

1 LIGHTING PLAN

SCALE: 3/16" = 1'-0"

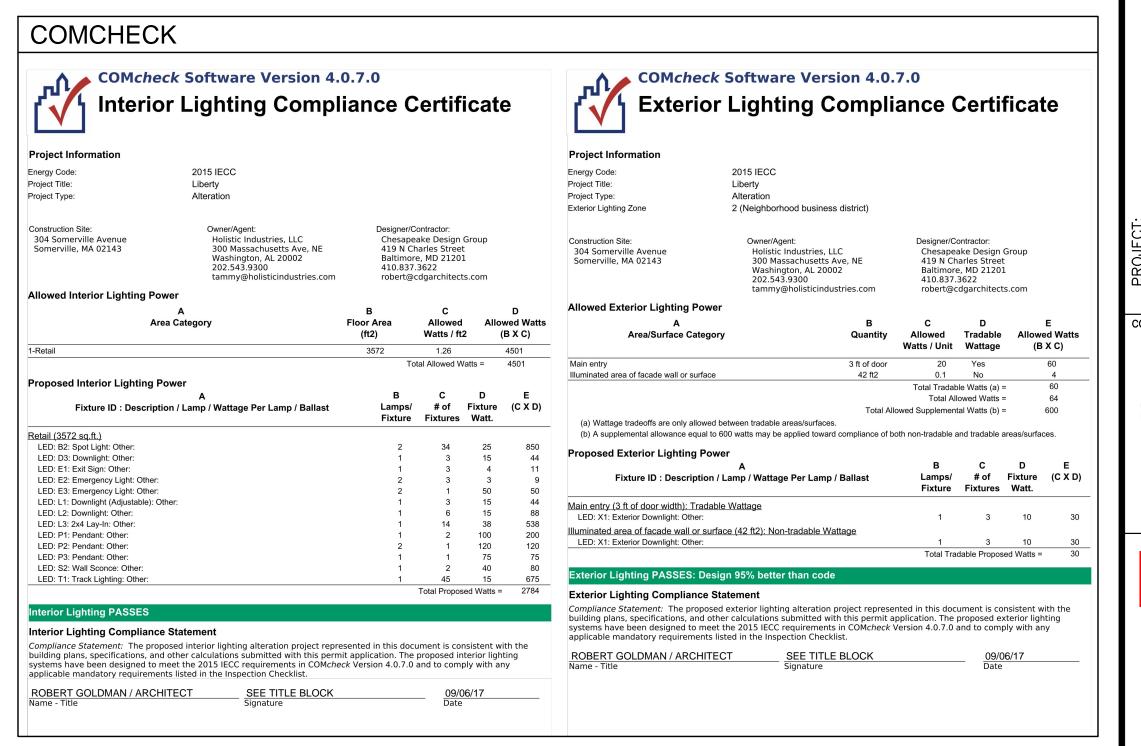
# KEYED NOTES ELECTRICAL CONTRACTOR TO PROVIDE CEILING MOUNTED OCCUPANCY SENSOR.

- (2) CONNECT EXHAUST FAN TO TOILET ROOM LIGHTING CIRCUIT.
- PROVIDE JUNCTION BOX FOR TRACK LIGHTING, TYPICAL AT EACH LOCATION.

  PROVIDE JUNCTION BOX FOR EXTERIOR LIGHT. VERIFY LOCATION PRIOR TO ROUGH-IN. EXTEND EXTERIOR LIGHTING CIRCUITRY THROUGH LIGHTING CONTROL TIMER, VERIFY WITH
- PROJECT MANAGER.

  5 SMITCHBANK, VERIFY LOCATION PRIOR TO ROUGH-IN.

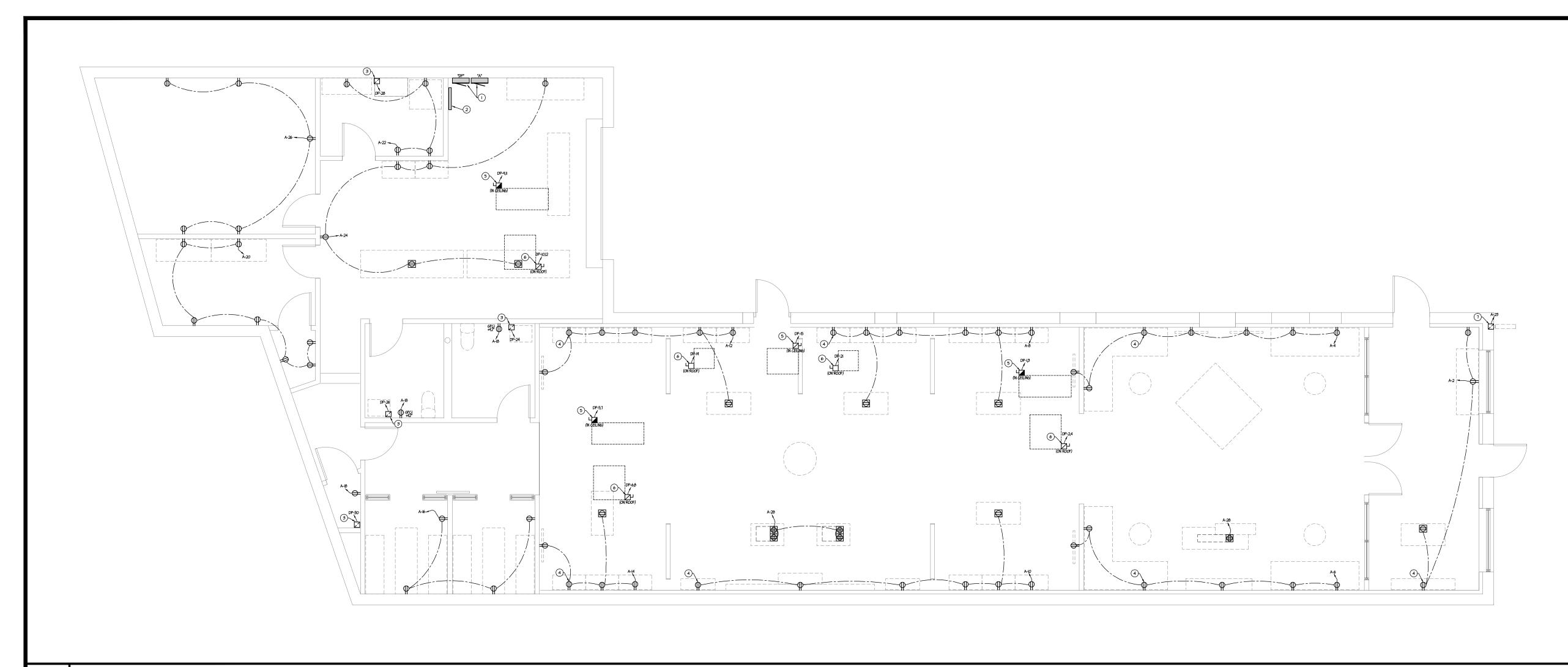
			FIXTURE	1			L	AMP				FEED	DERS			
SYMBOL	TAG	QTY					WATTAGE			FINISH	TRS		9	늘	ACCESSORIES	
			DESCRIPTION	MANUFACTURER	MODEL	QTY	PER LAMP	PER FIXTURE	TYPE		COND'TRS	WIRE	GROUND	CONDUIT	& REMARKS	
	B2	34	RECESSED LED SPOT LIGHTS	TECH LIGHTING	EMO12F-LH8352AN-010120W	2	12.5	25	3500K LED	WHITE	2	12	12	3/4"		
000	В3	0	RECESSED LED SPOT LIGHTS	TECH LIGHTING	EMO13F-LH8352AN-010120W	3	12.5	37.5	3500K LED	WHITE	2	12	12	3/4"		
0	D3	3	RECESSED LED DOWNLIGHT	DMF LIGHTING	DRD2M10930	1	14.7	14.7	3500K LED	WHITE	2	12	12	3/4"	FRAME-IN KIT: DRDHNIC6 TRIM: DRD2TR6SWH	
$\otimes$	E1	3	EXIT SIGN	BEST LIGHTING	RELZXTE-1-G-C-A-EM	1	3.8	3.8	LED	-	2	12	12	3/4"	BATTERY BACKUP GREEN LETTERS	
	E2	3	EMERGENCY LIGHT	LITHONIA LIGHTING	ELM2 LED	2	1.5	3	LED	-	2	12	12	3/4"	BATTERY BACKUP	
0	E3	1	EMERGENCY LIGHT	ISOLITE LIGHTING	MINI GENIE SERIES MIGN-25-LC-UI	2	25	50	SUPERLUX MR-11 HALOGEN	-	2	12	12	3/4"	BATTERY BACKUP	
0	L1	3	RECESSED ADJUSTABLE LED DOWNLIGHT	DMF LIGHTING	DRD3M10930FLWH	1	14.7	14.7	3000K LED	WHITE	2	12	12	3/4"	FRAME-IN KIT: DRDH4 TRIM: DRD2TR4SWH	
0	L2	6	RECESSED LED DOWNLIGHT	DMF LIGHTING	DRD3M10930FLWH	1	14.7	14.7	3000K LED	WHITE	2	12	12	3/4"	FRAME-IN KIT: F4L2 TRIM: DRD2TR4SWH	
	L3	14	2x4 LED TROFFER	COLUMBIA LIGHTING	LJT24-40MLG-FSA12-EU	1	38.4	38.4	4000K LED	WHITE	2	12	12	3/4"		
	P1	2	PENDANT	Y LIGHTING	CARAVAGGIO CAR305	1	100	100	E26 INCAND	MATTE BLACK	2	12	12	3/4"	LARGE / 15.75" DIA	
	P2	1	DOUBLE PENDANT	Y LIGHTING	NON RANDOM LIGHT ULMOLNRA71B ULMOLNRA48B	2	60	120	E26 INCAND	BLACK	2	12	12	3/4"	28" DIA & 19" DIA	
	P3	1	PENDANT	Y LIGHTING	VERTIGO L0020504	1	75	75	E26 INCAND	COPPER	2	12	12	3/4"	X-LARGE, 78.7" DIA	
	S1	0	WALL SCONCE SALES AREAS	RH LIGHTING	20TH C. TORPEDO SCONCE	1	40	40	INCLUDED	VINTAGE BRASS	2	12	12	3/4"		
	S2	2	WALL SCONCE CONSULTATION	RH LIGHTING	20TH C. TORPEDO SCONCE	1	40	40	INCLUDED	VINTAGE BRASS	2	12	12	3/4"		
<b>©</b>	T1	45	TRACK LIGHTING	BRUCK LIGHTING	350419-WH-3V-S-GEOWH	1	15	15	3000K LED	WHITE	2	12	12	3/4"	PROVIDE WHITE GEOTRAC END CAP, AND POWER FEI	
<b>©</b>	T2	0	TRACK LIGHTING	BRUCK LIGHTING	350419-WH-3V-S-GEOWH	1	15	15	3000K LED	WHITE	2	12	12	3/4"	PROVIDE WHITE GEOTRAC END CAP, AND POWER FEE	
	X1	6	EXTERIOR SIGN LIGHTER	INDY LIGHTING	SLT-SAF-WFLOOD-30K-MVOLT-BL	1	10	10	3000K LED	BLACK	2	12	12	3/4"	SINGLE ARM, FLAT CANOP	



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I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND
THAT I AM A DULY LICENSED ARCHITECT
UNDER THE LAWS OF THE STATE OF MA
LICENSE NO. 7647
EXPIRATION DATE: 08/31/17 LIBERTY CONSULTANTS: AD+ASSOCIATES | 930 CARLETON STREET INTERNATIONAL DESIGN CONSULTANTS | BERKELEY, CA 94710 The Chesapeake Design Group Architects, Incorporated 419 North Charles Street Baltimore, Maryland 21201 t: 410.837.3622 f: 410.837.3621 CLIENT: **LIBERTY 304 SOMERVILLE AVE** SOMERVILLE, MA. 02143 DRAWING NAME: ELECTRICAL LIGHTING PLAN DATE: CHECKED BY: DRAWN BY: JET RCG 09/01/17 PROJECT # SCALE: 17WE04 AS NOTED PAGE #

SUBMISSIONS/REVISIONS

E-100.00 **PRELIMINARY SET 09/06/17** 



POWER WIRING PLAN

SCALE: 3/16" = 1'-0"

## **GENERAL NOTES**

- GC TO COORDINATE POWER REQUIREMENTS AND LOCATIONS WITH ALL VENDORS, INCLUDING AUDIO, SECURITY AND POS SYSTEMS.
- REFER TO SHEET E-200 FOR FIXTURE LOCATIONS.

## KEYED NOTES

- NEW ELECTRICAL PANEL, CONFIRM LOCATION.
- 2) NEW TELEPHONE PANEL, CONFIRM LOCATION.
- PROVIDE JUNCTION BOX WITH POWER FOR INSTANTANEOUS WATER HEATER, REFER TO PLUMBING
- 4 SET WALL OUTLETS BEHIND FIXTURES AT 3'-0" AFF, TYPICAL THROUGH OUT SALES AREA
- PROVIDE UNCTION BOX WITH POWER AND DISCONNECT IN CEILING FOR NEW HVAC UNIT, REFER TO MECHANICAL FOR REQUIREMENTS.
- PROVIDE JUNCTION BOX WITH POWER AND DISCONNECT ON ROOF FOR NEW HVAC UNIT, REFER TO MECHANICAL FOR REQUIREMENTS.
- PROVIDE JUNCTION BOX WITH POWER FOR EXTERIOR SIGNAGE, VERIFY LOCATION.

