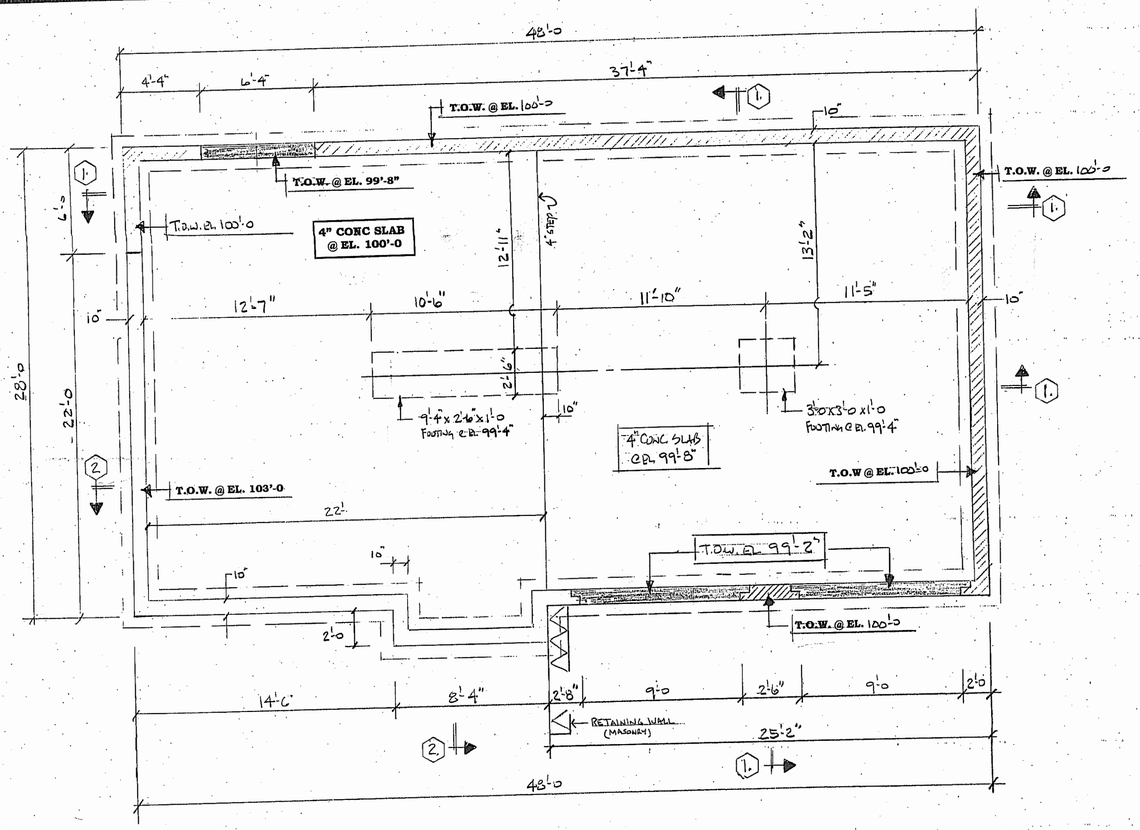
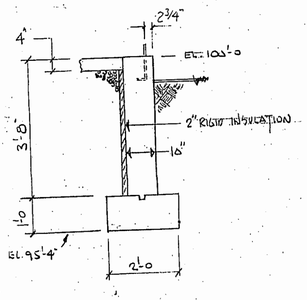
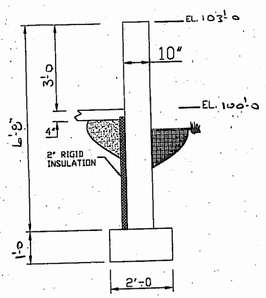


FOUNDATION PLAN

1/4"=1'-0



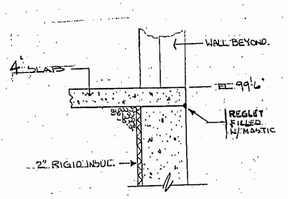
SECTION 1.



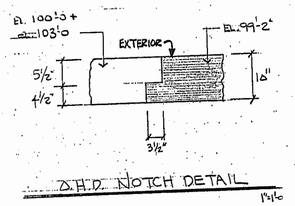
SECTION 2.

FOUNDATION NOTES

1. BENCHMARK: TO BE ESTABLISHED
2. FINISH FLOOR @ ELEV. 100'-0 & 99'-8"
3. ALL CONCRETE FOR WALLS, FOOTINGS AND FLOOR SLABS TO BE 3,000 P.S.I. @ 28 DAYS.
4. FLOOR SLAB FOR GARAGES TO BE 3,500 P.S.I. @ 28 DAYS
5. ALL RE-ROD, WHERE SHOWN ON PLAN, TO BE A615-40 FABRICATED & PLACED IN ACCORDANCE WITH LATEST A.C.I. 315-77 SPECIFICATIONS.
6. FOUNDATION DESIGN BASED ON A SOIL BEARING CAPACITY OF 4,000 P.S.F.
7. FIELD LOCATE CORE BOXES IN WALLS WITH SUB-CONTRACTORS.
8. TOP OF WALL & FLOOR SLAB TO BE GIVEN A SMOOTH STEEL TROWEL FINISH.
9. ALL ANCHORS TO BE 1/2" O X 12" X 3" , 3'-0 MAX. o/c (DO NOT USE METAL STRAPS)
10. ALL FOOTINGS TO BE CARRIED NOT LESS THAN 4'-0 BELOW FINISH GRADE.
11. ALL FOOTINGS AND EXCAVATION FOR FOOTINGS SHALL BE PROTECTED FROM FREEZING AND SHALL NOT BE PLACED IN WATER OR ON FROZEN SOIL.
12. THE FOUNDATION EXCAVATION SHALL BE FINISHED BY HAND AT THE ELEVATION OF THE FOOTINGS. DISTURBED SOIL SHALL BE COMPACTED PRIOR TO THE INSTALLATION OF FOOTINGS OR FLOOR SLABS.

