

# 18-20 BELKNAP STREET - ARLINGTON, MA

## GENERAL NOTES & SPECIFICATIONS

**1.0 CONDITIONS OF CONTRACT**

1.1 THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUBCONTRACTORS WITH ALL INFORMATION REGARDS TO FULL SCOPE OF THE PROJECT AND THEIR RESPECTIVE TRADES BIDDING AND CONSTRUCTION.

**2.0 GENERAL**

2.1 SCOPE OF WORK INCLUDES ALL WORK REQUIRED TO PROVIDE THE OWNERS THE WORK DEFINED IN THE CONSTRUCTION DOCUMENTS AND ALL BASE BUILDING CONSTRUCTION WITHIN THE IDENTIFIED SCOPE IN FULL INTENDED OPERATION.

2.2 GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INJURY AND DAMAGE OF ANY KIND RESULTING FROM THIS WORK, TO PERSONS OR PROPERTY.

2.3 RENTAL CHARGES, SAFETY, PROTECTION AND MAINTENANCE OF RENTED EQUIPMENT SHALL BE CONTRACTOR'S RESPONSIBILITY.

2.4 PROJECT SHALL NOT BE COMPLETED UNTIL ALL NECESSARY AFFIDAVITS, CERTIFICATION AGENCY APPROVALS AND INSURANCE CONDITIONS OF THIS CONTRACT HAVE BEEN FULFILLED TO THE SATISFACTION OF THE OWNER. APPLICABLE REQUIREMENTS OF THE GENERAL CONDITIONS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING:

- A. FINAL CLEANUP
- B. COMPLETION OF ALL PUNCH LIST ITEMS.
- C. SUBMISSION OF WAIVERS OF LIEN COVERING THIS CONTRACTOR AND HIS SUBCONTRACTORS AND SUPPLIERS.
- D. COMPLETE SET OF TAGS, CHARTS, DIAGRAMS, INSTRUCTION BOOKLETS, ETC. AS REQUIRED FOR MECHANICAL AND ELECTRICAL INSTALLATIONS.
- E. SUBMISSION OF ALL BUILDING DEPARTMENT APPROVALS AND CERTIFICATIONS.
- F. WARRANTIES IN THE NAME OF THE OWNER, PRODUCT INFORMATION AND COPIES OF SUBMITTALS.

2.5 THIS JOB IS DESIGN/BUILD FOR THE FOLLOWING SYSTEMS: ELECTRICAL, MECHANICAL, PLUMBING, CONTRACTORS ARE REQUIRED TO FINALIZE THE DESIGN OF THEIR RESPECTIVE SYSTEMS FOR FULL AND PROPER OPERATIONS ACCORDING TO THE APPLICABLE LAWS AND SPECIFICATIONS IN THE PROJECT MANUAL, IN ORDER TO SATISFY INTENDED FUNCTION AND DESIGN OF MECHANICAL AND ELECTRICAL DRAWINGS PROVIDED HERE.

2.6 CONTRACTOR TO PROVIDE EMERGENCY ACCESS TO THE BUILDING TWO MEANS OF EGRESS AT ALL TIMES, AREA TO BE CLEARED OF DEBRIS, PARTITIONED OFF AND LIT FOR CONTINUAL ACCESSIBILITY OF TOW EXITS. TWO EXISTS NEED TO BE PROVIDED DURING THE CONSTRUCTION AND DEMOLITION.

2.7 WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.

**3.0 DOCUMENTS**

3.1 THESE DOCUMENTS HAVE BEEN COMPILED WITH THE BEST AVAILABLE INFORMATION AND ARE NOT INTENDED TO LIMIT THE SCOPE OF WORK. THE CONTRACTOR MAY ENCOUNTER HIDDEN OR COVERED CONDITIONS, NOT INDICATED IN THE DOCUMENTS, REQUIRING ADDITIONAL WORK FOR THE COMPLETION OF THIS CONTRACT. IT WILL BE ASSUMED THAT THE CONTRACTOR HAS INSPECTED THE SITE PRIOR TO BIDDING AND VERIFIED ALL CONDITIONS, DIMENSIONS, AND OTHER INFORMATION HERE IN SUPPLIED.

3.2 ALL DIMENSIONS AND LAYOUTS SHALL BE FIELD VERIFIED BY THE CONTRACTOR/OWNER TO COORDINATED THE ARCHITECTURAL DRAWINGS WITH APPROVED SITE PLAN. ANY INCONSISTENCIES DISCREPANCIES OR AMBIGUITIES SHALL BE REPORTED TO THE DESIGNER BEFORE PROCEEDING WITH THE WORK.

3.3 ALL WORKING STANDARDS SHALL REFLECT IRC 2009 & 780 CRM 8TH EDITION AMENDMENTS OF BUILDING CODE FOR ONE/TWO FAMILY DWELLING.

3.4 CONTRACTOR SHALL BE REVIEW AND REPORT ANY INCONSISTENCIES.

3.5 CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, AND SHALL PAY AND OBTAIN BUILDING PERMITS AND ALL NECESSARY APPROVALS. CONTRACTOR SHALL OBTAIN ALL APPROVALS AND PERMITS FOR CONSTRUCTION FROM THE MUNICIPAL AGENCIES HAVING JURISDICTION, PRIOR TO COMMENCEMENT OF WORK, AT HIS OWN EXPENSE.

3.6 CONTRACTOR SHALL GUARANTEE ALL WORK AGAINST DEFECTS FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.

**4.0 TRADES**

4.1 THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, SAMPLES OF ALL FINISH MATERIAL SHALL BE SUBMITTED TO OWNER AND/ OR DESIGNER FOR APPROVAL, INCLUDING PAINT SAMPLE. ANY FINISHES THAT ARE PURCHASED BEFORE APPROVAL AND ARE SUBSEQUENTLY REJECTED ARE THE RESPONSIBILITY OF THE CONTRACTOR, NO SUBSTITUTIONS WILL BE CONSIDERED FOR PRODUCTS OR METHODS THAT CANNOT BE PROVIDED AS A RESULT OF CONTRACTOR'S FAILURE TO ORDER PRODUCTS IN A TIMELY MANNER, PURSUE THE WORK PROMPTLY, OR TO COORDINATE THE VARIOUS ACTIVITIES PROPERLY.

4.2 THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR DEVIATIONS FROM REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE OWNER'S AND/OR DESIGNER FOR APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES, OR SIMILAR SUBMITTALS UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE OWNER AND/OR DESIGNER IN WRITING OF SUCH DEVIATION AT THE TIMES OF SUBMITTAL AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS, PRODUCT DATA, SAMPLE, OR SIMILAR SUBMITTALS BY THE OWNER'S AND/OR DESIGNER APPROVAL THEREOF.

4.3 ELECTRICAL CONTRACTOR TO PROVIDE DESIGN & BUILD SERVICES, ALL WORK TO BE IN COMPLIANCE W/527 CMR & NFPA 90 REQUIREMENTS. COORDINATE UTILITY COMPANY REQUIREMENTS WITH ARCHITECT AND SITE CONTRACTOR. COORDINATE ALL TRENCHING WITH GENERAL CONTRACTOR, SERVICE TO BE DESIGNED FOR 200 AMP WITH CIRCUIT BREAKER PANEL BOARD SIZED ADEQUATELY. COORDINATE WITH HVAC FOR CONTRACTOR FOR A/C LOAD. REVIEW LAYOUT IN FIELD WITH ARCHITECT AND GENERAL CONTRACTOR TO VERIFY LOCATIONS OF ALL SWITCHING AND LIGHTING. CONTRACTOR MUST GIVE ALLOWANCES FOR LIGHTING IN CONTRACT; OWNER TO SELECT ALL LIGHTING FIXTURES AND APPLIANCES FOR CONTRACTOR TO INSTALL. PROVIDE PERMIT AND SCHEDULE ALL INSPECTIONS IN A TIMELY FASHION. PROVIDE CARBON MONOXIDE, SMOKE AND HEAT DETECTORS PER CODE REQUIREMENTS.

4.4 IF CONFLICTS OCCUR BETWEEN DWGS AND SPECS OR PRODUCTS, PROCEDURES, ETC. THE MORE STRINGENT DETAIL AND HIGHER QUALITY SHALL BE CONSIDERED THE INTENT OF THE CONTRACT DOCUMENTS. OWNER'S AND/OR DESIGNER'S CONFIRMATION IS REQUIRED.

4.5 THE INTENT OF CONTRACT DOCS & RESPECTIVE DESIGN BUILD DISCIPLINES REPRESENT A COMPLETE INSTALLATION PER INDUSTRY AND TRADE STANDARDS FOR SIMILAR TYPES OF CONSTRUCTION IN GEOGRAPHIC REGION. ES, OR SIMILAR SUBMITTALS BY THE OWNER'S AND/OR DESIGNER'S APPROVAL THEREOF.

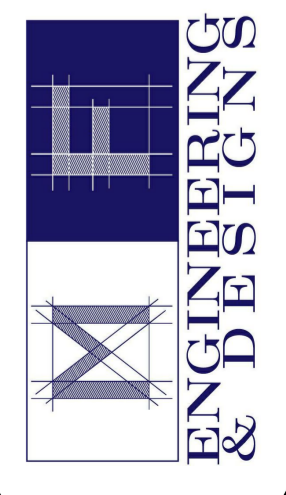


1 FRONT\_6  
12" = 1'-0"

SHEET N°:	12" = 1'-0"	A-01
DRAWN BY:	FLM	DATE:
AREA:	7798 ft²	

**ADDRESS:**  
18-20 BELKNAP STREET  
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5.0 FOUNDATION NOTES

5.1 FOOTINGS ARE TO BEAR ON UNDISTURBED LEVEL SOIL DEVOID OF ANY ORGANIC MATERIAL AND STEPPED AS REQUIRED TO MAINTAIN THE REQUIRED DEPTH BELOW THE FINAL GRADE.

5.2 SOIL BEARING PRESSURE ASSUMED TO BE 1500 PSF.

5.3 ANY FILL UNDER GRADE SUPPORTED SLABS TO BE A MINIMUM OF 10" GRAVEL BASE COMPACTED TO 95%.

5.4 CONCRETE:

- INTERIOR SLABS ON GRADE: 2.500 PSI.
- FROST WALL / FOUNDATIONS EXPOSED TO THE WEATHER: 3.000 PSI.
- FOOTINGS EXPOSED TO THE WEATHER: 3.500 PSI.

5.5 CONCRETE SLABS TO HAVE CONTROL JOINTS AT 25 FT. (MAXIMUM) INTERVALS EA. WAY.

5.6 ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED OR PROTECTED WITH 55# ROLL ROOFING.

5.7 ALL HOLD DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

6.0 CONSTRUCTION CODES

MASSACHUSETTS 9TH EDITION BASE CODE  
 2015 IRC - INTERNATIONAL RESIDENTIAL CODE  
 780 CMR - MA AMENDMENTS TO THE IRC  
 2015 IEBC - INTERNATIONAL EXISTING BUILDING CODE  
 2015 IECC - INTERNATIONAL ENERGY CONSERVATION CODE  
 2015 IMC - INTERNATIONAL MECHANICAL CODE  
 2015 IFC - INTERNATIONAL FIRE CODE  
 527 CMR - MA FIRE PREVENTION AND ELECTRICAL REGULATIONS  
 521 CMR - MA ACCESSIBILITY REGULATIONS  
 248 CMR - MA PLUMBING REGULATIONS

6.1 ALL WORKING STANDARDS SHALL REFLECT IRC 2015 & 780 CRM 9TH EDITION AMENDMENTS OF BUILDINGS CODE FOR ONE/TWO FAMILY DWELLING.

Sheet List	
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A-07	SITE
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A-09	SECOND FLOOR & THIRD FLOOR
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A-13	DETAILINGS
A-14	DETAILINGS
A-15	WALLS

SHEET N°: A-02

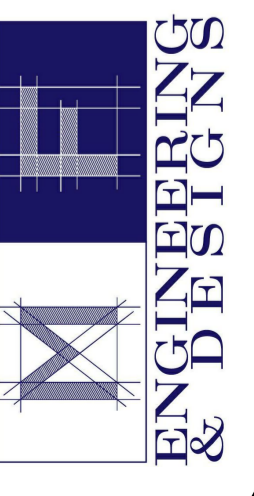
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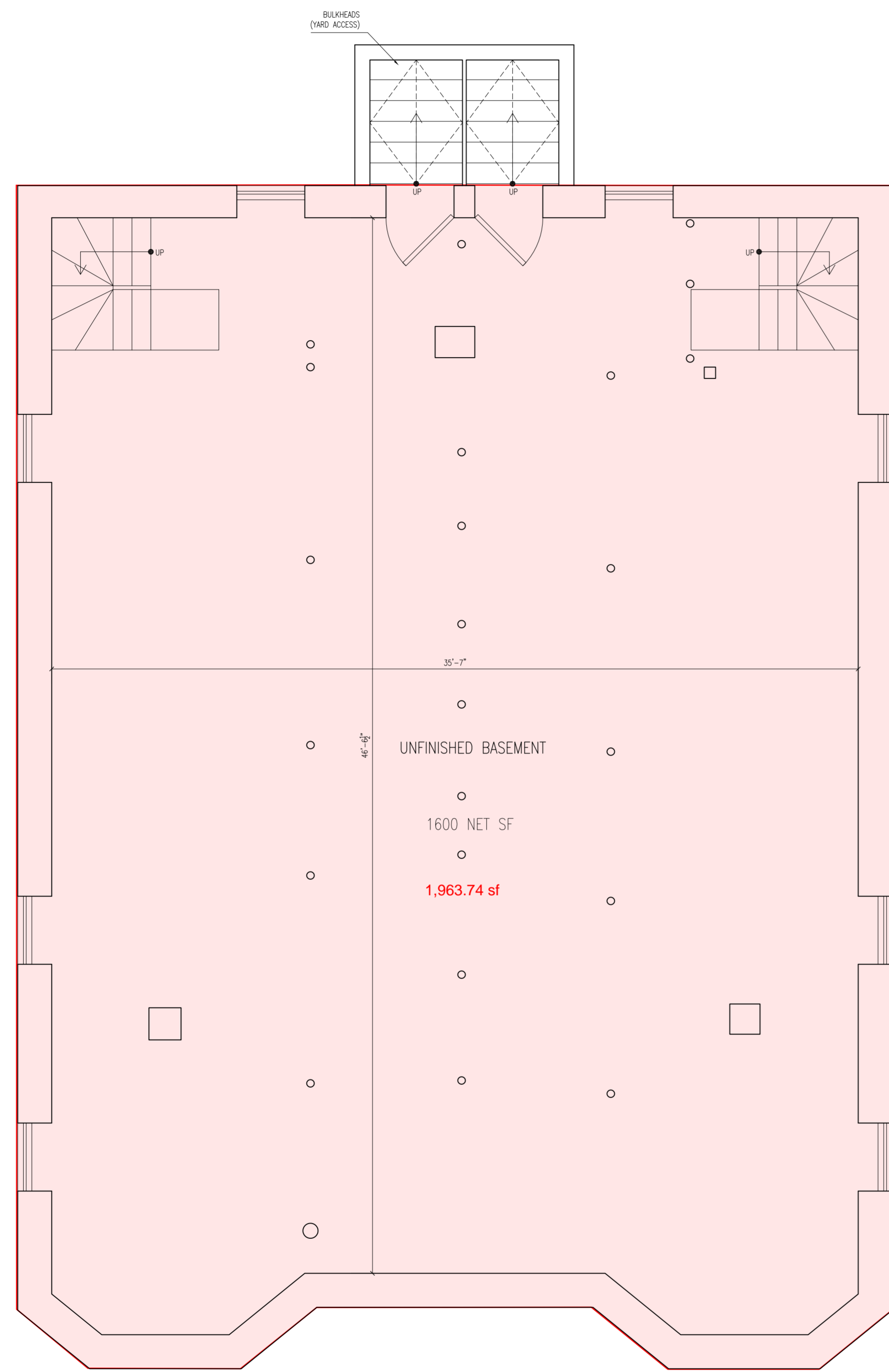
AREA: 7798 ft²

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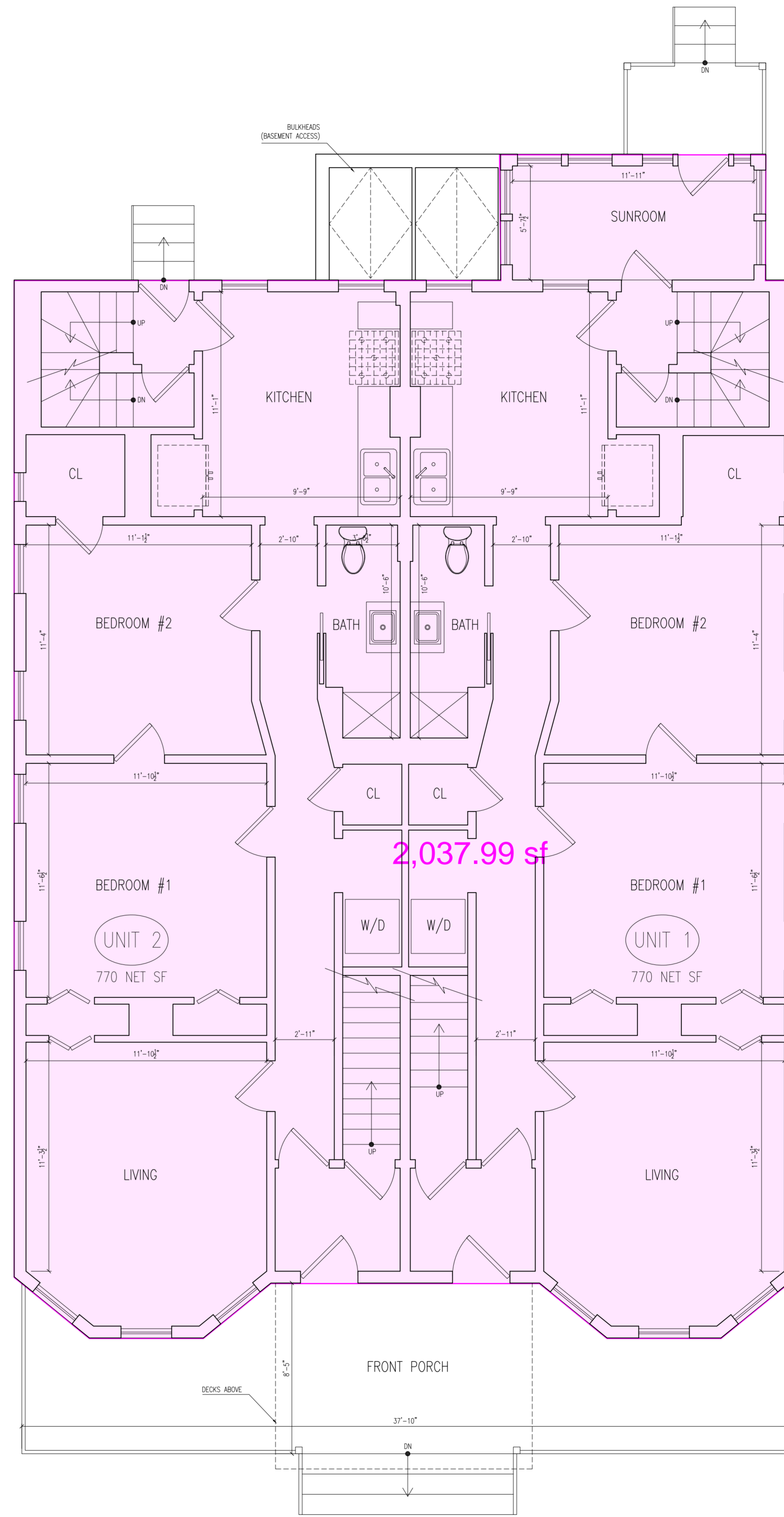
MF ENGINEERING & DESIGN INC. 142 FISHER STREET WESTBOROUGH, MA 01581 EMAIL: CARLOS.FERREIRA@MF-ENG.COM PHONE: (508) 331-7261