ELEC	CTRICAL LEGEND					
SYMBOL	DESCRIPTION					
#	WALL MOUNTED DUPLEX OUTLET					
#	WALL MOUNTED QUAD OUTLET					
₽	CEILING MOUNTED DUPLEX OUTLET					
•	FLOOR MOUNTED DUPLEX OUTLET					
<b>•</b>	FLOOR MOUNTED QUAD OUTLET					
	120V-IPH DISCONNECT SWITCH					
	208/240V-IPH DISCONNECT SWITCH					
	208/240V-3PH DISCONNECT SWITCH					
	JUNCTION BOX					
I. GC TO	SUPPLY AND INSTALL.					
2. GC TO	VERIFY QUANTITIES AND LOCATIONS PRIOR TO ROUGH-IN.					
3. GD TO	3. GD TO COORDINATE POWER REQUIREMENTS AND LOCATIONS WITH ALL					

- VENDORS, INCLUDING AUDIO, SECURITY AND POS SYSTEMS GC TO PROVIDE POWER FOR ALL STORE FIXTURES CONTAINING
- LIGHTING AND WILL COORDINATE WITH SHOP DRAWINGS PROVIDED BY THE FABRICATION TEAM

DANEL "DD" CCHEDITIE													
PANEL "A" 120/208V, 3 PHAS	SE, 4 WIRE	JULI	<u>-</u>	ENCLOS	SURE	NE	MA 1						
		OAD (W)	)	NOTE				551/5	NOTE	LOAD (W)			17514
M	Α	В	С	NOTE	BRKR	Ci	(1	BRKR	NOTE	Α	В	С	ITEM
ER (AHU-1)	5304				60/2	1	2	30/3	HACR	2160			CONDENSER (CU-1)
		5304			1	3	4				2160		I
ER (AHU-2)			5304		60/2	5	6					2160	
	5304				1	7	8	30/3	HACR	2160			CONDENSER (CU-2)
ER (AHU-3)		5304			60/2	9	10				2160		
			5304		ı	11	12					2160	
RE	Х				20/1	13	14	30/3	HACR	2160			CONDENSER (CU-3)
NGER (HE-1)		684			15/1	15	16				2160		
RE			Х		20/1	17	18					2160	
FAN (EF-1)	282				20/1	19	20	20/1		Х			SPARE
AN (EF-1)		282			20/1	21	22	20/1			Х		SPARE
RE			Х		20/1	23	24	20/1				2400	TOILET ROOM #1 WH
L "A"	6320				20/1	25	26	20/1		2400			TOILET ROOM #2 WH
		5621			20/1	27	28	20/1			2400		KITCHEN SINK WH
			5261		20/1	29	30	20/1				2400	MOP SINK WH
TOTAL	17210	17195	15869							8880	8880	11280	PHASE TOTAL
ONTRACTOR TO VE	RIFY ALL FL	ECTRICAL	LOADS AN	ID BRFAKE	R REQUIR	EMFN	TS		PHA	SE A	26090	32.9%	
PMENT			_5,,20,,				. •		PHA	SE B	26075	32.9%	
									PHA	SE C	27149	34.2%	
	PANEL "A" 120/208V, 3 PHAS ALUMINUM OR C 250 AMPS MAIN LUG ONLY  ER (AHU-1)  ER (AHU-2)  ER (AHU-3)  RE NGER (HE-1)  FAN (EF-1)  FAN (EF-1)  RE L "A"  TOTAL  DNTRACTOR TO VE	PANEL "A"  120/208V, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY  A  ER (AHU-1)  5304  ER (AHU-2)  5304  ER (AHU-3)  RE  X  NGER (HE-1)  RE  FAN (EF-1)  RE  L "A"  6320  TOTAL  DNTRACTOR TO VERIFY ALL EL	PANEL "A" 120/208V, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY  A B  ER (AHU-1) 5304  ER (AHU-2) 5304  ER (AHU-3) 5304  ER (AHU-3) 5304  RE X  NGER (HE-1) 684  RE  FAN (EF-1) 282  FAN (EF-1) 282  TOTAL 17210 17195  DINTRACTOR TO VERIFY ALL ELECTRICAL	120/208V, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY  LOAD (W)  A B C  ER (AHU-1) 5304  ER (AHU-2) 5304  ER (AHU-3) 5304  ER (AHU-3) 5304  ER (AHU-3) 5304  ER (AHU-1) 684  RE X  NGER (HE-1) 684  RE X  FAN (EF-1) 282  FAN (EF-1) 282  FAN (EF-1) 75261  TOTAL 17210 17195 15869	PANEL "A" 120/208V, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY  M  LOAD (W)  A  B  C  ER (AHU-1) 5304  ER (AHU-2) 5304  ER (AHU-3) 5304  ER (AHU-3)  FAN (EF-1)  RE  FAN (EF-1)  RE  L"A" 6320  DONTRACTOR TO VERIFY ALL ELECTRICAL LOADS AND BREAKE	PANEL "A" 120/208V, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY  A B C  ER (AHU-1) 5304   60/2  ER (AHU-2) 5304   1  ER (AHU-3) 5304   60/2  ER (AHU-3) 5304   1  ER (AHU-3) 5304   1  ER (AHU-1) 684   15/1  RE	PANEL "A" 120/208V, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY    LOAD (W)	PANEL "A" 120/208V, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY  M    LOAD (W)	PANEL "A" 120/208V, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY    M	PANEL "A" 120/208V, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY    LOAD (W)	PANEL "A" 120/208Y, 3 PHASE, 4 WIRE ALUMINUM OR COPPER 250 AMPS MAIN LUG ONLY  M    LOAD (W)	PANEL "A"   120/208V, 3 PHASE, 4 WIRE ALLMINUM OR COPPER 250 AMPS   MAIN LUG ONLY	NOTE   BRKR   NOTE   LOAD (W)   A B C   Sand   BRKR   CKT   BRKR   NOTE   A B C   Sand   BRKR   CKT   Sand   BKTR   CKT   Sand   Sand   BKTR   CKT   Sand   Sand   Sand   BKTR   CKT   Sand   Sand

		2160		1	I		TOILET & CLOSET LIGHTIN	1G	44			20/1	15	16	20/1	
			2160	1		]	EMERGENCY LIGHTING			70		20/1	17	18	20/1	
	Х			SPAF	RE	1	SPARE	Х				20/1	19	20	20/1	
		Х		SPAF	RE	1	EXTERIOR LIGHTING		60			20/1	21	22	20/1	
			2400	TOILET ROC	OM #1 WH	]	EXTERIOR SIGNAGE			120		20/1	23	24	20/1	
	2400			TOILET ROC	M #2 WH	1	SPARE	Х				20/1	25	26	20/1	
		2400		KITCHEN S	SINK WH	1	SPARE		Х			20/1	27	28	20/1	
			2400	MOP SIN	K WH	1	SPARE			Х		20/1	29	30	20/1	
	8880	8880	11280	PHASE T	OTAL	1	PHASE TOTAL	1100	761	1301						
PHA	SE A	26090	32.9%			1	NOTES * ELECTRICAL CONTRACTOR	TO VERIFY ALL EL	ECTRICAL	LOADS A	ND BREAKE	R REQUIR	EMEN	ITS		
PHA	PHASE B 26075 32.9%			FOR NEW EQUIPMENT												
PHA	SE C	27149	34.2%													
ТО	TAL	79314	100.0%													
						•										
ANE	EL "C	P"	LOAI	O SUMMA	ARY		PANEL "A" L	OAD SI	UMN	1AR	Υ		E	ELF	ECT	F
100	) TVDE		LOAD (W)		]	LOAD TYPE		LOAD	(W)							
LOAD TYPE			CONNECTED FACTOR DEMAND				CONNECTED	NNECTED FACTOR		DEMAND			I	LOAD TY	Ρ	
LIGI	HTING		0	125%	0		LIGHTING	3162	125	%	3953					
RECEF	CEPTACLES         0         100%         0		0		RECEPTACLES	14040 100% 14040					LIGHTIN	G				
KITCHEN			0	65%	0		KITCHEN	0 65%		6	0		RECEPT		CEPTAC	Ľ

PANEL "A" SCHEDULE

VOLTAGE 120/208V, 3 PHASE, 4 WIRE BUS MATERIAL ALUMINUM OR COPPER

RECEPTION LIGHTING

**GENERAL LIGHTING 1** 

**GENERAL LIGHTING 2** 

**GENERAL LIGHTING 3** 

CONSULTATION LIGHTING

VAULT & CORRIDOR LIGHTING

OFFICE & STAFF LIGHTING

100 AMPS MAIN LUG ONLY

BUS RATING

TRANSFORMER (CONFIRM)

LOAD (W)

A | B | C

307

688

422

250

MOUNTING ENCLOSURE

AIC RATING

SURFACE

10 kAIC (VERIFY)

NEMA 1

NOTE BRKR CKT BRKR NOTE

20/1 | 1 | 2 | 20/1

20/1 3 4 20/1

20/1 5 6 20/1

20/1 7 8 20/1

20/1 9 10 20/1

20/1 | 11 | 12 | 20/1

20/1 | 13 | 14 | 20/1

PANEL "DP" LOAD SUMMARY								
LOAD TYPE		LOAD (W)						
LOAD TYPE	CONNECTED	FACTOR	DEMAND					
LIGHTING	0	125%	0					
RECEPTACLES	0	100%	0					
KITCHEN	0	65%	0					
HVAC	52512	100%	52512					
WATER HEATER	9600	100%	9600					
SUBPANEL	17202	-	17993					
TOTAL WATT LOAD	79314		80105					
TOTAL AMP LOAD	220		223					

PANEL "A" LOAD SUMMARY								
LOAD TYPE		LOAD (W)						
LOAD TYPE	CONNECTED	FACTOR	DEMAND					
LIGHTING	3162	125%	3953					
RECEPTACLES	14040	100%	14040					
KITCHEN	0	65%	0					
HVAC	0	100%	0					
WATER HEATER	0	100%	0					
SUBPANEL	0	100%	0					
TOTAL WATT LOAD	17202		17993					
TOTAL AMP LOAD	48		50					

ELECTRICAL LOAD SUMMARY							
LOAD (W)							
LOAD TYPE	(	CONNECTE	D	FACTOR	DEMAND		
	"DP"	"A"	TOTAL	FACTOR	DEMAND		
LIGHTING	0	3162	3162	125%	3953		
RECEPTACLES	0	14040	14040	100%	14040		
KITCHEN	0	0	0	65%	0		
HVAC	52512	0	52512	100%	52512		
WATER HEATER	9600	0	9600	100%	9600		
TOTAL WATT LOAD	62112	17202	79314		80105		
TOTAL AMP LOAD	173	48	220		223		

LOAD (W)

1260

1260

720

900

5220 4860 3960 PHASE A 6320 36.7%

5261 30.6%

17202 | 100.0% |

PHASE B 5621 32.7%

1080

1260

720

1440

1260

900

PHASE C

ITEM

LOBBY RECEPT

SALES RECEPT #1

SALES RECEPT #2

SALES RECEPT #3

SALES RECEPT #4

SALES RECEPT #5

SALES RECEPT #6

CONSULTATION RECEPT

TOILET / CLOSET RECEPT

OFFICE RECEPT

STAFF RECEPT

VAULT RECEPT

COUNTER RECEPT

SPARE

PHASE TOTAL

1080 RECEIVING/PROCESS RECEPT

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ENUE 2143
SOMERVII ERVILLE,

LIBERTY CONSULTANTS:

