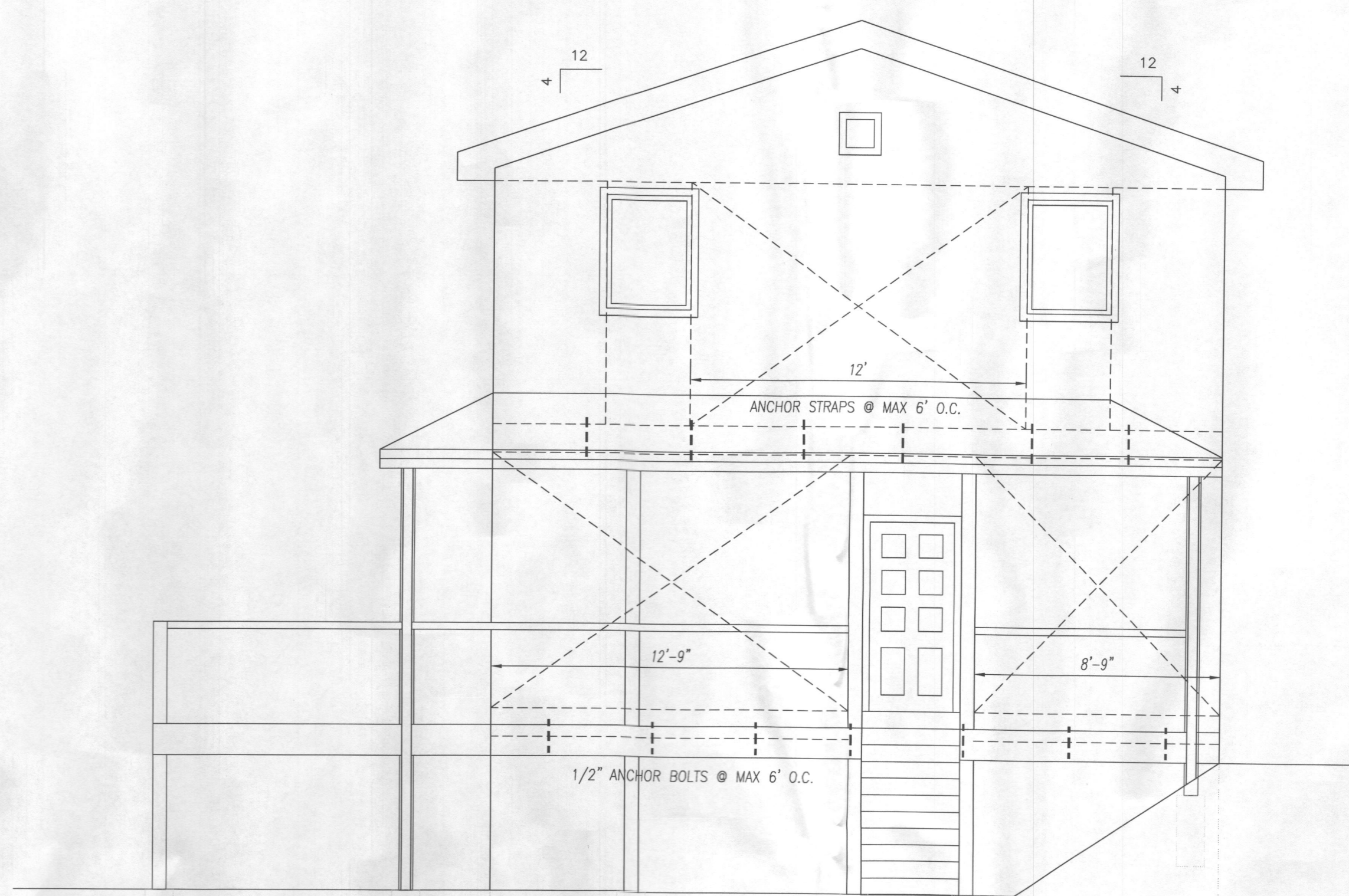


TOTAL WIDTH OF HOUSE(BRACED WALL LINE LENGTH) = 37.5'
 WALL BRACING LENGTH FIRST FL = 17.5'
 WALL BRACING LENGTH SECOND FL = 13.8'

1 FRONT WALL BRACING DIAGRAM
 A-6 1/4"=1'-0"

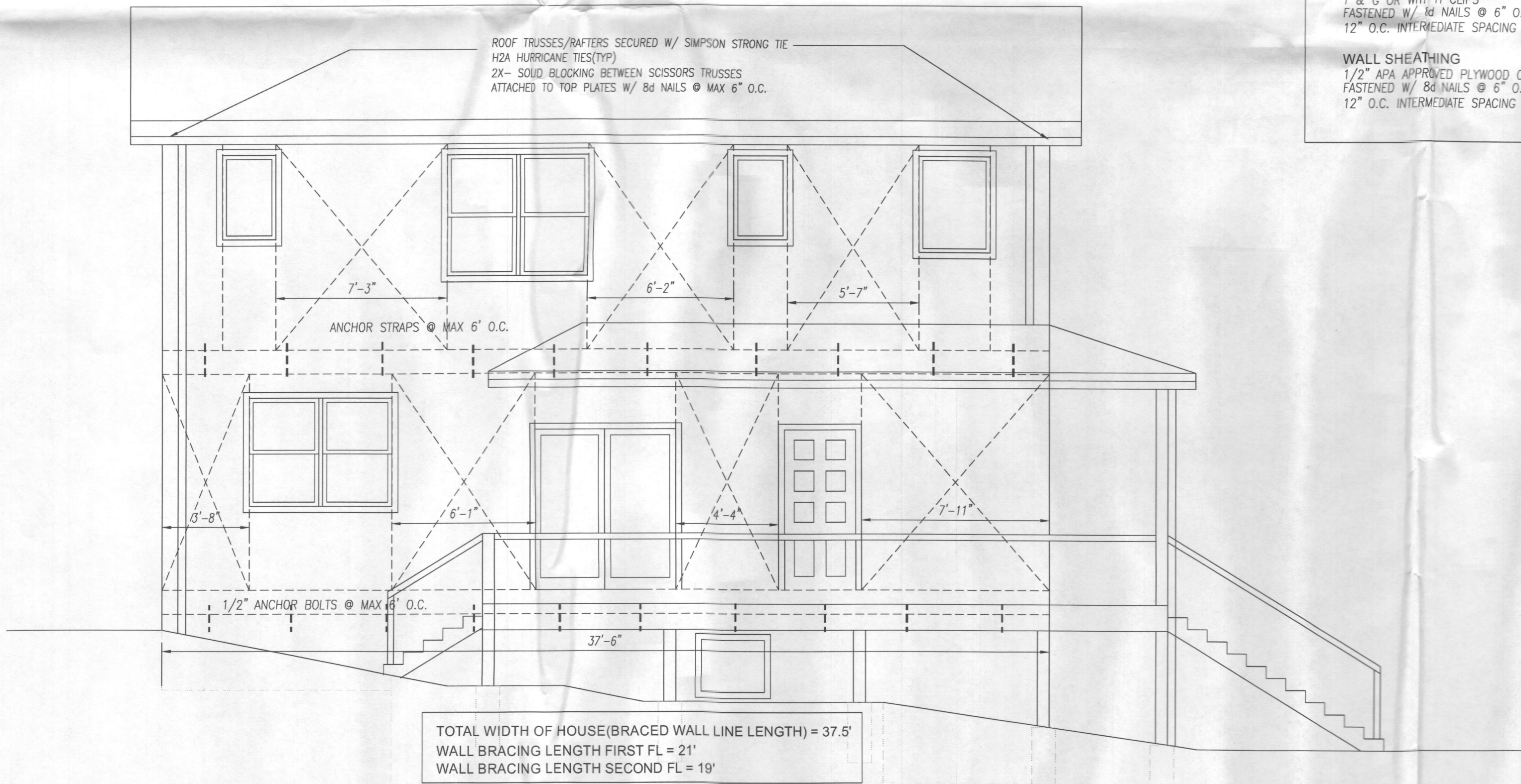


TOTAL WIDTH OF HOUSE(BRACED WALL LINE LENGTH) = 26'
 WALL BRACING LENGTH FIRST FL = 21.5'
 WALL BRACING LENGTH SECOND FL = 12'

2 LEFT SIDE WALL BRACING DIAGRAM
 A-6 1/4"=1'-0"

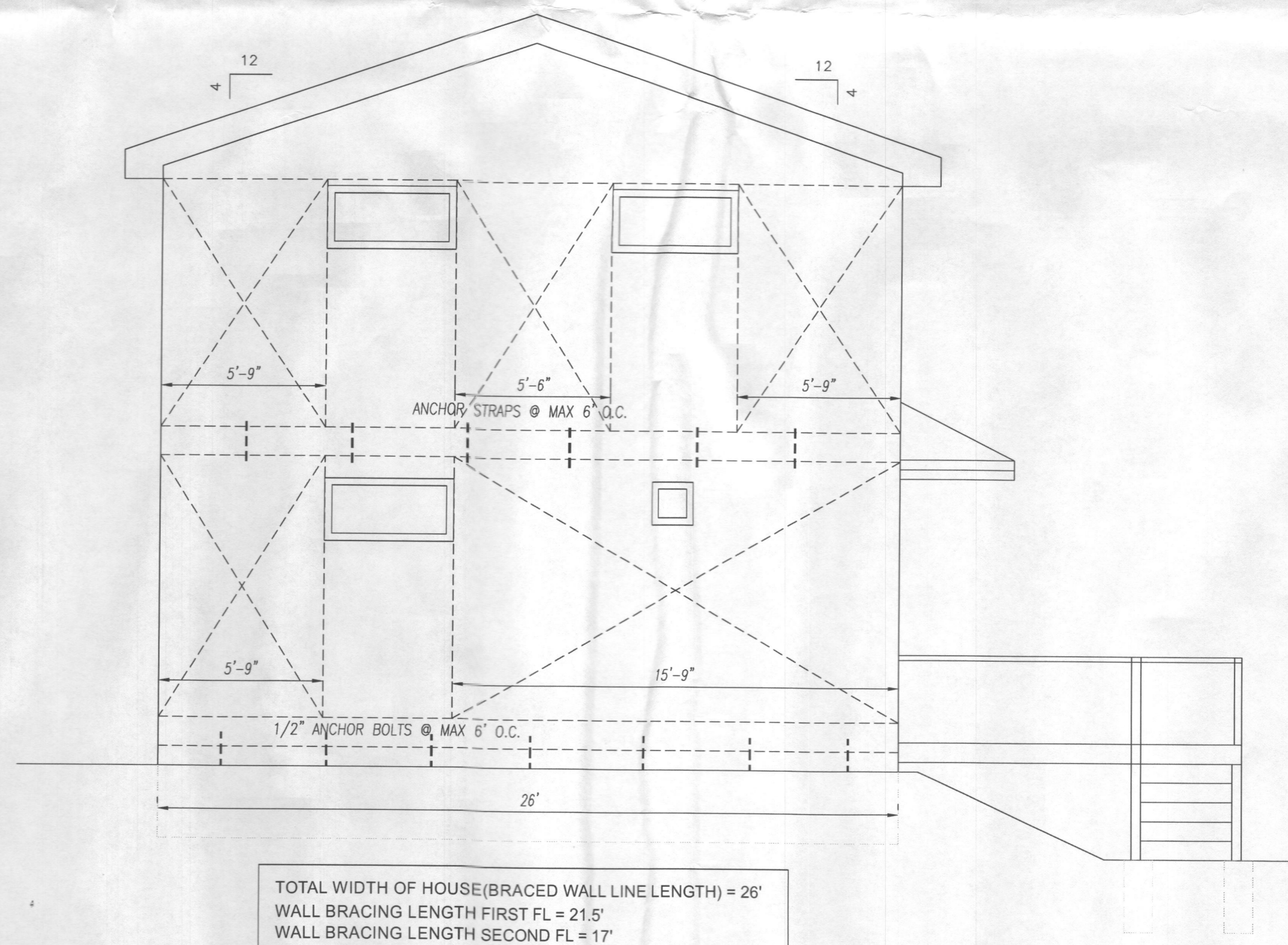
WALL BRACING METHOD CS-WSP
 CONTINUOUS SHEATHING-WOOD STRUCTURAL PANEL

SHEATHING AND FASTENER SPECS
ROOF SHEATHING
 5/8" APA APPROVED PLYWOOD OR OSB
 7' & C OR WITH H CLIPS
 FASTENED W/ 1d NAILS @ 6" O.C. EDGE
 12" O.C. INTERMEDIATE SPACING (TYP)
WALL SHEATHING
 1/2" APA APPROVED PLYWOOD OR OSB
 FASTENED W/ 8d NAILS @ 6" O.C. EDGE
 12" O.C. INTERMEDIATE SPACING (TYP)



TOTAL WIDTH OF HOUSE(BRACED WALL LINE LENGTH) = 37.5'
 WALL BRACING LENGTH FIRST FL = 21'
 WALL BRACING LENGTH SECOND FL = 19'

3 REAR WALL BRACING DIAGRAM
 A-6 1/4"=1'-0"



TOTAL WIDTH OF HOUSE(BRACED WALL LINE LENGTH) = 26'
 WALL BRACING LENGTH FIRST FL = 21.5'
 WALL BRACING LENGTH SECOND FL = 17'

