

Minimum information requested for residential structural plan review

Documents:

Completed application, to include square footage, flood plain details, and project valuation

ResCheck if applicable, (or prescriptive code used.)

Energy requirement details per the 2012 IRC and the 2012 IECC required / used

Complete design criteria to be used, recognized code, local jurisdiction design criteria.

Stamped engineering calculations (as needed) stamped plans for engineered areas (as needed)

Roof and under floor ventilation calculations and requirements per the 2012 IRC / 2012 IECC.

Drawings:

Plat plan, showing all subdivision lots surrounding building lot, and subdivision restrictions, setback requirements and easements, property pins, streets, etc. per the 2012 IRC

Site plan, showing building configuration on lot, with all setbacks, and easements, etc. per 2012 IRC

Foundation plans showing footprint of building, all other foundations, footing size(s) details, point loads size(s) and depth, rebar requirements and placement, hold downs, anchor bolt placement, concrete strength, ventilation vents, sizes, flatwork, etc. per the 2012 IRC

Floor framing details, showing, joist sizes, spacing, engineered trusses, blocking, shear wall blocking (transfer) pony walls, attachments, spans, sheathing used, fastening schedule, rim joists etc. per the 2012 IRC

Floor plan, all wall locations, room sizes, complete measurements and dimensions, room identification, wall construction details, sizes, fastening schedules, wall heights, ceiling heights, windows size and type, crawl hole locations, attic access(s), separation walls, separation doors, plumbing and heating fixtures, identify tempered glass in all windows as needed, etc. per the 2012 IRC

Wall bracing details, complete with labeling on braced wall lines, sizes of each braced wall panel, location of each braced wall panel, type of bracing used, fastening schedules, portal frame identifications and locations, calculations for wall bracing, shear walls (engineered) Tall wall calculations, hold downs, hardware needed, etc. per the 2012 IRC.

Sections, showing section details as needed throughout plans, insulation types and sizes, overhangs, eaves, etc. per the 2012 IRC

Roof plan, conventional framing or trusses, identify sheathing, fastening schedule, roof covering, pitch, direction of all pitches, ventilation, skylights, crickets, eaves, headers, header sizes, details of roof construction as needed, all hardware used, locations, truss shear, etc. per the 2012 IRC.

Elevations, all sides of the building, any elevations needed to show compliance with the 2012 IRC and or design criteria.

Details: Stairs, treads, handrails, portal frames, eaves, connections, footings, framing, foundations, etc. as needed per the 2012 IRC

Electrical plan, all electrical, smoke detectors and carbon monoxide detectors, per 2012 IRC

Minimum Information Needed For Single Family Residential Structural Plan Review

Simple projects

This information is to help acquire the proper information for a timely plan review

Design Criteria

Adopted codes, frost depth, seismic zone, climate zone, basic wind speed, soil bearing pressure, roof loads (snow) and floor loads. (The city should have this information)