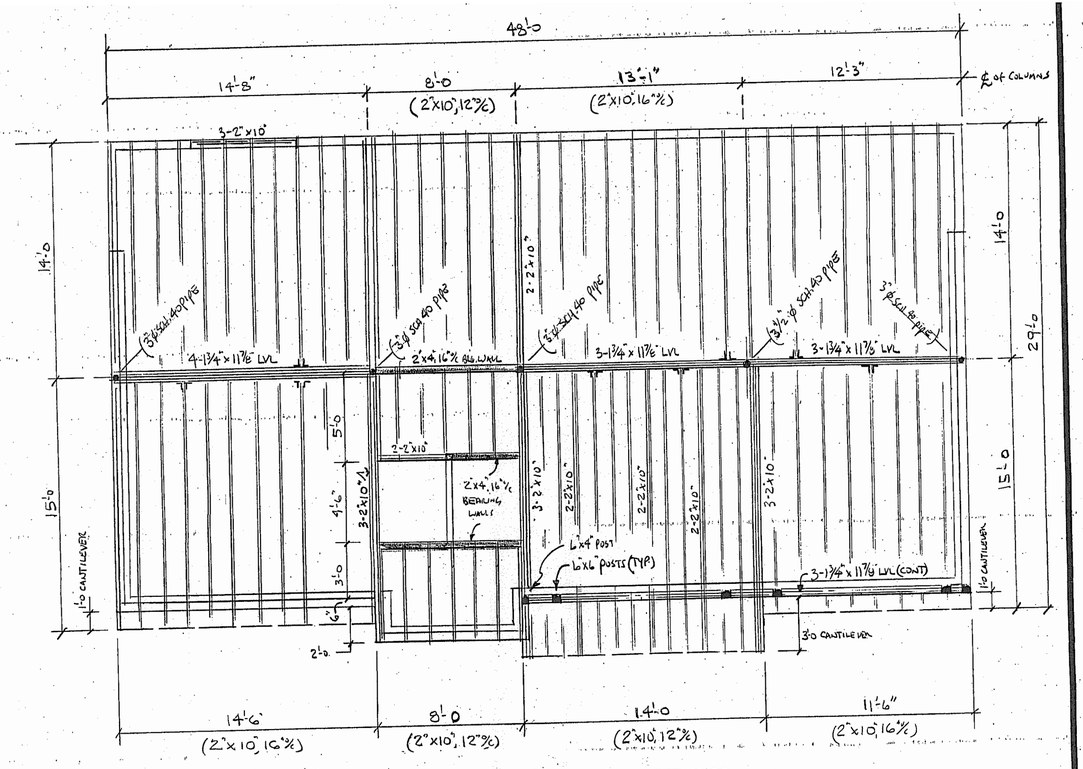


SECTION @ O.H.D.



