

Proposed Front Elevation
SCALE: 1/4" = 1'-0"

APPLICABLE CODE: 2021 IRC AS AMENDED BY HOWARD COUNTY AND 2021 IECC AS AMENDED BY MARYLAND

NOTES

1.0 GENERAL

1.01 THE BUILDER SHALL BE RESPONSIBLE AND LIABLE FOR FULL COMPLIANCE WITH ALL APPLICABLE BUILDING CODES, ORDINANCES, REGULATIONS AND AMENDMENTS, AND ALL OTHER AUTHORITIES HAVING JURISDICTION, WHETHER OR NOT SUCH CODES AND REQUIREMENTS ARE EXPLICITLY DOCUMENTED IN THESE DRAWINGS. CONSTRUCTION SHALL COMPLY WITH THE INTERPRETATIONS OF THE LOCAL BUILDING OFFICIAL. IF THE INTERPRETATION OF THE LOCAL BUILDING OFFICIAL IS AT VARIANCE WITH THESE PLANS OR SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY. USE OF THESE DRAWINGS TO OBTAIN A BUILDING PERMIT OR TO CONSTRUCT THE STRUCTURE DOCUMENTED HEREIN SHALL CONSTITUTE ACCEPTANCE OF THESE CONDITIONS BY THE BUILDER.

1.02 IN THE EVENT OF A DISCREPANCY BETWEEN THE ARCHITECTURAL PLANS OR SPECIFICATIONS AND THE STRUCTURAL DRAWINGS, THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE.

1.03 DESIGN LOADS:

TYPE	LIVE LOAD (PSF)	DEAD LOAD (PSF)
ROOF	40	15
SLEEPING ROOMS	30	10
OTHER LIVING AREAS	40	15
GARAGE FLOORS	50	50
DECKS	40	10
EXTERIOR BALCONIES	40	10

2.0 SITE WORK

2.01 SITE WORK IS NOT ADDRESSED IN THESE DOCUMENTS. 2000 PSF SOIL BEARING CAPACITY ASSUMED.

3.0 CONCRETE/FOUNDATIONS

3.01 ALL REINFORCED CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE AC 308, CURRENT EDITION. ALL PLAIN CONCRETE SHALL CONFORM TO ACI 318.1 AND ACI 332R GUIDE TO RESIDENTIAL CAST-IN-PLACE CONCRETE CONSTRUCTION.

3.02 MINIMUM SPECIFIED COMPRESSIVE STRENGTH @ 28 DAYS:

LOCATION OF CONCRETE	F _c (PSI)
BASEMENT WALLS AND FOUNDATIONS NOT EXPOSED TO WEATHER	2500
BASEMENT SLABS AND INTERIOR SLABS ON GRADE	2500
BASEMENT WALLS, EXTERIOR FOUNDATION WALLS AND OTHER WORK EXPOSED TO WEATHER	3000
DRIVEWAYS, CURBS, WALKS, PATIOS, PORCHES, STEPS/STAIRS AND UNHEATED GARAGE SLABS EXPOSED TO WEATHER	3500

3.03 THICKNESS AND REINFORCING OF CONCRETE FOUNDATION WALLS SHALL CONFORM TO 2021 IRC TABLE R404.1.2(3-4), OR WITH SEALED STRUCTURAL DRAWINGS SPECIFIC TO THE SITE SOIL AND GRADE CONDITIONS.

4.0 MASONRY

4.01 ALL MASONRY WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE BIA AND NCMA "SPECIFICATION FOR CONCRETE MASONRY CONSTRUCTION."

4.02 BRICK VENEER WALLS SHALL HAVE NON-CORROSIVE METAL TIES AT MINIMUM 16" O.C. VERTICALLY AND HORIZONTALLY, AND WEEP HOLES AT 24" O.C. AT BASE FLASHING AND CAVITY INTERRUPTIONS.

5.0 METALS

5.01 FOUNDATION ANCHOR BOLTS SHALL BE PROVIDED AT MAXIMUM 6'-0" O.C. AND 12" FROM THE END OF EACH PLATE SECTION, WITH MINIMUM TWO (2) ANCHORS PER SECTION OF PLATE. ANCHOR STRAPS SPACED TO ACHIEVE EQUIVALENT CAPACITY MAY BE SUBSTITUTED FOR ANCHOR BOLTS.

5.02 ALL METAL ANCHORS, FASTENERS, HANGERS ETC. SHALL BE GALVANIZED. ALL STRUCTURAL STEEL WIDE-FLANGE BEAMS SHALL CONFORM TO ASTM A-992 WITH MINIMUM STRENGTH F_y = 50 KSI. ALL STRUCTURAL STEEL CHANNELS, ANGLES, RODS AND BAR STOCK SHALL CONFORM TO ASTM A-36 WITH MINIMUM STRENGTH F_y = 36 KSI.

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6.01 SILL PLATES AND ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE, AND ALL EXPOSED EXTERIOR LUMBER, SHALL BE PRESSURE TREATED TO MEET AWPI STANDARDS.

6.02 MOISTURE CONTENT OF ALL LUMBER SHALL NOT EXCEED 19%.

6.03 WOOD BEAMS, JOISTS, HEADERS AND RAFTERS SHALL BE MINIMUM S-P-F #1/2 OR EQUAL UNLESS OTHERWISE NOTED.

6.04 LVL MEMBERS SHALL BE 1-3/4" WIDE, DEPTH PER PLANS, GANGED PER MANUFACTURER'S SPECIFICATIONS, WITH THE FOLLOWING MINIMUM PROPERTIES: F_b=2,600 PSI; F_cL = 750 PSI; F_c E = 2,510 PSI; F_v=285 PSI; E=2,000,000 PSI.

6.05 PSL MEMBERS SHALL BE SIZED PER PLANS, WITH THE FOLLOWING MINIMUM PROPERTIES: F_b=2,900 PSI; F_cL = 750 PSI; F_c E = 2,900 PSI; F_v=290 PSI; E=4,000,000 PSI.

6.06 PREFABRICATED FLOOR JOISTS OR FLOOR TRUSSES SHALL BE DESIGNED TO CARRY ALL IMPOSED LIVE AND DEAD LOADS WITH THE LIVE LOAD DEFLECTION NOT TO EXCEED L/480. ALL LAMINATED BEAMS AND BUILT-UP JOISTS TO BE DESIGNED/VERIFIED BY MFR TYPICAL THROUGHOUT. THE MANUFACTURER SHALL PROVIDE ALL REQUIRED HANGERS, SHEAR PANELS, BLOCKING/BRACING AND OTHER REQUIRED COMPONENTS. THE MANUFACTURER SHALL ALSO PROVIDE ALL DRAWINGS REQUIRED FOR PERMIT AND ERECTION PURPOSES, SIGNED AND SEALED IF REQUIRED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE JOB IS TO BE BUILT.

