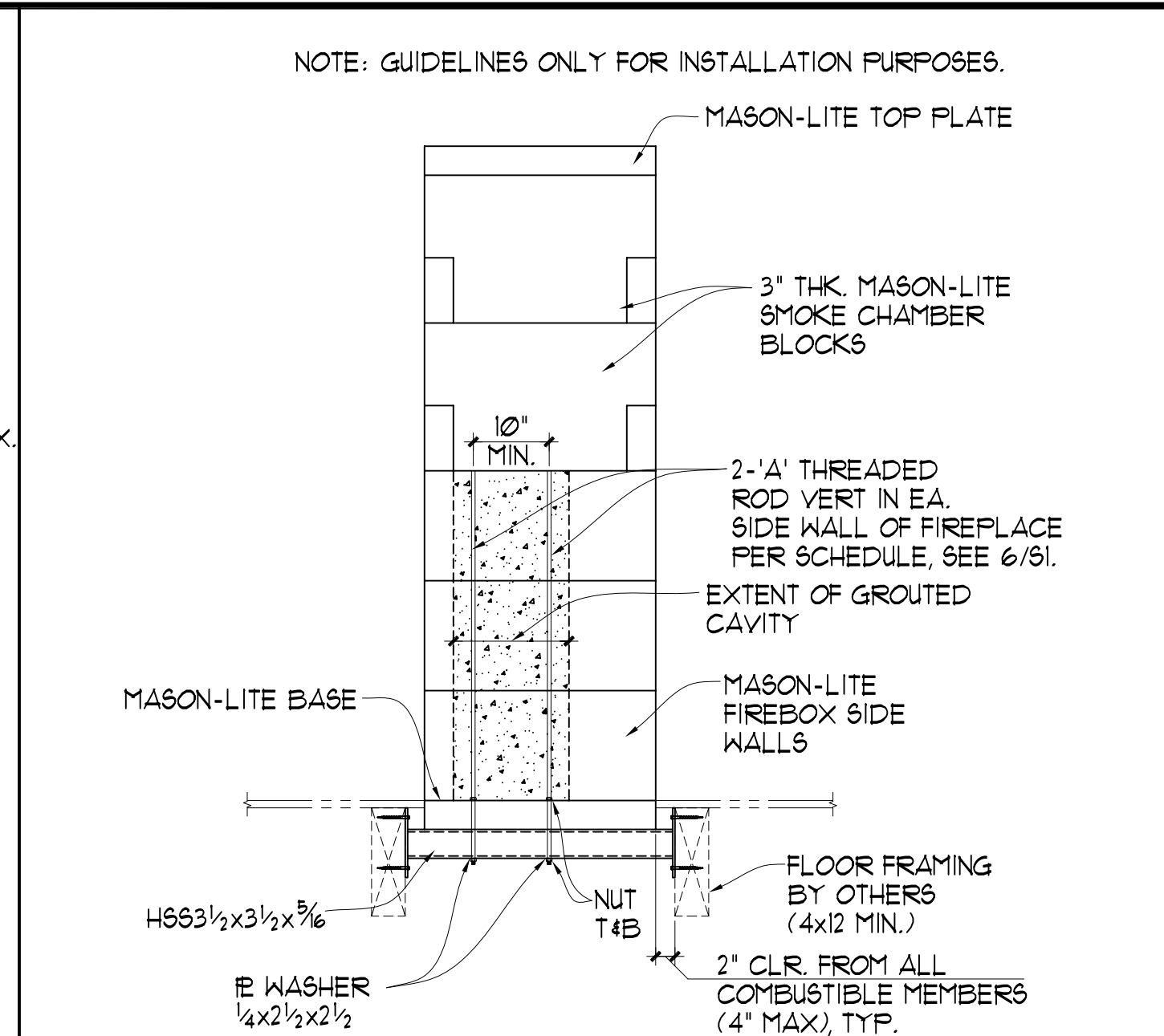
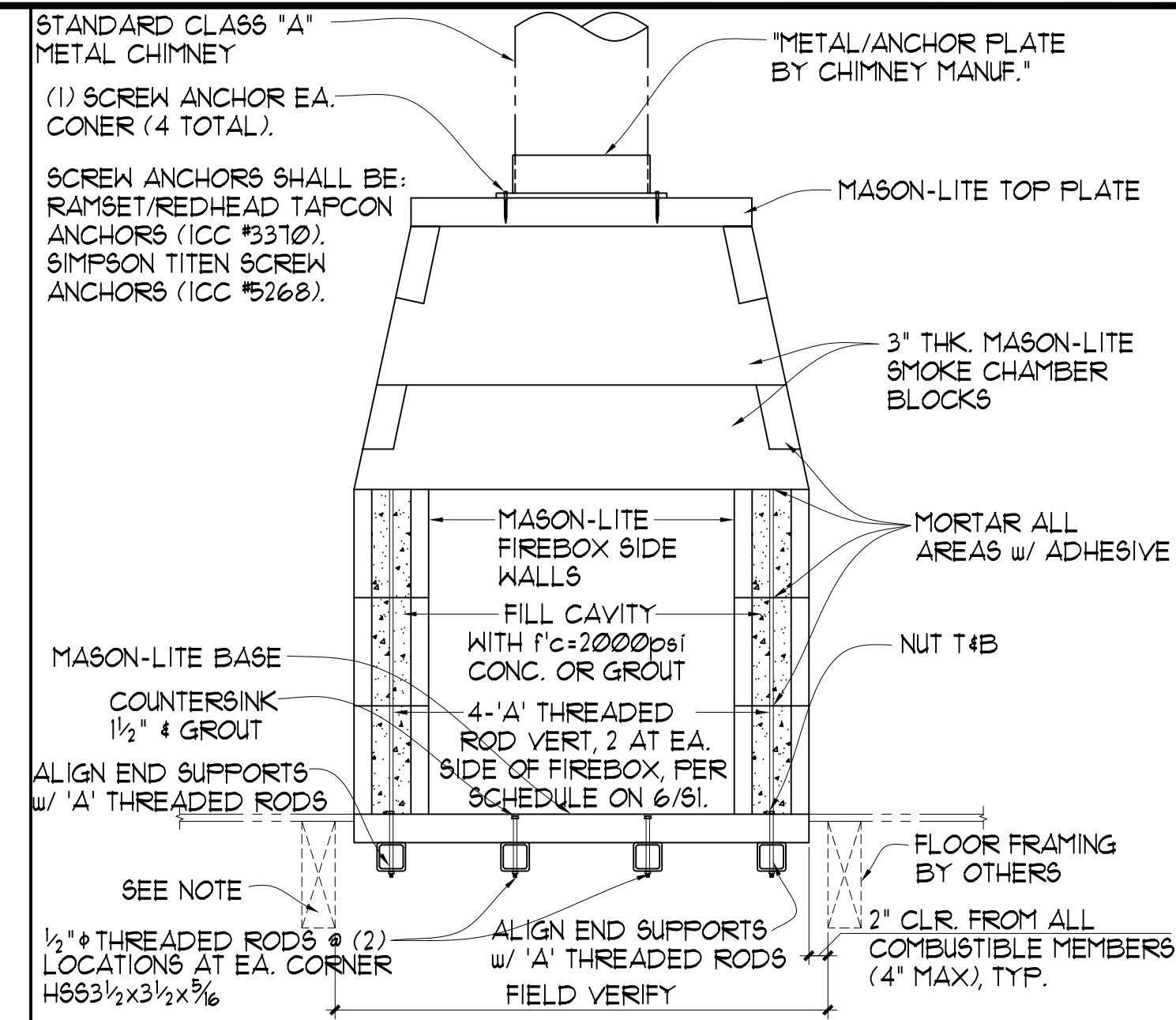


