# Building in the City of LaGrange



# Your Guide to the Construction and Permit Process

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#### Current Codes Observed- as adopted by the Georgia DCA

2018 ICC International Building Code

2018 ICC International Residential Code

2018 ICC International Mechanical Code

2018 ICC International Plumbing Code

2018 ICC International Fuel Gas Code

2018 ICC International Fire Code

2018 International Swimming Pool Code

2015 Energy Conservation Code

2020 National Electrical Code

2018 ICC International Property Maintenance Code

City of LaGrange Ordinances

#### General

- 1. A permit is required to construct, alter, repair, move, demolish, or to change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by the appropriate Code or Ordinance of the City.
- 2. Construction documents must be submitted with a completed permit application and approved prior to a permit being issued.
- 3. Permits for construction shall be issued only if all other regulations and zoning restrictions are complied with as required by the City.
- 4. An elevation certificate will be required for construction in a floodplain at the time of permit application.
- 6. Commercial projects may require plans designed by a licensed Georgia Architect and/or Engineer per O.C.G.A.Title 43.
- 7. Construction may **not** commence until all permits have been issued and are **posted** on the site.
- 8. Permit holders are responsible for obtaining all required inspections. Inspection request received by 4:00pm will be conducted the next regular business day, excluding holidays or emergencies.
- 9. All contractors and Subs are required to be licensed by the State of Georgia O.C.G.A. Title 43.

#### What you will need to obtain a building permit.

- 1. Complete set of plans will need to be submitted for all construction projects. Construction documents for commercial projects are required to be signed and sealed by the appropriate design professional in accordance with O.C.G.A. Title 43-4 and 43-15 regulating the practice of Architecture, Professional Engineering and Land Surveying.
- **2. Site Plan-** must show lot dimensions, building footprint with dimensions, and dimensions from building to property lines and all other buildings on the property.
- **3.** Commercial construction require civil, architectural, structural, electrical, mechanical and plumbing plans, as well as all material specifications and calculations to be submitted.
- **4.** Retaining walls greater than 48" in height measured vertically from the footing require a permit and a design from a Registered Georgia Engineer.
- **5.** A copy of the engineer's drawings and calculations are required for all pre-engineered steel buildings and other pre-manufactured structures as determined by the Building Official.
- **6.** A completed permit application must accompany all construction documents.
- **7.** Cell tower modifications or alterations also require a structural analysis signed and sealed by a Registered Georgia Engineer be provided in addition to construction documents at permit application.
- **8.** Construction trailer permit applications may require the submittal of the manufacturer's set-up specifications in addition to a site plan. The trailer shall be adequately supported, anchored and access landing and stair installed prior to electrical connection approval.
- 9. All suspended slabs are required to be designed by a State of Georgia Registered Engineer.
- **10.** Health Department approval is required for all food service, public swimming pools or institutional permits or if there is a private on-site sewage disposal system proposed or existing.
- 11. All contractor and sub-contractor information will need to be provided at application.

Per O.C.G.A. 43-4-14(b)(3), new or existing assembly occupancies, educational, health care, correctional or detention facilities, hotels, dormitories or lodging facilities, multifamily housing or apartment complexes and care facilities require the plans to be prepared by a State of Georgia licensed Architect. These drawings shall bear the seal and signature of the Architect of record.

### **Commercial Permit Application Checklist**

A. Site Plan
B. Signed and Sealed Architectural Plans (if applicable) with a
code summary and scope of work
C. Foundation Plan
D. Accessibility Plan (if applicable)
E. Life Safety Plan
F. Signed and sealed Structural Plans (if applicable)
G. Signed and Sealed Structural Calculations (if required)
H. Electrical Plans
COMcheck energy compliance worksheets
J. Mechanical Plans
K. Plumbing Plans
L. Fire Protection Plans as required by the Fire Marshall

<u>A. Site Plan</u>: Scaled drawing, which shows the size and location of all new construction and all existing structures on the site and the distances from structure(s) to lot lines and to other structures on site.

<u>Specifications</u>: Requirements for submittal vary on how much information is shown on construction drawings.

- **B.** Architectural Plans: Dimensioned plans for each floor that shows room layouts and use of space. Also includes a complete code summary; elevation views; wall sections; schedules for windows, doors and finishes; stair dimension and details, such as riser height, tread width, guard/handrail height and headroom dimension. Include all information used for building height or size increases.
- <u>C.</u> <u>Foundation Plans:</u> This plan contains the foundation design, sections, allowable soil bearing pressure, the depth of the foundation and the proposed materials to construct the foundation.
- <u>D. Accessibility Plan</u>: Provide a plan that shows all accessible features of building, including routes, both interior and site, entrances and means of egress, areas of refuge, facilities and elevations, hardware, handrail ramps and other requirements for an accessible building per the IBC, ICC/ANSI A 117.1 and Georgia Accessibility Code.
- <u>E. Life Safety Plan</u>: Provide a plan that shows egress calculations, occupancy loads and uses for each room, travel distance, exit widths, emergency lighting and exit signs.
- **F. Structural Plans & Calculations:** Typical floor and roof framing plans. The plan(s) size of members to be used, allowable stresses and all the information to erect the joints, beams, rafters, columns or girders within the structure including calculations. A registered engineer must seal all structural plans for pre-engineered buildings. Calculations may be required.
- **G.** Structural Calculations: These must be provided for all telecommunication tower alterations and some building structural alterations to a degree as determined by the plans examiner. These may be required for new construction as well
- <u>H. Electrical Plans</u>: Drawn to scale upon suitable material and shall include the location, nature and extent of work proposed, service riser, panel schedule and all other work conforming to the provisions of the NEC.
- <u>I. COMcheck</u>: This energy compliance evaluation must be submitted for all new construction or substantial alterations.
- <u>J. Mechanical Plans</u>: Location, size and listed/labeled information for all equipment and appliances that comprise parts of the buildings mechanical system. Ventilation and exhaust calculations, schedules, supply and exhaust duct work, chimney termination, materials and any other information required to complete the buildings HVAC System.
- <u>K. Plumbing Plans</u>: Includes isometric riser diagrams for potable water supply and the drain waste and vest systems With the locations and materials specified for all the piping and fixtures within the plumbing system. Also details of special devices (backflow preventer, grease traps, etc.) shall be shown. LaGrange wastewater pre-treatment approval may be required for all structures involved in food and drink service or production, automobile service/repair and car washing.
  - <u>L. Fire Protection Plans</u>: When required by the Fire Marshall, the construction documents may include a submission for the suppression system, the fire alarm system, the smoke control system, single/multiple station detectors, standpipes, fire department connections and fire extinguisher(s) size and location.

