

**COMPLETE THIS FORM WHEN DROPPING OFF ANY  
CORRESPONDENCE AND/OR PLANS TO THE HOWARD COUNTY  
DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS COUNTER:**

Date: 10/02/2023       ONLINE SUBMITTAL       PAPER SUBMITTAL

To: Plan Review / Health (Reviewer/Requestor's Name)      (Division)

From: Arengo LLC, Sagar Patel (Your Name, Company Name)      (240) 472-8240 (Phone Number)

Subject: Project name 10764 Frederick Rd Deck  
 Project site address 10764 Frederick Road  
 Permit # B23002565      SDP # \_\_\_\_\_  
 Other information pertinent to this project \_\_\_\_\_

Please check the attachments below that you are submitting with this transmittal:

- Letter of response to address plan review comment letter
- Revised plans and/or revised details: When submitting for a complete re-review, duplicate sets shall be submitted.
- Letter Summarizing Changes
- Energy conservation calculations
- Copies of Plans/ Elevations (be specific).
  - Health Department Request       DPZ/ DED Request       Applicant's Request
- Two sets of single-family model plans to be placed on permanent file: Model Name/ # \_\_\_\_\_
- Other \_\_\_\_\_

**Contact Person Information: (Required)**

Sagar Patel      Telephone No: (240) 472-8240  
 Please Print Name      E-Mail Address: prafulp@arengo-llc.com

**PLEASE ASSURE ALL DOCUMENTS AND/OR REVISIONS ARE APPROPRIATELY SIGNED AND SEALED, IF NECESSARY, BY A LICENSED ARCHITECT OR ENGINEER. PLEASE BE ADVISED THAT INSUFFICIENT INFORMATION MAY RESULT IN THE DELAY OF REVIEW BY THE PLANS EXAMINER. THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS WILL CONTACT YOU IF THERE IS A PROBLEM. IN ADDITION, ONCE THE BUILDING PERMIT IS APPROVED BY THE PLAN REVIEW DIVISION AND ALL OTHER REQUIRED SIGNATORY AGENCIES, AND THE BUILDING PERMIT IS READY FOR ISSUANCE, THE PERMIT DIVISION WILL NOTIFY THE APPROPRIATE CONTACT PERSON FOR PERMIT PICK UP. ALL PERMIT STATUS INQUIRIES SHALL BE DIRECTED TO THE PERMIT DIVISION AT 410-313-2455 OPTION #4 OR BY VISITING MYHOWARD.INFO. CODE RELATED QUESTIONS AND PLAN REVIEW INQUIRIES SHALL BE DIRECTED TO THE PLAN REVIEW DIVISION AT 410-313-2436. PLEASE ALLOW A MINIMUM OF FIVE (5) WORKING DAYS FOR ANY PLAN SUBMITTALS TO BE REVIEWED. THANK YOU.**

Received by HR

*Approved PR  
10/5/2023  
see back of  
this sheet*

Rev #1

B23002565

10764 Frederick Road

Ellicott City, MD 21042

The proposed garage addition has been removed from the original scope of work. The new scope of work is removing the existing second floor deck and construct a new 12' x 24' second floor deck.

RECEIVED

PERMIT NUMBER: B 23002565

DATE ACCEPTED:

JUL 07 2023

**RESIDENTIAL BUILDING PERMIT APPLICATION** LICENSES & PERMITS DIVISION  
 HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS  
 3430 COURT HOUSE DRIVE, ELLICOTT CITY, MD 21043 - PHONE: (410) 313-2455 OPTION #4  
 www.howardcountymd.gov

**BUILDING SITE ADDRESS REQUIRED**

Street Address: 10764 FREDERICK RD Unit: \_\_\_\_\_  
 City: ELLICOTT CITY State: MD Zip Code: 21042  
 Subdivision/Village/Complex Name: \_\_\_\_\_ SDP/WP/BA #: \_\_\_\_\_  
 Lot: 1 Tax Map: \_\_\_\_\_ Parcel: \_\_\_\_\_ Grading Permit #: \_\_\_\_\_

**DESCRIPTION OF WORK REQUIRED**

Existing Use: SFD Proposed Use: SFD Estimated Cost: \$18,000.00  
 Trade Work to Be Completed (Separate Permits Required):  Mechanical (HVAC)  Electrical  Plumbing  None  
 NEW 14'X26' DETACHED GARAGE (364 SF) NEW 2ND FLOOR DECK 12'X24' (288 SF) - between existing 1 1/2 story new garage