4 DETAIL



3 DETAIL



2 DETAIL

MODEL	PLATE	REACTIONS		'A' THREADED ROD	MAX. WT. OF FIREPLACE
		(R1)	(R2)		
MFP-39	5"x5"x1/4" w/ 8-1/4"x3 1/2" SDS SCREWS	4.2 K	0.21 K	3/8"	1250*
MFP-44	5"x5"x1/4" w/ 10-1/4"x3 1/2" SDS SCREWS	5.2 K	0.26 K	3/8"	1550*
MFP-49	5"x5"x1/4" w/ 10-1/4"x3 1/2" SDS SCREWS	5.6 K	0.28 K	3/8"	1660*
MFP-63	6"x6"x1/4" w/ 14-1/4"x3 1/2" SDS SCREWS	7.2 K	0.31 K	3/4"	1888*

6 DETAIL

## STRUCTURAL NOTES

**FOUNDATION**

- SOILS INFORMATION: NATIVE SOIL (NO RECOMPACTION)  
 SOIL DESIGN PRESSURES:  
 ALLOWABLE BEARING PRESSURE: 1000 PSF (1/3 INCREASE FOR WIND OR SEISMIC)  
 LATERAL EQUIVALENT FLUID PRESSURE: 35 PCF  
 LATERAL BEARING PRESSURE: 150 PCF  
 FRICTIONAL FACTOR: 0.35  
 BOTTOM OF FOOTING SHALL BE AT LEAST 12 INCHES BELOW LOWEST ADJACENT FINISH GRADE.
- NO CONCRETE SHALL BE POURED IN ANY FOUNDATION UNTIL EXCAVATION HAS BEEN INSPECTED. EXCAVATION SHALL BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER.