6.07 PRE-ENGINEERED TRUSSES SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH TPI RECOMMENDATIONS TO CARRY ALL IMPOSED LIVE AND DEAD LOADS. THE MANUFACTURER SHALL SUPPLY ALL REQUIRED HANGERS, HOLD-DOWN STRIPS, SHEAR PANELS AND OTHER REQUIRED COMPONENTS. THE MANUFACTURER SHALL ALSO PROVIDE ALL DRAWINGS REQUIRED FOR PERMIT AND ERECTION PURPOSES, SIGNED AND SEALED IF REQUIRED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE JOB IS TO BE BUILT.

6.08 JOISTS SHALL BE DOUBLED UNDER PARALLEL WALLS THAT EXCEED ONE-THIRD THE JOIST LENGTH. JOISTS SHALL BE SPACED CLOSER UNDER BATH TUBS, CERAMIC OR MARBLE TILE, POTENTIAL WATER BODIES AND SIMILAR ANTICIPATED LOADING CONDITIONS. JOISTS SHALL NOT BE CUT, NOTCHED OR DRILLED EXCEPT AS PERMITTED BY 2021 IRC R502.8 OR OTHER APPLICABLE CODE.

6.09 HEADERS OVER FRAMED OPENINGS IN BEARING WALLS SHALL BE MINIMUM 2-2X10 UNLESS OTHERWISE NOTED ON DRAWINGS, BUT SHALL IN NO EVENT BE LESS THAN SPECIFIED IN 2021 IRC TABLE R602.7 OR OTHER APPLICABLE CODE.

6.10 STAIR TREADS SHALL HAVE A MINIMUM DEPTH OF 10". TREADS SHALL HAVE A PROJECTING NOSING OF MINIMUM 1/2", MAXIMUM 1 1/2", UNLESS TREAD DEPTH IS 11" OR GREATER. STAIR RISERS SHALL HAVE A MAXIMUM HEIGHT OF 7 1/4".

6.11 STAIR HANDRAILS SHALL BE LOCATED BETWEEN 34" AND 38" ABOVE THE SLOPED PLANE CONNECTING THE NOSINGS OF THE ASSOCIATED STAIR. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH FLIGHT OF STAIRS OF FOUR OR MORE RISERS AND SHALL BE CONTINUOUS OVER THAT FLIGHT. UNLESS OTHERWISE NOTED IN THESE PLANS, STAIR HANDRAILS SHALL HAVE A GRIP OF TYPE 1: CIRCULAR HANDRAILS SHALL HAVE A DIAMETER OF BETWEEN 1 1/2" AND 2", NON-CIRCULAR HANDRAILS SHALL HAVE A PERIMETER OF BETWEEN 4" AND 6 1/2" AND A MAXIMUM CROSS-SECTION WIDTH OF 2 1/4".

7.0 THERMAL AND MOISTURE PROTECTION

7.01 3/4" X 3/8" MIN COMPRESSIBLE SILL SEAL SHALL BE PROVIDED BENEATH ALL EXTERIOR SILL PLATES.

7.02 PROVIDE APPROVED CORROSION-RESISTIVE FLASHING AT THE INTERSECTION OF MASONRY AND WOOD FRAME CONSTRUCTION; OVER PROJECTING TRIM, WHERE DECKS, PORCHES, AND THE LIKE ARE ATTACHED TO WOOD FRAME CONSTRUCTION; AT ROOF TO WALL AND ROOF TO CHIMNEY INTERSECTIONS; IN ROOF VALLEYS; AT ALL ROOF PENETRATIONS; AT ALL WALL OPENINGS; AT ALL CAVITY INTERRUPTIONS AT MASONRY VENEER; AND ALL OTHER LOCATIONS REQUIRED TO PREVENT WATER PENETRATION OF THE STRUCTURE.

7.03 PROVIDE EXTERIOR FINISHES AS SHOWN ON DRAWINGS. INSTALL PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS OVER APPROVED WATER/WEATHER-RESISTANT BARRIER.

7.04 PROVIDE SOFFIT VENTS AND RIDGE VENTS AS SHOWN ON THE DRAWINGS, AND SUPPLEMENTAL ROOF VENTS IF/AS REQUIRED TO MAINTAIN MINIMUM 1/300 FREE VENTILATION FOR HORIZONTALLY PROJECTED ROOF AREA. INSTALL PLASTIC OR CARDBOARD BAFFLES IN EACH TRUSS/RAFTER BAY TO MAINTAIN FREE AIR FLOW. ALL REVERSE Baffles SHALL BE OPEN TO MAIN ROOF ATTIC TO ALLOW FREE AIR FLOW.

THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING HEATING AND COOLING LOADS, EXTENDING EXISTING SYSTEMS, AND/OR SIZING NEW HVAC UNITS IN FULL COMPLIANCE WITH 2021 IRC M140.1.3.

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS. CONSTRUCTION SHALL BE IN FULL ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS IN EFFECT AT THE TIME OF PERMIT ISSUANCE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PROGRAMS AND PRECAUTIONS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS AND PROVIDE ALL REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO: ALL EMPLOYEES ON THE WORK AND ALL OTHER PERSONS WHO MAY BE AFFECTED THEREBY, INCLUDING THE HOMEOWNER, HIS FAMILY, AND OTHERS WHO MAY BE ON THE PREMISES FROM TIME TO TIME; ALL THE WORK AND ALL MATERIALS AND EQUIPMENT TO BE INCORPORATED THEREIN; AND OTHER PROPERTY AT THE SITE OR ADJACENT THERETO, INCLUDING THE EXISTING RESIDENCE, DRIVEWAYS, LEAD WALKS, OR OTHER STRUCTURES.

3. ANY DAMAGE OR LOSS TO ANY PROPERTY REFERENCED IN ITEM #2 CAUSED IN WHOLE OR IN PART BY THE CONTRACTOR, ANY OF HIS SUBCONTRACTORS, OR BY ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM SHALL BE REMEDIED BY THE CONTRACTOR.

