10	3/4"		GATE MOTOR	30
31 SPARE		-	-	-	-	20/1	_	A	0.5	20,	/1	10	10	10	3/4"		GATE SENSOR	32
33 SPARE		-	-	_	_	20/1	_	В	_	20,	/1	-	_	_	-		SPARE	34
35 SPARE		-	_	_	_	20/1	_	С	_	20,	/1	-	_	_	-		SPARE	36
37 SPARE		-	_	-	_	20/1	_	Α	_	_		-	_	_	-		SPACE ONLY	38
39 SPACE ONLY		-	-	-	-	-	_	В	_	_		-	-	_	-		SPACE ONLY	40
41 SPACE ONLY		-	-	-	-	-	-	С	_	-		-	-	_	-		SPACE ONLY	42
EQUIPMENT SERVED					CC	NN. LOA	D	L.F.	D.F.	DEMAN	) L(	DAD						
RECEPTACLES — GENERAL					<u> </u>	10.44 K\			**	10.2								
EQUIPMENT						9.80 KV	A		100%	9.8	0 K	VA						
SECOND SECTION						48.06 K\	/A		100%	48.0	)6 K	(VA						
NOTES: 1) CONNECT CIRCUIT VIA LIGHTING CONTACTOR 'L	C1'												_				LOAD: 68.08 KVA AMPS: 189.11 AMPS	
1) CONNECT CIRCUIT VIA LIGHTING CONTACTOR 'L	C1'												_					

	ATION: MECHANICAL STORAGE ROOM	_	LTAGE		120/		3ø			+	AIC RATII	NG:		12K			NOTES: PROVIDE TYPED WRITTEN DIRECTORY	
	E: SQUARE 'D' — TYPE NQ	_	INS:				MLO 🔲		TUDU	+	NTING:			SURF			PROVIDE GROUND & NEUTRAL BUS	
FED	FROM: SERVICE DISCONNECT	_	GS:			B–FE	בט 🛚 🔀	FEED-	1	+	OSURE:			NEMA		10		$\top$
CKT	CIRCUIT DESCRIPTION	NOTES			GND		BKR	LOAD KVA	PHASE	LOAD KVA	BKR	ø Bl	RANCH NEUT	GND	COND	NOTE	CIRCUIT DESCRIPTION	ğ
43	LIGHTS - MAIL AND PACKAGE ROOM		12	12	12	1/2"	20/1	0.16	Α	3.74	45/2	4	4	8	1"		AHU-1C	44
45	LIGHTS - EXTERIOR	1	12	12	12	1/2"	20/1	0.03	В	3.74	_	4	-	ı	-		-	4(
47	LIGHTS - ENTRY/CONF./FITNESS		12	12	12	1/2"	20/1	0.58	С	3.74	45/2	4	4	8	1"		AHU-2C	48
49	LIGHTS - LEASING/OFFICE/WORK/GAME		12	12	12	1/2"	20/1	0.94	Α	3.74	_	4	_	ı	_		_	50
51	LIGHTS - EXTERIOR	1	12	12	12	1/2"	20/1	0.03	В	2.73	50/2	4	4	8	1"		CU-1C	52
53	COPIER		12	12	12	1/2"	20/1	1.00	С	2.73	-	4	-	_	_		_	54
55	FACP		12	12	12	1/2"	20/1	0.50	Α	2.73	50/2	4	4	8	1"		CU-2C	56
57	RECEPS - MECH. STORAGE ROOM		12	12	12	1/2"	20/1	0.18	В	2.73	_	4	-	-	-		_	58
59	LIGHTS - RESTROOMS/HALL/GATHERING		12	12	12	1/2"	20/1	1.14	С	2.25	30/2	10	10	10	3/4"		EWH-1	60
61	RECEPS - FITNESS AREA		12	12	12	1/2"	20/1	0.54	Α	2.25	_	10	-	_	_		_	62
63	EWC		12	12	12	1/2"	20/1	0.70	В	_	20/1	_	-	-	_		SPARE	64
65	SPARE		_	_	_	_	20/1	_	С	_	20/1	_	_	_	_		SPARE	66
67	SPARE		_	_	_	-	20/1	_	Α	_	20/1	_	_	_	_		SPARE	68
69	SPARE		_	-	_	-	20/1	_	В	_	20/1	_	-	-	_		SPARE	70
71	SPARE		_	_	_	-	20/1	_	С	_	-	_	-	_	_		SPACE ONLY	72
73	SPACE ONLY		_	_	_	-	-	_	A	_	-	_	_	_	_		SPACE ONLY	74
75	SPACE ONLY		_	_	_	-	-	_	В	5.40	80/2	_	-	_	_	2	PANEL 'HPP'	70
77	SPACE ONLY		_	_	_	-	-	_	С	5.40	-	_	-	_	_		_	78
79	SPACE ONLY		_	_	_	_	-	_	Α	_	30/3	10	10	10	3/4"		SURGE PROTECTIVE DEVICE (SPD)	80
	SPACE ONLY		_	_	_	-	-	_	В	_	-	10	_	_	_		_	82
83	SPACE ONLY		_	_	_	-	-	_	С	_	-	10	_	_	_		_	84
EQ	JIPMENT SERVED				l .	CO	NN. LOA	D	L.F.	D.F. D	EMAND L	.OAD					l	
LIG	HTING						2.88 KV	<u>Ά</u>	1	125%	3.60 k	(VA						
EQ	UIPMENT/RECEPTACLES					<b> </b>	32.58 K	VA	1	100%	32.58	KVA						
RE	CEPTACLES — GENERAL						1.08 KV	Ά	1	100%	1.08 K	(VA						
PA	NELS					1	10.80 K	/A	-	100%	10.80	KVA						
NOTE	S: DNNECT CIRCUIT VIA LIGHTING CONTACTOR 'LC	•											T	OTAL	DEM	AND	) LOAD: 48.06 KVA	

	LIGHTING	FIXTURE	SCHEDULE - CLUBHO	DUSE				
MARK	DESCRIPTION	MANUFACTURER	MODEL	VOLTS		LAMP		FIXTURE
	DESCRIPTION	WATER OF THE PARTY		,,,,,	QTY	WATTS	MODEL	WATTS
CA	AIR TIGHT, IC-RATED, RECESSED LED 6" DOWNLIGHT	JUNO	IC22LED-G4-14LM-30K-90CRI-MVOLT-ZT	120	_	13	LED	13
СВ	SURFACE MOUNTED LED WRAPAROUND FIXTURE	COLUMBIA	LAW4-35MW-EU	120	1	31	LED	31
СС	10' DECORATIVE 5 HEAD LED TRACK LIGHTING	TBD	TBD	120	_	75/ft	LED	750
CD	DECORATIVE LED WALL MOUNTED VANITY FIXTURE LOCATED AT RESTROOMS	TBD	TBD	120	1	17	LED	17
CF	INTERIOR 52" CEILING FAN LOCATED AT FITNESS AND LOBBY	TBD	TBD	120	_	-	-	100
P1	LARGE DECORATIVE LED PENDANT FIXTURE LOCATED AT LOBBY	TBD	TBD	120	1	50	LED	50
W1	EXTERIOR DECORATIVE LED WALL SCONCE FIXTURE LOCATED AT CLUBHOUSE ENTRANCE. UL WET LABEL RATED.	TBD	TBD	120	1	17	LED	17
EM	WALL MOUNTED EMERGENCY LIGHT WITH THERMOPLASTIC HOUSING, TWIN HEADS AND BATTERY BACKUP	DUAL LITE	EV4-02L	120	2	2	LED	4
X1	SINGLE FACE EXIT SIGN WITH WHITE THERMOPLASTIC HOUSING, RED LETTERS AND BATTERY BACKUP.	DUAL LITE	EVE-U-R-W-E	120	_	-	LED	_
Х3	COMBINATION SINGLE FACE EXIT SIGN AND EMERGENCY LIGHT WITH THERMOPLASTIC HOUSING, BATTERY BACKUP, TWIN HEADS, AND RED LETTERS	DUAL LITE	EVC-U-R-W	120	2	2	LED	4

1) DIVISION 16 CONTRACTOR SHALL VERIFY ALL FIXTURE TYPES AND FINISHES WITH OWNER PRIOR TO ORDERING.

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 No.
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 1
 06/22/2018
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Consulting Engineers 1180 HARWOOD AVE. SUITE 3000 ALTAMONTE SPRINGS, FLORIDA 32714 TEL: 321.972.4466 WWW.JLCENG.COM CA NO. 28730

JLC 17.0137.00

Blake Lawrence Suddeth P.E. #: 69060

SUMMER BAY

Checked: BLS/AJB Approval: BLS/AJB Date: 06/22/2018 LAKE COUNTY, FL

CLUBHOUSE SCHEDULES -ELECTRICAL

# F.A.C. 61G15-32.008 DESIGN OF FIRE ALARMS & DETECTION SYSTEMS

61G15-32.008 DESIGN OF FIRE ALARM AND DETECTION SYSTEM COMPLIANCE NOTES FOR APARTMENTS AND CLUBHOUSE:

APPLICABLE CODES: FBC FLORIDA BUILDING CODE (2017) 6TH EDITION

FFPC FLORIDA FIRE PREVENTION CODE (2017) 6TH EDITION

NFPA 1 FIRE CODE (2015) FLORIDA EDITION

• NFPA 101 LIFE SAFETY CODE (2015) FLORIDA EDITION NFPA 70 NATIONAL ELECTRIC CODE (2014)

NFPA 72 NATIONAL FIRE ALARM & SIGNALING CODE (2013)
AHJ — LAKE COUNTY, FLORIDA — LOCAL CODES & AMENDMENTS

#### A. DESIGN INTENT

1. SYSTEM TYPE: MASTER FIRE ALARM CONTROL PANEL LOCATED IN CLUBHOUSE SHALL BE AN ADDRESSABLE PANEL BY EDWARDS, HONEYWELL, NOTIFIER, SILENT KNIGHT, OR APPROVED EQUIVALENT. SUB-PANEL FACP'S IN EACH APARTMENT BUILDING SHALL BE ADDRESSABLE TYPES.

2. SEE SYMBOL LEGEND ON THIS SHEET.

3. SEE FIRE ALARM RISER DIAGRAM(S) THIS SHEET.

4. CABLING REQUIREMENTS:

d. WIRING METHOD: THE SYSTEM WILL BE FREE WIRED USING APPROPRIATE STRAPS, TIES, FITTINGS, ETC. TO PREVENT DAMAGE TO THE WIRING.
 b. INITIATION CIRCUITS (LOOP): INITIATION LOOP CONDUCTORS SHALL BE WEST PENN #D991 FOR 3000'0" IN LENGTH AND LESS. WEST PENN #D995 SHALL BE USED FOR CIRCUITS OVER 3000'0" IN LENGTH. BELOW GRADE, WET OR DAMP LOCATION INSTALLED CABLE, INCLUDING CABLE INSTALLED ON THE TOP OF EXTERIOR WALKWAYS, SHALL BE WEST PENN AQUASEAL MULTI—CONDUCTOR (14 GAUGE), UNLESS NOTED

OTHERWISE, SHALL BE INSTALLED IN CONDUIT.
c. SIGNAL CIRCUITS: SIGNAL CIRCUITS SHALL BE #14 AWG THWN 19 STRAND COPPER (USE #12 AWG IF VOLTAGE DROP EXCEEDS

MANUFACTURER'S SPECIFICATIONS).

d. ANNUNCIATOR CIRCUITS: #14 AWG THWN 19 STRAND COPPER (USE #12 AWG IF VOLTAGE DROP EXCEEDS MANUFACTURER'S SPECIFICATIONS).
 e. EACH AND EVERY WIRE SHALL BE LABELED AT EACH END WITH SLC #, CHANNEL # OR SIGNAL #. EACH SEPARATE CIRCUIT, INITIATION, SIGNAL AND AUXILIARY SHALL HAVE A SPECIFIC NUMBER. LABEL EACH CONDUCTOR BY THIS CIRCUIT NUMBER AT THE CONTROL CONNECTIONS AND AT EACH TERMINAL CONNECTION IN THE TERMINAL CABINETS.