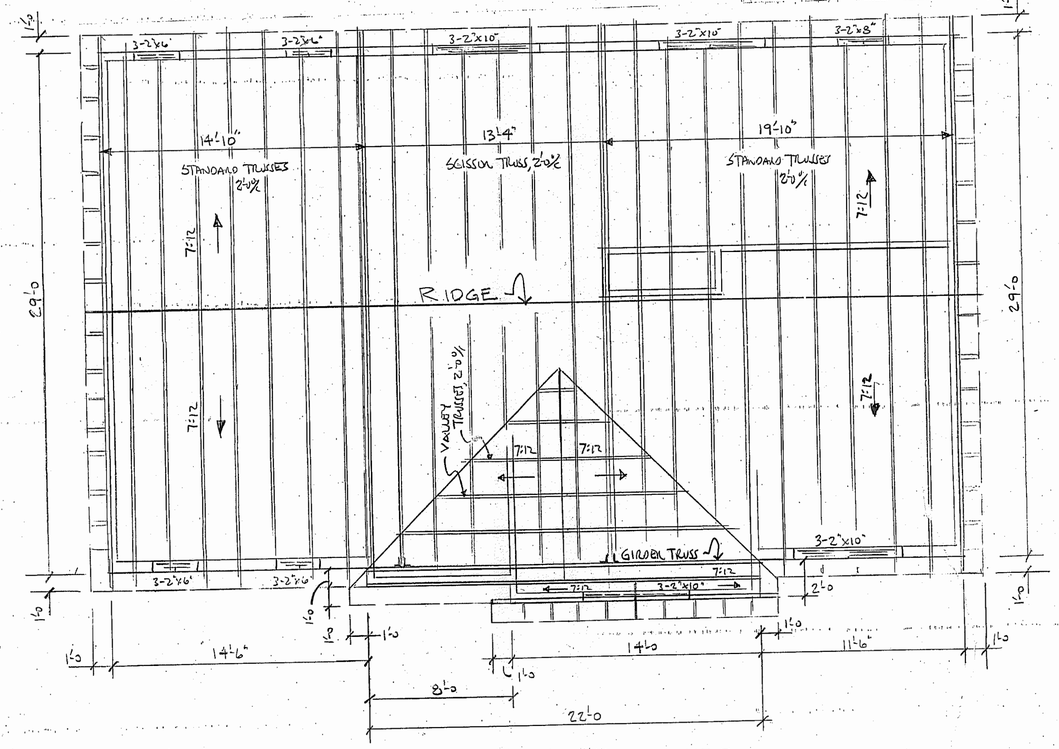
O.H.D. NOTCH DETAIL

1"=1'-0



FIRST FLOOR FRAMING

1/4"=1'-0



ROOF FRAMING PLAN

1/4"=1'-0

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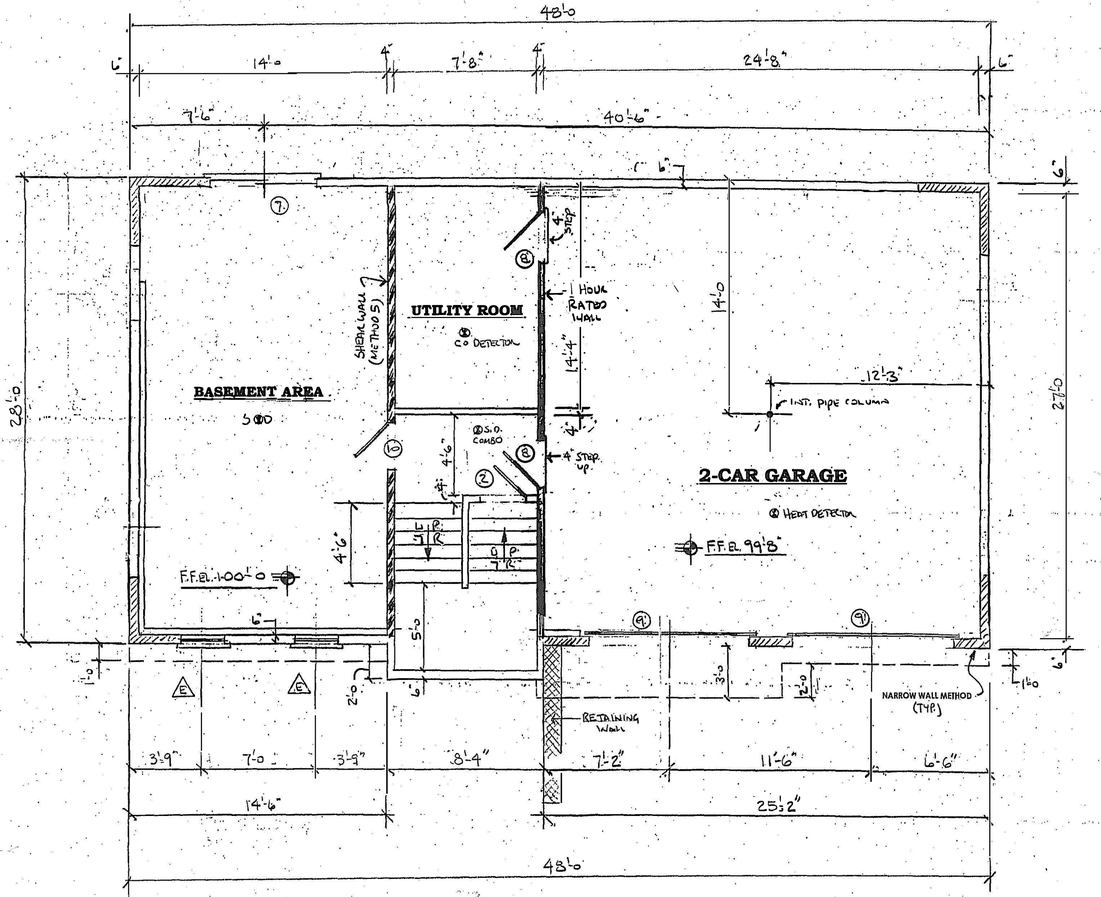
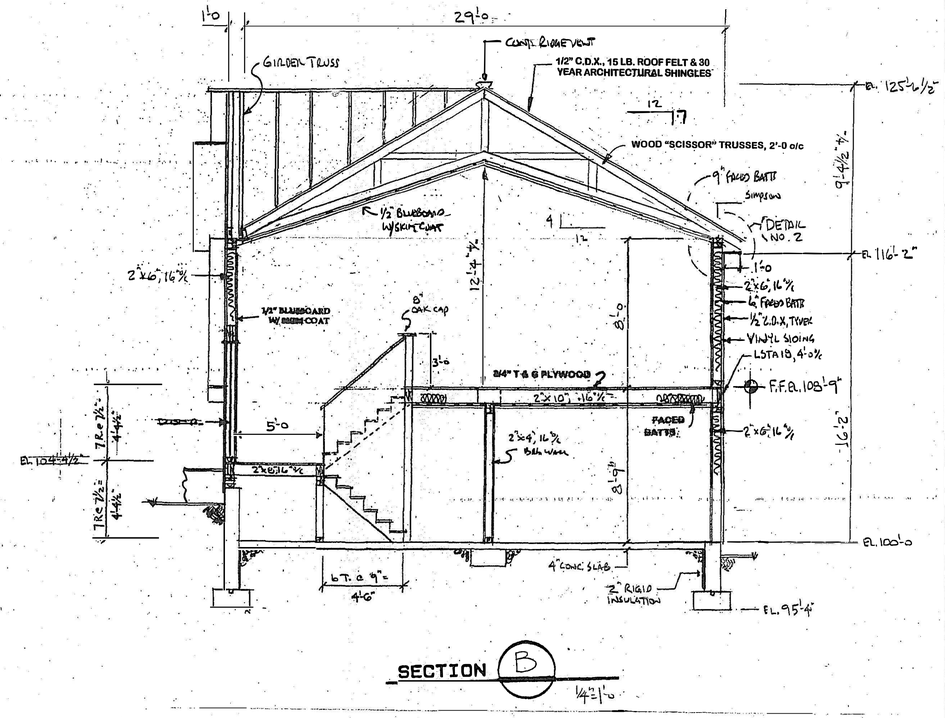
FOUNDATION PLAN
FNDN SECTIONS
FIRST FLOOR FRAMING
ROOF FRAMING PLAN

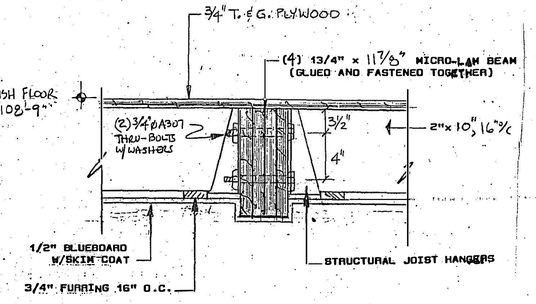
TAMAR AVE
WORCESTER, MA

DRAWN
CHECKED
DATE
SCALE 1/4"=1'-0
JOB NO.
SHEET A-4
OF 4 SHEETS





SECTION B
1/4"=1'-0



DETAIL NO. 3.

BASEMENT PLAN

1/4"=1'-0

GENERAL NOTES:

GENERAL CONTRACTOR IS TO FIELD VERIFY ALL DIMENSIONS AND CONDITIONS THAT EXIST PRIOR TO THE ORDERING OF MATERIALS.

GENERAL CONTRACTOR MAY ENCOUNTER HIDDEN OR COVERED CONDITIONS NOT SHOWN ON THESE DRAWINGS, REQUIRING ADDITIONAL WORK. THESE CONDITIONS MUST BE BROUGHT TO THE ATTENTION OF THE DESIGNER BEFORE PROCEEDING WITH THE AFFECTED WORK.

THE GENERAL CONTRACTOR AND/OR FRAMING SUB-CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONTRACT DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT DESIGNER BEFORE PROCEEDING WITH THE AFFECTED WORK.

ANY VARIATIONS OR SUBSTITUTIONS OF MATERIALS OR DETAILS FROM THOSE INDICATED ON THE DRAWINGS, MAY BE MADE ONLY WITH THE PRIOR APPROVAL OF THE DESIGNER.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, CO-ORDINATION OF OTHER TRADES AND TECHNIQUES TO PRODUCE A SOUND AND QUALITY BUILDING. ALL DIMENSIONS, ELEVATIONS AND CONDITIONS MUST BE VERIFIED BY THE GENERAL CONTRACTOR OR RESPONSIBLE TRADES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOB SAFETY DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO SHEETING, SHORING AND GUYING STRUCTURES, BARRIERS AND SIGNAGE.

ALL MATERIALS, WORKMANSHIP AND DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE MASSACHUSETTS STATE BUILDING CODE AND THE REFERENCE STANDARDS INCLUDED THEREIN THAT ARE APPLICABLE TO THIS PROJECT.

WOOD FRAMING

WF1: ALL FRAMING WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE BUILDING CODE.

WF2: SECURELY ATTACH CARPENTRY WORK TO SUBSTRATES BY ANCHORING OR FASTENING AS SHOWN AND AS REQUIRED BY RECOGNIZED STANDARDS. ANCHOR AND NAIL AS SHOWN OR IF NOT SHOWN, TO COMPLY WITH THE RECOMMENDED NAILING SCHEDULE, APPENDIX 'C' OF THE MASS STATE BUILDING CODE. NOTIFY DESIGNER OF ANY CONNECTION OR ANCHORING DETAIL THAT IS NOT SHOWN AND NOT IN THE MASS CODE SCHEDULE PRIOR TO INSTALLATION.

WF3: STRUCTURAL WOOD FRAMING SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS: FRAMING LUMBER HEM-FIR NO. 2: SURFACE DRY, OR OTHER SURFACE DRY WOOD SPECIES, NO. 2 GRADE OR BETTER WITH A MINIMUM BENDING STRESS 1500 PSI (E=1,600,000).

WF4: FRAMING LUMBER FOR STUDS SHALL BE SURFACE DRY HEM-FIR OR SOUTHERN YELLOW PINE STUD GRADE LUMBER WITH Fc PARALLEL TO THE GRAIN OF 600 OR BETTER.

