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How to Use this Guide

Provide a digital set of plans on a USB/flashdrive or a digital pdf attachment in an email to building.inspection@longmontcolorado.gov. and complete the following:

- 1 Complete this Building Guide by filling in the blanks on page 8 and indicating which construction details will be used, and the R value of insulation used.
- 2 Provide a Plot Plan showing dimensions of your project or addition and its relationship to existing buildings or structures on the property. Show all easements and the distance to existing property lines drawn to scale. See example on page 6.
- 3 Provide Floorplans drawn to scale. See example on page 5.
- 4 Fill out a Building Permit Application. The majority of permit applications are processed with little delay. The submitted documents will help determine if the project is in compliance with building safety codes, zoning ordinances and other applicable laws.

Smoke alarms & Carbon Monoxide (CO) Detectors. Smoke alarms & CO detectors are required to be hardwired and interconnected in new and existing bedrooms, halls and one each level unless removal of interior wall or ceiling finishes would be required, in which case, battery or plug in operated devices are acceptable.



Based on graphics and information developed by the Colorado Chapter of the International Code Council.

Single Family Residential Additions

General Permit Information

A building permit is required anytime there is an addition, alteration, repair or demolition to the main structure or accessory structure on a lot or parcel.

The issuance of permits and subsequent inspections of the work performed ensures that all construction in the city is safe and in compliance with the City of Longmont Land Development and adopted International Residential Code (IRC). The primary purpose of these codes is to ensure a safe and healthy environment for the citizens of Longmont.

Permits are reviewed and issued at the Building Inspection Division office located at the Development Services Center, 385 Kimbark St. The office is open from 8:00 AM to 5:00 PM Monday - Friday. Call (303) 651-8332 for information.

As a homeowner you can act as your own contractor and work on the property where you reside without a contractor's license. You may subcontract parts of a project. Anyone you hire, however, must be insured and licensed with the City of Longmont. In additions, you are responsible for obtaining inspections and written approvals on the permit. *Exception: electricians and plumbers are licensed with the state and must obtain permits for all work they do or be added to an existing home owner or contractor permit.*

CAUTION: If you do work, or have any work done without obtaining a permit, you could be incurring liability in the event of a fire or accident related to the work. In some circumstances, your insurance could be invalidated.

Please Note:

- ⇒ **NOISE:** Section 15.05.160 B3.d of the Longmont Municipal Code prohibits making unreasonable noise which would cause a person of ordinary sensitivities significant annoyance and irritation.
- ⇒ **CONSTRUCTION DEBRIS & TRASH:** Section 9.04.100 of the Longmont Municipal Code requires debris and trash be contained on the job site.
- ⇒ **BEFORE DIGGING:** ALWAYS call the Utility Information Center at 811 or 1-800-922-1987 to locate underground utility lines. Allow 3 working days for the lines to be located and marked.

Single Family Residential Additions

Scheduling Inspections

Requests for inspection may be made by voicemail at (303) 774-4595 or online at:

<https://aca.ci.longmont.co.us/CitizenAccess/longmont.aspx>

You will need your permit number or you can search online by address. Inspections scheduled before or by 4 p.m. can be done on the following business day, it is wise to anticipate when they need to be made to prevent delays.

No inspection will be made on subcontracted work done by an unlicensed subcontractor.

Your site address and permit must be posted on-site throughout the project.

You should not proceed to cover-up any work that has not been inspected. You SHOULD NOT schedule any concrete or other major work for the same day as the inspection to avoid costly problems. Inspections must be called in the day before needed in order to efficiently schedule and route the field Inspectors.

Please have all animals including dogs under control and not in the areas to be inspected. Inspections may not be made if there are animals running loose and a re-inspection fee may be required if this occurs.

The final inspection is the last step in the inspection process, and is your certification that the work has been satisfactorily completed according to the currently adopted building code.

Footing Inspections

- ⇒ Site address posted during entire construction.
- ⇒ Approved plans and site plan on site.
- ⇒ Lot Lines clearly marked with string lines or otherwise.
- ⇒ Footing/Foundation forms and reinforcement in place.