5. FIRE RATINGS REQUIRED FOR SURVIVABILITY: UNLESS NOTED OTHERWISE, PATHWAY SURVIVABILITY SHALL BE LEVEL 0 OR 1.

#### B. DEVICE LOCATIONS AND RELATED SYSTEMS

ALL INITIATION AND NOTIFICATION DEVICES ARE SHOWN ON ELECTRICAL POWER AND SYSTEMS PLANS WITHIN THIS ELECTRICAL DRAWING SET.
 CONNECTIONS TO OTHER SYSTEMS: PROVIDE RELAYS FOR OTHER LOCAL CONTROL SUCH AS HVAC SHUTDOWN AND FIRE/SMOKE DAMPER RELEASE.
RELAYS SHALL BE 10 AMP RATED RELAYS. UPON ACTIVATION OF THE FIRE ALARM SYSTEM, THE RELAY SHALL ACTIVATE AND SHUTDOWN THE
CONTROLLED EQUIPMENT. LOCATE ALL RELAYS WITHIN 36" OF EQUIPMENT CONTROLLED. PROVIDE WEATHERPROOF UNITS WHERE INDICATED OR
INSTALL IN WEATHERPROOF BOXES.

#### C. STROBE INTENSITY AND SPEAKER OUTPUT RATINGS

- 1. PER NFPA 72 SECTION 18.4.3 AUDIBLE SIGNALS SHALL BE AT LEAST 15dB ABOVE AVERAGE AMBIENT SOUND LEVEL OR 5dB ABOVE MAXIMUM SOUND LEVEL. WHICHEVER IS GREATER.
- 2. ALL VISUAL NOTIFICATION DEVICES SHALL HAVE A MINIMUM 75CD CANDELA RATING PER FBC.
  3. AUDIBLE APPLIANCES FOR SLEEPING AREAS SHALL PRODUCE A LOW FREQUENCY ALARM SIGNAL THAT COMPLIES WITH NFPA SECTION 18.4.5.3.

#### D. CIRCUIT CLASSES

INITIATING DEVICE CIRCUITS - CLASS B. SIGNALING LINE CIRCUITS - CLASS B. NOTIFICATION APPLIANCE CIRCUIT - CLASS B.

#### E. FUNCTIONS

SEE SEQUENCE OF OPERATIONS THIS SHEET.

#### F. FIRE ALARM TYPE AND ZONING

- 1. FIRE ALARM SYSTEM IS AN ADDRESSABLE TYPE. SUB-PANELS ARE ADDRESSABLE TYPE.
- INITIATING DEVICES SHALL BE ZONED BY BUILDING.
   EVACUATION SIGNALS SHALL BE ZONED BY BUILDING.

#### G. SURGE PROTECTION

DITEK SURGE PROTECTION DEVICES DEVICES SHALL BE PROVIDED AT EACH CONNECTION TO MAIN POWER AND WHERE A CIRCUIT ENTERS/EXITS THE BUILDING. ALL SURGE/TRANSIENT SUPPRESSORS MUST BE CONNECTED TO APPROVED BUILDING GROUND.

## H. ENVIRONMENTAL FACTORS

NO SPECIAL ENVIRONMENTAL FACTORS APPLY. FIRE ALARM DEVICES AND EQUIPMENT TO BE INSTALLED OUTDOORS IN EXTERIOR LOCATIONS SHALL BE SPECIFICALLY DESIGNED AND U.L. LISTED AS WEATHER AND WATERPROOF.

## I. SITE PLAN

AN ELECTRICAL SITE PLAN HAS BEEN PROVIDED ON SHEET E1.01 INDICATING THE LOCATIONS OF MASTER FACP IN CLUBHOUSE AND SUB PANEL FACP'S

## J. AREA SMOKE DETECTION

- 1. WHERE SMOKE DETECTORS ARE USED TO PROVIDE AREA COVERAGE, THEY SHALL BE LOCATED IN ACCORDANCE WITH NFPA 72 SECTION 17.7.3
- "LOCATION AND SPACING" AND NFPA SECTION 29.8.3.4 "SPECIFIC LOCATION REQUIREMENTS" FOR THE APPLICABLE CONDITIONS.

  2. SMOKE ALARMS AND SMOKE DETECTORS SHALL NOT BE LOCATED WHERE AMBIENT CONDITIONS, INCLUDING HUMIDITY AND TEMPERATURE, ARE
- OUTSIDE THE LIMITS SPECIFIED BY THE MANUFACTURER'S PUBLISHED INSTRUCTIONS.
- 3. SMOKE ALARMS AND SMOKE DETECTORS SHALL NOT BE LOCATED WITHIN UNFINISHED ATTICS OR GARAGES OR IN OTHER SPACES WHERE TEMPERATURES CAN FALL BELOW 40°F OR EXCEED 100°F.
- 4. SMOKE ALARMS AND SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 10 FT FROM A STATIONARY OR FIXED COOKING APPLIANCE, UNLESS LISTED FOR INSTALLATION IN CLOSE PROXIMITY TO COOKING APPLIANCES OR MEETING THE ADDITIONAL CRITERIA LIST IN SECTION 29.8.3.4(4).
- 5. SMOKE ALARMS AND SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 3 FT FROM THE FOLLOWING: A DOOR TO A BATHROOM CONTAINING A

# SHOWER OR TUB, SUPPLY AIR REGISTERS, AND/OR THE TIP OF THE BLADE OF A CEILING PADDLE FAN.

SMOKE STRATIFICATION IS NOT EXPECTED TO OCCUR IN THIS/THESE INTERIOR BUILDING(S).

#### L. PERFORMANCE BASED DESIGN (PBD)

THE DESIGN IS DERIVED FROM A PRESCRIPTIVE DESIGN BASIS.

#### M. EVACUATION SIGNAL

K. SMOKE STRATIFICATION

EVACUATION SIGNAL IS A GENERAL SIGNAL 

BY FLOOR 

BY BUILDING.

## N. WIRING REQUIREMENTS

- 1. WIRING SHALL BE IN ACCORDANCE WITH NFPA 72 AND NFPA 70 ARTICLES 300, 760, 770, AND 800, AS APPLICABLE, UNLESS OTHERWISE NOTED.
- PROTECTION AGAINST DAMAGE: INSTALL WIRING IN METAL RACEWAY. CONCEAL RACEWAY EXCEPT IN UNFINISHED SPACES AND AS INDICATED.
   FIRE ALARM DEVICES AND EQUIPMENT TO BE INSTALLED OUTDOORS IN EXTERIOR LOCATIONS SHALL BE SPECIFICALLY DESIGNED AND U.L. LISTED AS WEATHER AND WATERPROOF. PROVIDE WEATHERPROOF NEOPRENE GASKETS BETWEEN WALL MOUNTING SURFACE AND FIRE ALARM DEVICE FOR ALL DEVICES MOUNTED OUTDOORS.

#### O. OPERATIONS AND MAINTENANCE PROCEDURES

- 1. PROVIDE THE SERVICES OF A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO DEMONSTRATE THE SYSTEM AND TRAIN OWNER'S MAINTENANCE
- PERSONNEL AS SPECIFIED BELOW:

  a. TRAIN OWNER'S MAINTENANCE PERSONNEL IN THE LOCATION OF DEVICES, BOXES, PROCEDURES AND SCHEDULES INVOLVED IN OPERATING, TROUBLESHOOTING, SERVICING, AND PREVENTIVE MAINTAINING OF THE SYSTEM. PROVIDE A MINIMUM OF 4 HOURS' TRAINING. TRAINING SHALL INCLUDE A COMPLETE PROJECT WALKDOWN WITH OWNER'S AUTHORIZED REPRESENTATIVE TO IDENTIFY DEVICE LOCATIONS, JUNCTION BOX
- LOCATIONS AND SURGE SUPPRESSION MODULE LOCATIONS.

  b. SCHEDULE TRAINING WITH THE OWNER AT LEAST SEVEN WORKING DAYS IN ADVANCE.

#### (6) SYSTEM TEST AND DOCUMENTATION REQUIREMENTS

FIRE ALARM CONTRACTOR SHALL PERFORM THE TESTING LISTED BELOW AND PREPARE RECORDS PER NFPA 72 SECTION 14.6.

☑ INITIAL ACCEPTANCE TESTING IN ACCORDANCE WITH NFPA 72 SECTION 14.4.1 FOR ALL NEW APPLIANCE AND CIRCUITS. □ RE—ACCEPTANCE TESTING IN ACCORDANCE WITH NFPA 72 14.4.2 FOR MODIFICATIONS OF EXISTING CIRCUITS.

# FIRE ALARM SYMBOL LEGEND

FIRE ALARM CONTROL PANEL

FIRE ALARM ANNUNCIATOR PANEL

M FIRE ALARM MINI HORN

F M FIRE ALARM MINI HORN & STROBE COMBINATION

SPD SURGE PROTECTOR DEVICE

SMOKE DETECTOR

HEAT DETECTOR

FIRE ALARM PULL STATION

S

FIRE ALARM HORN

H

FIRE ALARM HORN & STROBE COMBINATION DD DUCT DETECTOR

FIRE ALARM HORN & STROBE COMBINATION (CEILING MTD)

RTS

REMOTE TEST ST

FIRE ALARM HORN & STROBE COMBINATION (CEILING MTD)

RTS

REMOTE TEST STATION FOR DUCT DETECTOR

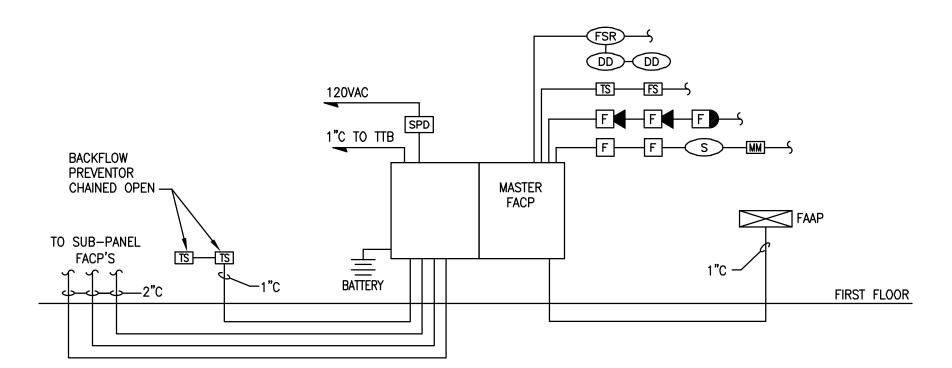
FSR

FIRE ALARM SHUT DOWN RELAY

FIRE AL	_ARM S	SEQUEN	ICE OF C	PERATI	ONS	
CATEGORIES	MANUAL PULL	AREA SMOKE/ HEAT DETECTORS	DUCT SMOKE DETECTORS	SPRINKLER VALVE FLOW SWITCH	SPRINKLER VALVE TAMPER SWITCH	BUILDING POWER FAILURE
ANNUNCIATION AT FIRE ALARM CONTROL PANEL (TROUBLE AND ALARM)	YES	YES	YES	YES	YES	YES
ANNUNCIATE AT REMOTE ANNUNCIATOR (TROUBLE AND ALARM)	YES	YES	YES	YES	YES	YES
ACTIVATE AUDIBLE AND VISUAL ALARM SIGNALS	YES	YES	YES	YES	NO	NO
SHUT DOWN AIR HANDLING UNIT(S) WITHIN THE ALARM ZONE	NO	NO	YES	NO	NO	NO
CLOSE ALL SMOKE/FIRE DAMPERS	NO	NO	YES	NO	NO	NO
RELEASE ALL MOTORIZED AND ELECRO- MAGNETICALLY HELD DOORS	YES	YES	YES	YES	NO	YES
RELEASE APPROVED SECURITY DOOR LOCKS	YES	YES	NO	YES	NO	YES

# F.A.C. 61G15-32.008

THE CONTRACTOR'S FIRE ALARM ENGINEER, AS THE "DELEGATED ENGINEER" SHALL BE THE "ENGINEER OF RECORD" FOR THE FIRE ALARM SYSTEM AND SHALL PREPARE COMPLETE AND FINAL FIRE ALARM DESIGN DOCUMENTS WITH BATTERY CALCULATIONS, SIGNED AND SEALED, AS DEFINED BY THE F.A.C. 61G15—32.008 AND SHALL SUBMIT REQUIRED DOCUMENTATION TO THE ARCHITECT FOR REVIEW BY THEIR "PRIME PROFESSIONAL ENGINEER" CONSULTANT TO REVIEW FOR BASIC DESIGN CRITERIA. UPON APPROVAL THE CONTRACTOR SHALL SUBMIT SIGNED AND SEALED DOCUMENTS TO THE AHJ FOR REVIEW AND APPROVAL.