4 RIGHT SIDE WALL BRACING DIAGRAM
 A-6 1/4"=1'-0"

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 410-294-2241
 tfisgin@gafdb.com

Architect
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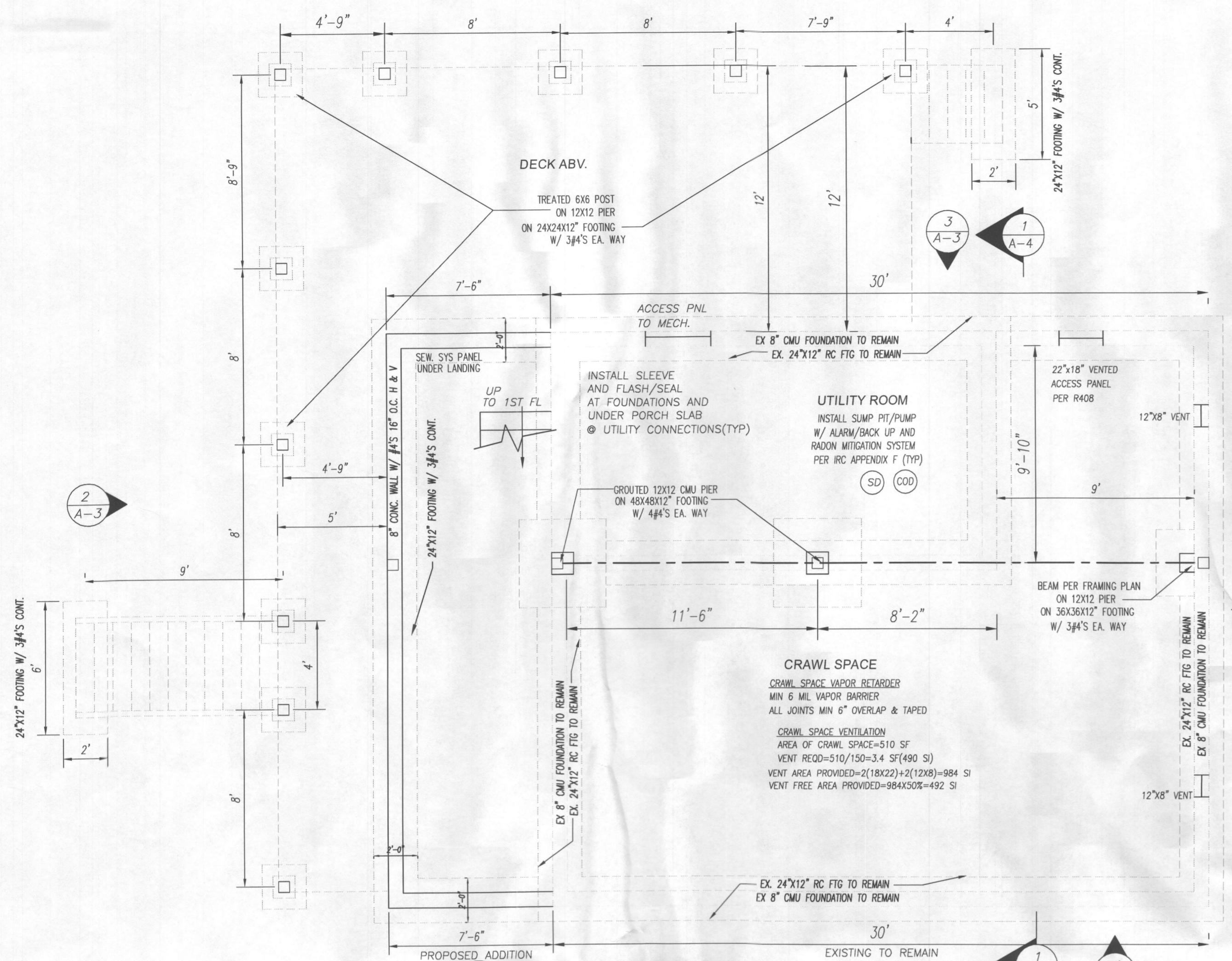
Tom Nyein
 8/1/17
 DATE
 I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT IN THE STATE OF MARYLAND, LICENSE NUMBER 14269, EXPIRATION DATE 06/16/2019.



Scale:	Designed:	Drawn:	Issue Date:
AS NOTED	TPN	TPN	Date By
No			

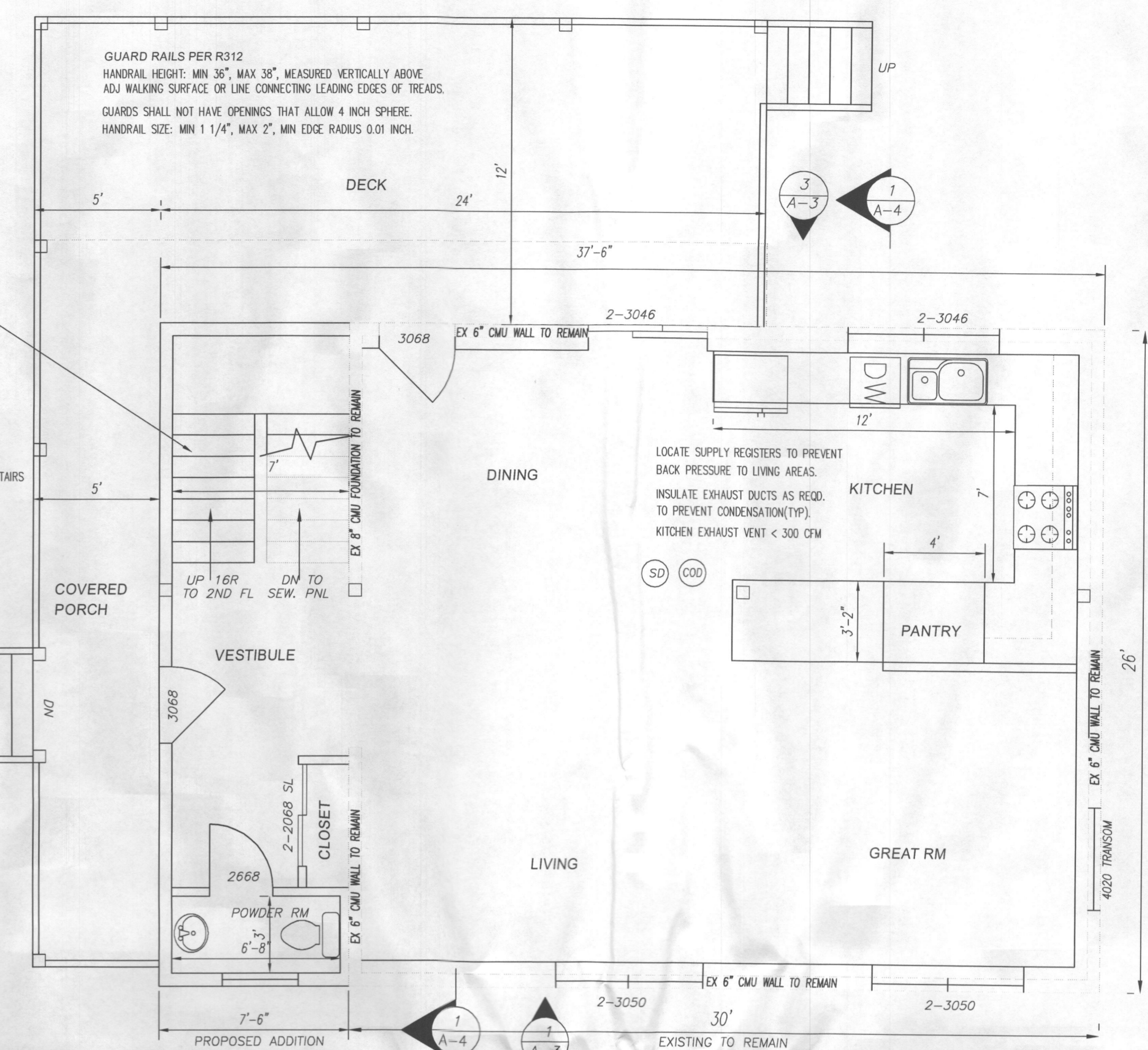
WALL SHEATHING DIAGRAMS
 PROPOSED RESIDENTIAL ADDITION & ALTERATION
 PARCEL 0094, GRID 0012, MAP 0006
 1140 SHAFFERSVILLE RD
 MT. AIRY 21771-3114
 HOWARD COUNTY, MARYLAND

Proj. No. 16-2
 Dwg. No. **A-6**



STAIRWAYS PER R311.7
MIN WIDTH: 36" CLEAR ABOVE HANDRAIL
MIN WIDTH: 31 1/2" CLEAR HANDRAIL ONE SIDE
MIN WIDTH: 27" CLEAR HANDRAIL BOTH SIDES
MIN HEADROOM: 6'8" FROM SLOPED LINE AT TREAD NOSING
MAX. VERTICAL RISE: 147" EACH RUN
MAX. RISER HEIGHT: 7 3/4"
MIN. TREAD DEPTH: 10"
TREADS AND RISERS MUST BE UNIFORMLY SIZED IN A FLIGHT OF STAIRS
NOSING: MIN 3/4", MAX 1 1/4"

HANDRAILS PER R311.7.8
HANDRAIL HEIGHT: MIN 34", MAX 38", MEASURED VERTICALLY FROM SLOPED PLANE ADJOINING TREAD NOSINGS
HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 1/2" BETWEEN WALL AND HANDRAIL
HANDRAIL SIZE: MIN 1 1/4", MAX 2", MIN EDGE RADIUS 0.01 INCH.

