



Building Permit Application

Howard County Maryland
Department of Inspections, Licenses and Permits
3430 Court House Drive
Permits: 410-313-2455
www.howardcountymd.gov

Date Received: _____

Permit No.: B18000344

Building Address: 17751
 City: _____ State: _____ Zip Code: _____
 Suite/Apt. # _____ SDP/WP/BA #: _____
 Census Tract: _____ Subdivision: _____
 Section: _____ Area: _____ Lot: _____
 Tax Map: _____ Parcel: _____ Grid: _____
 Zoning: _____ Map Coordinates: _____ Lot Size: _____

Existing Use: 5813
 Proposed Use: 340
 Estimated Construction Cost: \$ _____
 Description of Work: _____
 Occupant/Tenant Name: _____
 Was tenant space previously occupied? Yes No
 Contact Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Property Owner's Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Applicant's Name & Mailing Address, (if other than stated herein)
 Applicant's Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Contractor Company: _____
 Contact Person: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 License No.: _____
 Phone: _____ Fax: _____
 Email: _____

Engineer/Architect Company: _____
 Responsible Design Prof.: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

| Commercial Building Characteristics | Residential Building Characteristics |
|---|--|
| Height: | <input type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse |
| No. of stories: | Depth Width |
| Gross area, sq. ft./floor: | 1 st floor: |
| | 2 nd floor: |
| Area of construction (sq. ft.): | Basement: |
| | <input type="checkbox"/> Finished Basement |
| Use group: | <input type="checkbox"/> Unfinished Basement |
| | <input type="checkbox"/> Crawl Space |
| Construction type: | <input type="checkbox"/> Slab on Grade |
| <input type="checkbox"/> Reinforced Concrete | No. of Bedrooms: |
| <input type="checkbox"/> Structural Steel | Multi-family Dwelling |
| <input type="checkbox"/> Masonry | No. of efficiency units: |
| <input type="checkbox"/> Wood Frame | No. of 1 BR units: |
| <input type="checkbox"/> State Certified Modular | No. of 2 BR units: |
| | No. of 3 BR units: |
| | Other Structure: |
| | Dimensions: |
| <input checked="" type="checkbox"/> Roadside Tree Project Permit | Footings: |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Roof: |
| Roadside Tree Project Permit # | <input type="checkbox"/> State Certified Modular |
| | <input type="checkbox"/> Manufactured Home |

| Utilities | |
|---|--|
| Electric: <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| Gas: <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| Water Supply | |
| <input type="checkbox"/> Public | |
| <input type="checkbox"/> Private | |
| Sewage Disposal | |
| <input type="checkbox"/> Public | |
| <input type="checkbox"/> Private | |
| Heating System | |
| <input type="checkbox"/> Electric <input type="checkbox"/> Oil | |
| <input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas | |
| <input type="checkbox"/> Other: | |
| Sprinkler System: | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| Grading Permit Number: | |
| Building Shell Permit Number: | |

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature _____

Print Name _____

Email Address _____

Date _____

Title/Company _____

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

PLEASE WRITE NEATLY & LEGIBLY

-FOR OFFICE USE ONLY-

| AGENCY | DATE | SIGNATURE OF APPROVAL |
|----------------------|--------|-----------------------|
| State Highways | | |
| Building Officials | | |
| PSZA (Zoning) | | |
| PSZA (Engineering) | | |
| Health | 2/8/18 | <i>[Signature]</i> |

DPZ SETBACK INFORMATION

Front: _____
 Rear: _____
 Side: _____
 Side St.: _____
 All minimum setbacks met? Yes No
 Is Entrance Permit Required? Yes No
 Historic District? Yes No
 Lot Coverage for New Town Zone: _____
 SDP/Red-line approval date: _____

| Filing Fee | \$ |
|-----------------|----|
| Permit Fee | \$ |
| Tech Fee | \$ |
| Excise Tax | \$ |
| PSFS | \$ |
| Guaranty Fund | \$ |
| Add'l per Fee | \$ |
| Total Fees | \$ |
| Sub- Total Paid | \$ |
| Balance Due | \$ |
| Check | # |

Is Sediment Control approval required for issuance? Yes No
 CONTINGENCY CONSTRUCTION START

Distribution of Copies: White: Building Officials Green: PSZA,Zoning Yellow: PSZA,Engineering Pink: Health Gold: SHA

Bath RI Unbasement
4 BR

THE FARINA RESIDENCE



THISTLE
DESIGN
LLC



RECEIVED

AUG 17 2017

HOWARD COUNTY HEALTH DEPT.
BUREAU OF ENVIRONMENTAL HEALTH

GENERAL NOTES

GENERAL REQUIREMENTS

- 1. This general notes unless otherwise noted on plans or specifications.
2. Building Code as specified on the architectural drawings.
3. All applicable local and state codes, ordinances and regulations.
4. In areas where the drawings do not address methodology, the contractor shall be bound to perform in strict compliance with manufacturer's specifications and/or recommendations.
5. On-site verification of all dimensions and conditions shall be the responsibility of the general contractor and his subcontractors.
6. Noted dimensions take precedence over scale. Never scale directly from drawings. Contractor should consult architect in case of question.
7. The general notes and typical details apply throughout the job unless otherwise noted or shown.
8. Discrepancies: The contractor shall compare and coordinate all drawings; when in the opinion of the contractor, a discrepancy exists he shall promptly notify the Architect, in writing, before proceeding with the work or he shall be responsible for the same and any indirect results of his action.
9. Omissions: Architectural drawings and specifications shall be considered as part of the conditions for the work. In the event that certain features of the construction are not fully shown on the drawings, current national, state and local codes, ordinances, regulations or agreements as well as current acceptable building practices shall govern, and their construction shall be of the same character as for similar conditions that are shown or noted.
10. The Architect will not be responsible for and will not have control over construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and will not be responsible for the failure of the Client or his contractor, subcontractors, or anyone performing any of the work, to carry out the work in accordance with the approved contract documents.
11. Any and all drawings and specifications for site work, plumbing supply or waste, electrical circuitry, and heating, ventilating, lubricated systems, and air conditioning systems are not a part of the professional services provided to the Client by the Architect unless included under their agreement. Any discrepancies with those documents by any of the above listed services as shown in documents prepared by others should be indicated in writing to the Architect immediately.
12. Prior to application for building permit, the Contractor will furnish the Architect with two sets of the shop drawings of all prefabricated components, one set to be retained by architect, the other set to be retained by contractor after review. Items separate shop drawings included but are not limited to roof trusses, floor trusses, stairs, cabinets, vanities, etc. Should the design or configuration of any prefabricated component be modified during construction from previously approved shop drawings, the Architect shall be furnished, prior to fabrication, with revised shop drawings incorporating the revision. If the Architect is not provided with the above information, the Client shall defend, indemnify, and hold harmless the Architect from any claim or suit whatsoever, including but not limited to, all payments, expenses or costs involved, arising or alleged to have arisen from prefabricated items.
13. Use of these documents without written permission of the Architect is forbidden.
14. The conditions and assumptions stated in these specifications shall be verified by the Contractor for conformance to local codes and conditions. In the event of a discrepancy between these specifications and local codes or conditions, the Contractor shall notify the Architect in writing of the discrepancy and special engineering requirements shall be applied to insure the building's structural integrity.
15. These requirements may be superseded by more stringent information contained within the drawings. The more stringent shall be followed.
16. Soil conditions shall conform to or exceed the following conditions:
Bearing Capacity: Min. 2000 pcf. field verify by a licensed soil engineer, under all loadings and slabs on grade.
Water Table: Min. 2'-0" below bottom of all concrete slabs and footings. Footings, foundations, walls, and slabs shall not be placed on or in Marine Clay, Peat and other organic materials.
17. Bottoms of all footings shall extend below frost line of the locality to undisturbed soil or soil compacted to 95% dry density having a load carrying capacity as specified in Note 15, as verified by a soils engineer licensed in the locality where project is being built.
18. Protect sub-grade under all footings and slabs on grade from freezing during construction.
19. Excavate all foundations to reasonably exact outline and depth, avoiding over-excavation and care in of surrounding materials after slab sub-grade work is complete. Bottoms of all foundations shall be dry and level prior to pouring.
20. All foundation wall back fill under slabs where distance from edge of wall to edge of undisturbed soil exceeds 10', but less than 4'-0", shall consist of clean, porous, soil compacted in 6" layers to 95% dry density or provide #4 rebar at 2'-0" o.c., 1'-0" beyond edge of undisturbed soil and 1'-0" into foundation wall.
21. Free draining granular back fill (SM or better) shall be used against foundation walls consistent with the architectural plans and related details. Equivalent fluid permeability of back fill not to exceed 100 pcf (pounds per cubic foot). If back fill permeability is less than 100 pcf, then walls must be designed for actual pressures by a registered Professional Engineer licensed in the locality where project is being built.
22. Unbalanced fill not to exceed 7'-0" unless otherwise noted and substantiated by engineering calculations. Back fill shall not be placed against walls until slab on-grade and framed forms are in place and have reached their design strength. Proper provisions shall be taken to brace foundation walls when back filling. Where back fill is required on both sides, back fill both sides simultaneously.
23. All walls are designed as being laterally braced by the floor systems. Contractor shall ensure that walls are adequately braced during construction.
24. For buildings with roof or other truss systems, a truss layout and permanent trusses bracing plan shall be submitted. This plan shall show all the permanent lateral and other bracing locations for individual truss members as well as the connections between the truss system and other components of the structural system necessary for the permanent lateral bracing of the entire structural system.
25. The construction techniques set forth in this subsection shall be the minimum rade for all protective features required to be incorporated into construction of buildings in Use Group R for one or more.

24) All documents prepared by people other than the design professional shall be reviewed by the design professional and submitted with a letter indicating that they have been reviewed and found to be in conformance with the regulations for the design of the building. Provide compliance with the above sighted code section for the engineered floor and roof drawings.

DIVISION 3 - CONCRETE

- A) General:
1) The concrete properties shall be as follows:
Table with columns: Item, Min. Comp. Strength @ 28 Days (PSI), Min. Aggregate Size, Slump.
2) Concrete work shall conform to all requirements of ACI-308 and ACI 309, latest editions, specifications for structural concrete for buildings.
3) All reinforcing, anchor bolts, anchor straps, pipe sleeves and other inserts shall be positively secured in place and located according to the appropriate architectural drawings and details before concrete is placed.
B) Reinforcing Steel:
1) Reinforcing steel shall be intermediate grade new billet deformed bars, grade 60 conforming to ASTM A 615. Welded wire fabric shall conform to ASTM A-185. See architectural drawings for sizes and locations.
2) Detailing, fabricating and placing of reinforcement shall be in accordance with ACI-308 Manual of Standard Practice for Reinforcing Reinforced Concrete Structures. Furnish support bars and all required accessories in accordance with CRSI standards.
3) All reinforcing bars which intersect perpendicular elements shall terminate in hooks, placed two (2) inches clear from outer face of elements. Min. lap splices on all reinforcing bar splices shall be 48 bar diameter, except where otherwise noted on drawings.
4) The contractor shall notify the building official at least forty-eight (48) hours prior to each concrete pour. No concrete shall be poured into forms containing standing water or mud. Footings shall be re-estimated for placement of concrete. No concrete shall be placed until all reinforcing has been installed by the contractor and inspected by the building official.
5) Minimum protective cover for reinforcing steel shall be as follows:
a) Footings: 3"
b) Beams & columns: 2"
c) Slabs: 1" (When rebar to be placed at mid-depth of slab)
d) Walls: 1" at interior face, 1 1/2" at exterior face.
C) Foundations:
1) Footing depth as shown on the architectural drawings. Footings shall bear a minimum of 1'-0" into original undisturbed soil and a minimum of 2'-0" below finished grade. Where required, set footings to ratio of 2 horizontal to 1 vertical.
2) Where conditions develop requiring changes in excavations, such changes shall be noted as directed by the Architect.
3) All footing excavations shall be inspected by the building official prior to the placement of any concrete. The building official shall be given forty-eight (48) hours notice for this observation.
4) Soil investigation and report: All earth work, compaction and aspirations shall be done according to the recommendations of the soil investigation report prepared by a licensed geo-technical engineer. Concrete slab and footing calculations are based on a 2,000 pcf value. If on-site test borings indicate lesser values, notify Architect, in writing, so that necessary structural modifications can be made.
5) Slab on-grade shall be 4" thick reinforced with 6x6 W1.4 x W1.4 WWF and shall be placed on 10 mil vapor barrier (ASTM-1745-57 (2004) on 4" crushed stone.
6) Slab-on-grade at porch shall be 5" thick unless otherwise noted.
7) Install anchor bolts / straps; 12" from corners, 12" from mullion joints and at intervals as noted on plans. Minimum embedment for anchors shall be as specified by manufacturer.
8) Beam pockets shall be formed into concrete walls to provide a continuous level flat wall bearing surface for all beams.