4. IF, WITHIN ONE YEAR AFTER THE WORK HAS BEEN ACCEPTED BY THE OWNER, ANY OF THE WORK IS FOUND TO BE DEFECTIVE OR NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL CORRECT IT PROMPTLY UPON RECEIPT OF WRITTEN NOTICE BY THE OWNER TO DO SO, AND SHALL BEAR ALL COSTS FOR SUCH CORRECTION, UNLESS THE OWNER HAS PREVIOUSLY PROVIDED THE CONTRACTOR WRITTEN NOTICE OF ACCEPTANCE OF SUCH CONDITION.

5. ALL PROJECT DEBRIS SHALL BE DISPOSED OFF THE SITE BY THE CONTRACTOR.

6. THE CONTRACTOR SHALL PROPERLY EXTEND, TERMINATE, UPGRADE, OR OTHERWISE MODIFY EXISTING UTILITIES, INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL AND PLUMBING INSTALLATIONS, AS MAY BE REQUIRED.

7. COLORS, MATERIALS AND FINISH DETAILS OF NEW CONSTRUCTION SHALL MATCH EXISTING AS CLOSELY AS POSSIBLE, UNLESS OTHERWISE SPECIFIED. FEATHER OR TOOTH IN NEW FINISHES TO EXISTING, WHERE APPLICABLE, TO MINIMIZE APPEARANCE OF JOINTS.

8. ON-SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HIS SUBCONTRACTORS. CONTRACTOR SHALL VERIFY ADEQUACY OF EXISTING STRUCTURE TO RECEIVE NEW CONSTRUCTION.

9. PROVIDE ACCESS PANELS AS REQUIRED AT ALL VALVES, CLEANOUTS, UTILITY PANELS, CABLE HOME RUNS, AND ALL OTHER LOCATIONS THAT READY ACCESS MAY BE REQUIRED.

NOTE: NO EXHAUSTIVE OR INVASIVE INVESTIGATION OF EXISTING CONDITIONS WAS PERFORMED. CONTRACTOR SHALL FIELD-VERIFY ALL CONDITIONS AND DIMENSIONS. IF A SIGNIFICANT DISCREPANCY OR UNANTICIPATED CONDITION IS DISCOVERED, CONTRACTOR SHALL NOTIFY ARCHITECT AND OWNER BEFORE PROCEEDING WITH THE WORK, AND SHALL NOT PROCEED UNTIL A MUTUALLY ACCEPTABLE RESOLUTION IS REACHED.

2021 IECC ENERGY CODE COMPLIANCE REQUIREMENTS

THE BUILDING SHALL CONFORM TO THE FOLLOWING MANDATORY REQUIREMENTS PER THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE:

COMPLIANCE CERTIFICATE	A PERMANENT CERTIFICATE APPROVED BY THE LOCAL JURISDICTION DESCRIBING THE R-VALUES, U-FACTORS, AND SHGC OF THE BUILDING COMPONENTS AND BUILDING AIR LEAKAGE TEST RESULTS SHALL BE AFFIXED TO THE ELECTRICAL DISTRIBUTION PANEL OR ANOTHER LOCATION APPROVED BY THE LOCAL JURISDICTION, PER IECC R403.3 (IRC N1101.14).
MAXIMUM FENESTRATION U-FACTOR AND SHGC	THE MAXIMUM U-FACTOR ALLOWED USING EITHER THE TOTAL UA ALTERNATIVE METHOD PER IECC R402.1.5 (IRC N1102.1.5) OR THE SIMULATED PERFORMANCE ALTERNATIVE PER IECC R405 (IRC N1105) SHALL BE 0.48 FOR VERTICAL FENESTRATION AND 0.75 FOR SKYLIGHTS PER IECC R402.5 (IRC N1102.5).
HVAC CONTROLS	EACH HEATING AND COOLING SYSTEM SHALL HAVE AT LEAST ONE THERMOSTAT PER IECC R403.1 (IRC N1103.1). THE THERMOSTAT CONTROLLING THE PRIMARY HEATING AND COOLING SYSTEM SHALL BE A PROGRAMMABLE THERMOSTAT PER IECC R403.1.1 (IRC N1103.1.1).
HEAT PUMP SUPPLEMENTARY HEAT	HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEAT SHALL HAVE CONTROLS THAT, EXCEPT DURING DEFROST, PREVENT SUPPLEMENTAL HEAT FROM OPERATING WHEN THE HEAT PUMP COMPRESSOR CAN MEET THE HEATING LOAD PER IECC R403.1.2 (IRC N1103.1.2).
DUCT SEALING	WHEN NEW FORCED AIR SYSTEMS ARE PROVIDED, ALL DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED PER IECC M1601.4.1. DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER A ROUGH-IN OR POSTCONSTRUCTION TEST PER IECC R403.3.3 (IRC N1103.3.3) UNLESS DUCTS AND AIR HANDLERS ARE LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.
BUILDING CAVITIES AS DUCTS OR PLENUMS	BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS PER IECC R403.3.5 (IRC N1103.3.5).
MECHANICAL SYSTEM PIPING INSULATION	MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105°F OR BELOW 55°F SHALL BE INSULATED TO R-3 MINIMUM PER IECC R403.4 (IRC N1103.4). PIPING INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DEGRADATION AND DECAY PER IECC R403.4.1 (IRC N1103.4.1).
CIRCULATING HOT WATER SYSTEMS	CIRCULATING HOT WATER SYSTEMS SHALL BE PROVIDED WITH AN AUTOMATIC OR READILY ACCESSIBLE MANUAL SWITCH TO TURN OFF THE CIRCULATING PUMP WHEN THE SYSTEM IS NOT IN USE PER IECC R403.5.1 (IRC N1103.5.1).
MECHANICAL VENTILATION	THE BUILDING SHALL BE PROVIDED WITH VENTILATION PER IECC M1505 OR OTHER APPROVED MEANS OF VENTILATION PER IECC R403.6 (IRC N1103.6). WHOLE-HOUSE VENTILATION FANS SHALL MEET EFFICIENCY STANDARDS PER IECC TABLE R403.6.1 (IRC TABLE N1103.6.1).
EQUIPMENT SIZING	HEATING AND COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA MANUAL J OR OTHER APPROVED HEATING AND COOLING CALCULATION METHODOLOGIES PER IECC R403.7 (IRC N1103.7).
SYSTEMS SERVING MULTIPLE DWELLING UNITS	SYSTEMS SERVING MULTIPLE DWELLING UNITS SHALL CONFORM TO IECC SECTIONS C403 AND C404.
SNOW MELT SYSTEMS CONTROLS	SNOW AND ICE MELT SYSTEMS SUPPLIED THROUGH ENERGY SERVICE TO THE BUILDING SHALL INCLUDE AUTOMATIC CONTROLS CAPABLE OF SHUTTING OFF THE SYSTEM WHEN THE PAVEMENT TEMPERATURE IS ABOVE 50°F AND NO PRECIPITATION IS FALLING, AND AUTOMATIC OR MANUAL CONTROLS CAPABLE OF SHUTTING OFF THE SYSTEM WHEN THE OUTDOOR TEMPERATURE IS ABOVE 40°F PER IECC R403.9 (IRC N1103.9).
POOLS AND INGROUND PERMANENTLY INSTALLED SPAS	POOLS AND INGROUND SPA HEATERS SHALL HAVE AN ACCESSIBLE ON-OFF SWITCH MOUNTED ON THE OUTSIDE OF THE HEATER THAT ALLOWS SHUT-OFF WITHOUT AFFECTING THE THERMOSTAT SETTING PER IECC R403.10.1 (IRC N1103.10.1); GAS-FIRED HEATERS SHALL NOT HAVE CONSTANT BURNING PILOT LIGHTS. HEATERS SHALL HAVE THE SWITCHES OR OTHER CONTROL METHODS TO AUTOMATICALLY TURN ON AND OFF PER A PRESET SCHEDULE PER IECC R403.10.2. HEATED POOLS AND INGROUND SPAS SHALL BE PROVIDED WITH A VAPOR-RETARDANT COVER PER IECC R403.10.3 (IRC N1103.10.3).
LIGHTING EQUIPMENT	A MINIMUM OF 90% OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS PER IECC R404.1 (IRC N1104.1).
FUEL GAS LIGHTING EQUIPMENT	FUEL GAS SYSTEMS SHALL NOT HAVE CONTINUOUSLY BURNING PILOT LIGHT SYSTEMS PER IECC R404.1.1 (IRC N1104.1.1).