Below are examples of the required inspections and when to call for them. Some circumstances might require special inspections or other inspections not listed be performed. Please check with the inspector to see if any other inspections are required. The permit card and the approved plans are required to remain on the job site and must be present to receive inspections.

**Footing**- Once excavation and footing forming is complete and prior to any placement of concrete.

**Foundation**-Upon completion of all forming and the required steel is in place and prior to any placement of concrete.

**Under-Slab Plumbing**- After all building drain piping and water piping (if applicable) is complete and the required pressure test is on.

**Slab Prep-** Once all plumbing is backfilled, turn-down footings and grade beams are excavated, vapor barrier is installed and reinforcement is in place. All chemical soil termite treatment is also done at this time.

**Wall Sheathing-** The wall sheathing nail off inspection is done prior to installation of the moisture barrier.

**Moisture Barrier**- The moisture barrier is installed, all joints taped and windows and doors flashed.

**Rough Building, Electrical, Mechanical and Plumbing**-Once all work is complete, required pressure test is on, and prior to placement of any insulation or drywall. All rough inspections are done at the same time.

Wall or Ceiling Cover- This is done prior to closing walls or ceilings in commercial projects.

**Insulation**- This is done after all insulation is installed in walls or sloped ceilings prior to drywall. Floors exposed to unfinished areas and blown attics may be done by final.

Suspended Slab- Inspection shall be done after all forming and required steel reinforcement is in place.

**Temp. Electric-** After meter base, panel or disconnect, mast or underground conduit and or wiring is installed and ready to energize. GFCI outlets and proper grounding must also be in place. Note: all temporary services must be erected and sufficiently braced.

**Permanent Electrical Service**-All electrical must be complete, all circuits landed in the panel and proper grounding installed. Open outlet boxes where lighting fixtures are missing must be capped with wire nuts and blank covers installed on boxes. Burial depths for underground services must be inspected prior to backfilling

**Sewer or Water Connection**-This inspection, if applicable, is made once all piping is installed and prior to backfilling.

**Final Building, Electric, Mechanical and Plumbing**-Whenever all construction, final grading, testing or other items are completed and the building is finished and prior to occupancy. All landscaping must also be complete at this time.

**Demolition**- Once utilities have been disconnected and capped and final grading is completed and site stabilized.

# Requirement for a Licensed Contractor Quick Reference

Work to be done	License Required	Not Required
Residential construction < \$ 2500		<b>√</b>
Residential construction > \$ 2500	<b>✓</b>	
Residential electrical, mechanical or plumbing	<b>V</b>	
Specialty contractor work such as but not limited to: concrete work, landscaping, painting, drywall, roofing, flooring, door or window installation, insulation, trim work, cabinet and counter installation, siding, masonry work, etc.		<b>V</b>
Work performed by homeowners on their own property not for sale or lease		<b>√</b>
Commercial construction < \$ 2500		<b>√</b>
Commercial construction > \$ 2500	<b>~</b>	
Commercial electrical, mechanical or plumbing	<b>~</b>	
Commercial work performed by owner for their own use and not for use by the general public and not for sale or lease		<b>√</b>
Agricultural building construction		<b>√</b>
Mechanical, electrical and plumbing work conducted by a full-time employee of the institution, manufacturer or business when working on the premises of the employer	r	<b>√</b>

This guide is only a quick reference to indicate that a Georgia Licensed Contractor may be required. Please reference O.C.G.A Title 43-14 and 43-41 for complete licensed contractor requirements.

# Permit Requirement Q&A: Do I need a permit?

Often, we receive questions as to what work being done requires a permit. Below are questions and examples of work requiring a permit or exempt from a permit. These are only examples and not all-inclusive of permit requirements. If you have any questions pertaining to a permit requirement, feel free to contact an inspector at 229-603-9046. Permit requirements may differ for commercial projects.

#### What residential construction work may I do without a permit?

Typically, non-structural repair such as sidewalks and driveways, painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work may be done without a permit. Prefabricated swimming pools that are less than 24 inches (610 mm) deep, swings and other playground equipment are also exempt from requiring a permit.

#### What residential electrical work may I do without a permit?

Minor repair work, including the replacement of lamps, receptacles, switches, replacement of branch circuit overcurrent devices of the required capacity in the same location or the connection of *approved* portable electrical *equipment* to *approved* permanently installed receptacles may be done without a permit. Also, Electrical wiring, devices, *appliances* or *equipment* operating at less than 25 volts and not capable of supplying more than 50 watts of energy or *listed* cord-and-plug connected temporary decorative lighting may be installed without a permit.

#### What residential plumbing work may I do without a permit?

The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, faucets, sinks and lavatories, provided such repairs do not involve or require the replacement or rearrangement of pipes may be done without a permit. Any alteration of the piping system, installation of a new water heater or relocation of existing fixtures would require a permit.

#### What residential mechanical work may I do without a permit?

The installation of portable cooling units or the replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe may be done without a permit. Replacement of furnaces, air conditioning condenser units or alteration or replacement of duct work would require a permit.

#### Can I do my own work to my house?

If you currently occupy the home, you may do the work yourself. We highly recommend you contact a licensed contractor if you are not familiar with the work involved. Improperly installed electrical, mechanical or plumbing systems may result in a greater risk of sickness, fire or death. Be sure to protect your family, yourself and your investment.