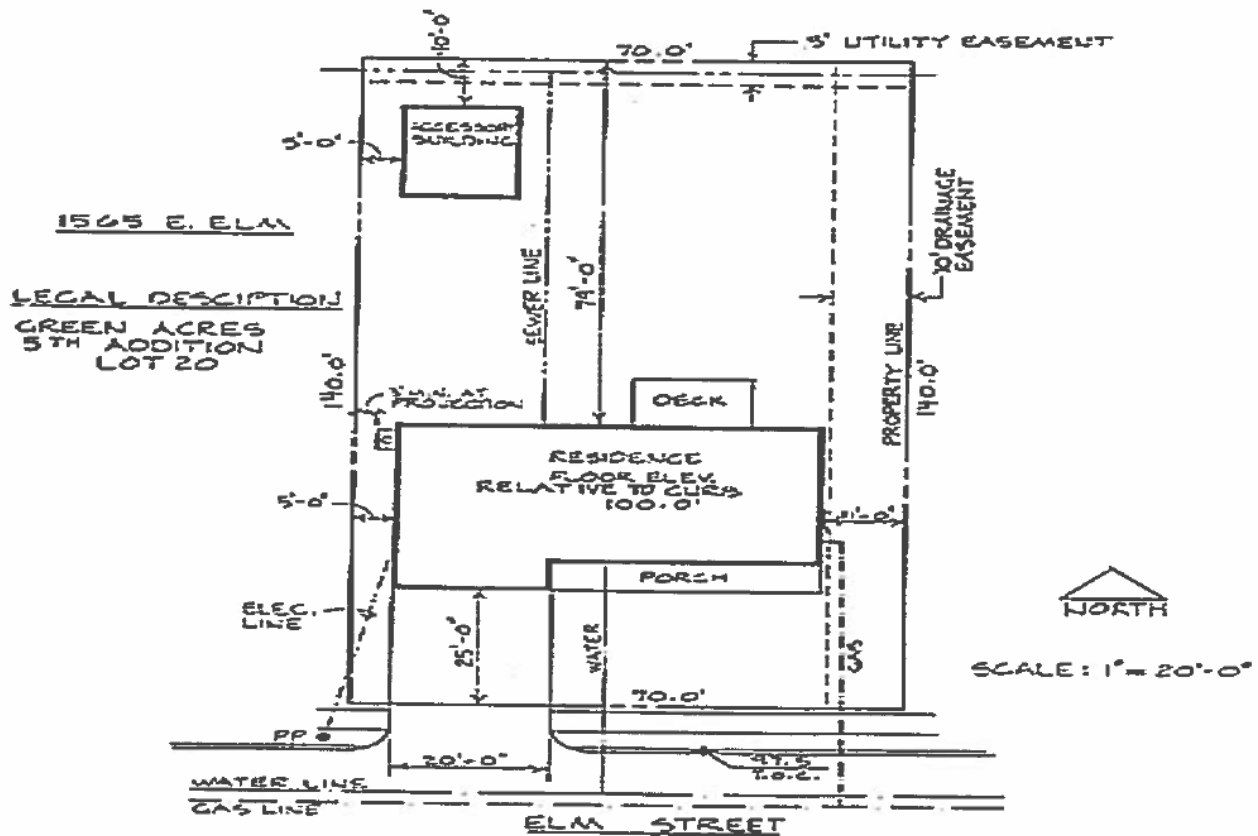
Plat plan

Showing all subdivision lots surrounding the building lot, subdivision restrictions, setback requirements and easements, property pins, streets, land elevations etc. (The city planning department will have this information and possibly a plat plan already established.)