AD+ASSOCIATES | 930 CARLETON STREET INTERNATIONAL DESIGN CONSULTANTS | BERKELEY, CA 94710



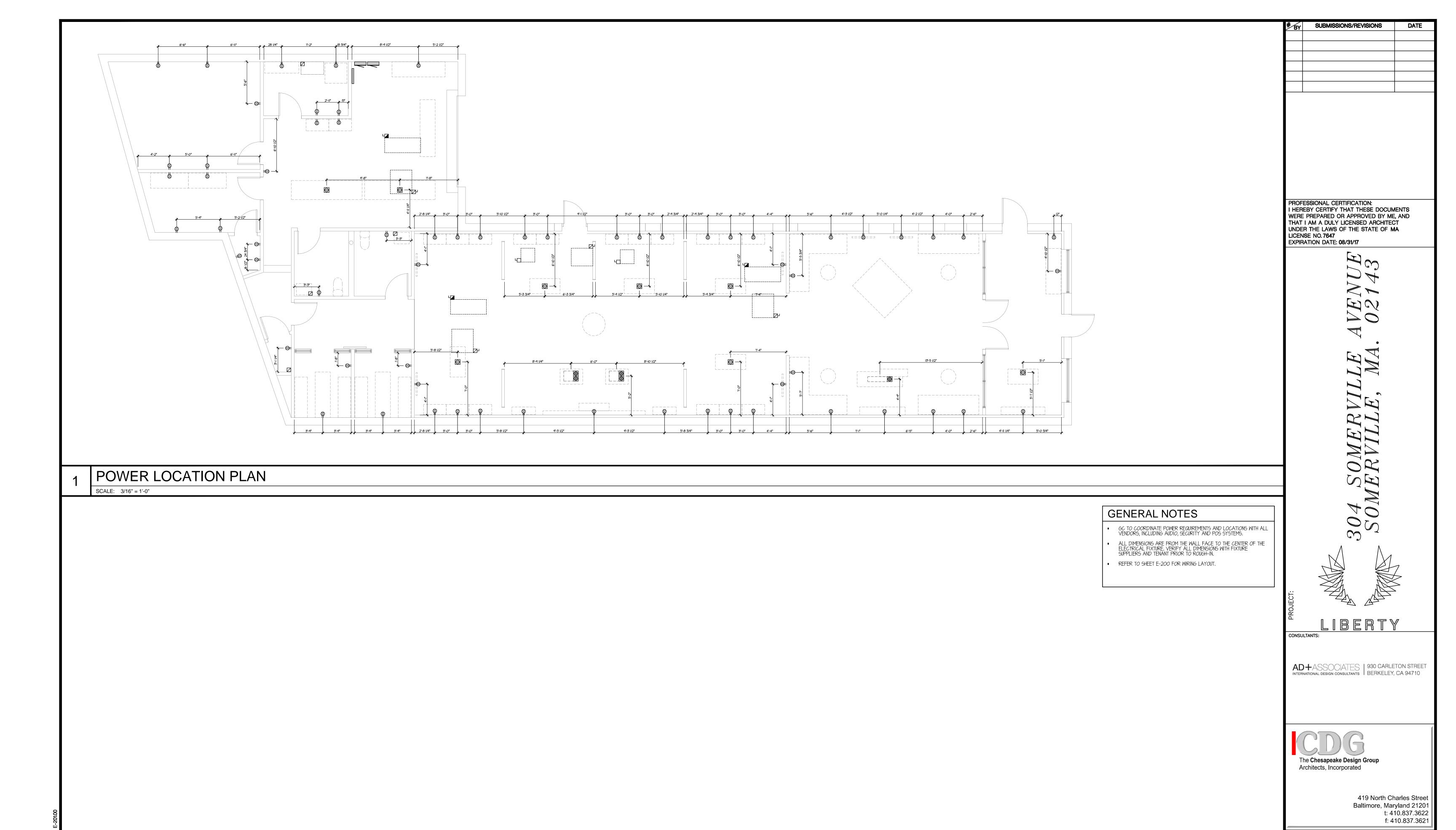
419 North Charles Street Baltimore, Maryland 21201 t: 410.837.3622 f: 410.837.3621

CLIENT: **LIBERTY** 304 SOMERVILLE AVE SOMERVILLE, MA. 02143

DRAWING NAME: ELECTRICAL POWER WIRING PLAN

DRAWN BY:	CHECKED BY:	DATE:
JET	RCG	09/01/17
SCALE:	PROJECT #	
AS NOTED	17WE04	
PAGE #		

E-200.00 PRELIMINARY SET 09/06/17



PAGE # E-201.00 PRELIMINARY SET 09/06/17

**LIBERTY** 

304 SOMERVILLE AVE SOMERVILLE, MA. 02143

> ELECTRICAL POWER LOCATION PLAN

17WE04

DATE:

09/01/17

CHECKED BY:

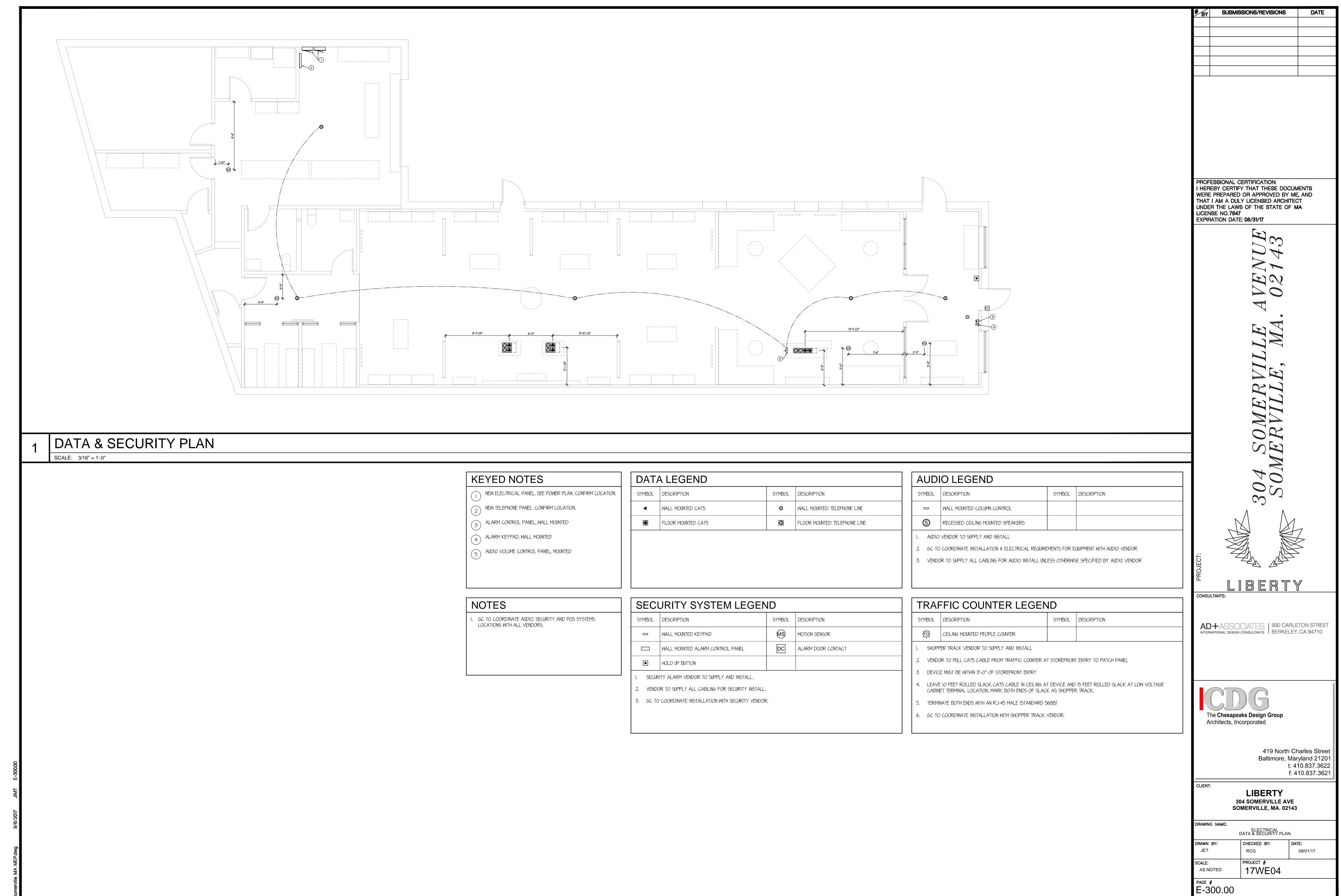
RCG

CLIENT:

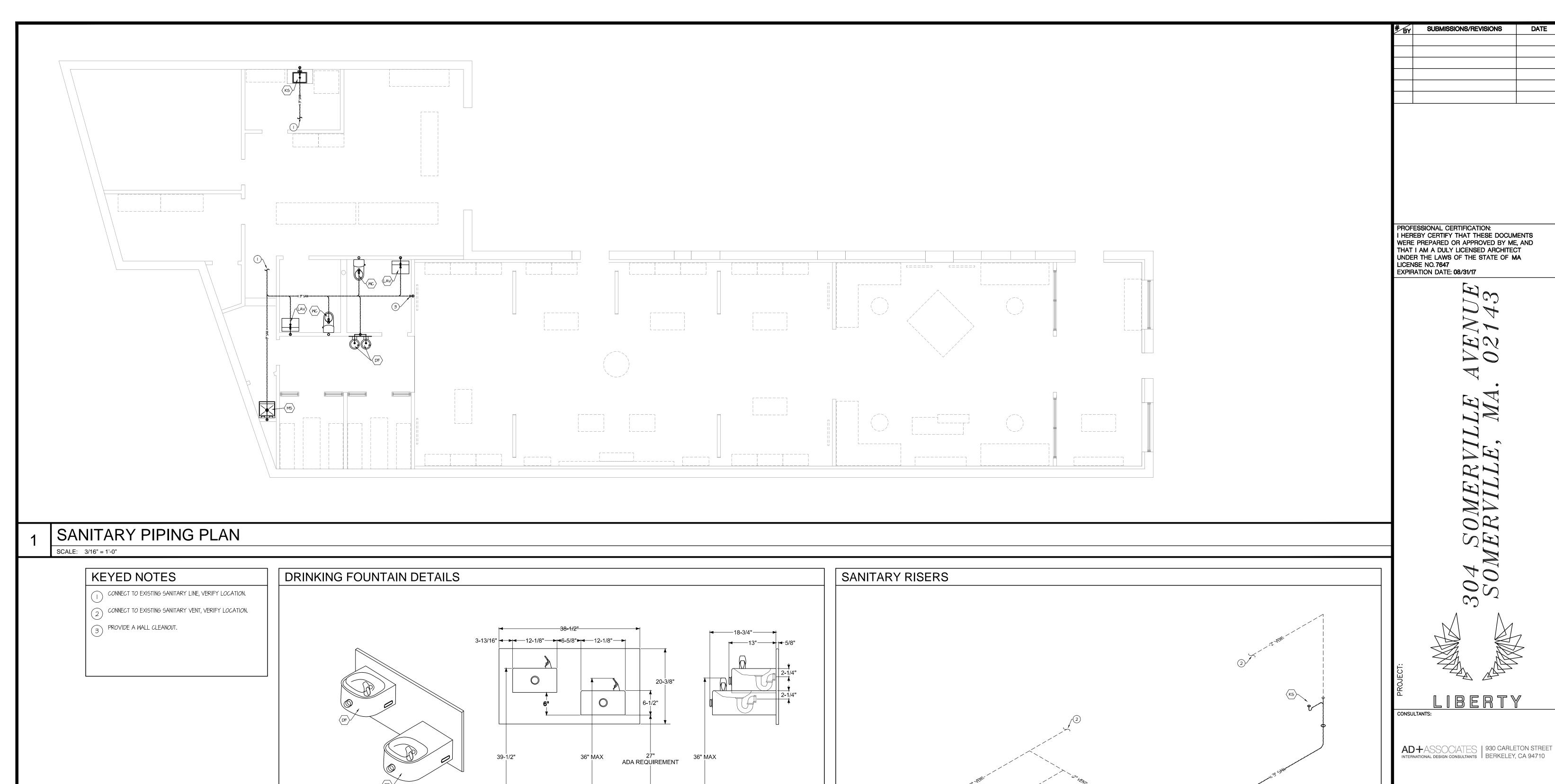
DRAWING NAME:

DRAWN BY:

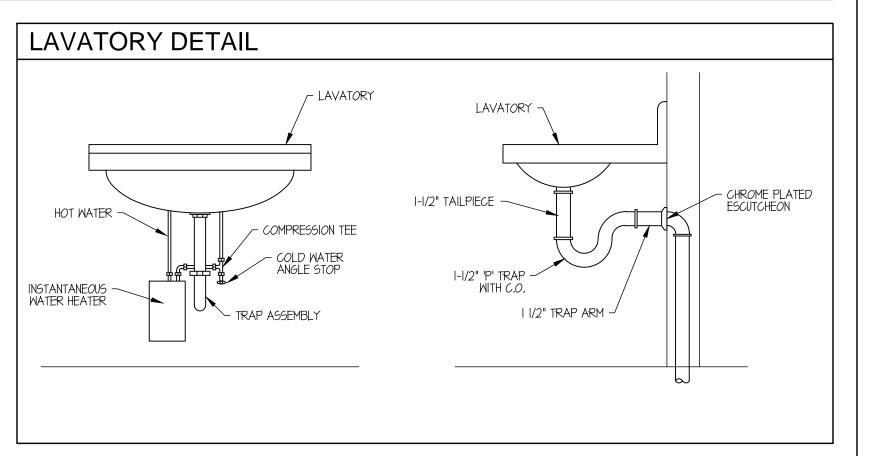
SCALE: AS NOTED



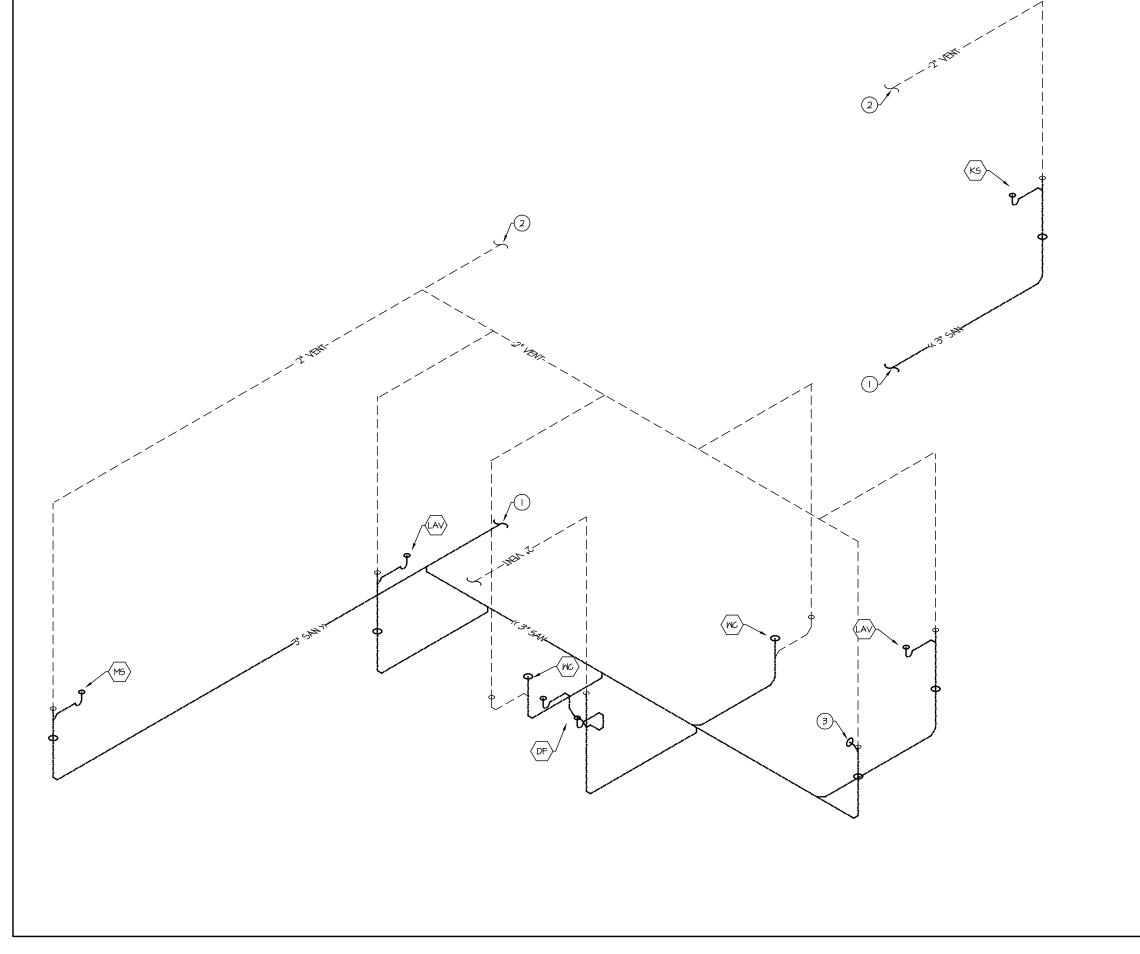
PRELIMINARY SET 09/06/17



PLUMBING FIXTURE SCHEDULE							
TAG	DESCRIPTION	MANUFACTURER & MODEL	WATER SUPPLY	ACCESSORIES			
(DF)	WALL MOUNTED ADA HI/LO DRINKING FOUNTAIN	-	1/2" CW	STAINLESS STEEL			
(K5)	COUNTER MOUNT KITCHEN SINK	-	1/2" CW 1/2" HW	-			
(LAV)	ADA WALL MOUNTED LAVATORY	SCARABEO SCARABEO 8031/R	1/2" CW 1/2" HW	DELTA CLASSIC SINGLE HOLE SINGLE-HANDLE FAUCET IN CHROME I 20GPM			
(MS)	FLOOR MOUNTED SINK	FIAT FL-I	1/2" CW 1/2" HW	MOEN MODEL 8938 TWO HANDLE BAR FAUCET			
(MC)	ADA FLOOR MOUNTED TOILET	KOHLER ELMBROOK	3/4" CW	SEAT INCLUDED 1.28GPM	,		
PLUMBING CONTRACTOR SHALL VERIFY PLUMBING SPECS PRIOR TO ORDERING.							



FINISHED FLOOR



The **Chesapeake Design Group** Architects, Incorporated 419 North Charles Street Baltimore, Maryland 21201 t: 410.837.3622 f: 410.837.3621 CLIENT: LIBERTY
304 SOMERVILLE AVE
SOMERVILLE, MA. 02143

PAGE # P-100.00 PRELIMINARY SET 09/06/17

09/01/17

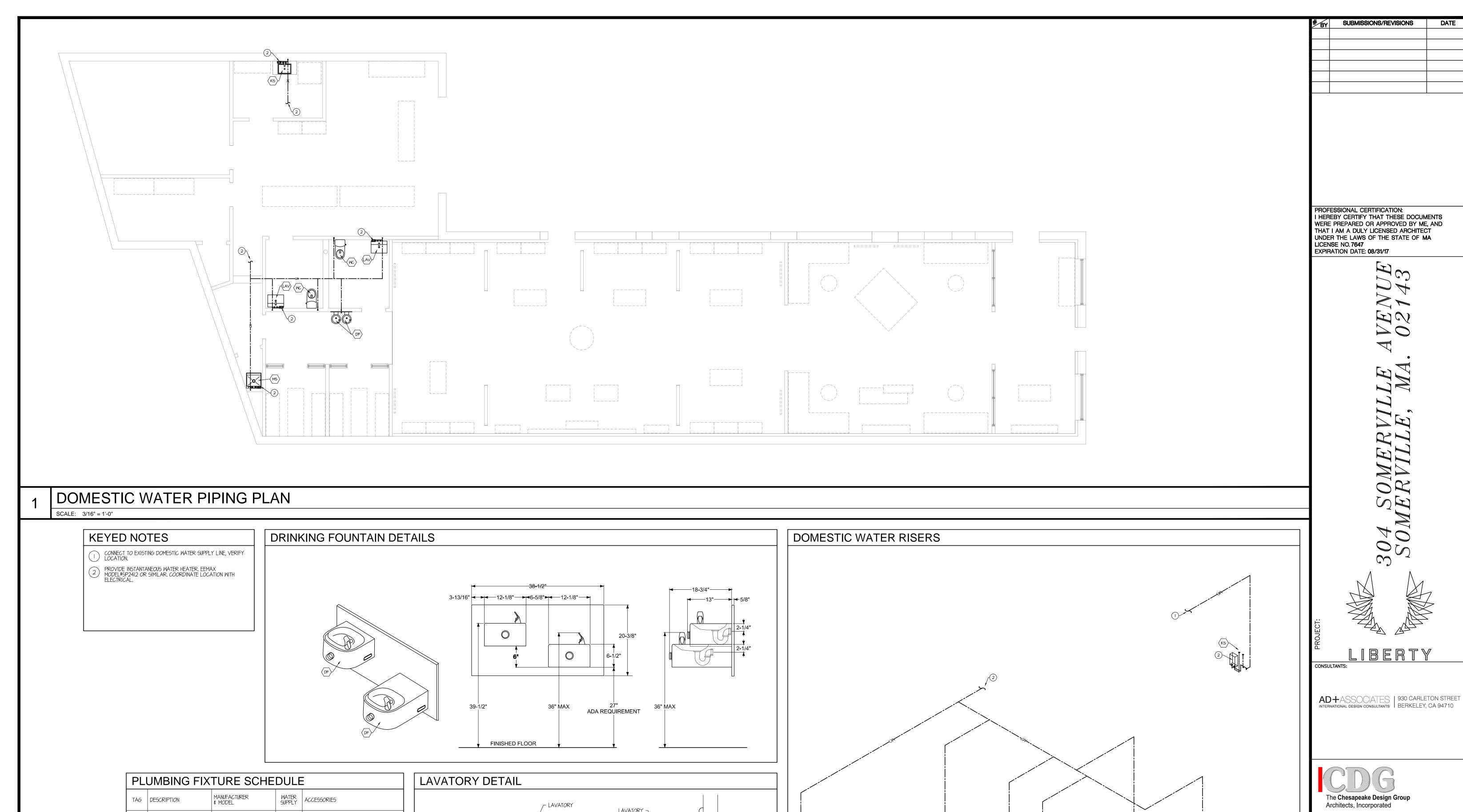
CHECKED BY:

PROJECT # 17WE04

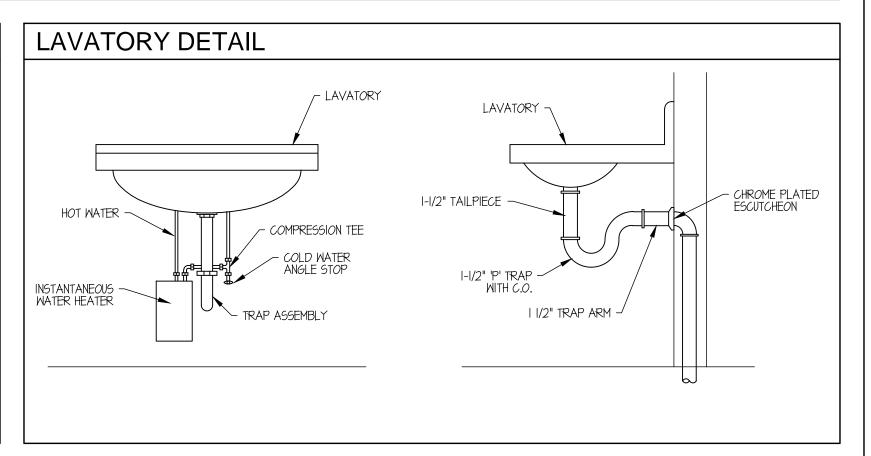
RCG

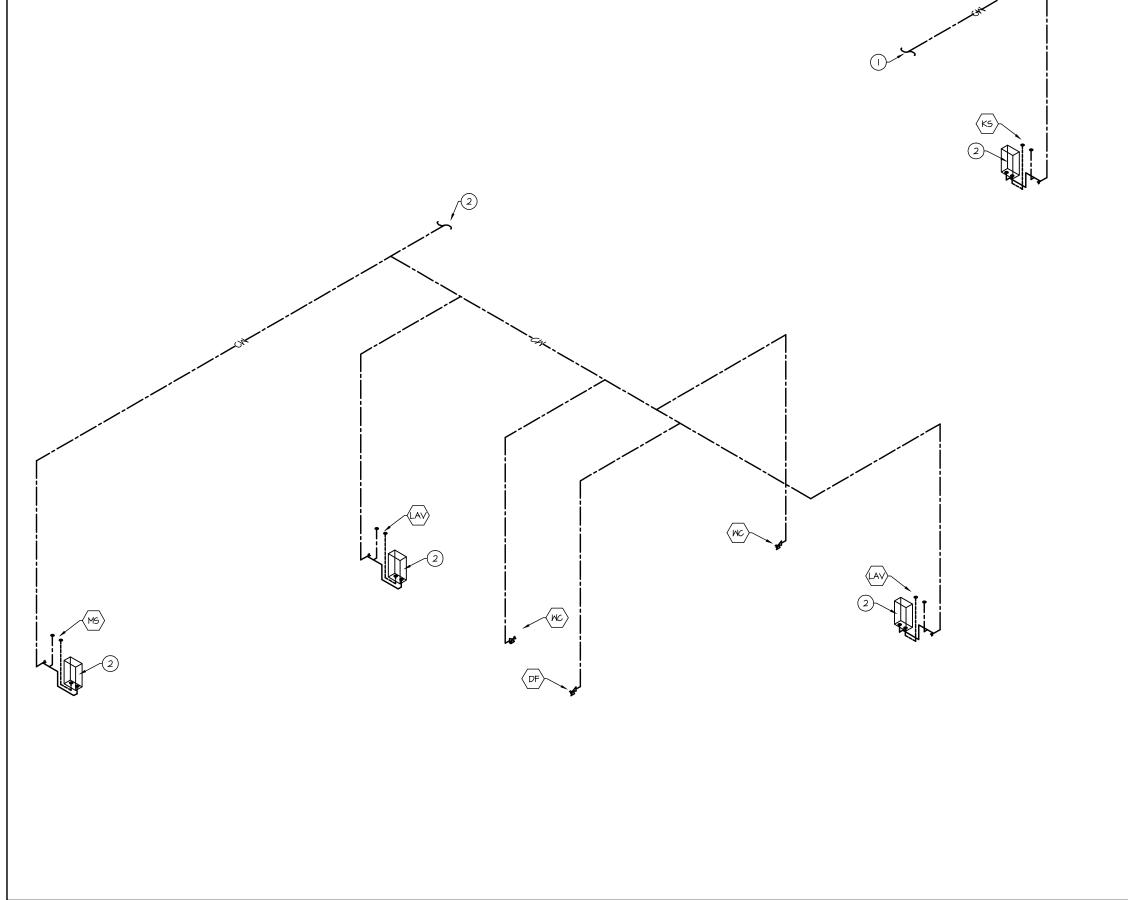
DRAWING NAME:

SCALE: AS NOTED



MALL MOUNTED ADA HI/LO DRINKING FOUNTAIN I/2" CW | STAINLESS STEEL COUNTER MOUNT KITCHEN SINK 1/2" CM DELTA CLASSIC SINGLE HOLE SINGLE-HANDLE FAUCET IN CHROME 1.20GPM SCARABEO SCARABEO 8031/R ADA WALL MOUNTED LAVATORY 1/2" CW MOEN MODEL 8938 TWO 1/2" HW HANDLE BAR FAUCET (MS) FLOOR MOUNTED SINK ADA FLOOR MOUNTED TOILET KOHLER ELMBROOK 3/4" CW SEAT INCLUDED 1.286PM PLUMBING CONTRACTOR SHALL VERIFY PLUMBING SPECS PRIOR TO ORDERING. PLUMBING CONTRACTOR SHALL COORDINATE WITH G.C. TO PROVIDE BLOCKING FOR PROPER SINK SUPPORT.