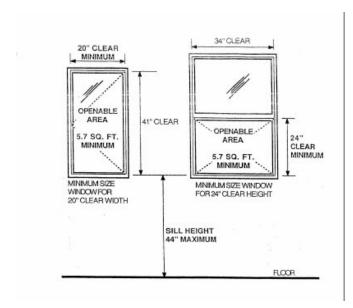
### Residential Inspection Checklist (most frequent violations)



#### This list is for informational purposes and by no means encompasses all items to be inspected while on site.

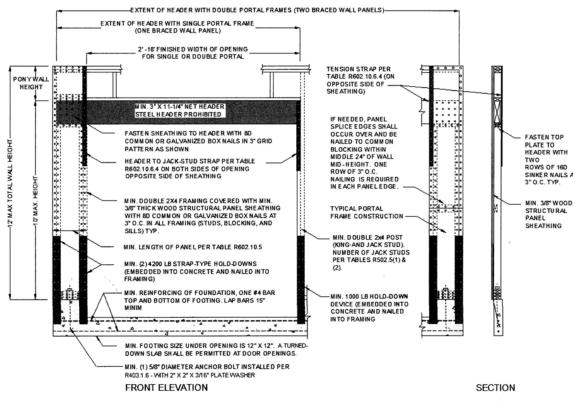
- Footings must extend 12" minimum into undisturbed soil and rest upon solid, firm soils.-R403.1.4 & R401.4.1.
- Provide a letter from an engineer approving pour on fill or unstable soils-R401.4.2.
- Need vapor barrier and rebar installed in slab-R403.1.3.2 & R506.2.3
- Provide foundation reinforcement per table R404.1.2(8).
- Provide required height above grade at foundation-4" with masonry and 6" elsewhere-R404.1.6.
- Provide continuous header over garage door per figure R602.10.6.2.
- Provide hold downs or header strap at garage door per figure R602.10.6.2.
- 7 ¾" max stair riser and risers can't vary more than 3/8" in a flight-R311.7.5.1
- 10" minimum tread-R311.7.5.2
- Winder stair tread 6" minimum on inside and 10" at 12" from inner edge- R311.7.5.2.1
- Stair nosing required on stairs with solid risers. 3/4" to 1 1/4" max nosing-R311.7.5.3
- Landing required at the top and bottom of stairs- R311.7.6
- Handrail required on one side of stairs with 4 or more risers-R311.7.8
- Handrail height is 34"-38" plumbed vertically from nosing- R311.7.8.1
- 36" minimum guard height and 4" max opening- R312.1.2 & R312.1.3
- Provide stair illumination-R303.7
- Attach deck guards per Georgia Prescriptive Deck Detail- Figure 27-31
- Provide hanger at stair stringer
- Provide diagonal or knee bracing on decks > 4' above grade per Georgia Prescriptive Deck Detail- Figure 22-24
- Provide post- to-beam connectors or post anchors.
- Provide deck ledger attachment per Georgia Prescriptive Deck Detail- Figure 14-20
- Need air barrier behind tub.
- Provide joist hangers where missing.
- Provide proper hanger nails per manufacturer.
- Provide additional plate anchors per R403.1.6 (within 12" of plate ends and spaced no more than 6').
- Nail all plate anchor straps.
- Fireblock top of walls, chases drop ceiling level or soffits; under bath tubs; or openings around pipes, ducts or cables-R302.11.
- Provide truss drawings.
- Truss bracing missing.
- Girder truss ply's not nailed together per truss detail.
- Need engineered repair for cut or broken truss from truss engineer.
- Need collar ties-R802.3.1

- Drywall under stair area per R307.2.
- Need test on plumbing piping- 312 of the IPC.
- 2 hose bibs required per residence- 403.1 Ga Amendments
- Need test on gas piping.
- Nail guards missing.
- Need water hammer arrestors-604.9 IPC
- Need expansion tank at water heater-607.3 IPC
- Can't wet vent from the story above- 912.1 IMC
- Need vacuum breakers on hose bibs- 608.15.4.2 IPC
- Provide air gap at food prep sinks, dishwashers or ice bin-802.1.1 IPC
- Need smoke detector in bedrooms, outside bedrooms and on each level.
- Need 2 dedicated counter top small appliance circuits.
- Need water proof light above tub or shower- 410.10 NEC
- Can lights in contact with combustibles or insulation must be IC rated-410.116 NEC
- Can't have an incandescent light within 12" horizontally of closet shelf-410.16 NEC
- Provide conductor burial depth per 300.5 of the NEC.
- Need emergency/exit lighting installed.
- GFCI protection required per article 210.8 of the NEC
- GFCI service receptacle within 25' of mechanical equipment- 210.63 NEC
- Group service disconnects- 230.72 NEC
- Provide proper receptacle spacing- 210.52 NEC
- Provide proper working space at panel- 110.26(A)(1) NEC
- Provide proper pool bonding- 680.26 NEC
- GFCI pool equipment- 680.21C NEC
- Receptacles must be at least 6' from pool edge and all receptacles within 20' of pool must be GFCI.
- Breaker size for furnace or A/C unit must meet nameplate rating for minimum and maximum overcurrent protection- 440.22 NEC
- Locking refrigerant port caps are required per 1101.10 of the IMC.
- Vent bath fans to outdoors- 501.3 IMC
- Provide auxiliary condensate drain or float switch- 307.2.3 IMC
- Provide furnace or water heater pan- 307.2.3.2 IMC
- Can't have gas appliance that draws combustion air from a bedroom- 303.3 IMC
- Clothes dryer exhaust duct length (35' max. minus radius deductions)- 504.6 IMC
- Can't have single wall vent pipe in attic or crawl space- 503.7 IFGC
- Provide sediment tee on gas pipe per 408.2 of the IFGC.
- Need gas shutoff in same room and within 6' of fireplace- 409.5.1 IFGC
- Fire dampers require in duct per 607.5 and 607.6 of the IMC
- Provide combustion air to gas appliance in the closet.
- Post energy code statement at the electrical panel.



EGR	ESS	W	ND	ow	OP	ENI	NG	SIZ	EC	HA	RT								
Area in	Squar	e Fee	t																
(Inches)	Heialt														1				
Width	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	4
20																		5.69	5.8
21																5.69	5.83	5.98	6.1
22															5.81	5.96	6.11	6.26	6.4
23													5.75	5.91	6.07	6.23	6.39	6.55	6.7
24												5.83	6.00	6.17	6.33	6.50	6.67	6.83	7.0
25										5.73	5.90	6.08	6.25	6.42	6.60	6.77	6.94	7.12	7.2
26									5.78	5.96	6.14	6.32	6.50	6.68	6.86	7.04	7.22	7.40	7.5
27								5.81	6.00	6.19	6.38	6.56	6.75	6.94	7.13	7.31	7.50	7.69	7.8
28							5.83	6.03	6.22	6.42	6.61	6.81	7.00	7.19	7.39	7.58	7.78	7.97	8.1
29						5.84	6.04	6.24	6.44	6.65	6.85	7.05	7.25	7.45	7.65	7.85	8.06	8.26	8.4
30					5.83	6.04	6.25	6.46	6.67	6.88	7.08	7.29	7.50	7.71	7.92	8.13	8.33	8.54	8.79
31				5.81	6.03	6.24	6.46	6.67	6.89	7.10	7.32	7.53	7.75	7.97	8.18	8.40	8.61	8.83	9.0
32			5.78	6.00	6.22	6.44	6.67	6.89	7.11	7.33	7.56	7.78	8.00	8.22	8.44	8.67	8.89	9.11	9.3
33		5.73	5.96	6.19	6.42	6.65	6.88	7.10	7.33	7.56	7.79	8.02	8.25	8.48	8.71	8.94	9.17	9.40	9.6
34		5.90	6.14	6.38	6.61	6.85	7.08	7.32	7.56	7.79	8.03	8.26	8.50	8.74	8.97	9.21	9.44	9.68	9.9
35	5.83	6.08	6.32	6.56	6.81	7.05	7.29	7.53	7.78	8.02	8.26	8.51	8.75	8.99	9.24	9.48	9.72	9.97	10.2
36	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	9.25	9.50	9.75	10.00	10.25	10.5
37	6.17	6.42	6.68	6.94	7.19	7.45	7.71	7.97	8.22	8.48	8.74	8.99	9.25	9.51	9.76	10.02	10.28	10.53	10.73
38	6.33	6.60	6.86	7.13	7.39	7.65	7.92	8.18	8.44	8.71	8.97	9.24	9.50	9.76	10.03	10.29	10.56	10.82	11.0