Framing Inspections

- ⇒ Approved plans on site.
- ⇒ Engineer stamped and signed truss plans.
- ⇒ Trash enclosure on site to prevent litter and blowing trash.
- ⇒ Plumbing, Mechanical and Electrical roughed in (if any).
- ⇒ All framing, fire blocking and bracing done.

Plumbing/Mechanical/Electric

- ⇒ Underground Plumbing, Gas Line, Rough Plumbing, Mechanical and Electrical roughed in.

Insulation Inspections

- ⇒ Any other work that may be covered up inspected and approved.
- ⇒ Insulation and Vapor retarder installed.

Final Inspection

- ⇒ All Plumbing, Heating, Electrical and Framing work done and approved.
- ⇒ Final Grading and paving including any required driveways done.

Single Family Residential Additions

Plans

All construction drawings must be legible. Plans must either be drawn to scale or with all dimensions clearly shown. The following list includes the types of drawings needed for a typical addition.

ILC OR PLOT PLAN/SITE PLAN

- 1 North Arrow.
- 2 Date of plan (and revisions).
- 3 Property address.
- 4 Lot dimensions and corner elevations.
- 5 Easements and adjoining street name(s).
- 6 Curb cuts, paving, parking, sidewalks and garage locations.
- 7 Location of proposed and existing structures including house, detached garages and sheds. Show dimensions and distances to property lines and each other.
- 8 Height of structure, top of foundation and property corner elevations.
- 9 Location of utility lines inclusive of water, sewer, electric and gas lines. Show point of attachment to house.
- 10 Drainage pattern (must conform to approved development drainage plan).
- 11 When drawing your plot plan be sure to show the location of electric, gas, sewer and water service lines. If you don't know where they are, call the Public Service Utility Notification Center of Colorado, 811 or 1-800-922-1987. They will come out and locate lines for you. Remember to ask them about the cost.
- 12 Show where the existing electric and gas meters are located in your home. These meters may have to be relocated and it is best to know this before you start construction.

FOUNDATION PLAN

(stamped by a licensed Colorado Engineer)

- 1 Dimensions of footing and foundation wall.
- 2 Overall foundation dimensions.
- 3 Depth of footings below grade.
- 4 Column footing size and locations.
- 5 Beam size and bearing locations.
- 6 Reinforcing steel size and anchor bolt size and locations.
- 7 Window, vent and access size and locations.

FRAMING

- 1 Building section with material specifications.
- 2 Grade and species of all wood framing mem-

bers.

- 3 Size and spacing of studs, joists, rafters, pre-engineered trusses, hips, valleys, purlins, and struts.
- 4 Size and location of beams, columns and headers.
- 5 Roof and floor sheathing materials.
- 6 Bracing details.

ARCHITECTURAL

- 1 Exterior elevation - (Label FRONT, REAR, RIGHT, LEFT). Indicate building materials to be used. Finish grade with slope shown.
- 2 Floor plan for each level:
- 3 Label rooms, show dimensions.
- 4 Location and size of walls, windows, doors, stairs, cabinets, guardrail and window wells.
- 5 Plumbing fixtures, water heater, furnace, boiler, air conditioner and cooking appliance locations.
- 6 Location of chases and chimneys for venting of fuel-burning appliances (specify type of fuel).
- 7 Type, size R-value of insulation in walls and ceiling.
- 8 Fireplace or stove location, type and installation details.