PAGE # P-200.00 PRELIMINARY SET 09/06/17

**LIBERTY** 

304 SOMERVILLE AVE SOMERVILLE, MA. 02143

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PROJECT #

17WE04

RCG

CLIENT:

DRAWING NAME:

SCALE: AS NOTED

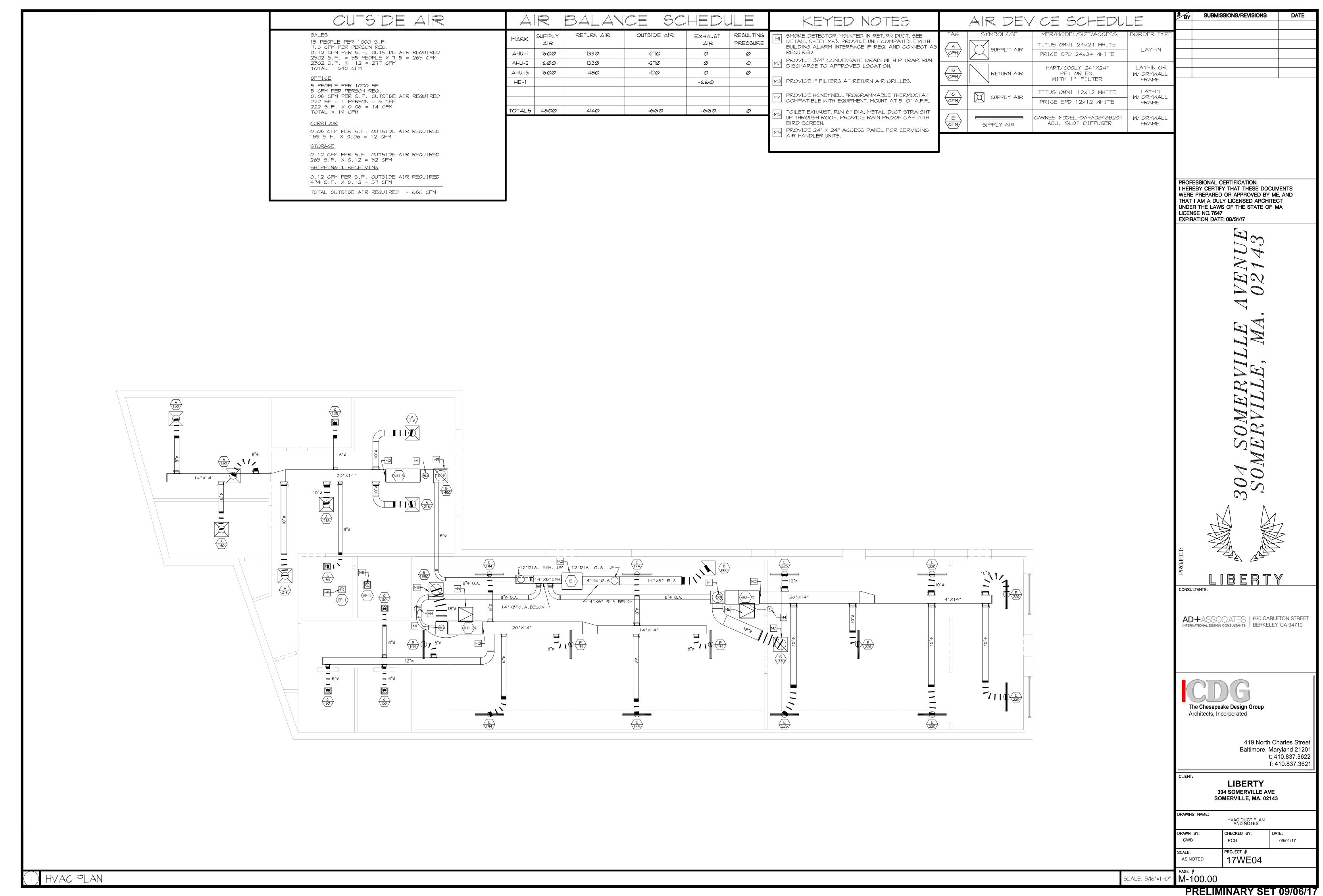
419 North Charles Street

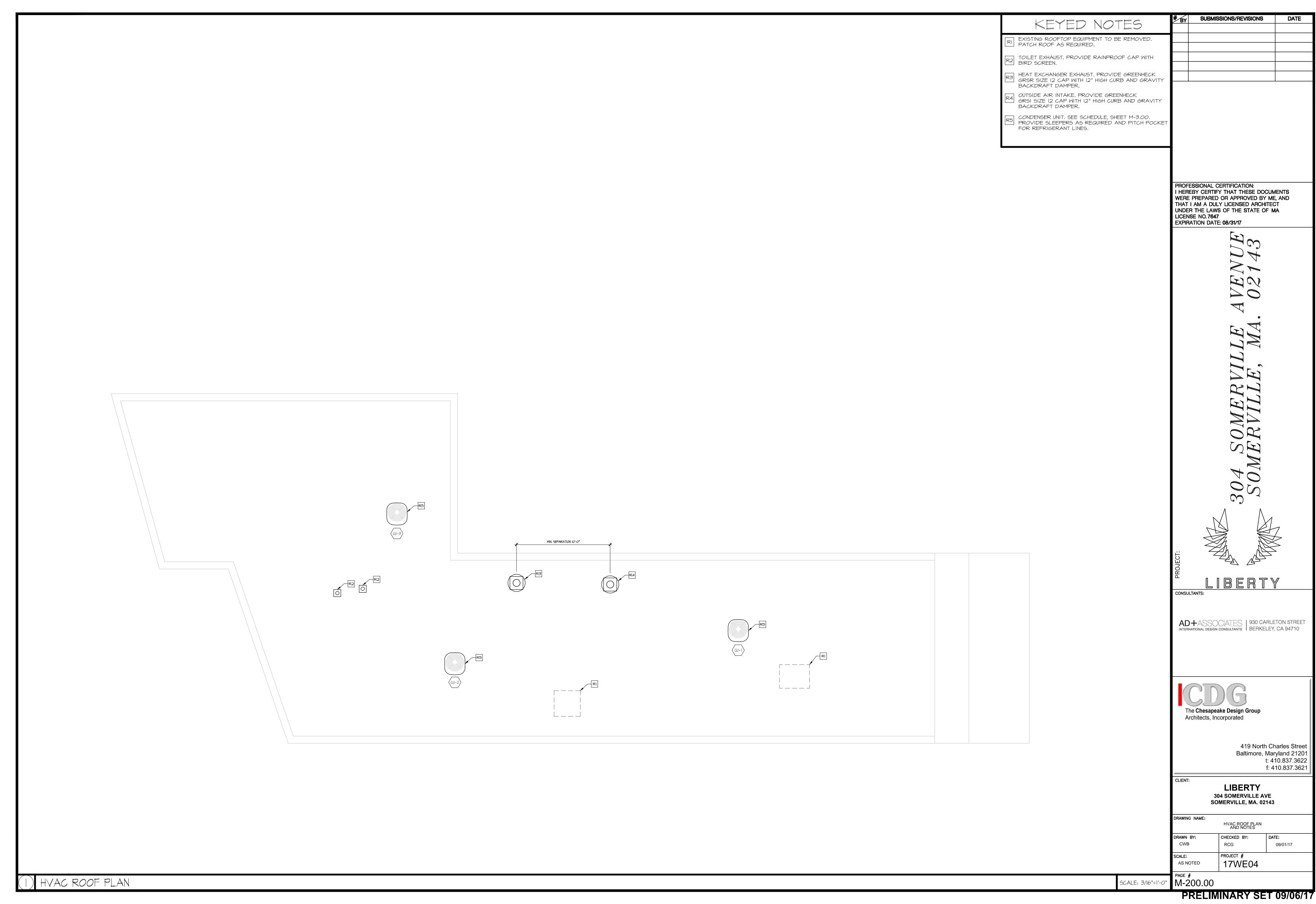
Baltimore, Maryland 21201 t: 410.837.3622

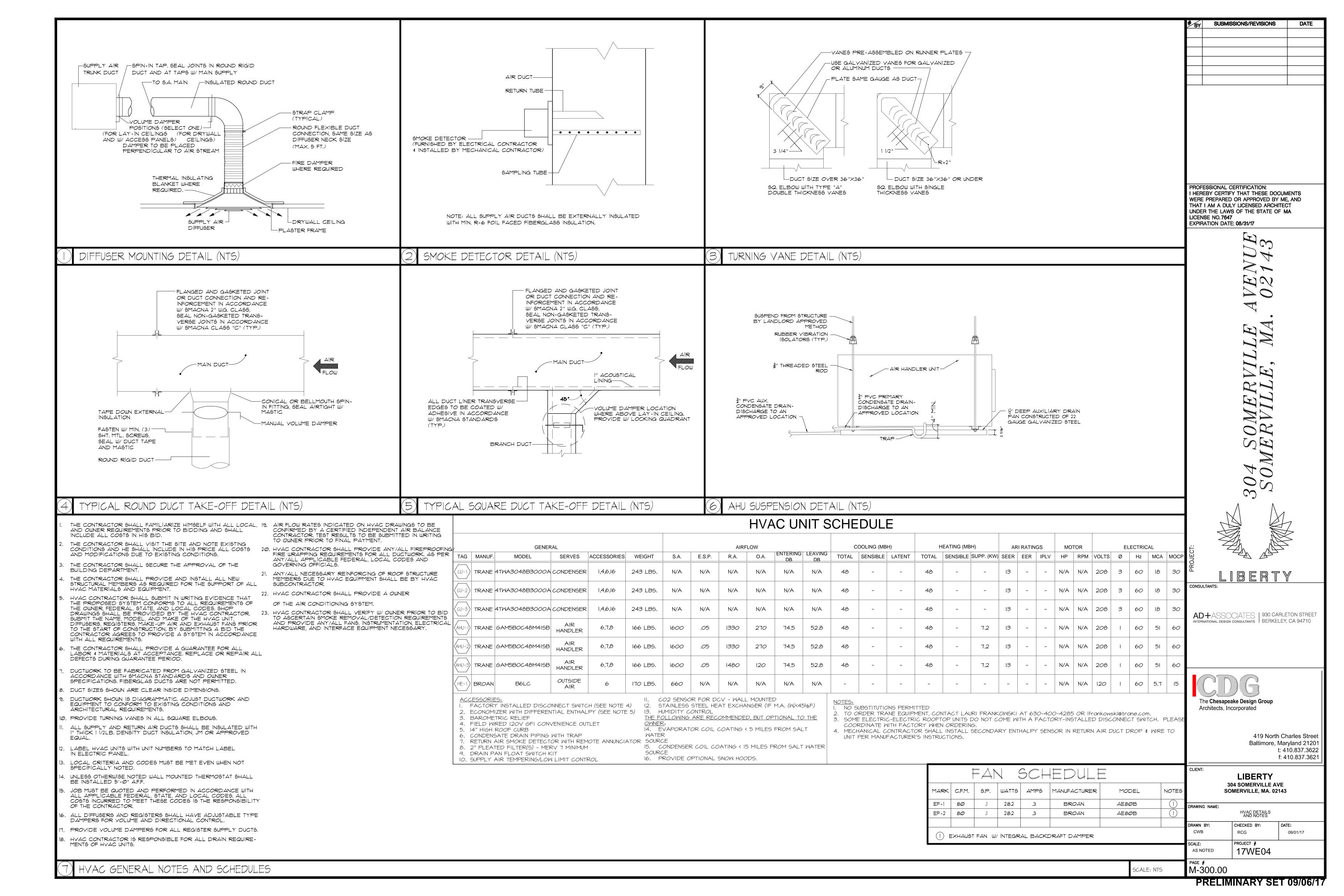
DATE:

09/01/17

f: 410.837.3621







## GENERAL NOTES AND ABBREVIATIONS

#### **GENERAL NOTES**

- GENERAL NOTES APPLY TO ALL DRAWINGS.
- 2. DO ALL WORK IN ACCORDANCE WITH ALL STATE AND LOCAL BUILDING CODES IN EFFECT AT PLACE AND TIME OF CONSTRUCTION.
- 3. PROVIDE SPECIAL INSPECTION AS REQUIRED BY STRUCTURAL SPECIFICATIONS.
- 4. CONSTRUCT THOSE FEATURES OF THE PROJECT, WHICH MAY NOT BE FULLY SHOWN, IN MANNER SIMILAR TO THAT USED FOR SIMILAR FEATURES.
- 5. OMISSION OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWING, NOTES AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND RESOLVED PRIOR TO PROCEEDING WITH THE WORK.
- 6. CONTRACTOR SHALL REVIEW THE NEED FOR TEMPORARY SHORING, CHEMICAL GROUTING OR UNDERPINNING PRIOR TO EXCAYATION. CONTRACTOR SHALL DESIGN AND INSTALL ALL TEMPORARY BRACING, ETC., REQUIRED DURING ALL STAGES OF
- CONTRACTOR SHALL SUBMIT IN WRITING, ANY REQUEST FOR MODIFICATIONS TO THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SUBMITTED FOR REVIEW DO NOT CONSTITUTE "IN WRITING" UNLESS IT IS CLEARLY NOTED THAT SPECIFIC CHANGES ARE BEING REQUESTED.
- 8. ALL CONSTRUCTION WORK SHALL CONFORM TO 2012 IBC AND 2013 CBC.
- 9. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO ORDERING MATERIALS OR STARTING CONSTRUCTION AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- 10. RETURN TO ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF OPENINGS AND PENETRATIONS. COORDINATE PENETRATIONS, NO NEW OPENING SHALL BE MADE WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT.
- REFER TO ARCH, MECH, AND ELECTRICAL DRAWINGS FOR LOCATION AND SIZE OF BLOCK OUT, INSERTS, OPENINGS, AND CURBS. DIMENSIONS ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
- 12. GENERAL CONTRACTORS SHALL VERIFY WITH STRUCTURAL ENGINEER ALL MECH. UNIT LOCATIONS PRIOR TO INSTALLATIONS.
- 13. WHERE EXISTING FIREPROOFING IS TO BE DISTURBED TO ALLOW INSTALLATION OF NEW BRACING OR SIMILAR CONSTRUCTION, CONTRACTOR SHALL REPLACE IN KIND AFTER ALL NEW CONSTRUCTION IS IN PLACE, ALL STEEL STRUCTURES MUST BE COVERED BY ADEQUATE F. R. MATERIAL OR MAINTAINED WITH SAME F. R. MATERIAL
- 14. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY IF ANY DISCREPANCY AFFECTING STRUCTURAL WORK IS NOTED BETWEEN THE STRUCTURAL DRAWINGS AND ARCHITECTURAL OR MECHANICAL DRAWINGS.
- 15. CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR HIS REVIEW, SPECIFICATIONS FOR ANY ITEM INTENDED TO BE USED AS A SUBSTITUTION FOR ITEMS SPECIFIED IN THESE DRAWINGS. CONTRACTOR SHALL NOT PROCEED UNTIL THE SUBSTITUTION HAS BEEN REVIEWED AND APPROVED BY THE ENGINEER.
- 16. IN ADDITION TO THIS DOCUMENT, THE CONTRACTOR SHALL COMPLY WITH GENERAL MALL CRITERIA HANDBOOK AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCY BETWEEN THE TWO DOCUMENTS PRIOR TO STARTING ANY WORK.
- IT. TENANT STRUCTURAL ADDITIONS AND MODIFICATIONS MUST BE REVISED AND APPROVED BY LANDLORDS STRUCTURAL ENGINEER PRIOR TO START OF CONSTRUCTION. TENANT'S RESPONSIBLE FOR COST OF ALL APPROVED MODIFICATIONS.
- 18. DETAILS SHOWN SHALL BE INCORPORATED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS WHETHER SPECIFICALLY CALLED OUT OR NOT.
- 19. STRUCTURAL DRAWINGS HAVE BEEN COORDINATED WITH THE BASE BUILDING STRUCTURAL DRAWINGS IF ANY DISCREPANCIES OCCUR DUE TO AS-BUILT CONDITIONS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT \$ STRUCTURAL ENGINEER OF RECORD.

### CONSTRUCTION LIABILITY

CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS AGREE THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR AND HIS SUBCONTRACTORS WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS FURTHER AGREE TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

### GENERAL NOTES

CONVENTIONAL CONSTRUCTION PROVISIONS

THIRD OF THE SPAN.

THE REQUIREMENTS CONTAINED IN THIS SECTION ARE INTENDED FOR CONVENTIONAL, LIGHT FRAME CONSTRUCTION. OTHER METHODS MAY BE USED, PROVIDED A SATISFACTORY DESIGN IS SUBMITTED SHOWING COMPLIANCE WITH OTHER PROVISIONS OF THE 2015 IBC.

GIRDERS: GIRDER END JOINTS SHALL OCCUR OVER A SUPPORT. WHEN A GIRDER IS SPLICED OVER A SUPPORT, AN ADEQUATE TIE SHALL BE PROVIDED. THE END BEAMS OR GIRDERS SUPPORTED ON MASONRY OR CONCRETE

SHALL NOT HAVE LESS THAN 3 INCHES OF BEARING.

EXCEPT WHERE SUPPORTED ON A I INCH BY 4 INCH RIBBON STRIP AND NAILED TO THE ADJOINING STUD, THE ENDS OF EACH JOIST SHALL NOT HAVE LESS THAN 1 1/2 INCHES OF BEARING ON WOOD OR METAL, OR LESS THAN 3 INCHES ON MASONRY.

FRAMING JOISTS SHALL BE SUPPORTED LATERALLY AT THE ENDS AND AT EACH DETAILS: SUPPORT BY SOLID BLOCKING EXCEPT WHERE THE ENDS OF JOISTS ARE NAILED TO A HEADER, BAND OR RIM JOIST OR TO AN ADJOINING STUD OR BY OTHER APPROVED MEANS, SOLID BLOCKING SHALL NOT BE LESS THAN 2 INCHES IN THICKNESS AND THE FULL DEPTH OF JOIST.

NOTCHES SHALL NOT EXCEED ONE THIRD THE DEPTH OF THE JOIST, AND THE ON THE END DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE THIRD THE OF JOISTS: DEPTH OF THE JOIST, NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND BE LOCATED IN THE MIDDLE

JOIST FRAMING INTO THE SIDES OF THE BEAM, GIRDER OR PARTITION FRAMING: SHALL BE LAPPED AT LEAST 3 INCHES OR THE OPPOSING JOISTS SHALL BE TIED TOGETHER IN AN APPROVED MANNER. JOISTS FRAMING INTO THE SIDE OF A WOOD GIRDER SHALL BE SUPPORTED BY FRAMING ANCHORS OR ON LEDGER STRIPS NOT LESS THAN 2 INCHES BY 2 INCHES.

FRAMING TRIMMER AND HEADER JOISTS SHALL BE DOUBLED, OR OF LUMBER OF AROUND EQUIVALENT CROSS SECTION, WHEN THE SPAN OF THE HEADER EXCEEDS OPENINGS: 4 FEET. THE ENDS OF HEADER JOISTS MORE THAN 6 FEET LONG SHALL BE SUPPORTED BY FRAMING ANCHORS OR JOIST HANGERS UNLESS BEARING ON A BEAM, PARTITION OR WALL.

SUPPORTED BEARING PARTITIONS PERPENDICULAR TO JOISTS SHALL NOT BE OFFSET FROM SUPPORTED GIRDERS, WALLS OR PARTITIONS MORE THAN THE PARTITIONS: JOIST DEPTH. JOISTS UNDER AND PARALLEL TO BEARING PARTITION SHALL BE DOUBLED.

FRAMING DETAILS: STUDS SHALL BE PLACED WITH THEIR WIDE DIMENSION PERPENDICULAR TO THE WALL. NOT LESS THAN THREE FRAMING: STUDS SHALL BE INSTALLATION EACH END CORNER OF AN EXTERIOR WALL.

BEARING & EXTERIOR SHALL BE CAPPED WITH DOUBLE TOP PLATES INSTALLED TO PROVIDE WALL STUD OVERLAPPING AT CORNERS AND AT INTERSECTIONS WITH OTHER PARTITIONS, END JOINTS IN DOUBLE TOP PLATES SHALL BE OFFSET AT LEAST 48 INCHES. STUD PARTITIONS CONTAINING PLUMBING, HEATING, OR OTHER PIPES SHALL BE SO FRAMED AND THE JOISTS UNDERNEATH SO SPACED AS TO GIVE PROPER CLEARANCE FOR THE PIPING. WHERE A PARTITION CONTAINING SUCH PIPING RUNS PARALLEL TO THE FLOOR JOISTS UNDERNEATH SUCH PARTITIONS SHALL BE DOUBLE AND SPACED TO PERMIT PASSAGE OF SUCH PIPES AND SHALL BE BRIDGED, WHERE PLUMBING OR HEATING PIPES ARE PLACED IN OR PARTLY IN A PARTITION, NECESSITATING THE CUTTING OF THE SOLES OR PLATES, A PARTITION, A METAL TIE NOT LESS THAN 1/8" THICK AND 1 1/2 INCHES WIDE SHALL BE FASTENED TO THE PLATE ACROSS AND TO EACH SIDE OF THE

**ABBREVIATIONS** 

<u>STANDARD</u>	<u> SIERRA ENGINEERING</u>	<u>GROUP STRUCTURAL</u>	<u>ABBREVIATIONS</u>
4BBR	ABBREYIATION	HD	HOLDOWN
· <del></del>	ADOLE FINISH FLOOD	LIODIZ	LICOIZONEAL

OPENING WITH NOT LESS THAN FOUR 10d NAILS.

ABBR	ABBREYIATION	HD	HOLDOWN
AFF	ABOVE FINISH FLOOR	HORIZ	HORIZONTAL
ADD'L	ADDITIONAL	HDG	HOT DIPPED GALVANIZED
ALT	ALTERNATE		
AB	ANCHOR BOLTS	ID	INSIDE DIAMETER
ARCH	ARCHITECTURAL	MB	MACHINE BOLT
ATTACH	ATTACHMENT	MFR	MANUFACTURER
BM	BEAM	MAT'L	MATERIAL
BRG	BEARING	MAX	MAXIMUM
B'TWN	BETWEEN	MECH	MECHANICAL
BLK'G	BLOCKING:	MTL	METAL
BOTT	BOTTOM	ML	MICROLLAM
B.O.	BOTTOM OF	MIN	MINIMUM
		NS	
CAMB	CAMBER		NEAR SIDE
CLG	CEILING	NSFS	NEAR SIDE AND FAR SIDE
CHG	CHANGE	OC	ON CENTER
С	CHANNEL	OWJ	OPEN WEB JOIST
CLR	CLEARANCE	OPNG	OPENING:
COLL	COLLECTOR	OD	OUTSIDE DIAMETER
COL	COLUMN	0/	OVER
CONC	CONCRETE	PARA	PARALLAM
	CONDENSING UNIT		PLATE
CU		£	
CONN	CONNECTION	PLYWD	PLYWOOD
CONT	CONTINUOUS	PT	POST TENSIONED/PRE-TENSIONED
DP	DEEP	PŤ	PRESSURE TREATED
DIAG	DIAGONAL	PTDF	PRESSURE TREATED DOUGLAS FIR
DIA	DIAMETER	RFTR	RAFTER
DIM	DIMENSION	REINF	REINFORCEMENT
DBL	DOUBLE	REQ'D	REQUIRED
DWG	DRAWING	RTU	ROOF TOP UNIT
DWGS	DRAWINGS	SAD	SEE ARCH DRAWING
EA	EACH	SDS	SELF DRILLING SCREWS
EΜ	EACH WAY	SHTG	SHEATHING
EN	EDGE NAILING	SHT	SHEET
ELEC	ELECTRICAL	SIM	SIMILAR
ELEY	ELEVATION	50G	SLAB ON GRADE
EMBED	EMBEDMENT	STD	STANDARD
EQ	EQUAL	STL	STEEL
E/O	EVERY OTHER	STIF	STIFFENER
(E)	EXISTING:	STRNG'R	STRINGER
FS	FAR SIDE	STRUCT	STRUCTURAL
FF	FINISH FLOOR		
FLR	FL <i>OO</i> R	TSG	TAPERED STEEL GIRDER
FJ	FLOOR JOIST	THRORD	THREADED ROD
FTG	FOOTING:	T4G	TOUNGE AND GROOVE
FND	FOUNDATION	T4B	TOP AND BOTTOM
FRM'G	FRAMING	T.O.	TOP OF
GALY	GALVANIZED	TJI	TRUSS JOIST
		TS	
GA	GAUGE		TUBE STEEL
GDR	GIRDER	TYP	TYPICAL
GLB	GLUE-LAM BEAM	UNO	UNLESS NOTED OTHERWISE
GWB	GYPSUM WALL BOARD	<b>∨IF</b>	VERIFY-IN-FIELD
HGR	HANGER	<b>YERT</b>	VERTICAL
HWS	HEADED WELDED STUD	WWF	WELDED WIRE FABRIC
HDR	HEADER	W	WIDE FLANGE
HT	HEIGHT	W/	WITH
ПI . 10		M/	MILL

WITHOUT

HIGH STRENGTH

HIGH STRENGTH BOLT

GENERAL NOTES & ABBREVIATIONS

MATERIAL SPECIFICATIONS S1.Ø FLOOR FRAMING PLAN

S2.Ø DETAILS

#### DESIGN CRITERIA

OCCUPANCY CATEGORY = II FLOOR DEAD LOAD = 40 PSF FLOOR LIVE LOAD = 100 PSF



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ALL DRAWINGS AND WRITTEN MATERIAL HEREIN CONSTITUTE ORIGINAL AND UNPUBLISHED WORK OF THE ARCHITECT AND MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT WRITTEN CONSENT OF THE ARCHITECT.

NO.	DATE	DESCRIPTION	BY

US 30 Liberty

as noted

GENERAL NOTES & **ABBREVIATIONS** 

SHEET NUMBER

## MATERIAL SPECIFICATIONS

#### **WOOD FRAMING**

ALL PLYWOOD SHALL CONFORM TO U.S. PRODUCT STANDARD PS 1-95, AMERICAN PLYWOOD ASSOC. EACH SHEET SHALL BE STAMPED WITH THE PS AND/OR APA GRADEMARK.

ROOF PLYWOOD SHALL BE 5 PLY EXPOSURE 1, (CDX), GROUP IDENTIFICATION INDEX 32/16, SPECIES GROUP 2 OR BETTER..

WALL PLYWOOD SHALL BE 5 PLY EXPOSURE 1, (CDX), GROUP IDENTIFICATION INDEX 24/0, SPECIES GROUP 2 OR BETTER. - DESIGNATED SHEAR PLY SHALL BE RATED "STRUCTURAL I" FOR LENGTH SPECIFIED ON PLANS. FLOOR PLYWOOD

SHALL BE 23/32 INCH THICK APA RATED SHEATHING, 48/24 SPAN RATING EXPOSURE

ALL PLYWOOD PERMANENTLY EXPOSED TO WEATHER SHALL BE EXTERIOR TYPE PLYWOOD VS. INTERIOR TYPE PLYWOOD AS REFERENCED ABOVE.