### Portal wall construction @ garage door Figure R602.10.6.2- 2018 IRC



inch - 25 4 mm 1 foot - 304 8 mm

#### ROUGH-IN INSPECTION CHECKLIST

All sub-trade rough-ins (plumbing, gas, mechanical and electrical) must be completed and inspected before insulation.



Building permits must be on site and posted in order to receive inspections. All doors and windows must be installed in order to receive rough inspections. DO NOT INSULATE EXCEPT CONCEALED WALLS, SUCH AS BEHIND SHOWERS AND CANTILEVERED FLOORS. Air barriers must be installed as well in these concealed areas. Do not stack sheet rock along walls. All construction debris that will impede the inspection process must be removed. Inspections will not be conducted if rough framing or trade work is still in progress.

Every structure must have a 3/0 by 6/8 side-hinge exit door. Basements, habitable attics and sleeping room must have an emergency egress window or exit door. The window sash must open clear at least 20 inches wide, 24 inches tall, be within 44 inches of the floor and have an overall opening size of 5.7 net clear feet (821") or 5.0 for grade level openings. A sleeping room is any room with a clothes closet. (R310)

Every stair must be a minimum of 3 foot wide and have a 3-foot by 3-foot landing at the top and bottom unless it meets one of the exceptions in the code. Stair headroom, measured from the slope of the stairs, must be a minimum of 6'-8". (R311.7)

Glazing in windows in hazardous locations must be tempered. (ie.: doors, next to doors, over tubs, large picture windows, in stairwells, etc.). (R308.4)

All structural members, their size, spans and method of attachment are to be in accordance with the code. Any alternative material not prescribed in the code must be approved by the Building Official. (R301)

Cuts, notches and holes bored in laminated veneer lumber, glue-laminated members or I-joist are not permitted beyond the manufacturer's installation guide. Truss members shall not be altered in any way without the approval of the truss engineer. Truss design drawings shall be provided at time of inspection. Use "hurricane clips" and room tie-downs as specified per manufacturer or as required per Table R802.5.2. (R502.8, R502.11, R802.10.1)

Stud size and spacing. (R602.3) Studs require full bearing. (R602.3.4) Plate anchors per (R403)

Any framing member that has been cut or notched beyond allowances must be reinforced. (R602.6)

Wall bracing according to Design Category C and portal framing per R602.6

Attic areas shall be ventilated. A 22 inch by 30 inch minimum access shall be provided. A larger opening may be required when equipment is located in the attic. (R807.1, M1305.1.2).

Plates shall be anchored with minimum 1/2-inch-diameter anchor bolts spaced not greater than 6 feet on center or approved anchors or anchor straps spaced as required to provide equivalent. Bolts shall extend not less than 7 inches into concrete or grouted cells. There shall be not fewer than two bolts per plate section with one bolt located not more than 12 inches or less than (7) bolt diameters from ends

Plywood, OSB and EIFS requires a weather resistant membrane (30# felt or house wrap) between masonry veneer, siding and stucco. Foam plastic may be used if separated from the interior with  $\frac{1}{2}$ " sheetrock. (R703.9, R316) Foam plastic in attics and crawl spaces shall have a thermal barrier per R316.5.3 and R316.5.4

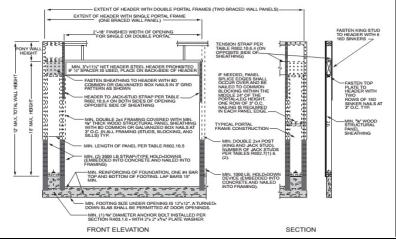
Flash porches, windows, doorsills and nailing flanges per manufacturer. Wall sheathing should be at leaset 6 inches from grade. (R703.8, R319.1)

A flight of stairs shall not have a vertical rise of more than 151" between floor levels or landings. (R311.7.3)

Header and girder spans per Table R602.7(1), Table R602.7(2) and R602.7(3).

Floor Joist span per Table R502.3.1(1) and R502.3.1(2)Floor Cantilever per R502.3.3 Joist bearing per R502.4 and R502.6- Where the header joist span exceeds 4 feet (1219 mm), the trimmer joists and the header joist shall be doubled and of sufficient cross section to support the floor joists framing into the header. R502.10

Draftstopping and fireblocking per R302.11 and R302.12



#### PLUMBING ROUGH-IN INSPECTION CHECKLIST

The International Plumbing Code is referenced standard with Ga. Amendments

Proper pipe materials, fittings and slope. Support shall be per table 308.5. Cleanouts per 708

Water pressure-reducing valve per 604.8 and water hammer arrestors shall be installed at all quick-closing valves per 604.9 Provide bsckflow protection per 608.14.

Drain systems shall be tested by water with no evidence of leaking. Fill to the highest flood level rim. A 5psi air test may be used during freezing conditions. Water piping shall be tested and not less that the operating pressure-(80-100 psi) (312.2 and 312.5)

3/4" minimum main water service required with a minimum of 160psi working pressure. (603.1 and 605.3) Water fixture supply piping per table 604.5

Where pipe in installed through holes in plates or studs less than 1.25 inches from the edge of the member, shield pates shall be installed and extend 2" above the bottom plate and 2" below top plate. (305.6)

Use anti-scald shower valves 412.3

Vent terminals min. 6 inches above the roof. Roof boots should be installed. (903.1, 903.3).