**PROPERTY OWNER INFORMATION REQUIRED**

Owner(s) Name(s) (As it appears on tax records): KAYE BENJAMIN/ RHIANNON Primary Residence:  Yes  No  
 Owner's Street Address: 10764 FREDERICK ROAD  
 City: ELLICOTT CITY State: MD Zip Code: 21042  
 Phone: (240) 449-9580 Email: \_\_\_\_\_

**APPLICANT NAME REQUIRED - INDIVIDUAL WHO SIGNS THIS APPLICATION**

Business Name: ARENCO LLC Contact Name: SAGAR PATEL  
 Street Address: 12430 HILL CREST  
 City: FULTON State: MD Zip Code: 20759  
 Phone: (240) 472-8240 Email: PRAFULP@ARENCO-LLC.COM

**CONTRACTOR INFORMATION REQUIRED**

Business Name: INNOVATIVE BUILDING SERVICES  
 Licensee's Name: RICH HAISLIP License #: 48913  
 Street Address: 5428 Bartholow RD  
 City: SYKESVILLE State: MD Zip Code: 21784  
 Phone: (240) 624-2842 Email: \_\_\_\_\_

**ARCHITECT/ENGINEER INFORMATION INDIVIDUAL WHO SIGNED PLANS, IF APPLICABLE**

Business Name: \_\_\_\_\_ Name: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**BUILDING CHARACTERISTICS REQUIRED**

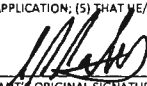
Primary Structure:  SF Dwelling  SF Townhouse  SF Duplex  Mobile Home  Multi-Family Dwelling (MF\*) Condo:  Yes  No  
 Utilities:  Electric  Gas Water Supply:  Public  Private (Well) Sewage Disposal:  Public  Private (Septic)  
 Heating System:  Electric  Natural Gas  Propane  Other: \_\_\_\_\_ Roadside Tree Project:  No  Yes: # \_\_\_\_\_  
 Sprinkler System:  NFPA 13  NFPA 13R  NFPA 13D  None Fire Alarm System:  Yes  No  Voice Evac

**ADDITIONAL RESIDENTIAL INFORMATION (PLEASE SELECT/COMPLETE ALL THAT APPLY)**

Model Name & Options:  
 # of Bedrooms (SF): \_\_\_\_\_ # of efficiency units (MF\*): \_\_\_\_\_ # of 1 BR (MF\*): \_\_\_\_\_ # of 2 BR (MF\*): \_\_\_\_\_ # of 3 BR (MF\*): \_\_\_\_\_  
 # Rooms: \_\_\_\_\_ # Full Baths: \_\_\_\_\_ # Half Baths: \_\_\_\_\_ # Fireplaces: \_\_\_\_\_  
 Garage/Carport Info:  Attached Garage  Detached Garage  Integral Garage  Carport  None  
 Basement/Foundation Info:  Slab on Grade  Post & Pier  Unfinished Basement  Finished Basement:  Full or  Partial  
 1<sup>st</sup> FI Width: \_\_\_\_\_ 1<sup>st</sup> FI Depth: \_\_\_\_\_ 2<sup>nd</sup> FI Width: \_\_\_\_\_ 2<sup>nd</sup> FI Depth: \_\_\_\_\_ Bsmt Width: \_\_\_\_\_ Bsmt Depth: \_\_\_\_\_  
 Energy Method:  Prescriptive  Performance  UA Alternative  ERI Gross Area: 364 sq ft Occupiable Area: \_\_\_\_\_ sq ft


**AGREEMENT/ DISCALIMER REQUIRED**

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 ORIGINAL SIGNATURE:  DATE SIGNED: 07/01/23