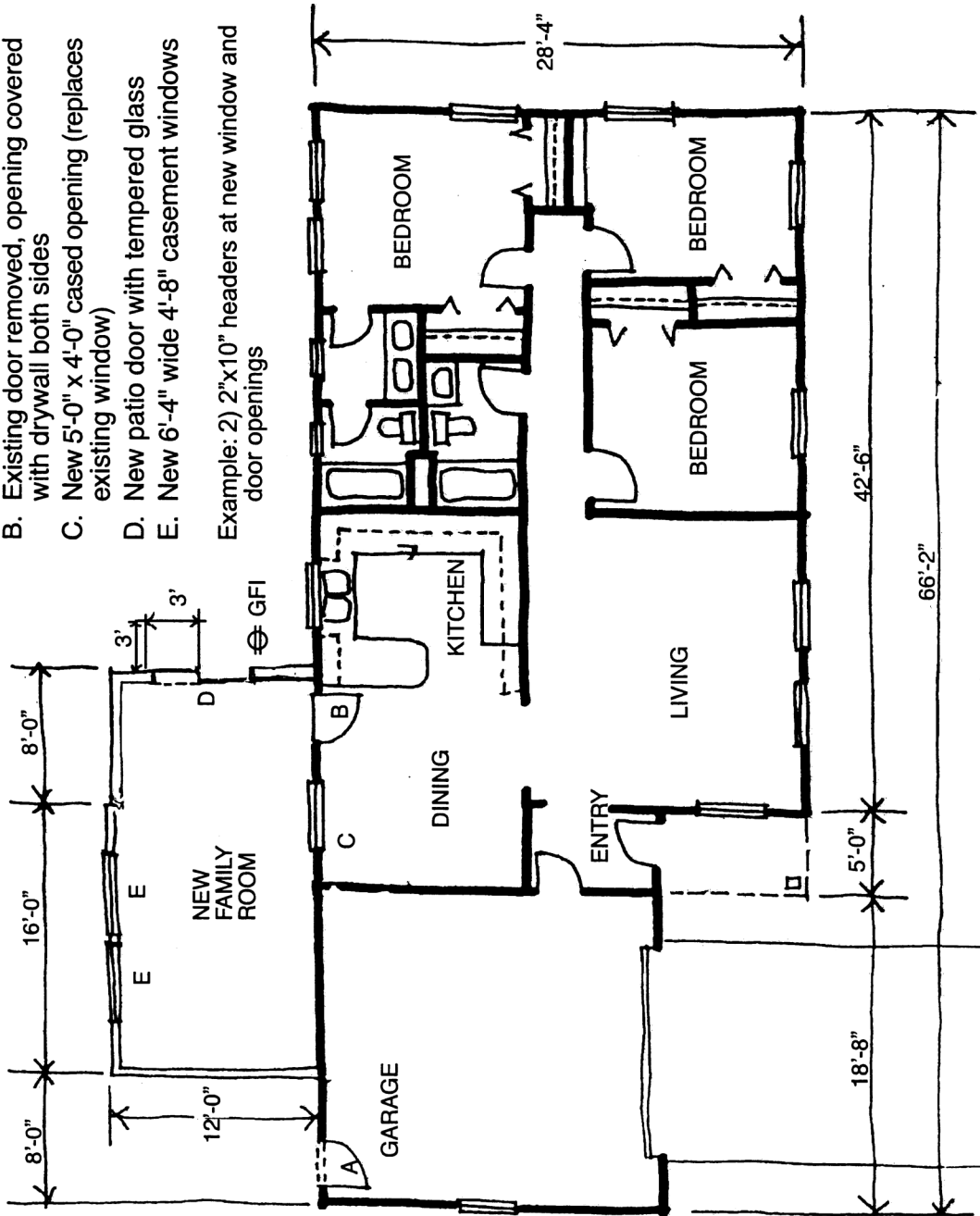
ELECTRICAL

- 1 Size of service.
- 2 Location of panel.
- 3 Electrical plan with outlets, switches, fixtures and smoke and carbon monoxide detectors.