PLYWOOD

P1: WALL SHEATHING SHALL BE 1/2" THICK CD EXTERIOR GLUED APA.
ROOF SHEATHING SHALL BE 1/2." THICK CD EXTERIOR GRADE APA STRUCTURAL PLYWOOD, PLY-CLIPS SHALL BE USED AT ALL UN-SUPPORTED EDGES.

TRUSSES

T1: DESIGN FLOOR AND ROOF TRUSSES TO SATISFY LOADS SPECIFIED ON DRAWINGS. SUBMIT SHOP DRAWINGS TO DESIGNER FOR APPROVAL. SHOP DRAWINGS SHALL BE SUBMITTED UNDER THE SEAL OF A MASS. REGISTERED PROFESSIONAL ENGINEER.

DESIGN LOADS

ROOF LIVE LOAD = 40 lbs./SQ.FT.
ROOF DEAD LOAD = 10 lbs./SQ.FT.
FLOOR LIVE LOAD = 40 lbs./SQ.FT.
FLOOR DEAD LOAD = 25 lbs./SQ.FT.
WIND LOAD = 21 lbs./SQ.FT.
SEISMIC LOAD = S = 1.0, K = 1.0

■ DENOTES SOLID FIR WOOD POST
⊠ DENOTES 2"x BUILT UP POST
DENOTES STRUCTURAL JOIST HANGERS

STAIR CONSTRUCTION NOTES:

STRINGERS: 3 - 2" x 12"
TREADS: 3/4" MIN. OAK WITH 1" NOSING (MAIN FLOORS WITHOUT CARPETING)
3/4" MIN. PINE WITH 1" NOSING (BASEMENTS AND CARPETED TREADS)
RISERS: PLYWOOD
WALL RAILS OR HANDRAILS:
2'-10" ABOVE NOSING
3'-0 ABOVE PLATFORMS, LANDINGS OR BALCONIES.

5602.10.6 Alternate Braced Wall Panels.
Alternate braced wall lines constructed in accordance with one of the following provisions shall be permitted to replace each four feet (1219mm) of braced wall panel as required by 780 CMR 5602.10.4:
1. In one-story buildings, each panel shall have a length of not less than two feet, eight inches (813 mm) and a height of not more than ten feet (3048 mm). Each panel shall be sheathed on one face with d-inch minimumthickness (9.5 mm) wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with 780 CMR Table 5602.3(1) and blocked at all wood structural panel sheathing edges. Two anchor bolts installed in accordance with 780 CMR Figure 5403.1(1) shall be provided in each panel. Anchor bolts shall be placed at panel quarter points. Each panel end stud shall have a tie-down device fastened to the foundation, capable of providing an uplift capacity of at least 1,800 pounds (816.5 kg). The tie-down device shall be installed in accordance with the manufacturer's recommendations. The panels shall be supported directly on a foundation or on floor framing supported directly on a foundation which is continuous across the entire length of the braced wall line. This foundation shall be reinforced with not less than one No. 4 bar top and bottom. When the continuous foundation is required to have a depth greater than 12 inches (305mm), a minimum 12-inch-by-12-inch (305 mm by 305 mm) continuous footing or turned down slab edge is permitted at door openings in the braced wall line. This continuous footing or turned down slab edge shall be reinforced with not less than one No. 4 bar top and bottom. This reinforcement shall be lapped 15 inches (381 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.
2. In the first story of two-story buildings, each braced wall panel shall be in accordance with 780 CMR 5602.10.6 Item 1, except that the wood structural panel sheathing shall be provided on both faces, sheathing edge nailing spacing shall not exceed four inches on center, at least three anchor bolts shall be placed at 1/3 points, and tie-down device uplift capacity shall not be less than 3,000 pounds (1360.8kg).

780 CMR TABLE 5602.10.5
LENGTH REQUIREMENTS FOR BRACED WALL PANELS IN A CONTINUOUSLY SHEATHED WALL[a]

MINIMUM LENGTH OF BRACED WALL PANEL (INCHES)			MAXIMUM OPENING HEIGHT NEXT TO THE BRACED WALL PANEL
8-foot wall	9-foot wall	10-foot wall	(% of wall height)
48	54	60	100%
32	36	40	85%
24	27	30	65%

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 pound per square foot = 0.0479kN/m2.
a. Linear interpolation shall be permitted.
b. Full-height sheathed wall segments to either side of garage openings that support light frame roofs only, with roof covering dead loads of 3 psf or less shall be permitted to have a 4:1 aspect ratio.

WALL BRACING

BASIC WIND SPEED	CONDITION	TYPE OF BRACE[a,b]	AMOUNT OF BRACING.
100 MPH OR LESS	ONE STORY TOP OF TWO OR THREE STORY	METHODS 1,2,3,4,5,6,7, OR 8	Located at each end and at least every 25 feet on center but not less than 16% of braced wall line for Methods 2 through 8.
	FIRST STORY OF TWO STORY SECOND STORY OF THREE STORY	METHODS 1,2,3,4,5,6,7, OR 8	Located at each end and at least every 25 feet on center but not less than 16% of braced wall line for Method 3 and 25% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	FIRST STORY OF THREE STORY	METHODS 2,3,4,5,6,7, OR 8	Minimum 48-inch-wide panels located at each end and at least every 25 feet on center but not less than 25% of braced wall line for Method 3 and 35% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.

5602.10.3 Braced Wall Panel Construction Methods. The construction of braced wall panels shall be in accordance with one of the following methods:
1. Nominal one-inch-by-four-inch (25.4 mm by 102 mm) continuous diagonal braces let in to the top and bottom plates and the intervening studs or approved metal strap devices installed in accordance with the manufacturer's specifications. The let-in bracing shall be placed at an angle not more than 60 degrees (1.06 rad) or less than 45 degrees (0.79 rad) from the horizontal.
2. Wood boards of e inch (15.9 mm) net minimum thickness applied diagonally on studs spaced a maximum of 24 inches (610mm). Diagonal boards shall be attached to studs in accordance with 780 CMR Table 5602.3(1).
3. Wood structural panel sheathing with a thickness not less than 5/16 inch (7.9 mm) for 16-inch (406 mm) stud spacing and not less than d inch (9.5 mm) for 24-inch (610 mm) stud spacing. Wood structural panels shall be installed in accordance with 780 CMR Table 5602.3(3).
4. ½ (12.7 mm) or 25/32-inch (19.8 mm) thick structural fiberboard sheathing applied vertically or horizontally on studs spaced a maximum of 16 inches (406 mm) on center. Structural fiberboard sheathing shall be installed in accordance with 780 CMR Table 5602.3(1).
5. Gypsum board with minimum ½-inch (12.7 mm) thickness placed on studs spaced a maximum of 24 inches (610 mm) on center and fastened at seven inches (178 mm) on center with the size nails specified in 780 CMR Table 5602.3(1) for sheathing and 780 CMR Table 5702.3.5 for interior gypsum board.
6. Particleboard wall sheathing panels installed in accordance with 780 CMR Table 5602.3(4)
7. Portland cement plaster on studs spaced a maximum of 16 inches (406 mm) on center and installed in accordance with 780 CMR 5703.6.
8. Hardboard panel siding when installed in accordance with 780 Table 5703.4.
Exception: Alternate braced wall panels constructed in accordance with 780 CMR 5602.10.6 shall be permitted to replace any of the above methods of braced wall panels.