DIVISION 4 - MASONRY

- A) General:
1) Materials:
a) Mortar shall be type "S" ASTM C-270, Latest Edition.
b) Hollow CMU shall meet ASTM C-90, Latest Edition.
c) Face brick shall meet ASTM C-216, Latest Edition.
2) All masonry shall be protected from freezing for not less than 48 hours after installation and shall not be constructed below 35 degrees Fahrenheit without precautions necessary to prevent freezing. No unfreeze adventures shall be added to mortar.
3) Brick veneer shall be attached to wood frame with minimum #22 galvanized sheet gage corrosion-resistive non-corroding metal ties min. 7/8" wide at 16" vertical intervals min. and 16" horizontal intervals. Provide 1/2" asphalt felt over sheathing as a moisture barrier. Provide drainage for one open vertical brick joint @ 2'-0" o.c. at level: course above finished grade.
4) All masonry work shall conform to the applicable requirements of ACI 530 (ASCCS G, Latest Edition).
5) Brick veneer may be corbel as per IRC Section R202.3. Solid masonry units shall be used for corbeling. The max. projection of one unit shall not exceed 1/2 the unit thickness or 1/3 of the unit height, at right angles to the wall the masonry corbel projection beyond the face of the wall shall not be more than 1/2 the wall thickness.
B) Brickwork:
1) Joints shall be supported laterally at the ends of each support by full-depth solid blocking except where the ends of joints are nailed or bolted to a header, band or rim joist or to an adjoining wall. Solid blocking shall be not less than 2 inches in thickness.
2) Joints having a depth-to-thickness ratio exceeding 8 to 1 based on nominal dimensions shall be supported laterally by solid blocking, diagonal bracing (wood or metal) or a 1x3 bridging nailed to the bottom of the joint at intervals not exceeding 10 feet.
3) Provide double trimmers under all headers 4 x 4 or larger. All such members shall be glued and spiked together.

DIVISION 5 - METALS

- A) General:
1) Structural steel shall conform to the requirements of the AISC Manual of Steel Construction - latest edition. Structural Steel shall conform to ASTM A-36-58A. Steel for pipe columns shall be of equivalent capacity and weld ability to ASTM A-501. All welding shall be in accordance to the American Welding Society Code and be performed by welders qualified in accordance with AWS procedures. Electrodes shall conform to ASTM A-233 E70 series.

- 2) Provide base plate for all structural steel beams bearing on concrete or masonry. Provide standard angle anchors and inserts, ties, clips, anchors, straps, hangers, bolts, bearing plates and other hardware and fastening devices as may be required or indicated on the architectural drawings.
3) All connections shall be AISC standard.

DIVISION 6 - WOOD

- A) Wood Framing:
1) Wood construction shall comply with the following building codes and standards:
a) American Institute of Timber Construction (AITC): Standards Manual
b) American Forest & Paper Association (AFPA): National Design Standards for Wood Construction
c) Southern Inspection Bureau: Standard Grading Rules for Southern Pine Lumber
d) Truss Plate Institute (TPI): Design Spec. for Light Metal Plate Connected Wood Trusses
e) American Plywood Association (APA): Guide to Plywood for Floors, Plywood Sheathing for Walls & Roofs.
f) American Wood Preservers Association Standards.
2) Lumber Grade:
a) All lumber shall be, unless otherwise noted, SPF Northern with the following minimum structural values. Grading shall comply with PS 20-70 "American Softwood Lumber Standard" and applicable Western Wood Products Association Standards.
Structural Members (SPF No. 2 or better):
a) Extreme Fiber bending stress: Fb=875 (Single member use)
b) Extreme Fiber bending stress: Fb=1000 (multiple member use)
c) Horizontal Shear: 125 PSI
d) Compression Perpendicular to grain: Fc=625 PSI
e) Compression parallel to grain: Fc=1150 PSI
f) Modulus of elasticity: E = 1,400,000
g) Moisture content: 19% maximum
2 x 4 Studs (SPF Stud Grade or better):
a) Extreme Fiber bending stress: Fb=600 (Single member use)
b) Extreme Fiber bending stress: Fb=650 (multiple member use)
c) Horizontal Shear: 125 PSI
d) Compression Perpendicular to grain: Fc=625 PSI
e) Compression parallel to grain: Fc=725 PSI
f) Modulus of elasticity: E = 1,200,000
g) Moisture content: 19% maximum
3) Other species may be used provided substitute species shall meet or exceed requirements noted above.
4) Moisture content: All lumber 4" and deeper shall have a moisture content not greater than 19%, air dried lumber is deemed but not necessary. Lumber may be kiln dried, however drying process must be slow and regulated to cause a minimum amount of checking, comparable with air dried stock.
5) All exterior lumber and lumber in contact with masonry or concrete shall be "GuardGuard TimberGuard 1 SE LGL" in accordance with AWWA UCC (24 PSI) standards and stamped "Ground Contact 0-40 Retentive Foot".
6) Grade stamps shall appear on all lumber.
7) Store all lumber above grade and protect from exposure to weather.
C) Joist Hangers:
1) All purlins, joists and beams not framed over supporting members shall be supported by means of metal hangers.
2) Joist hangers shall be prime quality steel which conforms to ASTM-A305, min. 22 gauge. Products acceptable shall be Simpson, Ram-5eg, or equivalent.
D) Bolts in Wood Framing:
1) All bolts in wood framing shall be minimum ASTM A325 standard machine bolts with standard washers (no washers or steel plate washers).
2) Steel plate washer sizes shall be as follows:
a) 1/2" and 3/4" dia. bolts: 2-1/4" sq. x 5/16"
b) 1/4" dia. bolts: 2-5/8" sq. x 5/16"
3) Each bolt hole in wood shall be drilled 1/16" larger than diameter of bolt.
4) For all anchors, see typical details on architectural drawings.
E) Lag Bolts:
1) Shall be square or hex headed and of structural grade steel.
2) Washer shall be placed under the head of lag bolts at all cases. Length of lag bolts shall be at min. the same depth of members being bolted together.
F) Altering Structural Members:
1) No structural member shall be omitted, notched, cut, blocked out or relocated without prior approval by the Architect. Do not alter sizes of members noted without approval of Architect.
G) Built-up Beams:
1) Built-up beams or joists formed by a multiple of 2 x members shall be interconnected as follows:
a) Members 9 1/4" and less in depth: glue and nailed w/2 rows 16d at 24" o.c. staggered.
b) Members greater than 9 1/4" in depth or multiple 3 x 8, glue and nailed w/3 rows of 16d at 24" o.c. staggered.
H) Cutting of Beams, Joists and Rafters:
1) Notches in the top or bottom of joists shall not exceed 1/6 the depth of the joist and shall not be located in the middle third of the span. Where joints are notched on the ends, the notch shall not exceed 1/4 the joist depth. Carnotched portions less than 4 inches wide shall not be notched unless the reduced section properties and lumber defects are considered in the design. Holes bored in joists shall not be within 2" of the top and bottom of joists and their diameter shall not exceed 1/3 the depth of the joist.
I) Pipes in Stud Bearing Walls or Shear Walls:
1) Notches or bored holes in studs of bearing walls or partitions shall not be more than that is required by IRC 2009 OR VCC 2009 as applicable.
J) Bridging and Blocking:
1) Joists shall be supported laterally at the ends of each support by full-depth solid blocking except where the ends of joists are nailed or bolted to a header, band or rim joist or to an adjoining wall. Solid blocking shall be not less than 2 inches in thickness.
2) Joists having a depth-to-thickness ratio exceeding 8 to 1 based on nominal dimensions shall be supported laterally by solid blocking, diagonal bracing (wood or metal) or a 1x3 bridging nailed to the bottom of the joint at intervals not exceeding 10 feet.
3) Provide double trimmers under all headers 4 x 4 or larger. All such members shall be glued and spiked together.

- 4) Provide and blocking underneath all joint loads, continuous to foundation or bearing, blocking shall match size of post above.
K) Lintel Schedule:
1) Unless otherwise shown, provide 1 lintel with 6" minimum bearing for each 4" of wall thickness.
2) Lintel Size (assume one story above):
Table with columns: Span, Size of Member.
L) Plywood:
1) All plywood shall be Douglas Fir or SYP and shall be manufactured and graded in accordance with "U.S. Plywood Standards PS 1-85 for Construction and Industrial Plywood".
2) Each plywood sheet shall bear the "APA" grade trademark.
3) All end joints shall be staggered and shall butt along the center lines of framing members.
4) The face grain of the plywood shall be laid at right angles to the joists and trusses and parallel to the studs.
5) Nails shall be placed 3/8" minimum from edge of the sheets. The minimum nail penetration into framing members shall be 1 1/2" for 8d nails and 1 3/4" for 16d nails.
6) Flooring sheathing shall be 2x8" APA rated SURE-4-FLOOR 24" on center, exposure 1, tongue and groove edges. Fasten sheathing with glue and 10D common nails at 12" on center in center and at 6" on center along the panel edges. Glue adhesives shall conform to the performance specifications in AFG-01.
7) Roof Sheathing shall be 7/16" APA rated sheathing 24/16, exposure 1. Fasten sheathing to framing members with 8D common nails at 12" on center in center and @ 6" on center along the panel edges. Provide "T" style edge strip unspaced edges.
8) Wall sheathing shall be 7/16" APA rated sheathing 24/16, exposure 1. Fasten with 8d nails at 6" on center at all panel edges and at 12" on center at corner.
M) Not Used.
N) Nailing:
1) All nailing, if in O.C., shall comply with nailing schedules in IRC and IRC (as applicable), unless as specified and all state and local building codes, or manufacturer's recommendations.
O) Fire Stopping:
1) Fire stopping shall be provided to cut off all concealed draft openings (both vertical and horizontal) with 2" nominal lumber or 2" thickness of 1" nominal lumber with broken lap joints or other approved material.
P) Alignment:
1) All girders and joists framing from opposite sides shall join at least six (6) inches and be spiked together.
2) When framing and joist shall be secured together by metal straps.
Q) Partitions:
1) General:
a) Double joists centered under all parallel partitions. For floor trusses follow manufacturer's instructions.
b) Provide solid blocking at 4'-0" o.c. between the joist and first interior parallel joist.
c) Blocking on the top and bottom portion of double top plates must be staggered a minimum of 2'-0".
d) Structural variations are allowed if substantiated by engineering calculations stamped by a professional engineer licensed to practice in the jurisdiction where construction is taking place. One set of calculations to be provided to Architect for approval prior to construction.
e) Lap top plates at corners and intersections.
2) Bearing Walls Supporting One Floor or More:
a) Exterior/interior walls must be constructed of 2x4 or 2x6 studs spaced 16" o.c., unless noted otherwise on plans of type lumber specified.
b. If a double top plate of less than 2 2x6's or 2 2x4's is used, floor joists shall be centered directly over and below bearing wall studs with a tolerance of no more than 5" unless substantiated by engineering calculations.
c. Blocking shall be provided with a minimum 1/2" gypsum board (unless) according to drywall manufacturer recommendation.
R) Wood Roof Trusses:
1) Timber trusses shall be designed in accordance with N.F.P.A. standards. Calculations, joint strength information (allowable load per square inch or per foot, allowable edge distance, allowable end distance) load test data and other information as necessary shall be submitted to local authorities for approval prior to fabrication. Each truss shall be secured at bearing with one "after the fact" metal tie anchor at each end.
2) Before installation, Manufacturer to calculate horizontal thrust of trusses subjected to design loads and to include this information with shop drawings. Such thrusts to be occurred at one end with a metal "after the fact" type anchor and a scissor truss connector.
3) Truss diagrams and truss layout plan show design intent only. Truss manufacturer shall verify all spans, elevations, heel heights, pitches, etc. Fabricator must submit two sets of complete shop drawings and truss layout plan, each sealed by a professional engineer registered in the jurisdiction where the construction is taking place, to Architect prior to fabrication. One set to be returned to the Contractor after review.
4) Professional Wood Trusses: Truss members shall be engineered to support all loads required uniform live loads and dead loads, as specified on the construction documents, all point loads, partial uniform loads, or combinations thereof shall be calculated by the truss manufacturer and accounted for in the design of the trusses.
5) Truss shop drawings indicating calculations, loading, load test data, horizontal thrust and any other information required shall be sealed by a professional engineer registered in the jurisdiction where construction is taking place and be submitted to building officials prior to fabrication.