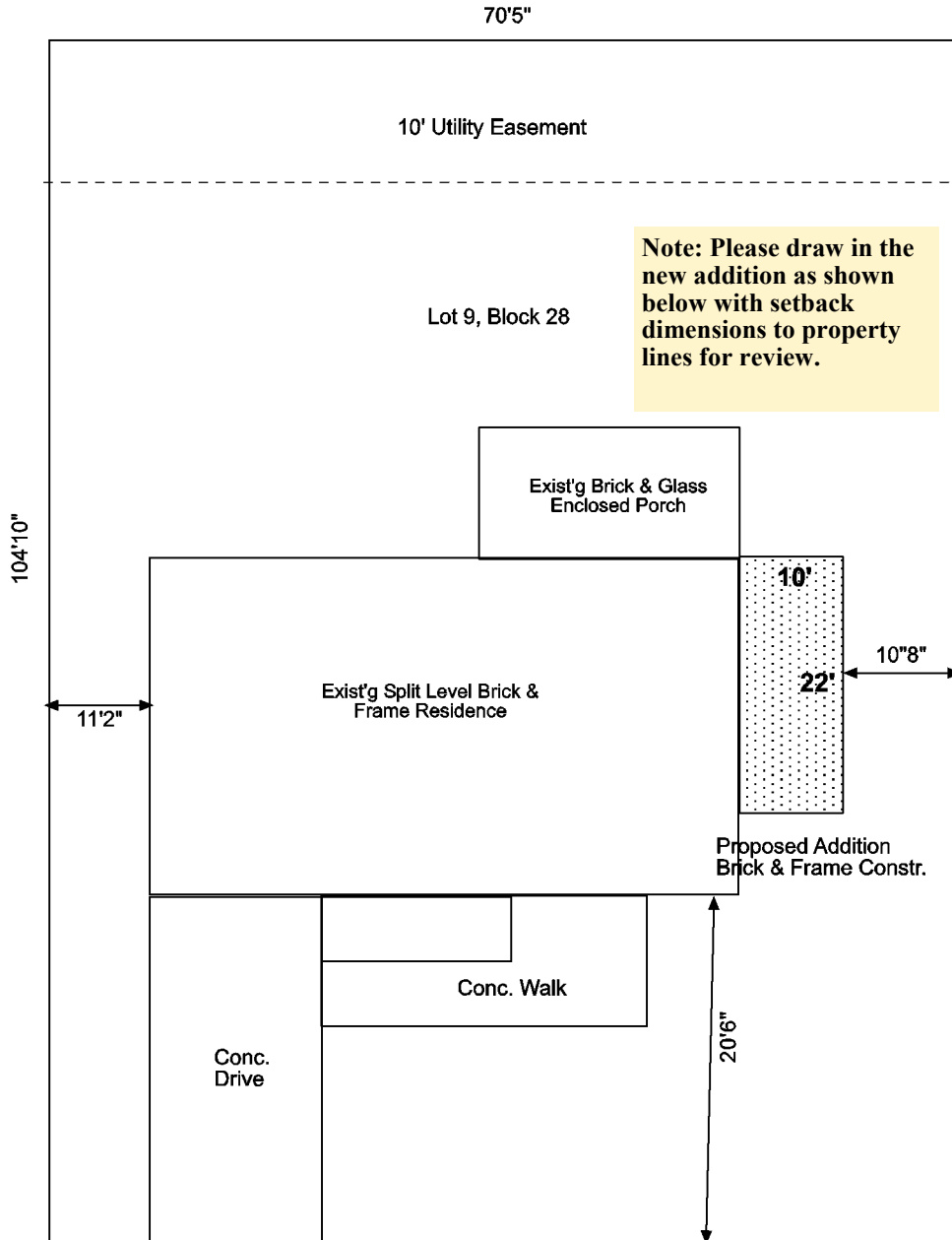
Sample Floorplan – Residential Addition

NOTES:

- A. New 3'-0" x 6'-8" door in existing wall
 - B. Existing door removed, opening covered with drywall both sides
 - C. New 5'-0" x 4'-0" cased opening (replaces existing window)
 - D. New patio door with tempered glass
 - E. New 6'-4" wide 4'-8" casement windows
- Example: 2) 2"x10" headers at new window and door openings