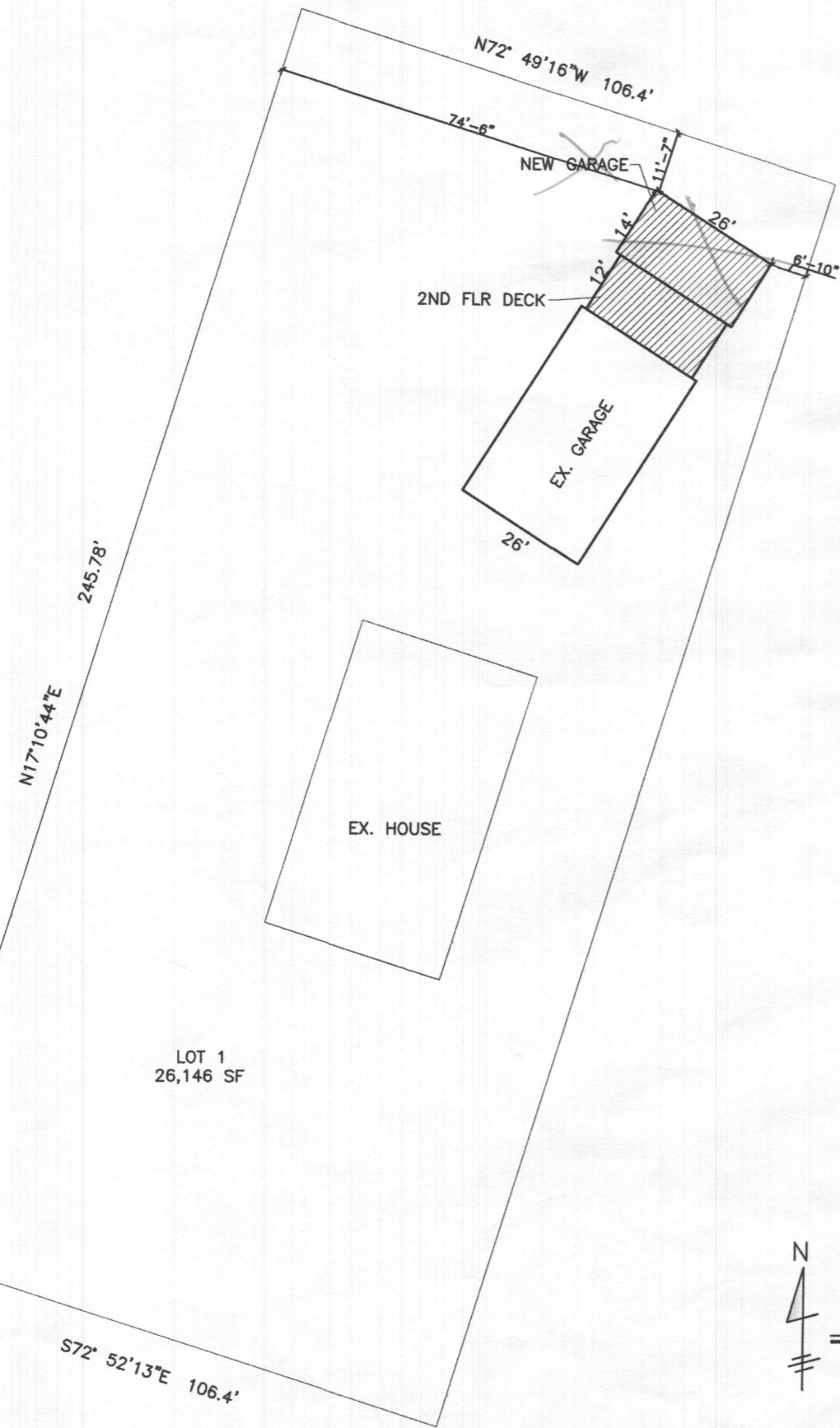
**FOR OFFICE USE ONLY** CHECKS PAYABLE TO: DIRECTOR OF FINANCE OF HOWARD COUNTY

AGENCIES REQUIRED/APPROVALS:  
 PR  DPZ  DED  Health  SHA  CID

SUBMITTAL FEES: 25.00 PAYMENT: \_\_\_\_\_ ACCEPTED BY: 

ADDRESS: 10764 FREDERICK RD  
ELLICOTT CITY, MD 21042

MAP: 0016  
LOT: 01  
LOT AREA: 26,146 SF



HOCC's Hazard Report  
JUL 10 2023  
Environmental Health



**SITE PLAN**

SCALE: 1" = 30'



10764 FREDERICK RD ELLICOTT CITY, MD 21042 DETACHED GARAGE		C1
<b>SITE PLAN</b>		
<b>ARENCO, LLC</b> ARCHITECTURAL ENGINEERING CONSULTANTS 12430 HILL CREST FULTON, MD 20759		
SCALE 1" = 30'	WORK REQUEST # R23-121	SHEET 1 OF 1 DRAWING NO. R23-121-01

FILE DATE:  
FILE NAME:

1. INTERNATIONAL RESIDENTIAL BUILDING CODE-- 2021 EDITION

GENERAL NOTES:

1. WINDOWS IN ALL BEDROOMS ARE DOUBLE HUNG. WHEN THE LOWER SASH IS RAISED FROM INSIDE THESE WINDOWS THEY PROVIDE EMERGENCY AND RESCUE OPENINGS THAT ARE
  - THE BOTTOM OF THE EGRESS WINDOW OPENING CAN'T EXCEED 44" FROM THE FINISHED FLOOR.
  - THE MINIMUM OPENING AREA OF THE EGRESS WINDOW IS 5.7 SQUARE FEET.
  - THE MINIMUM EGRESS WINDOW OPENING HEIGHT IS 24" HIGH.
  - THE MINIMUM EGRESS WINDOW OPENING IS 20" WIDE.
2. SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR LOCATIONS ARE AS SHOWN ON PLANS.
3. ALL NEW EXTERIOR LOAD BEARING WALLS ARE 2X6" STUDS @ 16" O/C WITH 5/8" SHEATHING BOARDS ON EXTERIOR AND 1/2" GB ON INSIDE FACE.
- 4.
5. ALL INTERIOR NON LOAD BEARING WALLS ARE 2"x4" STUDS @ 16" O/C WALLS WITH 1/2" GB ON EACH FACE EXCEPT NOTED OTHERWISE.
6. NEW SECOND FLOOR AND ROOF AS SHOWN ON STRUCTURAL PLAN.
7. SEE STRUCTURAL DRAWINGS FOR FLOOR FARMING INCLUDING LOAD BEARING WALLS LOCATIONS.
8. ALL NEW DOORS AND WINDOWS ARE AS SHOWN ON PLANS AND FRAMING CONTRACTOR SHALL PROVIDE OPENING INTO WALLS WITH HEADERS AND JAMS PER CODE AND DETAILS.
9. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS PRIOR TO CONSTRUCTION.
10. ALL DIMENSIONS, LOCATIONS AND ELEVATIONS OF STRUCTURES SHOWN ON THE CONTRACT DRAWINGS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
11. ALL WORK SHALL BE DONE ACCORDANCE WITH HOWARD COUNTY BUILDING CODE.
12. THE CONTRACTOR SHALL HOLD HARMLESS THE ARCHITECT/ENGINEER FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING ATTORNEY'S FEE ARISING FROM THE PERFORMANCE OF THE WORK DONE BY THE CONTRACTOR.
13. ALL WORK AND MATERIALS SHALL MEET THE REQUIREMENTS OF THE LOCAL AND STATE BUILDING CODES AND THE SPECIFICATIONS OF THE NATIONAL BOARD OF UNDERWRITERS. THE DRAWINGS SHOWING THE GENERAL AGREEMENTS AND EXTENT OF WORK. AS THE WORK PROGRESSES THE CONTRACTOR AT NO EXTRA COST SHALL MAKE MODIFICATIONS TO MAKE PART ALIGN.
14. CHANGES TO THE PLAN BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE PERSONS MAKING SUCH CHANGES. CONTRACTOR SHALL CHECK AND VERIFY ALL PLAN DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.
15. DO NOT SCALE DRAWINGS. ALL WRITTEN DIMENSIONS SHALL GOVERN.
16. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE PROPER INSTALLATION OF ALL METAL FASTENERS PER MANUFACTURER'S SPECIFICATIONS.
17. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT ON ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
18. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION AND NOTIFY ARCHITECT OF DISCREPANCIES AND CONFLICTS.
19. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETE IN ACCORDANCE WITH THE PLANS.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISIONS/AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