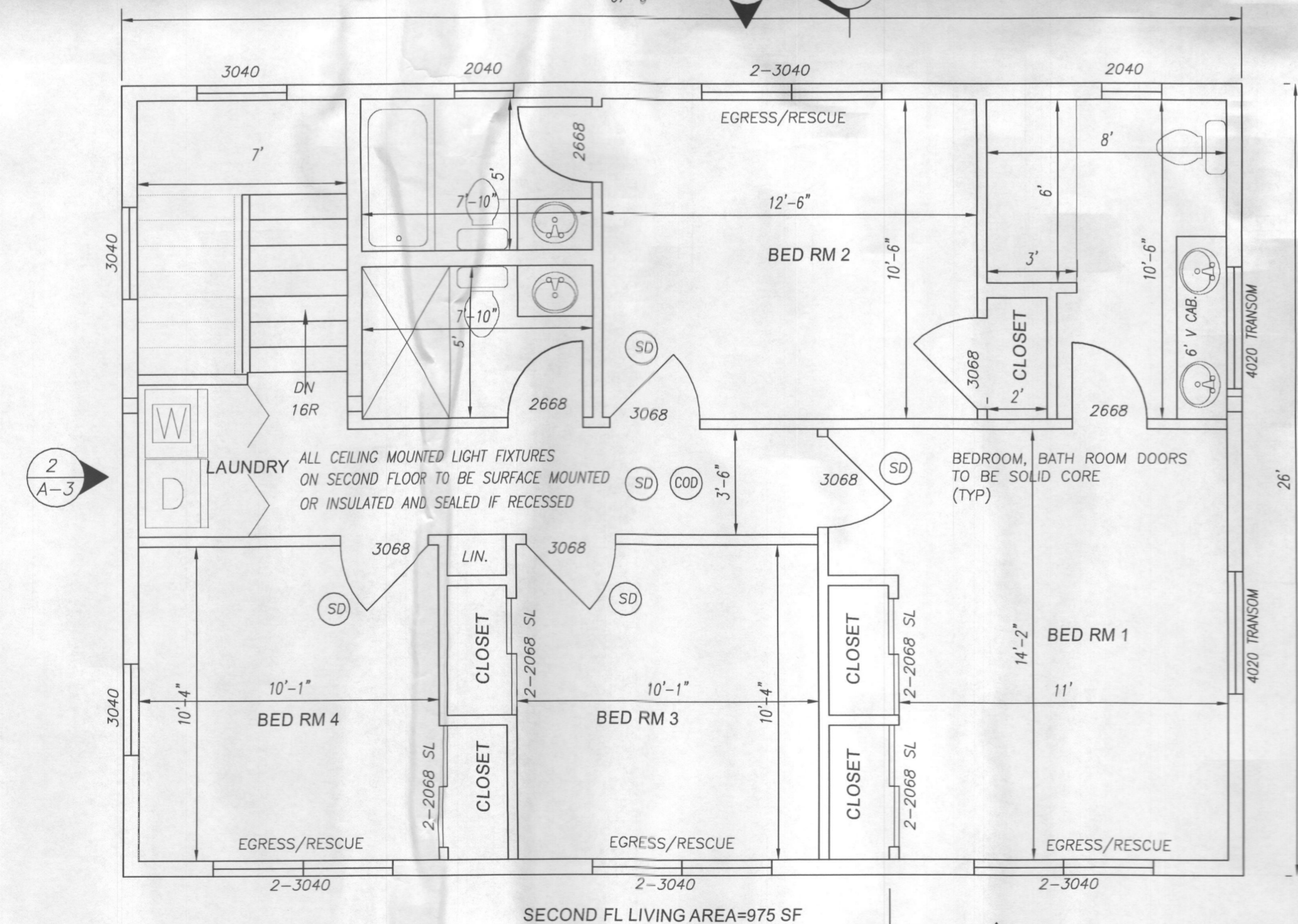
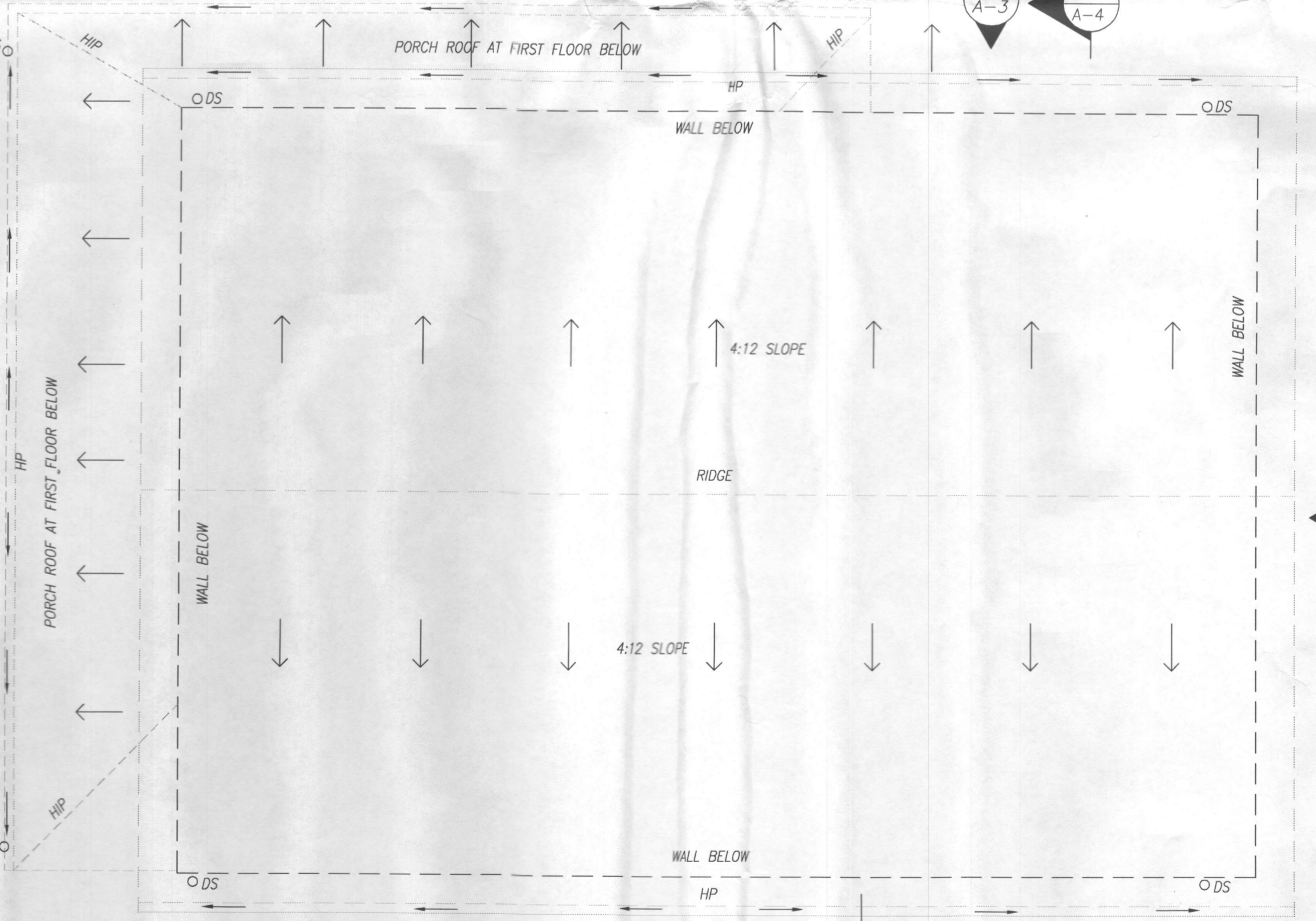


INSTALL SMOKE AND CO ALARMS AND PROVIDE NECESSARY CONNECTIONS PER CODE

SMOKE ALARMS (R314)
ALL SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217, AND INSTALLED IN ACCORDANCE WITH NFPA 72.

ALL SMOKE ALARM DEVICES SHALL BE INTERCONNECTED SO THAT ACTUATION OF ONE ALARM WILL ACTIVATE ALL OTHERS.

CARBON MONOXIDE ALARMS (R315)
CARBON MONOXIDE ALARMS SHALL BE IN COMPLIANCE WITH UL 2034.



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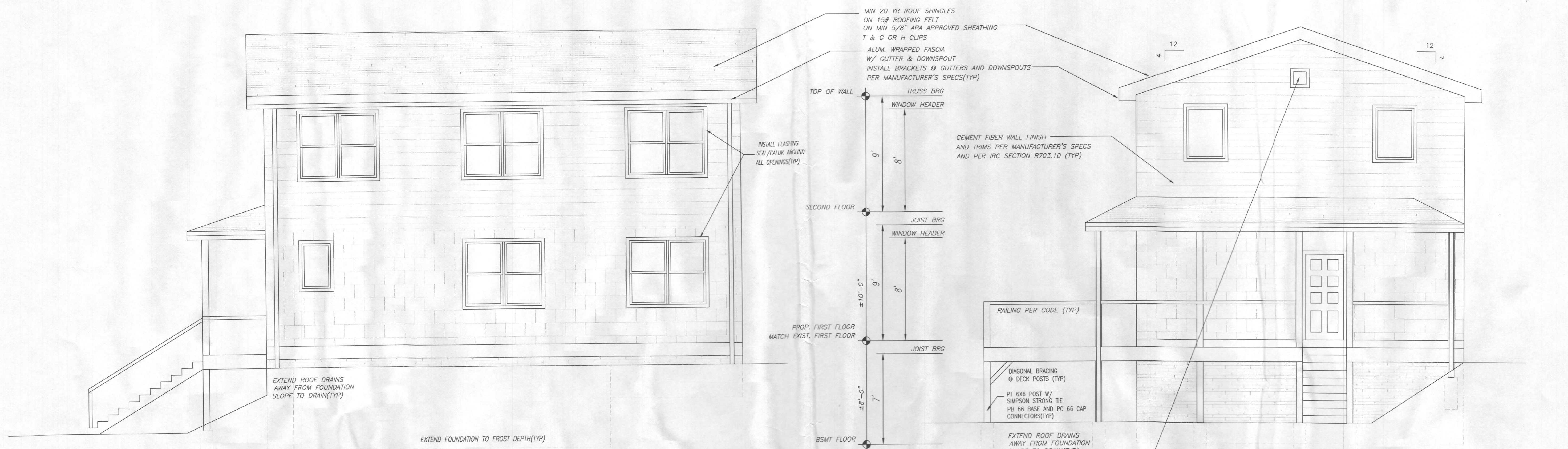
Owner GAF ONE, LLC P.O. Box 2003 Ellicott City, MD 21041 410-294-2241 tfisgin@gafdb.com	Architect Tom Nyein, AIA, NCARB, LEED AP 9801 Traville Commons Drive #203 Rockville, MD 20850 (703)981-2853 tnyein@msn.com
---	--

Tom Nyein
8/1/17
DATE

ARCHITECT
#14269
TOM PE NYEIN
STATE OF MARYLAND

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Scale: AS NOTED	Designed: TPN	Drawn: TPN	Issue Date:	PLANS	Proj. No. 16-2
No.			Date	By	Dwg. No.
					A-2
PROPOSED RESIDENTIAL ADDITION & ALTERATION PARCEL 0094, GRID 0012, MAP 0006 1140 SHAFFERSVILLE RD MT. AIRY 21771-3114 HOWARD COUNTY, MARYLAND					



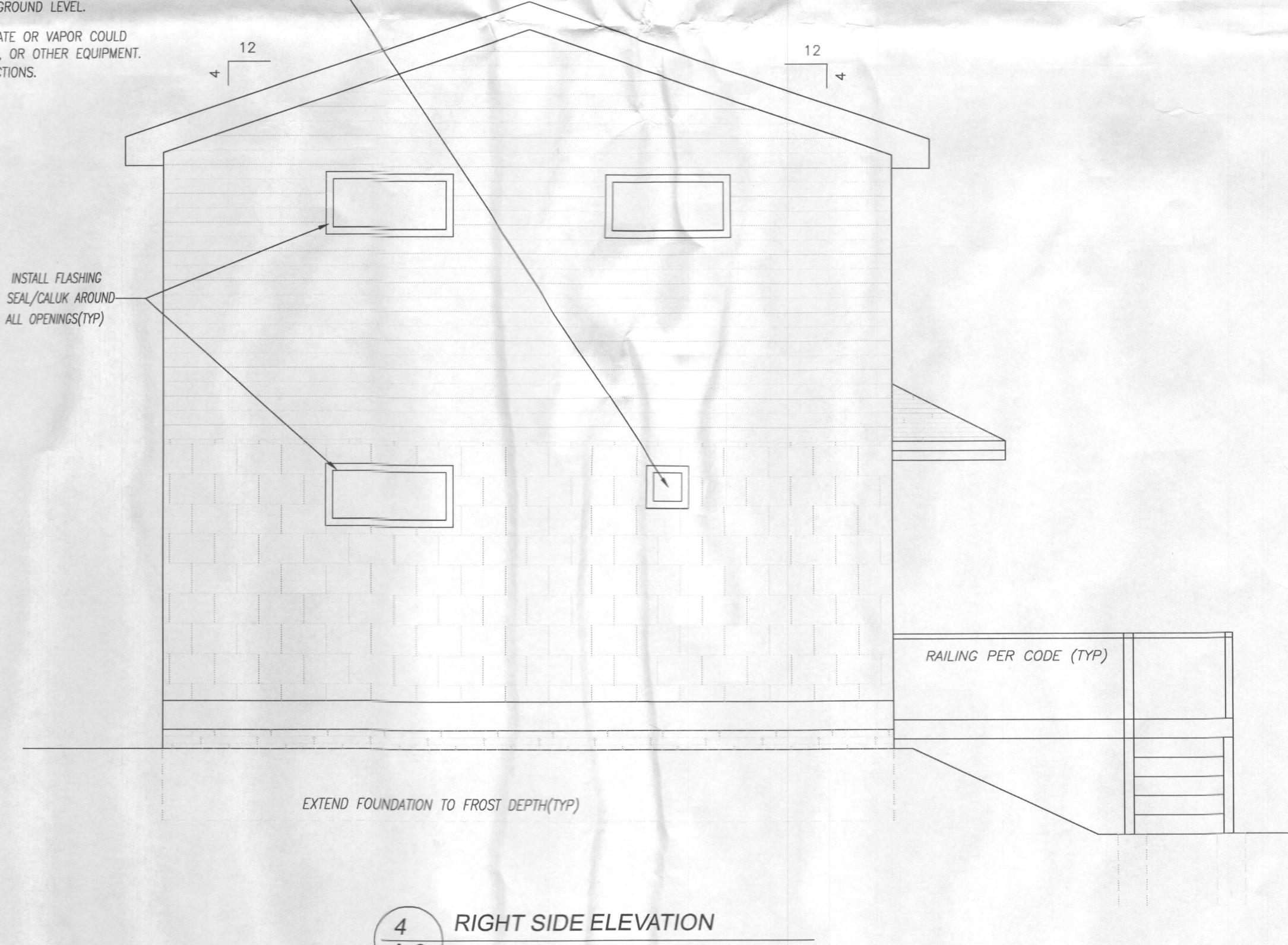
1
A-3
FRONT ELEVATION
1/4"=1'-0"

2
A-3
LEFT SIDE ELEVATION
1/4"=1'-0"

- VENTING SYSTEM TERMINATION LOCATION
1. A MECHANICAL DRAFT VENTING SYSTEM SHALL TERMINATE AT LEAST 3 FEET ABOVE ANY FORCED-AIR INLET LOCATED WITHIN 10 FEET.
 2. A MECHANICAL DRAFT VENTING SYSTEM, EXCLUDING DIRECT-VENT APPLIANCES, SHALL TERMINATE AT LEAST 4 FEET BELOW, 4 FEET HORIZONTALLY FROM, OR 1 FOOT ABOVE ANY DOOR, OPERABLE WINDOW OR GRAVITY AIR INLET INTO ANY BUILDING. THE BOTTOM OF THE VENT TERMINAL SHALL BE LOCATED AT LEAST 12 INCHES ABOVE FINISHED GROUND LEVEL.
 3. THE VENT TERMINAL OF A DIRECT-VENT APPLIANCE WITH AN INPUT OF 10000 BTU OR LESS SHALL BE LOCATED AT LEAST 6 INCHES FROM ANY AIR OPENING INTO A BUILDING; AND SUCH AN APPLIANCE WITH AN INPUT OVER 10000 BTU PER HOUR BUT NOT OVER 50000 BTU PER HOUR SHALL BE INSTALLED WITH A 9 INCH VENT TERMINATION CLEARANCE, AND AN APPLIANCE WITH AN INPUT OVER 50000 BTU/H SHALL HAVE AT LEAST 12 INCH VENT TERMINATION CLEARANCE. THE BOTTOM OF THE VENT TERMINAL AND AIR INTAKE SHALL BE LOCATED AT LEAST 12 INCHES ABOVE FINISHED GROUND LEVEL.
 4. THROUGH THE WALL VENTS FOR CONDENSING APPLIANCES SHALL NOT TERMINATE OVER AN AREA WHERE CONDENSATE OR VAPOR COULD CREATE A NUISANCE OR HAZARD OR COULD BE DETRIMENTAL TO THE OPERATION OF REGULATORS, RELIEF VALVES, OR OTHER EQUIPMENT. DRAINS FOR CONDENSATE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.