- 6) Store trusses above grade on wood blocking in such a way as to prevent bearing, warping or deflection of trusses.
7) Roof Truss Bracing: Install permanent bracing for all wood roof trusses as specified below, following all recommendations specified in Wood Trusses, Construction and Recommendations INT-76, published by the Truss Plate Institute, Inc.
a) Top Chord Planer: Properly installed plywood sheathing with staggered joints and correct nailing should adequately brace the top chord plane. However, when gable end trusses are used, continuous 2x4 braces should be installed at a 45 deg. angle to the truss framing. These braces should occur at 3 points on each gable end, mid-span between roof eave-line and wall on each side of center-line and at center-line of roof.
b) Web Member Planer: Provide continuous 2x4 braces at 45 deg. angle from the bottom chord of the truss. This bracing should occur at least 4 adjacent trusses and terminate at the truss ridge. Securely nail this brace to all members it crosses. Install this bracing at all gable end wall conditions and at 14 foot maximum intervals throughout the truss system.
c) Bottom Chord Planer: Provide direct applied gypsum ceiling or continuous 2x4 braces on top of the bottom chord of all roof trusses. These braces minimum are required located at the 1/4 points of the truss span. Securely nail these braces to all members that it crosses.

- 8) LVL/ENGINEERED LUMBER:
1) All LVL's shall be, unless otherwise noted, with the following minimum structural values:
a) Extreme Fiber bending stress: Fb=2,800 PSI
b) Horizontal shear: 285 PSI
c) Compression perpendicular to grain: Fc = 750 PSI
d) Compression parallel to grain: Fc = 2,510 PSI
e) Modulus of elasticity: E = 1,900,000 PSI
2) Handrails:
1) Handrails having minimum and maximum heights of 34 inches and 38 inches respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of stairways. All required handrails shall be continuous the full length of the stairs with two or more tiers from a point directly above the lower side of the flight. Treads shall be returned or shall terminate in newel posts or safety terminals. Required guards shall have intermediate rails at 4" on center, maximum.
2) The hand grip portion of handrails shall have a circular cross section of 1 1/2 inches minimum to 2 1/8 inches maximum. Other handrail shapes that provide an equivalent grasping surface are permissible. Edge shall have a minimum radius of 1/8 inch.
3) Wood Handrails:
a) Joist floor systems shall be designed by manufacturer to meet and/or exceed L480 improved performance live load deflection criteria.
2) Refer to structural plans for depth of floor system and I-joist specifications.
3) I-joist members shall be engineered by the manufacturer to support all required uniform live loads and dead loads, as specified on the construction documents. All panel loads, partial uniform loads, or combinations thereof shall be calculated by the I-joist manufacturer, in accordance with the design loads noted herein, and accounted for in the design of the floor system.
4) Engineering, signed and sealed by a professional engineer, registered in the state of proposed construction, shall be submitted to the architect and/or structural engineer for review and approval, prior to delivery. Shop drawings shall include the following:
a) Detailed plan layouts, conforming to structural plans, identifying all members.
b) Specifications for I-joists, engineered lumber beams, rim board, web stiffeners, blocking, typical details.
c) Specifications for all metal hangers and connectors.
d) Handing and installation instructions.

- DIVISION 7 - THERMAL AND MOISTURE PROTECTION
A) Roofing:
1) Fiberglass Shingles: Twenty (20) year self-sealing shingles over 1 layer of 1/2" asphalt saturated felt underlayment unless otherwise noted. Install according to manufacturer's instructions.
2) Cedar Shakes: #2 grade red-label cedar shakes (18" x .40") over one layer 1/2" A.S.F. underlayment. Install with 4 1/2" weather exposure. Apply an 18" wide strip of 1/2" A.S.F. over each course of shakes, 5" from bottom edge of shake extending over top of shake and onto sheathing.
3) Eave Flashing: See note B-4 below.
4) For roof slopes from two units vertical in 12 units horizontal, up to four units vertical in 12 units horizontal, underlayment shall be two layers applied in the following manner: Apply a 1/2-inch strip of underlayment felt parallel with and starting at the eaves, fastened sufficiently to hold in place. Starting at the eave, apply 36-inch wide sheets of underlayment, overlapping successive sheets 18 inches, and fastened sufficiently to hold in place. For roof slopes of four units vertical in 12 units horizontal or greater, underlayment shall be one layer applied in the following manner. Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapping 2 inches, fastened sufficiently to hold in place. End laps shall be offset by 5 feet.
B) Flashing:
1) All flashing, counter flashing, and coping when of metal shall be of not less than .08 U.S. gauge corrosion-resistant metal.
2) Flash all exterior openings and all building corners with approved material to extend at least 4" behind wall covering. Cover all exposed plywood at building corners with waterproof building paper.
3) Step flash at all roof to exterior corners. Flash and caulk wood beams and other projections through exterior walls or roof surfaces.
4) Eave flashing when required shall consist of two layers of 1/8" A.S.F. fastened together in addition to required flashing from the edge of the eave up the roof to eave a point 24 inches inside the interior wall line of the building.
C) Attic Ventilation:
1) Enclosed attic truss spaces and enclosed roof rafters shall have cross ventilation for each separate space with screened ventilating openings protected against the entrance of rodents and rain in accordance with the IRC or IRC code, (as applicable) edition as specified and all state and local codes and ordinances. See details on architectural plans for locations and details.

DIVISION 8 - DOORS AND WINDOWS

- A) General:
1) All windows shall have insulating glass, or single glass with storm windows or equal. Sizes indicated on plans are nominal only. Buyer to consult with window manufacturer to determine exact sizes, rough opening, etc.
EGRESS WINDOWS in bedrooms requires 6.7 sq. ft. clear opening on second floor and 5.7 sq. ft. clear opening on 1st floor. Minimum width shall be 20 inches and minimum height must be 24 inches. 58 height of 44" or less above the floor for egress purposes.
Glazing in doors and fixed glass panels within 24" horiz. of doors or within 18" of the floor, which may be subject to frequent and moment accidental human impact shall be tempered as per IRC, IRC-edition as specified and State and Local codes and ordinances.
B) Window Installation:
1) All windows shall be installed in accordance with the provisions of the IRC, IRC-edition as specified and state and local codes and ordinances (as applicable).
2) Gypsum wallboard shall not be installed until weather protection for the installation is provided. Storage should be in accordance with manufacturer's instructions.
3) All edges and ends of gypsum wallboard shall occur on the framing members except those edges which are perpendicular to the framing members. All edges of gypsum wallboard shall be in exterior contact except in concealed spaces where the relative construction is not required.
4) The sizes and spacing of fasteners shall comply with IRC, IRC-edition as specified and state and local codes and ordinances (as applicable).
5) Provide moisture resistant drywall cement board at tubs and showers as shown on details in architectural drawings.
6) Fin-relative Construction: Garage ceilings and walls when adjacent to a dwelling unit shall be of rated construction according to the UL. Design specified on the drawings when units are designed under IRC standards as indicated on the drawings. Under IRC standards, the garage shall be separated from the residence and its attic area by not less than 5/8" type "X" gypsum board applied to the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 5/8" type "X" gypsum board or equivalent. All other floor assemblies, unless located directly over a space protected by a NFPA 13D automatic sprinkler system, shall be protected by not less than 1/2" type "X" G.W.B. or equivalent on the underside of the floor framing system.

DIVISION 9 - FINISHES

- A) General:
1) All gypsum wallboard shall be installed in accordance with the provisions of the IRC, IRC-edition as specified and state and local codes and ordinances (as applicable).
2) Gypsum wallboard shall not be installed until weather protection for the installation is provided. Storage should be in accordance with manufacturer's instructions.
3) All edges and ends of gypsum wallboard shall occur on the framing members except those edges which are perpendicular to the framing members. All edges of gypsum wallboard shall be in exterior contact except in concealed spaces where the relative construction is not required.
4) The sizes and spacing of fasteners shall comply with IRC, IRC-edition as specified and state and local codes and ordinances (as applicable).
5) Provide moisture resistant drywall cement board at tubs and showers as shown on details in architectural drawings.
6) Fin-relative Construction: Garage ceilings and walls when adjacent to a dwelling unit shall be of rated construction according to the UL. Design specified on the drawings when units are designed under IRC standards as indicated on the drawings. Under IRC standards, the garage shall be separated from the residence and its attic area by not less than 5/8" type "X" gypsum board applied to the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 5/8" type "X" gypsum board or equivalent. All other floor assemblies, unless located directly over a space protected by a NFPA 13D automatic sprinkler system, shall be protected by not less than 1/2" type "X" G.W.B. or equivalent on the underside of the floor framing system.

DIVISION 10 - MECHANICAL

- A) Heating Ventilation and Air Conditioning:
1) All work shall be in full accordance with all current codes and regulations of the governing agencies.
2) Mechanical subcontractor to submit shop drawings indicating duct layout, condenser location, start sizes, etc. to Architect prior to installation. Mechanical subcontractor to review structural shop drawings and notify the Architect of any mechanical and structural and design intent conflicts prior to construction.
3) All work shall be done in a neat and workmanlike manner and so as to not necessarily hamper that portion of the work performed by others.
B) Plumbing:
1) All work shall be in accordance with all current codes and regulations of governing agencies.
2) All work shall be done in a neat and workmanlike manner so as to not necessarily hamper that portion of the work performed by others.
3) Plumbing subcontractor to review structural and mechanical drawings and notify the Architect of any plumbing, HVAC, structural, and design intent conflicts prior to construction.

DIVISION 16 - ELECTRICAL

- A) General:
1) All work shall be in full accordance with all current codes and shall comply with the requirements of the serving power and telephone companies.
2) All work shall be done in a neat and workmanlike manner and so as to not necessarily hamper that portion of the work performed by others.
3) Installation:
a) All equipment installed outdoors and exposed to weather shall be weatherproof.
b) Bottom of receptacles and switches shall be located 5" above counter top unless otherwise noted on drawings.
c) Receptacles shall be installed vertically at 12" above finish floor and 12'-0" o.c. horizontally. All receptacles within 6'-0" horizontally of a sink, lavatory or tub shall be wired to a ground fault interrupter (GFI).
d) Wall switches to be 48" above floor.
a) All smoke detectors to be wired in a manner such that the activation of one will activate all.
1) All branch circuits that supply 125-volt, single-phase, 15- and 20 ampere receptacle outlets installed in bedrooms shall be protected by arc-fault interruption and will be installed as required.
B) Attic Ventilation:
1) Enclosed attic truss spaces and enclosed roof rafters shall have cross ventilation for each separate space with screened ventilating openings protected against the entrance of rodents and rain in accordance with the IRC or IRC code, (as applicable) edition as specified and all state and local codes and ordinances. See details on architectural plans for locations and details.



Professional Certification: I certify that these documents were approved by me, and that I am a duly licensed architect under the laws of the State of Maryland, license number 16051, expiration date November 25, 2017.

Table with columns: REV. #, DATE, REMARKS. Includes vertical text: THISTLE DESIGN LLC, thistle@comcast.net, 443-924-0422.