Vent terminals shall not be within 10 feet horizontally of openings into the building unless it is at least 3 feet higher than the opening. (903.5)

Each plumbing fixture shall be separately trapped. The trap shall be placed as close as possible to the fixture outlet. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches (610 mm). The distance of a clothes washer standpipe above a trap shall conform to Section 802.4.3. A fixture shall not be double trapped. Standpipes shall extend not less than 18 inches (457 mm) but not greater than 42 inches (1066 mm) above the trap weir. Access shall be provided to standpipes and drains for rodding(802.4.3)

#### This checklist is in no way to be considered as an all-inclusive checklist

### **TABLE 909.1**

SIZE OF TRAP (inches)	SLOPE (inch per foot)	DISTANCE FROM TRAP (feet)
11/4	1/4	5
11/2	1/4	6
2	1/4	8
3	1/0	12

16

MAXIMUM DISTANCE OF FIXTURE TRAP FROM VENT

#### **TABLE 704.1**

#### SLOPE OF HORIZONTAL DRAINAGE PIPE

SIZE (inches)	MINIMUM SLOPE (inch per foot)
$2^{1}/_{2}$ or less	1/ <sub>4</sub> a
3 to 6	1/ <sub>8</sub> a
8 or larger	<sup>1</sup> / <sub>16</sub> <sup>a</sup>

#### TABLE 506 MINIMUM CAPACITIES FOR RESIDENTIAL WATER HEATERS<sup>1, 2, 3</sup>

Fuel		Gas	Elec	Gas	Elec	Gas	Elec	Gas	Elec
# of Bedro	oms	1		2		3			
1 to 1 <sup>1</sup> / <sub>2</sub> FHI Baths	R (gal)	40	40	45	45	48	48		
# of Bedro	oms	2		3		4		5	
2 to 2 <sup>1</sup> / <sub>2</sub> FHI Baths	R (gal)	47	47	60	60	62	62	70	70
# of Bedro	oms	3		4		5		6	
3 to 3 <sup>1</sup> / <sub>2</sub> FHI Baths	R (gal)	60	60	67	67	70	70	72	72

- FHR = First Hour Rating, 1 ga1 = 3.7854 L, 1 gph = 1.05 mL/s
  - 1. Tankless Water Heaters shall be sized and installed per manufacturer's recommendations.
  - 2. Water heaters for single family dwellings having more than six bedrooms and/or 31/2 baths shall be sized per manufacturer's recommendations
  - 3. Table 506 reflects the minimum requirements for one or multiple wate

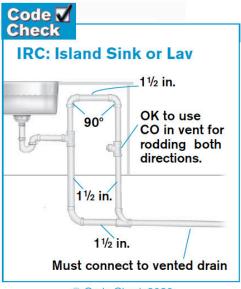


#### FITTINGS FOR CHANGE IN DIRECTION

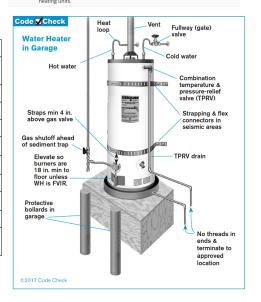
		CHANGE IN DIRECTION							
	TYPE OF FITTING PATTERN	Horizontal to vertical	Vertical to horizontal	Horizontal to horizontal					
	Sixteenth bend	Х	Х	Х					
	Eighth bend	Х	х	Х					
	Sixth bend	Х	Х	Х					
	Quarter bend	Х	Χ <sup>a</sup>	Χ <sup>a</sup>					
	Short sweep	Х	X <sup>a,b</sup>	Xa					
	Long sweep	Х	Х	Х					
	Sanitary tee	Xc	-	-					
	Wye	Х	х	Х					
	Combination wye and eighth bend	х	х	х					
1	inch = 25.4 mm								

For SI: 1 inch = 25.4 mm

- a. The fittings shall only be permitted for a 2-inch or smaller fixture drain.
- b. Three inches or larger
- c. For a limitation on double sanitary tees, see Section 706.3.







#### MECHANICAL ROUGH-IN INSPECTION CHECKLIST

Gas pipe shall be installed per the 2018 IFGC and and pressure tested. A minimum test of 10 psi and the gauge must be calibrated to discern any leak. Mechanical gauges used to measure test pressure shall have a range such that the highest end of the scale is not more than five times the test pressure. Appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, storage closets or surgical rooms, or in a space that opens only into such rooms or spaces, except where permitted per 303.3

Use only appropriate piping materials (copper, CSST, black steel and wrought iron). Properly size and support gas piping. No unions, couplings, bushings and flared fittings shall be in concealed locations. Protect copper or CSST piping through wood members with shield plates. Protect piping against corrosion when passing through foundation walls and exposed to exterior locations. (G2411-G2417, M1308.2)

Fireplaces, vented or un-vented, must be installed. If gas is to be used in such fireplaces, the gas lines must be run and tested. (G2417.1)

The vent termination for a mechanical draft system shall not be mounted directly above or within 3 feet horizontally from an oil tank vent or a gas meter and shall not be closer than 3 feet of an interior corner formed by two walls perpendicular to each other. (M1804.2.6.3-M1804.2.6.5).

Fueled fired appliances are restricted in sleeping rooms, bathrooms and storage closets. See manufacturer's guidelines for exceptions. (G2406.2).

Air returns must be installed. Prohibited in kitchens, bathrooms, garages and within 10 feet of a fueled fired appliance. (M1602.2)

Supply boots must be installed and insulated in non-conditioned spaces conductive to condensation. (M1602.2). Condensate and HVAC line sets should be installed and fire-stopped. (M1411, M1412).

All chimneys and vents shall be inspected for proper size and clearances. A mechanical draft venting system shall terminate at least 2 feet higher than any air inlet with 10 feet. (G2427.6.5)

Kitchen exhaust shall comply with M1503. Exhaust system exhausting in excess of 400 cfm shall have MUA (M1503.6)

Bathroom exhaust fans must be installed in every bathroom and water closet and duct run to outside air. (R303.3)

Air for combustion, ventilation and dilution of flue gases for appliances installed in buildings shall be provided by application of one of the methods prescribed in Sections 304.5 through 304.9. Where the requirements of Section 304.5 are not met, outdoor air shall be introduced in accordance with one of the methods prescribed in Sections 304.6 through 304.9. Combustion air ducts shall comply with 304.11.