# FIRE ALARM SYSTEM RISER DIAGRAM NO SCALE

# FIRE ALARM RISER - GENERAL NOTES:

- A. FIRE ALARM SYSTEM RISER DIAGRAM IS DIAGRAMMATICAL. SEE FLOOR PLANS FOR EXACT QUANTITIES OF DEVICES. WIRING SHALL BE AS RECOMMENDED BY SYSTEMS MANUFACTURER.
- B. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.
- C. ALL WORK SHALL COMPLY WITH THE 2014 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.
- D. PROVIDE 120VAC SURGE SUPPRESSION AND LOW VOLTAGE FIRE ALARM CIRCUIT SURGE SUPPRESSION.
- E. PROVIDE NOTIFICATION APPLIANCE CIRCUITS AND POWER SUPPLIES AS REQUIRED.
- F. REFER TO POWER AND SYSTEMS FLOOR PLANS FOR FIRE ALARM EQUIPMENT COUNT.
- G. PROVIDE 1" CONDUIT FROM FACP TO TTB.
- H. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT WHERE REQUIRED BY CODE OR AHJ. PROVIDE ALL REQUIRED MONITORING AND CONTROL OF MECHANICAL UNITS AS REQUIRED BY AUTHORITY HAVING JURISDICTION.
- VERIFY FIRE PROTECTION FLOW AND TAMPER SWITCH LOCATION WITH FIRE PROTECTION DRAWINGS. PROVIDE ALL REQUIRED MONITORING OF FIRE PROTECTION SYSTEM.

# FUGLEBERG KOCH

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**ISSUE HISTORY** 

**REVISION HISTORY** 

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JLC 17.0137.00

Blake Lawrence Suddeth P.E. #: 69060

BLS/AJB

06/22/2018

Approval: BLS/AJB

SUMMER BAY APTS. II

DETAILS - ELECTRICAL

LEGEND	SPECIFIC SPECIFIC	CATIONS	GENERAL NOTES
DIRECTION OF FLOW IN PIPE  PITCH PIPE DOWN IN DIRECTION OF ARROW  PIPE UP  PIPE DOWN  EJ  EXPANSION JOINT  FLEXIBLE PIPE CONNECTOR  BALL VALVE  CHECK VALVE, HORIZONTAL SWING  GATE VALVE	PART 1 GENERAL  1.1 SECTION INCLUDES  A. GENERAL PROVISIONS SPECIFICALLY APPLICABLE TO DIVISION 15 SECTIONS, IN ADDITION TO DIVISION 1 — GENERAL REQUIREMENTS.  1.2 SCOPE  A. THE WORK SHALL INCLUDE THE PROVISIONS OF SYSTEMS, EQUIPMENT AND MATERIALS SPECIFIED IN THIS DIVISION AND AS CALLED FOR ON THE DRAWINGS. WORK SHALL ALSO INCLUDE SUPERVISION, OPERATION, METHODS AND LABOR FOR THE FABRICATION, START—UP AND TESTS FOR A COMPLETE OPERATIONAL PLUMBING INSTALLATION.  B. DRAWINGS FOR THE WORK ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO CONVEY THE SCOPE OF THE INSTALLATION AND TO INDICATE THE GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS PIPE FITTINGS, ACCESS PANELS, AND SLEEVES MAY NOT BE SHOWN. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE EQUIPMENT TO FIT THE SPACE PROVIDED. THE	1.4 CUTTING AND PATCHING  A. SUBMIT WRITTEN REQUEST IN ADVANCE OF CUTTING OR ALTERING ELEMENTS.  B. EMPLOY SKILLED AND EXPERIENCED INSTALLER TO PERFORM CUTTING AND PATCHING WHICH EFFECT:  1. STRUCTURAL INTEGRITY OF ELEMENT. 2. INTEGRITY OF WEATHER. 3. EFFICIENCY, MAINTENANCE, OR SAFETY OF ELEMENT. 4. VISUAL QUALITIES OF SIGHT. 5. WORK OF OWNER OR SEPERATE CONTRACTOR.  PART 2 PRODUCTS  2.1 PIPE HANGERS AND SUPPORTS  A. MANUFACTURERS: 1. B-LINE. 2. OTHER ACCEPTABLE MANUFACTURERS OFFERING	1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FITTINGS AS REQUIRED BY ALL APPLICABLE CODES AND GOVERNING AUTHORITIES.  2. CONTRACTOR SHALL VERIFY AND CORRECT AS REQUIRED TO MEET ALL CODES AND REGULATIONS ANY POSSIBLE DISCREPANCIES BETWEEN TYPE AND SIZE OF CONNECTION SPECIFIED IN PLUMBING FIXTURE SCHEDULE AND FIXTURES ACTUALLY INSTALLED ON THE SITE.  3. ALL DRAINAGE PIPING 3" AND LARGER SHALL HAVE AN 1/8" PER FOOT SLO ALL DRAINAGE PIPING 2-1/2" AND LESS SHALL HAVE A 1/4" PER FOOT SI CEILING AND WALLS. PROVIDE FIRE RATED PANEL IN RATED WALLS.  5. VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY A LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.  6. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.  7. CONTRACTOR SHALL FIELD VERIFY ALL GIVEN MEASUREMENTS PRIOR TO LAYING AND CONNECTING ALL SANITARY AND WASTE PIPING AND NOTIFY
BUTTERFLY VALVE  GLOBE VALVE  BALANCING VALVE  BALANCING COCK  STRAINER, Y-TYPE AND BLOWOFF VALVE  PRESSURE RELIEF VALVE (WATER)  PRESSURE REDUCING VALVE  MANUAL AIR VENT  SOLENOID VALVE  VALVE OS & Y  CAPPED LINE  SAN SANITARY SEWER (ABOVE GRADE)  SAN SANITARY SEWER (BELOW GRADE)  DOMESTIC COLD WATER  BP BOOSTED PRESSURE DOMESTIC COLD WATER  DOMESTIC HOT WATER RETURN  COD CONDENSATE DRAIN (BELOW GRADE)  STORM SEWER (BELOW GRADE)  GR GREASE SEWER (BELOW GRADE)  DOMESTIC HOT WATER  COD CONDENSATE DRAIN (BOVE GRADE)  STORM SEWER (BELOW GRADE)  GR GREASE SEWER (BELOW GRADE)  GR GAS LINE (BELOW GRADE)  DOMESTIC HOT WATER  VENT  OF A GAS LINE (BELOW GRADE)  FO EXISTING  POINT OF CONNECTION NEW TO EXISTING  POINT OF CONNECTION WHICH DETAIL IS LOCATED.  A HOSE BIBB  FD ON THE PRESSED AIR (BELOW GRADE)  A COMPRESSED AIR (BELOW GRADE)  A COMPRESSED AIR (BELOW GRADE)  COMPRESSED AIR (BELOW GRADE)  A COMPRESSED AIR (BELOW GRADE)	LOCATION AND SIZES FOR PIPE FITTINGS, SIZENS, INSERTS, PIRE AND/OR SMOKE DAMPES, AND OTHER SISC ITEMS REQUIRED BY CODE AND OTHER SECTIONS SHALL BE COORDINATED AND INCLUDED FOR THE PROPER INSTITULATION OF THE WORK.  C. EQUIPMENT SPECIFICATIONS MAY NOT DEAL INDIVIDUALLY WITH MINITE ITEMS REQUIRED DUE AS COMPONINS, PARTS, CONTROLS AND DEVICES WHICH MAY BE REQUIRED TO PRODUCE THE EQUIPMENT PRESONANCE SPECIFIED TO AS REQUIRED TO MEET THE EQUIPMENT WARRAWITES. WHERE SUCH ITEMS ARE REQUIRED TO SHALL BE MAY SERVING THE CONTRACT DOCUMENTS WITH NO ADDITIONAL COST INCURRED.  D. WHERE NOTED ON THE DRAWINGS OR INDICATED IN OTHER SECTIONS OF THE STEWN FOR THE CONTRACTOR FOR THE SECTIONS OF THE SECTIONS OF THE STEWN FOR THE CONTRACTOR FOR THE OTHER SECTIONS OF THE SECTION OF THE S	EQUIDALENT PROPOSES.  A) MICHIGAN HARGER. B) PHO.  2. PIPING INSULATION: TOT WATER, HOT WATER RETURN, STORM PIPING. A. MANUFACTURERS. 1. OWENS—CORRING. 2. JOHNS—MANUFLE. B. ASTAL CEAP, RIGID MODED NON—COMBUSTIBLE FIBERCLASS INSULATION. C. VAPOR BARRIER MAKET, REATE PAPER WITH CLASS RIBER YARN AND BONDED TO A JUNION BHILM. CLOSURE SYSTEM SHALL BE UL 181. D. INSULATION THICKNESS 1—1/2*  2.3 PIPING: DRAINAGE WASTE, VEHT, CONDENSATE AND STORM PIPING. A. PVC: ASTM D2665 SCHEDULE 40 PVC PIPING. 1. FITTINGS: ASTM D2665 SCHEDULE 40 PVC PIPING. 2. JOHN'S ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM PVC SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM PVC SCHEDULE 40 PVC DWV FITTINGS. 2. JOHN'S ASTM PVC SCHEDULE 40 PVC DWV FITTINGS. 3. LEWISLAND GARD CPUC PPE AS MEG. BY NOVEON INC. OR SPEARS DYETTIVE OVER CITY FULLWOOM SYSTEM.  PART 3. INSTALLATION  A. INSTALL SPEAR TO ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. B. PROVIDE NON—CONDUCTING DELECTRIC CONNECTIONS WHEREVER JOHN'NO DSSIMULAR METALS. C. ROUTE PIPING IN ORGERLY MANNER AND MAINTAIN GRADIENT. D. INSTALL PIPING TO CONSERVE BUILDING SPACE AND NOT INTERFERE WITH USE OF SPACE. E. GROUP PIPING WHEREVER PRACTICAL AT COMMON ELEVATIONS. F. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOHN'S, OR CONNECTED EQUIPMENT. G. PROVIDE CLEARNING FOR INSTALLATION OF MOCESS DOORS WITH APPROPMENE ARCHITECTURAL SECTION.  H. PROVIDE CLEARNING FOR INSTALLATION OF MOCESS DOORS WITH APPROPMENE ARCHITECTURAL SECTION.  I. ESTABLISH ELEVATIONS OF DIRESTING BUILDING FOR COAT OF ZNAW GROTH PRIMERY SINGERS PROVINGE PROPER SLOPE AND COVER.  J. ESTABLISH LE	ARCHITECT OF ANY DISCREPANCIES.  8. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER ARRESTOR AS SPECIFICD.  9. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FIRE RATING AND WEATHERFROOMEN. INTERRITY OF ALL PIPING AND PENETRATIONS.  10. ALL WATER SUPPLY AND SANTARY UNES SHALL BE RUN AS CLOSE TO PLANS AS POSSIBLE WITH NO CHANCES IN SIZING. PROVIDE RIFE RATIDE PANELS, POXES FOR ALL PULMBING DEWCES LOCATED IN RATED WALLS.  11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVCES FOR ALL FIXTURES INCLUDED IN CONTRACT OR HEREIN SPECIFIED OR OTHERWISE.  12. INSULATE ALL HOT WATER AND HOT WATER RETURN PIPING.  13. ALL DRAINAGE PIPING SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE HATIONAL SANITATION FOUNDATION.  14. DO NOT PENETRATE FOUNDATIONS WITH PIPING, COORDINATE WITH GENERAL OR FOOTING WIST OF ROPP FOUNDATIONS AS REQUIRED TO CLEAR PLUMBING SE WHERE ABSOLUTELY NECESSARY. ALL PIPING PENETRATING A BEARING WALL OR FOOTING WIST BE SLEEVED AND LOCATION PROPROVED BY STRUCTURAL ENONINER.  15. ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR IN CHASES, PIPING EXPOSED SHALL BE SUPPED AND PARTIED TO MATCH ARCHITECTURAL FINISHES. PIPING IN MECHANICAL ROOMS MAY BE EXPOSED.  16. PROVIDE ACCESS PANELS TO ALL VALVES WITHIN CHASES OR ABOVE NON-ACCESSIBLE CEILINGS, RETER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.  17. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING FIXTURE MOUNTING HEIGHTS, AND DIMENSIONS.  18. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW SEWE LINES ARE TO BE CONNECTED BEFORE INSTALLATION OF NEW SEWE LINES ARE TO BE CONNECTED BEFORE INSTALLATION OF NEW SEWE LINES.  21. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF FROM ANY ARE INTRACES.  22. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF FROM ANY ARE INTRACES.  23. ILL WATER PIPING INSTALLED IN EXTERIOR WALLS SHALL BE PLACED ON THE INTERCRIPTION OF THE PIPING.  24. ALL VENTS THROUGH ROOF SHALL BE MIN. 10°-0" FROM ANY ARE INTRACES.  25. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (INCLUDING PIPE