DOUGLAS FIR-LARCH, CONFORMING TO LUMBER INSPECTION BUREAU STANDARD GRADING AND DRESSING RULE NO. 17 AS AMENDED TO DATE INCLUDING SUPPLEMENTS

MOISTURE CONTENT SHALL BE LESS THAN 15% FROM THE TIME OF INSTALLATION ONWARD.

- 2x,3x,4x, PLATES, JOISTS, PURLINS, AND RAFTERS, NO. 2 (900F-b), PARA. 123-b UNLESS NOTED OTHERWISE ON THE DRAWINGS. 2x,3x,4x, HEADERS AND BEAMS, NO. 1 (1000F-b), PARA. 123-BB, UNLESS NOTED
- OTHERWISE NOTED ON THE DRAWINGS. 3. 6x & LARGER BEAMS , DENSE NO. 1 (1550F-b), PARA. 130-BB. WHEN BEAM WIDTH IS NOT MORE THAN 2" GREATER THAN THICKNESS, THE MEMBER SHALL NOT CONFORM
- 4. 2x,3x,4x, LEDGERS, NO. 1 & BTR. (1200F-b), PARA. 123-b, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 5. 4x4 POSTS, NO. 2 (1350F-c), PARA. 124-b, UNLESS NOTED OTHERWISE ON THE DRAWINGS. 6. 4x6 POSTS, NO. 2 (1350F-c), PARA, 123-b, UNLESS NOTED OTHERWISE ON THE
- DRAWINGS. 6x6 AND LARGER POSTS, NO. 1 (1200F-c), PARA, 131-bb WHEN POST WIDTH IS MORE THAN 2" GREATER THAN THICKNESS, THE MEMBER SHALL CONFORM TO ITEM 3
- 8. 2×4, 3×4, STUDS, NAILERS, AND BLOCKING, CONSTRUCTION GRADE, (1000F-b), PARA.
- 9. 2x6 OR LARGER STUDS AND BLOCKING, NO. 1 (1000F-b), PARA. 123-b. 10. FOUNDATION PLATES: PRESSURE TREATED DOUGLAS FIR, NO. 2 UNLESS NOTED
- OTHERWISE ON THE PLANS. ALL FRAMING LUMBER 6" OR LARGER IN THE LEAST DIMENSION SHALL BE F.O.H.C. 12. REDWOOD SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE REDWOOD INSPECTION SERVICE, AS AMENDED TO DATE.

### LIGHT GAGE METAL CONNECTORS

ALL LIGHT GAGE METAL CONNECTORS SHALL BE SIMPSON COMPANY STRONG TIE CONNECTORS, OR EQUAL, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

#### STRUCTURAL COMPOSITE LUMBER

COMPOSITE LUMBER SHALL BE IN CONFORMANCE WITH ASTM D5456 AND ICC-ES ESR 1387. MEMBERS SHALL BE IDENTIFIED BY A STAMP INDICATING THE PRODUCT TYPE AND GRADE, ICBO REPORT NUMBER, MANUFACTURER'S NAME, PLANT NUMBER, AND INSPECTION AGENCY'S LOGO.

PARALLAM PSL a) 2.0E (2900F-b) TYP UNO

#### STRUCTURAL STEEL

#### GENERAL STRUCTURAL STEEL NOTES

REFERENCE: AISC STEEL MANUAL - 13TH EDITION

ALL MISC STRUCTURAL HARDWARE (I.E. PINS, CLEVISES, SLEEVE NUTS, COUPLERS, TURNBUCKLES, ETC ... ) SHALL BE CAPABLE OF DEVELOPING THE CAPACITY (TENSION OR COMPRESSION) OF THE ATTACHING ENTITY.

WELDING AND TORCH CUTTING OF ALL MATERIALS, WITH FY GREATER THAN 65KSI OR, FU GREATER THAN 89KSI, ARE NOT PERMITTED WITHOUT PRIÖR WRITTEN APPROVAL FROM ENGINEER OF RECORD.

#### STRUCTURAL STEEL AND MISCELLANEOUS IRON ROLLED W-SHAPES: ASTM A992, Fy=50KSI (TYP UNO)

ROLLED SHAPES INCLUDE W, M, S, HP, C, MC, AND L SHAPES.

ROLLED SHAPES (OTHER THAN W-SHAPES) & MISC PLATES: ASTM A36, Fy=36KSI (TYP

HIGH-STRENGTH LOW-ALLOY: (WHERE NOTED)

ROLLED SHAPES (OTHER THAN W-SHAPES): ASTM A572, GRADE 50, Fy=50KSI MISC PLATES (UP TO 4" THK): ASTM A572, GRADE 50, Fy=50KSI MISC PLATES (4 1/8" TO 6" THK): ASTM A572, GRADE 42, Fy=42KSI

CORROSION RESISTANCE HIGH-STRENGTH LOW-ALLOY: (WHERE NOTED) ALL ROLLED SHAPES: ASTM A588, GRADE 50, Fu=50KSI MISC PLATES (UP TO 4" THK): ASTM A588, GRADE 50, Fy=50KSI

MISC PLATES (4 1/8" TO 5" THK): ASTM A588, GRADE 46, Fy=46KSI

MISC PLATES (5 1/8" TO 8" THK): ASTM A588, GRADE 42, Fy=42KSI

ALL STRUCTURAL STEEL AND MISCELLANEOUS IRON SHALL BE MANUFACTURED IN ACCORDANCE WITH AISC SPECIFICATIONS, ALL STRUCTURAL STEEL AND MISCELLANEOUS IRON SHALL RECEIVE PRIME COAT. CODE APPROVED LICENSED FABRICATORS REQUIRED FOR STEEL WORKS PER 2015 IBC.

## ASTM A53, TYPES E OR S, GRADE B, Fy=35KSI (TYP UNO)

<u>STRUCTURAL TUBING</u> ROUND HSS: ASTM A500, GRADE B, Fy=42KSI (TYP UNO)

RECTANGULAR HSS: ASTM A500, GRADE B, Fy=46KSI (TYP UNO)

CORROSION RESISTANCE: ASTM A847, Fy=50KSI (WHERE NOTED) (FOR RECTANGULAR & ROUND HSS)

COMMON BOLTS: ASTM A3Ø7, GRADE A, Fu=6ØKSI (TYP UNO)

HIGH-STRENGTH BOLTS: ASTM A325-N (WHERE NOTED) 1/2" + TO 1" +: Fu=120KSI

1 1/8"¢ TO 1 1/2"¢: Fu=105KSI HIGH-STRENGTH BOLTS: ASTM A490 (WHERE NOTED)

1/2" + TO 1 1/2" +: Fu=150KSI INSTALL CIRCULAR HARDENED WASHER UNDER THE ELEMENT BEING TURNED.

ANCHOR RODS (HOOKED/HEADED/THREADED & NUTTED)

ASTM F1554, GRADE 36, Fy=36KS1 (TYP UNO)

ASTM F1554, GRADE 55, Fy=55KSI (WHERE NOTED) ASTM F1554, GRADE 105, Fy=105KSI (WHERE NOTED)

ALL GRADE 36 & 55 ANCHOR RODS SHALL CONFORM TO WELDABILITY SUPPLEMENT SI.

#### THREADED RODS ASTM A36, FY=36KSI (TYP UNO)

ASTM A449: (WHERE NOTED.

1/4"¢ TO 1"¢: FU=120KS 1 1/8" + TO 1 1/2" +: FU=105KSI

15/8"¢ TO 3"¢: FU=9@KSI

## <u>NUTS</u> ASTM A563

HEX NUT (TYP UNO) HEAVY HEX (WHERE NOTED)

## WASHER ASTM F436

## HEADED STUDS

HEADED STUDS SHALL BE NELSON STUD TYPE S3L AND H4L (TYP UNO) H4L: 1/4"¢ TO 5/8"¢ 53L: 3/4"¢ TO 7/8"¢

ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS PER AWS "STANDARD QUALIFICATIONS PROCEDURE" UNDER THE DIRECT SUPERVISION OF A REGISTERED DEPUTY INSPECTOR TO PERFORM THE TYPE OF WORK REQUIRED. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS DIJ WELDING CODE. ARC WELDING ELECTRODES SHALL BE AS FOLLOWS:

\* CJP'S SHALL BE MILL CERTIFIED "CHARPY V-NOTCH" (20 FT-LB @ -20°F)

DESIGNATION	ELECTRODE
LIGHT GAUGE	E60XX
STRUCTURAL STEEL *	E7ØXX
REBAR (A106)	E8ØXX

### POST-INSTALLED MECHANICAL ANCHORS

#### EXPANSION ANCHORS UNCRACKED MASONRY: EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT III

EXPANSION ANCHOR OR APPROVED EQUAL. ICC-ES ESR-1385. CONCRETE OR CONRETE OVER METAL DECK: EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT TZ EXPANSION ANCHOR OR APPROVED EQUAL. ICC-ES ESR 1917.

### **EPOXY**

EPOXY RESIN ADHESIVE SHALL BE "SET-XP" AS MANUFACTURED BY SIMPSON STRONG TIE. (ICC-ES ESR-2508). PROPORTIONS FOR SET-XP SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR THE CONDITION AND USE. PREPARATION OF CONCRETE INCLUDING DRILLING OF HOLES FOR ANCHORS, AS WELL AS EPOXY AND ANCHOR

#### SUBMITTALS

#### SHOP DRAWINGS FOR THE ENGINEERS REVIEW THE FOLLOWING WILL BE REQUIRED

### REINFORCING STEEL

LAMINATED MEMBERS 3. STRUCTURAL STEEL AND MISCELLANEOUS METAL

CONTRACTOR SHALL SUBMIT TWO SETS OF PRINTS FOR REVIEW. FABRICATION SHALL NOT PROCEED NOR SUBMIT TO CITY OFFICIAL UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND STAMPED BY ENGINEER.

### SHOP DRAWINGS

SUBMITTAL DOCUMENTS FOR THE ABOVE SHOP DRAWING LIST SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING.

THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL

### SPECIAL INSPECTION

### THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR FOR THE FOLLOWING ITEMS: (STRUCTURAL ENGINEER SHALL RECEIVE COPIES OF ALL SPECIAL INSPECTION REPORTS.)

CONCRETE & REINFORCING PLACEMENT

3. NON-STRUCTURAL SLABS ON GRADE.

WELDING PER SECTION 1704 GEOTECHNICAL INSPECTION AS REQ'D BY REPORT/JOB 4. EPOXY INSTALLATION, AND HOLE PREPARATION

DURING THE TAKING OF TEST SPECIMENS AND CONTINUOUSLY DURING THE PLACING OF ALL REINFORCED CONCRETE EXCEPT AS NOTED BELOW.

DURING THE TAKING OF TEST SPECIMENS AND PERIODICALLY DURING THE PLACING OF ALL REINFORCED CONCRETE FOR: 1. STUD BEARING WALLS (EXCLUDING PIERS AND CAISSONS). 2. FOUNDATIONS WITH F'C EQUAL TO 2500 PSI OR LESS

ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS PER AWS "STANDARD QUALIFICATIONS PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS WELDING CODE. ARC WELDING

ELECTRODES SHALL BE ETØ SERIES. ALL STRUCTURAL WELDING, INCLUDING WELDING OF REINFORCING STEEL. STEEL FABRICATOR SHALL PREPARE AND SUBMIT A WELDING PROCEDURE SPECIFICATION (WPS) WHICH SHALL LIST THE POSITION ELECTRODE TYPE WITH ACCEPTABLE

BEAD SIZE, WELD SEQUENCE, STRESS AND RELIEVING MANUFACTURER'S TECHNICAL DATA SHEET SHALL BE SUBMITTED WITH EACH WPS TO CONFIRM THE PERTINENT WELDING PARAMETERS.

- B. ADHESIVE ANCHORS DURING ALL ADHESIVE ANCHORING INSTALLATIONS. (EPOXY RESIN) DURING TESTING OF ADHESIVE ANCHORS IN REINFORCED MASONRY.
- PERIODICALLY, DURING THE PLACING OF REINFORCING STEEL FOR ALL CONCRETE REQUIRED TO HAVE CONTINUOUS SPECIAL INSPECTION.
- BOLTS INSTALLED IN CONCRETE DURING INSTALLATION OF BOLTS AND PLACING OF CONCRETE AROUND SUCH BOLTS
- NOTED ON THE DRAWINGS AS REQUIRING SPECIAL INSPECTION.

#### 6. <u>HIGH STRENGTH BOLTING</u> DURING ALL BOLT INSTALLATIONS AND TIGHTENING OPERATIONS. EXCEPTIONS

- I. THE SPECIAL INSPECTOR NEED NOT BE PRESENT DURING THE ENTIRE INSTALLATION AND SPECIFICATIONS PRIOR TO START OF BOLTING.
- I) INSPECTED THE SURFACES AND BOLT TYPE FOR CONFORMANCE TO PLANS AND SPECIFICATIONS PRIOR TO START OF BOLTING
- II) AND WILL UPON COMPLETION OF ALL BOLTING, VERIFY THE MINIMUM SPECIFIED BOLT TENSION FOR 10 PERCENT OF THE BOLTS FOR EACH CONNECTION.
- 2. IN BEARING-TYPE CONNECTIONS WHEN THREADS ARE NOT REQUIRED BY DESIGN TO BE EXCLUDED FROM THE SHEAR PLANE, INSPECTION PRIOR TO OR DURING INSTALLATION WILL NOT BE REQUIRED.
- HORIZONTAL PLYWOOD DIAPHRAGMS PERIODICALLY, DURING THE INSTALLATION OF ANY DIAPHRAGM PORTION REQUIRING TWO ROW OR THREE ROW FASTENING, OR FASTENING 3" OC OR LESS.

