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Plan Submittal Guidelines for Additions/Alterations

Plan Submittal Guidelines

These guidelines contain a list of plans, details, specifications, and technical information generally required for plan review for additions/alterations to single-family dwellings (attached or detached). This list is not all-inclusive and detailed, and further information may be required if needed at the time of plan review. When the proposed construction is not conforming to the 2021 International Residential Code (IRC), or it is attached to a townhouse unit or when the project is unusual or complex, DPS will require construction drawings signed and sealed by a Maryland Licensed Architect or Professional Engineer; these drawings must include their seal, signature, date, and certification statement.

A. General Requirements

1. Provide a complete set of legible construction drawings containing floor plans, details, general notes, and technical specifications (including building code analysis), drawn to scale and dimensioned, sufficiently complete and detailed to clearly show the scope of the work to be performed. Plans must be submitted on a minimum 11x17 sheet size. Plans must be either digitally created or scanned into a PDF. Pictures of plans, plans with dark background, faint images, blurred lines or lettering, lined paper, or graph paper are not acceptable.
2. Clouds, if used, must be identified, and dated.

B. Zoning Requirements

Please confirm that your project meets zoning requirements. If your project includes an accessory dwelling unit (ADU) such as accessory apartment, granny pod, backyard cottage or carriage house, among others, please read the applicable requirements.

C. Drainage Plans, Engineering Scale 1” to 10 Feet

A drainage plan is required prior to issuance of any building permit for an addition to an existing residential building which proposes an increase of more than 400 square feet of the footprint of the building, measured from outside wall to outside wall of the addition, on a residential lot that is less than 15,000 square feet and where a stormwater management plan has not already been approved. A drainage plan is also required for any new detached Accessory Dwelling Unit (ADU) regardless of the building square footage or lot size.

1. All property lines, lot dimensions, lot area, widths of easements, and rights of way.

2. Elevations at the corners and halfway between the corners of the existing and proposed house or addition, corresponding front-, side-, and backyard-yard midpoints, and corresponding lot lines points. NOTE – Additional topographic info may be required as deemed necessary.
3. Elevations of the lower floor, basement floor slab, garage floor slab, and impervious surfaces for existing and proposed buildings.
4. Location and elevation of roof downspouts for existing and proposed buildings
5. Directional arrows to show the existing and proposed drainage pattern. For example, show downspout flows and sheet flows that are conveyed off the lot or collected to an on-site device or facility.
6. Size, material, length, and class of drainage pipes within the existing and proposed collection system, and the elevation of the bottom of the pipe at discharge points.
7. If fill is added on the lot, the grades on neighboring properties must be shown for the existing and proposed buildings. Site grading shall not obstruct existing drainage from adjacent properties

Plans prepared by an engineer, surveyor or architect licensed in Maryland, Include his/her seal, date, and signature.

D. Architectural/Structural Plans (drawn to scale and dimensioned)

1. **Architectural floor plans** - one plan for each floor (Scale preferred 1/4" =1')
   a. Label floor plan(s) of ***existing*** building (basement, first story, etc.) affected by the addition/alteration, including dimensions, use of each space, stairways, doors, windows, construction materials, means of egress, etc.
   b. Label floor plan(s) of ***proposed*** addition/alteration including dimensions, use of space, stairways, doors, windows, construction materials, means of egress, etc.
   c. Provide floor by floor square footage calculations of added and altered spaces.
   d. Provide location of smoke and carbon monoxide alarms.
   e. Provide door and window schedule with size, glazing type (tempered, for example), and U-value.
   f. Provide location of smoke detectors.

2. **Foundation plans** (Scale preferred: 1/4" = 1')
   a. Provide an ***existing*** footing/foundation plan with dimensions noting the existing foundation and footing construction and sizes.
   b. Provide a ***proposed*** footing/foundation plan with dimensions noting the existing foundation and footing construction and sizes and soil data, if necessary, such as type of soil and bearing capacity.

3. **Structural Framing Plans** – one structural framing plan per each floor and a roof framing plan.
   a. Provide ***existing*** floor and roof structural framing plans of the areas affected by the addition/alteration. Indicate location, size, spacing, and material of all existing structural and framing elements
   b. Provide ***proposed*** floor and roof structural framing plans of the proposed addition/alteration. Plans must be line drawn and dimensioned. Indicate location, size, spacing, and material of all structural and framing elements (sheathing, rafters, trusses, joists, beams, posts, bearing walls, foundation walls, footings, etc.),

c. When using wood trusses, provide truss design drawings showing depth, span, spacing, bearing widths, design loads, and connections on framing plans.
d. Provide a steel lintel schedule, if any, for the support of the brick veneer.
e. Provide Wall Bracing Plans and details - indicate method(s) of wall bracing as specified in Chapter 6 of the 2021 IRC. Provide braced wall panel layout specifying amount of bracing, location of braced wall lines and braced wall panels on each story, panel length, connection details, etc.