Sample ILC, Site/Plot Plan – Residential Addition



Property: _____

Legal Address (i.e., Lot xx, Block, Subdivision: _____

Single Family Residential Additions

Information

General Requirements

1. Smoke alarms. Smoke alarms are required to be hardwired and interconnected in new and existing bedrooms, halls and one each level unless removal of interior wall or ceiling finishes would be required. In this case, battery operated devices are acceptable.
2. Carbon Monoxide Detectors. Carbon Monoxide detectors (CO) are required to be installed within 15 feet of the entrance to every bedroom in any location on the wall or ceiling if the dwelling unit includes either fuel-fired heating appliances or an attached garage.
3. Additions may not enclose existing bedroom egress windows.
4. Landings are required at exterior doors. The landing may be as much as 7 3/4" lower than the floor of the room, but it must be at least 3' x 3'. There is no limit as to how large it can be.
5. Tempered glass is required at specific locations. When you draw in the location of the new windows on the floor plan, the plan reviewer can identify which ones require tempered glass.
6. Heat is required in all habitable rooms. Show how the addition will be heated on the plan.
7. Concrete and masonry foundation walls must extend about the finished grade to the foundation at all points at least 4" (where masonry veneer is used) or 6" elsewhere.

Electric Code

Existing electrical service may require an upgrade or relocation. Indicate the size of your electric service (the number on the main breaker) on your plan. This can help the plan reviewer determine if an upgrade is needed before you start construction. In the City of Longmont, electrical upgrades are additional fees added to a permit or require a separate permit and review from Longmont Power & Communications. Please call 303-651-8386 for additional information.

Roof Overframe

When constructing a new valley, use a continuous board under the bottom cut of the new rafters to provide a solid nailing surface. The board should be at least 2" thick, nominal and should be at least as wide as the base of the new rafter.

Single Family Residential Additions

Information

SETBACKS

The minimum setback distance for additions except for Planned Unit Developments (PUD) is as follows:

Side property line: 5 ft
Rear property line: 20 ft.

From other buildings and structures on the same lot. All accessory buildings and structures shall be placed at least six feet away from all other buildings and structures on the same lot. If closer than 6' they are considered to be attached and the combined structure must meet the setback requirements.

Easements. Buildings shall not be located within any easement of record unless all approvals have been obtained from the appropriate utilities; check your recorded deed or subdivision record for any and all easements.

MAXIMUM SIZE

⇒ The maximum size for residential storage buildings without needing a permit is 120 square feet

FOOTINGS/FOUNDATIONS

1. one story structures *less than 120 square feet* in floor area:
 - ⇒ No permit is required but securing the structure to insure that it cannot be damaged by wind with proper tie downs or anchorage is recommended.
2. one story structures *greater than 120 square feet* in floor area:
 - ⇒ All foundations must be designed by an engineer based on the type of soil under the structure. The drawings must be stamped and sealed by an engineer licensed in Colorado.

Con't on next page

Single Family Residential Additions

Information, con't.

ANCHOR BOLTS

Anchor bolts are required to attach the mud sill to the foundation. The minimum size for anchor bolts is ½" diam x 10" long. Anchor bolts must be embedded in the wet concrete a minimum of 7", they shall be a maximum of 4' apart and be located within 1'-0" of each end of each individual piece. A minimum of 2 bolts per piece of mud sill is required.

BOTTOM PLATE / MUDSILL

The bottom plate or mud sill is attached to the foundation with anchor bolts. Pressure treated wood or Redwood must be used for this.

STUD WALLS

The minimum stud size is 2" x 4" placed a maximum of 24" apart in all exterior walls.

SWAY/CROSSBRACING

All exterior walls are required to be laterally braced, to resist wind and seismic forces. Typical sway bracing would be let-in 1 X 4, metal T brace or 4 X 8 exterior plywood sheathing at all corners.

Note: Regardless of square footage, the structure must still comply with the roof-member-to-wall-tie requirements of the International Residential Code.

TOP PLATES

A double top plate is required, for exceptions see International Residential Code.

ROOF AND CEILING FRAMING

Rafter ceiling joist sizes are determined by a 30 psf live load and a 10 psf dead load in combination with span lengths and spacing. Because there are many combinations of span and floor area, this pamphlet will not attempt to address all of these. The reader is referred to the International Residential Code. The minimum sizes will be verified by the Building Inspection office upon review of your project. Engineered trusses may also be used. Truss drawings must be submitted for review and approval at time of framing inspection.