3
A-3
REAR ELEVATION
1/4"=1'-0"



4
A-3
RIGHT SIDE ELEVATION
1/4"=1'-0"

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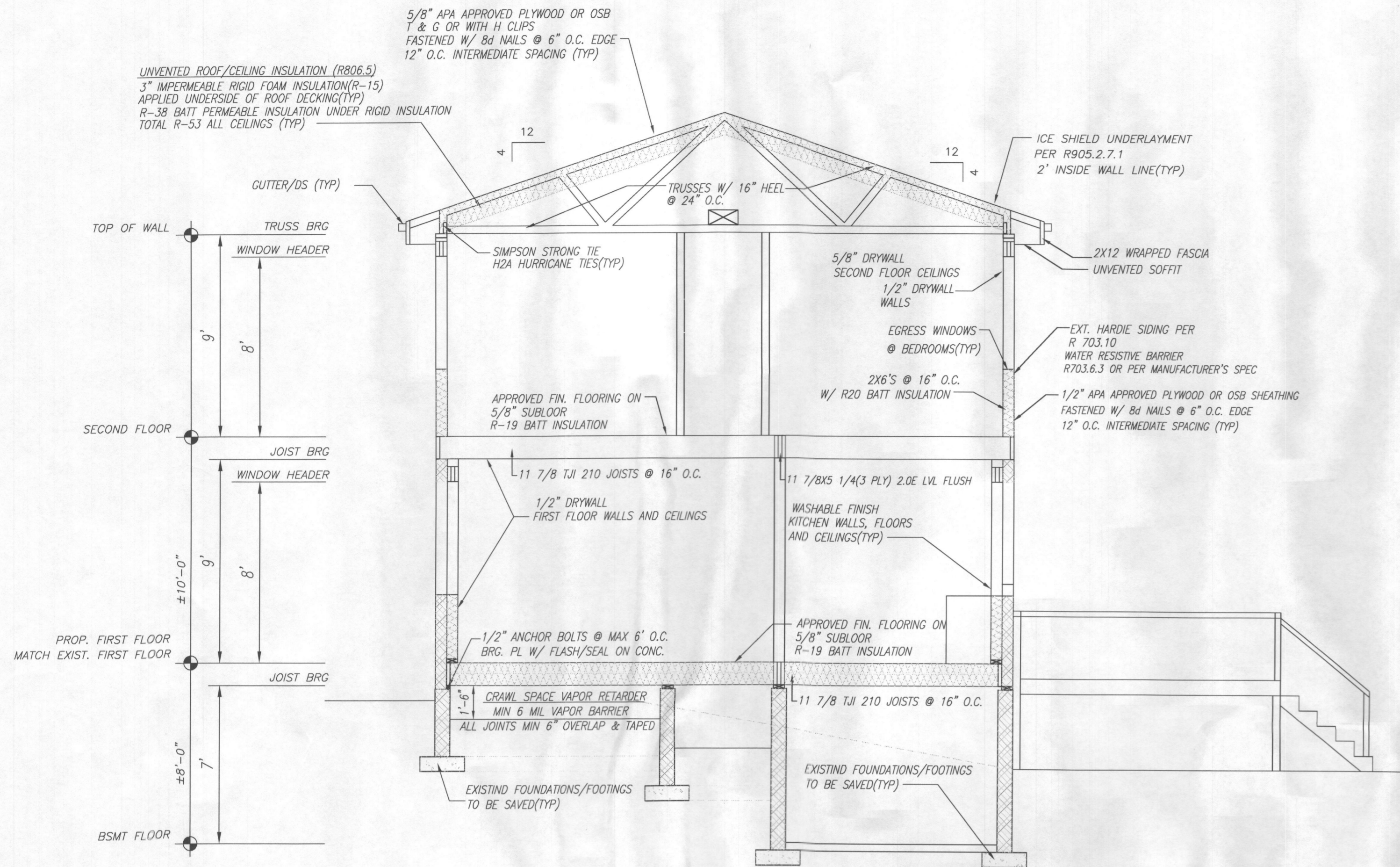
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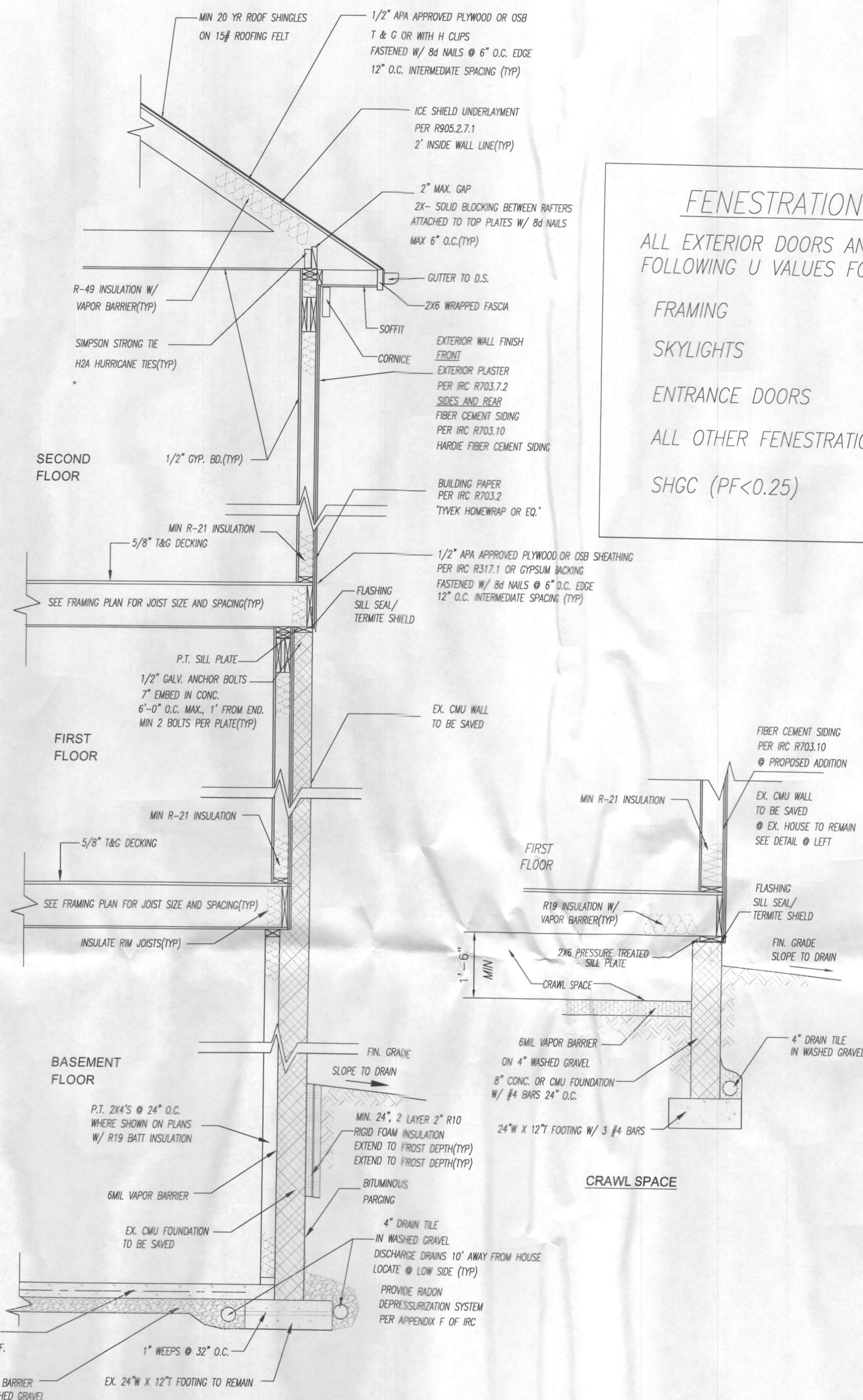
Scale:	Designed:	Drawn:	Issue Date:
AS NOTED	TPN	TPN	Date By
No			

ELEVATIONS
PROPOSED RESIDENTIAL ADDITION & ALTERATION
PARCEL 0094, GRID 0012, MAP 0006
1140 SHAFFERSVILLE RD
MT. AIRY 21771-3114
HOWARD COUNTY, MARYLAND

Proj. No. 16-2
Dwg. No. **A-3**



1 BUILDING SECTION
1/4"=1'-0"



2 WALL SECTION
1/2"=1'-0"

FENESTRATION U FACTORS	
ALL EXTERIOR DOORS AND WINDOWS MUST MEET FOLLOWING U VALUES FOR CLIMATE ZONE 4	
FRAMING	0.40
SKYLIGHTS	0.60
ENTRANCE DOORS	0.85
ALL OTHER FENESTRATIONS	0.55
SHGC (PF<0.25)	0.40

General Notes:

All work shall comply with all applicable codes. Written dimensions and notes must be used for reference. Scaled information must be verified by authorized personnel prior to any work.

Metals:

Provide corrosion prevention, including galvanic action prevention, to all metal construction as required by applicable codes and guidelines. Provide grounding to metal components and appliances per all applicable codes and guidelines. See Shop Drawings for provision of anchors, straps, and fasteners for installation of all components and appliances.

Wood:

See Architectural and Structural Plans for all wood construction. Builder is responsible for proper storage and installation, including temporary bracing, mold and moisture prevention, damage prevention and repair of wood members on site. All treated wood, which has been cut or drilled on site, must be sealed as required. Framing contractor must obtain all applicable guidelines from manufacturers of engineered wood products and provide field copies as required. Coordinate with other trades, such as mechanical, electrical and plumbing contractors, to ensure drillings, notches, anchors, to wood members do not affect structural integrity. This project requires interior architectural ornaments, which may be wood. The Builder must coordinate with the Architect and Fabricator in design, selection, manufacture, and installation of the ornaments. Builder must provide protection against subterranean termites per section R320.

Doors & Windows:

All sizes and requirements of doors and windows are shown on plans and elevations. Openings between garage and residence shall be equipped with solid wood doors not less than 1 3/8 inch thick, solid or honeycomb core steel doors not less than 1 3/8 inch thick or 20 minute fire rated doors. Basement and every sleeping rooms must have at least one operable emergency escape and rescue opening per section R310 of IRC. Tempered glazing must be provided as required by section R308 of IRC and as specified on plans.

Thermal & Moisture Protection:

Provide insulation in walls, ceiling and floor as specified. Ensure clear air passage at ridge, gable and soffit vents, provide insulation baffles as required. Install backdraft prevention systems and flashing at all penetrations of building envelope. Provide a Vapor retarder with a maximum perm rating of 1.0 on warm in winter(interior) sides of exterior walls and ceiling.

Finishes:

All interior walls, to be finished with 1/2" gypsum board, tapered edge, taped and finished per GA-216 and ASTM C-840, unless noted otherwise. Provide vapor retarder along perimeter walls as specified. Provide 1/2" cement board where required in wet areas, where required for installation of tiles or per manufacturer's specs. Ceiling above living areas to be 1/2" gypsum board, ceiling above garage to be 5/8 inch Type X gypsum board, unless noted otherwise (R309.2). Interior new drywall to be painted with 2 coats of finish paint on 1 coat of primer, color to match existing or as specified. Interior trim and doors to be painted with 1 coat of semi gloss enamel on 1 coat of primer, color to match existing or as specified. Floor finish to be carpet in living areas or as specified by owner. New flooring may be installed to match existing or as specified where required.

Specialties:

Obtain manufacturer's information and specifications including structural loading requirements and follow all guidelines.