THE BUILDING SHALL ALSO CONFORM TO THE FOLLOWING PRESCRIPTIVE REQUIREMENTS:

THE BUILDING CONFORMS TO THE PRESCRIPTIVE REQUIREMENTS DETAILED IN THE CHART BELOW PER IECC R402.1.2 & R402.1.3 (IRC N1102.1.2 & N1102.1.3). EQUIVALENT U-FACTORS MAY BE SUBSTITUTED FOR REQUIRED R-VALUES PER IECC R402.1.4 (IRC N1102.1.4). THE BUILDING SHALL ALSO CONFORM TO THE DETAILED REQUIREMENTS OF IECC R402.2 (IRC N1102.2).

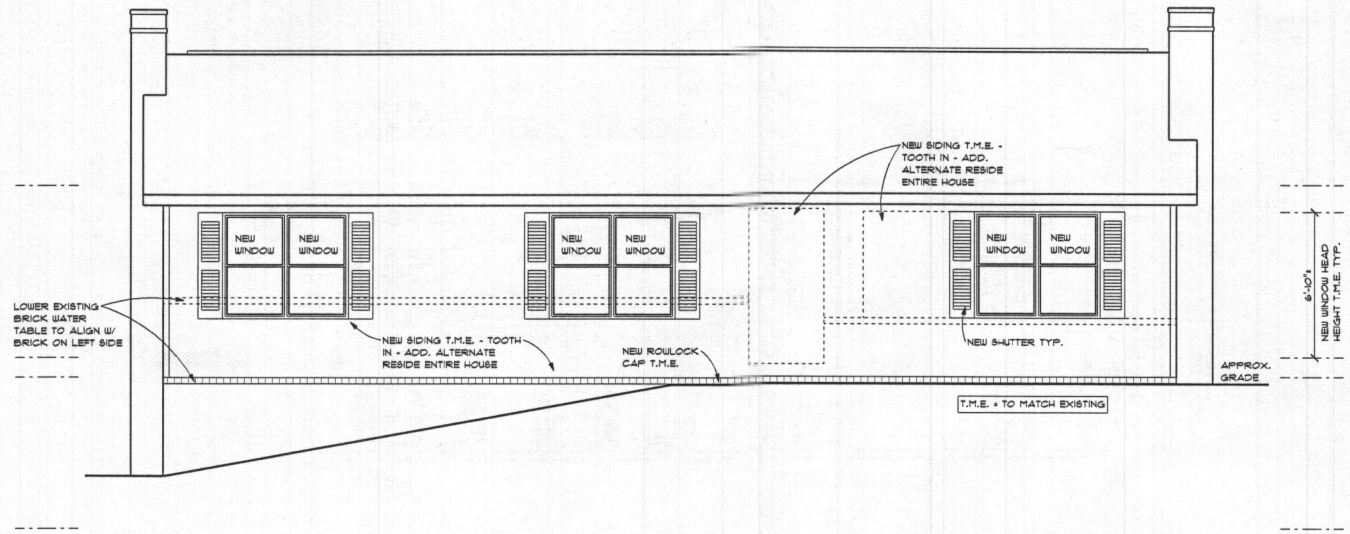
COMPONENT	REQUIRED VALUE
CEILING/ROOF	R-49 (COMPRESSED OVER WALL TOP PLATE AT EAVES) OR R-38 (UNCOMPRESSED OVER WALL TOP PLATE AT EAVES)
WALLS	R-20 CAVITY OR R-13 CAVITY PLUS R-5 CONTINUOUS
BASEMENT WALLS	R-10 CONTINUOUS OR R-13 CAVITY
SLAB	R-10, 4" DEPTH
CRAWL SPACE WALLS	R-10 CONTINUOUS OR R-13 CAVITY
FLOORS OVER UNCONDITIONED SPACE	R-19
DUCTS OUTSIDE CONDITIONED SPACE	R-8 FOR SUPPLY DUCTS IN ATTICS R-6 FOR ALL OTHER DUCTS
HOT WATER PIPES	R-3 UNLESS OTHERWISE ALLOWED BY IECC R403.5.3 (IRC N1103.5.3)
FENESTRATION	U-FACTOR = 0.32 MAX; SHGC = 0.40 MAX
SKYLIGHTS	U-FACTOR = 0.55 MAX; SHGC = 0.40 MAX

RONALD JOHNSTON AND ASSOCIATES, ARCHITECTS
11407 BARLEY FIELD WAY
MARRIOTTSVILLE, MD 21104 • 410-442-3667

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NUMBER: 10018
EXPIRATION DATE: 03/31/2024

Proposed Alterations/Renovations to the
Fisher Residence
14084 Barbara Circle, Cooksville, Maryland 21723

REVISIONS:
DATE: 06-24-2024
SHEET NO.: A-1
© 2024



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6.07 PRE-ENGINEERED TRUSSES SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH TPI RECOMMENDATIONS TO CARRY ALL IMPOSED LIVE AND DEAD LOADS. THE MANUFACTURER SHALL SUPPLY ALL REQUIRED HANGERS, HOLD-DOWN STRIPS, SHEAR PANELS AND OTHER REQUIRED COMPONENTS. THE MANUFACTURER SHALL ALSO PROVIDE ALL DRAWINGS REQUIRED FOR PERMIT AND ERECTION PURPOSES, SIGNED AND SEALED IF REQUIRED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE JOB IS TO BE BUILT.