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FUGLEBERG KOCH

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JLC 17.0137.00

Adam Joseph Barney P.E. #:69124

SYMBOL LEGEND & NOTES

**PLUMBING** 

P0.01

Checked: BLS/AJB
Approval: BLS/AJB

Date: 06/22/2018

SUMMER BAY

LAKE COUNTY, FL

Joseph, Lawrence & Co

Consulting Engineers

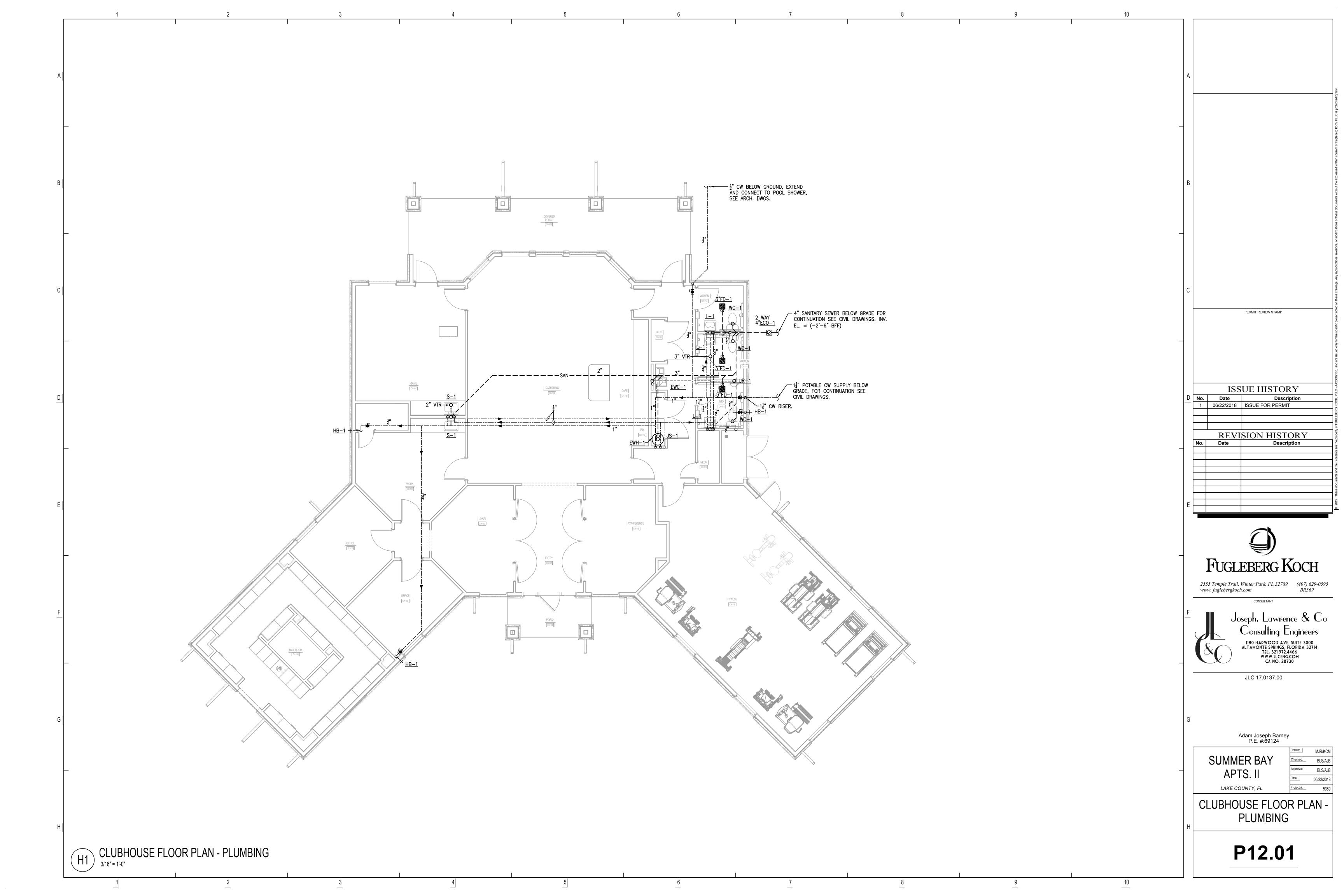
1180 HARWOOD AVE. SUITE 3000 ALTAMONTE SPRINGS, FLORIDA 32714 TEL: 321.972.4466 WWW.JLCENG.COM CA NO. 28730

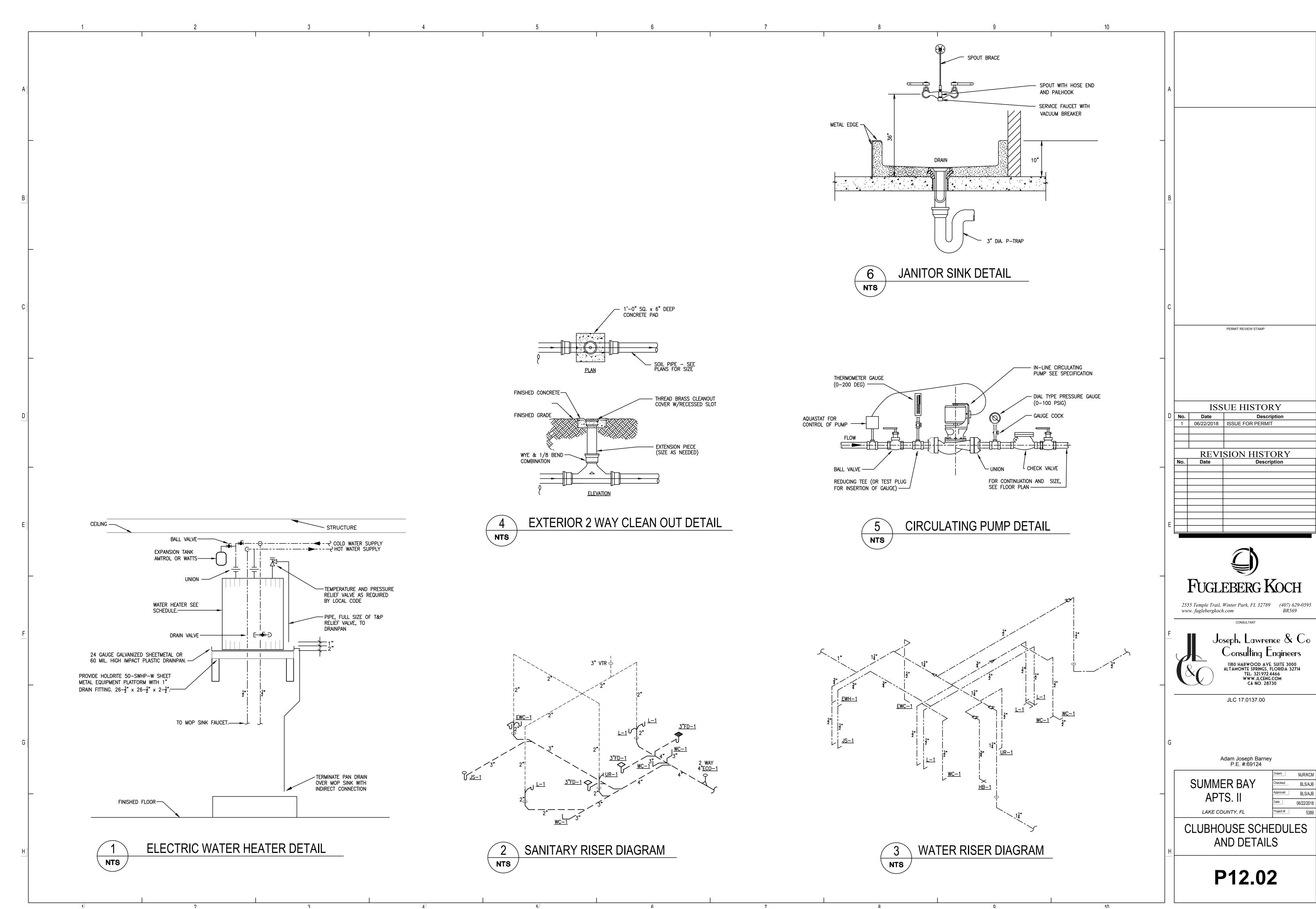
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			PLI	JMBING	G FIXT	URE S	CHEDULE	- CLUBHOUSE
MARK	FIXTURE	WASTE	TRAP	VENT	COLD WATER	HOT WATER	MANUFACTURER /MODEL #	DESCRIPTION
WC-1	WATER CLOSET — ADA TYPE	3"	INTEG	2"	1/2"	_	AMERICAN STANDARD 2998.012 OR EQUAL	RIM 16-1/2"AFF. TANK TYPE, VITREOUS CHINA, 1.6 GPF, SIPHON JET, ELONGATED BOWL, FLOOR MOUNTED, CLOSED COUPLED COMBINATION, BOLT CAPS. 'BRASSCRAFT' ANGLE STOP SUPPLY & ESCUTCHEON. 'BEMIS' SOLID PLASTIC, OPEN FRONT ELONGATED SEAT. WITH SELF SUSTAINING CHECK HINGES. FLUSH HANDLE TO BE ON OPEN SIDE OF TOILET CLEAR SPACE.
L-1	LAVATORY — ADA TYPE	2"	1-1/4"	1-1/2"	1/2"	1/2"	AMERICAN STANDARD 0355.012 OR EQUAL	LUCERNE 20" x 18" WALL HUNG, VITREOUS CHINA WITH INTEGRAL BACKSPLASH. 'AMERICAN STANDARD' #2275.500, 4" CENTERS, C.P. METAL, TWO-LEVER HANDLE FAUCET. GRID STRAINER WITH TAILPIECE, C.P. BRASS P-TRAP WITH WALL ARM & ESCUTCHEONS. 'BRASSCRAFT' ANGLE VALVE SUPPLY RISERS W/LOOSE KEY STOPS. INSULATE P-TRAP AND SUPPLIES WITH 'TRUEBRO' INSULATION KIT. 'ZURN' 1231 CAST IRON FLOOR MOUNTED CARRIER FITTING WITH CONCEALED ARMS. PROVIDE ANTI-SCALD TEMPERING VALVE FOR HOT WATER SUPPLY.
UR-1	URINAL	2"	INTEGRAL	1-1/2"	3/4"	-	AMERICAN STANDARD 6561.017 OR EQUAL	LIP 17" AFF. VITREOUS CHINA, WHITE, WALL HUNG WASHOUT FLUSH URINAL COMPLETE WITH 3/4" TOP SPUD AND WALL HANGERS. 'SLOAN' ROYAL FLUSH VALVE #186-0.5 (0.5 GALLON PER FLUSH). 'ZURN' Z1221 CAST IRON, FLOOR MOUNTED CARRIER.
S-1	SINK	2"	1-1/2"	1-1/2"	1/2"	1/2"	ELKAY LR2521	25" x 21-\frac{1}{4}" SINGLE COMPARTMENT SINK, 7-\frac{7}{8}" DEEP BOWL, #18 GAUGE, TYPE 304 NICKEL BEARING STAINLESS STEEL, TOP MOUNT, SUPPLY WITH MOUNTING CLIPS. 'OLYMPIA' K-4161 C.P. SINGLE LEVER HANDLE FAUCET. C.P. STRAINER WITH TAILPIECE, C.P. BRASS P-TRAP WITH WALL ARM & ESCUTCHEONS. 'BRASSCRAFT' ANGLE VALVE SUPPLY RISERS W/LOOSE KEY STOPS.
JS-1	JANITOR SINK	3"	3"	1-1/2"	1/2"	1/2"	FIAT MSB 2424	24" x 24" x 10" HIGH MOLDED STONE RECEPTOR, W/ FIAT #830-AA FAUCET MOUNTED IN WALL ABOVE FIXTURE. COMPLETE WITH VACUUM BREAKER, HOSE THREAD OUTLET & BUCKET HOOK, INTEGRAL STOPS AND MOUNTING BRACKET. PROVIDE COMBINATION STAINLESS STEEL DOME STRAINER AND LINT BASKET, 3" CAULKED OUTLET.
EWC-1	ELECTRIC WATER COOLER	2"	1-1/2"	1-1/2"	1/2"	-	ELKAY EZSTL8C	LOWER BUBBLER 36"AFF; UPPER 41"AFF. WALL MOUNTED CAPACITY TO DELIVER 8 GPH OF 50°F. WATER WITH INLET TEMP. OF 80°F AND ROOM TEMP. OF 90°F., STAINLESS STEEL BASIN & PEWTER VINYL W/ 1/5 HP.,120V, 60 CYCLE, 1 PH. W/ OVERLOAD PROTECTION 1 1/2" P—TRAP STOP VALVE, CORD & PLUG. ZURN #Z1225—BL CAST IRON FLOOR MOUNTED CARRIER FITTING WITH BEARING PLATE.
HB-1	HOSE BIBB	-	-	_	1/2"	-	WOODFORD #B24 OR EQUAL	CONCEALED NON-FREEZE, WALL HYDRANT, COMPLETE WITH BRONZE BODY, ALL BRONZE INTERIOR PARTS, REPLACEABLE SEAT WASHER, INTEGRAL VACUUM BREAKER, KEY-OPERATED CONTROL VALVE, AND ¾" FEMALE IP INLET CONNECTION STANDARD. NICKEL BRONZE BOX AND HINGED COVER. AVAILABLE WITH ¾" MALE HOSE CONNECTION. INCLUDES OPERATING KEY.
WHA-1	WATER HAMMER ARRESTOR	-	_	_	_	_	SIOUX CHIEF #650 SERIES OR EQUAL	SIZE PER MANUFACTURER'S RECOMMENDATIONS. PDI CERTIFIED. WHA-1: SIZE "A" WHA-2: SIZE "B" REFER TO RISER DIAGRAMS FOR ARRESTOR LOCATIONS. REFER TO SPECIFICATION FOR SELECTION METHOD.
FD-1	FLOOR DRAIN	SIZE/ SEE DWG.	-	_	_	_	ZURN ZN415S-HD-P OR EQUAL	DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TYPE 'S' POLISHED BRONZE 6" x 6" HEAVY DUTY SQUARE STRAINER. 1/2" TRAP PRIMER CONNECTION.
TPV-1	TRAP PRIMER VALVE	-	-	_	1/2"	-	PRECISION PLUMBING PRODUCTS PR-500	PROVIDE FULLY ACCESSIBLE SHUT OFF VALVE TO EACH PRIMER VALVE. PROVIDE TRAP PRIMER TO EACH FLOOR DRAIN.