The maximum length of the exhaust duct shall be 35 feet (10 668 mm) from the connection to the transition duct from the dryer to the outlet terminal. Where fittings are used, the maximum length of the exhaust duct shall be reduced in accordance with Table M1502.4.5.1.Exhaust duct joints shall be sealed in accordance with Section M1601.4.1 and shall be mechanically fastened. Ducts shall not be joined with screws or similar fasteners that protrude more than 1/8 inch (3.2 mm) into the inside of the duct.

Condensate from cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. In addition to the requirements of Section M1411.3, a secondary drain or auxiliary drain pan shall be required where damage to any building components will occur as a result of overflow from the equipment drain pan. The auxiliary pan drain shall discharge to a conspicuous location or provided with a water-level detection device conforming to UL 508 shall be installed that will shut off the equipment.

Attics containing appliances shall be provided with an opening and passageway large enough to allow removal of the largest appliance, but not less than 30 inches high and 22 inches wide and not more than 20 feet in length (M1305.1.2). The passageway shall have continuous solid flooring not less than 24 inches wide. A level service space not less than 30 inches deep and 30 inches wide shall be present along all sides of the appliance where access is required.

#### This checklist is in no way to be considered as an all-inclusive checklist

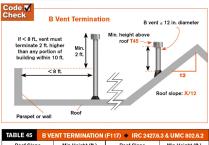
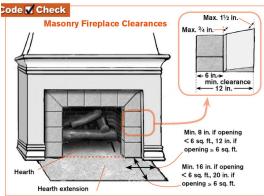
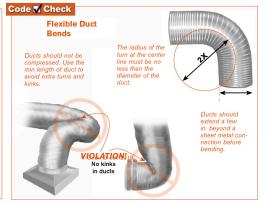


TABLE 45	B VE	B VENT TERMINATION (F117) ◆ IRC 2427.6.3 & UMC 802.6.2						
Roof Slop	e	Min Height (ft.)	Roof Slope	Min Height (ft.)				
Flat to 6/1	2	1	>11/12 to 12/12	4				
>6/12 to 7/	12	11/4	>12/12 to 14/12	5				
>7/12 to 8/	12	11/2	>14/12 to 16/12	6				
>8/12 to 9/	12	2	>16/12 to 18/12	7				
>9/12 to 10	/12	21/2	>18/12 to 20/12	71/2				
>10/12 to 11	/12	31/4	>20/12 to 21/12	8				

Code Check 2019





© Code Check 2019

#### ELECTRICAL ROUGH-IN INSPECTION CHECKLIST

The Electrical installation must comply with the 2020 NEC. The panel must be installed with conductors run into box. Breakers aren't required and the service feeders must be run to the required outdoor emergency disconnect (230.85)

30" wide x 36" deep x 6'-6" high working space required at all electrical equipment per 110.26.

Penetrations through fire blocking and draftstopping shall be protected in an approved manner to maintain the integrity of the element penetrated.

SFD require a minimum 100 amp service per 230.79; others require 60 amp minimum. The sub-panel must isolate neutrals from the grounds. (250.24(5)). Conductors shall be sized per 310.15. A minimum of 14ga copper is required for 15 amp branch circuits, 12ga for 20 amp. and 10ga copper for 30 amp circuits.

A grounding electrode system is required and each electrode specified in section 250.52 shall be bonded together (accessible mechanical connections 250.68). A #4 min grounding electrode conductor required per 250.66.

#### A four wire circuits are required for stoves and dryers. (250.140)

Panel box locations must meet clearance (30 inches wide and 36 inches deep by 6'-6" high) and cannot be located in a bathroom or clothes closet. (E3305)

Receptacle spacing on walls shall not be more than 12 feet apart, within 6 feet of a door and on any wall over 2 feet in length. (210.52)

A minimum two 20-amp circuits are required for kitchen counter top receptacles, one in the laundry, one for the garage and one for the bathrooms. All must be wired with 12-gauge wire size (210.52)

Kitchen countertop receptacle spacing is basically every 4 feet on center, with one receptacle required in any island or peninsula (210.52) and counter top space 12" or greater.

Box fill per count indicated in plastic boxes (314.6) or per 314.16 for metal.

Holes closer than 1 1/4" from edge of member shall be protected with nail guards. (300.4)

Bond all metal gas pipes and air ducts (250.104(B)).

Ceiling fan boxes listed for support (422.18)

Use UL listed fixtures as designed or tested. (ceiling fans, wet and damp locations, recessed can lights, etc.)

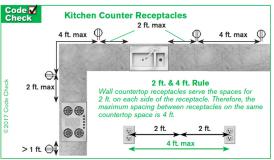
Luminaries in clothes closets must meet the required clearances (12" measured horizontally) from the fixture to the nearest point of shelf. Fixtures designed for candescent bulbs must meet the required clearances for candescent luminaries. Inserting a fluorescent bulb will not reduce the clearances required. (410.16)

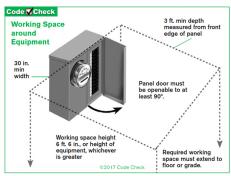
Smoke detector s/CO wiring is required. One is required inside each sleeping room, immediately outside the sleeping room and each floor level and habitable spaces. They must be hard wired, interconnected and have battery backup. Refer to manufacture's installation instructions for specific application but in general, they must be located within 12 inches of the ceiling and 3 feet from any source of air movement (returns, registers, ceiling fans, etc).

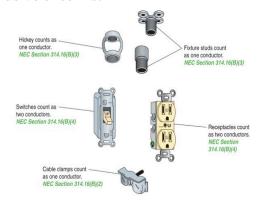
Receptacles shall not be installed within 3' horizontally or 8' vertically from the top of a tub or shower threshold. Luminaires installed within this space must be for a wet location and recessed (410.10(B)).