4. **Elevations** of existing building and proposed addition (Scale: 1/4" =1')
   a. Show doors, windows, other exterior openings, exterior structural elements, gables, dormers, stairways, chimneys, other exterior architectural features/details, and exterior finish materials.
   b. Show exterior proposed grade, roof pitch, and vertical dimensions of all construction elements and architectural features.
   c. Show crawl space, if any, including elevations and vents
   d. Indicate braced wall lines and braced wall panels.

5. **Cross-sections** (Scale: 1/4" = 1')
   a. Show existing and proposed work affected by the addition/alteration
   b. Show vertical dimensions of all significant construction elements (ceiling heights, duct/beam clearances, door/window openings, headroom, door/window heights, sill heights, etc.)
   c. Show size, spacing, and material of all structural elements (footings, foundation walls, bearing walls, posts, beams, joists, rafters, trusses, sheathing, etc.)
   d. Show special areas/features (stairs, fireplace/chimney, etc.)
   e. At least one complete section showing the thermal envelope

6. **Details** (Scale: 1/2" = 1')
   a. Show footings, retaining walls, unusual structural arrangements and/or connections, indicating materials and size, type, location, and spacing of reinforcing, connectors, etc.
   b. Show stairway construction (including spiral/circular) indicating materials and dimensions of all treads, risers, landings, winders, guards, handrails, headroom, etc.

7. **Radon-resistant construction** per Appendix AF if the added foundation below habitable space exceeds 70 $ft^{2.}$

E. Technical Information Required

1. Specifications
   a. Design criteria
   b. Species/grades of framing lumber.
   c. Grades/classes of other structural elements; and
   d. Grades/types of construction materials and finishes.

2. The plan reviewer may require that the structural aspects of the construction documents be signed and sealed by a Maryland Registered Architect or Professional Engineer. The design must be in accordance with accepted engineering practice.

F. Energy Efficiency Requirements

Applications shall comply with the provisions of the International Energy Conservation Code 2021 (IECC) as amended by Montgomery County Executive Regulation 13-24. Additions that do not increase conditioned floor area by more than 70 ft^2 are exempt from the building thermal envelope provisions, except glazing, of Section R402 if the building with addition does not use more energy than the existing building.

Provide the Energy Compliance Form for Additions and Alterations Selection Form

In addition to the selection form, provide as applicable to the project:

1. The exact location of the building thermal envelope shall be marked out on the plans, details, and cross-sections.
2. All insulation R-values or U-factors, materials, and locations to be installed (walls, ceilings, cantilever floors, floors over garage, crawl space, basement walls, etc.).
3. All fenestration U-factors for all glazing for each window and door per Table R402.1.2
4. Area-weighted U-factors and SHGC calculations (If applicable).
5. Mechanical system design criteria form prepared by a licensed mechanical contractor.
6. Mechanical and service water heating system and equipment types sized and efficiencies.
7. Duct sealing, duct and pipe insulation, and location.
8. Documentation that shows all lighting is high efficacy and show interior and exterior lighting controls

The information required in points 1 and 2 can be summarized on selection form. The remaining information can be captured on the drawings in schedules, notes, and other supplementary worksheets or calculations.

If Total UA Alternative or REScheck™ is used, provide a copy of REScheck calculations. The submitted printout shall show all the following specific information: orientation of each individual wall; insulation types, R-values and whether continuous or cavity; accurate square footage; and accurate window and door sizes and the specific wall in which they are located, along with the U factors. Before printing the report make sure to choose the 2021 IECC and input specific building information

If Total Building Performance Compliance option is used, submit a certificate by an approved third-party indicating the proposed design meets the requirements in Section R405.2 and Section R405.3 as amended by Montgomery County Regulation 13-24.

G. Additional Requirements

1. A Copy of the Maryland Department of Assessments and Taxation, Real Property Data Search, showing the property land area for review and approval.

2. If dwelling is in historic location, provide stamped plans and letter of conditions from Historic Preservation Commission.

3. When required, an application for a Public Right of Way permit for restoration/repair.

4. Any work that results in 5,000 sf of disturbance or 100 cubic yards of earth movement requires a sediment control permit. See Engineered SC Permit or Small Land Disturbance Permit for more information.

For state highways, follow the instructions of the State Highway Administration (SHA) application, which may be obtained here: SHA Access Permits

NOTE: Properties that lie within incorporated areas typically require building permits from the municipality in addition to Montgomery County Department of Permitting Services (DPS), see **Permit Procedures for Properties Within a Montgomery County Municipality** document issued by DPS. Failure to comply with these guidelines may result in your plan(s) not being accepted for review.

H. Permit Revisions

Revisions to permits may be submitted only before the permit has received a final inspection approval. Revised plans must clearly detail what is being changed. **All proposed changes must be dated and clearly identify with clouds.** Additionally, provide all square footage calculations of all added and changed areas. Revision fees will be calculated by DPS staff. All revision applications must be submitted using the DPS online service using the same permit number.