5602.10.8 Connections. Braced wall panel sole plates shall be fastened to the floor framing and top plates shall be connected to the framing above in accordance with 780 CMR Table 5602.3(1). Sills shall be fastened to the foundation or slab in accordance with 780 CMR 5403.1.6 and 5602.11. Where joists are perpendicular to the braced wall lines above, blocking shall be provided under and in line with the braced wall panels.

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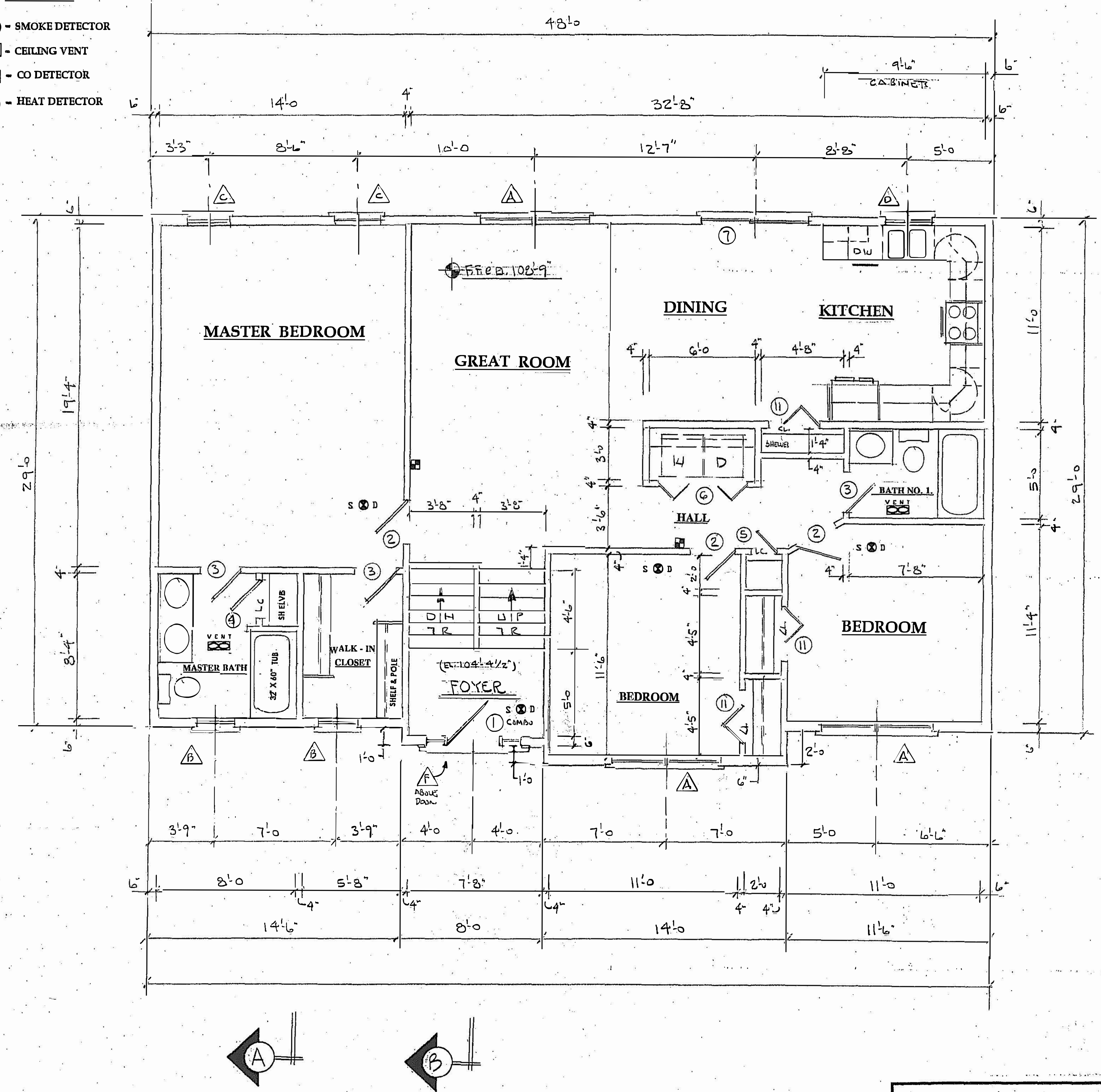
BASEMENT PLAN
BUILDING SECTION
DETAILS
NOTES