6.08 JOISTS SHALL BE DOUBLED OVER PARALLEL WALLS THAT EXCEED ONE-THIRD THE JOIST LENGTH. JOISTS SHALL BE SPACED CLOSER UNDER BATH TUBS, CERAMIC OR MARBLE TILE, POTENTIAL WATER BODIES AND SIMILAR ANTICIPATED LOADING CONDITIONS. JOISTS SHALL NOT BE CUT, NOTCHED OR DRILLED EXCEPT AS PERMITTED BY 2021 IRC R502.8 OR OTHER APPLICABLE CODE.

6.09 HEADERS OVER FRAMED OPENINGS IN BEARING WALLS SHALL BE MINIMUM 2-2X10 UNLESS OTHERWISE NOTED ON DRAWINGS, BUT SHALL IN NO EVENT BE LESS THAN SPECIFIED IN 2021 IRC TABLE R602.7 OR OTHER APPLICABLE CODE.

6.10 STAIR TREADS SHALL HAVE A MINIMUM DEPTH OF 10". TREADS SHALL HAVE A PROJECTING NOSING OF MINIMUM 3/4", MAXIMUM 1 1/2", UNLESS TREAD DEPTH IS 11" OR GREATER. STAIR RISERS SHALL HAVE A MAXIMUM HEIGHT OF 7 1/2".

6.11 STAIR HANDRAILS SHALL BE LOCATED BETWEEN 34" AND 38" ABOVE THE SLOPED PLANE CONNECTING THE NOSINGS OF THE ASSOCIATED STAIR. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH FLIGHT OF STAIRS OF FOUR OR MORE RISERS AND SHALL BE CONTINUOUS OVER THAT FLIGHT. UNLESS OTHERWISE NOTED IN THESE PLANS, STAIR HANDRAILS SHALL HAVE A GRIP OF TYPE 1; CIRCULAR HANDRAILS SHALL HAVE A DIAMETER OF BETWEEN 1 1/2" AND 2". NON-CIRCULAR HANDRAILS SHALL HAVE A PERIMETER OF BETWEEN 4" AND 6 1/2" AND A MAXIMUM CROSS-SECTION WIDTH OF 2 1/4".

7.0 THERMAL AND MOISTURE PROTECTION

7.01 3/8" X 3/8" MIN COMPRESSIBLE SILL SEAL SHALL BE PROVIDED BENEATH ALL EXTERIOR SILL PLATES.

7.02 PROVIDE APPROVED CORROSION-RESISTIVE FLASHING AT THE INTERSECTION OF MASONRY AND WOOD FRAME CONSTRUCTION; OVER PROJECTING TRIM, WHERE DECKS, PORCHES, AND THE LIKE ARE ATTACHED TO WOOD FRAME CONSTRUCTION; AT ROOF TO WALL AND ROOF TO CHIMNEY INTERSECTIONS; IN ROOF VALLEYS; AT ALL ROOF PENETRATIONS; AT ALL WALL OPENINGS; AT ALL CAVITY INTERRUPTIONS AT MASONRY VENEER; AND ALL OTHER LOCATIONS REQUIRED TO PREVENT WATER PENETRATION OF THE STRUCTURE.

7.03 PROVIDE EXTERIOR FINISHES AS SHOWN ON DRAWINGS. INSTALL PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS OVER APPROVED WATER/WEATHER-RESISTANT BARRIER.

7.04 PROVIDE SOFFIT VENTS AND RIDGE VENTS AS SHOWN ON THE DRAWINGS, AND SUPPLEMENTAL ROOF VENTS IF/AS REQUIRED TO MAINTAIN MINIMUM 1/300 FREE VENTILATION FOR HORIZONTALLY PROJECTED ROOF AREA. INSTALL PLASTIC OR CARDBOARD Baffles IN EACH TRUSS/RAFTER BAY TO MAINTAIN FREE AIR FLOW. ALL REVERSE GARBLE SHALL BE OPEN TO MAIN ROOF ATTIC TO ALLOW FREE AIR FLOW.

THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING HEATING AND COOLING LOADS, EXTENDING EXISTING SYSTEMS, AND/OR SIZING NEW HVAC UNITS IN FULL COMPLIANCE WITH 2021 IRC M140.3.

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS. CONSTRUCTION SHALL BE IN FULL ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS IN EFFECT AT THE TIME OF PERMIT ISSUANCE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PROGRAMS AND PRECAUTIONS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS AND PROVIDE ALL REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO: ALL EMPLOYEES ON THE WORK AND ALL OTHER PERSONS WHO MAY BE AFFECTED THEREBY, INCLUDING THE HOMEOWNER, HIS FAMILY, AND OTHERS WHO MAY BE ON THE PREMISES FROM TIME TO TIME; ALL THE WORK AND ALL MATERIALS AND EQUIPMENT TO BE INCORPORATED THEREIN; AND OTHER PROPERTY AT THE SITE OR ADJACENT THERETO, INCLUDING THE EXISTING RESIDENCE, DRIVEWAYS, LEAD WALKS, OR OTHER STRUCTURES.

3. ANY DAMAGE OR LOSS TO ANY PROPERTY REFERENCED IN ITEM #2 CAUSED IN WHOLE OR IN PART BY THE CONTRACTOR, ANY OF HIS SUBCONTRACTORS, OR BY ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM SHALL BE REMEDIED BY THE CONTRACTOR.

4. IF, WITHIN ONE YEAR AFTER THE WORK HAS BEEN ACCEPTED BY THE OWNER, ANY OF THE WORK IS FOUND TO BE DEFECTIVE OR NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL CORRECT IT PROMPTLY UPON RECEIPT OF WRITTEN NOTICE BY THE OWNER TO DO SO, AND SHALL BEAR ALL COSTS FOR SUCH CORRECTION, UNLESS THE OWNER HAS PREVIOUSLY PROVIDED THE CONTRACTOR WRITTEN NOTICE OF ACCEPTANCE OF SUCH CONDITION.