2021 IECC CODE COMPLIANCE

- R301.1 CLIMATE ZONE 4A
- R401.2 COMPLIANCE METHOD:  
MANDATORY AND PRESCRIPTIVE PROVISIONS
- R402.1.1 VAPOR RETARDER:  
WALL ASSEMBLIES IN THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH VAPOR RETARDER REQUIREMENTS OF SECTION R702.7 OF THE INTERNATIONAL RESIDENTIAL CODE, 2021 EDITION.
- R402.1.2 ATTIC INSULATION: RAISED HEEL TRUSSES  
R-49 R-38
- R402.1.2 WOOD FRAME WALL:  
R-20 OR R13 + R5 CONTINUOUS INSULATION.
- R402.1.2 BASEMENT WALL INSULATION:  
R-13/R-10 FOIL FACED CONTINUOUS, UNINTERRUPTED BATTS FULL HEIGHT
- R402.1.2 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".
- R402.1.2 FLOOR INSULATION OVER UNCONDITIONED SPACE:  
R-19 BATT INSULATION.
- R402.1.2 WINDOW U-VALUE/SHGC  
.32 (U-VALUE)  
.40 (SHGC)
- R402.2.10 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 WEATHERSTRIPPED AND INSULATED R-49
- R402.4 AIR LEAKAGE (MANDATORY):  
THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS R402.1.1 THROUGH R402-4.5
- R402.4.1.2 TESTING:  
THE BUILDING OR DWELLING UNIT SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING FIVE AIR CHANGES PER HOUR. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM E779 OR ASTM E1827 AND REPORTED AT A PRESSURE OF 0.2 INCHES W.G. (50 PASCALS). WHERE REQUIRED BY THE CODE OFFICIAL, TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL. TESTING SHALL BE PERFORMED AT ANY TIME AFTER CREATION OF ALL PENETRATIONS OF THE BUILDING THERMAL ENVELOPE.
- R402.4.2 FIREPLACES: NEW WOOD-BURNING FIREPLACES SHALL 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 WITH UL 127, THE DOORS SHALL BE TESTED AND LISTED FOR THE FIREPLACE.
- 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 SHALL BE LOCATED OUTSIDE THE BUILDING THERMAL ENVELOPE OR ENCLOSED IN A ROOM ISOLATED FROM INSIDE THE THERMAL ENVELOPE.
- EXCEPTIONS: 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO THE OUTSIDE.  
2. FIREPLACES AND STOVES COMPLYING WITH SECTION R402.4.2 AND SECTION R1006 OF THE IRC.

- R402.4.5 RECESSED LIGHTING  
RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES. RECESSED LUMINAIRES SHALL BE IC-RATED AND LABELED AS HAVING AN AIR LEAKAGE RATE OF NOT GREATER THAN 2.0 CFM (0.944 L/S) WHEN TESTED IN ACCORDANCE WITH ASTM E 283 AT A PRESSURE DIFFERENTIAL OF 1.57 PSF (75 PA). RECESSED LUMINAIRES SHALL BE SEALED WITH A GASKET OR CAULKED BETWEEN THE HOUSING AND THE INTERIOR WALL OR CEILING COVERING.
- R403.1.1 THERMOSTAT  
ALL DWELLING UNITS WILL HAVE AT LEAST (1) PROGRAMMABLE THERMOSTAT FOR EACH SEPARATE HEATING AND COOLING SYSTEM PER 2021 IECC SECTION 403.1.1.
- R403.1.2 WHERE A HEAT PUMP SYSTEM HAVING SUPPLEMENTARY ELECTRIC RESISTANCE HEAT IS USED THE THERMOSTAT SHALL PREVENT THE SUPPLEMENTARY HEAT FROM COMING ON WHEN HEAT PUMP CAN MEET HEATING LOAD.
- R403.3.1 MECHANICAL DUCT INSULATION (PRESCRIPTIVE)  
SUPPLY AND RETURN DUCTS IN ATTICS SHALL BE INSULATED TO AN R-VALUE OF NOT LESS THAN R-8 FOR DUCTS 3 INCHES (76 MM) IN DIAMETER AND LARGER AND NOT LESS THAN R-6 FOR DUCTS SMALLER THAN 3 INCHES (76 MM) IN DIAMETER. SUPPLY AND RETURN DUCTS IN OTHER PORTIONS OF THE BUILDING SHALL BE INSULATED TO NOT LESS THAN R-6 FOR DUCTS 3 INCHES (76 MM) IN DIAMETER AND NOT LESS THAN R-4.2 FOR DUCTS SMALLER THAN 3 INCHES (76 MM) IN DIAMETER.
- R403.3.2 DUCT SEALING (MANDATORY)  
DUCTS, AIR HANDLERS AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH EITHER THE INTERNATIONAL MECHANICAL CODE OR INTERNATIONAL RESIDENTIAL CODE, AS APPLICABLE.
- R403.3.3 DUCT TESTING (MANDATORY)  
DUCTS SHALL BE PRESSURE TESTED TO DETERMINE AIR LEAKAGE BY ONE OF THE FOLLOWING METHODS:  
ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 0.1 INCH W.G. (25 PA) ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE IF INSTALLED AT THE TIME OF THE TEST. REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.  
POSTCONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 0.1 INCH W.G. (25 PA) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.  
EXCEPTIONS:  
A DUCT AIR-LEAKAGE TEST SHALL NOT BE REQUIRED WHERE THE DUCTS AND AIR HANDLERS ARE LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.
- R403.6 MECHANICAL VENTILATION  
OUTDOOR (MAKE-UP AND EXHAUSTS) AIR DUCTS TO BE PROVIDED WITH AUTOMATIC OR GRAVITY DAMPER THAT CLOSE WHEN THE VENTILATION SYSTEM IS NOT OPERATING.
- R403.6.1 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICIENCY TO COMPLY WITH TABLE R403.6.1.
- R403.7 EQUIPMENT SIZING SHALL COMPLY WITH R403.7.
- R404.1 LIGHTING EQUIPMENT  
A MINIMUM OF 90 % OF ALL LAMPS (LIGHTS) MUST BE HIGH-EFFICACY LAMPS.
- THIS CONTRACTOR ALSO RESPONSIBLE FOR GENERATING CERTIFICATE OF COMPLIANCE AND AFFIXING TO ELECTRICAL PANEL OR WITHIN 6 FEET OF THE ELECTRICAL PANEL AND BE READILY VISIBLE.