ARCHITECTURAL ABBREVIATIONS				
A	D	F	H	
AB ANCHOR BOLT	COMB CONC COMBINATION/ED CONCRETE CONFERENCE CONFERENCE CONN CONNECT-ED/-ION CONST CONSTRUCTION CONTN CONTINUE/OUS CONTR CONTRACTOR COORD COORDINATOR CORR CORRIDOR CPT CARPET CT CERAMIC TILE CTR CENTER CTSK COUNTERSUNK CUH CABINET UNIT HEATER CW CURTAIN WALL CW COLD WATER CYL CYLINDER	FA FIRE ALARM FB FIRE BLANKET FD FLOOR DRAIN FDN FOUNDATION FDV FIRE DEPARTMENT VALVE FE FIRE EXTINGUISHER FGS FOAM GASKET SEAL FH FIRE HOSE FHP FULL HEIGHT PARTITION FHV FIRE HOSE VALVE FIN FINISH FIXT FIXTURE FL FLOOR FL FLOW LINE FLASH FLASHING FLEX FLEXIBLE FLG FLANGE FLUOR FLUORESCENT FP FIRE PROOFING FRMG FRAMING FS FULL SIZE FS FLOOR SINK FSTOP FIRESTOPPING FT FOOT/FEET FTG FOOTING FTR FIN TUBE RADIATION FURR FURRING FUT FUTURE	H HIGH HB HOSE BIB HD HAND DRYER HDPCP HANDICAP HDR HEADER HDW HARDWARE HM HOLLOW METAL HORIZ HORIZONTAL HPT HIGHPOINT HR HANDRAIL HT HEIGHT HTR HEATER HVAC HEATING, VENTILATING, HOT WATER HWD HARDWOOD	I IC INTERCOM ID INSIDE DIAMETER IN INCH INSUL INSULATION INT INTERIOR ISO ISOLATION
BA BUILDING ACCESSORY BBD BULLETIN BOARD BC BRICK COURSES BD BOARD BFE BOTTOM FOOTING ELEVATION BG BUMPER GUARD BIT BITUMINOUS BKT BRACKET BLDG BUILDING BLKG BLOCKING BLT BORROWED LIGHT BLW BELOW BM BEAM BO BY OWNER BOF BY OWNER FUTURE BOT BOTTOM BR BRICK BRG BEARING BRL BRICK LEDGE BSMT BASEMENT BTWN BETWEEN BUR BUILT-UP ROOFING	D DEMO DEPR DEPRESSION DEPT DEPARTMENT DET DETAILS DF DRINKING FOUNTAIN DIA DIAMETER DIAG DIAGONAL DIFF DIFFUSER DIM DIMENSION DISP DISPENSER DIST DISTRIBUTION DIV DIVISION DJT DUMMY JOINT DN DOWN DP DEMOUNTABLE PARTITION DR DOOR DS DOWNSPOUT DW DUMBWAITER DWG DRAWING DWLS DOWELS	GA GAUGE GAL GALLONS GALV GALVANIZED GB GRAB BAR GB GRADE BEAM GC GENERAL CONTRACTOR GEN GENERATOR GEN GENERAL GL GLASS GMU GLASS MASONRY UNIT GR GRADE GRB GYPSUM BOARD GRWB GYPSUM BLUE BOARD W/ PLASTER SKIM COAT GRWB/SK GYPSUM SHEATHING GYP SHGT GYPSUM	J JAN JANITOR JB JUNCTION BOX JST JOIST JT JOINT	
C CHANNEL C DISP CUB DISPENSER CAB CABINET CG CORNER GUARD CH COAT HOOK CJT CONTROL JOINT CCTV CLOSED CIRCUIT TELEVISION CD COILING DOOR CG COILING GRILLE CL CENTER LINE CL CLASS CLG CEILING CLR CLEAR CM CONSTRUCTION MANAGER CMU CONCRETE MASONRY UNIT CO CLEANOUT CO CASED OPENING COL COLUMN	E EXIST EXISTING EC ELECTRIC CABINET EF EXHAUST FAN EIFS EXTERIOR INSULATION AND FINISH SYSTEM EXPANSION JOINT EJT ELEVATION EL ELEC ELECTRICAL ELEV ELEVATOR EMERG EMERGENCY ENCL ENCLOSURE ENTR ENTRANCE EO ELECTRICAL OUTLET EP EXPLOSION PROOF EQ EQUAL EQUIP EQUIPMENT ES END SECTION EWC ELECTRIC WATER COOLER EXA EXHAUST AIR EXC EXCAVATE/-ED/-ION EXH EXHAUST HOOD EXIST EXISTING EXP EXPANSION EXT EXTERIOR	H HIGH HB HOSE BIB HD HAND DRYER HDPCP HANDICAP HDR HEADER HDW HARDWARE HM HOLLOW METAL HORIZ HORIZONTAL HPT HIGHPOINT HR HANDRAIL HT HEIGHT HTR HEATER HVAC HEATING, VENTILATING, AIR CONDITIONING HOT WATER HWD HARDWOOD	L LAV LAVATORY LAVATORY POUND LCD LINEAR CEILING DIFFUSER LF LINE FIGURED LIN LINEAR LKR LOCKER LLH LONG LEG HORIZONTAL LLV LONG LEG VERTICAL LMC LINEAR METAL CEILING LOC LOCATION OR LOCATE LPT LOW POINT LS LAWN SPRINKLING LT LIGHT LTG LIGHTING LVR LOUVER LWC LINEAR WOOD CEILING	
			K KO KNOCK OUT	
			L LAV LAVATORY LAVATORY POUND LCD LINEAR CEILING DIFFUSER LF LINE FIGURED LIN LINEAR LKR LOCKER LLH LONG LEG HORIZONTAL LLV LONG LEG VERTICAL LMC LINEAR METAL CEILING LOC LOCATION OR LOCATE LPT LOW POINT LS LAWN SPRINKLING LT LIGHT LTG LIGHTING LVR LOUVER LWC LINEAR WOOD CEILING	
			M M MIDDLE MAN MANUAL MATL MATERIAL MAX MAXIMUM MBD MARKER BOARD MC MEDICINE CABINET MCU MODULAR COOLING UNIT MECH MECHANICAL MEMB MEMBRANE MET METAL MEZZ MEZZANINE MFR MANUFACTURER MH MANHOLE MHC MATERIAL HANDLING CONVEYOR MIN MINIMUM MIR MIRROR MISC MISCELLANEOUS MO MASONRY OPENING MONO MONOLITHIC MPU MEATL PAN CEILING MTD MOUNTED MTR MOTOR MULL MULLION	
			N NA NOT APPLICABLE NIC NOT IN CONTRACT NO NUMBER NOM NOMINAL NRC NOISE REDUCTION COEFFICIENT NOTE NTS NOT TO SCALE	
			O OC ON CENTER OD OUTSIDE DIAMETER OFF OFFICE OH OVERHEAD OP OPERABLE PARTITION OPER OPERATOR OPNG OPENING OPP OPPOSITE ORD OVERFLOW ROOF DRAIN	
			P PART PARTITION PB PUSH BUTTON PC PRECAST CONCRETE PCD PAPER CUP DISPENSER PED PEDESTAL PL PLATE PL PROPERTY LINE PLAM PLASTIC LAMINATE PLBG PLUMBING PLS PLASTER PLW PLYWOOD PNL PANEL PR PAIR PRELIM PRELIMINARY PRES PRESSURE PRIM PRIMARY PROJ PROJECTION PRV POWER ROOF VENTILATOR PT PAINT PTC PAPER TOWEL CABINET PTR PRINTER PVC POLYVINYL CHLORIDE PRKNG PARKING	
			Q QT QUARRY TILE R R RADIUS RA RISER RAD RETURN AIR RAD RADIATION RB RESILIENT BASE RD ROOF DRAIN RE RELOCATE EXISTING REC RECESSED REF REFERENCE REFR REFRIGERATOR REG REGISTER REINF REINFORCE/-ED/-ING REM REMOVE REQD REQUIRED RET RETAINING REV REVERSE RF REVISION RH RESILIENT FLOOR RM ROOM RO ROUGH OPENING RS ROUGH SLAB RWC RAIN WATER CONDUCTOR	
			S SCHED SCHEDULE SD SHOWER DRAIN SD SMOKE DAMPER SDISP SOAP DISPENSER SECT SECTION SECY SECRETARY SF STORE FRONT SF SQUARE FOOT SH SHOWER SHD SHOWER HEAD SHT SHEET SHTG SHEATHING SIM SIMILAR SL SEALER SLNT SEALANT SLV SLEEVE SM SURFACE MOUNTED SNC SANITARY NAPKIN CABINET SND SANITARY NAPKIN DISPOSER SOG SLAB ON GRADE SP STANDPIPE SPEC SPECIFICATIONS SFR SINGLE PLY ROOF SQ SQUARE SQ YD SQUARE YARD SR SERVICE RECEPTOR SS SERVICE SINK SST STAINLESS STEEL ST STREET ST STONE TILE STC SOUND TRANSMISSION STD STANDARD STL STEEL STN STONE STNL STONE LEDGE STOR STORAGE STRUCT STRUCTURAL STS STEEL STRUCTURE SUPV SUPERVISOR SUSP SUSPENDED SWL STEEL WINDOWS SW SWITCH SWD SOFTWOOD SYM SYMMETRICAL	
			T TAN TANGENT TBD TACKBOARD TC TIME CLOCK TCAB TOWEL CABINET TDISP TISSUE DISPENSER TDR TRENCH DRAIN TEL TELEPHONE TER TERRAZZO TEMP TEMPERATURE THRES THRESHOLD TPG TONGUE & GROOVE TPH TOILET PAPER HOLDER TR TREAD TR TRANSFORMER TS TUBE SECTION TV TELEVISION TYP TYPICAL	
			U URINAL UC UNDERCUT UFD UNDER FLOOR DUCT UG UNDERGROUND UH UNIT HEATER UNFIN UNFINISHED UNO UNLESS NOTED OTHERWISE US UTILITY SHELF UTIL UTILITY	
			V VC VALVE CABINET VENT VENTILATION VERT VERTICAL VEST VESTIBULE VR VAPOR RETARDER VTR VENT THROUGH ROOF	
			W W WIDTH/WIDE W WITH W/W WITHOUT WC WATER CLOSET WC WALL COVERING WD WOOD W/D WASH & DRYER WDW WINDOW WG WALL GUARD WH WALL HYDRANT WHCH WHEELCHAIR WHTR WATER HEATER WP WATERPROOF WR WASTE RECEPTACLE WS WEATHERSTRIP WSCOT WAINSCOT WT WINDOW TREATMENT W WEIGHT WW WOOD WINDOW WWF WELDED WIRE FABRIC	



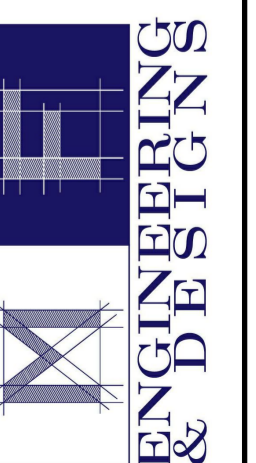
**B** BASEMENT PLAN  
 SCALE: 1/4" = 1'-0" 1,963.74 sq.ft.



**1** LEVEL 1 PLAN  
 SCALE: 1/4" = 1'-0" 2,037.99 sq.ft.

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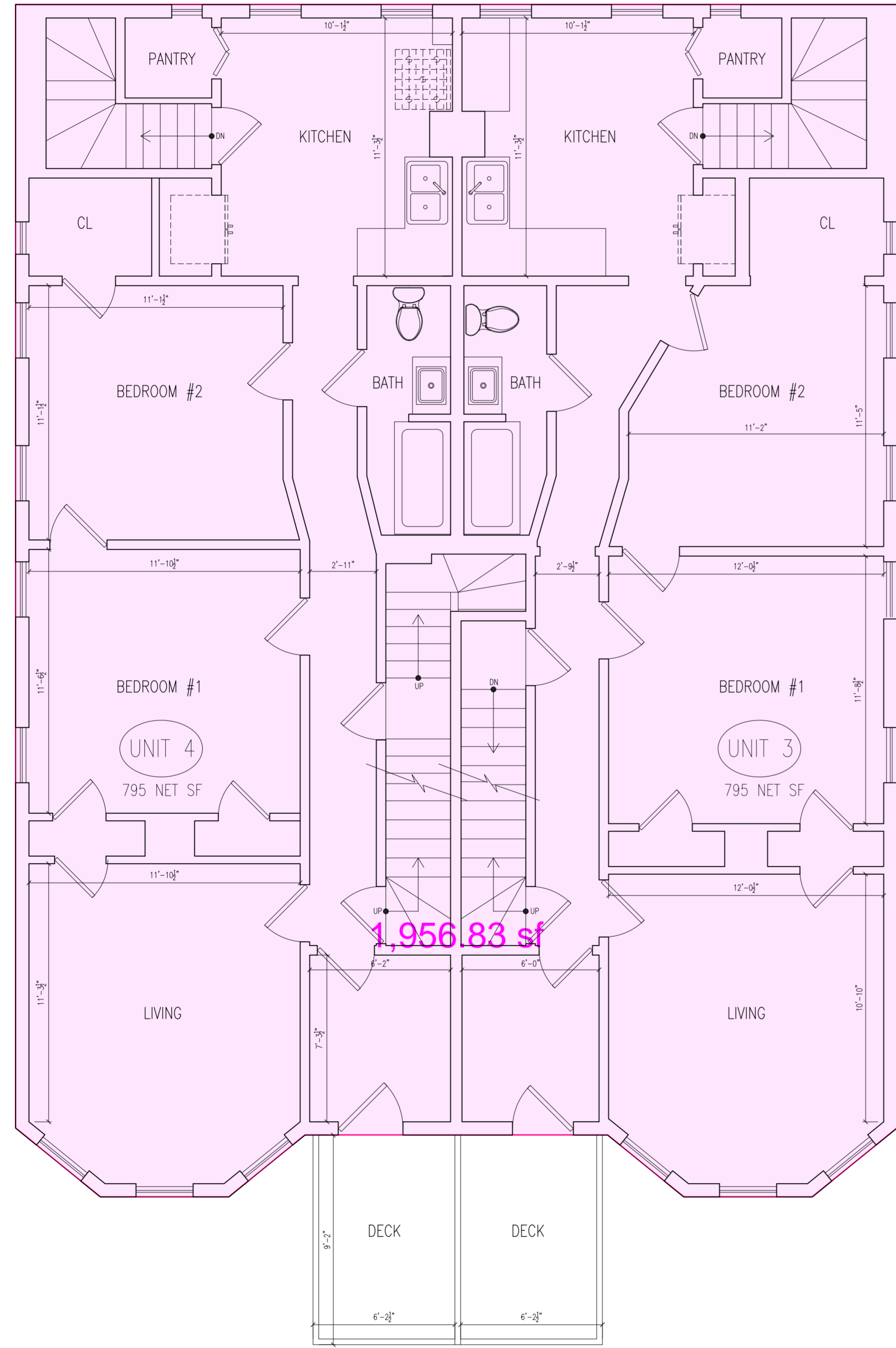
AREA: 7798 ft<sup>2</sup>

SCALE:

DATE:

SHEET N°:

A-03

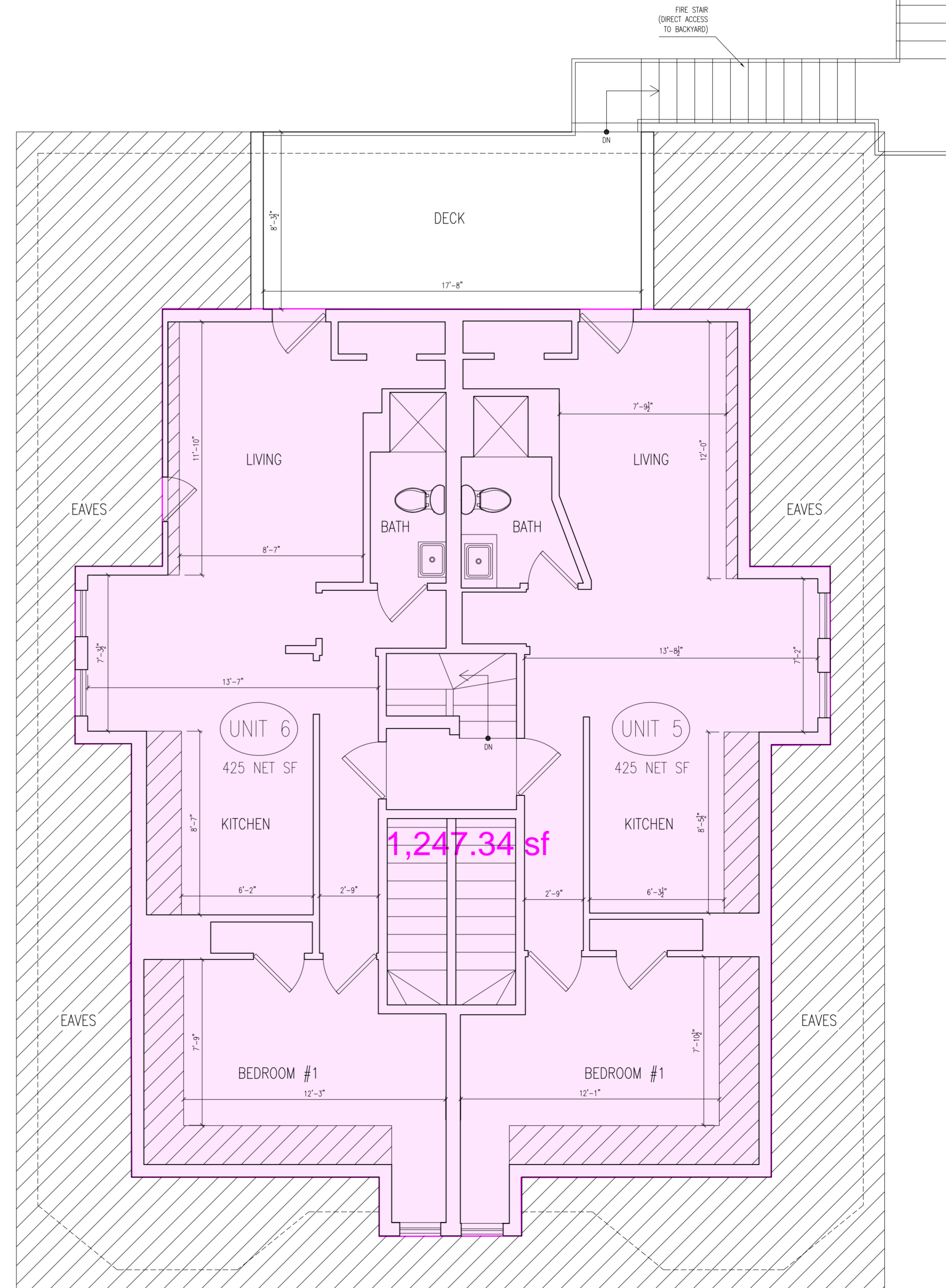


**2** LEVEL 1 PLAN  
SCALE: 1/4" = 1'-0" 1,956.83 sq.ft.

**EXISTING CONDITION**

BASEMENT	1,963.74 sq.ft.
FIRST FLOOR	2,037.99 sq.ft.
SECONDD FLOOR	1,956.83 sq.ft.
ATTIC	1,247.34 sq.ft.
<b>TOTAL</b>	<b>7,205.90 sq.ft.</b>

FAR 7205.90/7,824 = 0.92



**3** LEVEL 3 PLAN  
SCALE: 1/4" = 1'-0" 1,247.34 sq.ft.

SHEET N°: <b>A-04</b>	
DRAWN BY: <b>FLM</b>	SCALE:
AREA: <b>7798 ft²</b>	DATE:
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<b>MF ENGINEERING &amp; DESIGN INC.</b> 142 FISHER STREET WESTBOROUGH, MA 01581 EMAIL: CARLOS.FERREIRA@MF-ENG.COM PHONE: (508) 331-7261	



**1** BELKNAP STREET ELEVATION  
SCALE: 1/4" = 1'-0"



**2** SIDE ELEVATION (NORTH)  
SCALE: 1/4" = 1'-0"

SHEET N°:

**A-05**

SCALE:

DATE:

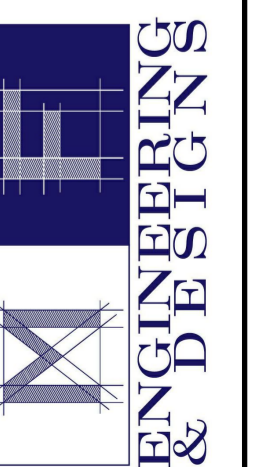
DRAWN BY: **FLM**

AREA: **7798 ft²**

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**3** REAR ELEVATION (WEST)  
SCALE: 1/4" = 1'-0"



**4** SIDE ELEVATION (SOUTH)  
SCALE: 1/4" = 1'-0"

SHEET N°:

**A-06**

SCALE:

DATE:

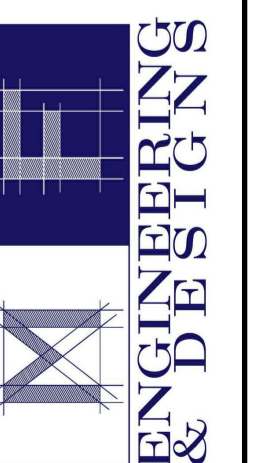
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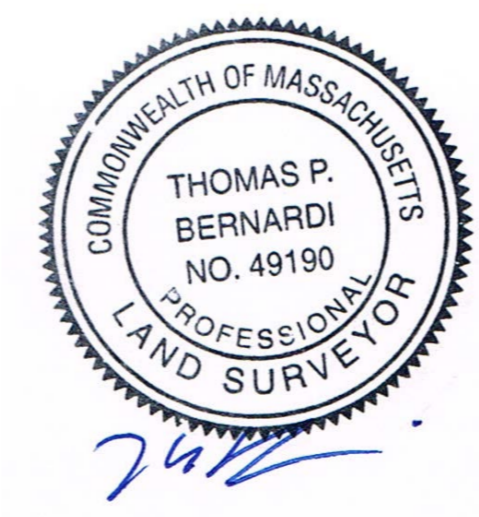
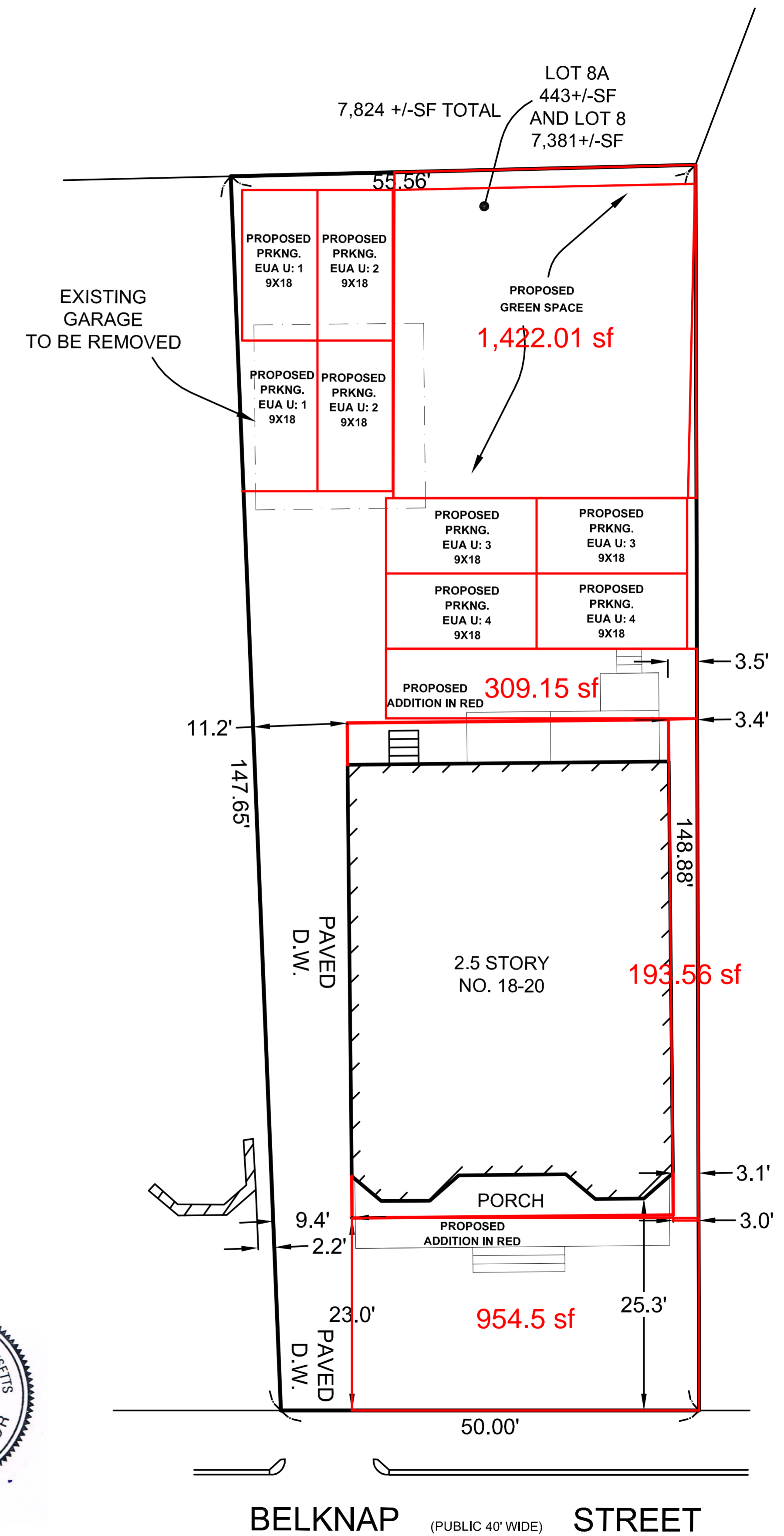