5. ALL PROJECT DEBRIS SHALL BE DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

6. THE CONTRACTOR SHALL PROPERLY EXTEND, TERMINATE, UPGRADE, OR OTHERWISE MODIFY EXISTING UTILITIES, INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL AND PLUMBING INSTALLATIONS, AS MAY BE REQUIRED.

7. COLORS, MATERIALS AND FINISH DETAILS OF NEW CONSTRUCTION SHALL MATCH EXISTING AS CLOSELY AS POSSIBLE, UNLESS OTHERWISE SPECIFIED, FEATHER OR TOOTH IN NEW FINISHES TO EXISTING, WHERE APPLICABLE, TO MINIMIZE APPEARANCE OF JOINTS.

8. ON-SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HIS SUBCONTRACTORS. CONTRACTOR SHALL VERIFY ADEQUACY OF EXISTING STRUCTURE TO RECEIVE NEW CONSTRUCTION.

9. PROVIDE ACCESS PANELS AS REQUIRED AT ALL VALVES, CLEANOUTS, UTILITY PANELS, CABLE HOME RUNS, AND ALL OTHER LOCATIONS THAT READY ACCESS MAY BE REQUIRED.

NOTE: NO EXHAUSTIVE OR INVASIVE INVESTIGATION OF EXISTING CONDITIONS WAS PERFORMED. CONTRACTOR SHALL FIELD-VERIFY ALL CONDITIONS AND DIMENSIONS. IF A SIGNIFICANT DISCREPANCY OR UNANTICIPATED CONDITION IS DISCOVERED, CONTRACTOR SHALL NOTIFY ARCHITECT AND OWNER BEFORE PROCEEDING WITH THE WORK, AND SHALL NOT PROCEED UNTIL A MUTUALLY ACCEPTABLE RESOLUTION IS REACHED.

2021 IECC ENERGY CODE COMPLIANCE REQUIREMENTS

THE BUILDING SHALL CONFORM TO THE FOLLOWING MANDATORY REQUIREMENTS PER THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE:

COMPLIANCE CERTIFICATE	A PERMANENT CERTIFICATE APPROVED BY THE LOCAL JURISDICTION DESCRIBING THE R-VALUES, U-FACTORS, AND SHGC OF THE BUILDING COMPONENTS AND BUILDING AIR LEAKAGE TEST RESULTS SHALL BE AFFIXED TO THE ELECTRICAL DISTRIBUTION PANEL OR ANOTHER LOCATION APPROVED BY THE LOCAL JURISDICTION, PER IECC R401.3 (IRC N1101.14).
MAXIMUM PENETRATION U-FACTOR AND SHGC	THE MAXIMUM U-FACTOR ALLOWED USING EITHER THE TOTAL UA ALTERNATIVE METHOD PER IECC R402.1.5 (IRC N1102.1.5) OR THE SIMULATED PERFORMANCE ALTERNATIVE PER IECC R405 (IRC N1105) SHALL BE 0.48 FOR VERTICAL PENETRATION AND 0.75 FOR SKYLIGHTS PER IECC R402.5 (IRC N1102.5).
HVAC CONTROLS	EACH HEATING AND COOLING SYSTEM SHALL HAVE AT LEAST ONE THERMOSTAT PER IECC R403.1 (IRC N1103.1). THE THERMOSTAT CONTROLLING THE PRIMARY HEATING AND COOLING SYSTEM SHALL BE A PROGRAMMABLE THERMOSTAT PER IECC R403.1.1 (IRC N1103.1.1).
HEAT PUMP SUPPLEMENTARY HEAT	HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEAT SHALL HAVE CONTROLS THAT, EXCEPT DURING DEFROST, PREVENT SUPPLEMENTAL HEAT FROM OPERATING WHEN THE HEAT PUMP COMPRESSOR CAN MEET THE HEATING LOAD PER IECC R403.1.2 (IRC N1103.1.2).
DUCT SEALING	WHEN NEW FORCED AIR SYSTEMS ARE PROVIDED, ALL DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED PER IECC M1601.4.1. DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER A ROUGH-IN OR POSTCONSTRUCTION TEST PER IECC R403.3.3 (IRC N1103.3.3) UNLESS DUCTS AND AIR HANDLERS ARE LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.
BUILDING CAVITIES AS DUCTS OR PLENUMS	BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS PER IECC R403.3.5 (IRC N1103.3.5).
MECHANICAL SYSTEM PIPING INSULATION	MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105°F OR BELOW 55°F SHALL BE INSULATED TO R-3 MINIMUM PER IECC R403.4 (IRC N1103.4). PIPING INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DEGRADATION AND DECAY PER IECC R403.4.1 (IRC N1103.4.1).
CIRCULATING HOT WATER SYSTEMS	CIRCULATING HOT WATER SYSTEMS SHALL BE PROVIDED WITH AN AUTOMATIC OR READILY ACCESSIBLE MANUAL SWITCH TO TURN OFF THE CIRCULATING PUMP WHEN THE SYSTEM IS NOT IN USE PER IECC R403.5.1 (IRC N1103.5.1).
MECHANICAL VENTILATION	THE BUILDING SHALL BE PROVIDED WITH VENTILATION PER IRC M1505 OR OTHER APPROVED MEANS OF VENTILATION PER IECC R403.6 (IRC N1103.6). WHOLE-HOUSE VENTILATION FANS SHALL MEET EFFICIENCY STANDARDS PER IECC TABLE R403.6.1 (IRC TABLE N1103.6.1).
EQUIPMENT SIZING	HEATING AND COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA MANUAL J OR OTHER APPROVED HEATING AND COOLING CALCULATION METHODOLOGIES PER IECC R403.7 (IRC N1103.7).
SYSTEMS SERVING MULTIPLE DWELLING UNITS	SYSTEMS SERVING MULTIPLE DWELLING UNITS SHALL CONFORM TO IECC SECTIONS C403 AND C404.
SNOW MELT SYSTEMS CONTROLS	SNOW AND ICE MELT SYSTEMS SUPPLIED THROUGH ENERGY SERVICE TO THE BUILDING SHALL INCLUDE AUTOMATIC CONTROLS CAPABLE OF SHUTTING OFF THE SYSTEM WHEN THE PAVEMENT TEMPERATURE IS ABOVE 50°F AND NO PRECIPITATION IS FALLING, AND AUTOMATIC OR MANUAL CONTROLS CAPABLE OF SHUTTING OFF THE SYSTEM WHEN THE OUTDOOR TEMPERATURE IS ABOVE 40°F PER IECC R403.9 (IRC N1103.9).
POOLS AND INGROUND PERMANENTLY INSTALLED SPAS	POOLS AND INGROUND SPA HEATERS SHALL HAVE AN ACCESSIBLE ON-OFF SWITCH MOUNTED ON THE OUTSIDE OF THE HEATER THAT ALLOWS SHUT-OFF WITHOUT AFFECTING THE THERMOSTAT SETTING PER IECC R403.10.1 (IRC N1103.10.1). GAS-FIRED HEATERS SHALL NOT HAVE CONSTANT BURNING PILOT LIGHTS. HEATERS SHALL HAVE THE SWITCHES OR OTHER CONTROL METHODS TO AUTOMATICALLY TURN ON AND OFF PER A PRESET SCHEDULE PER IECC R403.10.2 (IRC N1103.10.2). HEATED POOLS AND INGROUND SPAS SHALL BE PROVIDED WITH A VAPOR-RETARDANT COVER PER IECC R403.10.3 (IRC N1103.10.3).
LIGHTING EQUIPMENT	A MINIMUM OF 90% OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS PER IECC R404.1 (IRC N1104.1).
FUEL GAS LIGHTING EQUIPMENT	FUEL GAS SYSTEMS SHALL NOT HAVE CONTINUOUSLY BURNING PILOT LIGHT SYSTEMS PER IECC R404.1.1 (IRC N1104.1.1).