*Revised to Deck Only  
Approved 10/3/2023  
R/E*

**ARENCO LLC**

12430 HILL CREST  
FULTON, MD 20759  
ARCHITECTS  
ENGINEERS  
CONSTRUCTION MANAGERS  
TEL: (240) 418 1389 . FAX (888) 974 5418

PROJECT TITLE  
**NEW DETACHED GARAGE**

PROJECT ADDRESS  
**10764 FREDERICK RD  
ELLCOTT CITY, MD 21042**

SHEET TITLE  
**GENERAL NOTES**

**DISCLAIMER**  
PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 22051 EXPIRATION DATE: 12/31/2025

PROJECT NUMBER  
**R23-121**

DRAWN BY  
**SP**

APPROVED BY  
**PP**

DATE  
**06/01/23**

ORIGINAL SHEET SIZE  
24X18  
SHOULD MEASURE 1":  
1" = 1' 0"

SCALE  
**AS SHOWN**

DRAWING  
**S1**

**CONCRETE:**

1. REINFORCED CONCRETE SHALL BE DETAILED AND CONSTRUCTED IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE, (ACI 301) "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
2. NEW CONCRETE FOR FOOTING AND FILLED IN CMU SHALL BE MINIMUM OF 3000 PSI AT 28 DAYS.
3. ALL REINFORCEMENT SHALL CONFORM TO ASTM SPECIFICATION A185.
4. NEW FOOTING AND SLAB SHALL BE POURED ON 4" GRAVEL OR CR6 AS SHOWN ON SECTION.
5. NEW ROOF SHALL BE CONSTRUCTED ACCORDING WITH STRUCTURAL FRAMING PLAN AND ARCHITECTURAL DETAILS.
6. THE OWNER SHALL RETAIN THE SERVICES OF A SOIL CONSULTANT APPROVED BY THE ARCHITECT TO CHECK AND VERIFY THE REQUIRED SOIL BEARING PRESSURE OF EACH FOOTING.
7. ALL CONTINUOUS REINFORCING SHALL BE SPLICED WITH "B" SPLICE STAGGERED, UNLESS NOTED OTHERWISE. FOOTING AND OTHER CONCRETE POURED AGAINST EARTH -3"
8. FORMED CONCRETE EXPOSED TO EARTH -2" FOR BEARS LARGER THAN #5, 1/2" FOR #5 AND SMALLER BARS.
9. WHERE DISCREPANCIES EXIST BETWEEN THE STANDARD COMMENTS, NOTES FROM THE DESIGN PROFESSIONAL OR THE CODE, THE MOST RESTRICTIVE SHALL APPLY. ALL CONSTRUCTION SHALL COMPLY WITH THE 2015 INTERNATIONAL RESIDENTIAL CODE (IRC).
10. FOUNDATION WALLS ENCLOSING BASEMENTS OR OTHER HABITABLE SPACE SHALL BE DAMPPROOFED PER IRC - WHERE A HIGH WATER TABLE OR OTHER SEVERE WATER CONDITION EXISTS, THE WALLS SHALL BE WATERPROOFED.
11. PROVIDE A MINIMUM 4-INCH PERFORATED DRAIN AROUND USABLE SPACE BELOW GRADE OR OTHER EQUIVALENT MATERIALS PER IRC THE PIPE SHALL BE COVERED WITH NOT LESS THAN 6 INCHES OF WASHED GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT TO THE EXTERIOR BELOW THE FLOOR LEVEL OR TERMINATE IN A MINIMUM 20-GALLON SUMP PIT.
12. INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.
13. AT WALKOUTS THE FOUNDATION WALL SHALL BE INSULATED WITH A MINIMUM R-13 INSULATION FOR A MINIMUM OF 3 FEET BELOW THE BOTTOM OF THE SLAB.
14. ANCHOR BOLTS - MINIMUM 1/2-INCH ANCHOR BOLTS WITH 7" EMBEDMENT AT MAXIMUM 6 FEET O.C. AND WITHIN 6 INCHES OF THE END OF EACH SILL PLATE.
15. WHERE FLOOR JOISTS ARE PARALLEL TO THE FOUNDATION WALL, THE WALL SHALL BE SUPPORTED LATERALLY AT THE TOP BY SOLID BLOCKING FOR A MINIMUM OF TWO JOIST SPACES, SPACED NOT MORE THAN 2'-10" FEET O.C.