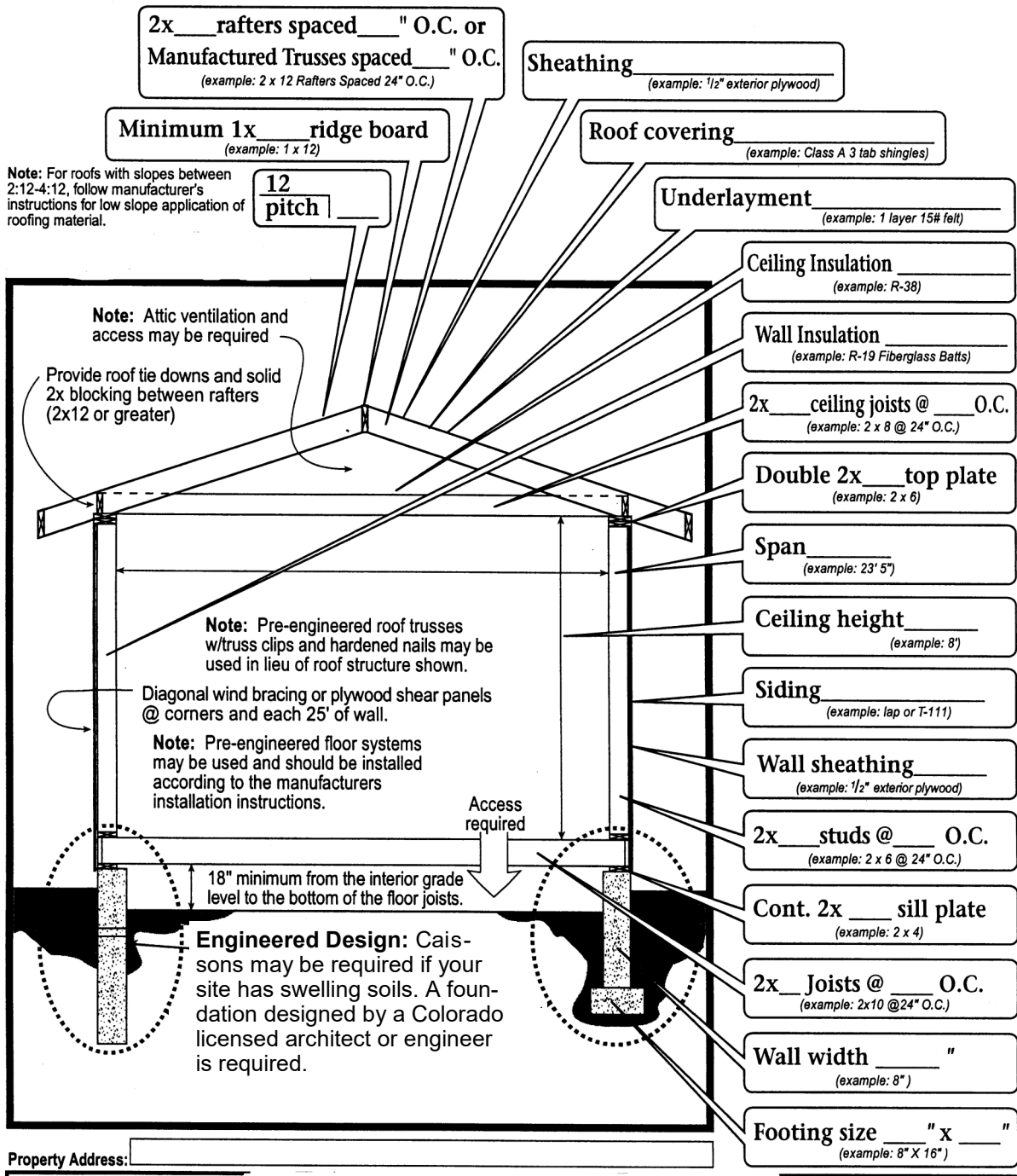
ROOF SHEATHING and ROOFING

Please refer to the International Residential Code for information on plywood, particleboard sheathing and roofing. Asphalt shingles shall be installed per the amended IRC.