Door Schedule		
Type Mark	Height	Width
D01	6' - 8"	2' - 8"
D01: 36		
D02	7' - 0 1/4"	2' - 11 7/16"
D02: 16		
D03	7' - 0 1/4"	4' - 7 1/8"
D03: 4		
D04	7' - 0"	3' - 4"
D04: 8		
D06	7' - 0"	5' - 0"
D06: 8		
D07	7' - 0 1/4"	3' - 6"
D07: 8		
D08	6' - 0"	3' - 0"
D08: 4		
D09	5' - 8"	2' - 8"
D09: 4		
Grand total:	88	

Window Schedule		
Type Mark	Height	Width
2	0"	0"
2: 4		
W01	2' - 10"	3' - 2"
W01: 8		
W02	4' - 0"	3' - 0"
W02: 52		
W03	2' - 0"	2' - 0"
W03: 2		
W04	5' - 0"	2' - 8"
W04: 4		
W05	3' - 0"	2' - 0"
W05: 10		
Grand total:	80	

AREAS BY FLOOR		
Name	Level	Area
UNIT 1	BASEMENT	552 ft <sup>2</sup>
UNIT 2	BASEMENT	552 ft <sup>2</sup>
UNIT 3	BASEMENT	562 ft <sup>2</sup>
UNIT 4	BASEMENT	562 ft <sup>2</sup>
BASEMENT		2229 ft <sup>2</sup>
UNIT 1	FIRST FLOOR	552 ft <sup>2</sup>
UNIT 2	FIRST FLOOR	552 ft <sup>2</sup>
UNIT 3	FIRST FLOOR	562 ft <sup>2</sup>
UNIT 4	FIRST FLOOR	562 ft <sup>2</sup>
FIRST FLOOR		2229 ft <sup>2</sup>
UNIT 1	SECOND FLOOR	552 ft <sup>2</sup>
UNIT 2	SECOND FLOOR	552 ft <sup>2</sup>
UNIT 3	SECOND FLOOR	562 ft <sup>2</sup>
UNIT 4	SECOND FLOOR	562 ft <sup>2</sup>
SECOND FLOOR		2229 ft <sup>2</sup>
UNIT 1	THIRD FLOOR	210 ft <sup>2</sup>
UNIT 2	THIRD FLOOR	210 ft <sup>2</sup>
UNIT 3	THIRD FLOOR	346 ft <sup>2</sup>
UNIT 4	THIRD FLOOR	346 ft <sup>2</sup>
THIRD FLOOR		1112 ft <sup>2</sup>
Grand total		7798 ft <sup>2</sup>
FAR: 7798/7824 = 0.99		

AREAS BY UNIT		
Name	Level	Area
UNIT 1	BASEMENT	552 ft <sup>2</sup>
UNIT 1	FIRST FLOOR	552 ft <sup>2</sup>
UNIT 1	SECOND FLOOR	552 ft <sup>2</sup>
UNIT 1	THIRD FLOOR	210 ft <sup>2</sup>
UNIT 1		1866 ft <sup>2</sup>
UNIT 2	BASEMENT	552 ft <sup>2</sup>
UNIT 2	FIRST FLOOR	552 ft <sup>2</sup>
UNIT 2	SECOND FLOOR	552 ft <sup>2</sup>
UNIT 2	THIRD FLOOR	210 ft <sup>2</sup>
UNIT 2		1866 ft <sup>2</sup>
UNIT 3	BASEMENT	562 ft <sup>2</sup>
UNIT 3	FIRST FLOOR	562 ft <sup>2</sup>
UNIT 3	SECOND FLOOR	562 ft <sup>2</sup>
UNIT 3	THIRD FLOOR	346 ft <sup>2</sup>
UNIT 3		2033 ft <sup>2</sup>
UNIT 4	BASEMENT	562 ft <sup>2</sup>
UNIT 4	FIRST FLOOR	562 ft <sup>2</sup>
UNIT 4	SECOND FLOOR	562 ft <sup>2</sup>
UNIT 4	THIRD FLOOR	346 ft <sup>2</sup>
UNIT 4		2033 ft <sup>2</sup>
Grand total		7798 ft <sup>2</sup>



SHEET N°: **A-07**

SCALE: 12" = 1'-0"

DATE:

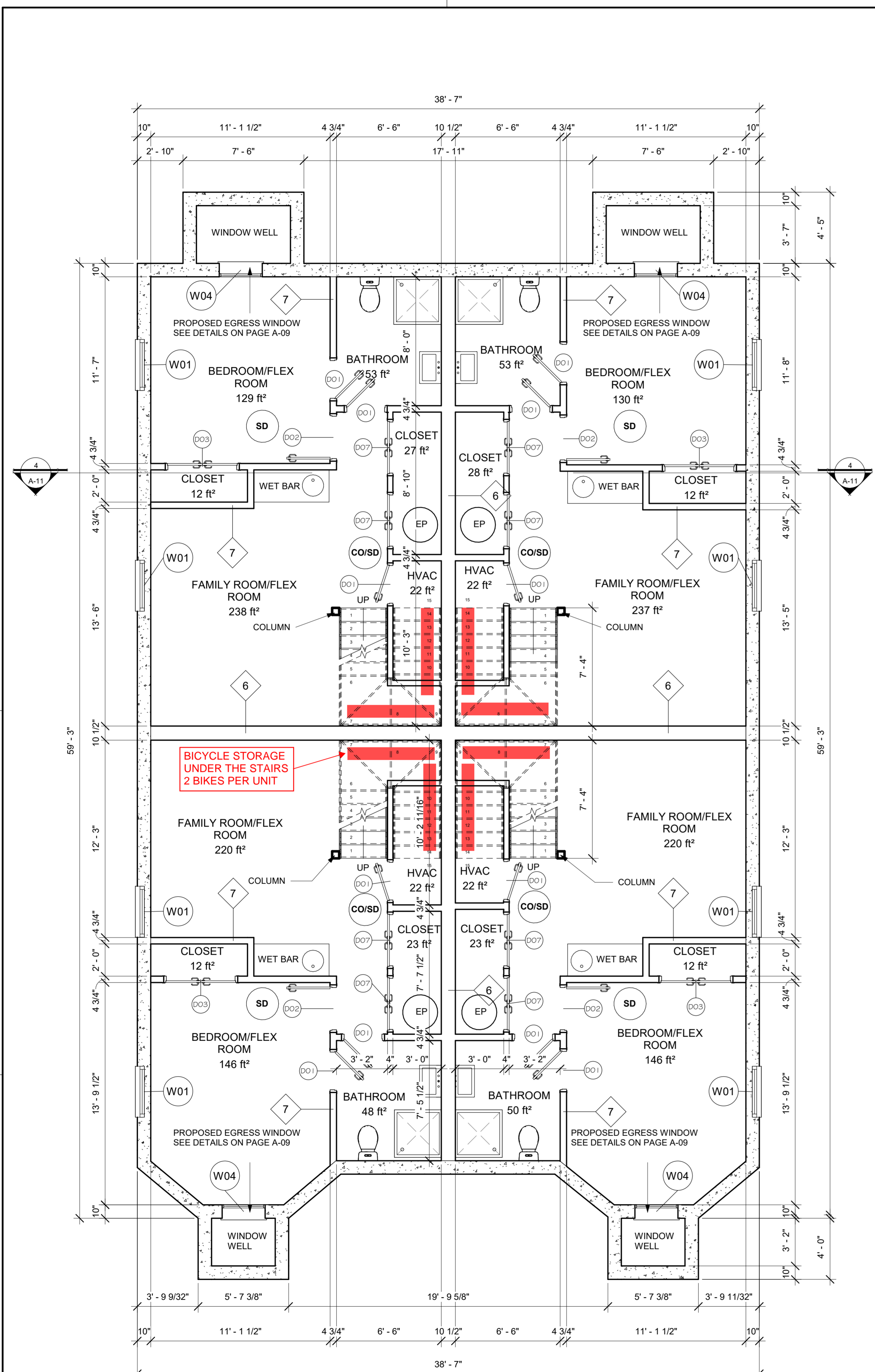
DRAWN BY: FLM

AREA: 7798 ft<sup>2</sup>

ADDRESS: 18-20 BELKNAP STREET ARLINGTON, MA

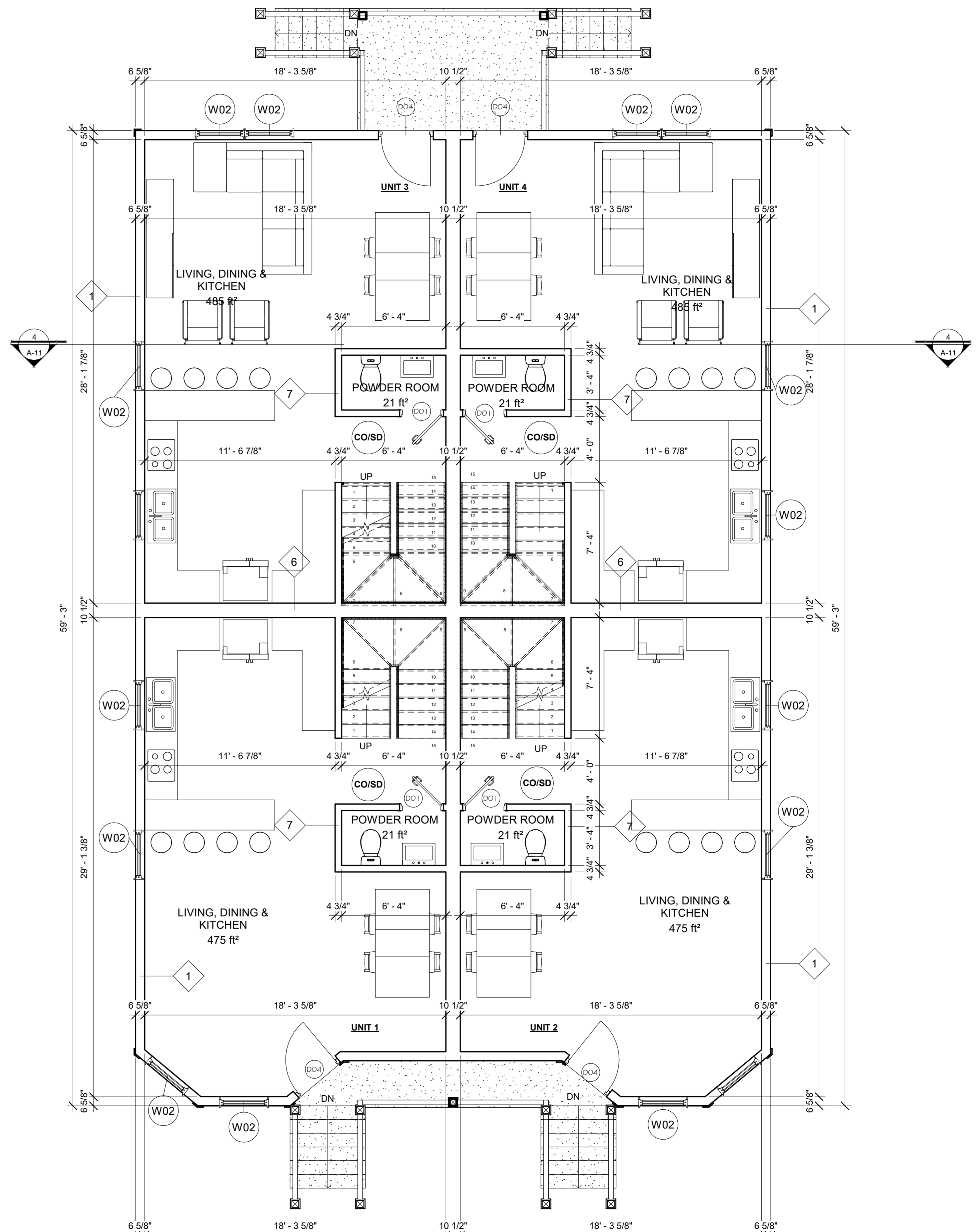
MF ENGINEERING & DESIGN INC.  
 142 FISHER STREET WESTBOROUGH, MA 01581  
 EMAIL: CARLOS.FERREIRA@MF-ENG.COM  
 PHONE: (508) 331-7261

ENGINEERING & DESIGN



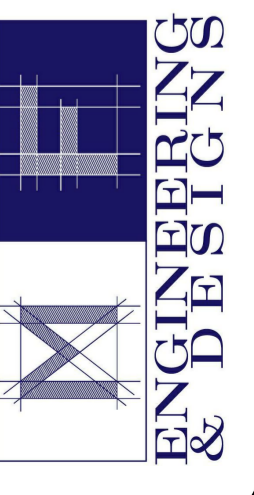
**1** BASEMENT  
1/4" = 1'-0"

- LEGEND:**
- SD SMOKE DETECTOR
  - CO/SD COMBINED CARBON MONOXIDE & SMOKE DETECTOR
  - EP EJECTOR PUMP INSIDE CLOSET

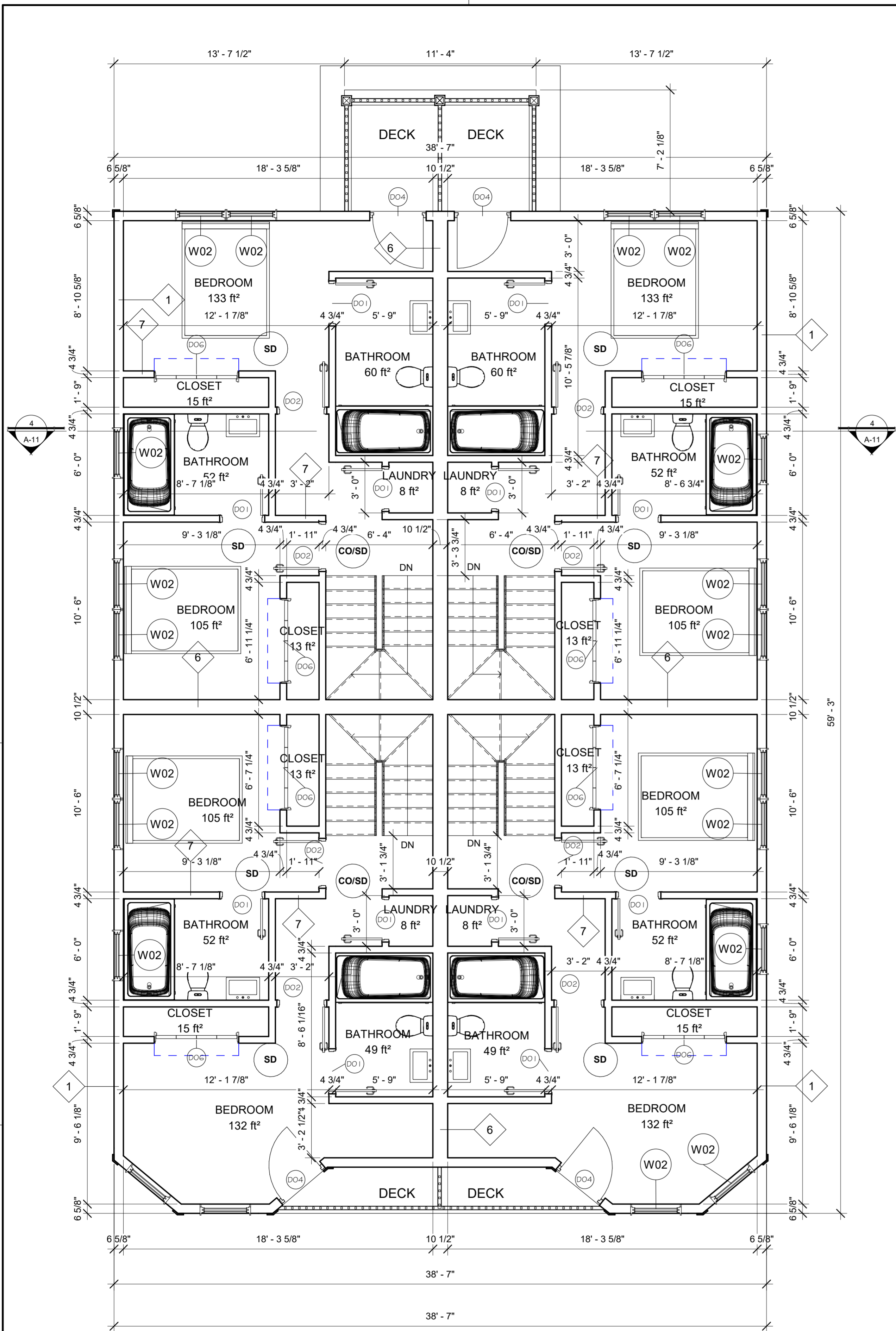


**2** FIRST FLOOR  
1/4" = 1'-0"

- LEGEND:**
- SD SMOKE DETECTOR
  - CO/SD COMBINED CARBON MONOXIDE & SMOKE DETECTOR





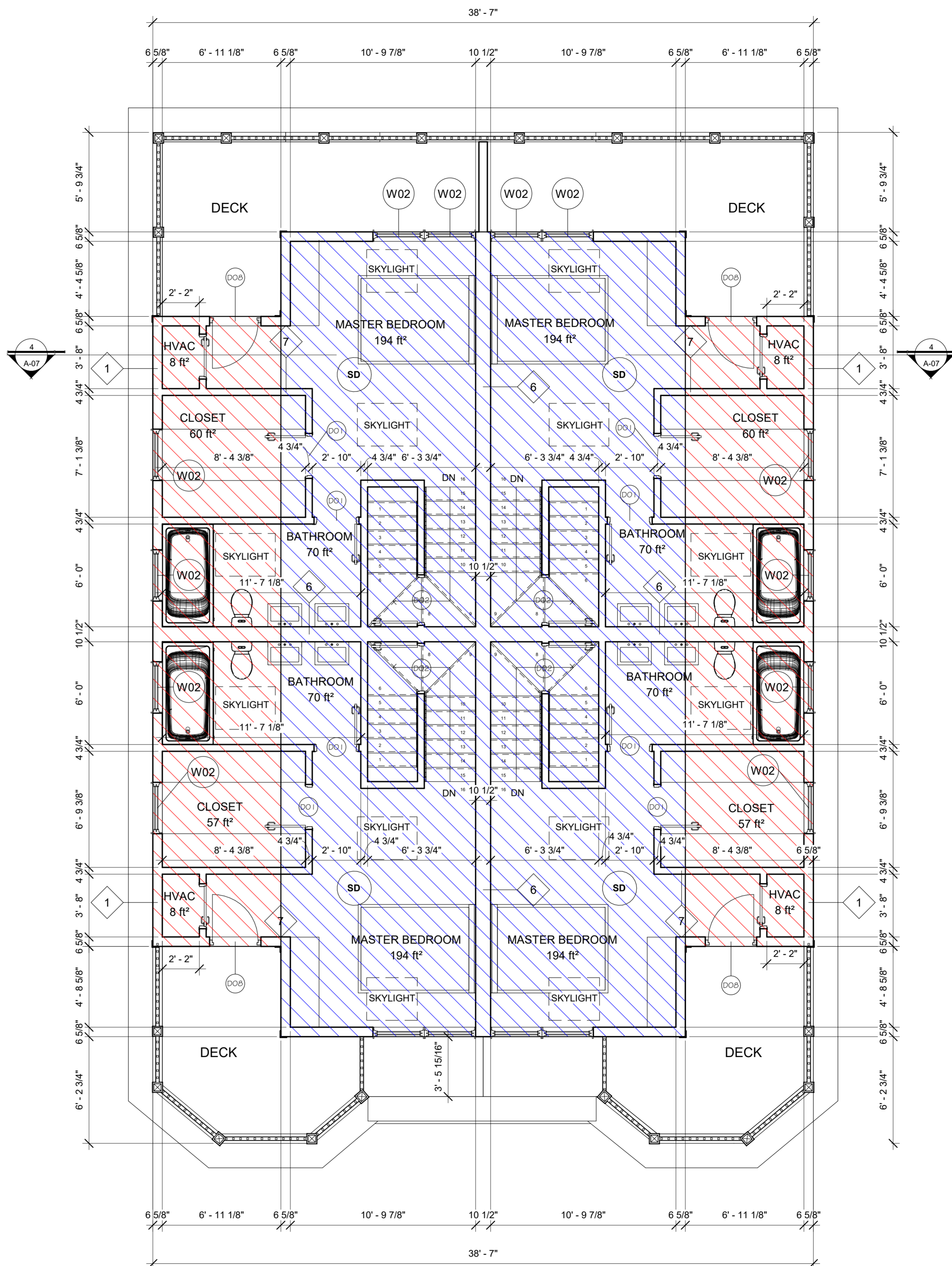


**1** SECOND FLOOR  
1/4" = 1'-0"

**LEGEND:**  
 SMOKE DETECTOR  
 COMBINED CARBON MONOXIDE & SMOKE DETECTOR

**LEGEND:**  
 HIGH BELOW 7'-0"  
 HIGH ABOVE 7'-0"  
 AREA = 1112 FEET SQUARE  
 TOTAL AREA SECOND FLOOR= 2229 FT. SQ.  
 1112 FT. SQ. IS 49% OF THE SECOND FLOOR



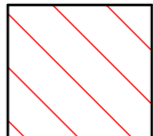
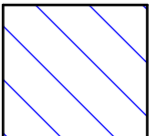
SHEET N°: <b>A-09</b>	
DRAWN BY: <b>FLM</b>	SCALE: <b>1/4" = 1'-0"</b>
AREA: <b>7798 ft²</b>	DATE:
ADDRESS: <b>18-20 BELKNAP STREET ARLINGTON, MA</b>	
<b>MF ENGINEERING &amp; DESIGN INC.</b> 142 FISHER STREET WESTBOROUGH, MA 01581 EMAIL: CARLOS.FERREIRA@MF-ENG.COM PHONE: (508) 331-7261	



COMBINED CARBON MONOXIDE & SMOKE DETECTOR

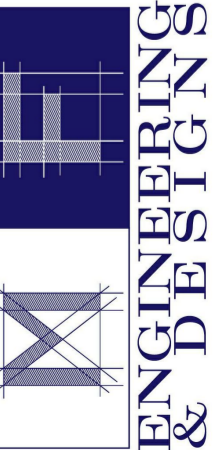
2 THIRD FLOOR  
1/4" = 1'-0"

LEGEND:

-  SMOKE DETECTOR
-  COMBINED CARBON MONOXIDE & SMOKE DETECTOR
-  HIGH BELOW 7'-0"
-  HIGH ABOVE 7'-0"  
AREA = 1110 FEET SQUARE  
TOTAL AREA SECOND FLOOR= 2229 FT. SQ.  
1110 FT. SQ. IS 49.8% OF THE SECOND FLOOR

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PHONE: (508) 331-7261



ADDRESS:  
18-20 BELKNAP STREET  
ARLINGTON, MA

DRAWN BY: FLM

AREA: 7798 ft²

SCALE: 1/4" = 1'-0"

SHEET N°:

A-05

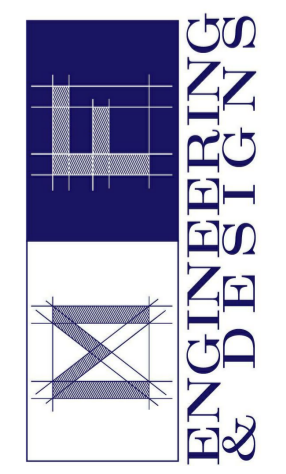
1



1 South-East  
1/4" = 1'-0"

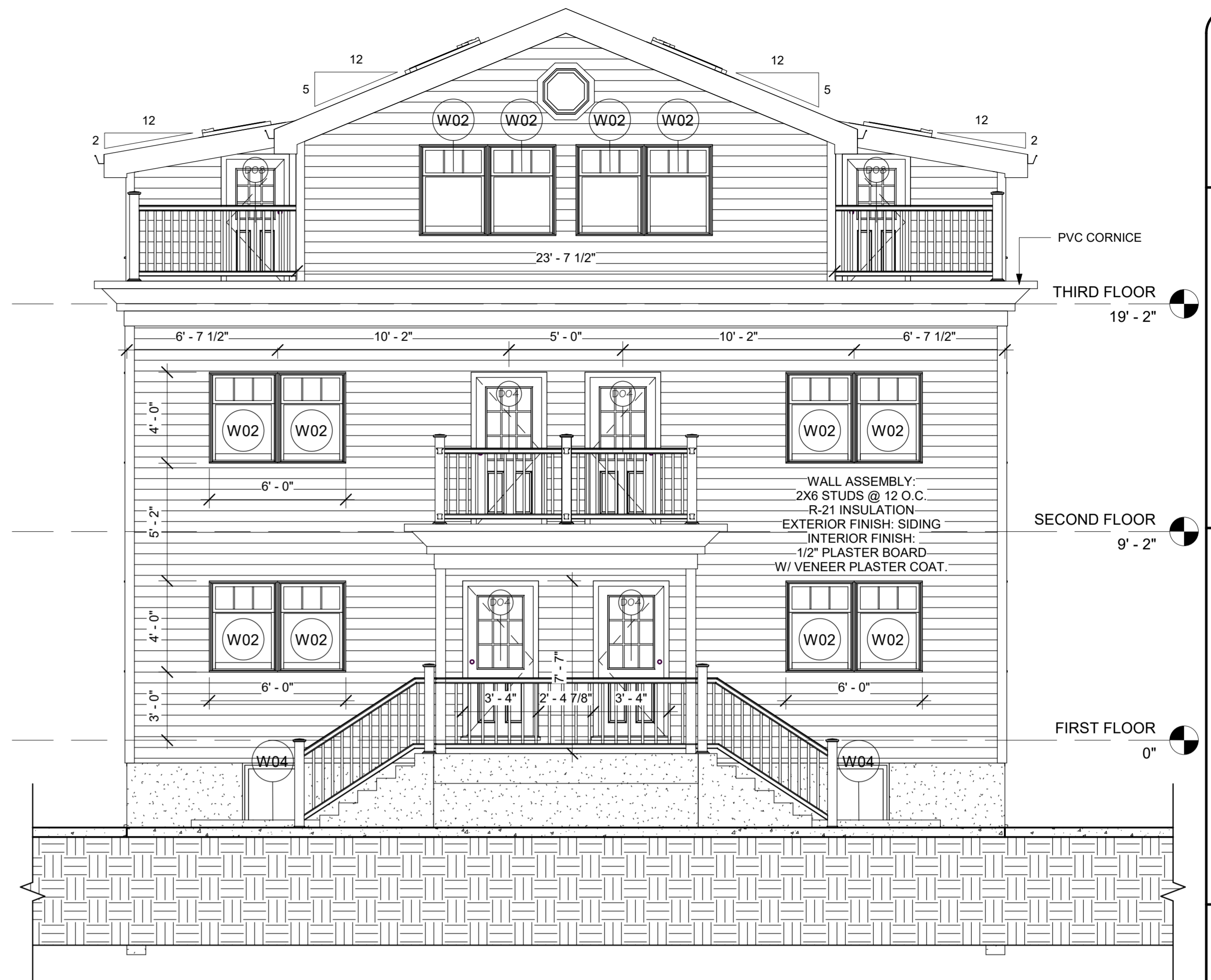
2 North-West  
1/4" = 1'-0"

SHEET N°: <b>A-10</b>	
DRAWN BY: <b>FLM</b>	SCALE: <b>1/4" = 1'-0"</b>
AREA: <b>7798 ft²</b>	DATE:
ADDRESS: <b>18-20 BELKNAP STREET ARLINGTON, MA</b>	
<b>MF ENGINEERING &amp; DESIGN INC.</b> 142 FISHER STREET WESTBOROUGH, MA 01581 EMAIL: CARLOS.FERREIRA@MF-ENG.COM PHONE: (508) 331-7261	

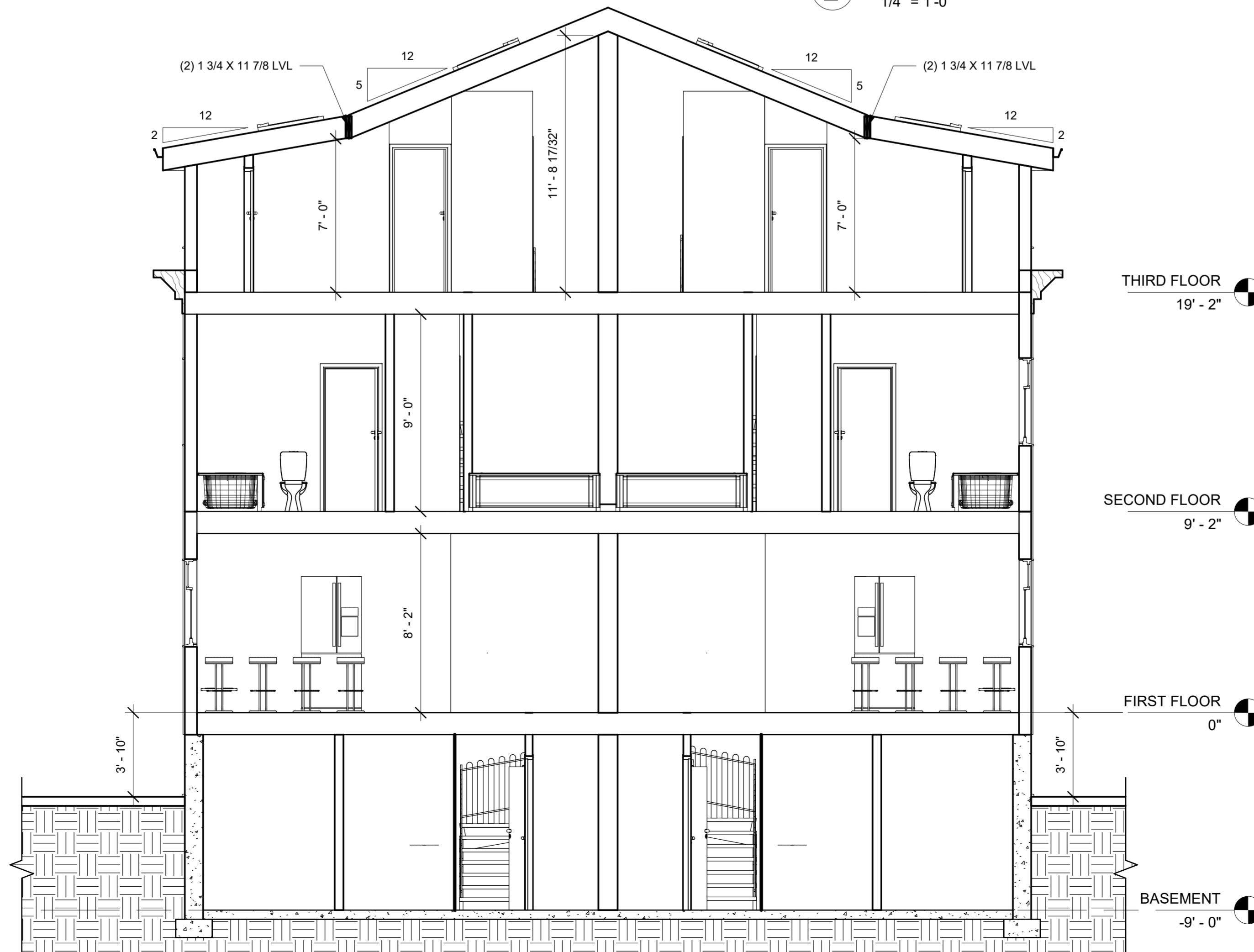




1 North-East  
1/4" = 1'-0"



2 South-West  
1/4" = 1'-0"



4 Section 3  
1/4" = 1'-0"

SHEET N°:

A-11

SCALE: 1/4" = 1'-0"

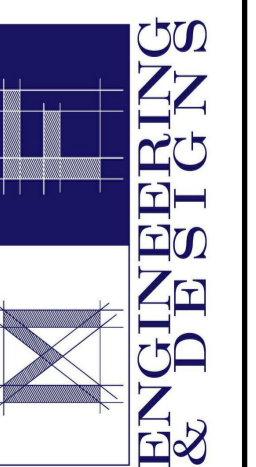
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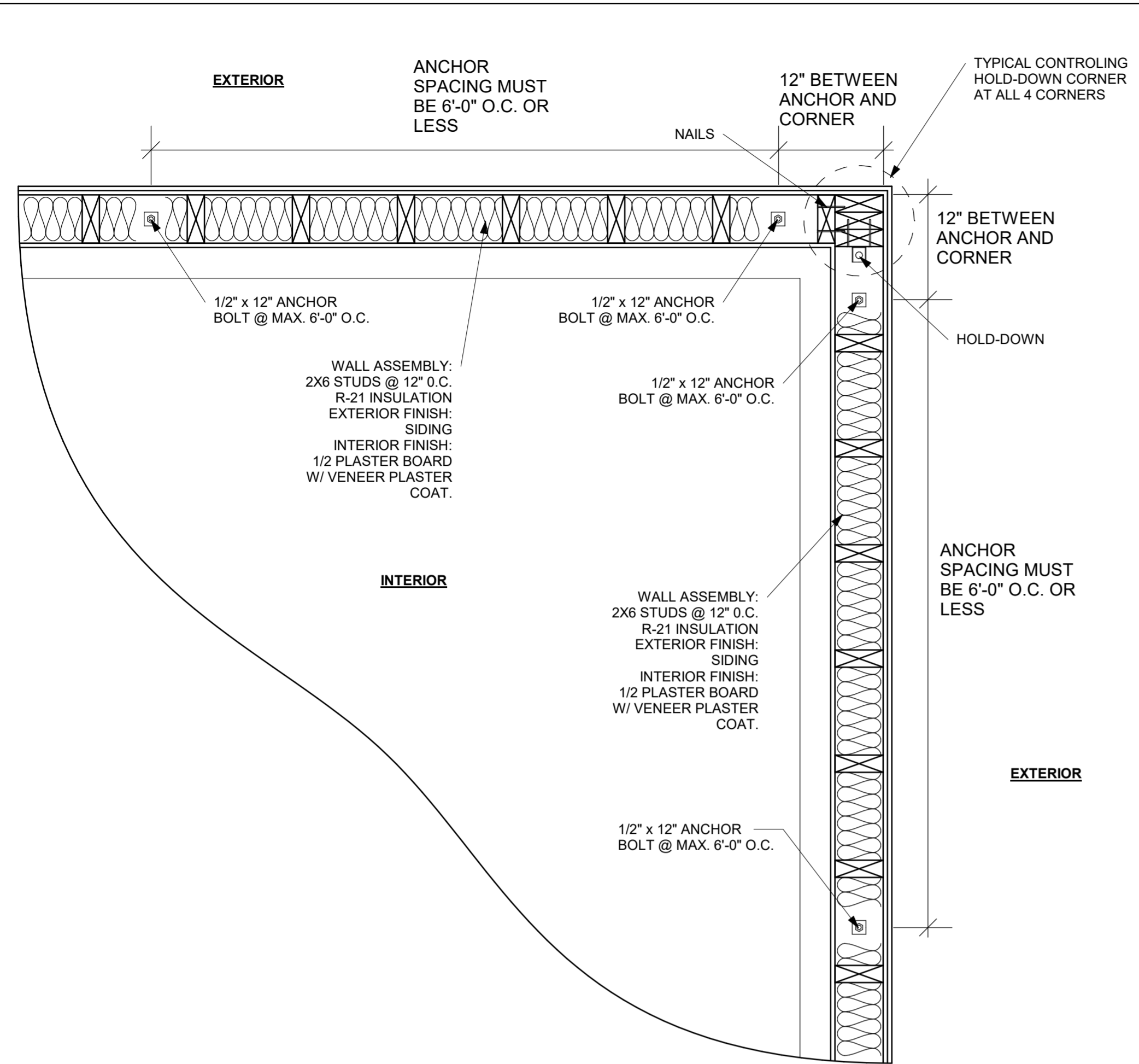
DRAWN BY: FLM

AREA: 7798 ft²

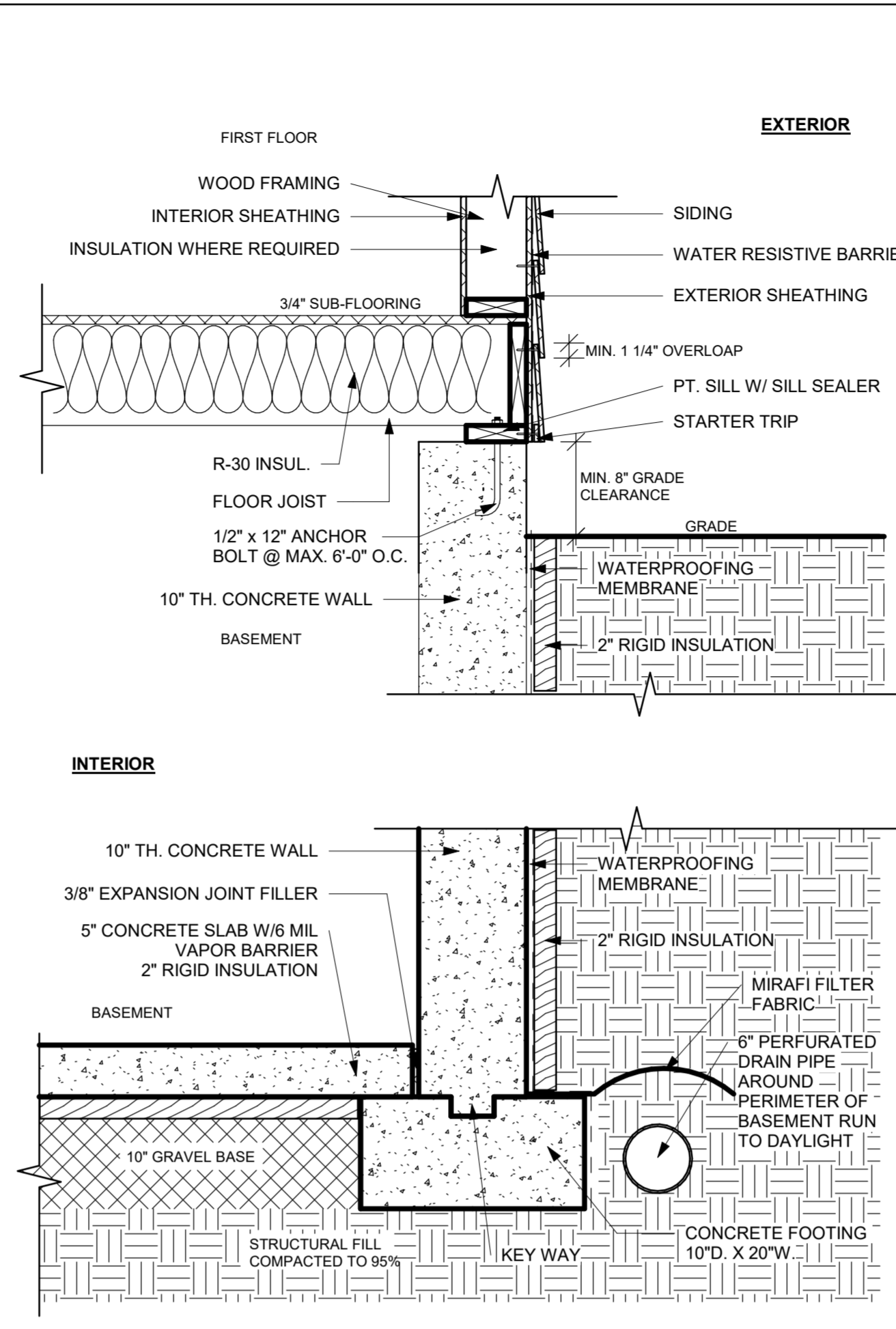
ADDRESS:  
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ARLINGTON, MA

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WESTBOROUGH, MA 01581  
EMAIL: CARLOS.FERREIRA@MF-ENG.COM  
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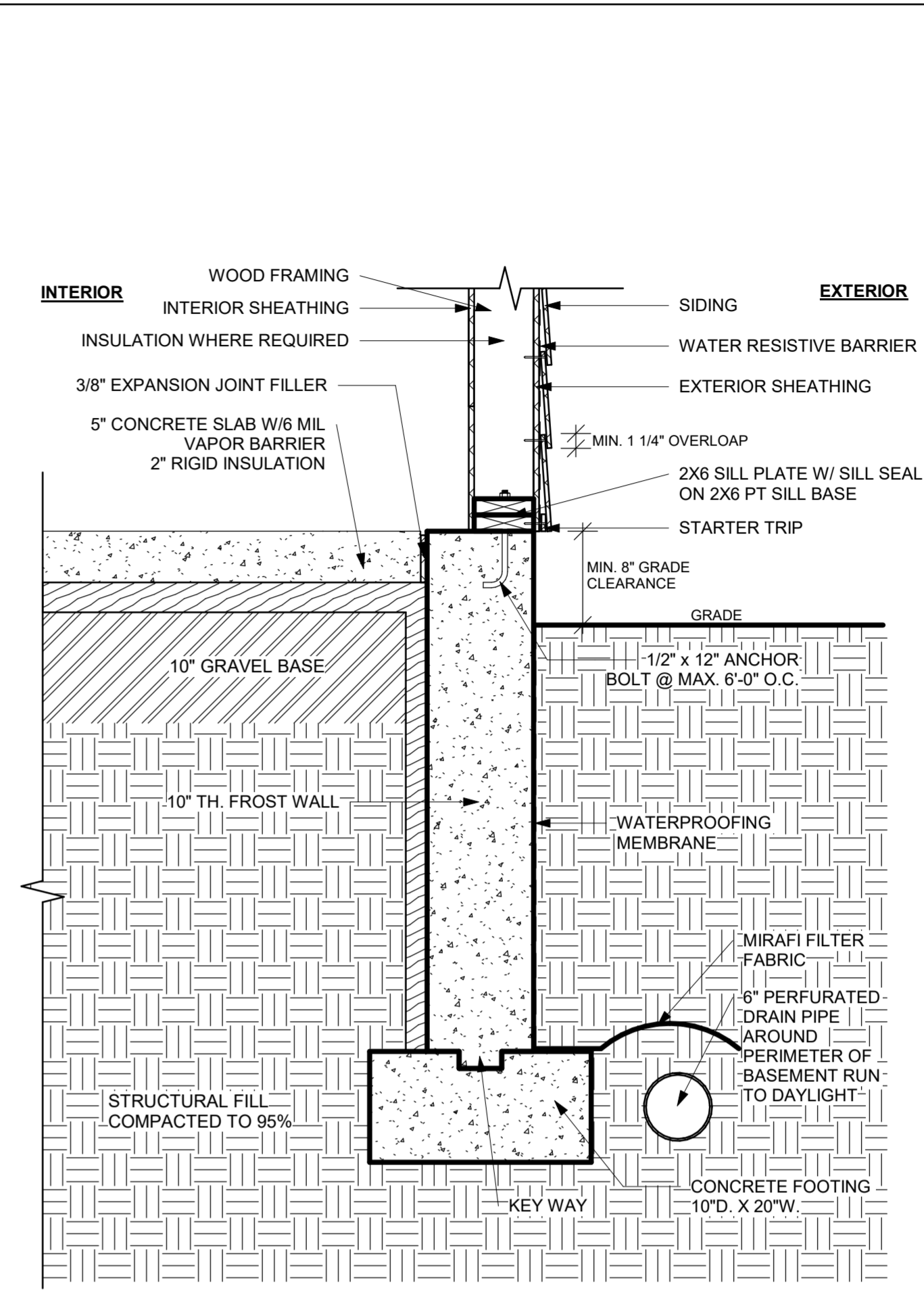