### SPECIAL INSPECTOR

#### <u>SPECIAL INSPECTOR</u> THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE HIS COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF A CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPLICABLE DESIGN DRAWINGS AND SPECIFICATIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD, AND ANY OTHER DESIGNATED PERSONS ON A WEEKLY BASIS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL SUBMIT A

FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION

WAS, TO THE BEST OF HIS KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS

AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISION OF THIS CODE

## STRUCTURAL OBSERVATION

REQUIRED OBSERVATIONS BY STRUCTURAL ENGINEER OF RECORD:

FOUNDATION REINF - INCLUDING ALL ANCHOR BOLTS & HOLDOWNS.

ROUGH FRAMING - INCLUDING SHEATHING.

CONTRACTOR SHALL NOTIFY ENGINEER A MINUMUM OF 2 WORKING DAYS PRIOR TO THE TIME WHEN HIS PRESENCE IS REQUIRED. PLEASE NOTE THAT THESE OBSERVATIONS ARE INDEPENDENT OF INSPECTIONS REQUIRED BY THE CITY BUILDING DEPARTMENT.

### INSPECTION NOTES

AMP	ER TO SECTION 1704 OF 2015 IBC FOR LIFICATION OF THE FOLLOWING REQUIREMENTS, ALL CIAL INSPCETORS MUST SUBMIT FINAL REPORTS,				
		SPECIAL REC	INSF QUIRE	· ·	•
1.	FOUNDATIONS:	YES	NO	N/A	
	COMPACTED FILL INCLUDING UTILITY TRENCHES. VISIUAL EXAMINATION & APPROVAL OF ALL FOUNDATION EXCAVATIONS.			⊠ ⊠	
C.	CONTINUOUS INSPECTION OF PILE DRIVING AND/OR CAISSONS.				
2.	CONCRETE:				
A.	CONTINUOUS INSPECTION & TEST CYLINDERS FOR CONRETE OVER 2500 PSI.				
B	DURING THE TAKING OF TEST SPECIMENS AND PLACING OF ALL SHOTCRETE.			⊠	
3.	REINFORCING AND PRESTRESSING STEEL:				
B	PLACING OF REINFORCING. PLACING OF TENDONS SAMPLING & TESTING OF STEEL (MILL REPORTS & IDENTIFICATION OF STEEL)			⊠ ⊠ ⊠	
D.	CONTINUOUS INSPECTION OF INSTALLATION			$\boxtimes$	
E.	OF REBAR COUPLERS CONTINUOUS INSPECTION DURING STRESSING				
<b>F</b> .	OF PT TENDONS FIELD MEASURED ELONGATION AND JACKING FORCE RECORDS				
	GROUTING OF POST-TENSIONED CONCRETE POST-TENSIONED TENDON PROTECTIVE WRAPPING			$\boxtimes$	
4.	MASONRY				
٨	SAMPLING & TESTING OF MASONDY			M	

A. SAMPLING & TESTING OF MASONRY B. SAMPLING & TESTING OF GROUT & MORTAR C. CONTINUOUS INSPECTION D. PERIODIC INSPECTION		
5. INSULATING CONCRETE FILL:		

## A. TEST & INSPECTIONS

(AFFIDAYIT OF COMPLIANCE)

B. SAMPLING & TESTING

	6.	WELDING:			
ON		A. ALL STRUCTURAL FIELD WELDING (INCLUDES DECKING)			$\boxtimes$
		B. NON-DESTRUCTIVE TESTING OF MOMENT-RESISTING SPACE FRAMES			$\boxtimes$
L		C. STRUCTURAL LIGHT GAGE METAL FRAMING	П	П	$\boxtimes$

#### **BOLTING:** A. HIGH STRENGTH BOLTING

E	B. EXPANSION BOTLS IN CONCRETE OR MASONRY		
8.	STRUCTURAL STEEL:		
△	. MILL REPORTS & INDENTIFICATION OF STEEL		$\boxtimes$

ALL TESTS & INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT INSPECTION AGENCY. JOB SITE VISITS BY THE STRUCTURAL ENGINEER DO NOT CONSTITUTE AND ARE NOT A SUBSTITUTE FOR INSPECTION UNLESS THE STRUCTURAL ENGINEER IS CONTRACTED

A COPY OF ALL TESTING AND INSPECTION REPORTS SHALL BE SUMBMITTED TO THE

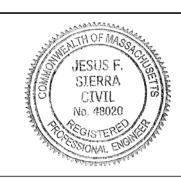
ENGINEER OF RECORD FOR APPROVAL. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SEE THAT THESE TESTS AND INSPECTIONS ARE PERFORMED

# SIERRA ENGINEERING

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he Chesapeake Design Group

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NO.	DATE	DESCRIPTION	BY

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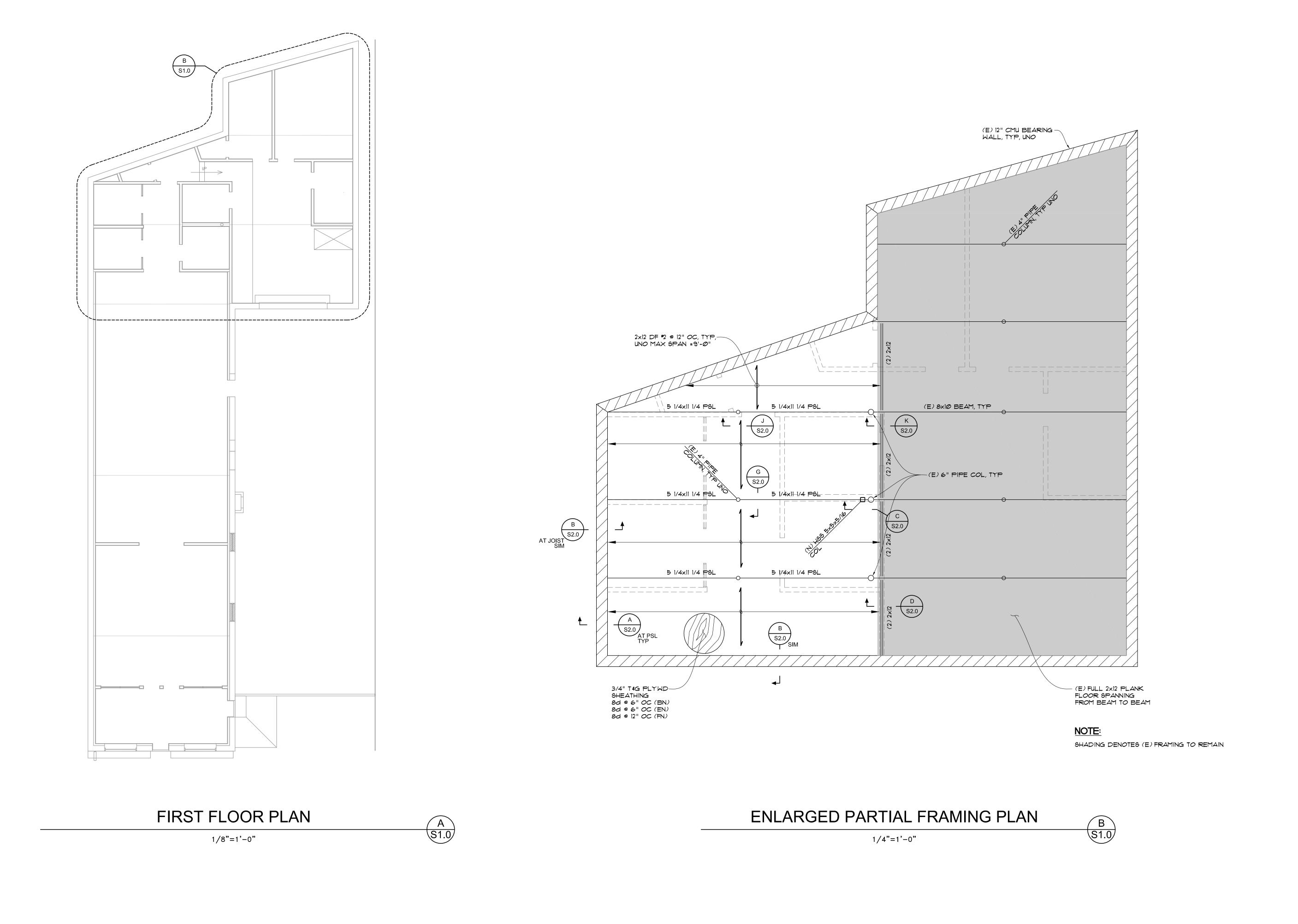
AS NOTED

MATERIAL SPECIFICATIONS

SHEET NUMBER

17064.0

INSTALLATION SHALL BE AS RECOMMENDED BY THE MANUFACTURER.

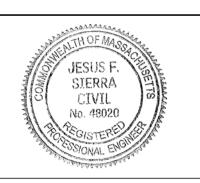


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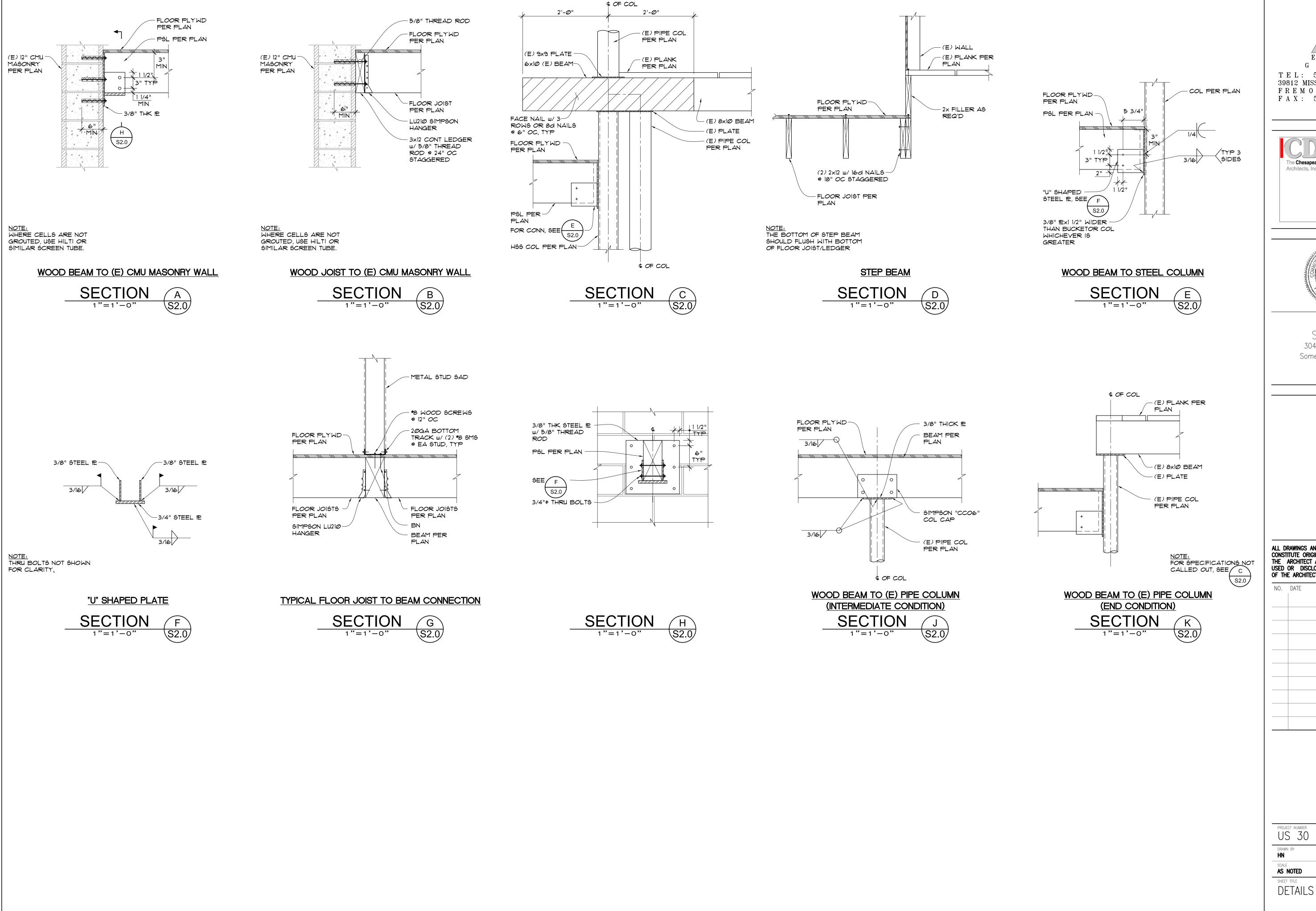
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DRAWN BY RE

SCALE AS NOTED

FRAMING FLOOR PLAN

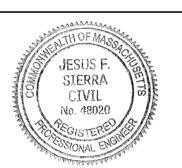
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