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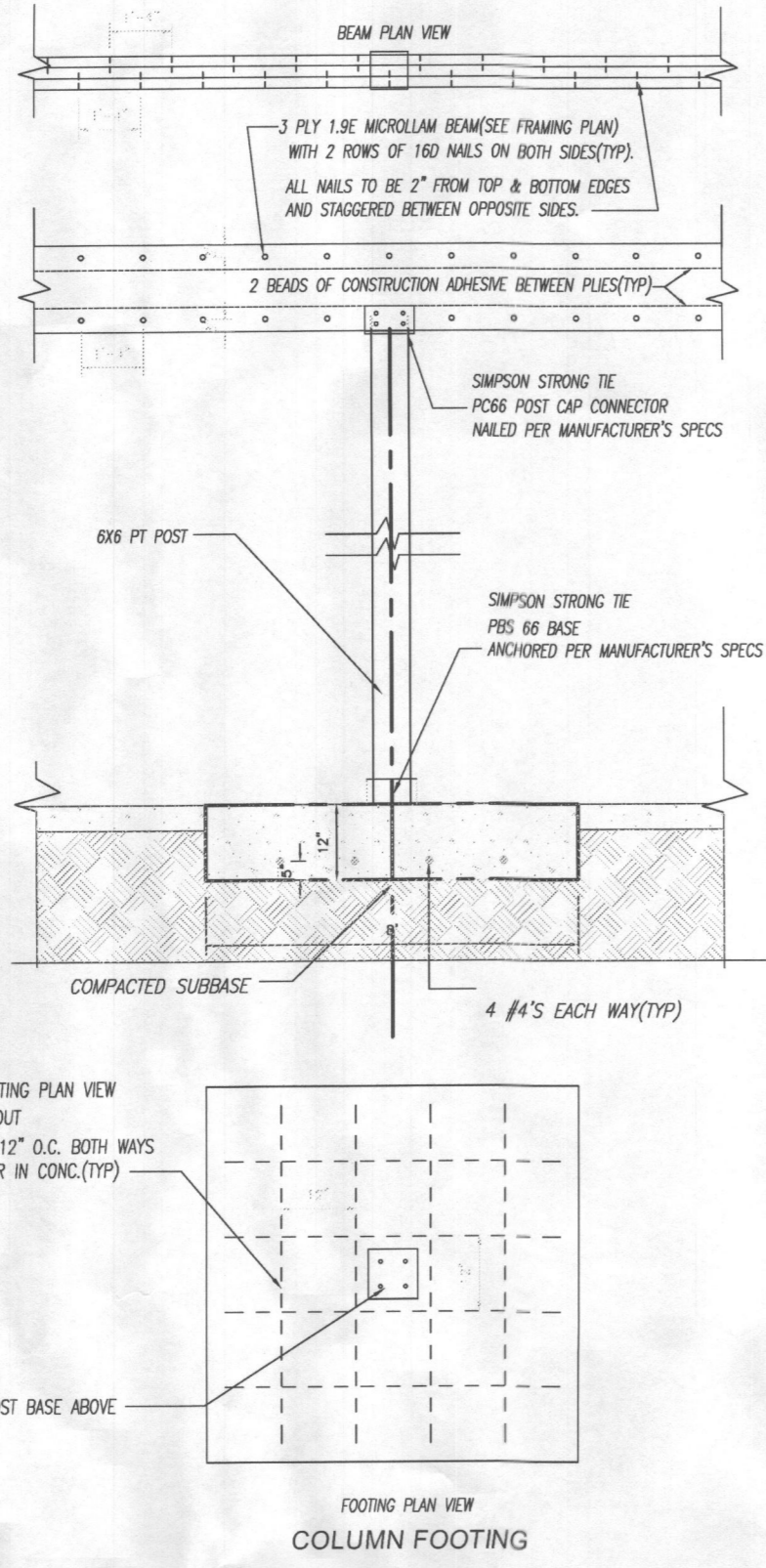
Tom Nyein
Tom P. NYEIN
8/1/17
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No.						Date By

SECTIONS AND DETAILS
PROPOSED RESIDENTIAL ADDITION & ALTERATION
PARCEL 0094, GRID 0012, MAP 0006
1140 SHAFFERSVILLE RD
MT. AIRY 21771-3114
HOWARD COUNTY, MARYLAND

Proj. No. 16-2
Dwg. No.
A-4



FLOOR AND/OR SNOW LOAD TABLES

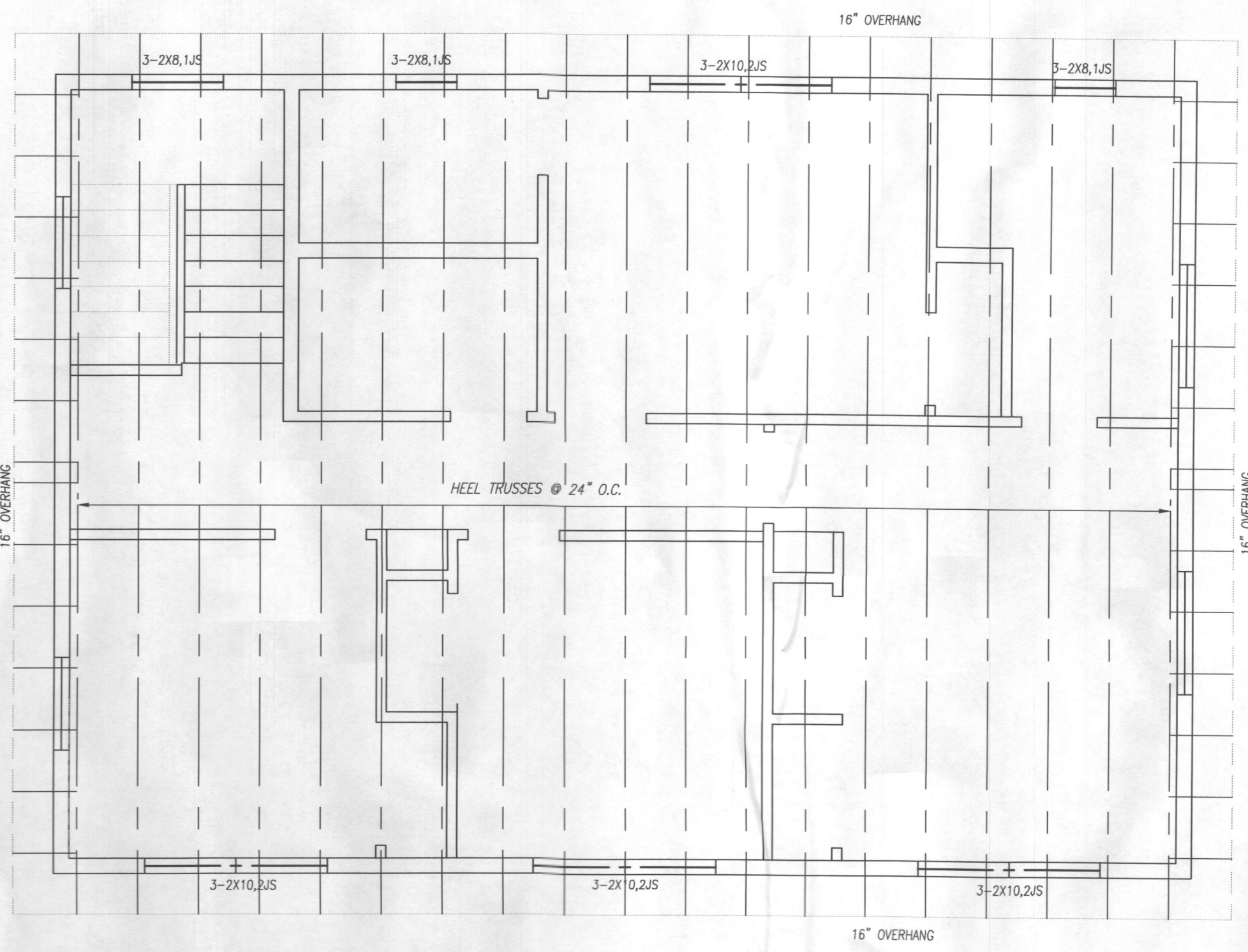
How to Use This Table

- Calculate the factored and unfactored total load (TL) (neglect beam weight) and the unfactored live load (LL) in pounds per square foot (psf).
- Select appropriate Span (center-to-center of bearing).
- Scan horizontally to find the proper width and a depth that has a capacity that meets or exceeds actual loads.
- Review bearing length requirements to ensure adequacy.

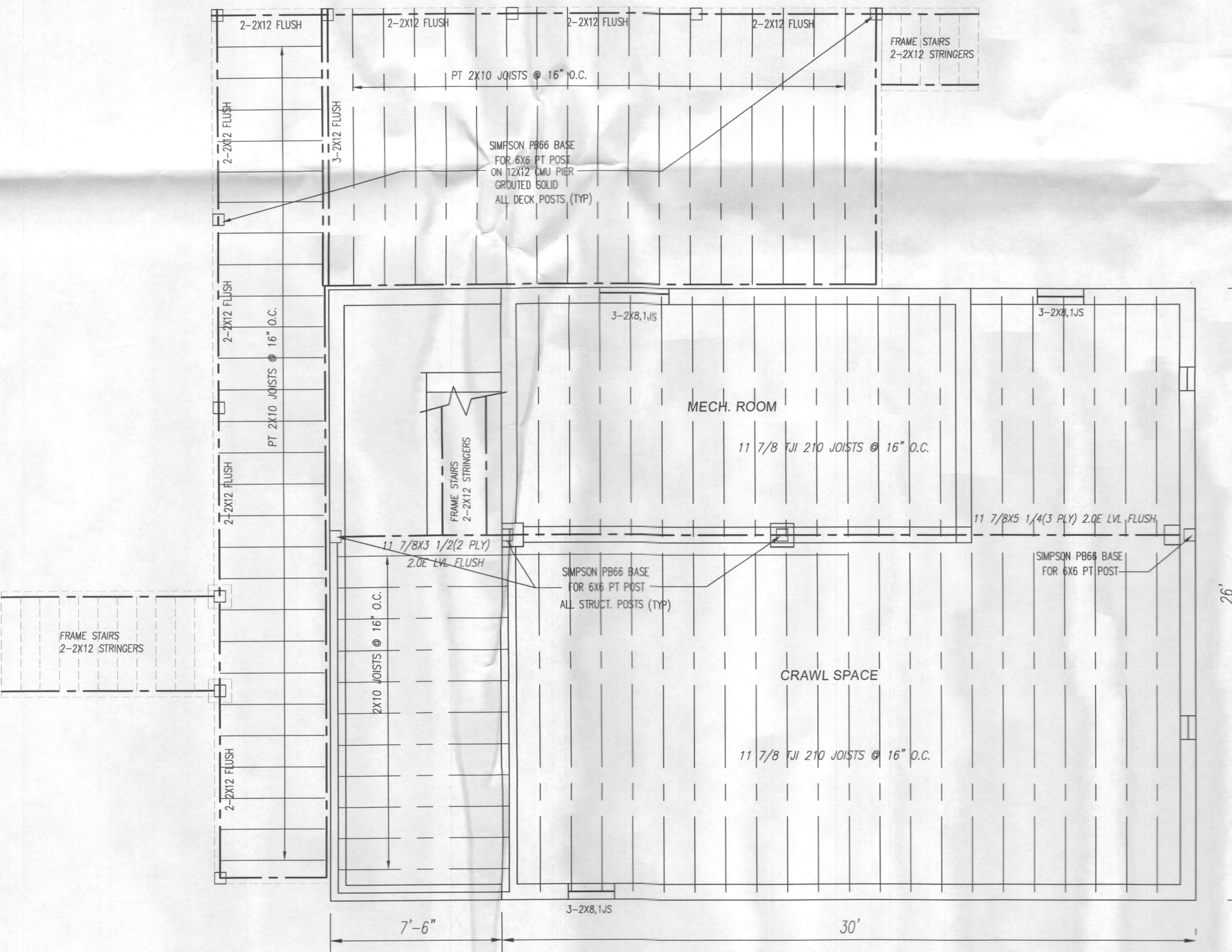
Also see **General Notes** on page 11.

2.0E Parallam® PSL: Floor and/or Snow—Standard Term (PLF)