**WOOD NOTES:**

1. FRAMING LUMBER SHALL BE KILN DRIED OR MC-15, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17, LATEST EDITION. ALL WOOD FRAME CONSTRUCTION SHALL CONFORM TO THE STANDARDS OR THE IBC AS A MINIMUM REQUIREMENT. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:  

JOISTS: (2X8 AND SMALLER)	HEM-FIR NO. 2 MINIMUM BASE VALUE, FB=850 PSI
BEAMS AND STRINGERS: (2X10 AND LARGER)	DOUGLAS FIR NO. 1 MINIMUM BASE VALUE, FB=1350 PSI
POSTS AND TIMBERS: (4X4 AND LARGER)	DOUGLAS FIR NO. 2 MINIMUM BASE VALUE, FB=1200 PSI
STUDS, PLATES & MISC. FRAMING:	DOUGLAS FIR OR HEM-FIR STANDARD GRADE
TOP AND BOTTOM PLATES AT BEARING WALLS GRADE	DOUGLAS FIR-LARCH CONSTRUCTION
2X6 STUDS AND PLATES:	HEM-FIR NO.3/ STUD GRADE
2. ENGINEERED LUMBER SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. ENGINEERED LUMBER MEMBERS SHALL BE MANUFACTURED UNDER A PROCESS BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPROPRIATE NER REPORT AND GLUED WITH A WATERPROOFING ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER.  

PSL	FB=2900 PSI	E=2000 PSI	FV =290 PSI	NER-292
LVL	FB=2600 PSI	E=1900 PSI	FV =285 PSI	NER-126
LSL	FB=1700 PSI	E=1300 PSI	FV =150 PSI	NER-481
4. DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE GEORGIA-PACIFIC. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND ORHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICBO APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

5. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ANSI/AITC A190.1 AND ASTM D3737. EACH MEMBER SHALL BEAR AND AITC IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN ATTIC CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FOR COMINATION 24F-V4, FB=2400 PSI, FV=190 PSI. CAMBER ALL GLULAM BEAMS TO A 2,000 FOOT RADIUS UNLESS NOTED OTHERWISE ON THE PLANS.
6. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY. ALL WOOD EXPOSED TO WEATHER WITHOUT THE ADEQUATE PROTECTION OF A ROOF OR EAVE SHALL BE APPROVED WOOD OF NATURAL RESISTANCE TO DECAY OR PRESSURE TREATED. SUCH MEMBERS INCLUDE HORIZONTAL MEMBERS SUCH AS GIRDERS, JOISTS, DECKING, OR VERTICAL MEMBERS SUCH AS POSTS, POLES AND COLUMNS.
7. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE SHALL BE IN CONFORMANCE WITH APA STANDARDS. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.
8. FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.
9. FLOOR SHEATHUNG SHALL BE 3/4" (NOM) WITH SPAN RATING 40/20
10. WALL SHEATHING SHALL BE 1/2" (NOM) WITH SPAN RATING 24/0
11. PLYWOOD OOF AND FLOOR SHEATHING TO BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED WITH 8D NAILS AT 6" O.C. TO FRAMED PANEL EDGES AND OVER STUD WALLS AS SHOWN ON PLANS AND AT 12" O.C. TO INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE. PROVIDE APPROVED PLYWOOD EDGE CLIPS AT 16" O.C. AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. TOENAIL BLOCKING TO SUPPORTS WITH 16D @ 12" O.C. UNLESS NOTED OTHERWISE. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.
12. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING JOINTS, TOENAIL JOISTS TO SUPPORTS WITH TWO 16D NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS.
13. ALL COLUMNS AND POSTS SUPPORTING BEAMS NOT SPECIFIED FOR SIZE ON PLAN SHALL CONSIST OF 2 STUDS SPIKE LAMINATED TOGETHER WITH 16D NAILS AT 9" O/C.