THE BUILDING SHALL ALSO CONFORM TO THE FOLLOWING PRESCRIPTIVE REQUIREMENTS:

THE BUILDING CONFORMS TO THE PRESCRIPTIVE REQUIREMENTS DETAILED IN THE CHART BELOW PER IECC R402.1.2 & R402.1.3 (IRC N1102.1.2 & N1102.1.3). EQUIVALENT U-FACTORS MAY BE SUBSTITUTED FOR REQUIRED R-VALUES PER IECC R402.1.4 (IRC N1102.1.4). THE BUILDING SHALL ALSO CONFORM TO THE DETAILED REQUIREMENTS OF IECC R402.2 (IRC N1102.2).

COMPONENT	REQUIRED VALUE
CEILING/ROOF	R-49 (COMPRESSED OVER WALL TOP PLATE AT EAVES) OR R-38 (UNCOMPRESSED OVER WALL TOP PLATE AT EAVES)
WALLS	R-20 CAVITY OR R-13 CAVITY PLUS R-5 CONTINUOUS
BASEMENT WALLS	R-10 CONTINUOUS OR R-13 CAVITY
SLAB	R-10, 4" DEPTH
CRAWL SPACE WALLS	R-10 CONTINUOUS OR R-13 CAVITY
FLOORS OVER UNCONDITIONED SPACE	R-19
DUCTS OUTSIDE CONDITIONED SPACE	R-8 FOR SUPPLY DUCTS IN ATTICS R-6 FOR ALL OTHER DUCTS
HOT WATER PIPES	R-3 UNLESS OTHERWISE ALLOWED BY IECC R403.5.3 (IRC N1103.5.3)
FENESTRATION	U-FACTOR = 0.32 MAX; SHGC = 0.40 MAX
SKYLIGHTS	U-FACTOR = 0.55 MAX; SHGC = 0.40 MAX











RONALD JOHNSTON AND ASSOCIATES, ARCHITECTS
11407 BARLEY FIELD WAY
MARRIOTTVILLE, MD 21104 • 410-442-3667

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NUMBER: 10018
EXPIRATION DATE: 07/12/2024

Proposed Alterations/Renovations to the
Fisher Residence
14084 Barbara Circle, Cocksville, Maryland 21723

REVISIONS:
DATE: 06-24-2024
SHEET NO.: A-1
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Wall Key

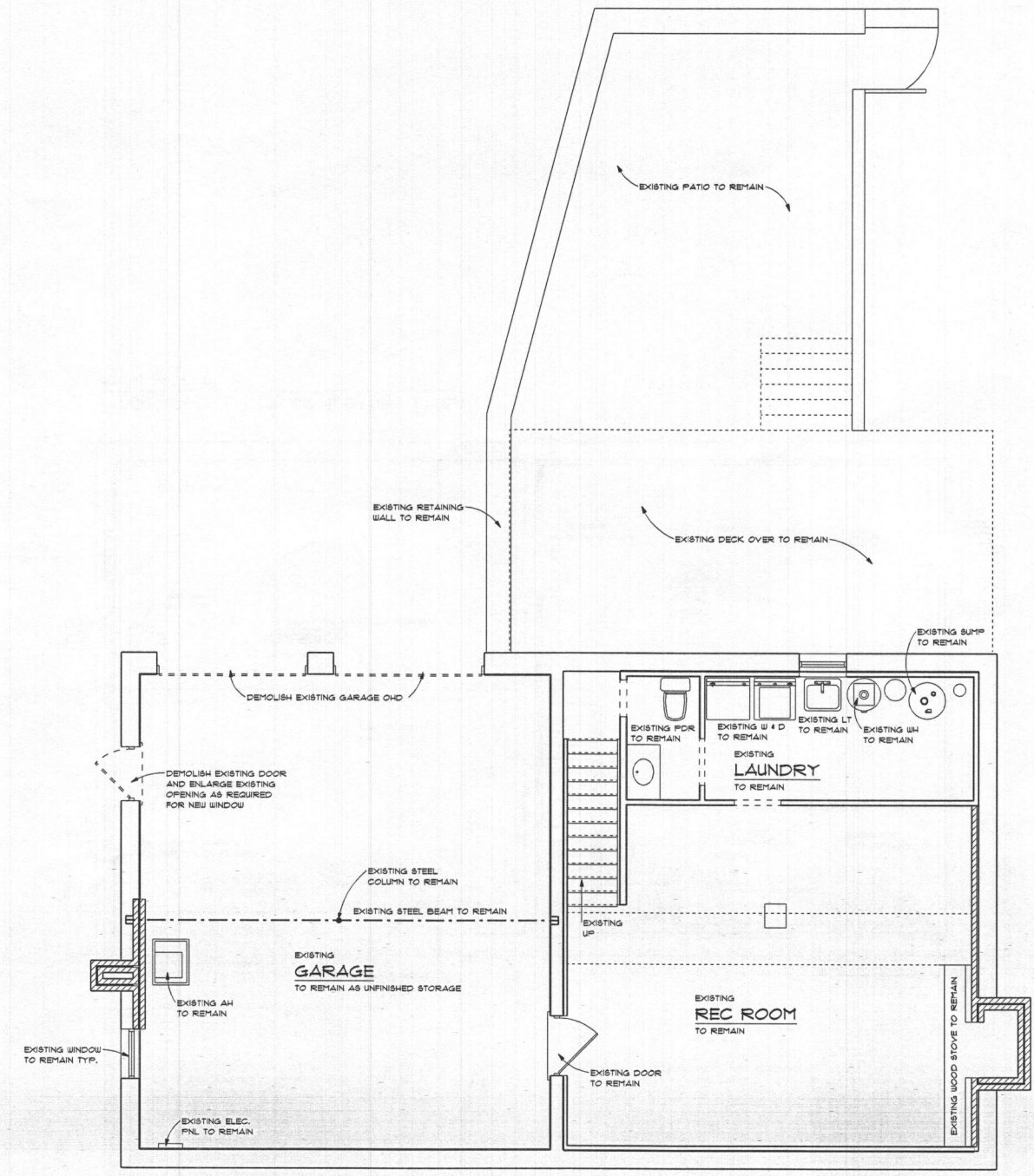
-  EXISTING FOUNDATION WALL TO REMAIN
-  NEW 8" CMU OR CONC. FOUNDATION WALL ON NEW MIN 16"x8" CONTIN. CONC. FOOTING
-  EXISTING BRICK WALL TO REMAIN
-  EXISTING FRAME / BRICK WALL TO REMAIN
-  EXISTING FRAME / BRICK WALL TO BE DEMOLISHED
-  EXISTING FRAME / SIDING WALL TO REMAIN
-  EXISTING FRAME / SIDING WALL TO BE DEMOLISHED
-  EXISTING FRAME WALL TO REMAIN
-  EXISTING FRAME WALL TO BE DEMOLISHED
-  NEW 2x4 @ 16" O.C. FRAME WALL