Vertical text: FILE NAME: BUILDER: MUELLER HOMES, MODEL: FARINA RESIDENCE, DRAWING TITLE: GENERAL SPECS - IRC 2015, OPTION OR LOT DESCRIPTION: C11. Includes Mueller Homes logo.



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| 2015 IECC CODE COMPLIANCE | | | |
|---------------------------|---|----------|--|
| R301.1 | Climate zone 4A | R402.4 | Air Leakage (Mandatory): Sections R402.4.1 through R402.4.4 The Building Thermal Envelope shall be constructed to limit air leakage in accordance with the requirements of these sections. Exterior walls and penetrations will be sealed per these sections of the 2015 IECC with caulk, gaskets, weatherstripping or an air barrier of suitable material. |
| R401.2 | Compliance Method: Sections R401 through R404 Mandatory and Prescriptive Provisions | R402.4.1 | Building Thermal Envelope Tightness Test: Building thermal envelope tightness and insulation installation must meet the inspection criteria listed in table 402.4.1.1, or alternative methods allowed by code. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding 3 air changes per hour for Climate Zone 4. A "Blower Door Air Infiltration Test" shall be performed in all units per IRC section R303.4. |
| R401.3 | Certificate A permanent Energy Certificate shall be completed by the builder or registered design professional and posted on a wall in the space where the furnace is located, a utility room or an approved location inside the building. | R402.4.2 | Fireplaces All wood burning masonry fireplaces will have tight-fitting flue dampers or doors and outdoor combustion air. Where using tight-fitting doors on factory built fireplaces listed and labeled in accordance to UL 127, the doors shall be tested and listed. Where using tight-fitting doors on masonry fireplaces, the doors shall be listed and labeled in accordance with UL 907. |
| R402.1 | Attic Insulation: Raised Heel Trusses R-49 R-38 | R402.4.4 | Rooms containing fuel burning appliances: Where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening shall be located outside the building thermal envelope or enclosed in a room isolated from inside the thermal envelope. Exception: Direct Vent appliances with both intake and exhaust pipes installed continuous to the outside. |
| R402.1 | Wood Frame Wall: R-20 or R13 + R5 continuous insulation | R402.4.5 | Recessed Lighting Recessed luminaries installed in the building thermal envelope shall be sealed to limit air leakage. |
| R402.1 | Basement Wall Insulation: R-13/R-10 Foil Faced Continuous, uninterrupted Batts Full Height | R403.1 | Controls (Mandatory) At least 1 programmable thermostat shall be provided for each separate heating and cooling system. Heat pumps having supplementary electric-resistance heat shall have controls that, except during frost, prevent supplemental heat operation when heat pump compressor can meet the heating load. |
| R402.1 | Crawl Space Wall Insulation: R-13/R-10 Foil faced Continuous Batts Full Height extending from floor above to finish grade level and then vertically or horizontally an additional 2' -0" | R403.3.1 | Mechanical Duct Insulation Supply and Return Ducts in Attic: 3" in diameter or greater R-8 minimum, less than 3" diameter R-6 minimum. Ducts in other portions of the building outside of the building thermal envelope: 3" in diameter or greater R-6 minimum, less than 3" diameter R-4.2 minimum. Ducts located under concrete slabs R-6 minimum. |
| R402.1 | Floor Insulation over Unconditioned Space: R-19 batt insulation. | | |
| R402.1 | Window U-Value/SHGC .35 (U-Value) .40 (SHGC) | | |
| R402.2.9 | Slab on Grade Floors Less Than 12" Below Grade: R-10 Rigid Foam Board Under Slab Extending Either 2' -0" Horizontally or 2'-0" Vertically | | |
| R402.2.4 | Attic Access: Attic access scuttle will be weather-stripped and insulated R-49 Vertical Doors that access unconditioned attic space shall have .35 U-Value | | |
| | | 403.3.2 | Duct Sealing All ducts, air handlers and filter boxes will be sealed. Joints and seams will comply with section M1601.4.1 of the IRC. |
| | | R403.3.3 | Duct Testing A duct tightness test (duct total leakage test) will be performed on all homes and shall be verified by either a post construction test or a rough-in test. Duct tightness test is not required if the air handler and all ducts are located within the building thermal envelope. |
| | | R403.6 | Mechanical Ventilation The building shall be provided with ventilation that meets the requirements of the International Residential Code or International Mechanical Code, as applicable. Per IRC R303.4, when the air infiltration rate of a dwelling unit is 5 air changes per hour or less, the dwelling unit shall be provided with whole-house mechanical ventilation in accordance with IRC section M1507.3. Outdoor air intakes or exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating. |
| | | R403.7 | Equipment Sizing shall comply with R403.7. |
| | | R404.1 | Lighting Equipment Not less than 75% of the lamps in permanently installed lighting fixtures shall be high efficiency lamps or not less than 75% of permanently installed lighting fixtures shall contain only high-efficiency lamps. |
| | | | Water Heater: Minimum efficiency established by NAECA |
| | | | Mechanical Testing: All mechanical testing to be performed by a certified Mechanical Contractor. |

REMARKS

DATE

REV. #



BUILDER
MUELLER HOMES

MODEL
FARINA RESIDENCE

DRAWING TITLE
GENERAL SPECS - IECC 2015
OPTION OR LOT DESCRIPTION

FILE NAME

ISSUE DATE

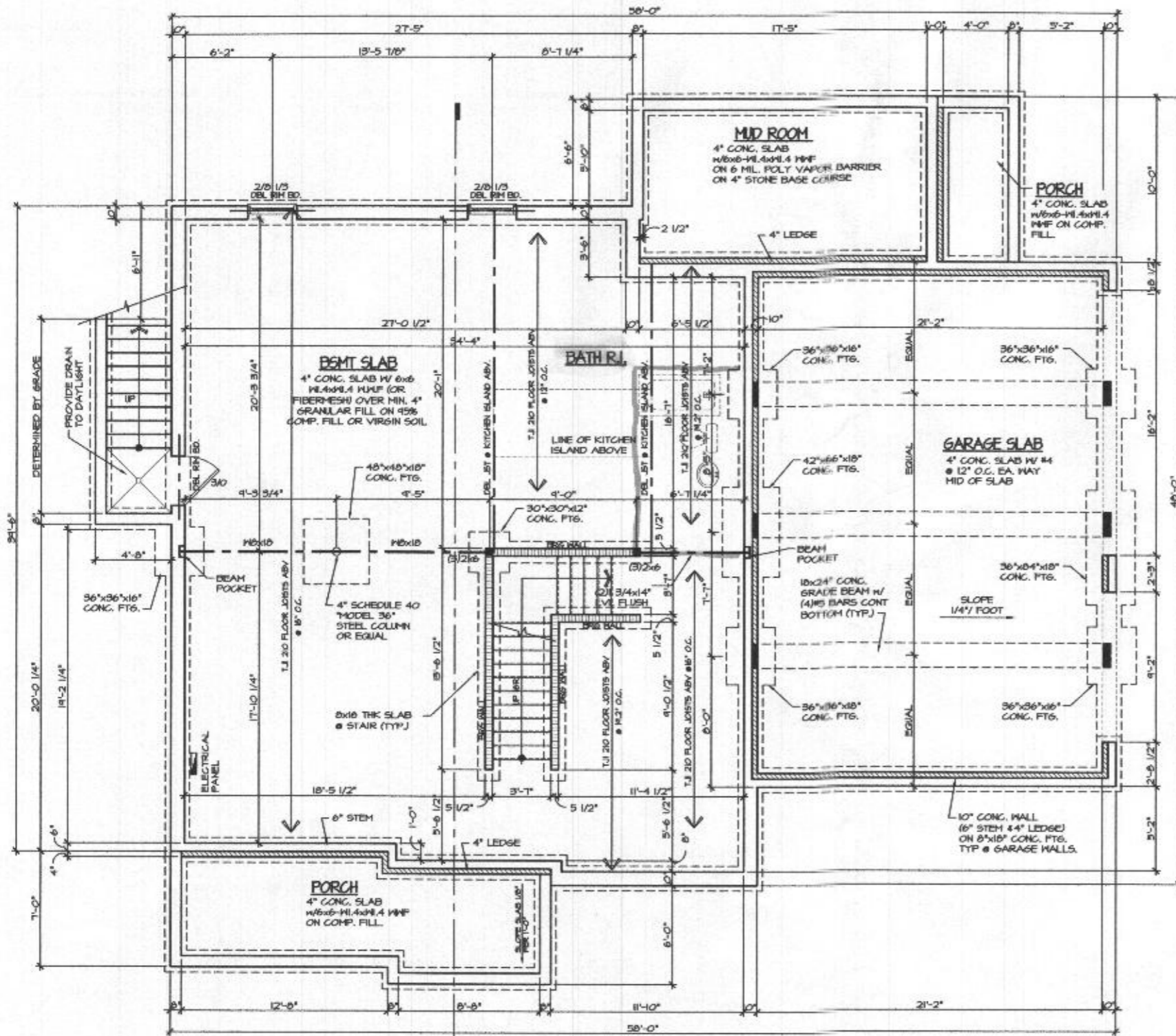
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 expiration date November 23, 2017.

1 Bath



FOUNDATION NOTES:
 FOUNDATION WALL THICKNESS IS INDICATED AS 10". VARIATIONS MAY BE REQUIRED BY SOIL CONDITIONS. REFER TO STRUCTURAL SHEETS AND THE CONCRETE REINFORCING TABLE ON THE SPECIFICATION SHEET TO VERIFY THE FOUNDATION POUR HEIGHT, MAX. BACKFILL, WALL THICKNESS AND REINFORCING REQUIREMENTS. FIELD ADJUST AFFECTED INTERIOR DIMENSIONS AND STEEL BEAM LENGTHS AS NEEDED (SUA).
 STEP FOUNDATION WALLS AND FOOTINGS AS REQUIRED FOR GRADE CONDITIONS.
 SOIL BEARING CAPACITIES ARE ASSUMED TO BE 2000 P.S.F. @ 8" INCL. IF LESS THAN 2000 P.S.F. SOIL IS ENCOUNTERED NOTIFY THE ARCHITECT AND PROFESSIONAL ENGINEER OF RECORD TO VERIFY THE ADEQUACY OF SPOT FOOTING DESIGN. REFERENCE THE CONCRETE FOOTINGS TABLE ON THE SPECIFICATION SHEET TO DETERMINE THE REQUIRED FOOTING WIDTH.

