ATTACHED RESIDENTIAL GARAGE & HOUSE ADDITIONS

1685 CROSSTOWN BOULEVARD NW, ANDOVER, MINNESOTA 55304 (763) 755-8700 • FAX (763) 755-8923 • WWW.ANDOVERMN.GOV

SUBMITTALS REQUIRED FOR PERMIT

☐ **Building Permit Application** Separate electrical, plumbing and mechanical permits are required.
Forms available online: *Plumbing Permit Application* *Electrical Permit Application* *Mechanical Permit Application*

☐ **Certificate of Survey or an accurate, dimensioned Site Plan showing the proposed accessory structure.**

☐ **Two (2) copies of construction plans showing proposed designs and materials.**
Drawings should be drawn to scale on paper and may include:

- **Site Plan –** provide a land survey or site plan showing parcel dimensions and locations of existing and proposed structure (s). A copy of your land survey might be available from city building files.
- **Foundation Plan** – describe dimensions and locations of footings and foundations; foundation materials, reinforcements, and foundation anchor types and locations.
- **Floor Plan –** describe building area uses; dimensions and locations of walls, windows and doors; and various structural details.
- **Elevations** – provide front, back and side views of the building, describing building height, exterior wall and roof finishes, and opening locations including windows and doors.
- **Cross Sections –** describing structural details for footings, foundations, walls, ceilings and roofs; provide material descriptions for joists, rafters, beams, headers, manufactured trusses, etc.

Additional permit submittals and separate permits are required for electrical, plumbing and heating work.

ZONING SETBACKS & LOCATIONS

The Zoning Code requires residences and attached garages to be setback, away from property lines:

ZONING DISTRICT	Yard Setbacks [1, 2]				
	Front [3, 4]	Side Fronting on a Public Street [4]	House Side	Garage Side	Rear
R-1	40	40	10	10	50
R-2	40	40	10	10	50
R-3	35	35	10	10	30
R-4	35	35	10	6	30
R-5 / PUD *Planned Unit Development*	Varies by PUD	Varies by PUD	Varies by PUD	Varies by PUD	Varies by PUD

NOTES:

[1] ***The combined area of residential off-street parking space, driveways, buildings, or structures of any type must not cover more than seventy five percent (75%) of the lot area.***

[2] ***The following items may encroach three feet (3') into residential yard setbacks:*** *posts, flues, belt courses, leaders, sills, pilasters, lintels, cornices, ornamental features, eaves, gutters, awnings, open canopies, steps, stoops, sidewalks, patios, terraces, open fire escapes, chimneys, window wells, accessibility ramps and landings, and similar features. Setback encroachments must not exceed the height of the first story, nor extend to within three feet (3') of any lot line. Attached residential decks must meet all required setbacks, except an encroachment of eight feet (8') is allowed into the rear yard setback. Allowed setback encroachments must not extend into drainage, utility or public easements.*

[3] ***In R-2, R-3 and R-4 District, front yard setback averaging to existing, adjoining buildings shall apply, per City Code 12-5-1***

[4] ***Setbacks From Right-of-Way [ROW] and Future Streets:***

- *Where a county road ROW is less than 120', a 110' minimum setback from the county road centerline is required; except in the R-4 District where the minimum setback from the county road centerline is100' minimum.*
- *Where less than the minimum road ROW required by City Code 11-3-3 exists, setbacks shall be measured assuming the ROW required by City Code 11-3-3.*
- *Where abutting a street stub or temporary cul-de-sac, the min. setback must be measured from the edge of the future ROW and accommodate the future street extension and conform to City Code 12-3-5 and City Code 11-3-3*

INSPECTIONS

BUILDING INSPECTIONS:
The following inspections must be requested during construction:

- ✓ **Site/Location & Footing –** Prior to placement of concrete.
- ✓ **Foundation -- Prior** to backfill.
- ✓ **Framing** – Prior to concealing the structural frame of the building.
- ✓ **Insulation –** Prior to installation of drywall/interior finishes.
- ✓ **Final** – Upon completion of the accessory structure.

Additional inspections for mechanical, plumbing and electrical work may be required.

Please call (763) 755 – 8700 to schedule an inspection and have your address and permit available.

CONSTRUCTION RECOMMENDATIONS

FOOTINGS & FOUNDATIONS
A frost protected foundation must be provided for a home or attached garage addition. Footings must extend to at least 42" below grade or provide equal frost protection. Residential footings must be at least 8" deep of cast-in-place concrete placed on undisturbed or compacted soil.

LOAD-BEARING VALUES OF UNDISTURBED SOILS

CLASS OF MATERIAL	LOAD-BEARING CAPACITY (Lbs. per square foot)
Sandy gravel and/or gravel	3,000
Sand, silty sand, clayey sand, silty gravel and clayey gravel	2,000
Clay, sandy clay, silty clay, clayey silt, silt and sandy silt	1,500

ENERGY CODE REQUIREMENTS
Andover is located in Climate Zone 6, therefore components of residential dwellings must meet the following energy conservation standards:

	Slab-On-Grade Floors	Crawl Space Walls	Basement Walls **	Framed Exterior Walls	Floors Over Unconditioned Spaces	Windows & Doors	Skylights	Roof / Ceiling
Residential Addition	R-10 to 42" below grade	R-15	R-15	R-20	R-30	R-3.125	R-1.82	R-49
Sun Room 3-Season Porch	R-10 to 42" below grade	R-15	R-15	R-13	R-30	R-3.125	R-1.82	R-24
Attached Garage Addition	NO ENERGY CODE REQUIREMENTS.		**Maintain fire separation between residence and attached garage. Minimum 1/2" gypsum drywall, except 5/8" Type X required where living space is above garage. Door to residence must be 20 min. fire rated or min. 1 3/8" steel skin or solid wood.**					
******** *Note that basement walls must be insulated on the exterior to provide at least R-10. Additional insulation on the basement wall interior must not exceed R-11 unless foam plastic is used.*								

Vapor Retarders Required: A sealed, Class I or II vapor retarder of sheet polyethylene, unperforated aluminum foil or Kraft-faced fiberglass batts must be installed on the interior/warm side of framed wall and roof/ceiling insulation; no vapor retarder is required in floor assemblies.

SEPTIC SYSTEMS

Where a bedroom or sleeping area is being added to a residence connected to an on-site sewage treatment system, the septic system must be verified to have sufficient design capacity to accept additional effluent; or, a design for expansion of the septic system capacity must be submitted with the building permit application. To show sufficient design capacity, a Septic Compliance Report prepared and signed by an MPCA licensed septic inspector or designer must be submitted. Any design for septic system expansion must be prepared and signed by an MPCA licensed septic designer.

LUMBER & CONVENTIONAL CONSTRUCTION DETAILS

Lumber exposed to weather, within 6" of exterior grade or in contact with soil, concrete or masonry must be naturally resistant or treated to resist decay and rot. Wood that is to be used in contact with the ground or underground must be pressure-preservative treated for ground contact. Where treated lumber is cut or drilled, the exposed surface should be thoroughly field treated with a wood preservative containing copper naphthenate – available at most home improvement and paint stores.

Bottom Plate: One treated 2"x 4" or 2"x 6" anchored by approved strap anchors or ½" foundation anchor bolts, with washer and nut spaced not more than 6 feet on center, and not more than 1 foot from each corner or end of plate on all sides of the structure.

Studs: 2"x 4" or 2"x 6"studs spaced 16" or 24" on center, with three studs at exterior corners.

Top Plate: Two 2"x 4"s or two 2"x 6"s lapped at corners and overlapped at least 32" at splices.

Wall Sheathing: Panel sheathing (plywood, oriented strand board or other approved sheathing).

Weather Resistive Exterior Walls: House wrap (i.e. Tyvek, Typar, Home Par, etc.) must be installed and sealed on all residential additions and where the exterior finish/siding is being replaced on any existing full wall. The exterior wall must be finished with siding, stucco, brick or other weather resistive exterior wall covering.

Windows and Doors: Doors providing direct access from dwellings into attached garages must be steel faced, wood 1 3/8" solid core or 20-minute fire rated. Safety glass (tempered or laminated) must be installed where subject to possible human impact.

Headers: Headers must have at least a 2" x 4" or 2"x 6" trimmer stud under each end. Headers over doors and windows must be of the following minimum sizes for walls bearing roofs:

FOR OPENING WIDTH	**MINIMUM LUMBER HEADER SIZE**
Not over 4 ft	2 – 2 x 6
Not over 6 ft	2 – 2 x 8
Not over 8 ft	2 - 2 x 10
Not over 10 ft	2 - 2 x 12
Not over 12 ft	2 - 2 x 14
Not over 14 ft	3 - 2 x 12 or 3 - 2 x 14
Over 14 ft - Manufactured and Engineered Beams (LVL/Paralam or equal) are Recommended	

To stiffen dimension lumber headers, install ½" or ¾" plywood between the lumber with the face grain of the plywood running parallel with the direction of the beam. Glue and nail thoroughly.

Rafters: Manufactured roof trusses are highly recommended. If hand framed rafters are being used, the size of the rafter is determined by the rafter spacing and the rafter span. Lumber used in construction of rafters must be at least 2" x 4" in dimension.

Roof Sheathing: Roof sheathing must consist of 1" nominal thickness boards or of plywood, OSB or other span rated sheathing.

Shingles: Specify the type of roof covering to be used (i.e. asphalt composition shingles, wood shingles or other) including underlayment's.

Smoke & Carbon Monoxide Detection: Smoke detectors must be installed in each bedroom, in the access way to the bedroom/s and on each story, including basements and habitable attics. Carbon monoxide [CO] detection must be installed within 10' of every bedroom or sleeping area. Both power and interconnection of smoke detectors must be through the building electrical system, except in existing areas of the dwelling where connection to the building electrical system requires demolition.

Egress Windows & Window Wells: An egress window must be provided for each new sleeping area/bedroom. An egress window must be provided for a basement addition unless the basement addition has access to an existing basement egress window. Provide at least 5 s.f clear opening area for 1st story egress and 5.7 s.f. clear opening area elsewhere. Minimum width is 20" and minimum height is 24". Egress window sill height must not exceed 44" above finished floor. Window wells must provide at least 3'X 3' (9 s.f.) of open area for egress and a permanent ladder must be installed if the window well is 4' deep or deeper.

Window Fall Protection: Fall protection must be provided for windows for building additions where the sill of the window is more than 6' above exterior grade and the interior sill height is less than 3' above finished floor. Where window fall protection is installed, the window opening area must be less than 4" in width.