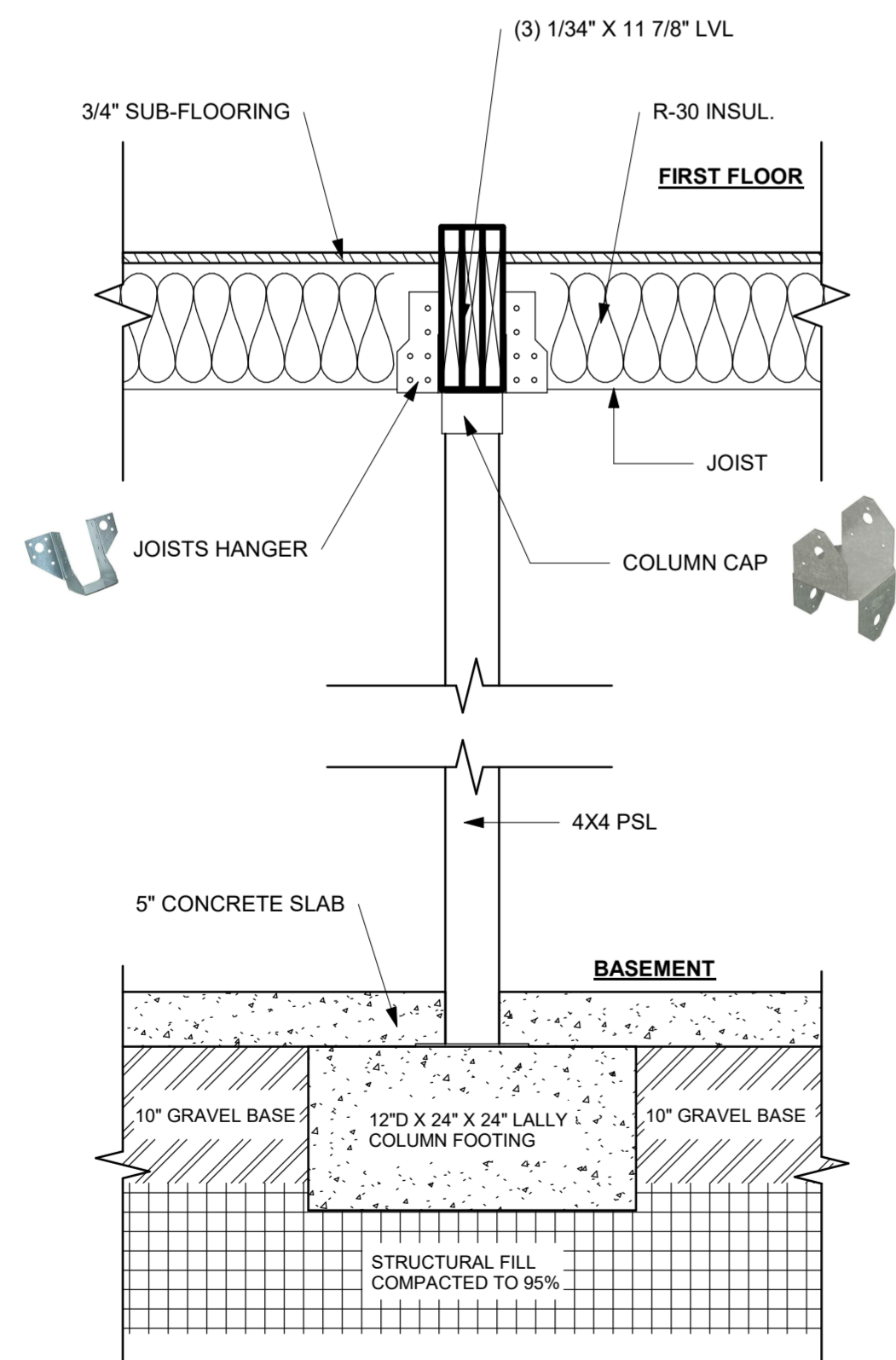
1 ANCHOR BOLTS



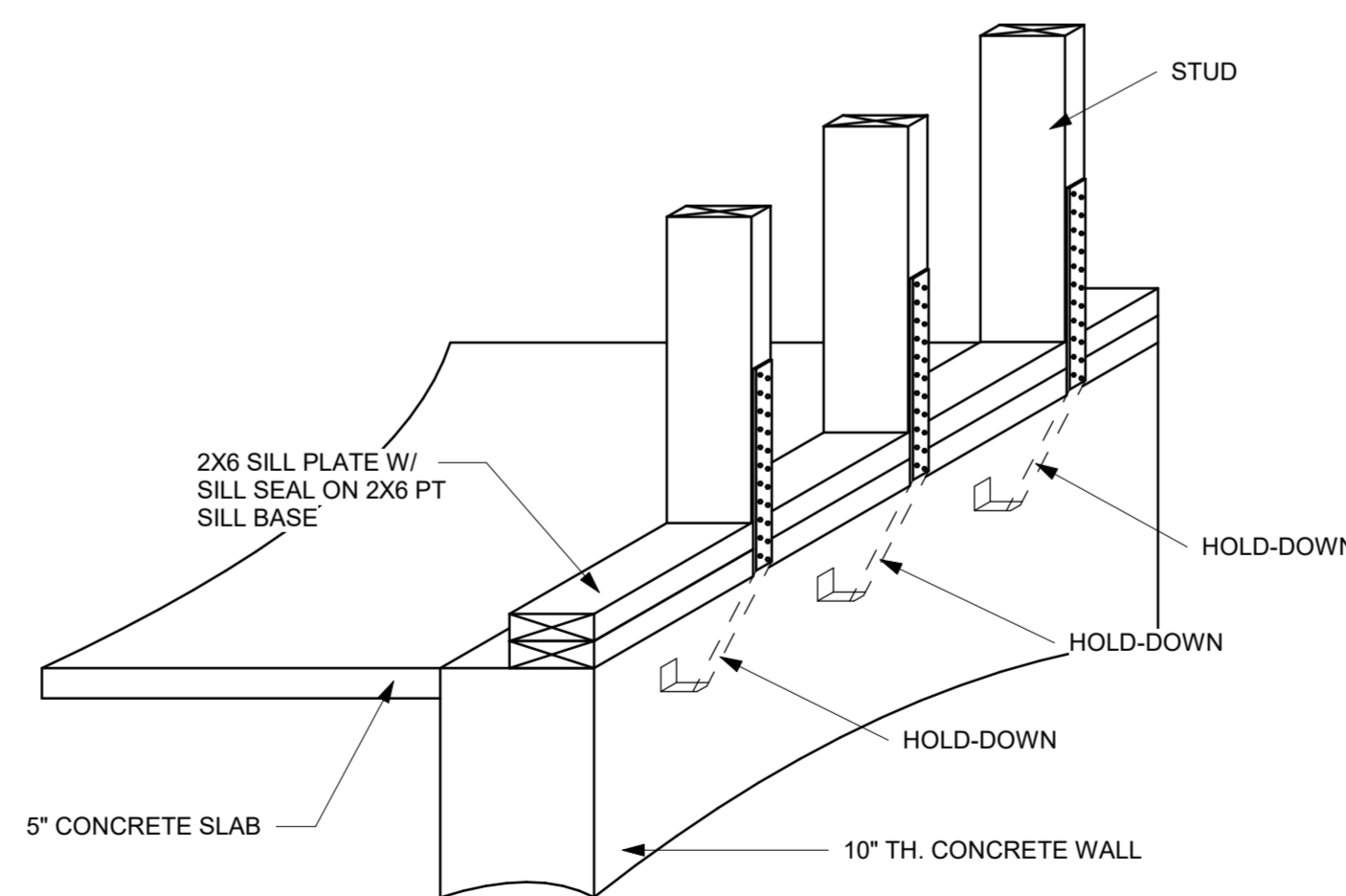
2 TYPICAL FOUNDATION WALL DETAIL



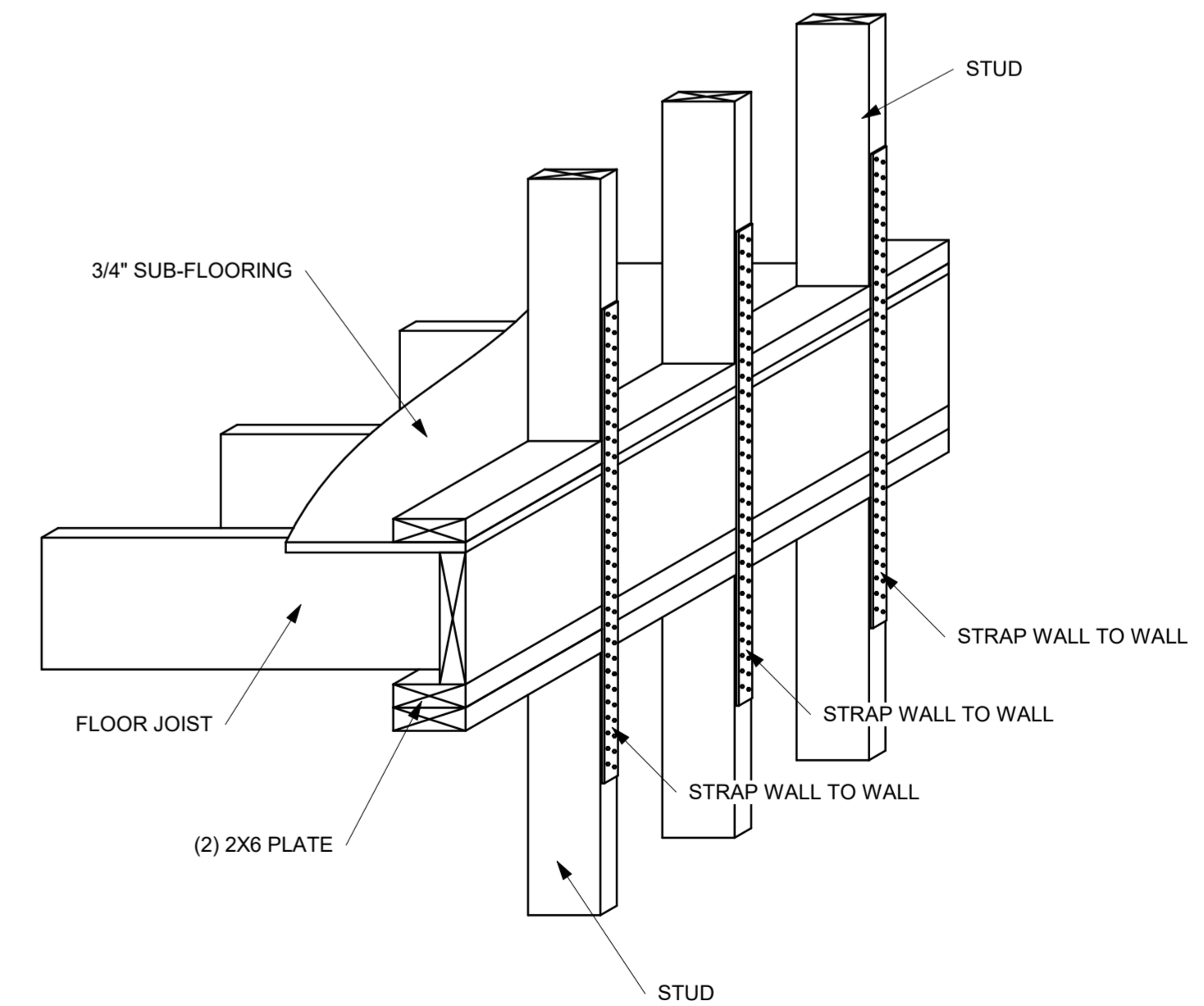
3 TYPICAL FROST WALL



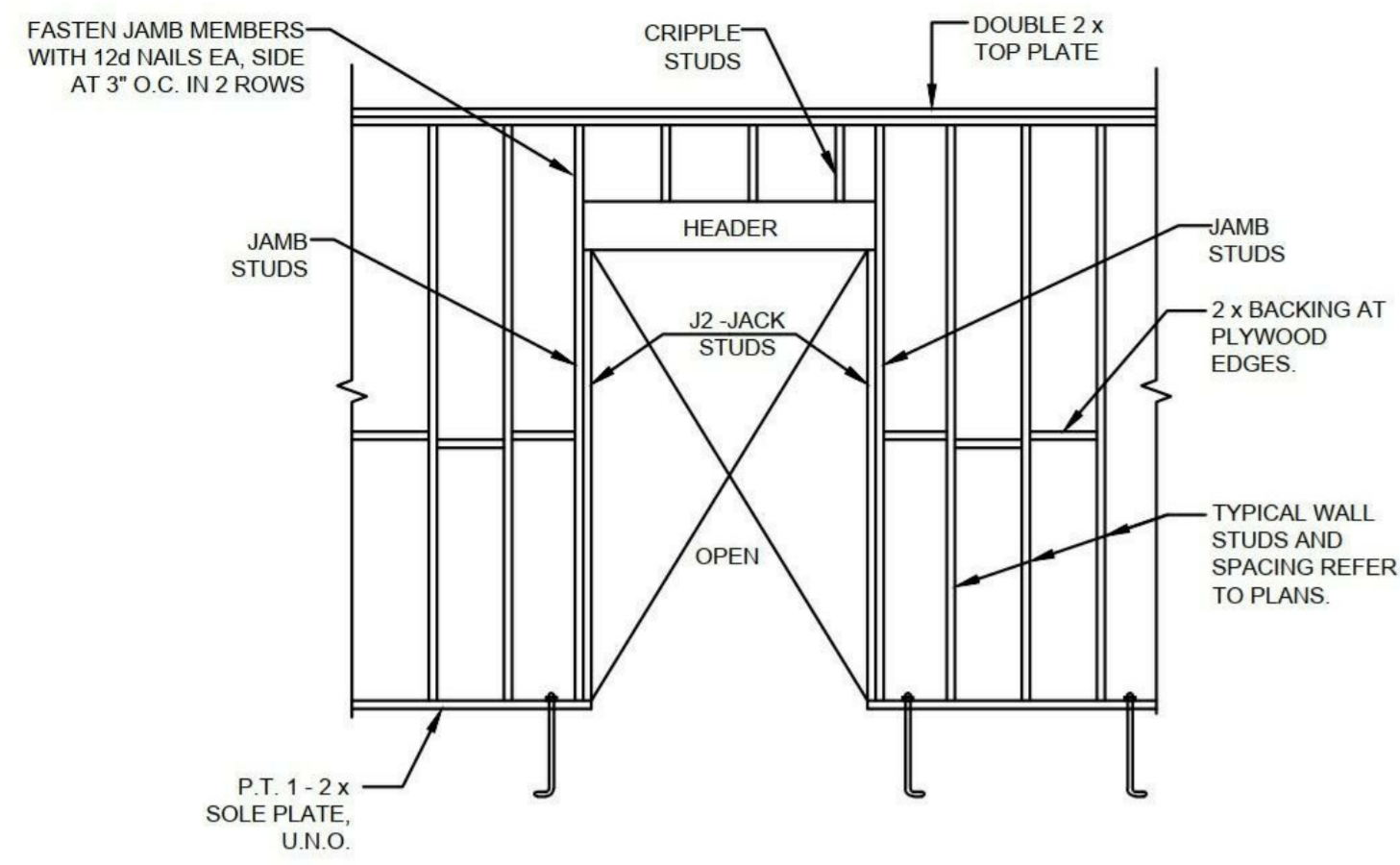
4 TYPICAL LALLY COLUMN FOOTING & TOP



5 TYPICAL HOLD-DOWN IN CONCRETE



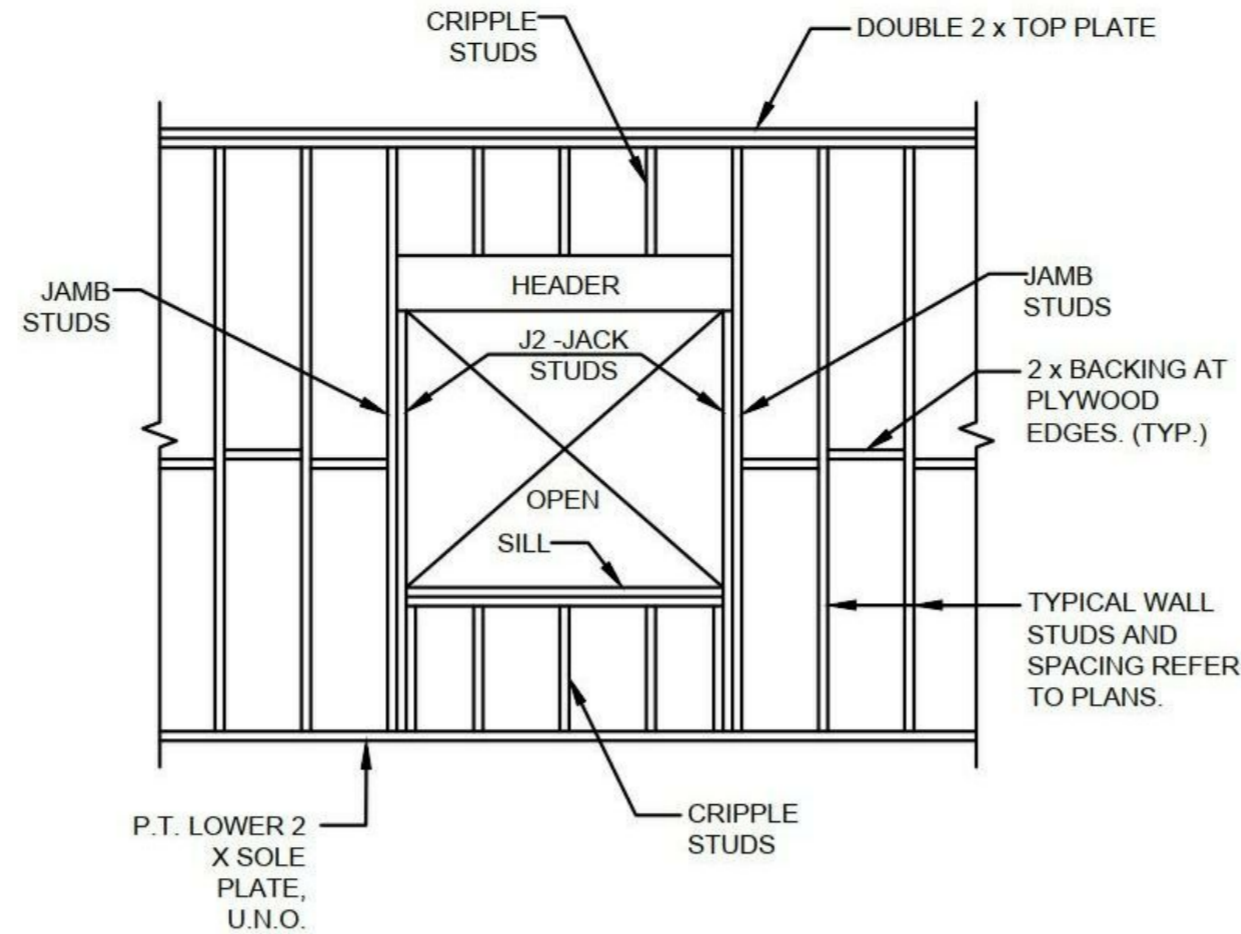
6 TYPICAL STRAP WALL TO WALL



NOTES:

1. REFER TO HEADER SCHEDULE FOR HEADER, JACK AND JAMB SIZES.
2. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OPENINGS.
3. FOR ANCHOR BOLT SIZE AND SPACING REFER TO NOTES AND SECTIONS.

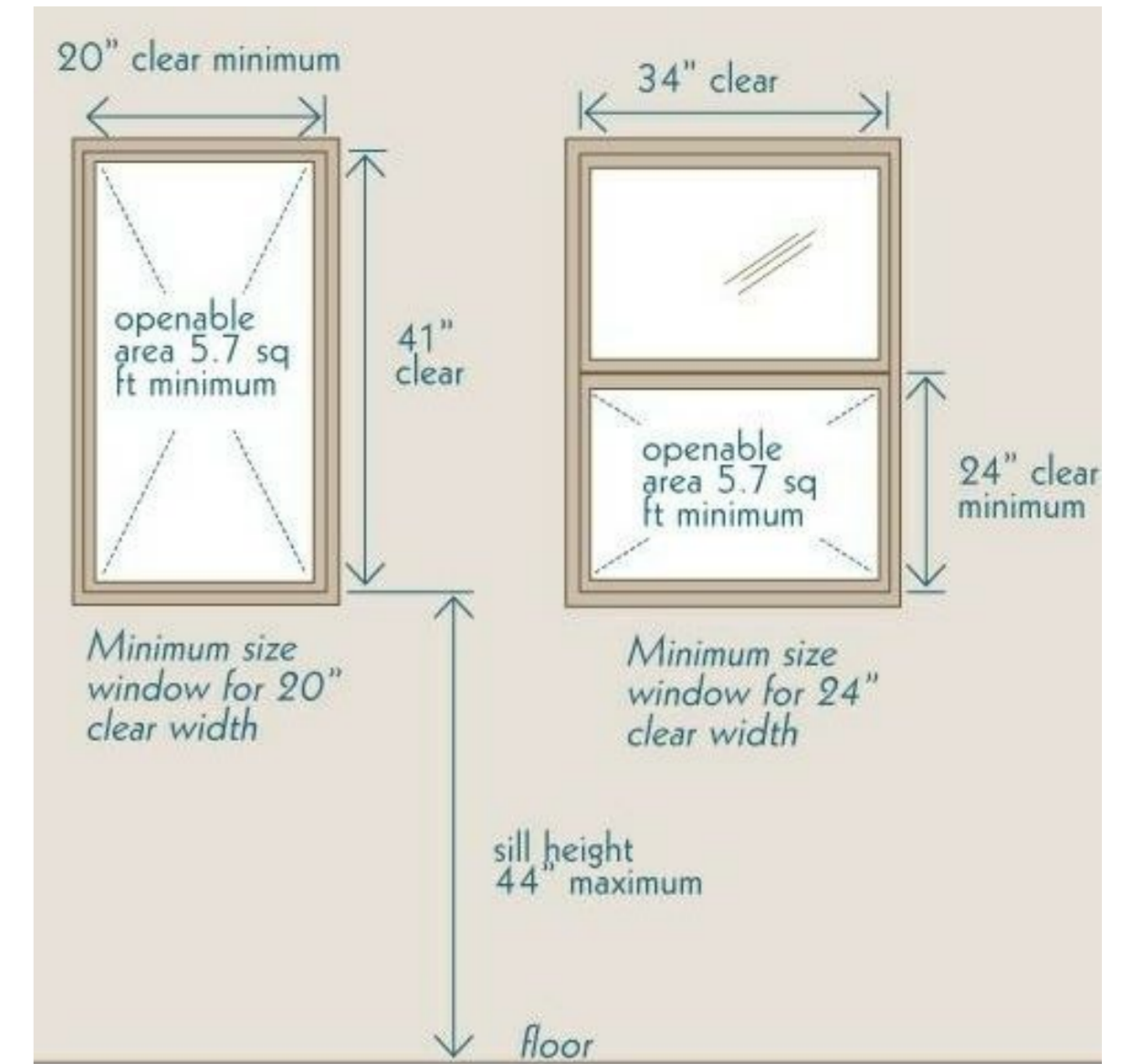
7 TYPICAL DOOR OPENINGS FRAMING DETAIL



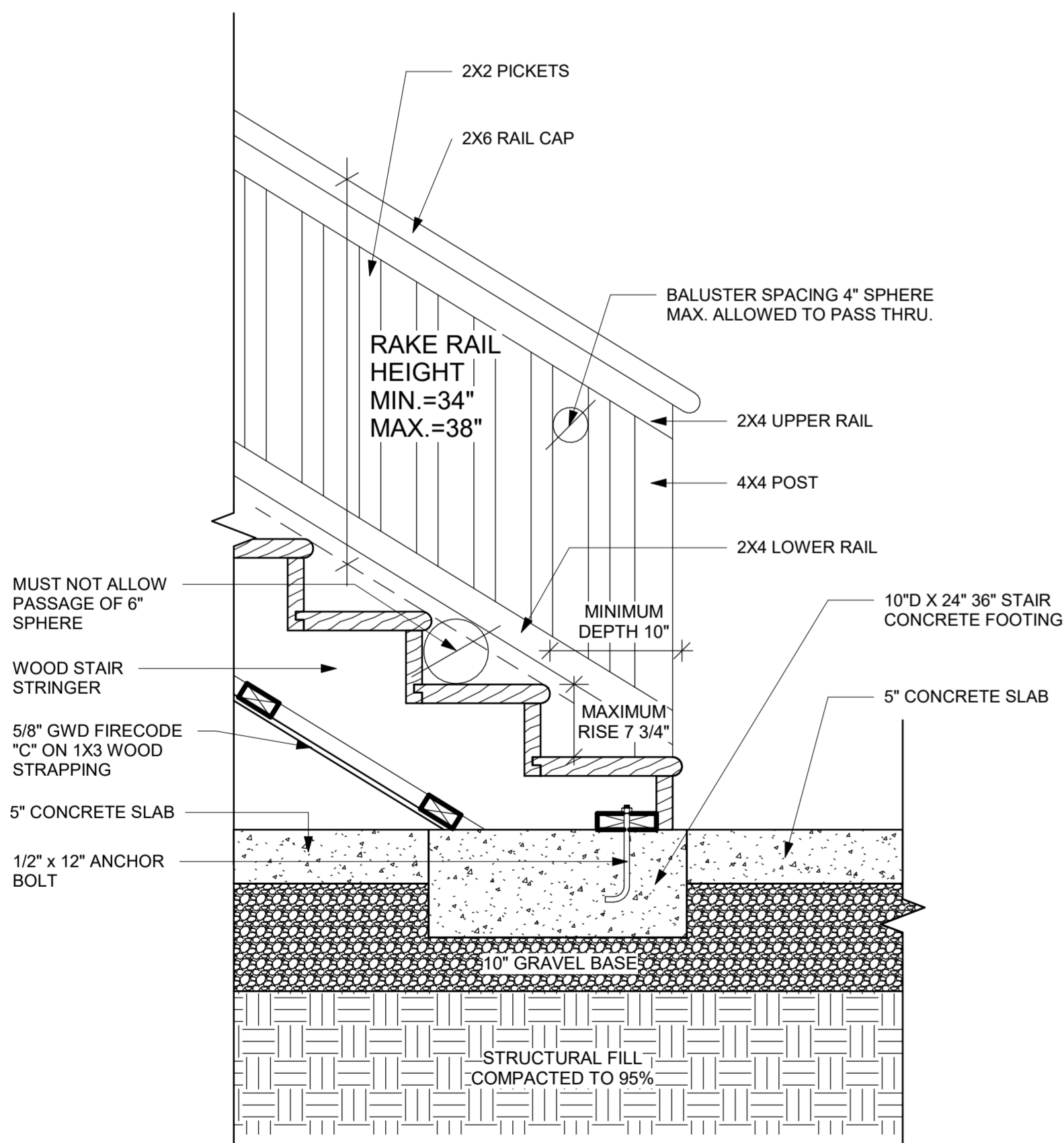
NOTES:

1. HEADER, JACK AND JAMB SIZE AND NUMBER REFER TO HEADER SCHEDULE.

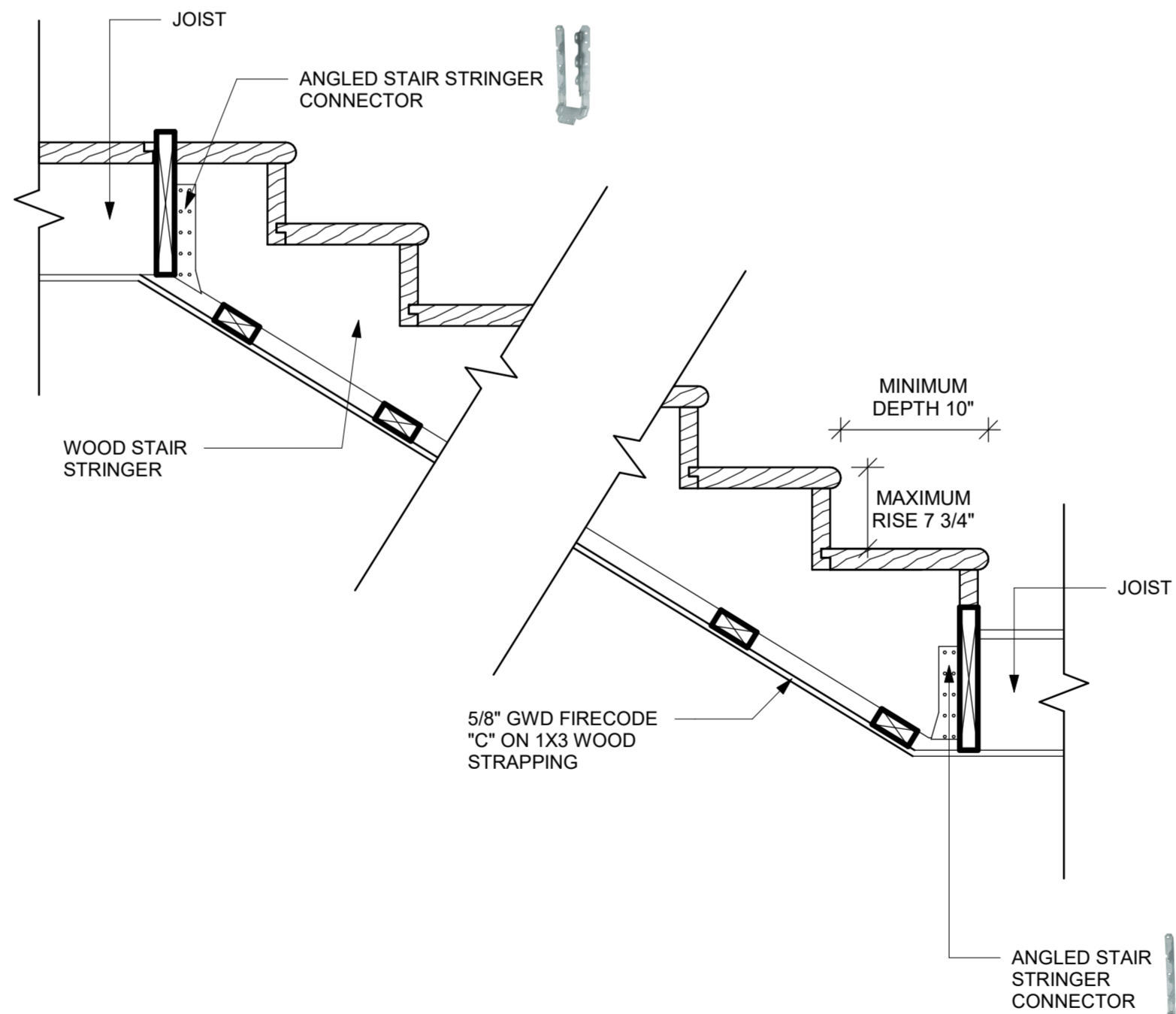
8 TYPICAL WINDOW OPENINGS FRAMING DETAIL



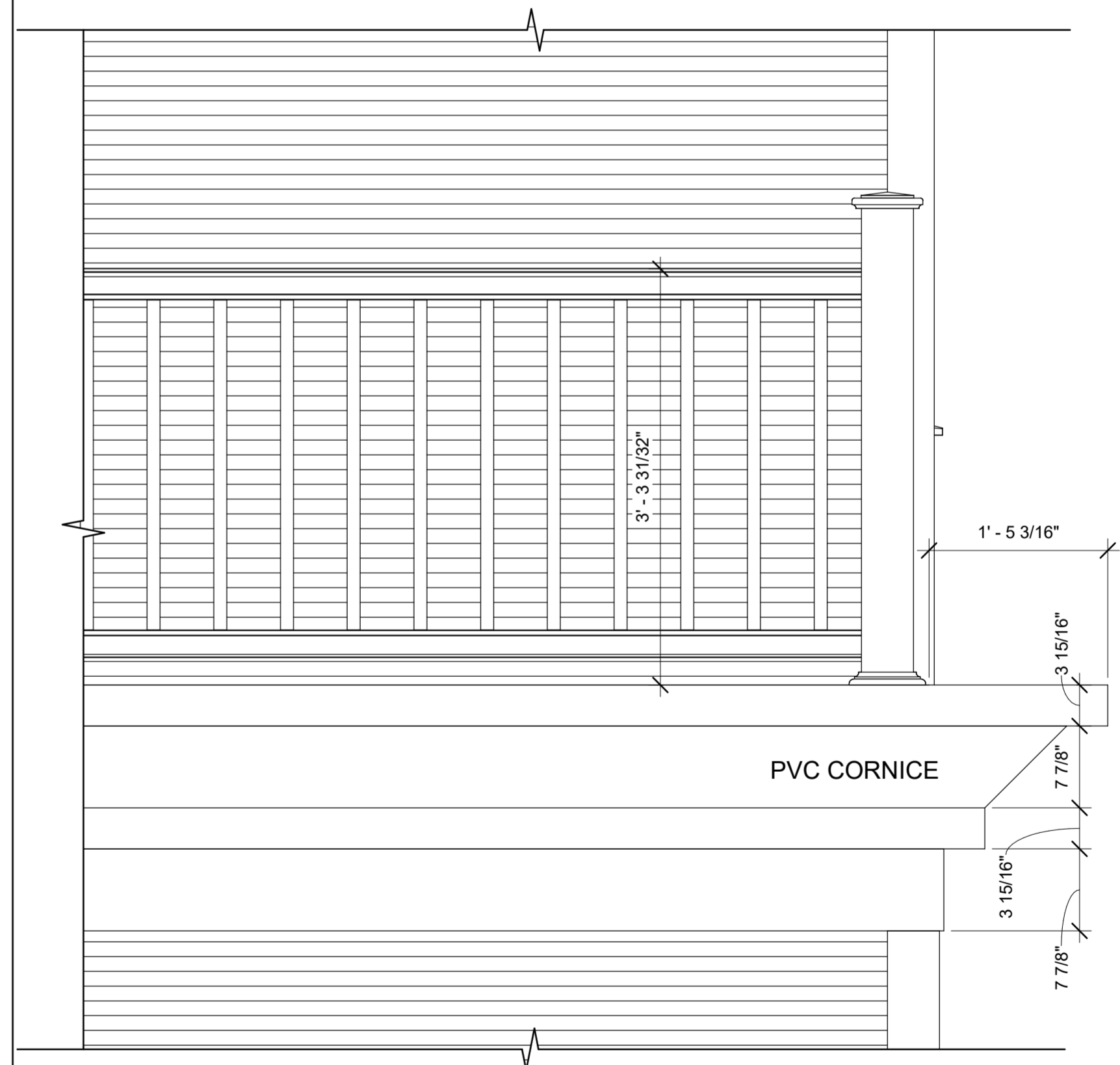
9 DETAIL OF EGRESS WINDOW



10 TYPICAL STAIR SECTION FOOTING



11 TYPICAL STAIR SECTION



12 DETAILING RAILING & CORNICE

SHEET N°:

A-13

SCALE: 1" = 1'-0"

DATE:

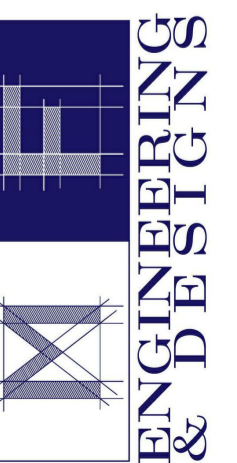
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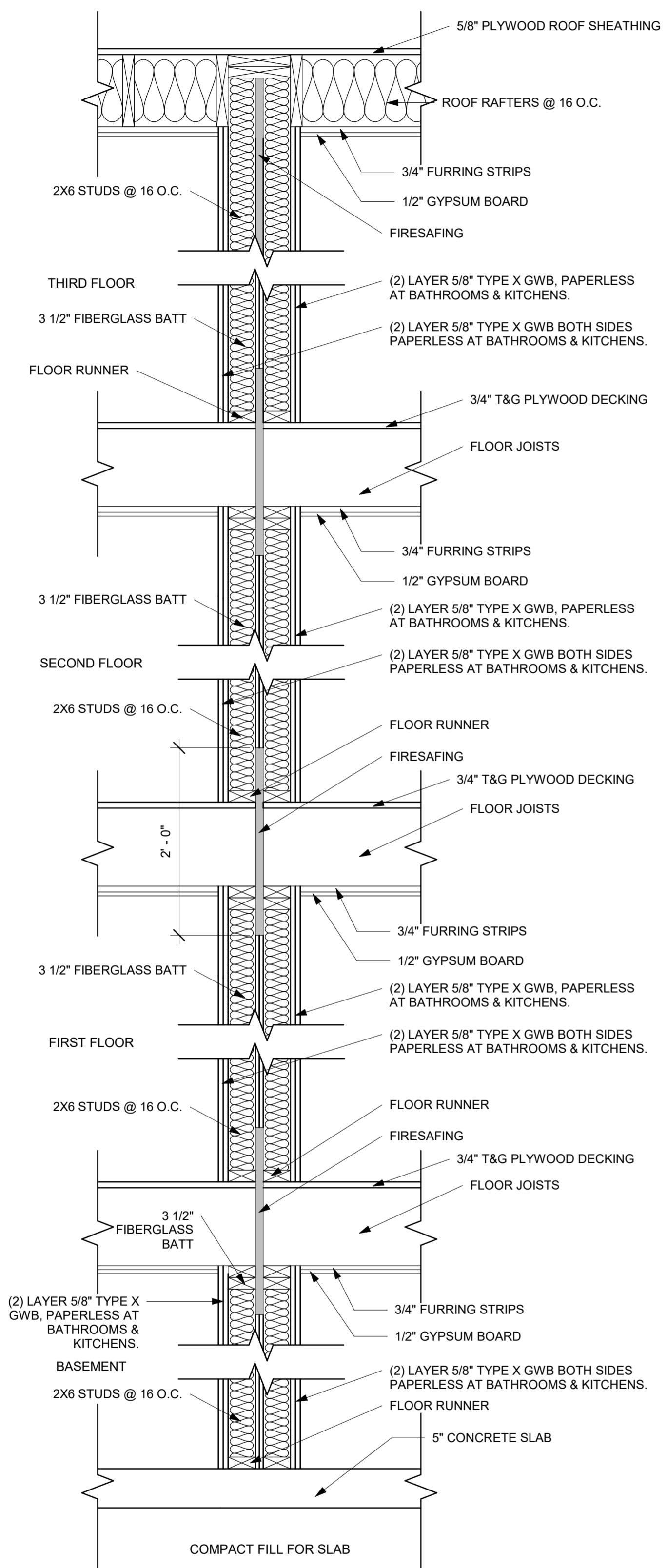
AREA: 7798 ft²

ADDRESS:  
18-20 BELKNAP STREET  
ARLINGTON, MA

MF ENGINEERING & DESIGN INC.

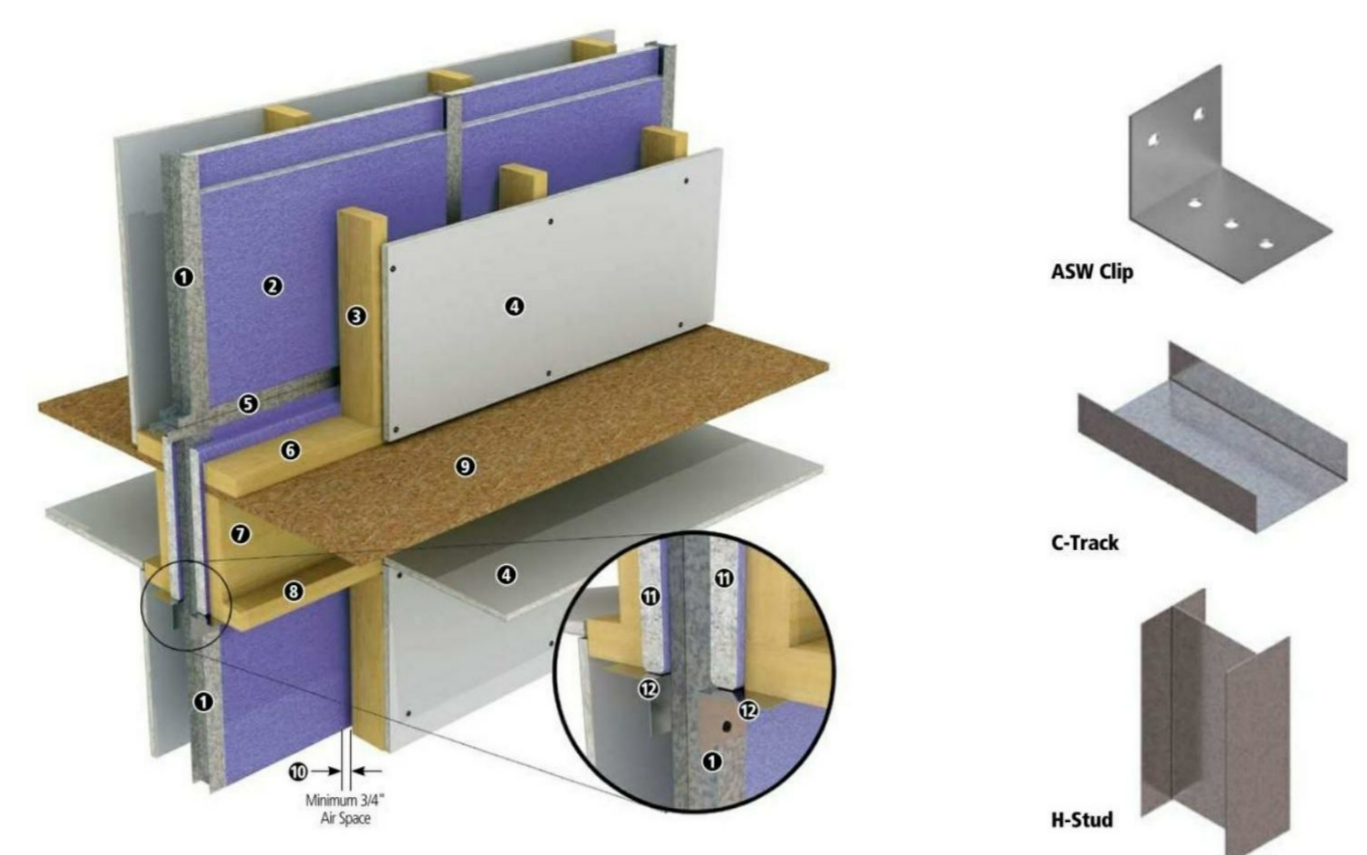
142 FISHER STREET  
WESTBOROUGH, MA 01581  
EMAIL: CARLOS.FERREIRA@MF-ENG.COM  
PHONE: (508) 331-7261



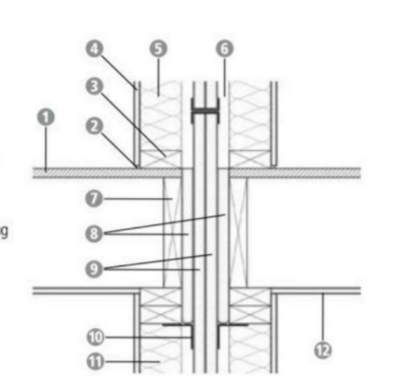


13 SECTION OF PARTY WALL  
SCALE: 1" = 1'-0"

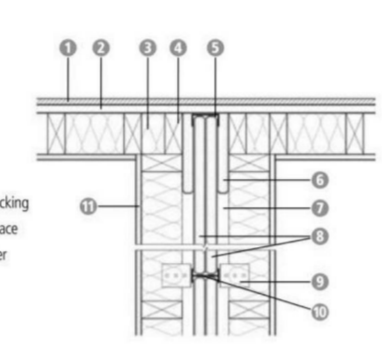
- TYPICAL FLOOR/CEILING JUNCTURE**
1. H-Stud
  2. Two Layers 1" Shuttler XP"
  3. Stud
  4. Gypsum Board
  5. Double C-Track (Back to Back)
  6. Bottom Plate
  7. Rim Joist
  8. Top Plate
  9. Subfloor
  10. Minimum 3/4" Air Space
  11. Fire Blocking 1" Fire Shield Shuttler or Mineral Wool
  12. ASW Clip



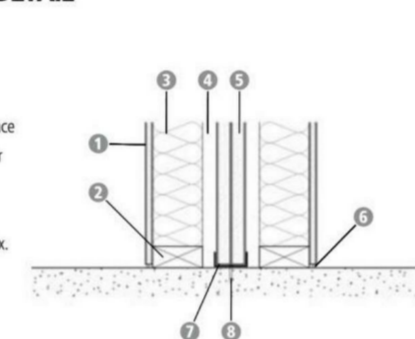
- FLOOR INTERSECTION DETAIL**
1. Subfloor
  2. Sealant
  3. 2" Wood Plate
  4. Gypsum Board
  5. Insulation
  6. Minimum 3/4" Air Space
  7. Rim Joist
  8. Gypsum Board or Mineral Wool Fire Blocking
  9. 1" Fire Shield Shuttler
  10. ASW Clip
  11. 2x4 Wood Stud
  12. Ceiling



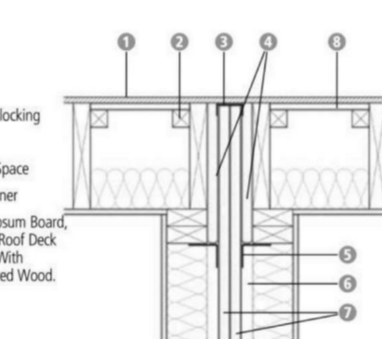
- EXTERIOR WALL JUNCTION DETAIL**
1. Siding
  2. 5/8" Fire Shield Gypsum Sheathing, 4" Each Side
  3. Insulation
  4. 2x4 Wood Stud
  5. 2" C-Track
  6. Gypsum Board or Mineral Wool Fire Blocking
  7. Minimum 3/4" Air Space
  8. 1" Fire Shield Shuttler
  9. ASW Clip
  10. 2" H-Stud
  11. Gypsum Board



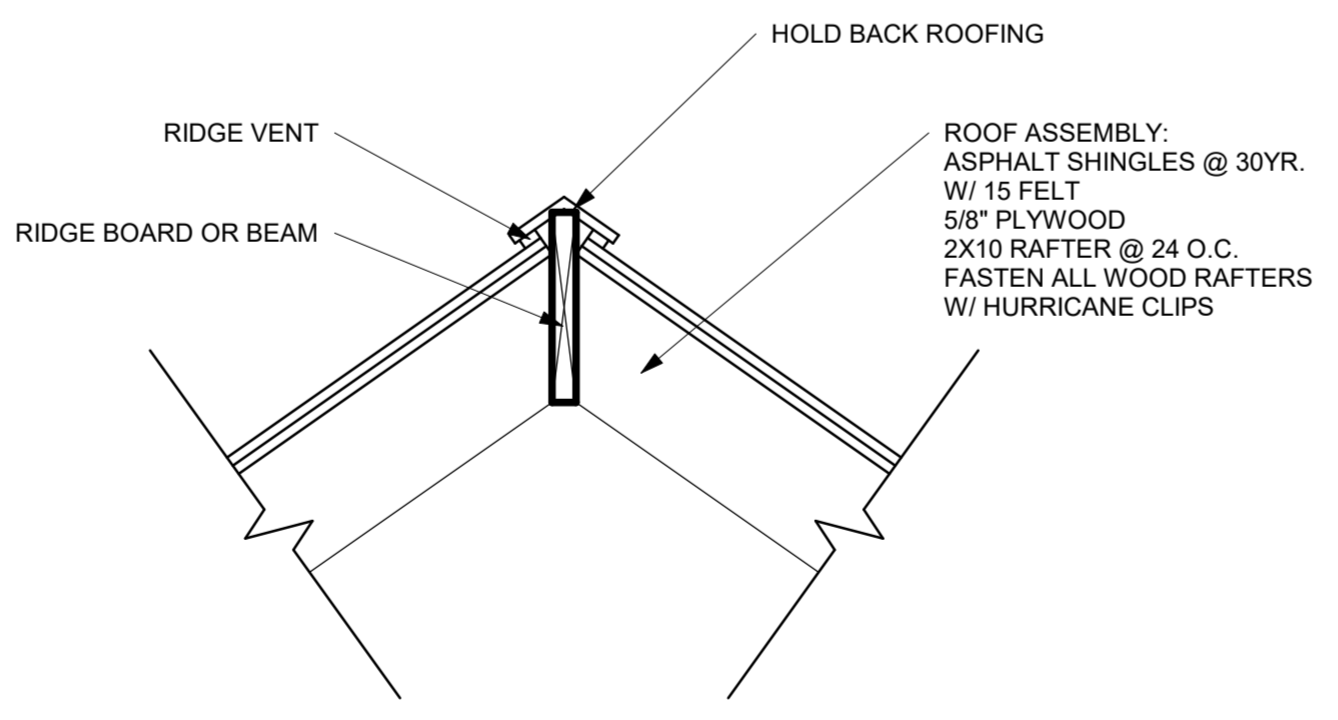
- FOUNDATION DETAIL**
1. Gypsum Board
  2. 2x4 Wood Plate
  3. Insulation
  4. Minimum 3/4" Air Space
  5. 1" Fire Shield Shuttler
  6. Sealant
  7. 2" C-Track
  8. Fasteners 24" o.c. Max.