FOUNDATION PLAN
 SCALE: 1/8"=1'-0" @ 11x17
 1/4"=1'-0" @ 22x34



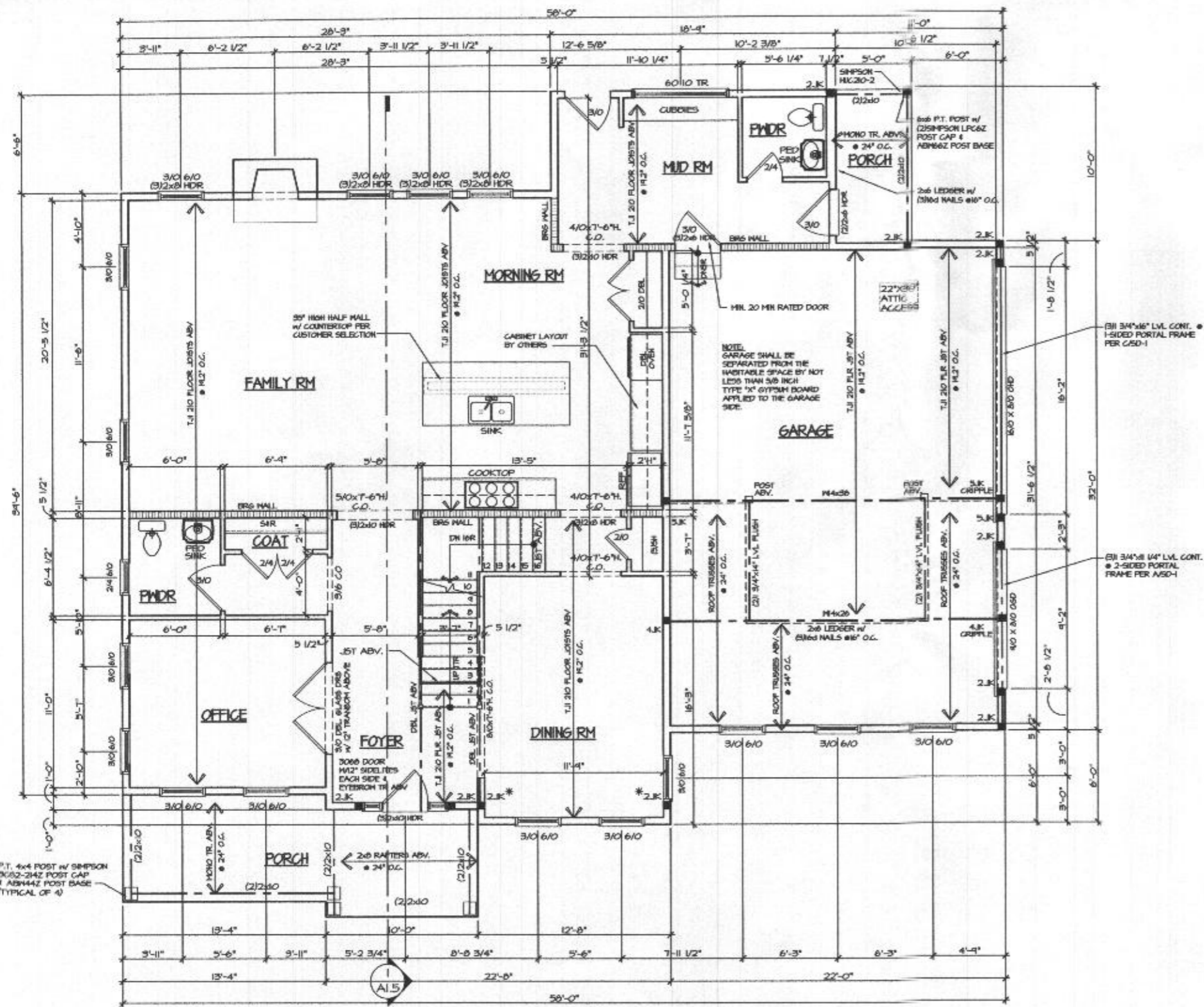
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| MUELLER HOMES | | | |
| FARINA RESIDENCE | | | |
| FOUNDATION PLAN | | | |
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| REV. # | DATE | REMARKS |
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NOTES:

- ALL EXTERIOR MAIN HOUSE WALLS TO BE 2x6 STUDS @ 24" O.C. w/ DOUBLE TOP PLATE, UNO.
- ALL INTERIOR BEARING WALLS TO BE 2x4 STUDS @ 16" O.C. w/ DOUBLE TOP PLATE, UNO.
- ALL INTERIOR NON-BEARING WALLS TO HAVE 2x4 STUDS @ 24" O.C. w/ A SINGLE TOP PLATE, UNO.
- ALL INTERIOR NON-BEARING WALLS @ JOIGHEN TO HAVE 2x4 STUDS @ 16" O.C. w/ A SINGLE TOP PLATE, UNO.
- UNLESS NOTED OTHERWISE, ALL HEADERS TO BE (2)2x6 AND HAVE (1) JACK STRIP @ (6) KING STRIP EACH END.
- JACK STRIPS NOTED ON PLAN TO HAVE ADDITIONAL (6) KING STRIP EA. END, WIDTH DETERMINED BY HALL THICKNESS.
- (K) DENOTES POST ADV. - PROVIDE SOLID BLOCKERS.
- DIMENSIONS @ EXTERIOR FRAME WALLS ARE TO FACE OF STUD, AND DO NOT INCLUDE SHEATHING. STUD WALLS ARE FLUSH TO EDGE OF FOUNDATION SHEET PILING.
- ALL INTERIOR UNDIMENSIONED PARTITIONS ARE 2x4 NOMINAL, UNO.
- ALL BASE-OUT FINISH WALLS TO BE LOCATED 1/2" AWAY FROM CONCRETE FOUNDATION WALL.
- HINGED HEAD HEIGHTS SHALL BE AS NOTED ON ELEVATIONS.
- ALL ANGLED WALLS ARE 45 DEGREES, UNO.
- PROVIDE SOLID BLOCKERS @ ALL POINT LOADS CONTINUOUSLY DOWN TO FOUNDATION.
- PROVIDE ADEQUATE CLEARANCE AT PLUMBING STACKS AS REQUIRED.
- ANY VARIATION FROM THIS PLAN THAT WILL REQUIRE CHANGES TO THE STRUCTURAL MEMBERS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
- ALL MOOD IN CONTACT WITH CONCRETE TO BE PRESERVE TREATED.
- BATHROOM FANS TO BE VENTED TO EXTERIOR.
- DRYER SHALL BE VENTED TO EXTERIOR.
- ALL GUARDRAILS SHALL HAVE SPINDLES SPACED NO FARTHER APART THAN TO OBSTRUCT THE PASSAGE OF A 4" SPHERE THROUGH THE GUARDRAIL.

MULTIPLE MEMBER FASTENING NOTES:

REFER TO ENGINEERED LUMBER MFR.'S SPECIFICATIONS FOR MULTI-MEMBER INSTALLATION & CONNECTION REQUIREMENTS.

PASTEUP MULTIPLE MEMBER JACKS TOGETHER w/ MIN. 1/2" NAILS @ 8" O.C. STAGGERED ALONG ENTIRE LENGTH OF MEMBERS. PROVIDE NAILS WITHIN 5" OF TOP OR BOTTOM OF MEMBERS.

PASTEUP MULTIPLE MEMBER BEAMS TOGETHER w/ MIN. 1/2" NAILS @ 8" O.C. STAGGERED ALONG ENTIRE LENGTH OF MEMBERS. PROVIDE NAILS WITHIN 5" OF EACH END OF MEMBERS.

FIRST FLOOR PLAN
 SCALE: 1/8"=1'-0" @ 11x17
 1/4"=1'-0" @ 22x34

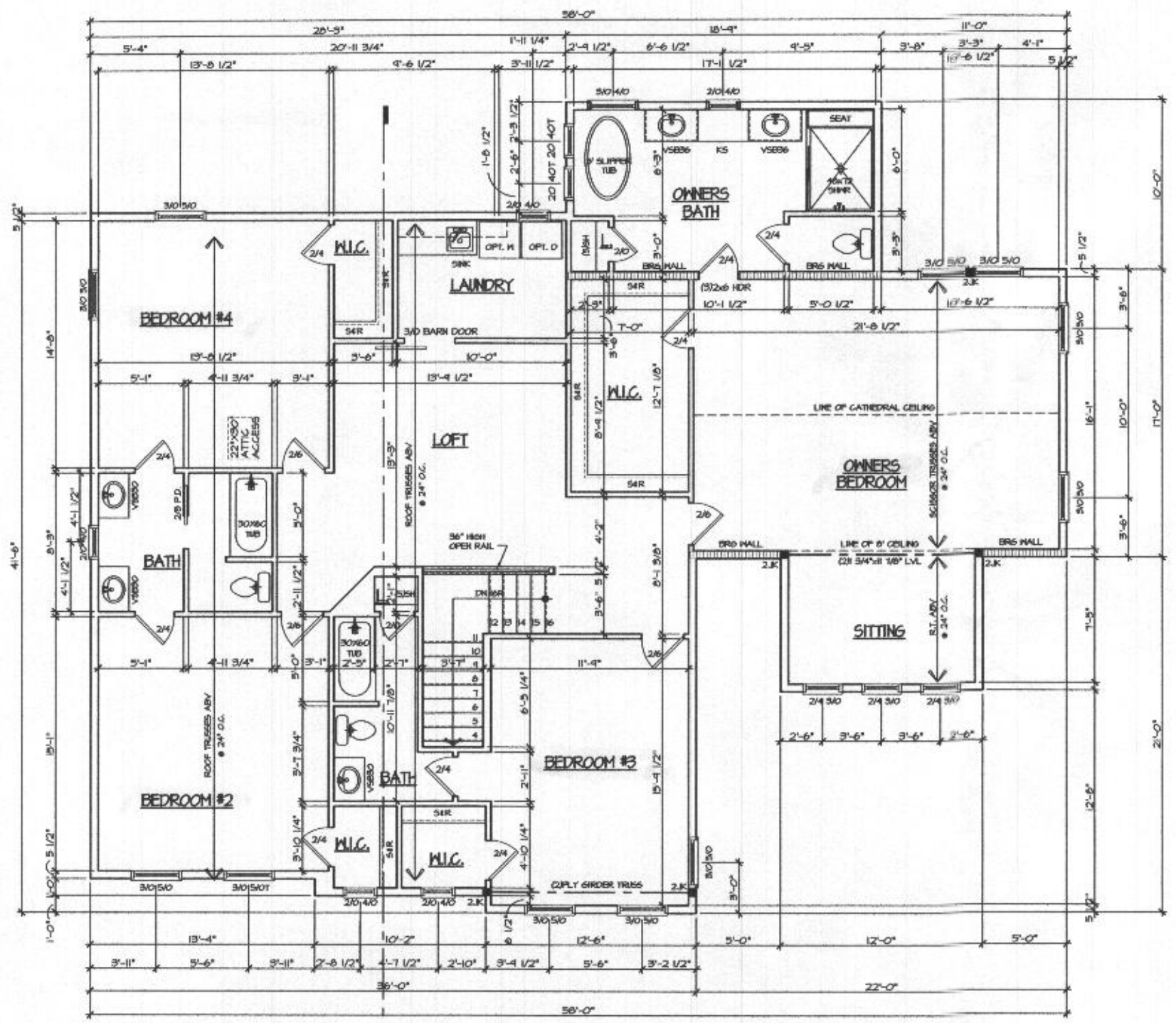


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| | | OPTION OR LOT DESCRIPTION A13 |
| REMARKS | DATE | REV. # |
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SECOND FLOOR PLAN
SCALE: 1/8"=1'-0" @ 11x17
1/4"=1'-0" @ 22x34



43R

- NOTES:**
- GRID HALLS
 - ALL EXTERIOR MAIN HOUSE HALLS TO BE 2x4 STUDS @ 24" O.C. w/ DOUBLE TOP PLATE, UNO.
 - ALL INTERIOR BEARING HALLS TO BE 2x4 STUDS @ 16" O.C. w/ DOUBLE TOP PLATE, UNO.
 - ALL INTERIOR NON-BEARING HALLS TO HAVE 2x4 STUDS @ 24" O.C. w/ A SINGLE TOP PLATE, UNO.
 - ALL INTERIOR NON-BEARING HALLS @ KITCHEN TO HAVE 2x4 STUDS @ 16" O.C. w/ A SINGLE TOP PLATE, UNO.
 - UNLESS NOTED OTHERWISE, ALL HEADERS TO BE (2)2x6 AND HAVE (1) JACK STUD & (2) KING STUD EACH END.
 - JACK STUDS NOTED ON PLAN TO HAVE ADDITIONAL (2) KING STUD EA. END. WIDTH DETERMINED BY HALL THICKNESS.
 - ⊕ DENOTES POST ADV. - PROVIDE SOLID BLOCKERS.
 - DIMENSIONS @ EXTERIOR FRAME HALLS ARE TO FACE OF GRID, AND DO NOT INCLUDE SHEATHING. GRID HALLS ARE FLUSH TO EDGE OF FOUNDATION STEEL WALL.
 - ALL INTERIOR UNREINFORCED PARTITIONS ARE 2x4 NOMINAL, UNO.
 - ALL BASEMENT FINISH HALLS TO BE LOCATED 1/2" AWAY FROM CONCRETE FOUNDATION WALL.
 - FINISH HEAD HEIGHTS SHALL BE AS NOTED ON ELEVATIONS.
 - ALL ANGLED HALLS ARE 45 DEGREES, UNO.
 - PROVIDE SOLID BLOCKERS @ ALL POINT LOADS CONTINUOUSLY DOWN TO FOUNDATION.
 - PROVIDE ADEQUATE CLEARANCE AT PLUMBING STAGES AS REQUIRED.
 - ANY VARIATION FROM THIS PLAN THAT WILL REQUIRE CHANGES TO THE STRUCTURAL MEMBERS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
 - ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESURE TREATED.
 - BATHROOM FANS TO BE VENTED TO EXTERIOR.
 - DRYER SHALL BE VENTED TO EXTERIOR.
 - ALL GUARDRAILS SHALL HAVE SPINDLES SPACED NO FARTHER APART THAN TO OBSTRUCT THE PASSAGE OF A 4" SPHERE THROUGH THE GUARDRAIL.