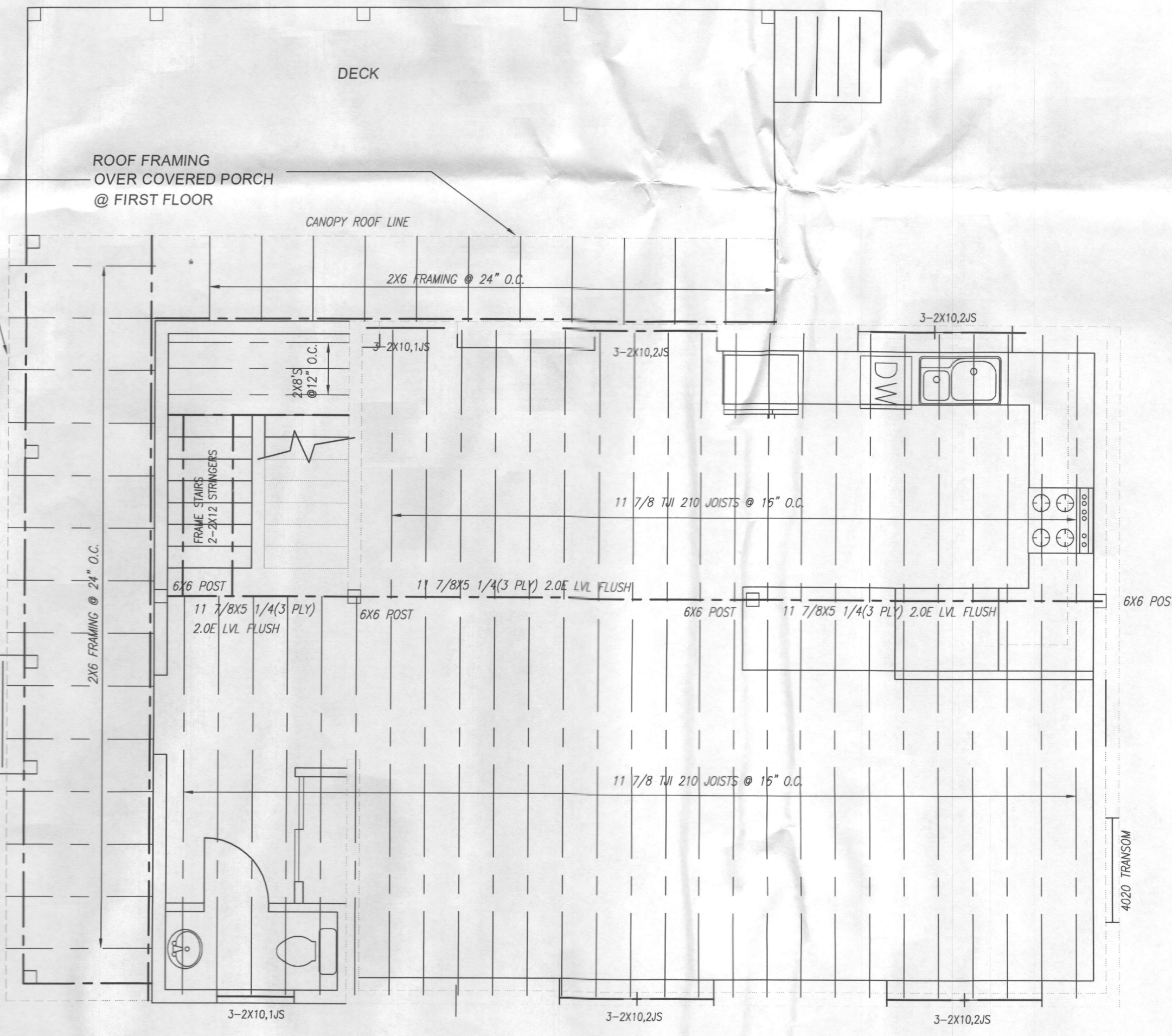
Span	Condition	24" Width				36" Width			
		8x4	8x6	10x4	10x6	8x4	8x6	10x4	10x6
8'	Unfactored Resistance (TL)	1,388	1,724	1,980	2,236	1,724	1,880	2,136	2,292
	Total Factored Resistance	818	1,042	1,266	1,490	1,042	1,166	1,390	1,514
	Min. Endfrt. Bearing (in.)	2,645.5	2,161.7	1,838.7	1,515.8	2,161.7	1,838.7	1,515.8	1,192.9
10'	Unfactored Resistance (TL)	1,791	2,264	2,637	2,910	2,264	2,537	2,910	3,183
	Total Factored Resistance	1,071	1,394	1,717	1,940	1,394	1,617	1,940	2,163
	Min. Endfrt. Bearing (in.)	1,927	1,562	1,297	1,032	1,562	1,297	1,032	767
12'	Unfactored Resistance (TL)	2,194	2,817	3,440	3,963	2,817	3,140	3,463	3,786
	Total Factored Resistance	1,351	1,774	2,197	2,520	1,774	2,097	2,420	2,743
	Min. Endfrt. Bearing (in.)	2,571.6	2,107.7	1,743.8	1,379.9	2,107.7	1,743.8	1,379.9	1,016.0
14'	Unfactored Resistance (TL)	2,597	3,351	4,105	4,759	3,351	3,805	4,105	4,559
	Total Factored Resistance	1,648	2,192	2,736	3,280	2,192	2,536	2,736	3,080
	Min. Endfrt. Bearing (in.)	2,973.6	2,419.7	2,055.8	1,691.9	2,419.7	2,055.8	1,691.9	1,328.0
16'	Unfactored Resistance (TL)	2,999	3,913	4,827	5,641	3,913	4,427	4,827	5,241
	Total Factored Resistance	1,905	2,549	3,193	3,737	2,549	2,993	3,193	3,537
	Min. Endfrt. Bearing (in.)	3,375.6	2,821.7	2,457.8	2,093.9	2,821.7	2,457.8	2,093.9	1,730.0
18'	Unfactored Resistance (TL)	3,402	4,456	5,410	6,224	4,456	5,060	5,410	5,824
	Total Factored Resistance	2,162	2,906	3,550	4,094	2,906	3,340	3,550	3,934
	Min. Endfrt. Bearing (in.)	3,541.6	3,087.7	2,723.8	2,359.9	3,087.7	2,723.8	2,359.9	2,026.0
20'	Unfactored Resistance (TL)	3,805	5,009	6,113	7,027	5,009	5,723	6,113	6,527
	Total Factored Resistance	2,417	3,261	3,905	4,449	3,261	3,705	3,905	4,249
	Min. Endfrt. Bearing (in.)	3,797.6	3,343.7	2,979.8	2,615.9	3,343.7	2,979.8	2,615.9	2,252.0
22'	Unfactored Resistance (TL)	4,208	5,552	6,756	7,860	5,552	6,366	6,756	7,200
	Total Factored Resistance	2,673	3,617	4,261	4,805	3,617	4,061	4,261	4,605
	Min. Endfrt. Bearing (in.)	4,053.6	3,600.7	3,236.8	2,872.9	3,600.7	3,236.8	2,872.9	2,509.0
24'	Unfactored Resistance (TL)	4,611	6,055	7,359	8,463	6,055	7,099	7,359	7,803
	Total Factored Resistance	2,928	3,972	4,616	5,160	3,972	4,416	4,616	4,960
	Min. Endfrt. Bearing (in.)	4,308.6	3,855.7	3,491.8	3,127.9	3,855.7	3,491.8	3,127.9	2,764.0
26'	Unfactored Resistance (TL)	5,014	6,608	8,012	9,216	6,608	7,652	8,012	8,556
	Total Factored Resistance	3,183	4,327	4,971	5,515	4,327	4,771	4,971	5,315
	Min. Endfrt. Bearing (in.)	4,563.6	4,110.7	3,746.8	3,382.9	4,110.7	3,746.8	3,382.9	3,019.0
28'	Unfactored Resistance (TL)	5,417	7,111	8,615	9,919	7,111	8,255	8,615	9,159
	Total Factored Resistance	3,438	4,682	5,326	5,870	4,682	5,126	5,326	5,670
	Min. Endfrt. Bearing (in.)	4,818.6	4,365.7	4,001.8	3,637.9	4,365.7	4,001.8	3,637.9	3,274.0
30'	Unfactored Resistance (TL)	5,820	7,614	9,218	10,522	7,614	8,918	9,218	9,762
	Total Factored Resistance	3,693	5,036	5,680	6,224	5,036	5,470	5,680	6,024
	Min. Endfrt. Bearing (in.)	5,073.6	4,620.7	4,256.8	3,892.9	4,620.7	4,256.8	3,892.9	3,529.0



3 ROOF FRAMING PLAN
1/4"=1'-0"



1 FIRST FLOOR FRAMING PLAN
1/4"=1'-0"



2 SECOND FLOOR FRAMING PLAN
1/4"=1'-0"

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AS NOTED	TPN	TPN	
No			Date By

FRAMING PLANS
PROPOSED RESIDENTIAL ADDITION & ALTERATION
PARCEL 0094, GRID 0012, MAP 0006
1140 SHAFFERSVILLE RD
MT. AIRY 21771-3114
HOWARD COUNTY, MARYLAND

Proj. No. 16-2
Dwg. No. **A-5**

CONCRETE

ALL CONCRETE SHALL BE MADE IN ACCORDANCE WITH DESIGN MIXES WHICH ARE TO BE APPROVED BY THE ARCHITECT OR ENGINEER PRIOR TO CASTING ANY CONCRETE. MIXES SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE ACI 318. ALL PLAIN CONCRETE TO CONFORM TO ACI 318.1 AND ACI 332 GUIDE TO RESIDENTIAL CAST IN PLACE CONCRETE CONSTRUCTION. MIXES SHALL HAVE A MINIMUM CEMENT CONTENT OF 520 LB. PER CUBIC YD. MAXIMUM WATER/CEMENT RATIO OF 0.53 FOR INTERIOR CONCRETE PROTECTED FROM FREEZING AND 0.45 FOR ALL EXTERIOR EXPOSED CONCRETE.

CONCRETE MATERIALS SHALL CONFORM TO ASTM C150, TYPE 1 FOR PORTLAND CEMENT AND ASTM C33 FOR AGGREGATES. WATER-REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494, TYPE A (FREE OF CALCIUM CHLORIDES). AIR-ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C266, AND HIGH-RANGE WATER REDUCERS (SUPER-PLASTICIZERS) SHALL CONFORM TO ASTM C494, TYPE F. FLY ASH SHALL COMPLY WITH ASTM C619 FOR CLASS F AND SHALL NOT BE PROPORTIONED IN MIXES WITH MORE THAN 20% CEMENT BY WEIGHT. LIQUID-MEMBRANE CURING COMPOUNDS SHALL BE HIGH-SOLIDS, WATER AND ACRYLIC-BASED, COMPLYING WITH ASTM C309 AS TESTED UNDER ASTM C156. SLUMP OF THE CONCRETE SHALL BE A MINIMUM OF 4-INCHES AND A MAXIMUM OF 6-INCHES. SEE THE PROJECT SPECIFICATIONS. THE COMPRESSIVE STRENGTH IS BASED 28-DAY COMPRESSIVE STRENGTH.

SLAB ISOLATION JOINTS: PROVIDE PRE-MOLDED JOINT FILLER AROUND ALL PIPING, PIERS & FOUNDATION WALLS.

ALL CONCRETE TO BE PLACED IN THE CELLS OF CONCRETE MASONRY UNITS (CMU BLOCK FILL), OR IN THE VOIDS OF BRICK MASONRY CONSTRUCTION, SHALL CONTAIN PEA GRAVEL (3/8" STONE) IN LIEU OF COARSE AGGREGATE. THE CONCRETE MIX SHALL CONTAIN A HIGH-RANGE WATER REDUCER (SUPER-PLASTICIZER). SLUMP OF THE CONCRETE SHALL BE A MINIMUM OF 6" AND A MAXIMUM OF 9". SEE THE PROJECT SPECIFICATIONS.

ALL EXTERIOR CONCRETE AND CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED, 6% +/- 1%. USE OF ADMIXTURES SHALL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. USE OF ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE PERMITTED. DO NOT USE HIGH-RANGE WATER REDUCING ADMIXTURES IN AIR-ENTRAINED CONCRETE. CONFORM TO ASTM C260.

ADDITION OF WATER TO THE CONCRETE AT THE JOB SITE FOR THE PURPOSE OF INCREASING THE SLUMP OR FOR RETEMPERING THE CONCRETE WHICH HAS BEGUN TO SET IS STRICTLY PROHIBITED. SEE THE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WATER ADDITION TO CONCRETE AT THE JOBSITE.

SLABS ON GRADE SHALL BE 4" THICK CONCRETE AND REINFORCED w/6x6 W2.9x2.9 W/F. WELDED WIRE FABRIC SHALL BE SUPPORTED ON HIGH CHAIRS SO THAT THE FABRIC IS POSITIONED AT MID-DEPTH OF THE SLAB THICKNESS. LAP ONE FULL MESH PLUS 2" AT SPLICES IN EACH DIRECTION. PLACE CONCRETE OVER 6 MIL POLYETHYLENE VAPOR BARRIER AND 4" MINIMUM COURSE AGGREGATE OR AS RECOMMENDED BY SOILS ENGINEER. THE AGGREGATE LAYER SHALL BE PLACED OVER FIRM NATURAL SUBGRADE OR ON COMPACTED AND CONTROLLED FILL. FILL UNDER SLABS SHALL BE COMPACTED IN 8 INCH LAYERS TO 95% MAX. DENSITY. USE AIR-ENTRAINED AT ALL EXTERIOR SLABS.

CONCRETE FOR SLABS-ON-GRADE SHALL BE PLACED IN A SEQUENCE AND MANNER THAT IS CONSISTENT WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE. LOCATE CONSTRUCTION AND CONTROL JOINTS IN SUCH A WAY TO MINIMIZE THE EFFECTS OF SHRINKAGE OF THE CONCRETE SLAB SECTIONS. SUBMIT TO THE ARCHITECT/ENGINEER THE SEQUENCE AND METHOD OF CASTING CONCRETE SLABS-ON-GRADE PRIOR TO PLACING THESE ELEMENTS. POUR SLABS IN ALTERNATE PANELS WITH A MAXIMUM OF 600 SF AND PROVIDE CONTROL AND CONSTRUCTION JOINTS AT 15'-0" MAXIMUM OR AS REQUIRED TO PREVENT UNCONTROLLED CRACKING.

SLAB CONTROL JOINTS: SAW CUT OR FORM TO 1/3 SLAB DEPTH. SPACE NO MORE THAN 15 FEET APART. DISCONTINUE WELDED WIRE FABRIC AT CONTROL JOINTS. PROVIDE JOINTS ON GROUND SUPPORTED SLABS IN RECTANGULAR CONFIGURATION, WITH THE LONGER SIDE NO MORE THAN ONE-AND-ONE-HALF TIMES THE LENGTH OF THE SHORTER SIDE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ANCHOR BOLTS, CLIPS, INSERTS, CONNECTION PLATES, SLEEVES, SLOTS AND OTHER REQUIRED ITEMS IN ACCORDANCE WITH THE CONTRACT DRAWINGS, AND IN COOPERATION WITH OTHER TRADES PRIOR TO PLACING CONCRETE.

ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH ACI'S MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES, (ACI-315). DETAILS OF REINFORCEMENT SHALL CONFORM TO ACI 318, ACI 315, AND CRSI STANDARDS.

ALL REINFORCING STEEL (INCLUDING WELDED WIRE FABRIC) SHALL BE SECURELY TIED AND ANCHORED IN PLACE TO PREVENT DISLOCATION DURING THE PLACING OPERATION.