**WOOD FRAMING:**

1. FRAMING LUMBER FOR BEAMS AND JOISTS SHALL HAVE FB= 1100 PSI, E=1,300.00, AND FOR STUDS AND POSTS, FC= 500 PSI, E = 1,200.000 PSI
2. PROVIDE 2-2 X 6 @ EACH SIDE OF OPENINGS UNLESS NOTED OTHERWISE.
3. ALL WOOD LINTEL SHALL BE 2-2 X 8 UNLESS OTHERWISE NOTED.
4. PROVIDED CROSS-BRIDGING FOR JOISTS AT 8'-0" INTERVALS.
5. WOOD JOISTS AND BEAMS SHALL NOT BE CUT OR DRILLED UNLESS SO AUTHORIZED BY THE ARCHITECT.
6. PROVIDE APPROVED HURRICANE CONNECTIONS BETWEEN FRAMING MEMBERS.
7. LUMBER IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED AGAINST DECAY.
8. PROVIDED DOUBLE JOISTS BELOW NON-BEARING PARTITIONS PARALLEL TO JOISTS.
9. FRAMING LUMBER SHALL HAVE 19% MAXIMUM MOISTURE CONTENT.
10. BRUSH PRESERVATIVE SOLUTION ON ALL EDGES THAT ARE CUT IN MEMBERS THAT ARE IN CONTACT WITH CONCRETE OR MASONRY.
11. PROVIDE MANUFACTURERS' STANDARD JOIST OR STANDARD BEAM HANGERS AT WALL WOOD TO WOOD CONNECTIONS THAT REQUIRE JOISTS OR BEAMS FRAMING INTO THE SIDE OR FACE OF THE SUPPORTING MEMBER. THE CAPACITY OF THE HANGER SHALL BE FOR THE MAXIMUM SHEAR CAPACITY OF THE JOISTS OR BEAM.

**PLYWOOD SHEATHING:**

1. ALL PLYWOOD SHEATHING SHALL BE CD-GRADE, UNLESS OTHERWISE SHOWN, WITH EXTERIOR GLUE MANUFACTURED INACCORDANCE WITH PRODUCT STANDARD PS183, LATEST ADDITION, ROOF AND WALL SHEATHING.
2. PLYWOOD SHEATHING SHALL BE LAID WITH END JOINT STAGGERED.
3. BLOCK ALL WALL SHEATHING WITH 2X4 FLAT BLOCKING AT ALL EDGES.
4. LAYOUT PLYWOOD TO ELIMINATED ANY WIDTH LESS THAN 1'-0"

**DESIGN LOADS:**

FLOOR LIVE LOAD = 40 PSF  
 FLOOR DEAD LOAD = 10 PSF  
 STAIR LIVE LOAD = 100 PSF  
 DECKS LIVE LOAD = 40 PSF  
 ROOF LIVE LOAD = 30 PSF  
 ROOF DEAD LOAD = 10 PSF  
 GROUND SNOW LOAD = 40 PSF  
 WIND SPEED - 120 MPH MAX  
 HANDRAIL - 200 LB CONCENTRATED LATERAL LOAD  
 SOIL BEARING CAPACITY = 1500 PSF

**ARENCO LLC**

12430 HILL CREST  
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 ARCHITECTS  
 ENGINEERS  
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 TEL (240) 418 1388 . FAX (888) 374 5418

PROJECT TITLE  
**NEW DETACHED GARAGE**  
 PROJECT ADDRESS  
**10764 FREDERICK RD  
 ELLICOTT CITY, MD 21042**

SHEET TITLE  
**STRUCTURAL NOTES**

**DISCLAIMER**  
 PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23047 EXPIRATION DATE: 04/28/2025



PROJECT NUMBER

**R23-121**

DRAWN BY  
**SP**

APPROVED BY  
**PP**

DATE  
**06/01/23**

ORIGINAL SHEET SIZE  
 36X24  
 SHOULD MEASURE 1":

SCALE  
**AS SHOWN**

DRAWING

**S2**