- 1. WHERE COLOR/FINISH OPTIONS ARE AVAILABLE FOR FIXTURES, SELECTIONS SHALL BE SUBMITTED TO THE OWNER PRIOR TO PURCHASE AND INSTALLATION.
  2. VERIFY SINK DIMENSIONS WITH ARCHITECT, RE: MILLWORK.
- 3. REFER TO ARCHITECTURAL DRAWING FOR MOUNTING HEIGHTS OF ALL FIXTURES.
- 4. FIXTURES FOR USE BY THE DISABLED:
- A. INSTALL IN ACCORDANCE WITH A.D.A., STATE AND LOCAL REQUIREMENTS.
- B. THE FORCE REQUIRED TO ACTIVATE FLUSH VALVES SHALL BE 5 LBS MAXIMUM.
  C. FLUSH ACTIVATOR SHALL BE LOCATED ON WIDE SIDE OF THE STALL.
- D. THE FAUCET CONTROLS AND THE OPERATING MECHANISM (OPERABLE WITH ONE HAND) SHALL BE OF THE TYPE NOT REQUIRING AN OPERATING FORCE EXCEEDING 5 LBS, OR TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.

			ELEC	TRIC W	ATER H	EATER	SCHE	DULE		
UNIT #	SERVING	TYPE	GALLONS	INPUT KW	VOLT/PHASE CURRENT DRAW (PER PHASE)	GPH REC. © 70°F RISE	WEIGHT (LBS.)	DIMENSIONS	MANUFACTURER	JFACTURER  MODEL #
EWH-1	CLUBHOUSE	ELECTRIC	30	4.5	208V - 1ø	21	342	50-3/8" H x 19-3/4" ø	RHEEM	PROE30 T2 RH95

- 2. COORDINATE WATER HEATER LOCATION AND PIPING WITH MECHANICAL AND ELECTRICAL PLANS.
- 1. PROVIDE WITH EXPANSION VALVE, T & P VALVE AND WATER HEATER DRAIN PAN.

			CIF	RCULAT	ING F	PUMP	SCHE	DUL	E				
	D 500 D 101 1	7.05	0.504	FT	CONN.	SIZE		MOTOR	DATA		SELECTION	BASED ON:	REMARKS
UNIT #	DESCRIPTION	TYPE	GPM	HEAD	INLET	OUTLET	HP	RPM	VOLT	PH.	MANUFACTURER	MODEL	INCHINATION .
HWCP-1	HOT WATER CIRCULATION PUMP	IN LINE PUMP	4	15	1/2"	1/2"	1/12	1750	120	1 PH	GRUNDFOS	UP15-42B7	PROVIDE AQUASTAT

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Adam Joseph Barney P.E. #:69124

SUMMER BAY

Checked: BLS/AJB Approval: BLS/AJB Date: 06/22/2018 LAKE COUNTY, FL

CLUBHOUSE SCHEDULES

P12.03

FIRE PROTECTION LEGEND	FIRE PROTECTION GEN	ERAL NOTES (APARTMENTS)
——————————————————————————————————————	APPLICABLE CODES: FBC FLORIDA BUILDING CODE (2014) 5TH EDITION FFPC FLORIDA FIRE PREVENTION CODE (2014) 5TH EDITION NFPA 13R, 14, 24 & 25. EDITION 2010	PRODUCTS CAN BE COMPATIBLE WITH CPVC PIP COMPATIBILITY PROBLEMS CAN BE PRESENT IN ARE HIGHLY STRESSED.
—————————————————————————————————————	1. WET PIPE SPRINKLER SYSTEM DESIGNED PER NFPA 13R, CLASS 1, MANUAL WET STANDPIPE SYSTEM DESIGNED IN ACCORDANCE WITH NFPA 14. 500 GPM/100 PSI 1ST STANDPIPE, 250 GPM/100 PSI EACH ADDITIONAL STANDPIPE. RESIDENTIAL OCCUPANCY (DWELLING UNITS) USING ALL SPRINKLERS IN A COMPARTMENT, UP TO A MAXIMUM OF FOUR SPRINKLERS, THAT REQUIRES THE GREATEST HYDRAULIC DEMAND PER THEIR LISTING TO MEET OR EXCEED THE REQUIREMENTS OF NFPA 13R AND LOCAL AUTHORITIES	28. SPRINKLER PROTECTION SHALL BE PROVIDED FO GROUND FLOOR PATIOS OF DWELLING UNITS WH CONSTRUCTION, PROVIDED THERE IS A ROOF OF THAT ARE USED TO PROTECT SUCH AREAS SHA THAT THEIR DEFLECTORS ARE WITHIN 1 INCH TO MEMBERS AND A MAXIMUM DISTANCE OF 14 INC EXTERIOR BALCONIES AND DECKS THAT ARE CO
CONTROL VALVE CHECK VALVE OS&Y GATE VALVE VALVE WITH TAMPER SWITCH FHV FIRE HOSE VALVE FS FLOW SWITCH FVC FIRE VALVE CABINET GPM GALLONS PER MINUTE ITC INSPECTOR'S TEST CONNECTION PS PRESSURE SWITCH PSI POUNDS PER SQUARE INCH SF SQUARE FOOT SP STANDPIPE TS TAMPER SWITCH WP WET PIPE	AUTHORITIES.  2. ALL FIRE SPRINKLERS SHALL BE USED INSIDE THE DWELLING UNITS PER NFPA 13R, ALL OTHER SPRINKLERS SHALL BE USED INSIDE THE DWELLING UNITS PER NFPA 13R, ALL OTHER SPRINKLERS SHALL BE OF THE OUICK RESPONSE TYPE.  3. ALL MARERIALS, PRERICATION, AND INSTALLATION IS TO BE IN ACCORDANCE WITH NFPA 13R, ADIO EDITION, NFPA 14, AND APPROVED BY THE LOCAL AUTHORITIES.  4. ALL HANGERS & MATERIALS TO BE IN ACCORDANCE WITH NFPA 13R, NFPA 14.  5. FIRE SPRINKLER CONTRACTOR WILL VISIT THE SITE AND VERIFY ALL CONDITIONS BEFORE ANY FABRICATION AND INSTALLATION HAS BEGUN.  6. FIRE SPRINKLER CONTRACTOR WILL COORDINATE WORK WITH OTHER TRADES THAT MAY COME INTO CONFLICT BEFORE ANY INSTALLATION.  7. FIRE SPRINKLER CONTRACTOR TO COORDINATE SPRINKLER LOCATIONS WITH ALL OTHER CEILING AND WALL FIXTURES. SEE ARCHITECTURAL PLANS FOR CEILING FIXTURE LOCATIONS.  8. ALL BRANCH LINES AND CROSS MAINS ON RESIDENTIAL UNIT FLOORS TO BE BLAZEMASTER CPVC (OR APPROVED EDUAL). PER THEIR LISTING AND GALAVIEZE STEEL PIPE FOR ANY EXPOSED PIPING INCLUDING THE FIRE SPRINKLER RISER, ALL TRANSTIONS FROM STEEL TO CPVC PIPING WILL BE MADE WITH ULA APPROVED FITTINGS.  9. ALL FITTINGS FOR CPVC BRANCH LINES AND CROSS MAINS TO BE BLAZEMASTER CPVC (OR APPROVED EDUAL). PER CPVC PIPING WILL BE MADE WITH ULA APPROVED FITTINGS.  10. ALL FIRE SPRINKLER COMPONENTS SHALL BE ULL APPROVED.  11. UPRIGHT SPRINKLER COMPONENTS SHALL BE ULL APPROVED.  12. SPRINKLER HEAD SPACING IS PER NFPA 13R AND MANUFACTURER'S LISTING.  13. THE CONSTRUCTION MANAGER SHALL PROVIDE, OR HAVE PROVIDED, A SET OF CONCINCION AND AND ALL SYSTEMS AND FEATURES THAT OCCUR ABOVE THE CEILING PLANE. THE COORDINATION DEARWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, STRUCTURAL MEMBERS, HAVAC DUCTWORK, HYDRAUL CPIPING, FULL MIGHT SUPPLY AND WASTE PIPING, FIRE PROTECTION PIPING, ELECTRICAL POWER CONDUITS AND RACEWAYS, AND ELECTRICAL LOW VOLTAGE CONDUITS AND RACEWAYS. THE COORDINATION DEARWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, STRUCTURAL MEMBERS, HAVAC DUCTWORK, HYDRAUL CPIPING, FULL MIGHT OF ALL	EXTERIOR BALLOWIES AND DECKS THAT ARE COCONSTRUCTION.  29. THE FIRE SPRINKLER CONTRACTOR SHALL PREP ACCORDANCE WITH NFPA 13R, NFPA 14 THE FI FOLLOW THE DESIGN GUIDELINES SET FORTH IN ENGINEERING DOCUMENTS.  30. THE FIRE SPRINKLER CONTRACTOR SHALL OBTAL LOCAL AUTHORITY. THE ACCEPTANCE TEST FOR PIPING SHALL BE IN ACCORDANCE WITH NFPA 1 AND TEST CERTIFICATE FOR ABOVEGROUND PIPING SHALL BE IN ACCORDANCE WITH NFPA 1 AND TEST FOR THE UNDERGROUND PIPING SHALL BE CHAPTER 10, SECTION 10.10 USING THE MATER UNDERGROUND PIPING IN FIGURE 10.10.1.  31. THE POINT OF SERVICE IS INDICATED AT THE S PREVENTER. AT THIS POINT, THE SYSTEM IS D PURPOSES. NO DOMESTIC WATER SHALL BE TOWN FOR OTHER PURPOSES.  32. CLASSIFICATIONS OF HAZARD OCCUPANCIES FOR FOLLOWS: (RESIDENTIAL FLOORS) RESIDENTIAL CONTROL OF THE PURPOSES.  33. THE SPRINKLER SYSTEM SHALL BE WET PIPE F REMOTE AREA USING ALL SPRINKLERS WITHIN A SPRINKLERS, THAT REQUIRE THE GREATEST HYD THE REQUIREMENTS OF NFPA 13R, AND LOCAL MINIMUM TEMPERATURE RATING OF 155' AND THOR MANUFACTURERS LISTING.  34. SEE CIVIL UTILITIES PLAN FOR WATER SUPPLY FOR MANUFACTURERS LISTING.  35. IF THE FLOW TEST BECOMES GREATER THAN SUFFIRE SPRINKLER CONTRACTOR.  36. VALVE AND ALARM REQUIREMENTS: ALL CONTROL FIRE PROTECTION BACKFLOW PREVENTERS SHALL SWITCH SHALL BE SET TO NOT ALARM WITH MIT FLUCTUATIONS. HOWEVER, THE FLOW OF ONE ALARM CONDITION BY TRIPPING THE FLOW SWIT SHALL BE CONNECTED TO THE BUILDING FIRE ALSO SOUND THE ELECTRIC ALARM BELL ON THE CONTRACTOR SHALL VERIEY AND TEST PER NFP 37. THE LOCAL WATER SUPPLY.  38. BACKFLOW PREVENTER AND METERING SPECIFICA REQUIREMENTS OF THE LOCAL JURISDICTION.  39. YARD AND INTERIOR FIRE PROTECTION COMPONIS SUBMITTED BY THE SPRINKLER CONTRACTOR ALFIRE PROTECTION DEVICES AND COMPONENTS SETTION.
	19. FLOW SWITCHES, TAMPER SWITCHES AND ALARM BELL SHALL BE PROVIDED AND INSTALLED BY THE FIRE SPRINKLER CONTRACTOR. SPRINKLER SYSTEMS AND ALL ASSOCIATED FIRE PROTECTION SIGNALS SHALL BE SUPERVISED BY AN APPROVED CENTRAL, PROPRIETARY, AUXILIARY, OR REMOTE STATION SYSTEM IN ACCORDANCE WITH NFPA 13R. ALL WIRING TO BE PROVIDED BY ELECTRICAL CONTRACTOR.  20. FIRE PROTECTION SHOP DRAWINGS, HYDRAULIC CALCULATIONS, AND MATERIAL DATA SUBMITTALS ARE TO BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW AND APPROVAL.  21. THE INTENT, AND EXTENT, OF THIS SYSTEM DESIGN IS AS ILLUSTRATED, BUT IS DIAGRAMMATIC ONLY. IT IS THE RESPONSIBILITY OF THE FIRE SPRINKLER CONTRACTOR TO ASSEMBLE A SET OF DRAWINGS DEPICTING THE ACTUAL PIPING CONFIGURATION FOR EACH BUILDING IN ITS ENTIRETY PRIOR TO SUBMITTAL TO ENGINEER OF RECORD FOR REVIEW. HYDRAULIC CALCULATIONS ARE PROVIDED TO VERIEY THE ADEQUACY OF THE WATER SUPPLY. THE SPRINKLER CONTRACTOR SHALL PROVIDE A SET OF HYDRAULIC CALCULATIONS FOR EACH BUILDING TYPE USING A FLOW TEST CURRENT TO WITHIN SIX MONTHS.  22. CORROSION PROTECTION FOR ALL UNDERGROUND BOLTED JOINT ACCESSORIES SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION—RETARDING MATERIAL AFTER INSTALLATION IN ACCORDANCE WITH NFPA 13 SECTION 10.3.6.2.  23. THE UNDERGROUND MAIN STARTING AT THE PUBLIC WATER UTILITY POINT OF CONNECTION HAS BEEN DESIGNED TO NFPA 24. INSTALLATION AND TESTING MUST BE IN ACCORDANCE WITH NFPA 24.  24. ALL TEES, PLUGS, CAPS, BENDS, REDUCERS, VALVES, AND HYDRANT BRANCHES SHALL BE RESTRAINED AGAINST MOVEMENT BY USING THRUST BLOCKS OR RESTRAINED JOINT SYSTEMS IN ACCORDANCE WITH NFPA 24.  25. ALL FIRE SPRINKLER COMPONENTS ARE TO BE RATED FOR THE MAXIMUM SYSTEM WORKING PRESSURE TO WHICH THEY ARE EXPOSED IN ACCORDANCE WITH NFPA 13.  26. THE COMPONENTS OF THE FIRE PROTECTION SYSTEM(S) FURNISHED UNDER THIS DIVISION OF THE SPECIFICATIONS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE THEREOF, EITHER FOR BENEFICIAL USE OR FINAL ACCEPTANCE. WHICHEVER IS E	FIRE SERVICE PIPE MATER  1. ALL PRIVATE FIRE SERVICE MAINS/LINES LOCATED SHALL BE INSTALLED BY A QUALIFIED AND LICENS MINIMUM COVER. CONSTRUCTION SHALL COMPLY CONTRACTOR TO VERIFY REQUIREMENTS BEFORE S (SHARED DOMESTIC AND FIRE SUPPRESSION SERVI SUPPRESSION SYSTEM POINT OF SERVICE CAN BE EXCAVATION OR SITE UTILITY CONTRACTOR.  2. POINT OF SERVICE IS TO BE DESIGNATED FOR ALL SPRINKLER SYSTEM.  3. THE UNDERGROUND MAIN STARTING AT THE PUBLIC HAS BEEN DESIGNED TO NFPA 24. MATERIALS, IN ACCORDANCE WITH NFPA 24.  4. ALL NEW PRIVATE FIRE SERVICE MAINS/LINES AND HYDROSTATIC TESTED TO 200 PSI FROM THE POINT 24.  6. FIRE SERVICE MAINS/LINES SHALL BE POLYVINYL (AWWA C900 WITH DIMENSION RATIO (DR) OF EIGH CLASS OF TWO HUNDRED POUNDS PER SQUARE IN "ENGINEER OF "RECORD" FOR THE FIRE PROTECTION S FINAL FIRE PROTECTION DESIGN DOCUMENTS WITH THE SEALED, AS DEFINED BT THE F.A.C. 61G15 AND SHALL