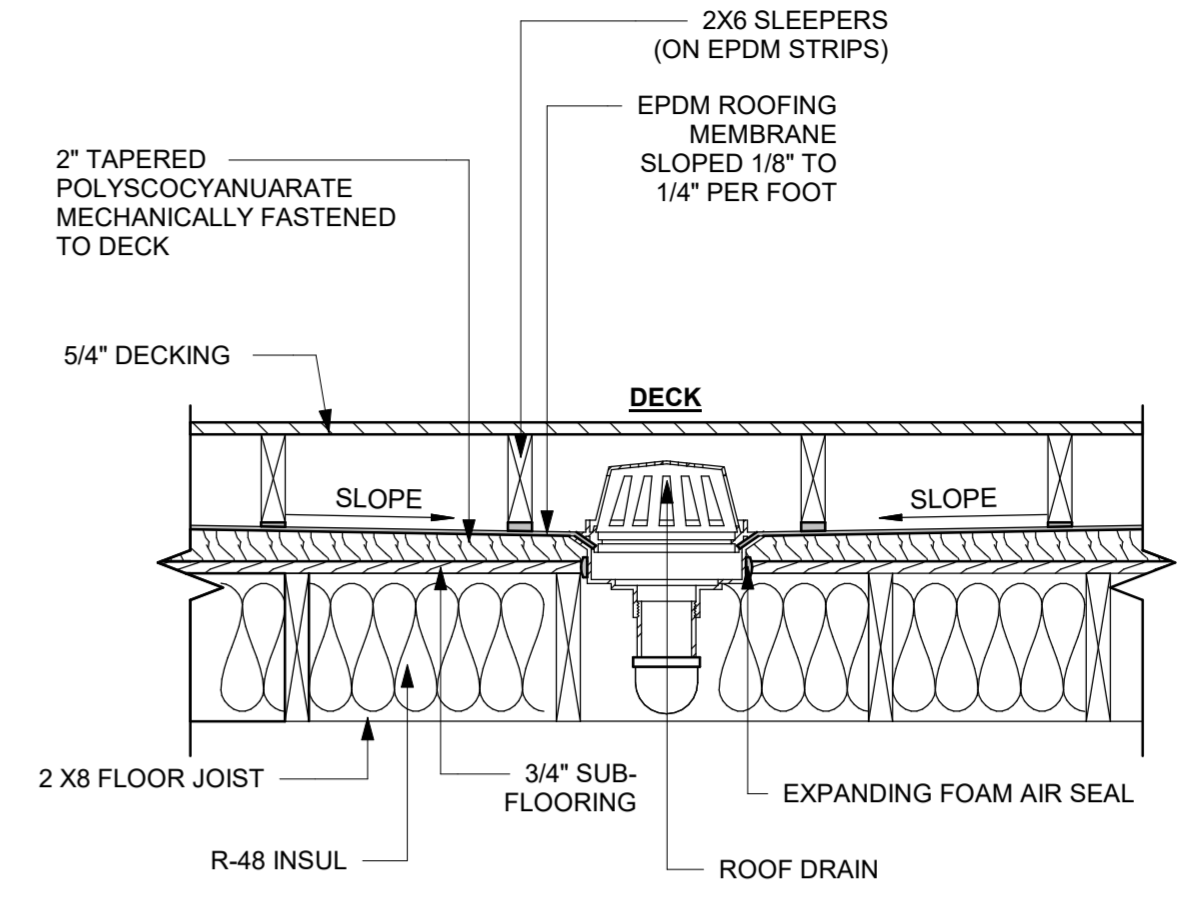
- ROOF JUNCTION DETAIL**
1. Roof Deck
  2. 2x2 Wood Ledger
  3. 2" C-Track
  4. Gypsum Board or Mineral Wool Fire Blocking
  5. ASW Clip
  6. Minimum 3/4" Air Space
  7. 1" Fire Shield Shuttler
  8. 5/8" Fire Shield Gypsum Board, 4" Each Side When Roof Deck is Not Constructed With Fire-Retardant Treated Wood.



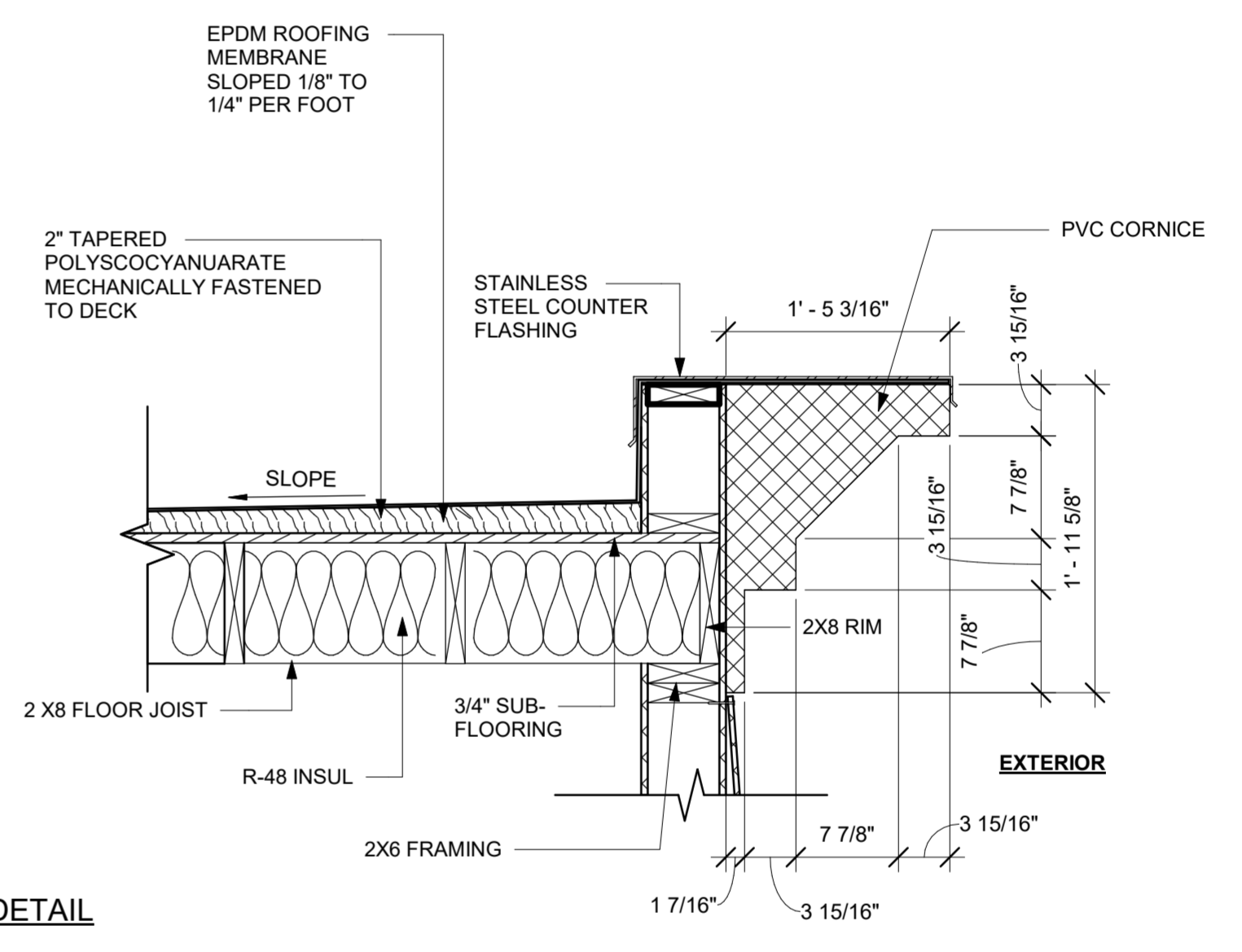
14 DETAIL OF 2 HOUR PARTITION WALL



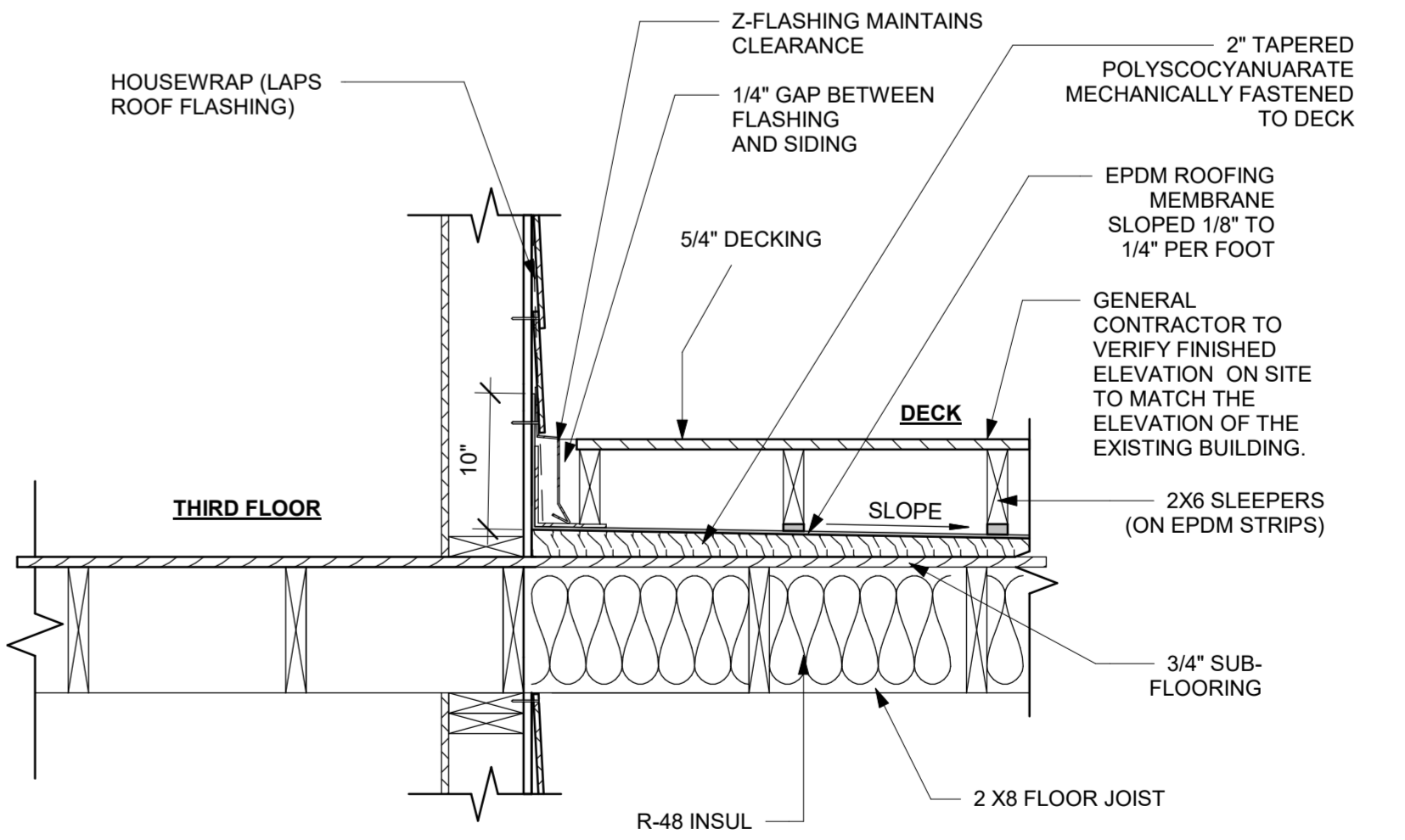
15 TYPICAL RIDGE VENT DETAIL



16 ROOF DRAIN



17 ROOF DETAIL



18 SIDEWALL FLASHING DETAIL

SHEET N°: A-14

SCALE: 1" = 1'-0"

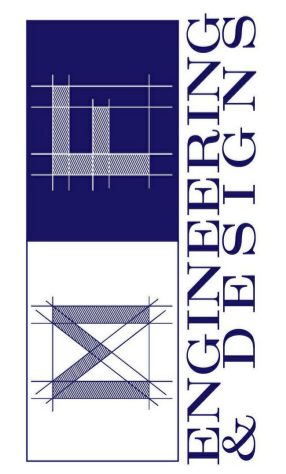
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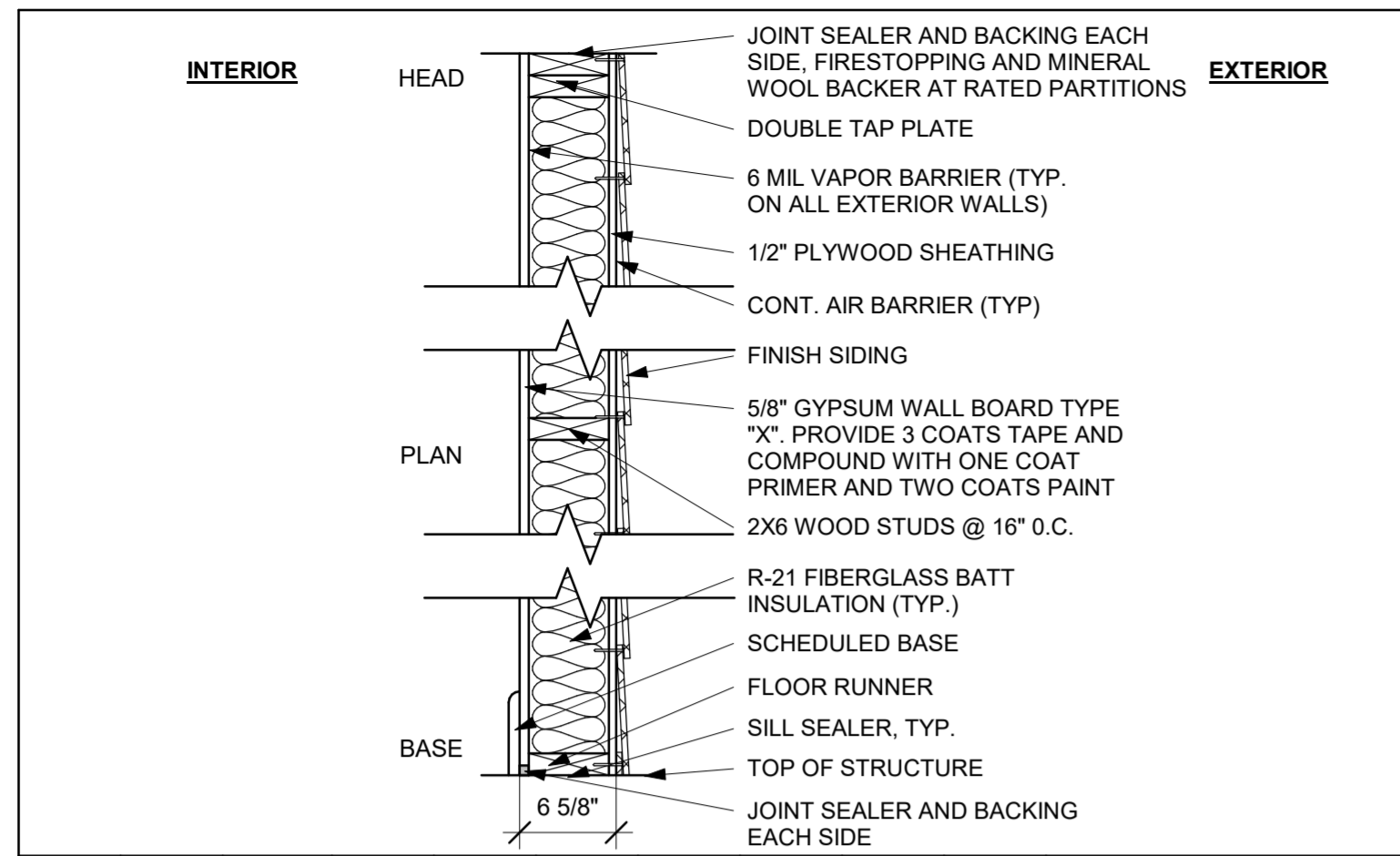
DRAWN BY: FLM

AREA: 7798 ft²

ADDRESS:  
18-20 BELKNAP STREET  
ARLINGTON, MA

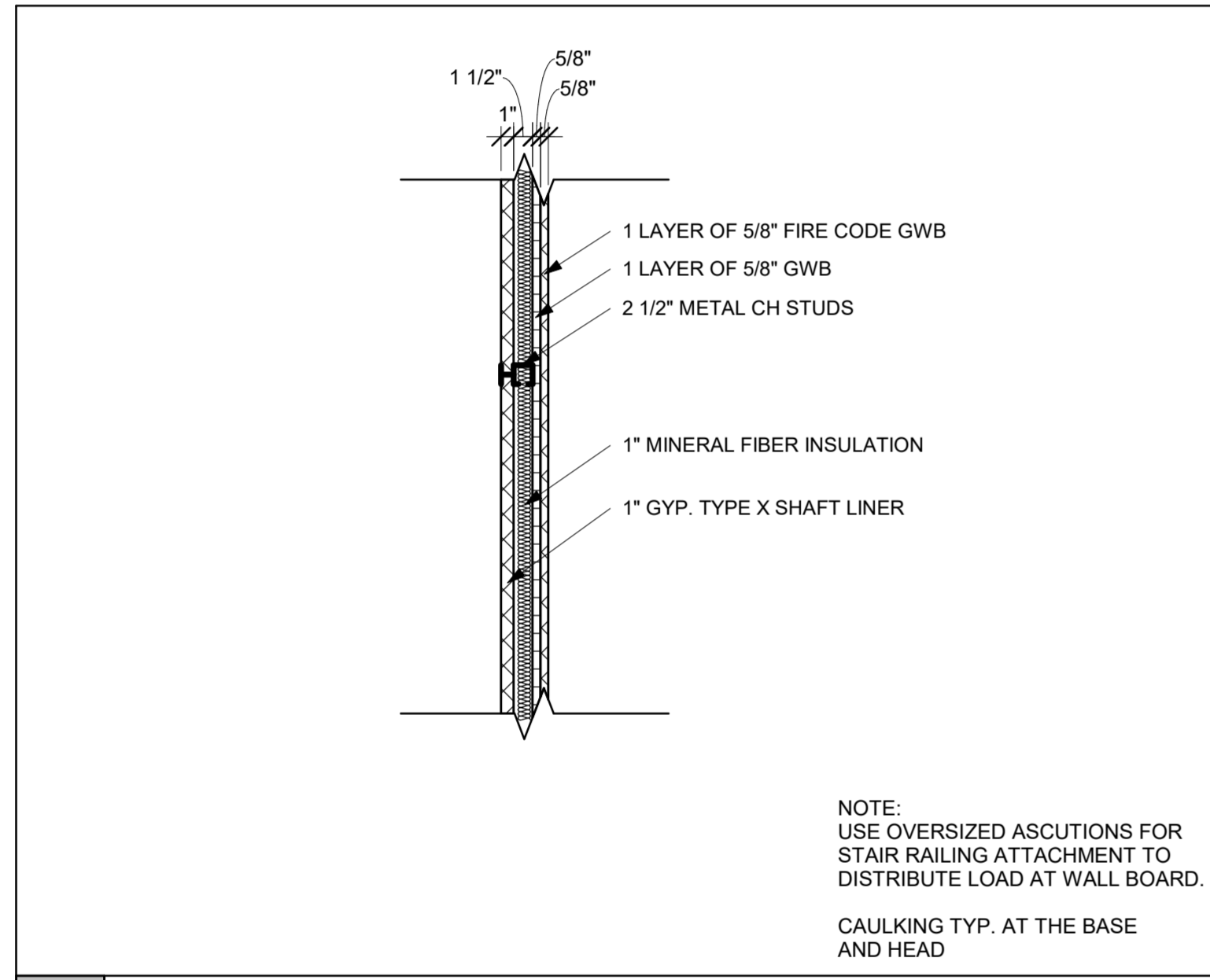
MF ENGINEERING & DESIGN INC.  
142 FISHER STREET  
WESTBOROUGH, MA 01581  
EMAIL: CARLOS.FERREIRA@MF-ENG.COM  
PHONE: (608) 331-7261