ELECTRICAL METERS

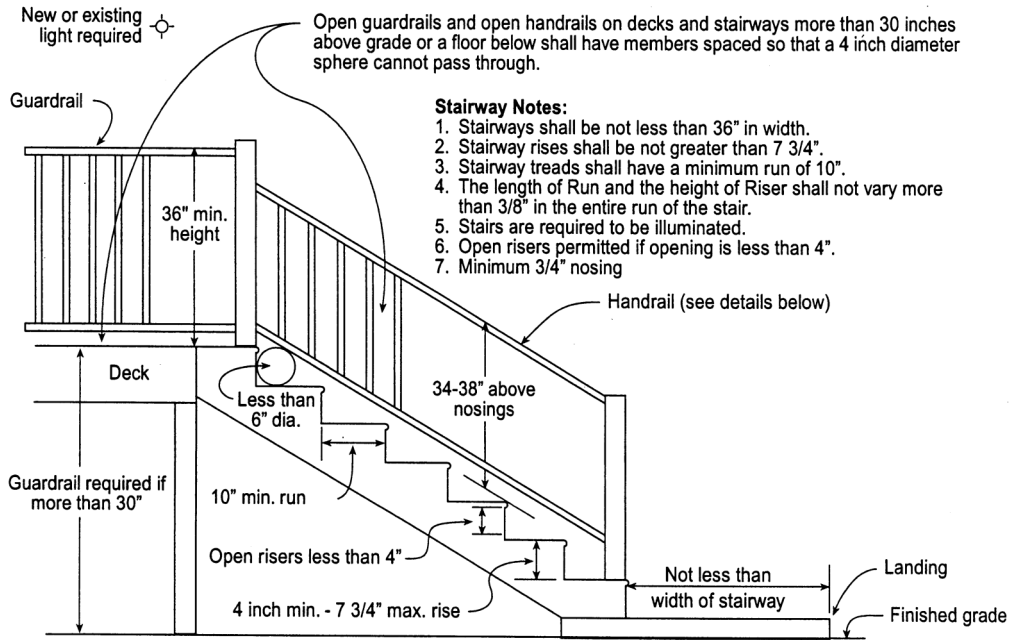
Electric meter height must remain at 5'6" above grade including finished floor of deck. Proper height of overhead service drop must be maintained at a minimum of 10' above grade and above roofs dependent upon the roof slope and amount of overhang. The meter may need to be moved in some instances, such as if the accessory building is built under an overhead electrical service drop. The electrical meter may not be located in an enclosed room. Contact Longmont Power and Communication with additional questions (303-651-8386).

Single Family Residential Additions



Building Section – Handrails

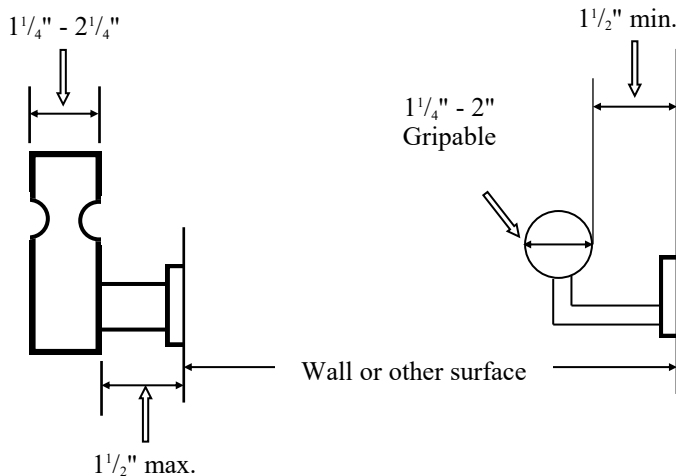
Stair and Handrail Specifications



Handrail Notes:

- 1 Handrails shall be continuous on at least one side of stairs with 2 or more risers.
- 2 Handrails shall be placed not less than 34 inches nor more than 38 inches above stair nosings.
- 3 The handgrip portion of handrails shall be not less than 1-1/4 inches nor more than 2 inches in circular cross section.
- 4 Handrails shall be placed not less than 1-1/2 inches from any wall or other surface.
- 5 Handrails to be returned to wall, post or safety terminal per IRC.

Acceptable Handrail Details



Unacceptable Handrails