- MULTIPLE MEMBER FASTENING NOTES:**
- REFER TO ENGINEERED LUMBER HPL'S SPECIFICATIONS FOR MULTI-MEMBER INSTALLATION & CONNECTION REQUIREMENTS.
- FASTEN MULTIPLE MEMBER JACKS TOGETHER w/ MIN. 10d NAILS @ 8" O.C. STAGGERED ALONG ENTIRE LENGTH OF MEMBERS. PROVIDE NAILING WITHIN 3" OF TOP OR BOTTOM OF MEMBERS.
- FASTEN MULTIPLE MEMBER BEAMS TOGETHER w/ MIN. 10d NAILS @ 8" O.C. STAGGERED ALONG ENTIRE LENGTH OF MEMBERS. PROVIDE NAILING WITHIN 3" OF EACH END OF MEMBERS.

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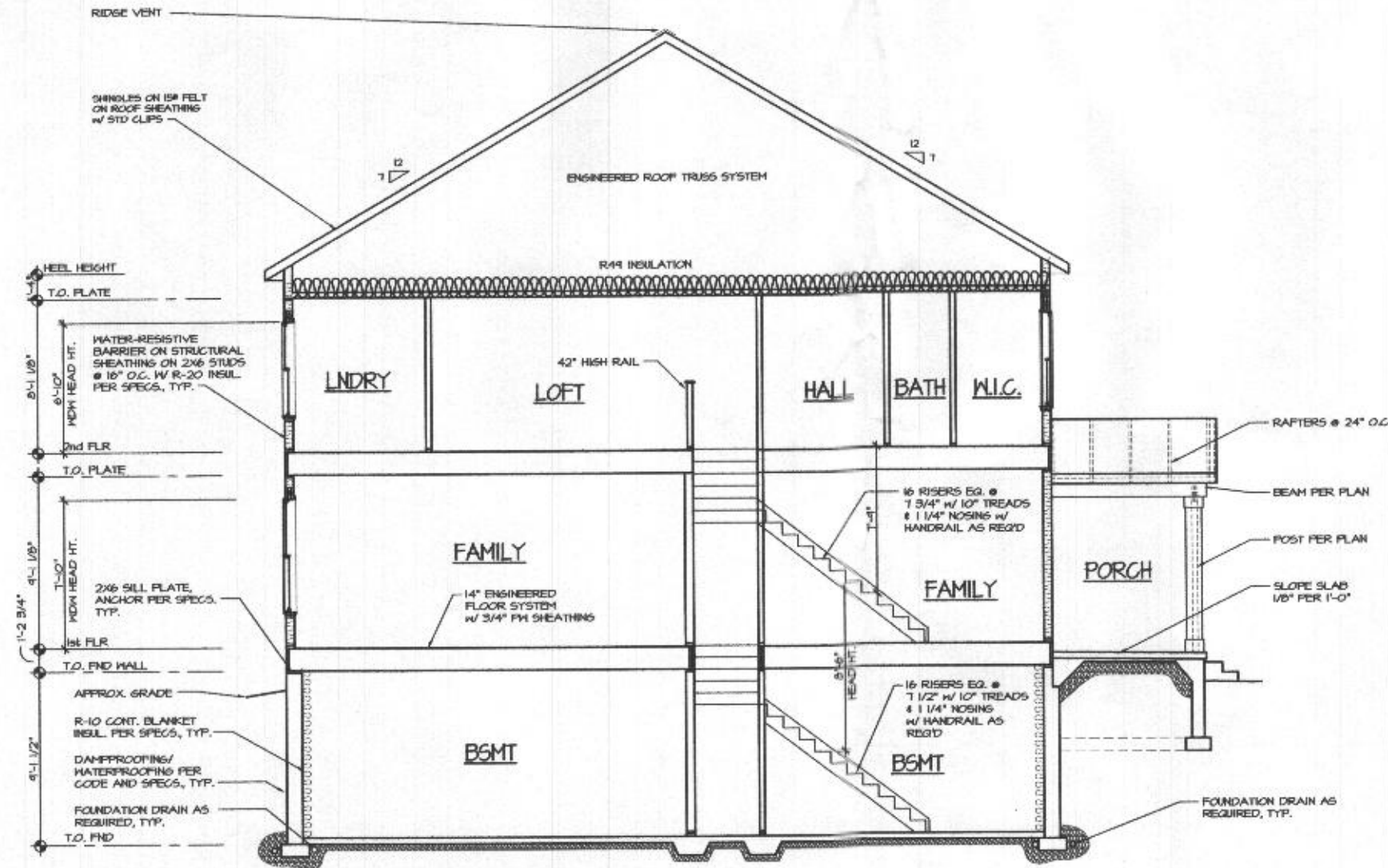
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MODEL: **FARINA RESIDENCE**
DRAWING TITLE: **SECOND FLOOR PLAN**
OPTION OR LOT DESCRIPTION



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BLDG SECTION
SCALE: 1/8"=1'-0" @ 11x17
1/4"=1'-0" @ 22x34

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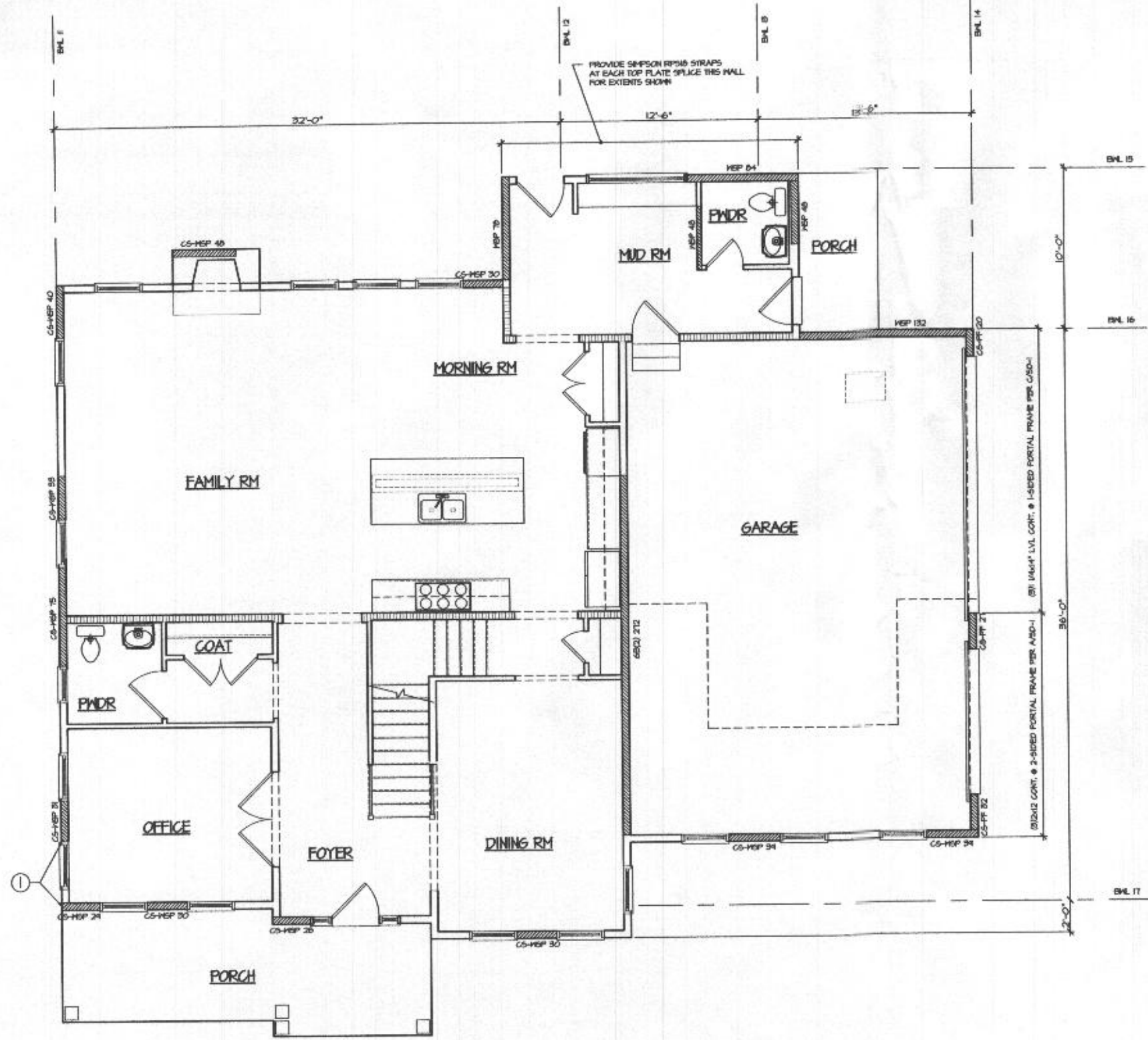
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| SHEET NO. | BUILDING SECTIONS |
| | OPTION OR LOT DESCRIPTION |



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| ISSUE DATE | FARINA RESIDENCE |
| SHEET NO. | A15 |



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FIRST FLOOR PLAN



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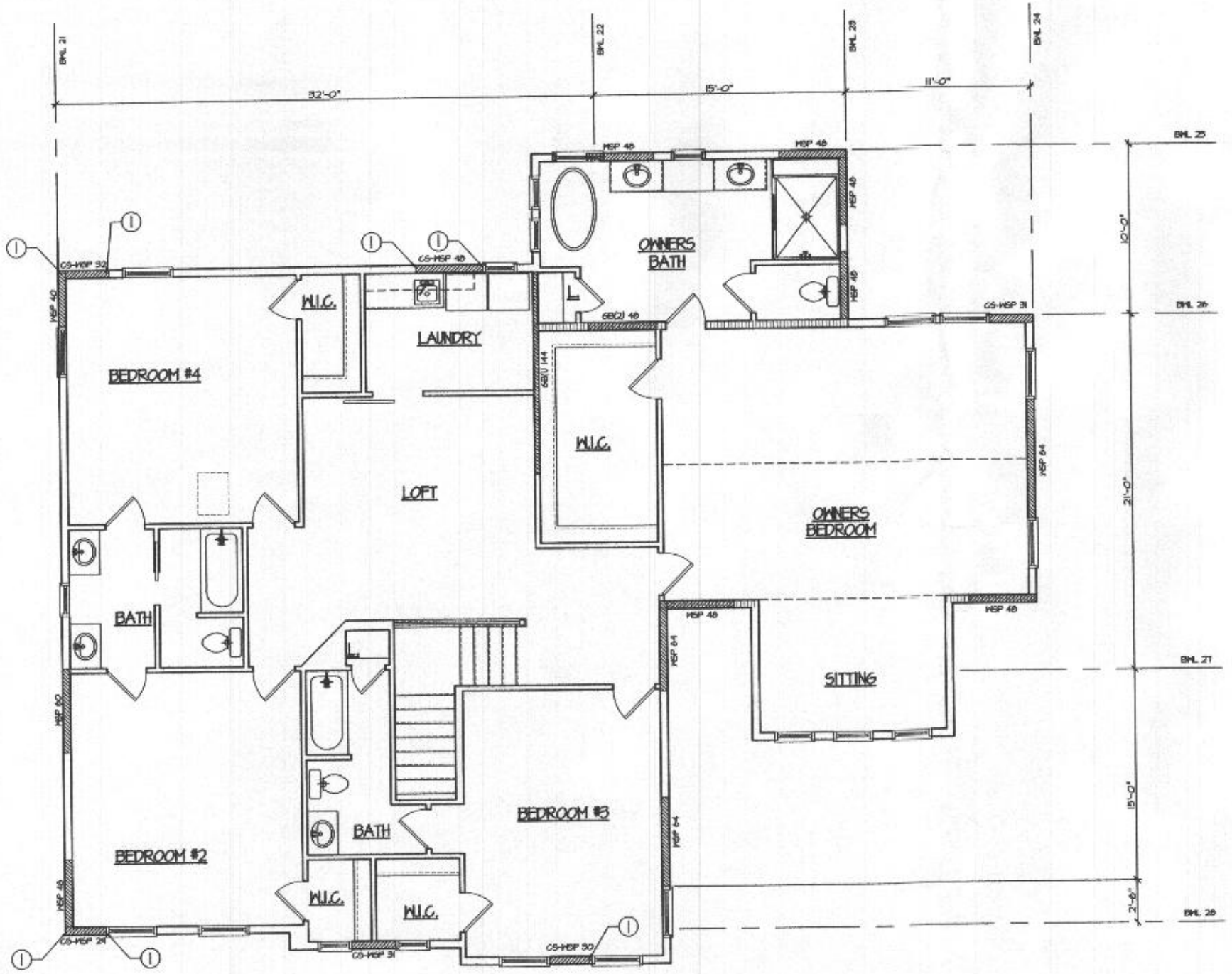
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 thistle@comcast.net
 443.924.0922

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| BUILDER | MUELLER HOMES |
| MODEL | FARINA RESIDENCE |
| DRAWING TITLE | FIRST FLOOR WALL BRACING PLAN |
| OPTION OR LOT DESCRIPTION | |

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① CONNECT STUD @ END OF BRACED WALL PANEL TO STUD OR BEAM IN WALL BELOW w/ A SIMPSON C522 COIL STRAP w/ 25KOD NAILS EACH END.