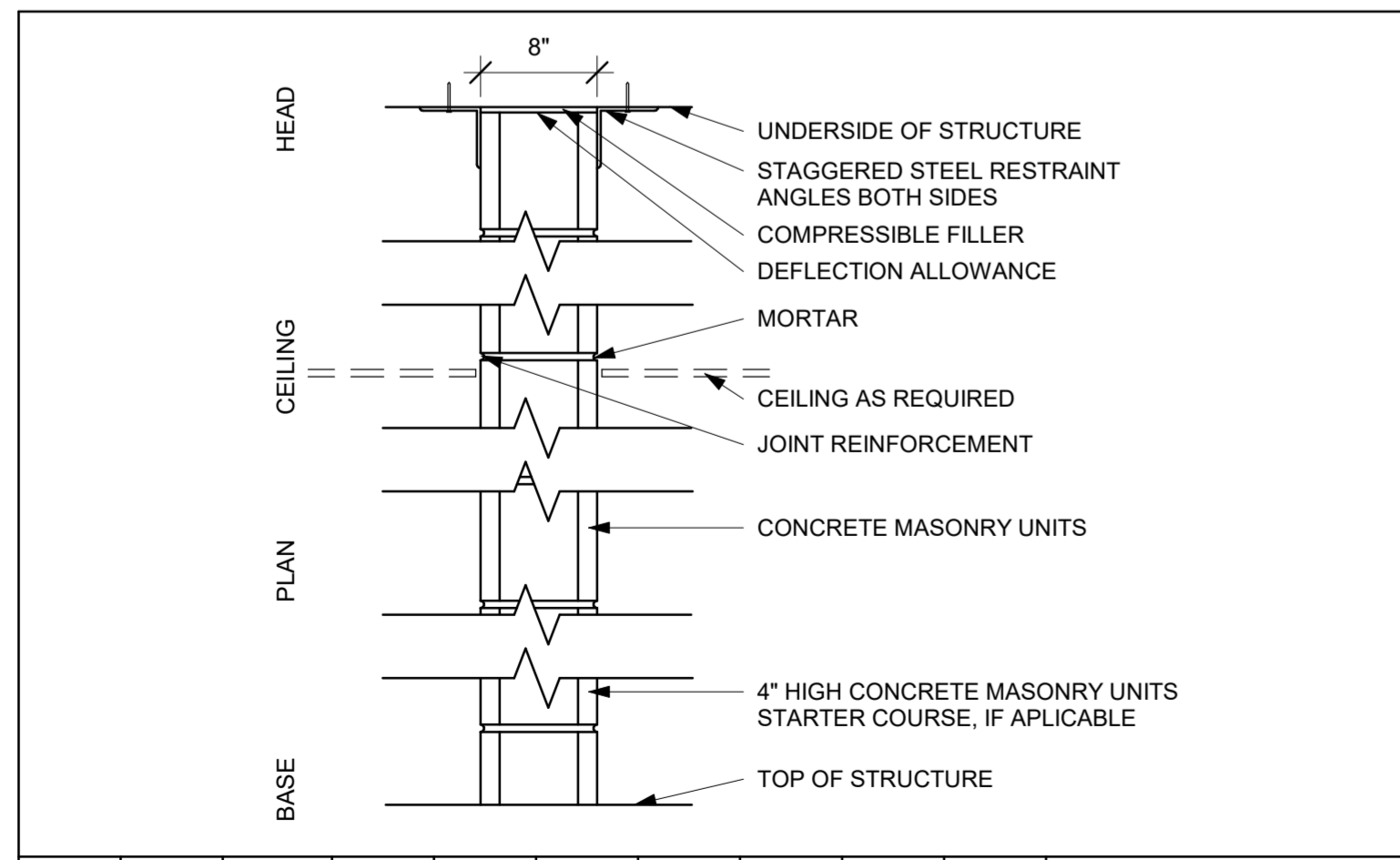


PARTITION TYPE	STUD TYPE	SHEATING TYPE	ACTUAL WIDTH	FILL	FIRE TEST ANS/UL#	FIRE RESISTANCE	STC RATING	IIC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
1	2X6 WOOD STUD	5/8\"/>								

**1** EXTERIOR WALL  
SCALE: 1" = 1'-0"

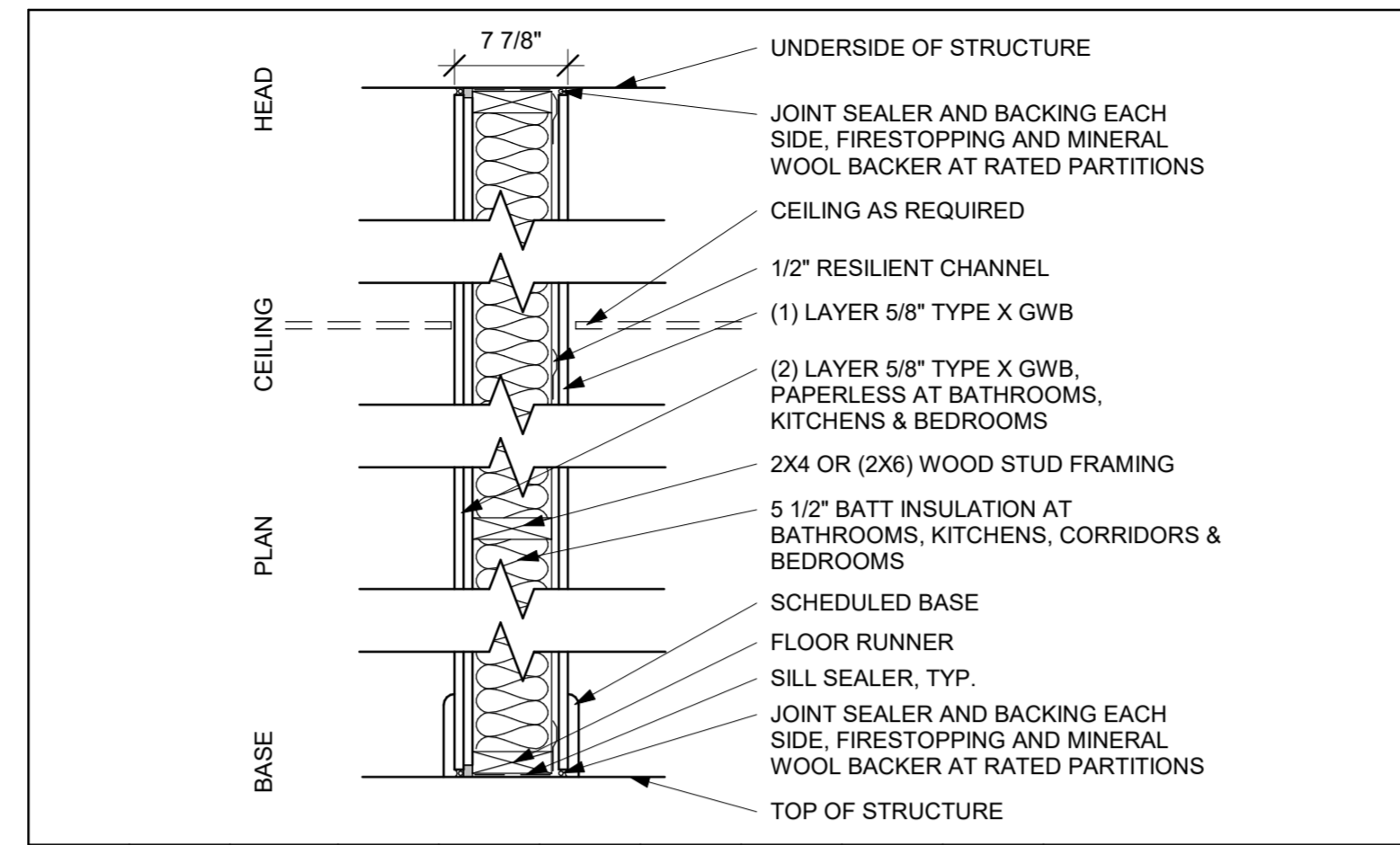


**2** TYPICAL SHAFT WALL - 2 HR FIRE RATED  
SCALE: 1" = 1'-0" 2 HR RATING UL# U438 STC: 50



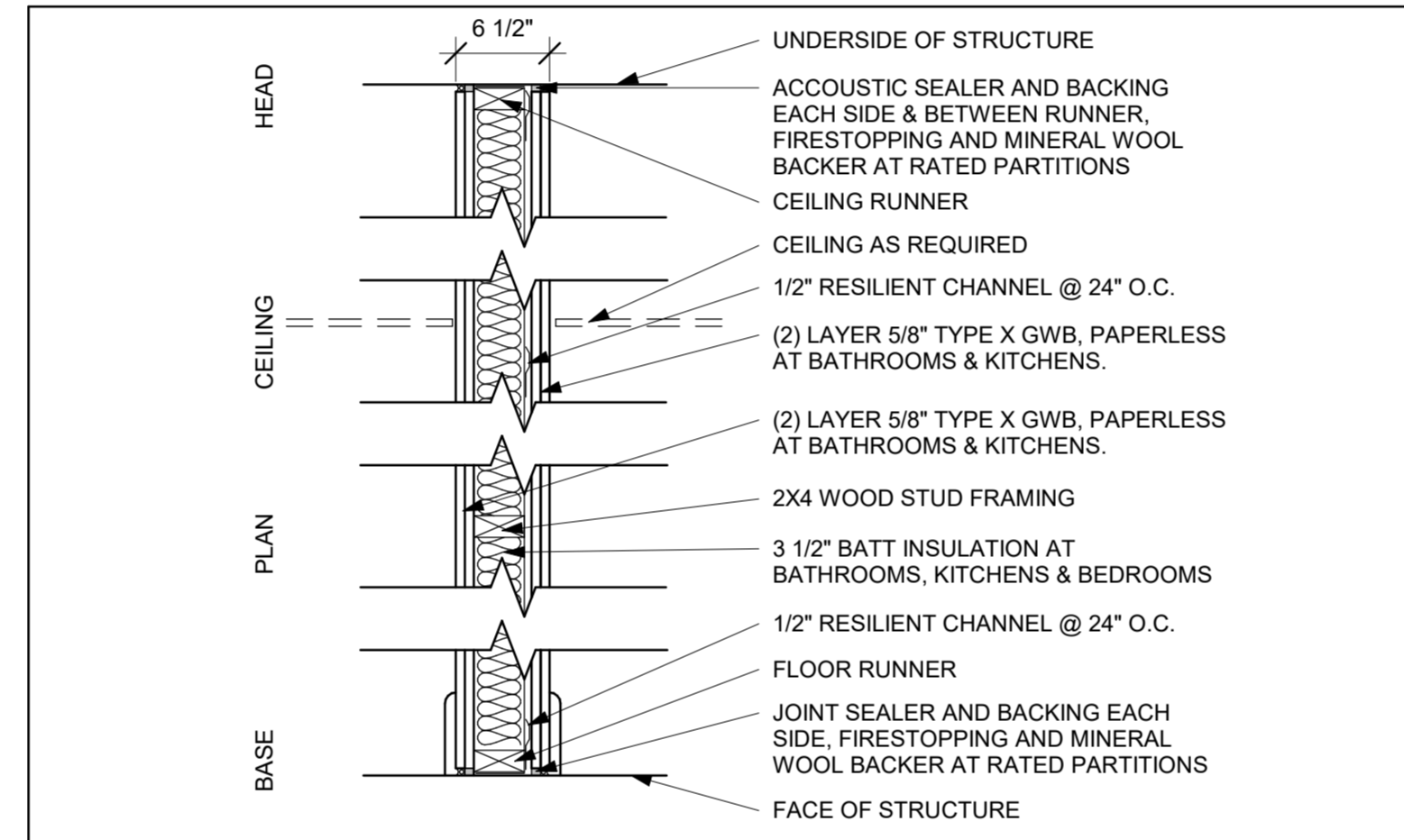
PARTITION TYPE	STUD TYPE	SHEATING TYPE	ACTUAL WIDTH	FILL	FIRE TEST ANS/UL#	FIRE RESISTANCE	STC RATING	IIC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
3	8\"/>									

**3** ELEVATOR PARTITION TYPE - 2HR FIRE RATED WALL  
SCALE: 1" = 1'-0"



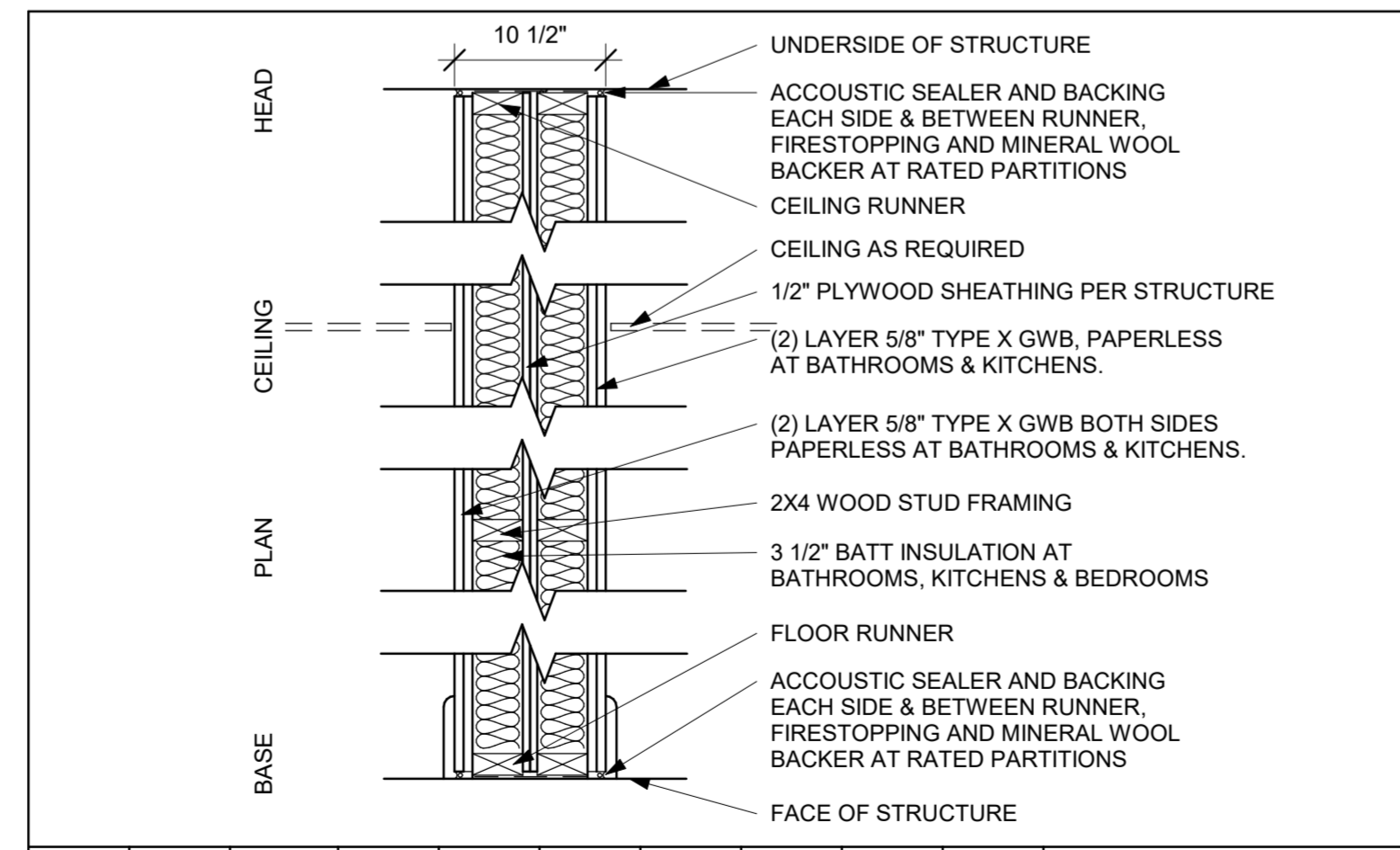
PARTITION TYPE	STUD TYPE	SHEATING TYPE	ACTUAL WIDTH	FILL	FIRE TEST ANS/UL#	FIRE RESISTANCE	STC RATING	IIC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
4	2X6 WOOD STUD	5/8\"/>								

**4** PARTITION TYPE 4 - CORRIDOR WALL  
SCALE: 1" = 1'-0"



PARTITION TYPE	STUD TYPE	SHEATING TYPE	ACTUAL WIDTH	FILL	FIRE TEST ANS/UL#	FIRE RESISTANCE	STC RATING	IIC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
5	2X4 WOOD STUD	5/8\"/>								

**5** PARTITION TYPE 5 - 2 HR FIRE RATED DEMISSING WALL @ STAIRS  
SCALE: 1" = 1'-0"



PARTITION TYPE	STUD TYPE	SHEATING TYPE	ACTUAL WIDTH	FILL	FIRE TEST ANS/UL#	FIRE RESISTANCE	STC RATING	IIC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
6	2X4 WOOD STUD	5/8\"/>								

**6** PARTITION TYPE 6 - 1 HR FIRE RATED DEMISSING WALL (1/2 HOUR WALL REQ.)  
SCALE: 1" = 1'-0"

**FIRE PARTITIONS BY TYPE, LOCATION AND RATINGS FOR THIS PROJECT:**

**BEARING EXTERIOR WALLS:** COMBUSTIBLE CONSTRUCTION WITH ONE HOUR FIRE RATINGS AS REQUIRED FOR TYPE VA CONSTRUCTION. ALL EXTERIOR WALLS ARE BEARING.

**INTERIOR BEARING WALLS, COLUMNS AND BEAMS:** COMBUSTIBLE MATERIALS WITH ONE-HOUR FIRE RATINGS AS REQUIRED FOR TYPE VA CONSTRUCTION EXCEPT WHEN SUPPORTING HIGHER RATED COMPONENTS SUCH AS TWO HOUR RATED STAIR ENCLOSURES.

**INTERIOR FLOOR ASSEMBLIES:** COMBUSTIBLE WITH ONE-HOUR FIRE RATINGS AS REQUIRED FOR TYPE VA CONSTRUCTION EXCEPT WHEN SUPPORTING HIGHER RATED COMPONENTS SUCH AS TWO HOUR RATED STAIR ENCLOSURES.

**ROOF ASSEMBLY:** COMBUSTIBLE MATERIALS WITH ONE-HOUR FIRE RATING AS REQUIRED FOR TYPE VA CONSTRUCTION.

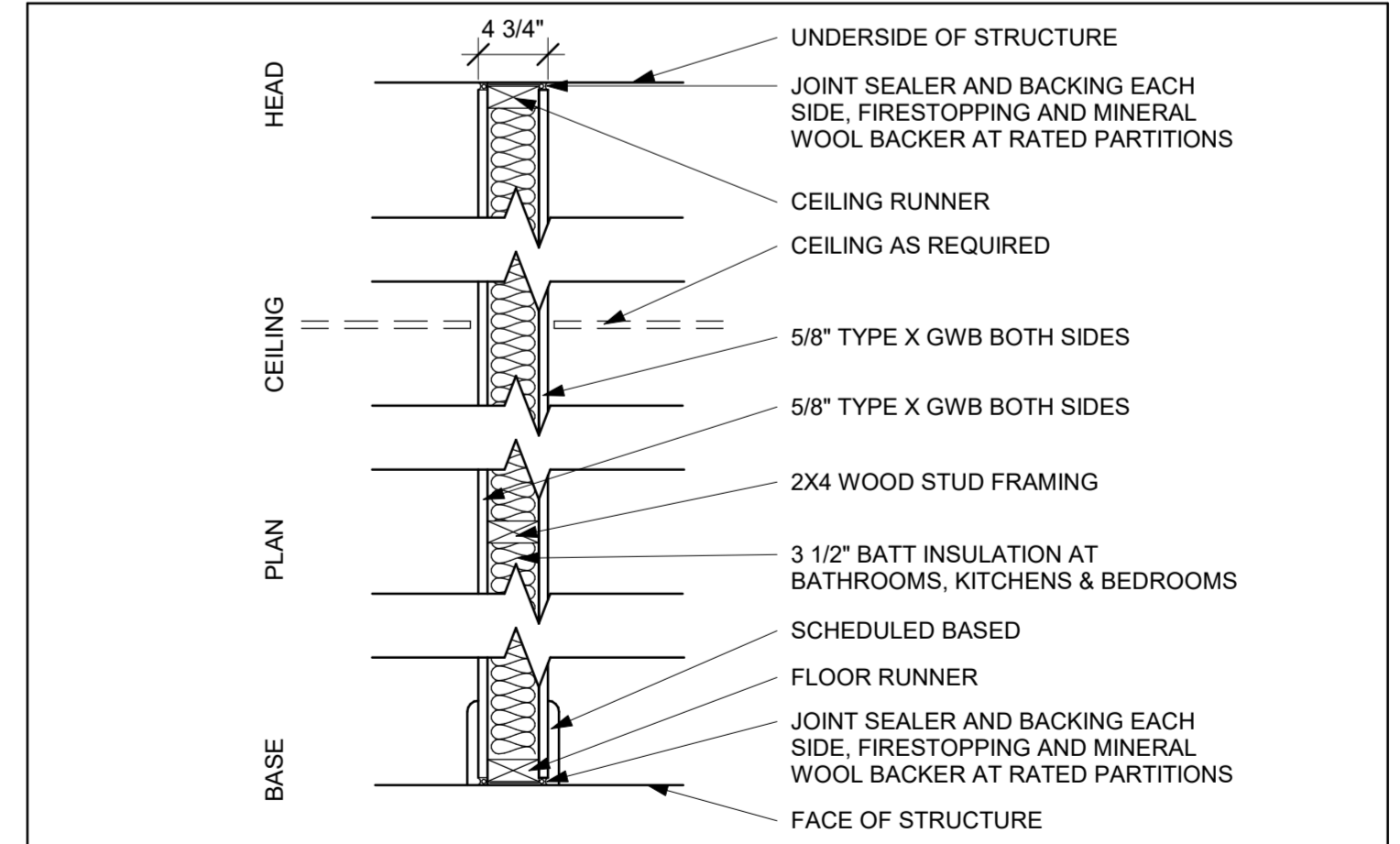
**SHAFT AND STAIRS ENCLOSURES:** CONNECTING FOUR OR MORE FLOORS. THIS APPLIES TO THE TRASH CHUTE, ALL STAIRS AND THE ELEVATORS. THE SUPPORTING CONSTRUCTION FOR TWO-HOUR FIRE BARRIERS WOULD ALSO BE REQUIRED TO HAVE A TWO-HOUR RATING.

**DWELLING UNIT-TO-CORRIDOR SEPARATIONS:** ONE-HOUR FIRE PARTITIONS WHEN BEARING. ALL CORRIDOR WALLS IN THIS PROJECT ARE ONE HOUR BEARING.

**DWELLING UNIT-TO-DWELLING UNIT WALL SEPARATIONS:** ONE-HOUR FIRE PARTITIONS WHEN NON-BEARING AND ONE-HOUR FIRE PARTITIONS WHEN BEARING. ALL SUCH WALLS ARE BEARING IN THIS PROJECT.

**DWELLING UNIT-TO-DWELLING UNIT FLOOR SEPARATIONS:** ONE-HOUR FIRE RATED FLOOR ASSEMBLIES EXCEPT WHEN SUPPORTING HIGH RATED COMPONENTS SUCH AS TWO HOUR RATED STAIR ENCLOSURES.

**WHEN FLOOR ASSEMBLY PENETRATIONS ARE REQUIRED FOR DUCTS:** IN ADDITION TO OTHER REQUIREMENT CALLING FOR CERTIFIED AND LISTED RADIANCE DAMPERS IN CEILINGS, PROVIDE ANNULAR SPACE PROTECTION AROUND DUCTS THAT PENETRATE NOT MORE THAN ONE RATED FLOOR ASSEMBLY WITH AN APPROVED NONCOMBUSTIBLE MATERIAL THAT RESISTS THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION AND PROVIDE A FIRE DAMPER AT THE PLANE OF THE FLOOR ASSEMBLY PENETRATED.



PARTITION TYPE	STUD TYPE	SHEATING TYPE	ACTUAL WIDTH	FILL	FIRE TEST ANS/UL#	FIRE RESISTANCE	STC RATING	IIC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
7	2X4 WOOD STUD	5/8\"/>								

**7** PARTITION TYPE 7 - INTERIOR WALL  
SCALE: 1" = 1'-0"

SHEET N°: **A-15**

SCALE: 1" = 1'-0"

DATE:

DRAWN BY: **FLM**

AREA: **7798 ft²**

ADDRESS: **18-20 BELKNAP STREET ARLINGTON, MA**

**MF ENGINEERING & DESIGN INC.**  
142 FISHER STREET  
WESTBOROUGH, MA 01581  
EMAIL: CARLOS.FERREIRA@MF-ENG.COM  
PHONE: (508) 331-7261