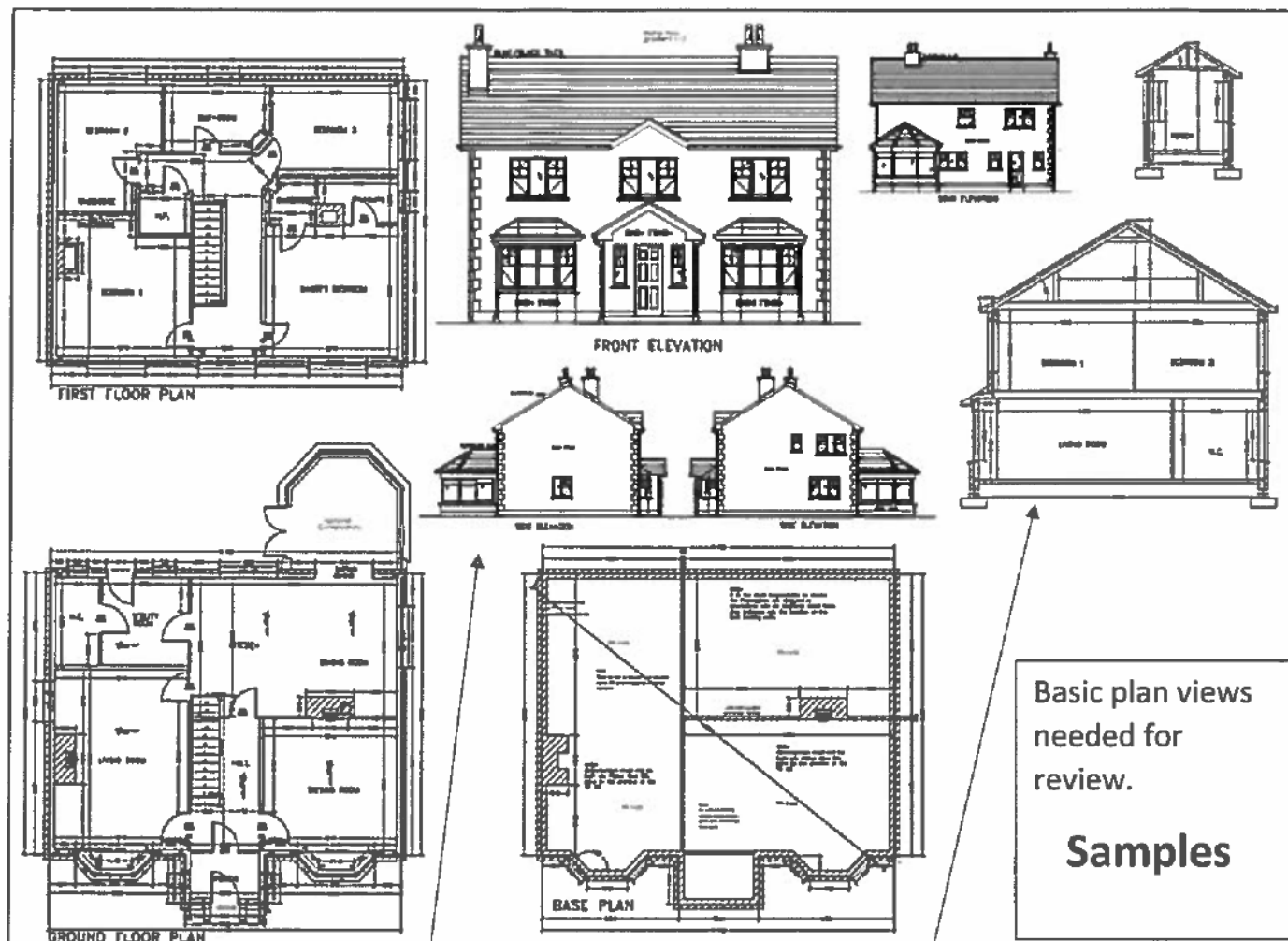
Site plan

Showing building configuration on the lot, with all setback requirements and easements established. Property pins and property dimensions, street address, subdivision lot number and block number, location of utility easements. (The city should have this information)

SITE PLAN ILLUSTRATION



Sample



Simple Floor Plans

Elevations

Foundation (Base) Plan

Section Plan Views

A simple floor plan

Showing all wall configurations and lengths, room sizes, room designations, operable and non-operable window placement and sizes, door swings and sizes, stairs, landings, fireplaces, smoke and or C/O alarm locations etc.

Elevations

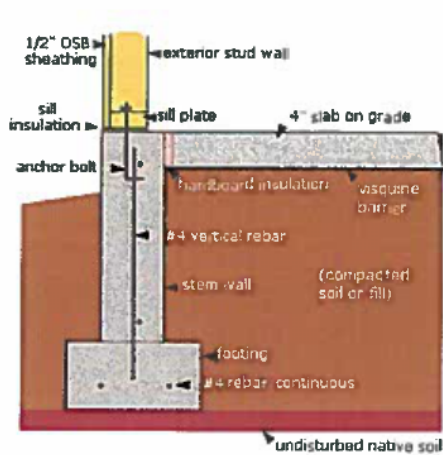
Pictorials of each side (4) of the structure, to show the end result look and are used for external height measurements, floor and roof line heights from finish grade etc.

Section plan views

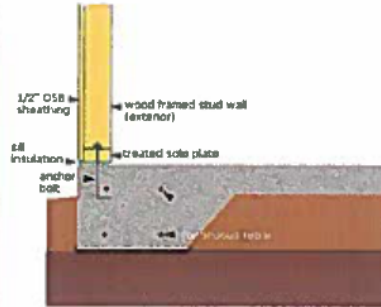
A cut-a-way of a "section of the structure" to show the internal views.

Foundation plan

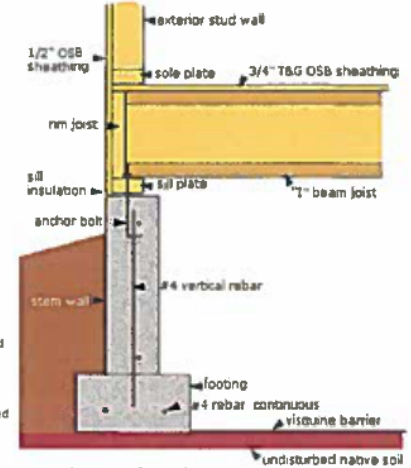
Showing all footing and foundations footprints, point loads (post supports) and sizes, footing and foundation sizes, size of reinforcement used (rebar) all hardware used (hold downs, anchor bolts, etc.) identified.



Stem wall/slab foundation cross-section



Monolithic foundation cross-section

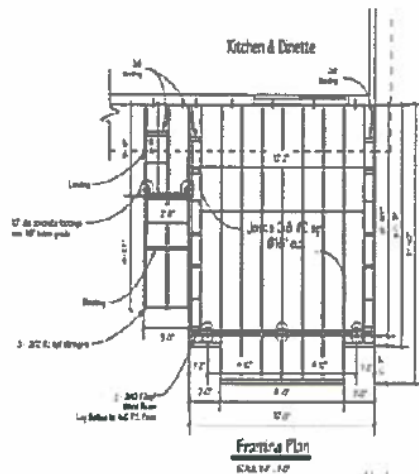


Crawlspace foundation cross section

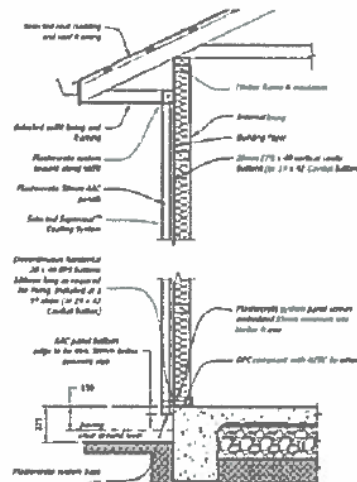
Use one of the examples from above that applies to your project, to help with the details needed for plan review.