REINFORCING STEEL SHALL BE CLEAN OF MUD, DEBRIS, LOOSE RUST, CEMENT, GROUT, OR ANY OTHER MATERIAL WHICH MAY INHIBIT THE BOND BETWEEN THE STEEL AND CONCRETE.

PROVIDE 8" x 8" CORNER BARS TO MATCH ALL HORIZONTAL REINFORCING IN WALLS AND FOOTINGS. ALL LAPS SHALL BE A MINIMUM OF 36 BAR DIAMETERS. PROVIDE DOWELS BETWEEN ALL FOOTINGS, WALLS AND PIERS TO MATCH SIZE AND SPACING OF VERTICAL REINFORCING.

DRY PACK SHALL CONSIST OF Sika GROUT 212 OR APPROVED SUBSTITUTE. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

MASONRY

ALL MASONRY WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF BIA AND NCMA SPECIFICATION FOR CONCRETE MASONRY CONSTRUCTION (ACI 513.1-76) AND SPECIFICATIONS FOR MASONRY STRUCTURE (ACI 530.1-02) PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE.

PROVIDE CONTINUOUS MASONRY BOND BEAM SPANNING ALL EXPANSION JOINTS & WALL INTERSECTIONS.

PROVIDE (2) #5 BENT BARS WITH 3-FOOT LEGS AT EVERY CORNER OR WALL INTERSECTION.

CONTINUOUS TIE OR BOND BEAMS SHALL BE REINFORCED WITH NOT LESS THAN 2 #5 CONTINUOUS BARS. LINTELS SHALL BE THE SIZES SHOWN AND REINFORCED AS INDICATED ON THE DRAWINGS.

REINFORCED MASONRY WALLS SHALL HAVE ALL REINFORCED CELLS FILLED WITH CONCRETE. CONCRETE MAY BE PLACED IN MAXIMUM VERTICAL LIFTS NOT TO EXCEED 4-Feet. ROUGHEN ALL SURFACES OF CONCRETE FILL WHICH ARE TO RECEIVE ADDITIONAL LIFTS ABOVE.

MASONRY WALLS SHALL HAVE "DUR-O-WALL" (OR APPROVED EQUAL) TRUSS TYPE HORIZONTAL REINFORCEMENT AT 16" VERTICALLY ABOVE GRADE AND 8" VERTICALLY BELOW GRADE. COORDINATE BRICK TIE BACK REQUIREMENTS WITH ARCHITECTURAL DRAWINGS. UNLESS NOTED OTHERWISE, STOP ALL HORIZONTAL JOINT REINFORCING AT CONTROL JOINTS.

BRICK VENEER WALLS TO HAVE NON-CORROSIVE METAL TIES AT 16" VERTICALLY AND HORIZONTALLY AND COMPLY WITH ASTM A82 WITH A153, CLASS B-2 COATING. MINIMUM WIRE DIAMETER SHALL BE 0.1875 INCHES. PROVIDE WEEP HOLES AT 24" ON AT BASE FLASHING.

PROVIDE MIN. 2 COURSES 8" x 16" SPACING BEARING AT BEAM & HEADER BEARING POINTS IN CMU WALLS.

A36 STEEL LINTEL SIZES FOR OPENINGS PER 4" THICKNESS OF MASONRY WALL AS FOLLOWS:
4"-0" SPAN OR LESS
5"-6" SPAN OR LESS
PROVIDE MIN. 6" BEARING, EACH END & BRICK TIES, 16" ON @ 1st COURSE ABOVE LINTEL.

FILL SOLIDLY w/2,500psi ASTM C-476 GROUT, ALL BOND BEAMS, CELLS THAT ARE REINFORCED, WILL SECURE EXPANSION BOLTS, SILL PLATE ANCHOR BOLTS OR OTHER MECHANICAL ATTACHMENTS AND ALL CELLS BELOW GRADE.

REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A-615, GRADE 60. SHOP FABRICATES REINFORCING BARS, WHICH ARE SHOWN TO BE HOOKED, OR BENT. PROVIDE A MINIMUM LAP OF 48 BAR DIAMETERS AT ALL SPLICES, UNLESS INDICATED OTHERWISE.

UNLESS OTHERWISE NOTED, ALL WALLS SHALL BE LAID IN RUNNING BOND. BOND CORNERS AND INTERSECTIONS OF LOAD-BEARING WALLS.

PROVIDE VERTICAL REINFORCING BARS OF THE GIVEN SIZE AND SPACING AS INDICATED. PROVIDE BARS AT ALL WALL CORNERS, INTERSECTIONS AND OPENINGS EDGES.

PROVIDE REBAR DOWELS FROM FOUNDATIONS TO MATCH VERTICAL REINFORCING SIZE AND SPACING. DOWELS SHALL HAVE STANDARD 90-DEGREE HOOKS AND LAP WITH THE FIRST LIFT OF REINFORCING.

PROVIDE BOND BEAM LINTELS AND BRICK SHELF ANGLES ABOVE ALL WALL OPENINGS.

PROVIDE JOIST & BEAM BEARING PLATES w/OTHER ACCESSORIES AS INDICATED, WITH 3 COURSES OF SOLIDLY GROUTED CMU BELOW ALL BEAM BEARINGS OVER A WIDTH OF 2'-8" CENTERED ON THE BEAM.

PROVIDE CMU CONTROL JOINTS AS INDICATED, w/ADDITIONAL JOINTS SUCH THAT THE SPACING BETWEEN JOINTS DOES NOT EXCEED A SPACING OF 3x WALL HEIGHT, 35' MAXIMUM WHERE BEAMS OR LINTELS BEAR AT CMU CONTROL JOINTS, OFFSET & LAP THE VERTICAL REINFORCING AS INDICATED.

MASONRY CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY BRACING DURING CONSTRUCTION.

WOOD FRAMING

NAIL IN ACCORDANCE WITH RECOMMENDED WOOD FASTENING SCHEDULE IN APPLICABLE BUILDING CODES (LATEST EDITION/HIGH WIND REGION). PROVIDE BLOCKING, BRIDGING AND BRACING PER SAME CODE. AT A MIN., PROVIDE BRIDGING AT EACH END OF THE JOIST, AND ONE ROW OF SOLID BRIDGING BELOW ALL INTERIOR BEARING PARTITIONS.

FASTENERS: JOIST HANGERS, HURRICANE ANCHORS, POST BASES AND OTHER FRAMING ANCHORS ARE TO BE AS MANUFACTURED BY SIMPSON STRONG-TIE, U.S.P., OR EQUAL, AND ARE TO BE USED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN SPECIFICATIONS. ALL FASTENERS TO BE 16 GA. MIN. UNLESS NOTED OTHERWISE. PROVIDE GALV. FINISH UNLESS NOTED OTHERWISE. JOIST HANGERS SHALL BE MIN. 1 1/2" DIA. WITH SIZE AND PROFILE TO SUIT APPLICATION (U.N.O.). PROVIDE JOIST HANGERS FOR ALL FLUSH FRAMED JOISTS. ALL FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE 2-MAX OR TRIPLE ZINC COATED, U.N.O.

THE NUMBER OF WALL STUDS AT BEARING POINTS OF 2X MEMBER BEAMS SHALL EXCEED THE NUMBER OF MEMBERS IN THE BEAM BY ONE. THE CENTERLINE OF THE BEAM SHALL BE THE CENTERLINE OF THE SUPPORTING WALL STUDS. (UNLESS NOTED OTHERWISE ON PLAN) ALL MICRO-LAM BEAMS SHALL HAVE 3 STUDS (MIN. & EXCEED WIDTH OF BEAM). CONTINUE THESE STUDS TO THE FOUNDATION WITH INTERMEDIATE SUPPORTS THROUGH FLOOR, BETWEEN LOWER WALL TOP PLATE & UPPER WALL BOTTOM PLATE.

PROVIDE DOUBLE JOIST UNDER ALL PARTITIONS ABOVE TO JOIST SPAN AND AROUND ALL FLOOR AND ROOF OPENINGS. SPACE & BLOCK IF PARTITIONS ARE IS A PLUMBING WALL. PROVIDE SOLID BLOCKING AT 12" ON BETWEEN JOISTS UNDER PARTITIONS ABOVE WHICH ARE PARALLEL TO THE JOISTS BUT NOT DIRECTLY OVER THE JOISTS. BLOCKING SHALL BE NOT LESS THAN 2" IN THICKNESS & SHALL MATCH THE DEPTH OF THE JOISTS. TRUSSES MAY USE TRUSS BLOCKS.

ALL MULTI-PLY BEAMS SHALL BE NAILED WITH 3 ROWS OF 10d NAILS AT 8" OC STAGGERED OR BOLTED WITH 1/2" DIA. BOLTS AT 16" OC STAGGERED (U.N.O.).

PROVIDE COLLAR TIES OF 1X6 BOARDS AT UPPER 1/3 DOWN FROM RIDGE BEAMS SPACED 48" OC MAXIMUM. (FOR CONVENTIONAL FRAMING)

BALLOON FRAME ALL END WALLS WITH CATHEDRAL CEILING (U.N.O.):
2x4 @ 16" OC UP TO 9'-0", 2x6 @ 16" OC UP TO 14'-0" & 2x8 @ 16" OC UP TO 18'-0"

FASTEN CABLE-END WALL STUDS TO CEILING DIAPHRAM BY FASTENING NAILER TO EACH STUD AND BY FASTENING CEILING TO NAILER WITH 8d NAILS AT 6" OC

ALL EXTERIOR WALLS SHALL BE STUDS AT 16" OC AS SPECIFIED ON PLANS WITH 7/16" OSB EXTERIOR SHEATHING. BLOCKING OF HORIZONTAL PANEL EDGES IS NOT REQUIRED. NAIL ALL REQUIRED PANEL EDGES WITH 8d NAILS AT 6" OC AND INTERMEDIATE STUDS WITH 8d NAILS AT 12" OC

ROOF AND FLOOR FRAMING LAYOUTS ARE PROVIDED TO ILLUSTRATE CONDITIONS OF CONSTRUCTION AND DO NOT NECESSARILY INDICATE SPECIFIC QUANTITIES OF MATERIALS OR COMPONENTS REQUIRED FOR CONSTRUCTION.

CONSTRUCTION BRACING SHALL BE PROVIDED BY THE CONTRACTOR TO MAINTAIN THE BUILDING PLUMB AND TRUE. THIS BRACING SHALL REMAIN UNTIL THE SPECIFIED SHEARWALLS ARE TOTALLY INSTALLED.

PRESSURIZED BRACED WALL SEGMENTS SHALL HAVE STUDS AT 16" OC (MAX.) WITH 7/16" OSB EXTERIOR SHEATHING. BLOCKING OF HORIZONTAL PANEL EDGES IS NOT REQUIRED. NAIL ALL SHEATHING PANEL EDGES WITH 8d NAILS AT 6" OC AND INTERMEDIATE STUDS WITH 8d NAILS AT 12" OC

SHEARWALLS SHALL HAVE STUDS @ 16" OC (MAX.) WITH 7/16" OSB EXTERIOR SHEATHING (U.N.O., SEE PLAN). BLOCKING OF HORIZONTAL PANEL EDGES IS REQUIRED. NAIL ALL SHEATHING PANEL EDGES WITH 8d NAILS AT 6" OC (U.N.O., SEE PLAN) AND INTERMEDIATE STUDS WITH 8d NAILS AT 12" OC (U.N.O., SEE PLAN)

SHEAR WALL HOLD-DOWNS: ALL SHEAR WALLS SHOWN ON PLANS TO HAVE HOLD-DOWNS AT THE BASE AT EACH WALL END SHALL BE AS FOLLOWS:
• AT UPPER FLOORS USE (2) SIMPSON HDBA'S OR (1) SIMPSON FTAT AT EACH END OF SHEAR WALL SEGMENT AND EACH EXTERIOR CORNER OF BUILDING (U.N.O., SEE PLAN)
• AT CONCRETE FOUNDATIONS USE (1) SIMPSON HDZA AT EACH END OF SHEAR WALL SEGMENT AND AT EACH EXTERIOR CORNER OF BUILDING (U.N.O., SEE PLAN)

• AT PILE/GIRDER SUPPORTED FLOOR, USE (2) SIMPSON HDBA'S OR (1) SIMPSON FTAT AT EACH END OF SHEAR WALL SEGMENT AND AT EACH EXTERIOR CORNER OF BUILDING (U.N.O., SEE PLAN)
• PROVIDE 3 STUDS MIN. AT EACH HOLD-DOWN (U.N.O., SEE PLAN)
• PROVIDE TRIPLE JOISTS BELOW SHEAR WALLS THAT RUN PARALLEL TO FLOOR FRAMING (U.N.O., SEE PLAN)

ALL INTERIOR SHEAR WALLS SHOWN ON THE PLANS SHALL HAVE STRUCTURAL SHEATHING THAT EXTENDS TO THE UNDERSIDE OF THE FLOOR SHEATHING ABOVE. WHERE JOISTS RUN PARALLEL TO THE SHEAR WALL, PROVIDE A DEE-JOIST ABOVE THE SHEAR WALL. WHERE JOISTS RUN PERPENDICULAR, PROVIDE 2X BRIDGING ABOVE SHEAR WALL AND "TOOTH" PLYWOOD AROUND JOISTS. NAIL THROUGH FLOOR SHEATHING ABOVE INTO WALL WITH (2) 10d NAILS AT 4" OC

ALTERNATE POWER NAILS (FOR FRAMING MEMBERS ONLY) - 0.113# x 2 3/8" FOR 8d NAILS & 0.131# x 3" FOR 16d NAILS
PROVIDE DEFORMED SHANK NAILS AS REQ. BY U.L. RATINGS.