#### PRODUCTS CAN BE COMPATIBLE WITH CPVC PIPING. HOWEVER, THE POTENTIAL FOR COMPATIBILITY PROBLEMS CAN BE PRESENT IN INSTALLATIONS WHERE CPVC MATERIALS ARE HIGHLY STRESSED.

- 28. SPRINKLER PROTECTION SHALL BE PROVIDED FOR EXTERIOR BALCONIES, DECKS AND GROUND FLOOR PATIOS OF DWELLING UNITS WHERE THE BUILDING IS OF TYPE V CONSTRUCTION, PROVIDED THERE IS A ROOF OR DECK ABOVE. SIDEWALL SPRINKLERS THAT ARE USED TO PROTECT SUCH AREAS SHALL BE PERMITTED TO BE LOCATED SUCH THAT THEIR DEFLECTORS ARE WITHIN 1 INCH TO 6 INCHES BELOW THE STRUCTURAL MEMBERS AND A MAXIMUM DISTANCE OF 14 INCHES BELOW THE DECK OF THE EXTERIOR BALCONIES AND DECKS THAT ARE CONSTRUCTED OF OPEN WOOD JOIST
- 29. THE FIRE SPRINKLER CONTRACTOR SHALL PREPARE DETAILED WORKING PLANS IN ACCORDANCE WITH NFPA 13R, NFPA 14 THE FIRE PROTECTION SYSTEM LAYOUT SHALL FOLLOW THE DESIGN GUIDELINES SET FORTH IN THESE FIRE PROTECTION SYSTEM ENGINEERING DOCUMENTS.
- 30. THE FIRE SPRINKLER CONTRACTOR SHALL OBTAIN THE ACCEPTANCE TESTS FROM THE LOCAL AUTHORITY. THE ACCEPTANCE TEST FOR THE OVERHEAD SPRINKLER SYSTEM PIPING SHALL BE IN ACCORDANCE WITH NFPA 13R CHAPTER 10 USING THE MATERIAL AND TEST CERTIFICATE FOR ABOVEGROUND PIPING IN FIGURE 10.1.2. THE ACCEPTANCE TEST FOR THE UNDERGROUND PIPING SHALL BE IN ACCORDANCE WITH NFPA 13 CHAPTER 10, SECTION 10.10 USING THE MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING IN FIGURE 10.10.1.
- 31. THE POINT OF SERVICE IS INDICATED AT THE SYSTEM SIDE OF THE BACKFLOW PREVENTER. AT THIS POINT, THE SYSTEM IS DEDICATED SOLELY FOR FIRE PROTECTION PURPOSES. NO DOMESTIC WATER SHALL BE TAKEN FROM THE SYSTEM BEYOND THIS POINT FOR OTHER PURPOSES.
- 32. CLASSIFICATIONS OF HAZARD OCCUPANCIES FOR THE AREAS OF DESIGN SHALL BE AS FOLLOWS: (RESIDENTIAL FLOORS) RESIDENTIAL OCCUPANCY PER NFPA 13R.
- 33. THE SPRINKLER SYSTEM SHALL BE WET PIPE FOR THE RESIDENTIAL FLOORS, WITH THE REMOTE AREA USING ALL SPRINKLERS WITHIN A COMPARTMENT, UP TO A MAXIMUM OF 4 SPRINKLERS, THAT REQUIRE THE GREATEST HYDRAULIC DEMAND, TO MEET OR EXCEED THE REQUIREMENTS OF NFPA 13R, AND LOCAL AUTHORITIES. SPRINKLERS SHALL HAVE A MINIMUM TEMPERATURE RATING OF 155° AND THE SPACING SHALL BE PER NFPA 13R OR MANUFACTURERS LISTING.
- 34. SEE CIVIL UTILITIES PLAN FOR WATER SUPPLY PIPING LOCATIONS.
- 35. IF THE FLOW TEST BECOMES GREATER THAN SIX (6) MONTHS OLD BY THE TIME OF FIRE SPRINKLER PERMIT SUBMITTAL, A NEW TEST SHALL BE OBTAINED BY THE FIRE SPRINKLER CONTRACTOR.
- 36. VALVE AND ALARM REQUIREMENTS: ALL CONTROL VALVES ON SPRINKLER RISERS AND FIRE PROTECTION BACKFLOW PREVENTERS SHALL HAVE A TAMPER SWITCH. THE FLOW SWITCH SHALL BE SET TO NOT ALARM WITH MINOR CITY WATER PRESSURE FLUCTUATIONS. HOWEVER, THE FLOW OF ONE SPRINKLER HEAD SHALL PRODUCE AN ALARM CONDITION BY TRIPPING THE FLOW SWITCH. ALL FLOW AND TAMPER SWITCHES SHALL BE CONNECTED TO THE BUILDING FIRE ALARM PANEL. FLOW SWITCHES SHALL ALSO SOUND THE ELECTRIC ALARM BELL ON THE OUTSIDE WALL. FIRE SPRINKLER CONTRACTOR SHALL VERIFY AND TEST PER NFPA 13.
- 37. THE LOCAL WATER PURVEYOR IS REQUESTED TO ADVISE THE ENGINEER OF RECORD IF CONDITIONS EXIST IN THEIR WATER SUPPLY THAT COULD LEAD TO MIC, SO THAT THE ENGINEER CAN DESIGN CORRECTIVE MEASURES. THERE ARE NO KNOWN MIC CONDITIONS IN THE LOCAL WATER SUPPLY.
- 38. BACKFLOW PREVENTER AND METERING SPECIFICATIONS SHALL MEET OR EXCEED REQUIREMENTS OF THE LOCAL JURISDICTION.
- 39. YARD AND INTERIOR FIRE PROTECTION COMPONENTS: PRODUCT DATA SHEETS SHALL BE SUBMITTED BY THE SPRINKLER CONTRACTOR ALONG WITH THEIR SHOP DRAWINGS. ALL FIRE PROTECTION DEVICES AND COMPONENTS SHALL BE UL LISTED AND FM APPROVED.

FIRE SERVICE PIPE MATERIAL & TESTING NOTES

ALL PRIVATE FIRE SERVICE MAINS/LINES LOCATED DOWNSTREAM OF THE POINT OF SERVICE SHALL BE INSTALLED BY A QUALIFIED AND LICENSED CONTRACTOR CLASS I, II, OR V WITH 3'

CONTRACTOR TO VERIFY REQUIREMENTS BEFORE START OF CONSTRUCTION. COMBINATION MAINS (SHARED DOMESTIC AND FIRE SUPPRESSION SERVICE) UP TO THE DEDICATED FIRE SUPPRESSION SYSTEM POINT OF SERVICE CAN BE INSTALLED BY A LICENSED UNDERGROUND EXCAVATION OR SITE UTILITY CONTRACTOR.