TAMAR AVE
WORCESTER, MA

DRAWN
CHECKED
DATE
SCALE 1/4"=1'-0
JOB NO.
SHEET A-3
OF 4 SHEETS

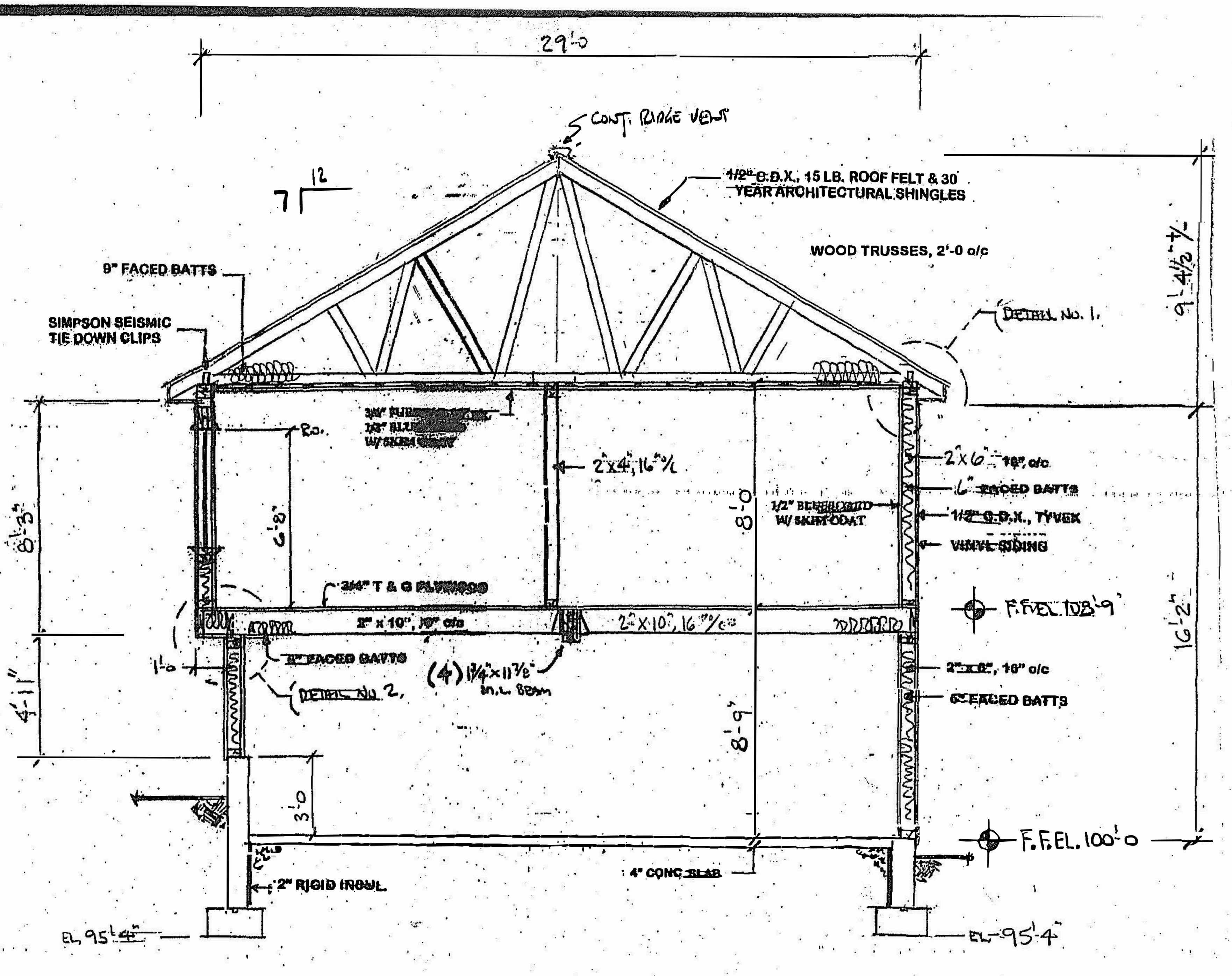
LEGEND

- SMOKE DETECTOR
- CEILING VENT
- CO DETECTOR
- HEAT DETECTOR



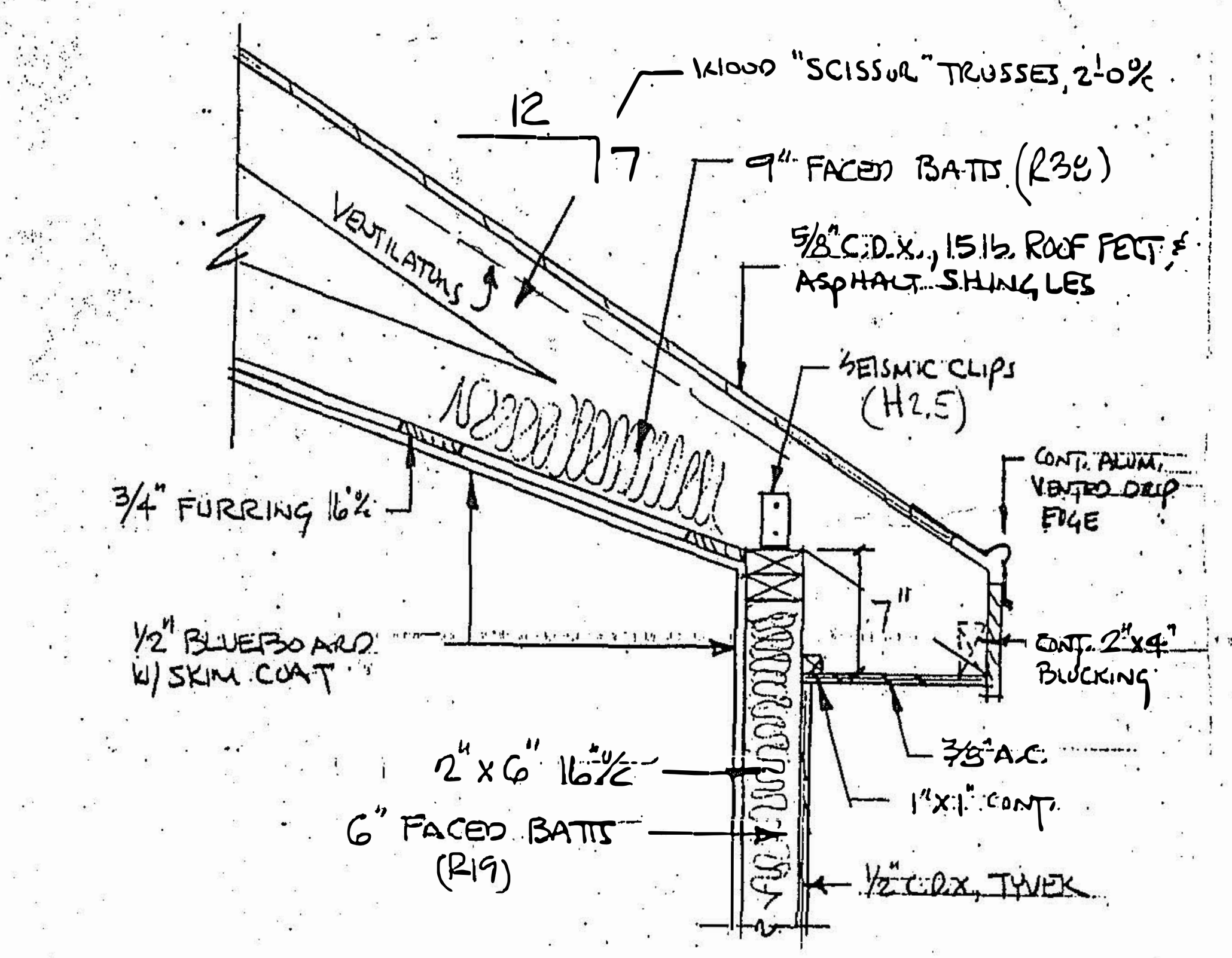
FIRST FLOOR PLAN

1/4"=1'-0

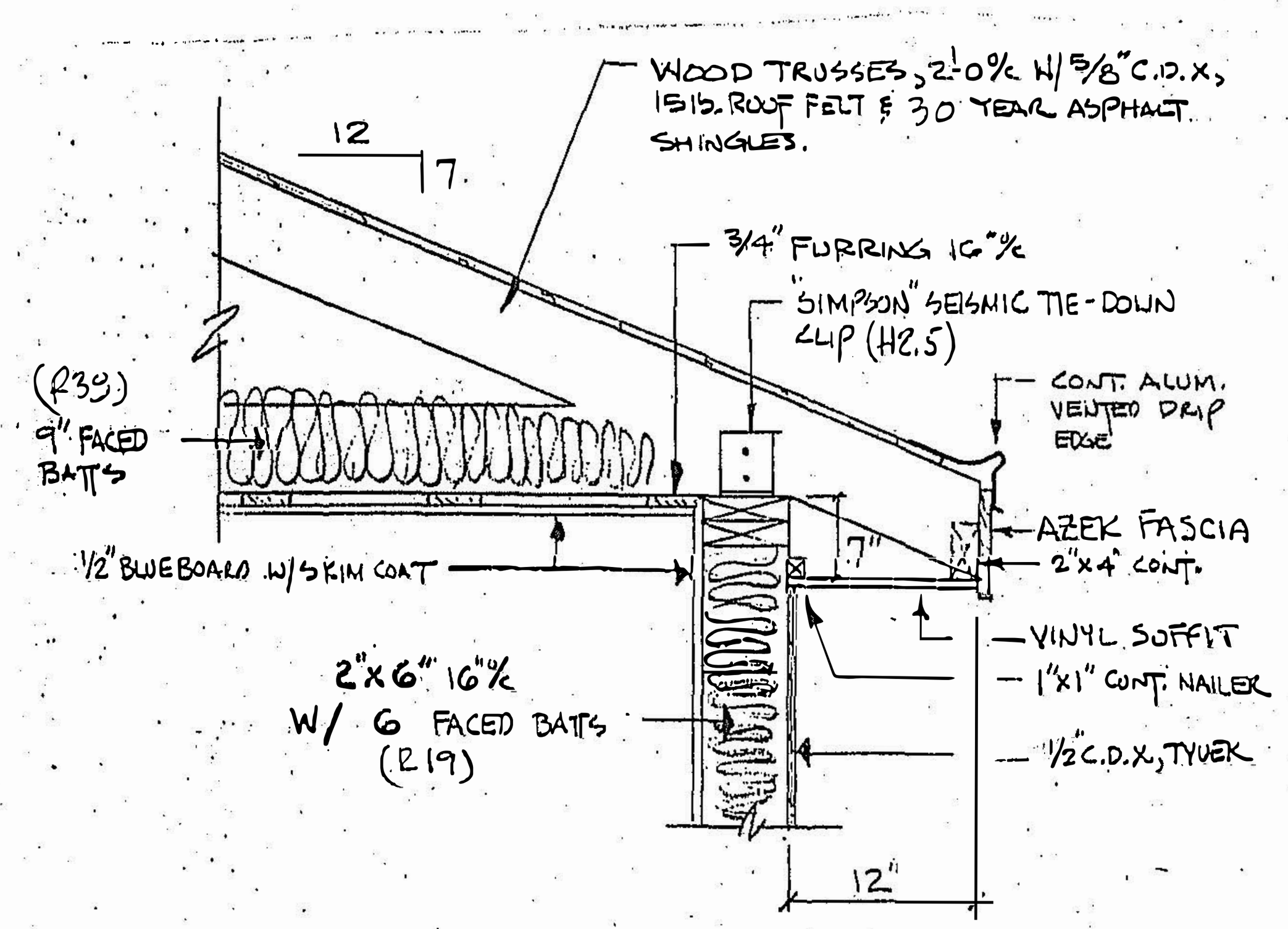


SECTION A

1/4"=1'-0



DETAIL NO. 2.



DETAIL NO. 1.

DOOR TYPES

A. 6 PANEL PINE
B. 6 PANEL MASONITE
C. 6 PANEL PINE BI-FOLD
D. 6 PANEL PINE SLIDER
E. 15 LITE FRENCH
F. 6 PANEL MASONITE BI-FOLD
G. 6 PANEL MASONITE SLIDER
H. EXTERIOR FIBERGLASS BY "THERMA-TRU"
I. MIRRORED BI-FOLD
J. INSULATED METAL O.H.D.
K. MIRRORED SLIDERS
L. ANDERSON FRENCHWOOD HINGED UNIT
M. ANDERSON FRENCHWOOD SLIDING UNIT
N. 6 PANEL MASONITE POCKET
O. 6 PANEL PINE POCKET
P. 15 LITE FENCH POCKET

WINDOW SCHEDULE

WIN. NO.	UNIT SIZE	QTY.	R.O.	TYPE	REMARKS	ANDERSON CATALOG NO.
A	6'-5 1/4" x 4'-4 7/8"	3	6'-5 3/4" x 4'-4 7/8"	TILT WASH [illegible]	GRILLE + SCREENS	TW3042-2
B	2'-1 5/8" x 3'-4 7/8"	2	2'-2 1/8" x 3'-4 7/8"	" "	" "	TW2032