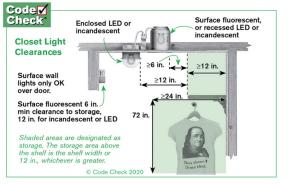
A service receptacle within 25" of furnace or A/C (210.63)

#### This checklist is in no way to be considered as an all-inclusive checklist













#### HOMEOWNER AFFIDAVIT

This form must be completed, signed, notarized, and submitted to the Building Department prior to permit issuance and any inspections associated with building electrical, plumbing, and/or mechanical work. Subdivision Lot Address Owner's Name TIDS IS TO CERTIFY THAT I AM THE HOMEOWNER FOR THE ABOVE REFERENCED PROPERTY, THAT I AM AWARE OF AND WILL FOLLOW ALL STATE AND LOCAL BUILDING CODES FOR THE BELOW REFERENCED JOBS THAT I AM COMPLETING ON PROPERTY THAT I OWN: PLUMBING ELECTRIAL MECHANICAL BUILDING IN THE EVENT OF ANY CHANGE IN MY STATUS ON THE ABOVE JOB, I UNDERSTAND THAT I WILL BE RESPONSIBLE FOR THIS JOB UNTIL THE BUILDING DEPARTMENT HAS BEEN NOTIFIED IN WRITING OF ANY CHANGES. I, the undersigned, do hereby understand that I may not hire another individual or firm to hire subcontractors without that party being licensed as required by the State and further securing any additional required permits. I further affirm that I am the legal owner of the property, intend to reside in the property for a minimum of 24 months and it will not be offered for sale. I further agree to build in accordance with applicable codes and strictly adhere to the inspections as required by the jurisdiction. Undersigned acknowledges that inspections must be performed in an established sequence as required by the jurisdiction and that work done in violation of the building codes must be corrected or may be ordered removed. Furthermore, I acknowledge that I am aware that a permit issued under the provisions of the code may be revoked for false statements of misrepresentations as to the material fact in the application on which the permit was based PRINTNAME SIGNATURE 

NOTARY PUBLIC, STATE OF GEORGIA

MY COMMISSION EXPIRES: \_\_ \_ \_ \_ \_ \_ \_ \_ \_



## SUBCONTRACTOR AFFIDAVIT

This form must be completed, signed, notarized, and submitted to the Building department prior to permit issuance any inspections associated with electrical, plumbing, and/or mechanical work.

Subdivision	Lot	Addre	ess		
Builder					
THIS IS TO CERTIFY FOR THIS JOB:	THAT I HOLD TH	IE STATE LIC	ENSE CHECK	ED BELOW A	ND AM USING
PLUMBING	_ELECTRICAL	MECI	HANICAL		
COMPANY NAME			PHON	NE #	
COMPANY ADDRESS					
STATE LICENSE #		BUS.TAX/OC	CUPATION CTI	F.#	
IN THE EVENT OF A I WILL BE RESPONS NOTIFIED IN WRITI	IBLE FOR THIS JO	B UNTIL THI			
PRINT NAME		SIGNATU	JRE		
Sworn to and subscribed	before me this	day of		, 20	
			NOTARY PUBLI	C, STATE OF GEOR	GIA
			MY COM	MISSION EXPIRES:	



Date:	
	-
Permit #:	

TEMPORARY POWE	R CONNECTION TO SERVICE	UTILITIES AFFIDAVIT (TEMP TO PERM)
ELECTRICAL CONTRACTOR NAM	1E:	STATE LICENSE #:
OWNER NAME:		
SUBDIVISION NAME & LOT #:		
PLEASE ISSUE A TEMPORARY A	PPROVAL ON THE ELECTRICA	L SERVICE CONDUCTORS AND SERVICE SWITCH
AT THIS SITE ADDRESS:		FOR A PERIOD OF: DAYS
POWER COMPANY: GA POWER DIVERSE	LAGRANGE UTILITIES	OTHER
that the extension of this temporary a understand that you will direct the util during the use of this temporary approached to be disconnected from the wiring apparent. The following must be come.  1. Structure must be weather tig. 2. All drywall must be hung. 3. National Electrical Code (NEC circuit protected outlet, and a	approval must be applied for if the ility company to disconnect the seconal and that occupancy will result inspection staff from any liability for system. Temporary power may appleted:  Ight and secured for access.  I compliant service equipment, distall other breakers in with cover install other breakers in with cover install other breakers approved located.	ty in the building during this temporary period. I understand work is not completed at the expiration date; otherwise rvice. It is further understood that no occupancy is allowed in a disconnection of the electrical service. I or we, relieved the relative of the electrical service and will be revoked if abused or life safety issues become tribution panel and devices; minimally a single GFCI branch called. Only the circuit for the GFCI"s needs to be hooked from and that circuit identified on the panel schedule.
ELECTRICAL CONTRACTOR SIGN	ATURE	DATE
SUBSCRIBED AND SWORN BEFO		
DAY OF	20	

Notary Public Signature (Note: Affidavit is required to be posted in the permit box onsite)



# ELECTRICAL RECONNECTION PROCESS

#### Dear Customer,

To re-establish electrical service to a residence or structure, a permit must be obtained and an inspection conducted. Please provide proof of ownership, a signed lease or notarized authorization from the owner when applying for a permit. Once you have the permit on site, you may schedule an inspection via the <a href="mailto:inspections@lagrangega.org">inspections@lagrangega.org</a> email. Please include any special instructions (call ahead, lock box codes, etc.) and a contact number. Inspections received by 4:00pm will be conducted the next regular day of business, excluding holidays or inclement weather. Note: the inspector will need to enter the building to inspect inside the panel.

Once the inspection is complete and the service approved, a release will be sent to the utility company. Should the inspection fail due to electrical or life safety issues, a correction notice will be left on site.

Electrical & Life Safety issues include but are not limited to: improper grounding or bonding of electrical systems, deterioration of electric equipment causing it to be un-serviceable, improperly maintained electrical services, hazardous existing wiring, new (recent) wiring installed without permits.

Sincerely,

William Hart Building Official

## City of LaGrange

200 Ridley Ave. LaGrange GA 30240







Mechanical Replacement Inspection **Process** 

#### Dear Customer,

Mechanical replacement projects (commercial and residential) within the City of Lagrange require a permit and inspections. Please provide proof of ownership, a signed lease or notarized authorization from the owner when applying for a permit. The State of Georgia requires all mechanical contractors to be licensed. Please provide a copy of your State issued license as well. Once you have the permit on site, you may schedule an inspection via the inspections@lagrangega.org email. Please include any special instructions (call ahead, lock box codes, etc.) and a contact number. Inspections received by 4:00pm will be conducted the next regular day of business, excluding holidays or inclement weather. The contractor will need to make sure we have access to all equipment for inspection. If the building is not equipped with a roof hatch or access ladder, a secured OSHA approve ladder will need to be in place for inspection of roof top equipment. Once the inspection is complete and approved, the inspector will sign the permit card. Should the inspection fail, a correction notice will be left on site. The

permit must be posted on site to receive an inspection.