SECOND FLOOR PLAN



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BUILDER: MUELLER HOMES
MODEL: FARINA RESIDENCE
DRAWING TITLE: SECOND FLOOR WALL BRACING PLAN
OPTION OR LOT DESCRIPTION:

FILE NAME: MUELLER HOMES
ISSUE DATE:
SHEET NO.:
WB-2



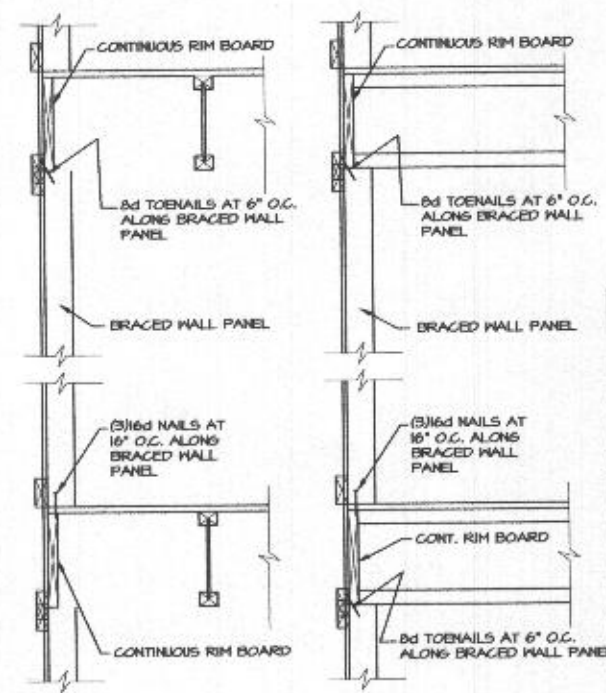
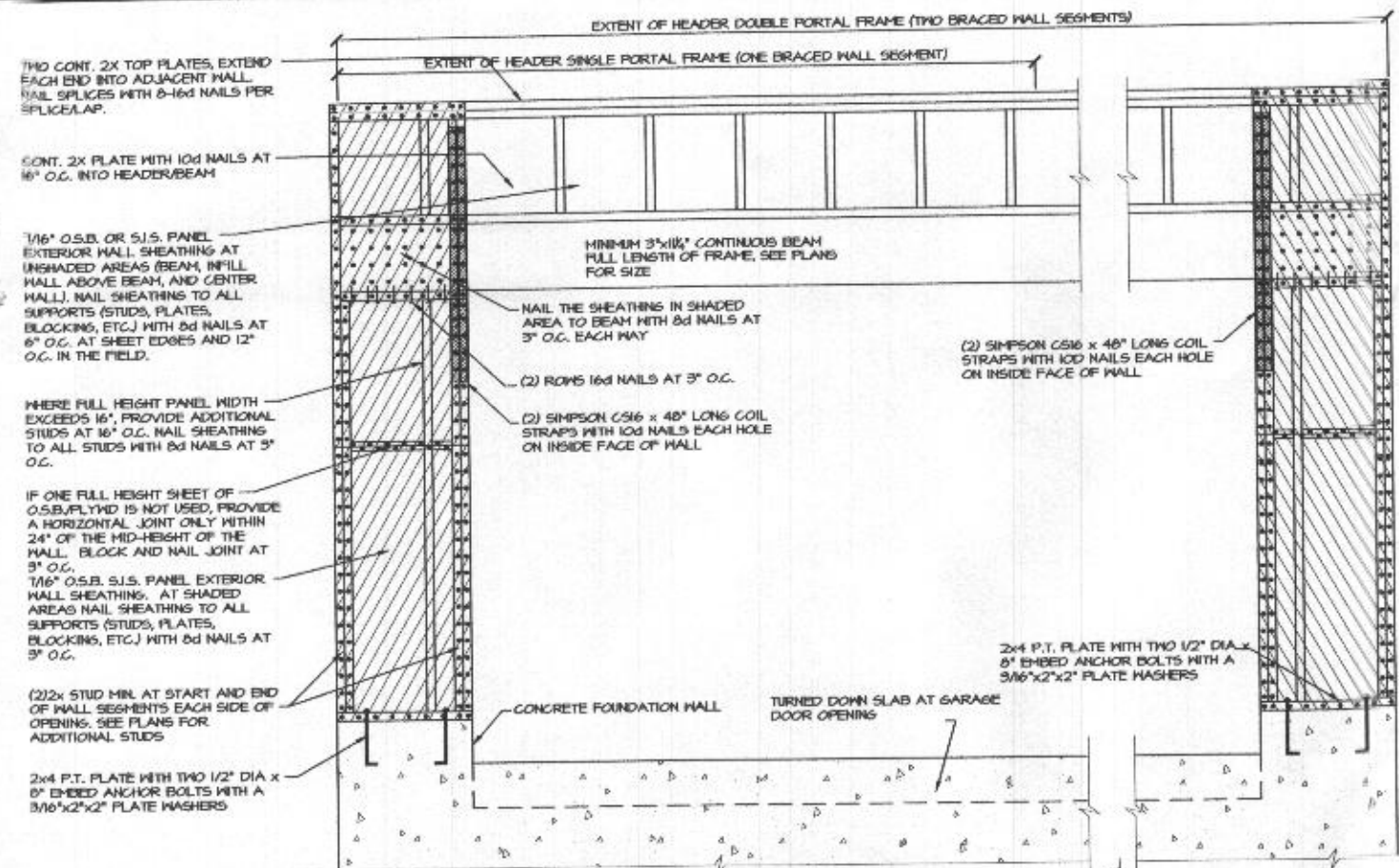
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| REV. # | DATE | REMARKS |
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BUILDER: MUELLER HOMES
MODEL: FARINA RESIDENCE
DRAWING TITLE: STRUCTURAL DETAIL
OPTION OR LOT DESCRIPTION

FILE NAME: MU...
ISSUE DATE: ...
SHEET NO.: SD-1



E ROOF TRUSS BEARING/BLOCKING AT BRACED WALL PANELS
ONLY REQUIRED AT BRACED WALL PANELS

NEEL HEIGHT GREATER THAN 9'-2" AND LESS THAN 15'-2"

SOLID BLOCKING BETWEEN ROOF TRUSSES ATTACHED TO TOP PLATES WITH 8d NAILS @ 6" O.C. ALONG LENGTH OF BRACED WALL PANELS.

1/8" MAX. OPEN

GENERAL NOTES

1) DESIGN IS BASED ON THE INTERNATIONAL RESIDENTIAL CODE, 2015 EDITION.

2) HOOD DESIGN BASED ON NATIONAL DESIGN SPECIFICATION FOR HOOD CONSTRUCTION

3) ALL BEAMS AND HEADERS SHALL HAVE (1) 2x JACK STUD & (1) 2x KING STUD UNLO. THE NUMBER OF STUDS INDICATED ON PLANS ARE THE TOTAL NUMBER OF JACK STUDS REQUIRED, UNLO. FACE NAIL MULTIPLE STUDS (W/2) ROWS 10d NAILS @ 6" O.C., STAGGERED.

4) ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE SHALL BE PRESURE TREATED SOUTHERN YELLOW PINE #2. ANCHOR SILL PLATES IN ACCORDANCE WITH ATTACHMENTS NOTED ON PLANS.

5) FACE NAIL ALL MULTI-PLY BEAMS AND HEADERS WITH (2) ROWS 16d COMMON NAILS @ 16" O.C. STAGGERED, OR PER MANUFACTURERS SPECIFICATIONS FOR ENGINEERED LUMBER. APPLY NAILING FROM BOTH FACES FOR (3) OR MORE PLYS.

6) CONCRETE DESIGN BASED ON ACI 318 AND ACI 308.1. FC = 3000 PSI @ 28 DAYS (3500 PSI @ PORCHES, GARAGE SLABS & STEPS WITH 58 TO 78 AIR ENTRAINMENT), UNLO. REINFORCING SHALL COMPLY WITH ASTM A-615, GRADE 60.

7) ALL MASONRY SHALL CONFORM TO ASTM C-40, Fm=1500 PSI. ALL BRICK SHALL CONFORM TO ASTM C-28, Fm=2000 PSI. ALL MORTAR SHALL BE TYPE S (TYPE N BELOW GRADE) AND CONFORM TO ASTM C-270.

8) DESIGN LIVE LOADS
ROOF = 30 PSF (LOAD DUR. FACTOR = 1.5)
ATTIC = 20 PSF (WHERE SPECIFIED ON PLANS)
FLOOR = 40 PSF

FLOOR (SLEEPING AREAS) = 30 PSF
GROUND SNOW LOAD = 30 PSF
ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
BASIC WIND SPEED = 115 MPH
SEISMIC DESIGN CATEGORY = A, B

9) DESIGN DEAD LOADS
ROOF TRUSSES = IT PSF (TC = 1, BC = 10)
FLOOR TRUSSES = 15 PSF (TC = 10, BC = 5)
FLOOR JOIST = 10 PSF

10) LUMBER SPECIFICATIONS
FRAMING, SFF #2
PLATES, SFF #2
STUDS, SFF #2 (GRADE, IF STUD GRADE)
LVL BEAMS, 2.0E, Fb=3100 PSI