MINIMUM COVER. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE FIRE CODES.

POINT OF SERVICE IS TO BE DESIGNATED FOR ALL BUILDINGS EQUIPPED WITH AUTOMATIC

THE UNDERGROUND MAIN STARTING AT THE PUBLIC WATER UTILITY POINT OF CONNECTION HAS BEEN DESIGNED TO NFPA 24. MATERIALS, INSTALLATION AND TESTING MUST BE IN

4. ALL NEW PRIVATE FIRE SERVICE MAINS/LINES AND HYDRANTS SHALL BE FLUSHED AND HYDROSTATIC TESTED TO 200 PSI FROM THE POINT OF SERVICE AS PER NFPA 24 CHAPTER

F.A.C. 61G15

THE CONTRACTOR'S FIRE PROTECTION ENGINEER, AS THE "DELEGATED ENGINEER" SHALL BE THE "ENGINEER OF "RECORD" FOR THE FIRE PROTECTION SYSTEM AND SHALL PREPARE COMPLETE AND

FINAL FIRE PROTECTION DESIGN DOCUMENTS WITH THE HYDRAULIC CALCULATIONS, SIGNED AND SEALED, AS DEFINED BT THE F.A.C. 61G15 AND SHALL SUBMIT REQUIRED DOCUMENTATION TO THE ARCHITECT FOR REVIEW BY THIER "PRIME PROFESSIONAL ENGINEER" CONSULTANT TO REVIEW FOR

BASIC DESIGN CRITERIA. UPON APPROVAL THE CONTRACTOR SHALL SUBMIT SIGNED AND SEALED

DOCUMENTS TO THE AHJ FOR REVIEW AND APPROVAL.

GREATEST HYDRAULIC DEMAND, TO MEET OR EXCEED THE REQUIREMENTS OF NFPA 13R, 2010 EDITION, and local authorities. Sprinklers shall have a minimum temperature rating of 155' and the SPACING SHALL BE PER NFPA 13R.

OCCUPANCY CLASSIFICATION: DESIGN DENSITY: MAXIMUM HEAD COVERAGE: TEMPERATURE RATING: HOSE STREAM ALLOWANCE:

OCCUPANCY CLASSIFICATION: DESIGN DENSITY: HYDRAULIC AREA OF APPLICATION: MAXIMUM HEAD COVERAGE: TEMPERATURE RATING:

RETAIL SPACE, RETAIL SHELL

5. THE UNDERGROUND MAIN STARTING AT THE POINT OF SERVICE HAS BEEN DESIGNED TO NFPA DESIGN DENSITY: FIRE SERVICE MAINS/LINES SHALL BE POLYVINYL CHLORIDE PRESSURE PIPE CONFORMING TO TEMPERATURE RATING: AWWA C900 WITH DIMENSION RATIO (DR) OF EIGHTEEN (18) AND A MINIMUM PRESSURE CLASS OF TWO HUNDRED POUNDS PER SQUARE INCH (200 P.S.I.) UNLESS NOTED OTHERWISE.

LIGHT HAZARD, NFPA 13 0.10 GPM/SQ. FT. MOST REMOTE 1,500 Sq.ft.

100 GPM 30 MINUTES 0.15 GPM/SQ. FT. MOST REMOTE 1,500 Sq.ft.

60 TO 90 MINUTES 0.20 GPM/SQ. FT. MOST REMOTE 1,500 Sq.ft.

130 SQ. FT. 165 DEGREES FAHRENHEIT U.N.O. 250 GPM 60 TO 90 MINUTES

# 61G15-32.004 DESIGN OF WATER BASED FIRE PROTECTION SYSTEMS

- DESIGN FOR APARTMENT BUILDINGS IS WATER BASED FIRE PROTECTION SYSTEM WHICH INCLUDES A WET AUTOMATIC FIRE SPRINKLER SYSTEM CONSISTING OF FIRE WATER SPRINKLER MAINS, BRANCH LINES, FIRE SPRINKLER HEADS AND HANGER DEVICES CONNECTED TO A DEDICATED FIRE PROTECTION WATER SOURCE.
- 2. THESE FIRE PROTECTION SYSTEM ENGINEERING DOCUMENTS INCLUDE AS A MINIMUM THE FOLLOWING APPLICABLE INFORMATION, UNLESS NOTED OTHERWISE AS NOT APPLICABLE:
- THE POINT OF SERVICE (P.O.S) FOR THE FIRE PROTECTION WATER SUPPLY AS DEFINED BY SECTION 633.021(18), F.S. WHERE PIPING IS DEDICATED SOLELY FOR FIRE PROTECTION USE IS SHOWN ON CIVIL PLANS.
- APPLICABLE NFPA STANDARD TO BE APPLIED IS NFPA-13R AND NFPA-14, 2010
- CLASSIFICATION OF HAZARD OCCUPANCY FOR EACH ROOM OR AREA AS DEFINED IN NFPA-13 IS AS FOLLOWS: LIVING UNITS AND RELATED AREAS ARE LIGHT HAZARD
- DESIGN APPROACH IS A WET SYSTEM TYPE. DESIGN DENSITIES ARE 0.10 GPM/SQUARE FOOT OVER THE MOST HYDRAULICALLY DEMANDING AREA OR WITH A MAXÍMUM OF 4 HEADS FLOWING FOR LIGHT HAZARD OCCUPANCIES. FIRE SPRINKLER DEVICE TEMPERATURE RATING SHALL BE NOMINAL 165 DEGREES F., ORDINARY TEMPERATURE RATING CLASSIFICATION, UNLESS NOTED OTHERWISE.
- CHARACTERISTICS OF EXISTING WATER SUPPLY TO BE USED ARE MAINS SHOWN ON CIVIL SITE UTILITY PLANS.
- FIRE HYDRANT FLOW TEST CONDUCTED OFF THE EXISTING PUBLIC WATER SUPPLY IS INTENDED TO BE USED FOR VERIFICATION OF SELECTED FINAL PIPE SIZES. HWY 192 & SUMMER BAY APTS.

STATIC PRESSURE: 68 PSI 56 PSI RESIDUAL PRESSURE: FLOW AT TEST: 07/22/16 @ 8:50 A.M. WAYNE AUTOMATIC SPRINKLER

- VALVING AND ALARM REQUIREMENTS TO MINIMIZE POTENTIAL FOR IMPAIRMENTS AND UNRECOGNIZED FLOW OF WATER ARE PROVIDED BY SUPERVISORY VALVE TAMPER SWITCHES INSTALLED ON INTERIOR SHUT-OFF VALVES. WATER FLOW ALARM IS SIGNALED BY WATER FLOW SWITCH SHOWN ON FIRE SPRINKLER RISER DETAIL.
- FAMILIARITY WITH CONDITIONS IN THE LOCAL AREA INDICATE WATER SUPPLIES DO NOT RESULT IN MICROBIAL INDUCED CORROSION (MIC). THE FIRE SPRINKLER CONTRACTOR SHALL MAKE REASONABLE EFFORTS TO IDENTIFY WATER SUPPLIES THAT COULD LEAD TO MICROBIAL INDUCED CORROSION (MIC). ADDITIONAL EFFORTS MAY CONSIST OF DISCUSSIONS WITH THE LOCAL WATER PURVEYOR AND/OR FIRE OFFICIAL OR LABORATORY TESTING OF WATER SUPPLIES. WHEN CONDITIONS ARE FOUND THAT MAY RESULT IN MIC CONTAMINATION OF THE FIRE PROTECTION PIPING, CORRECTIVE MEASURES SHALL BE TAKEN.
- LOCATION OF CHECK BACKFLOW PREVENTER IS LOCATED IN THE RISER.
- QUALITY AND PERFORMANCE SPECIFICATIONS OF ALL EXTERIOR YARD FIRE PROTECTION COMPONENTS SUCH AS FIRE HYDRANT ASSEMBLIES AND THEIR LOCATIONS ARE SHOWN ON CIVIL SITE UTILITY PLANS. QUALITY AND PERFORMANCE SPECIFICATIONS OF ALL INTERIOR FIRE PROTECTION COMPONENTS ARE SHOWN ON FIRE PROTECTION DRAWING SHEET.
- K. FIRE PUMP TO SATISFY SYSTEM PRESSURE FOR APARTMENT BUILDINGS IS NOT ANTICIPATED TO BE REQUIRED.
- FIREWATER STORAGE TANK TO SATISFY SYSTEM VOLUME FOR APARTMENT BUILDINGS IS NOT ANTICIPATED TO BE REQUIRED.

# DESIGN HAZARD SCHEDULE

THE SPRINKLER SYSTEM SHALL BE 13R WET PIPE FOR THE RESIDENTIAL FLOORS, WITH THE REMOTE AREA USING ALL SPRINKLERS WITHIN A COMPARTMENT, UP TO A MAXIMUM OF 4 SPRINKLERS, THAT REQUIRE THE

CLUBHOUSE, OFFICE SPACE HYDRAULIC AREA OF APPLICATION:

STORAGE SPACE, MECHANICAL ROOMS HOSE STREAM ALLOWANCE:

> OCCUPANCY CLASSIFICATION: HYDRAULIC AREA OF APPLICATION: MAXIMUM HEAD COVERAGE: HOSE STREAM ALLOWANCE: DURATION:

ORDINARY HAZARD GRP-1, NFPA 13 130 SQ. FT. 165 DEGREES FAHRENHEIT U.N.O.

225 sq.ft. 165 DEGREES FAHRENHEIT U.N.O.

ORDINARY HAZARD GRP-2, NFPA 13

Adam Joseph Barney

P.E. #:69124

MJR/KCM

BLS/AJB

BLS/AJB

06/22/2018

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**ISSUE HISTORY** 

**REVISION HISTORY** 

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CONSULTANT

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1 06/22/2018 ISSUE FOR PERMIT

Description

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No. Date

Date

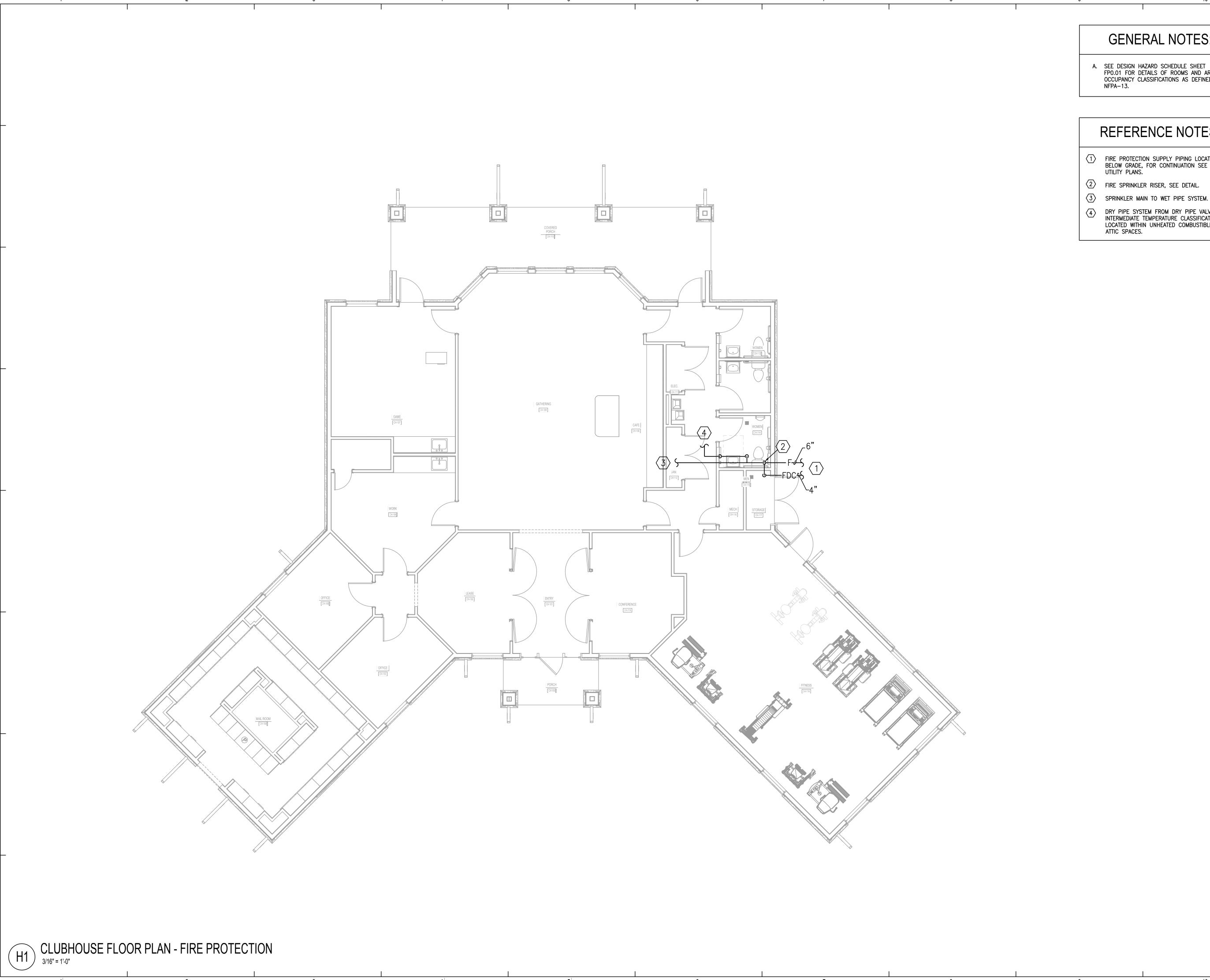
www. fuglebergkoch.com

**SUMMER BAY** 

LAKE COUNTY, FL Project #:

SYMBOL LEGEND & GENERAL **NOTES - FIRE PROTECTION** 

**FP0.01** 



# **GENERAL NOTES:**

A. SEE DESIGN HAZARD SCHEDULE SHEET FPO.01 FOR DETAILS OF ROOMS AND AREAS OCCUPANCY CLASSIFICATIONS AS DEFINED IN

# REFERENCE NOTES: (X)

- FIRE PROTECTION SUPPLY PIPING LOCATEED BELOW GRADE, FOR CONTINUATION SEE CIVIL SITE UTILITY PLANS.
- DRY PIPE SYSTEM FROM DRY PIPE VALVE SERVING INTERMEDIATE TEMPERATURE CLASSIFICATION HEADS LOCATED WITHIN UNHEATED COMBUSTIBLE ROOF

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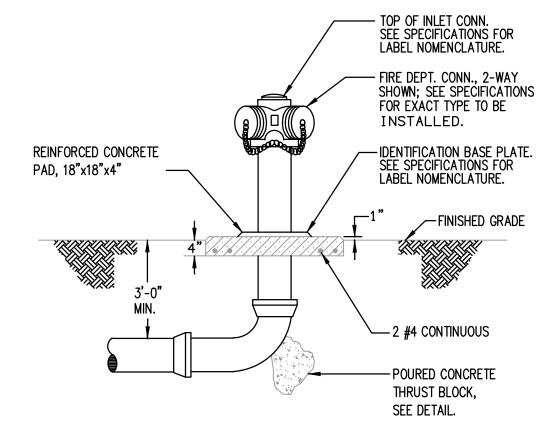
Adam Joseph Barney P.E. #:69124

SUMMER BAY APTS. II

06/22/2018 LAKE COUNTY, FL

CLUBHOUSE FLOOR PLAN -FIRE PROT.

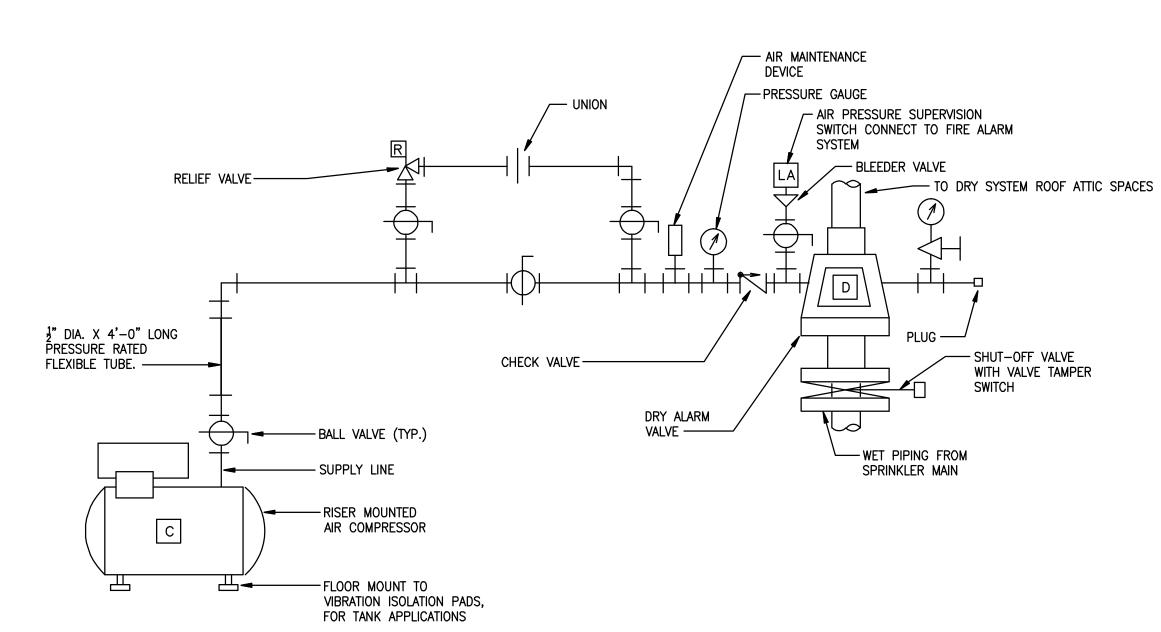
FP12.01



NOTE:

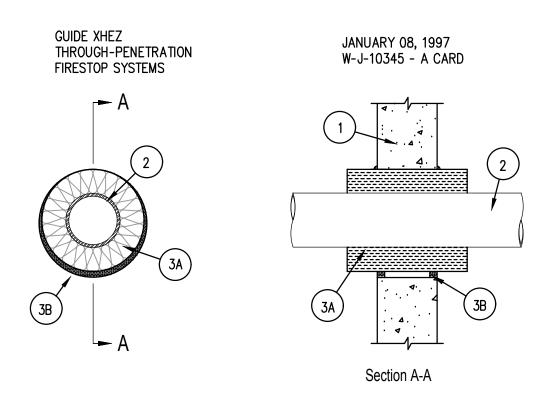
1. MOUNTING HEIGHT SHALL COMPLY WITH AUTHORITIES HAVING JURISDICTION.

6 FREE STANDING VERTICAL FIRE
DEPARTMENT CONNECTION DETAIL



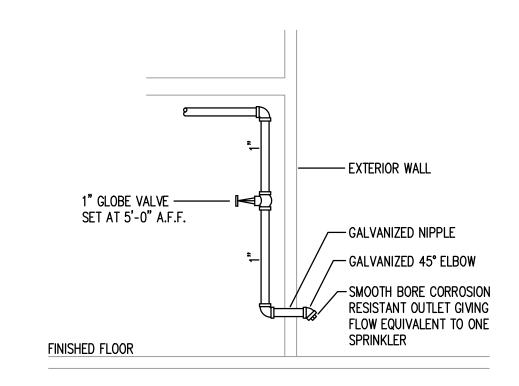
DRY PIPE DETAIL

	LE 1  MORE THAN 100 psi 6" 9" 12" 12"	TAB LESS THAN 100 psi 4'-0" 5'-0"	MORE THAN 100 psi 3'-0" 4'-0" 5'-0"
100 psi 9" 12" 16" 24"	100 psi 6" 9" 12"	100 psi 4'-0" 5'-0"	100 psi 3'-0" 4'-0"
12" 16" 24"	9" 12"	5'-0"	4'-0"
16" 24"	12"		
24"		6'-0"	5'-0"
	12"		ı
24"		7'-0"	7'-0"
<b>4</b> T	12"	7'-0"	7'-0"
24"	12"	7'-0"	7'-0"
24"	12"	7'-0"	7'-0"
TABLE 1	TAE	BLE 2	<del></del>
	CPVC	PIPE	
	,	BRACE F	
	TABLE 1	TABLE 1 TABLE 1 CPVC	TABLE 1 TABLE 2  CPVC PIPE  HANGER / BRACE  FINISHED CLG.

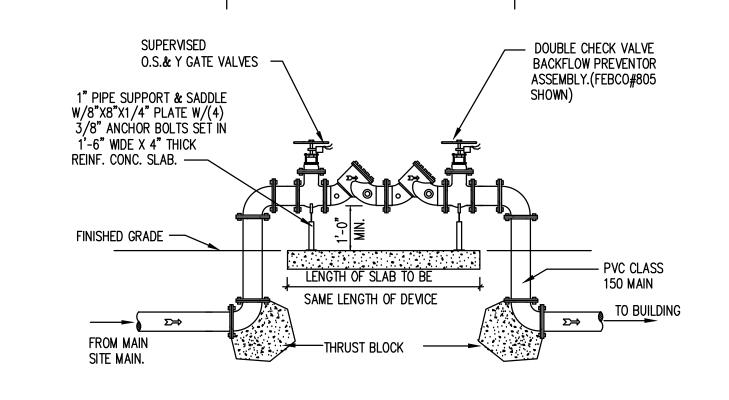


- 1. CONCRETE OR CONCRETE BLOCK WALL.
- 2. MAX. 4" STEEL OR IRON PIPE, COPPER PIPE OR
- 3A. 2" THICK FIBERGLASS INSULATION ( USED TO CREATE A BUFFER ZONE ) EXTENDING A MINIMUM OF 2\"
  FROM EACH SURFACE OF THE WALL. ANNULUS RANGING FROM POINT CONTACT OF \" MAXIMUM.
- 3B. SPECSEAL SERIES 100 SEALANT INSTALLED TO 5/8"DEPTH, FLUSH WITH BOTH SURFACES OF THE WALL. AT POINT CONTACT, INSTALL A [" COVE BEAD OF SEALANT AT INSTULATION/ CONCRETE WALL INTERFACE"

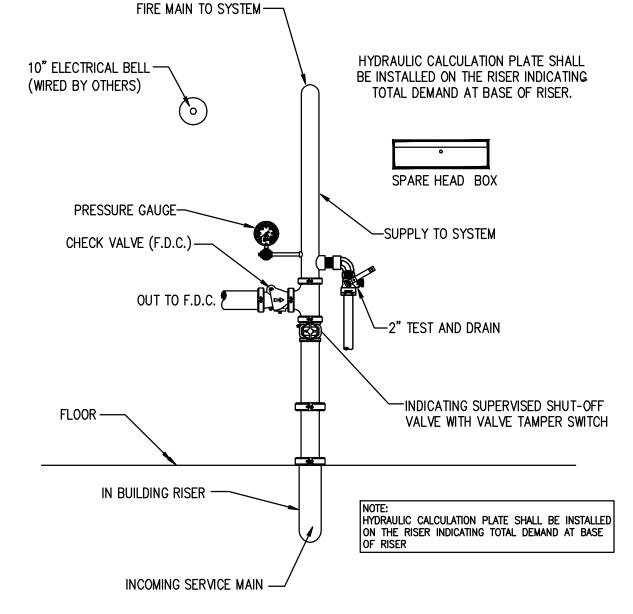




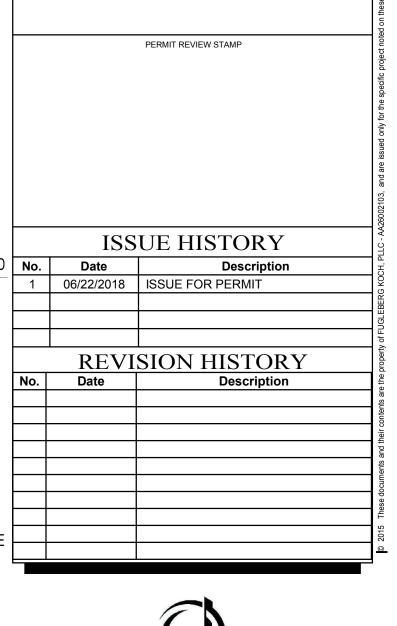
2 INSPECTOR TEST DETAIL (CLUBHOUSE)



4 FIRE PROTECTION BACKFLOW PREVENTOR DETAIL



1 FIRE SPRINKLER RISER ASSEMBLY DETAIL (CLUBHOUSE)



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Adam Joseph Barney P.E. #:69124

SUMMER BAY APTS. II

AP 15. II

CLUBHOUSE DETAILS-FIRE PROTECTION

BLS/AJB BLS/AJB

06/22/2018

FP12.02