**REINFORCED STEEL**

- NO BRICK OR POROUS MATERIAL SHALL BE USED TO SUPPORT FOOTING STEEL OFF THE GROUND. (PRECAST CONCRETE DOBIES ARE APPROVED).
- BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60.
- SPLICES IN REINFORCING STEEL SHALL LAP AS FOLLOWS, UNLESS NOTED OTHERWISE:  
 #3 THROUGH #6 = 45 DIA., #7 THROUGH #11 = 56 DIA.  
 HORIZONTAL SPLICES SHALL BE STAGGARD. NONCONTACT SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART 1/5 THE REQUIRED LAP SPLICE LENGTH, OR 6 INCHES.
- THE CLEAR DISTANCE BETWEEN PARALLEL BARS SHALL BE FOUR BAR DIAMETERS BUT NO LESS THAN 1-1/2" O.N.O. IN WALLS AND SLABS OTHER THAN CONCRETE JOIST CONSTRUCTION. REINFORCEMENT SHALL BE SPACED NOT FARTHER APART THAN THREE TIMES THE WALL OR SLAB THICKNESS, NOR 18 INCHES.
- REINFORCING STEEL SHALL HAVE A PROTECTED CONCRETE COVERING AS FOLLOWS UNLESS NOTED OTHERWISE:  
 WALL STEEL BELOW GRADE: ON DIRT SIDE WHEN POURED AGAINST DIRT = 3"  
 ON DIRT SIDE WHEN FORMED = 2"  
 WALL STEEL ABOVE GRADE: IN ALL OTHER CASES = 1-1/2"  
 OTHER ITEMS: FOOTING PADS = 3"  
 SLABS (ON EARTH) = 2"  
 SLABS (LIGHT WEIGHT CONCRETE) = 3/4"  
 SLABS (HARD ROCK CONCRETE) = 1"  
 JOISTS (SIDES, TOPS & SOFFITS) = 1"  
 COLUMNS (TO MAIN STEEL) = 2"  
 BEAMS, GIRDERS (SIDES, TOPS AND SOFFITS) = 2"
- ALL REINFORCING STEEL IS TO BE PLACED IN RELATIVE POSITION SHOWN ON DRAWINGS. NO SPLICES IN ANY REINFORCING WILL BE PERMITTED EXCEPT THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
- REINFORCING DETAILING, BENDING, AND PLACING SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTES "MANUAL OF STANDARD PRACTICE", LATEST EDITION.
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE WELL SECURED IN POSITION WITH WIRE POSITIONERS BEFORE PLACING CONCRETE OR GROUT. VERTICAL BARS IN MASONRY WALLS SHALL BE TIED IN POSITION AT THE TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 200 BAR DIAMETERS.

**REINFORCED CONCRETE**

- CEMENT SHALL CONFORM TO ASTM C150, TYPE II.
- AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS: (4" MAX. SLUMP FOR FLATWORK)
- ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL COMPLY WITH ASTM C494 & C1017 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT (CALCIUM CHLORIDE SHALL NOT BE USED).
- PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH A 3/4" CHAMFER.

8 DETAIL

7 DETAIL

12 DETAIL

11 DETAIL

10 DETAIL

9 DETAIL

**CASTILLO ENGINEERING, INC.**  
 CIVIL & STRUCTURAL ENGINEERS

**Margarito Castillo, P.E., S.E.**  
 REGISTERED PROFESSIONAL ENGINEER  
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**CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ENGINEER. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.**

**PROJECT:**

MASON-LITE CHIMNEY

MARK	DATE	REVISIONS
1		
2		
3		

**TITLE**  
**MASON-LITE FIREPLACE & CHIMNEY SYSTEMS**

JOB NO.  
08-501.4

DRAWN:  
JL

CHECKED:  
DC

DATE:  
27 AUG 08

SHEET NUMBER  
**S1**  
 OF SHEETS