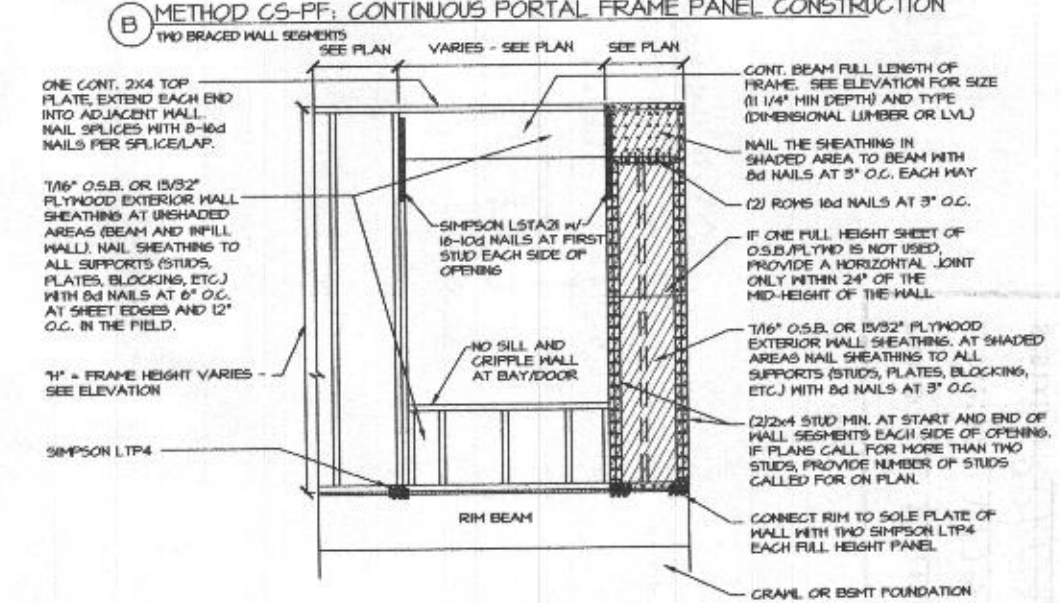
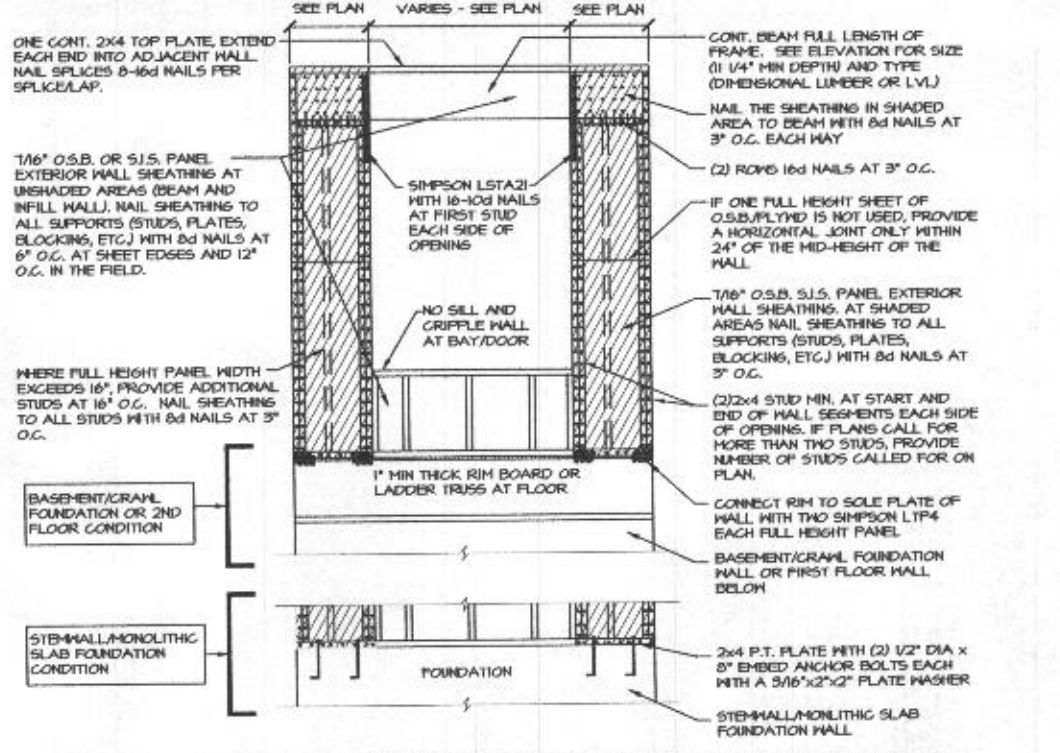
11) FLOOR AND ROOF TRUSSES TO BE DESIGNED AND ENGINEERED BY MANUFACTURER. REFER TO SHOP DRAWINGS FOR BRACING REQUIREMENTS. MANUFACTURER TO SPECIFY REQUIRED CONNECTORS.

12) EXTERIOR WALL SHEATHING IS 1/16" OSB FASTENED TO SUPPORTS WITH 8d NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT FIELD SUPPORTS. AT BRACED WALL PANELS PROVIDE BLOCKING AT ALL SHEET EDGES NOT FALLING ON STUDS OR PLATES.

FLOOR SHEATHING IS 23/32" OSB FASTENED TO SUPPORTS WITH 10d NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT FIELD SUPPORTS.

ROOF SHEATHING IS 1/2" OSB FASTENED TO SUPPORTS WITH 8d NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT FIELD SUPPORTS.

13) ALL HARDWARE AND FASTENERS IN CONTACT WITH PRESERVATIVE PRESURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 153, 6-185.



BRACED WALL PANEL AND ENGINEERED SHEAR WALL SCHEDULE

| PANEL TYPES | PANEL TYPE | MATERIAL | FASTENERS |
|-------------|---|-----------|--|
| WSP | INTERMITTENT HOOD STRUCTURAL PANEL | 1/16" OSB | 8D OR 8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS OR 16 GAGE BY 1.75" LONG STAPLES AT 3" O.C. AT SHEET EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS. |
| CS-WSP | CONTINUOUS SHEATHED HOOD STRUCTURAL PANEL | 1/16" OSB | 8D OR 8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS OR 16 GAGE BY 1.75" LONG STAPLES AT 3" O.C. AT SHEET EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS. |
| CS-PF | CONTINUOUS SHEATHED PORTAL FRAME | 1/16" OSB | NAILING PER DETAIL |

BRACED WALL PANEL NOTES:

- ALL BRACED WALL PANELS SHALL HAVE 2x BLOCKING BETWEEN WALL STUDS AT ALL HORIZONTAL SHEET EDGES.
- PROVIDE NAILING/BLOCKING ABOVE AND BELOW ALL BRACED WALL PANELS PER DETAILS A & B/SO-1.
- ALL EXTERIOR WALLS OF THE HOUSE ARE SHEATHED WITH 1/16" O.S.B. OR 15/32" PLYWOOD, FASTENED PER IRC SECTION R602. AT EXTERIOR CORNERS SHEATHING SHALL BE FASTENED AS SHOWN IN DETAIL D/SO-1.
- BRACED WALL PANELS AND ENGINEERED SHEAR WALLS ARE PROVIDED PER IRC 2015 SECTIONS R602.10. PANEL LENGTHS SHOWN ON PLANS ARE THE MINIMUM LENGTH REQUIRED.

MARYLAND COORDINATE:
N
Z

HARDY ROAD
LOCAL ROAD 60' R/W

E 1274800
N 611800

PARCEL 43
17510/406
DONALD B. NANTZ
BONNIE S. NANTZ
ZONED - RC-DEO

Approved for
UT B18000349
2/8/18 R-13

LOT 24
3.00 AC.

F.F. 792.56
C.E. 782.48

PARCEL 485
LOT 25
WOODCAMP
PLAT# 19773
908/275
RICHARD M. HOUGH
BARBARA A. HOUGH, WF
ZONED - RC-DEO

CEL 45
53/73
J. KNILL, SR.
J. ROON KNILL, JR.
- RC-DEO

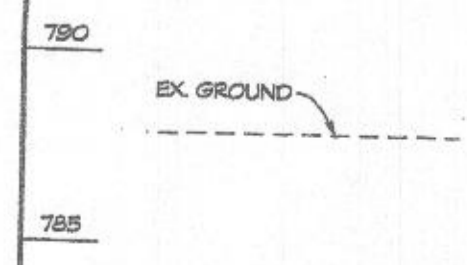
E 1274800
N 611300

Scale = 1" = 50'
17751 Hardy Rd

DESIGNATION

NE

PLAN
SCALE: 1" = 50'



HO
BUREA

Building Permit Application

Howard County Maryland
 Department of Inspections, Licenses and Permits
 3430 Court House Drive
 Permits: 410-313-2455
 www.howardcountymd.gov

DILP 2017 AUG 16 08:00

Date Received: _____

Permit No.: B17003042

17501 Maple Lane
 State: MD Zip Code: 21771
 SDP/WP/BA #: _____
 Subdivision: _____
 Area: _____ Lot: _____
 Parcel: 0485 Grid: 0000
 Map Coordinates: _____ Lot Size: 3.0 Acres

Estimated Construction Cost: \$ 400,000

Previously occupied? Yes No

State: _____ Zip Code: _____
 Fax: _____

Property Owner's Name: Andrew & Krista Forina
 Address: 17407 Marjorie Ct
 City: Ellicott City State: MD Zip Code: 21771
 Phone: 301 672 2789 Fax: _____
 Email: andrew@forinacorp.com

Applicant's Name & Mailing Address, (if other than stated herein)
 Applicant's Name: Paul Miller
 Address: 7527 Maple St
 City: Ellicott City State: MD Zip Code: 21771
 Phone: 410-925-1673 Fax: 410-541-4140
 Email: pmiller@millermc.com

Contractor Company: Miller Construction, Inc.
 Contact Person: Paul Miller
 Address: 7527 Maple St
 City: Ellicott City State: MD Zip Code: 21771
 License No.: 32
 Phone: 410-541-4141 Fax: 410-541-4140
 Email: pmiller@millermc.com

Engineer/Architect Company: TH-He Design
 Responsible Design Prof.: Scott Chubb
 Address: 7527 Maple St
 City: Ellicott City State: MD Zip Code: 21771
 Phone: 443-924-0922 Fax: _____
 Email: scott@th-he.com

| Characteristics | Residential Building Characteristics | |
|-----------------------|--|---------------------------------------|
| Structure: | <input type="checkbox"/> SF Dwelling | <input type="checkbox"/> SF Townhouse |
| Floor Area (sq. ft.): | Depth | Width |
| | 1 st floor: | |
| | 2 nd floor: | |
| Foundation type: | Basement: | |
| | <input type="checkbox"/> Finished Basement | |
| | <input type="checkbox"/> Unfinished Basement | |
| | <input type="checkbox"/> Crawl Space | |
| Foundation type: | <input type="checkbox"/> Slab on Grade | |
| | No. of Bedrooms: | |
| | <u>Multi-family Dwelling</u> | |
| | No. of efficiency units: | |
| Number of Units: | No. of 1 BR units: | |
| | No. of 2 BR units: | |
| | No. of 3 BR units: | |
| Other Structure: | Dimensions: | |
| | Footings: | |
| Project Permit # | <input type="checkbox"/> No | |
| | Roof: | |
| Project Permit # | <input type="checkbox"/> State Certified Modular | |
| | <input type="checkbox"/> Manufactured Home | |

| Utilities | |
|--|---|
| Electric: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Gas: | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Water Supply | |
| <input type="checkbox"/> Public | |
| <input type="checkbox"/> Private | |
| Sewage Disposal | |
| <input type="checkbox"/> Public | |
| <input checked="" type="checkbox"/> Private | |
| Heating System | |
| <input type="checkbox"/> Electric <input type="checkbox"/> Oil | |
| <input type="checkbox"/> Natural Gas <input checked="" type="checkbox"/> Propane Gas | |
| <input type="checkbox"/> Other: | |
| Sprinkler System: | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| Grading Permit Number: | |
| Building Shell Permit Number: | |

I CERTIFY AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL APPLICABLE ORDINANCES AND REGULATIONS OF HOWARD COUNTY; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS PERMIT; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Signature: _____
 Print Name: Paul Miller
 Date: 8-1-17

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
 PLEASE WRITE NEATLY & LEGIBLY
-FOR OFFICE USE ONLY-

| DATE | SIGNATURE OF APPROVAL |
|---------|-----------------------|
| 9/14/17 | H. Oswald |

Approval required for issuance? Yes No
 CONSTRUCTION START

| DPZ SETBACK INFORMATION | |
|---------------------------------|--|
| Front: | |
| Rear: | |
| Side: | |
| Side St.: | |
| All minimum setbacks met? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Is Entrance Permit Required? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Historic District? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Lot Coverage for New Town Zone: | |
| SDP/Red-line approval date: | |

| | |
|-----------------|--------|
| Filing Fee | \$ 100 |
| Permit Fee | \$ |
| Tech Fee | \$ |
| Excise Tax | \$ |
| PSFS | \$ |
| Guaranty Fund | \$ 50 |
| Add'l per Fee | \$ |
| Total Fees | \$ |
| Sub- Total Paid | \$ |
| Balance Due | \$ |
| Check # | 1002 |

Color Key: Blue: Building Officials Green: PSZA,Zoning Yellow: PSZA,Engineering Pink: Health Gold: SHA