C	2'-5 5/8" x 4'-4 7/8"	2	2'-6 1/8" x 4'-4 7/8"	" "	" "	TW2446
D	2'-9 3/4" x 2'-11 15/16"	1	2'-10 1/4" x 3'-0 1/2"	CASEMENT	" "	CR23
E	2'-5 5/8" x 3'-4 7/8"	2	2'-6 1/8" x 3'-4 7/8"	TILT WASH [illegible]	" "	TW2432
F	5'-4 1/2" x 3'-2 1/4"	1	5'-5" x 3'-2 3/4"	ARCH	GRILLE	SE5406

DOOR SCHEDULE

DR. NO.	SIZE	QTY.	SWING	TYPE	ACCESSORIES
1	3'-0 x 6'-8"	1	L.H.	H	#FC61, LOCKSET, DEAD BOLT 12" SIDELITES, #FC63SL, THRESHOLD
2	2'-6" x 6'-8"	3	2 R.H. 1 L.H.	B	2 PRIVACY 1 PASSAGE
3	7'-4" x 6'-8"	3	1 R.H. 2 L.H.	B	PRIVACY SETS
4	2'-0 x 6'-8"	1	L.H.	B	PASSAGE SET
5	1'-6" x 6'-8"	1	L.H.	B	PASSAGE SET
6	5'-0 x 6'-8"	1	~	F	4-PANEL
7	6'-0 x 6'-8"	2	~	M	#FWG6068R, LOCKSET, GRILLE THRESHOLD, AUX. LOCK
8	2'-8" x 6'-8"	2	1 L.H. 1 R.H.	H	#SSF160, LOCKSET, CLOSER FIRE RATED
9	9'-0 x 6'-6"	2	~	J	ELECTRIC OPENERS
10	2'-8" x 6'-8"	1	R.H.	B	PRIVACY SET

REVISIONS | BY

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FIRST FLOOR PLAN
DOOR SCHEDULE
WINDOW SCHEDULE
BUILDING SECTIONS
DETAILS