Note: please refer to the manufacturer's installation instructions or label for overcurrent protection sizing and clearances. Sincerely,

William Hart **Building Official** 

## City of LaGrange

200 Ridley Ave. LaGrange GA 30240









Re-Roofing
Inspection
Process

#### Dear Customer,

Re-roofing projects (commercial and residential) within the City of Lagrange require a permit and inspections. Please provide proof of ownership, a signed lease or notarized authorization from the owner when applying for a permit. Once you have the permit on site, you may schedule an inspection via the

inspections@lagrangega.org email. Please include any special instructions (call ahead, lock box codes, etc.) and a contact number. Inspections received by 4:00pm will be conducted the next regular day of business, excluding holidays or inclement weather. You may email photos to the inspection request email as well (preferably with the inspection request). Please give the address, permit number and a contact number. Once the inspection is complete and approved, the inspector will sign the permit card. Should the inspection fail, a correction notice will be left on site. The permit must be posted on site to get an inspection.

Note: please refer to the manufacturer's installation instructions for your roofing product. Some manufacturers will not accept metal valley flashing and require the 36" wide "ice and water" adhesive membrane be installed.

Sincerely, William Hart Building Official

# City of LaGrange

200 Ridley Ave. LaGrange GA 30240









# Deck Construction and Inspections

#### Dear Customer.

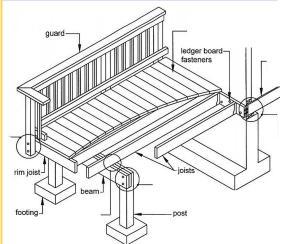
Deck construction projects (new, replacement and some repairs) within the City of Lagrange require a permit and inspections. When applying for a permit, please provide proof of ownership, a signed lease or notarized authorization from the owner when applying for a permit. New decks will also require a site plan that must be reviewed and approved by the Planning Department prior to the permit being issued. The State of Georgia requires all building contractors to be licensed and a copy of your license will be required as well. Homeowners may construct a deck on a dwelling they are occupying and that is not for sale or lease. Once you have the permit on site, you may schedule an inspection via the inspections@lagrangega.org email. Please include any special instructions (call ahead, lock box codes, etc.) and a contact number. Inspections received by 4:00pm will be conducted the next regular day of business, excluding holidays or inclement weather. Deck construction must comply with chapter R507 of the 2018 IRC. All composite deck materials must be installed per the manufacturer's installation instructions. Please be aware that most composite decking materials have reduced spans when installed on an angle to framing members or when installed as stair treads. The required inspections are: Footings- once piers are dug and prior to placement of concrete. Please note: all piers are required to be dug into undisturbed a minimum of 12" and must bear on firm soil. Piers may not rest on fill material unless designed by a Georgia Registered Engineer. Framing and Final- once construction is

Once the inspections are complete and approved, the inspector will sign the permit card. Should the inspection fail, a correction notice will be left on site. The permit must be posted on site to receive an inspection. Sincerely,

William Hart Building Official

# City of LaGrange

200 Ridley Ave. LaGrange GA 30240









# Swimming Pool Inspection Process

#### Dear Customer.

Swimming pools, spas and hot tubs within the City of Lagrange require a permit and inspections. Please provide proof of ownership, a signed lease or notarized authorization from the owner when applying for a permit. Also, please provide a copy of your electrician's State issued license as well. Once you have the permit on site, you may schedule an inspection via the <a href="inspections@lagrangega.org">inspections@lagrangega.org</a> email. Please include any special instructions (call ahead, lock box codes, etc.) and a contact number. Inspections received by 4:00pm will be conducted the next regular day of business, excluding holidays or inclement weather. The contractor will need to make sure we have access to all work done for inspection. Inspection approvals will be signed on the permit card and a correction report will be left on site if needed. Inspections Required:

Rough Plumbing- All plumbing piping must be inspected prior to covering with a pressure test on.

Rough Electric— All underground conduits, wires, light shells and feeders to pump panel must be inspected prior to being covered.

Pool Bonding– All bonding elements must be inspected prior to concrete placement. Pools with metal walls, braces, or other metallic parts must be bonded as well in accordance with Article 680 of the 2020 NEC.

Footings or Pool Rebar Basket- Prior to concrete placement once all rebar is in place. Some vinyl liner pool kits require a footing to brace walls. This footing must be inspected as well.

Underground Gas piping if applicable.

Final—Pool, fencing and alarms (if applicable) are all complete. All site work must be complete as well.

Note: when scheduling roughs, please make sure bonding, pool basket and rough plumbing are scheduled together.

Sincerely.

William Hart Building Official

# City of LaGrange

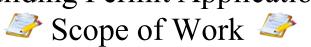
200 Ridley Ave. LaGrange GA 30240







# **Building Permit Application**



NAME	
ADDRESS	DATE
Che	eck all that apply
	. Bath □Living rm. □M. Bed rm. □Bd. Rm. 1 Exterior □Other
Electric and Mechanical  ☐ New or upgrade of electric service ☐ Installing smoke detectors ☐ Installing new furnace ☐ Installing new fireplace or heating stove ☐ Installing bathroom exhaust fan ☐ Other	<ul> <li>□ Adding or replacing electric circuit(s)</li> <li>□ Adding or relocating receptacles or switches</li> <li>□ Installing new AC condenser</li> <li>□ New chimney or vent</li> <li>□ Installing or replacing range hood</li> </ul>
☐ Replacing or repairing damaged:	☐ Installing or relocating load bearing walls or beams  ader ☐ ceiling joist ☐ rafters or trusses ☐ sheathing ☐ Installing sun room or other pre-manufactured struct
Plumbing  ☐ Installing or replacing water heater ☐ Installing new water or DWV piping ☐ Installing or replacing backflow device ☐ Relocating existing plumbing fixture(s) ☐ Other	<ul> <li>□ Replacing existing water or DWV piping</li> <li>□ Installing or replacing gas piping</li> <li>□ Installing new plumbing fixtures</li> <li>□ Installing new sump pump</li> </ul>
Additional Information	



To schedule an inspection, please complete the following form and email to:

Inspections@lagrangega.org

Name:			Contact Number:		
Jobsite Address:			Permit number:		
Subdivision:			Lot Number:		
Inspection	Requested:			This is a major and an	
Inspection	Requested:		This is a re-inspection		
Inspection	Requested:				
Inspection	Requested:				
Inspection	Requested:				
Inspection	Requested:				
Notes: (lock	box code or special instruction	ons)			
		Inspection	Results		
Pass	Partial Pass	-		Re-inspection Fee	
				·	