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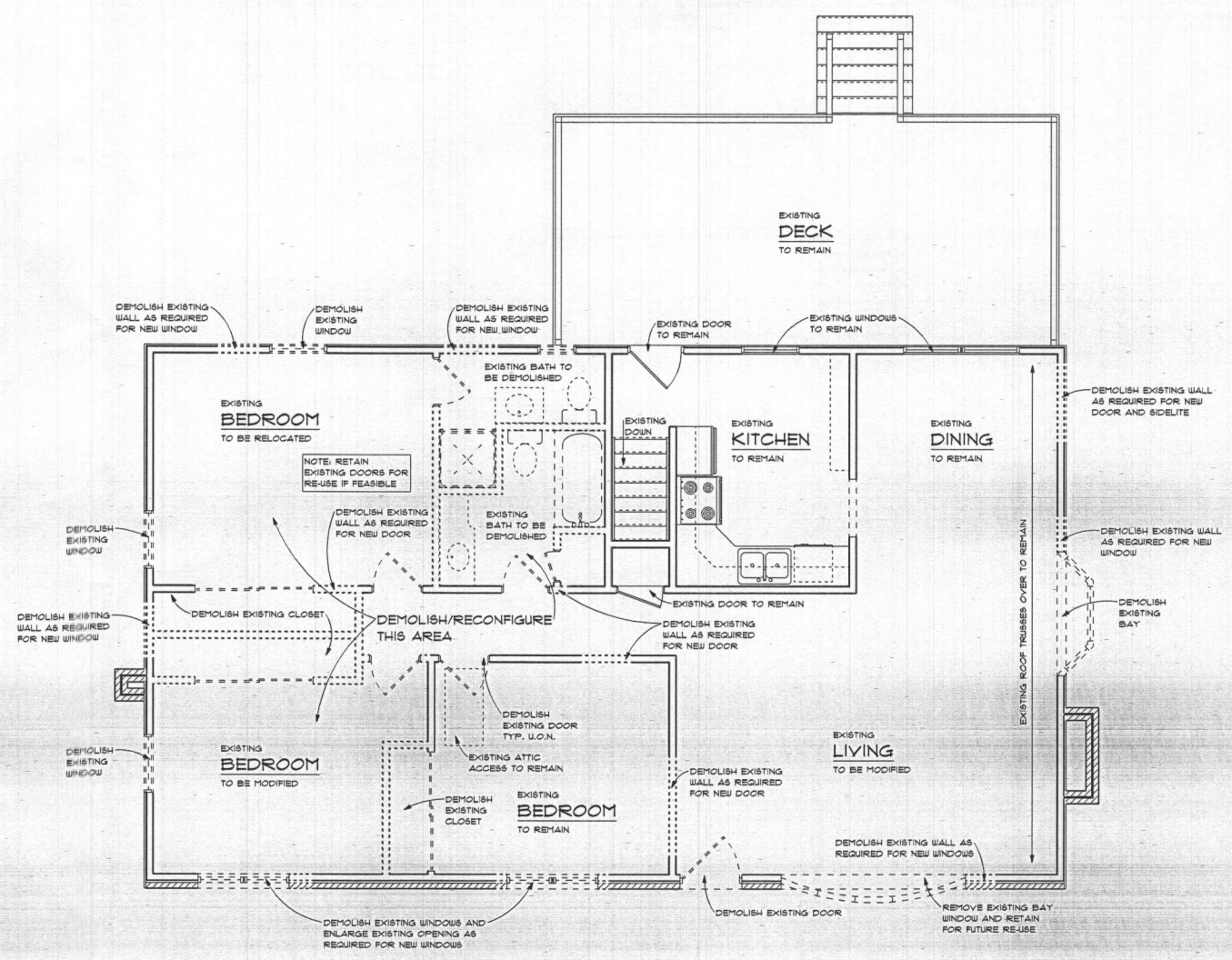
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NUMBER: 10088
 EXPIRATION DATE: 07/22/2024

Proposed Alterations/Renovations to the
Fisher Residence
 14084 Barbara Circle, Cooksville, Maryland 21723

REVISIONS	DATE	SHEET NO.
	06-24-2024	A-3
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Existing/Demolition Lower Level Plan
 SCALE: 1/4" = 1'-0"



Existing/Demolition Upper Level Plan
 SCALE: 1/4" = 1'-0"