TAMAR AVE
WORCESTER, MA

CHECKED

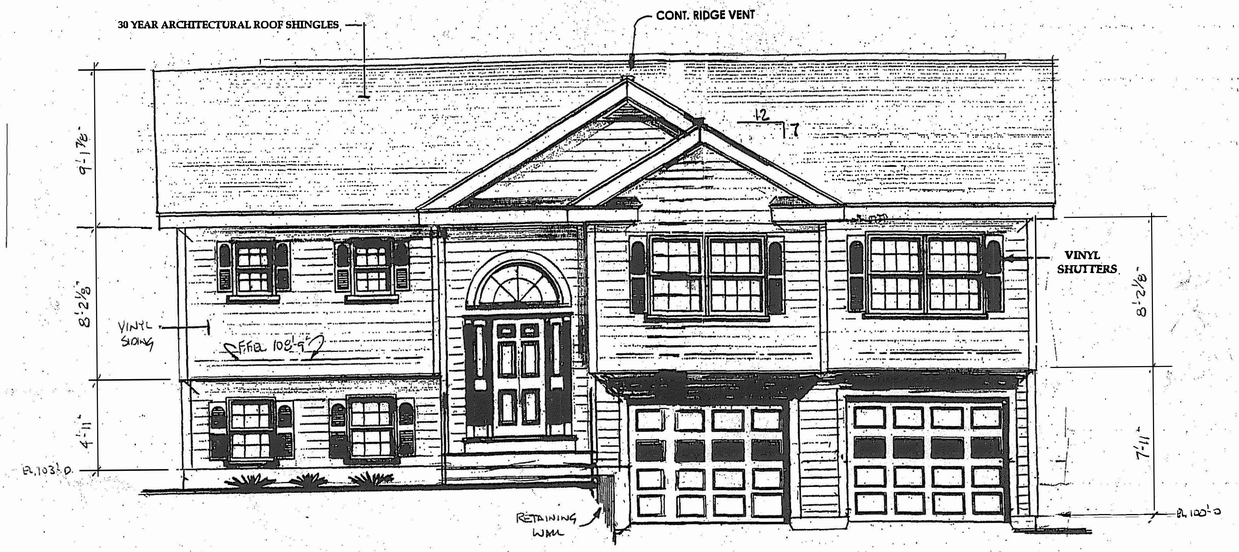
SCALE 1/4"=1'-0

JOB NO.

SHEET

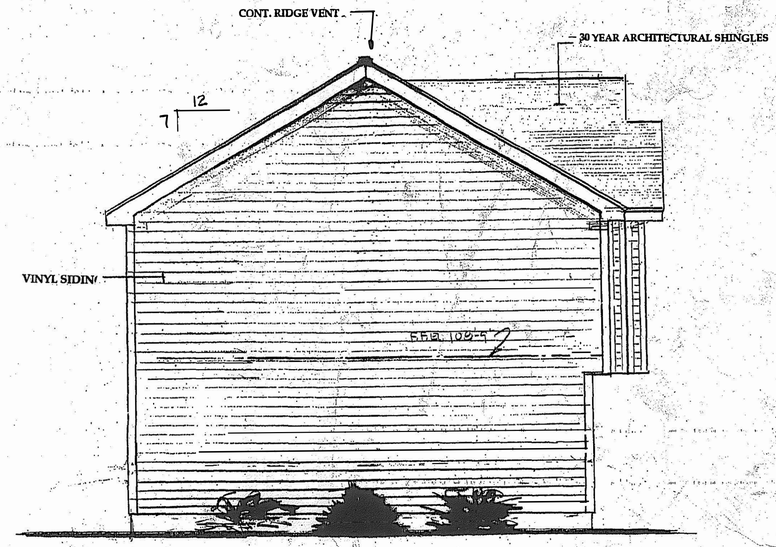
A-2

OF 4 SHEETS



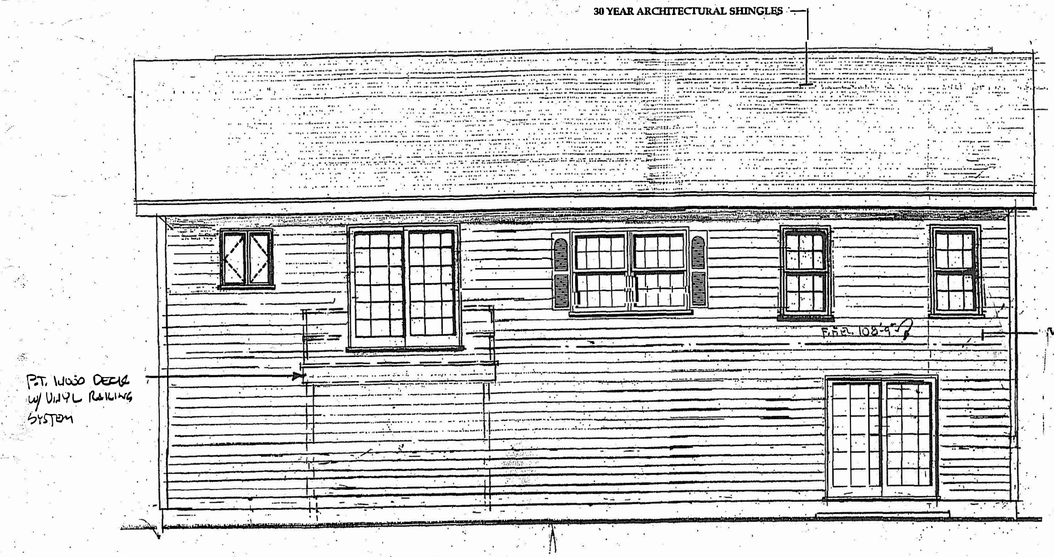
FRONT ELEVATION

1/4"=1'-0



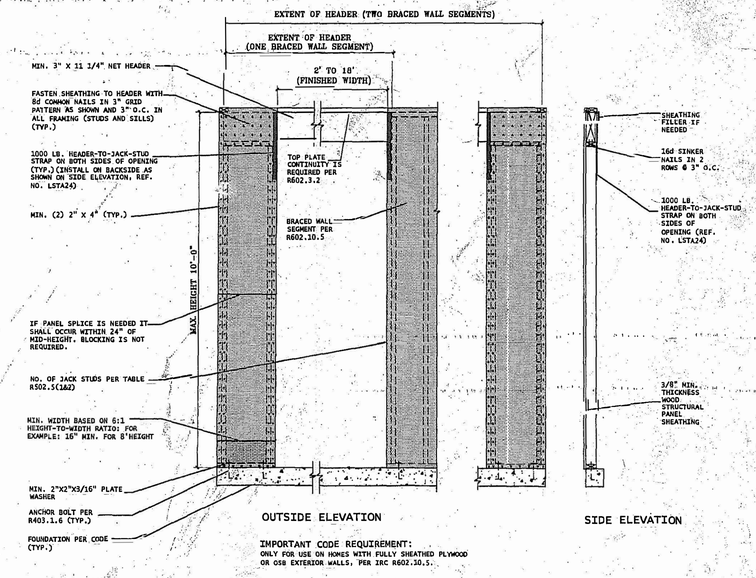
LEFT SIDE ELEVATION

1/4"=1'-0



REAR ELEVATION

1/4"=1'-0



IMPORTANT CODE REQUIREMENT:
ONLY FOR USE ON HOMES WITH FULLY SHEATHED PLYWOOD OR OSB EXTERIOR WALLS, PER IRC R602.10.5.

NARROW WALL BRACING METHOD DETAIL

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ELEVATIONS

TAMAR AVE
WORCESTER, MA

DRAWN
CHECKED
DATE
SCALE 1/4"=1'-0
JOB NO.
SHEET A-1
OF 4 SHEETS