WOOD EXPOSED TO THE ELEMENTS, WOOD IN CONTACT WITH CONCRETE OR MASONRY, AND WOOD DESIGNATED "TREATED" SHALL BE #2 GRADE SOUTHERN PINE OR BETTER & PRESSURE IMPREGNATED WITH ALKALINE COPPER QUATERNARY (ACQ) IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARD C2, WITH A MIN. RETENTION OF 0.40 LBS. PER CUBIC FOOT OF WOOD. MIN. DEPTH OF PENETRATION SHALL BE 2.5" OR 85% OF THE S4PW00D.

ALL STUDS SHALL BE INSTALLED IN ACCORDANCE WITH WFOPA. MEMBERS ARE NOT TO BE DRILLED IN EXCESS OF NDS OR LOCAL CODE REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ALL POSTS AND MULTIPLE STUDS SHALL BE RUN CONTINUOUSLY TO SOLID BEARING ON FOUNDATION WALL OR BEAMS, PROVIDE SOLID BLOCKING AT FLOORS. COLUMNS SHALL BE ADEQUATELY ANCHORED TO PREVENT INTERNAL DISPLACEMENT.

NO STRUCTURAL MEMBER SHALL BE OMITTED, NOTCHED, CUT, BLOCKED OUT OR RELOCATED WITHOUT PRIOR APPROVAL BY THE DESIGNER OR STRUCTURAL ENGINEER. DO NOT ALTER SIZES OF MEMBERS NOTED WITHOUT APPROVAL OF BOTH.

CUTTING OF WOOD BEAMS, JOISTS AND RAFTERS SHALL BE LIMITED TO CUTS AND BORED HOLES NOT DEEPER THAN ONE-SIXTH THE MEMBER DEPTH AND SHALL NOT BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN. NOTCHES LOCATED CLOSER TO SUPPORTS THAN THREE TIMES THE MEMBER DEPTH SHALL NOT EXCEED ONE-FIFTH THE DEPTH. HOLES BORED OR CUT INTO JOISTS SHALL BE MIN. 2" CLEAR FROM THE TOP OR BOTTOM OF THE JOIST AND THE HOLE DIAMETER SHALL NOT EXCEED ONE-THIRD OF THE JOIST DEPTH.

THERE SHALL NOT BE LESS THAN ONE LINE OF BRIDGING IN EVERY EIGHT FEET OF SPAN IN FLOOR, ATTIC AND ROOF FRAMING. THE BRIDGING SHALL CONSIST OF NOT LESS THAN ONE BY THREE INCH LUMBER DOUBLE NAILED AT EACH END OR EQUIVALENT METAL BRACING OF EQUAL RIGIDITY. MIDSPAN BRIDGING IS NOT REQUIRED FOR FLOOR, ATTIC OR ROOF FRAMING WHERE JOIST DEPTH DOES NOT EXCEED TWELVE INCHES NOMINAL. BLOCK ALL STUD WALLS AT MAXIMUM INTERVALS OF EIGHT FEET WITH A MINIMUM OF TWO-BY SOLID MATERIAL WITH TIGHT JOINTS. PROVIDE TWO-BY FIRE STOPS AT MID-POINT OF STUD WALLS.

UNLESS NOTED OTHERWISE, BRACE EXTERIOR CORNERS OF BUILDING WITH 1 X 4 DIAGONALS, LET INTO STUDS, OR 4 X 8 PLYWOOD SHEET OF THICKNESS TO MATCH THAT OF SHEATHING, OR WITH METAL STRAPS. LAP PLATES AT ALL CORNERS.

**WALL BRACING: METHOD 3 (WSP)
ALL PROPOSED WOOD FRAMING TO BE MINIMUM SPF GRADE 2.**

FRAMING FASTENING SCHEDULE			
MARK	CONNECTION	FASTENING	DETAIL
1	TOP PLATE TO STUD, END NAIL	2X4 2-16d 2X6 3-16d 2X8 4-16d 2X10 5-16d 2X12 6-16d	
2	DOUBLE TOP PLATE, FACE NAIL	10d @ 24" OC	
3	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	16d TOENAILS @ 6" OC (MIN 2 PER BLOCK)	
4	CEILING JOISTS TO PLATE, TOE NAIL	(2) 16d	
5	CEILING JOIST/COLLAR TIE TO RAFTER, FACE NAIL	(6) 16d (MIN)	
6	RAFTER / TRUSS TO PLATE, TOE NAIL	(3) 16d	
7	BLOCKING TO JOIST OR RAFTER, EACH END	(2) 16d, TOE NAIL OR (2) 16d, END NAIL	
8	STUD TO SOLE PLATE, END NAIL	2X4 (2) - 16d 2X6 (3) - 16d 2X8 (4) - 16d 2X10 (5) - 16d 2X12 (6) - 16d	
9	SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL SEGMENTS, FACE NAIL	3-16d @ 16" OC 4-16d @ 19.2" OC OR 5-16d @ 24" OC	
10	SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	2-16d @ EACH JOIST OR BLOCKING	
11	SOLE PLATE TO RIM BOARD, FACE NAIL	16d @ 16" OC	
12	RIM BOARD TO TOP/ SILL PLATE, TOE NAIL	10d @ 6" OC	
13	JOIST TO RIM BOARD, END NAIL	(3) 16d	
14	JOIST TO TOP / SILL PLATE OR GIRDER, TOE NAIL	(2) 16d	
15	SILL PLATE TO FOUNDATION WALL	3/8" ANCHOR BOLTS (7" MIN EMBEDMENT INTO WALL) @ 48" OC (MAX) (MIN 2 PER PLATE, WITH 1 WITHIN 12" OF END OF PLATE)	
16	TOP PLATE LAPS SPLICE, FACE NAIL (4"-0" MINIMUM)	(8) 16d	
17	DOUBLE STUDS, FACE NAIL (STAGGER)	10d @ 12" OC EACH FACE	
18	JACK STUD TO KING STUD, FACE NAIL (STAGGER)	10d @ 12" OC EACH FACE	
19	KING STUD TO HEADER, FACE NAIL - EACH PLY	(3) 16d	
20	CONTINUED HEADER, TWO PIECES	16d @ 16" OC ALL EDGES & 4-16d NAILS AT ENDS	
21	BUILT UP HEADER, TWO PLYS WITH 1/2" SPACER	16d @ 16" OC ALL EDGES & 4-16d NAILS AT ENDS	
22	TOP PLATE LAP AT WALL INTERSECTION, FACE NAIL	(2) 10d	
23	CEILING JOIST TO JOIST, LAP OVER PARTITION	(5) 10d FACE NAILS	
24	RAFTER TO RIDGE, VALLEY OR HIP RAFTER	(3) 16d FACE NAILS, (4) 16d TOE NAILS	
25	BUILT-UP CORNER STUDS (THREE STUDS MINIMUM)	16d @ 16" OC	
26	BUILT-UP BEAM AND GIRDERS	16d @ 16" OC ALL EDGES & 4-16d NAILS AT ENDS AND SPLICES	
27	INTERMEDIATE SUPPORT POST TO HEADER, TOE NAIL	(2) 16d EACH PLY OF POST	

SHEATHING FASTENING SCHEDULE

SHEATHING	FASTENERS	S. SPACING OF FASTENERS	
		PANEL EDGES	PANEL FIELD
5/8" - 1 1/2" PLYWOOD	6d COMMON, FLOOR, WALL & COMMON, ROOF	6	12
1 3/8" - 1" PLYWOOD	8d COMMON	6	12
1 1/2" - 1 3/4" PLYWOOD	10d COMMON OR 8d DEFORMED	6	12
1" GYPSUM	1 1/2" GALV ROOFING; 6d COMMON; 1 1/2" GALV STAPLE; 1 1/4" SCREW, TYPE S OR W	4	8
5/8" GYPSUM	1 1/2" GALV ROOFING; 8d COMMON; 1 1/2" GALV STAPLE; 1 1/8" SCREW, TYPE S OR W	4	8

SCHEDULE OF CONSTRUCTION MATERIALS

CONCRETE	LOCATION	COMP. STRENGTH	SLUMP
BASEMENT WALLS & FDN NOT EXPOSED TO WEATHER		3,000 psi (1)	4" +/- 1"
BASEMENT SLABS AND INTERIOR SLABS ON GRADE		3,000 psi	4" +/- 1"
BASEMENT WALLS, FDMS, EXTERIOR WALLS & OTHER CONCRETE EXPOSED TO WEATHER		3,000 psi (2)	4" +/- 1"
DRIVEWAYS, CURBS, WALKS, PATIOS, STEPS AND UNHEATED GARAGE FLOORS EXPOSED TO WEATHER		3,500 psi (2)	4" +/- 1"

NOTES: 1. EXTERIOR, WEATHER-EXPOSED CONCRETE & CONCRETE SUBJECTED TO FREEZE AND THAW CONDITIONS DURING CONSTRUCTION SHALL BE AIR-ENTRAINED, 6% +/- 1%.
2. CONCRETE SHALL BE AIR-ENTRAINED, 6% +/- 1%.

MASONRY	MATERIAL	SPECIFICATION
HOLLOW CMU	NORMAL WEIGHT: ASTM C90, GRADE N, Fm= 1,500 psi	
FACE BRICK	ASTM C216, SEVERE WEATHER BRICK, TYPE FBX, Fm=2,000 psi	
STONE VENEER	OWNER APPROVED	
CONCRETE BRICK	ASTM C95 TYPE 1, GRADE 8	
SOLID CMU	NORMAL WEIGHT: ASTM C145, GRADE N	
MORTAR: SINGLE WYTHE ABOVE GRADE	ASTM C270 PROJECTION SPECIFICATION MORTARS SHALL CONSIST OF TYPE 1 PORTLAND CEMENT, TYPE S HYDRATED LIME AND APPROVED AGGREGATE, w/1,800 psi MIN. AVERAGE COMPRESSIVE STRENGTH OF 2" CUBES AT 28-DAYS.	
MORTAR: SINGLE WYTHE BELOW GRADE	ASTM C270 PROJECTION SPECIFICATION MORTARS SHALL CONSIST OF TYPE 1 PORTLAND CEMENT, TYPE N HYDRATED LIME AND APPROVED AGGREGATE, w/2,500 psi MIN. AVERAGE COMPRESSIVE STRENGTH OF 2" CUBES AT 28-DAYS.	
MORTAR: VENEER	ASTM C270 PROJECTION SPECIFICATION MORTARS SHALL CONSIST OF TYPE 1 PORTLAND CEMENT, TYPE N HYDRATED LIME AND APPROVED AGGREGATE, w/750 psi MIN. AVERAGE COMPRESSIVE STRENGTH OF 2" CUBES AT 28-DAYS.	

REINFORCING STEEL	MATERIAL	SPECIFICATION
REBAR	HIGH STRENGTH NEW BULLET STEEL CONFORMING TO ASTM A-615, GRADE 60 (60,000 psi) - DEFORMED	
WELDED WIRE FABRIC	ASTM A-185	

PROTECTION		CLEAR COVER (IN)
FOOTINGS AND OTHER CONCRETE POURED AGAINST EARTH		3"
FORMED CONCRETE EXPOSED TO EARTH		2"
FORMED CONCRETE NOT EXPOSED TO WEATHER OR EARTH		1 1/2"
SLABS ON GROUND, UNLESS OTHERWISE NOTED		MID-DEPTH OF SLAB
REINFORCED CONCRETE WALLS		MID-DEPTH OF WALL

WOOD	MATERIAL	DIMENSION AND STRUCTURAL COMPOSITE LUMBER DESIGN VALUES (1)					
		Fb	Ft	Fv	Fc, I	Fc, II	E x 10 ⁶
UNTREATED FRAMING (DESIGN VALUES ARE BASED ON SPF No.2.)	2x, 3x, OR 4x	875	450	135	425	1150	1.4
	5x5 AND LARGER (B)	600	300	125	425	425	1.0
	5x5 AND LARGER (P)	500	325	125	425	500	1.0
	TREATED FRAMING (DESIGN VALUES ARE BASED ON SYP No.2.)	2x4	1500	825	175	565	1650
	2x6	1250	725	175	565	1600	1.6
	2x8	1200	650	175	565	1550	1.6
	2x10	1050	575	175	565	1500	1.6
	2x12	975	550	175	565	1450	1.6
	5x5 & LARGER	850	550	165	375	525	1.2

ENGINEERED WOOD PRODUCT SPECIFICATIONS
PLYWOOD/OSB: DOC P51, DOC P52, CSA0437 OR CSA0325 ADVANTAGE, STRUCTURE WOOD NOT ALLOWED.

1. DESIGN VALUES ARE FOR NORMAL LOAD DURATION AND DRY SERVICE CONDITIONS. SEE NDS OR MANUFACTURERS SPECIFICATION FOR APPROPRIATE DESIGN VALUE ADJUSTMENT FACTORS.

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