Floor framing

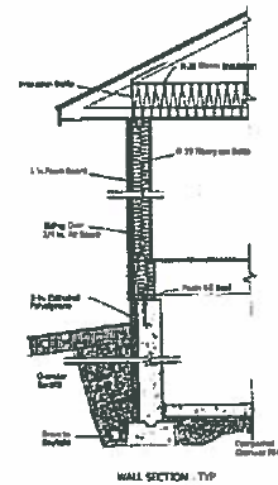
Details showing, floor joist sizes, spacing, spans, engineered trusses, (if used) blocking, shear wall blocking (transfer) pony walls, attachments, size of sheathing used, fastening schedule, hardware used (straps, bolts, nails, etc.) rim joists, insulation type and size (R21, 30, 38 etc.)



Floor framing plan



Wall section



Wall/Floor framing detail

Wall framing Sections

Wall heights of each room can be placed on the floor plan or elevation pages. Wall bracing details (sheathing) complete with location of braced wall lines, (4' off each corner) sizes of each braced wall panel, location of each braced wall panel, (max. 20ft apart) type of bracing used, fastening schedules, portal frame identifications and locations, calculations for wall bracing, shear walls (engineered) tall wall calculations, hold downs, hardware needed, insulation type and size. (R30, R21 etc.)

Roof

Identify whether conventional framing or engineered trusses will be used. Show all girder locations (that support other trusses, rafters, or joists). Identify the direction the joists and rafters, or trusses run, identify the supporting walls. Identify the rafter/joist/truss spans. Identify the materials that will be used to cover the roof (sheathing, underlayment, roof covering). Identify the roof slope direction and pitch, skylights, ventilation requirements, and header sizes and locations.

Details

Provide details for connections and specific methods of construction. (Post to beam connections, wall assemblies, floor to ceiling assemblies, portal framing, stairs, etc.).

Energy/ Insulation

Show compliance with local energy requirements. Identify prescriptive insulation values or provide a Res-Check. The Res-Check shall identify the location of the project by address or lot and block and shall be signed by the person in responsible charge of the project.

Please fill in the blanks for what you are proposing. (See diagram on next page)

- A)** Sheathing size and type along with roof covering type. **A1)** Slope (Pitch) of roof.
- B)** Rafters sizes and spacing or trusses (requires engineered truss calculations (truss manufacture.)
- C)** Drip edging used size and type.
- D)** Blocking between trusses, size and spacing.
- E)** Uplift connectors from tops plates to rafter tails / trusses (use manufactures spec. number.)
- F)** Ceiling covering, type and size (thickness.)
- G)** Top plate sizes and type of materials. (DF- Douglas fir, SPF- Spruce pine fir etc.)
- H)** Wall covering, type and size. (thickness)
- I)** Fascia type and size.
- J)** Soffit covering, and venting sizing. **J1)** Over hang distance.
- K)** Cladding, outer covering, type (siding, stucco, panels, etc.)and sizes (thickness)
- L)** Stud sizes and spacing, (2x4 @16"o/c) **L1)** insulation used, type and size (Batt or blown in, etc.) (R21, 30, 38)
- M)** Interior floor (concrete slab, floor joists,) type and sizes, spacing, slab size (thickness)
- N)** Anchor bolts type and size (length and width, washer sizes, galvanized)
- O)** Bottom plate type (pressure treated or not) and size.
- P)** Base under concrete (when concrete is used) otherwise N/A
- Q)** Insulation under slab size and type. (when concrete is used) otherwise N/A
- R)** Compacted base under slab, identify (when concrete is used) otherwise N/A
- S)** Concrete type and strength.
- T)** Foundation size with overall dimensions.
- U)** Footing size with overall dimensions.
- V)** Reinforcing steel (rebar) horizontals size, and placement, spacing. (thickness)
- W)** Reinforcing steel (rebar) verticals, size, length and placement, spacing.
- X)** Footing base materials, compaction (if needed) types of soil)
- Y)** Depth of footing from finish grade.
- Z)** Width of footing

