Division #1 - GENERAL REQUIREMENTS

DO NOT SCALE DRAWINGS. Follow written dimensions only. Superintendent shall check and verify all written dimensions prior to commencing construction.

These architectural drawings convey design concept. The Superintendent remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly and for performing the work in a safe manner.

Prior to beginning work, the Superintendent shall review all plans and details. elevation restrictions and site conditions at the jobsite and notify the Architect of any drawing errors or inconsistencies.

All construction work shall meet the requirements of the 2012 International Residential Code as adopted by the governing municipality.

Division #2 - SITE WORK

02500 - SITE DRAINAGE 1. Downspouts, basement area drains or foundation drain tiles shall not be connected to the sanitary

2. All grades shown on drawings are assumed. Site surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as to not create a hazard. Lots shall be graded so as to drain surface water away from foundation walls. The grade adjacent to foundation walls shall fall a minimum of 6 inches within the first 10 feet. Impervious surfaces within 10' of the building foundation shall be sloped a minimum of 2% away from building. Where lot lines, walls, slopes or other physical barriers prohibit 6 inches of fall within the first 10 feet, drains or swales shall be provided to ensure drainage away from the structure. Finished grade shall be 8" minimum below top of foundation. All areas shall be sloped to lower elevations or drainage structures on or near the site. Superintendent shall make on-site lot inspections & check all grades and contact

Architect prior to making necessary adjustments. 3. Provide splash blocks at all downspouts. Downspouts shall direct water away from the foundation so as to prevent soil erosion.

4. It is the responsibility of the Superintendent or their subcontractors to determine the subsurface characteristics at the building site. Soils must provide a minimum bearing pressure of 2000 pounds per square foot. when in doubt, the Superintendent will employ a soils engineer to determine soil characteristics and provide a soils report to the Architect.

5. indicated existing slopes and drainage (after rough grading) and finish grading per Code.

Division #3 - CONCRETE 03300 - CAST-IN-PLACE CONCRETE

1. All concrete footings & piers shall extend a minimum of 36" into undisturbed soil. Extend footing below elevation shown only as needed to obtain adequate bearing into undisturbed soil. Extend the footing below elevation shown only as needed to obtain bearing into undisturbed soil. It shall be the Superintendent's responsibility to confirm soil-bearing pressure of the site.

2. Concrete-encased electrode. An electrode encased by at least 2" of concrete, located within and near the bottom of a concrete foundation or footing that is in direct contact with the earth, consisting of at least 20' of one or more bare zinc-galvanized or other electronically conductive coated steel reinforcing bars or rods of not less than 1/2" dia., or consisting of at least 20' of bare copper conductor not smaller than No. 4 shall be considered as a grounding electrode. Reinforcing bars shall be permitted to be bonded together by the usual tie wires or other effective means. 3. Concrete minimum compressive strength shall be 3000 PSI at 28 days in vertical walls that are not exposed to the weather (excluding the top 8" of the wall which may be exposed). 4. Concrete minimum compressive strength shall be 3500 PSI at 28 days in all exposed flatwork surfaces, including garage floor slab.

5. All concrete work shall be air-entrained as per the most stringent Code. 6. Concrete floor slabs supported directly on the ground shall be a minimum of 4" thick. Interior slabs (including garage slabs) shall be placed over a minimum 4" thick base of gravel or crushed stone. A 6mil polyethylene barrier with joints lapped a minimum of 6" shall be placed between the concrete floor slab and the base course.

7. All voids under garage, porch or exterior stairs & stoops shall be filled with granular fill. 8. All piers shall be at least 14" diameter and extend a minimum of 36" below finished grade and at least 24" into undisturbed soil.

3400 - CONCRETE FOOTINGS & FOUNDATIONS

1. The frost wall shall be set in the middle of the footing. The footing thickness shall be a minimum of 6" but not less that the distance the footing extends horizontally past the face of the frost wall. 2. The bottom of all footings must be a minimum of 36" below finished grade and bear directly on undisturbed soil or soil prepared under the supervision of a licensed Soils Engineer.

05100 - STRUCTURAL METAL FRAMING 1. All steel beams & columns shall be prime-painted. All beam pockets shall be grouted solid. Steel beam splices shall be welded or bolted together.

Division #6 - WOOD AND PLASTICS

Division #5 - METALS

06100 - ROUGH CARPENTRY 1. All framing lumber shall be at least #2 yellow pine KD 19 unless noted otherwise. 2. Use (3) 8d or (2) 16d nails per joist into plates, joists spliced over beams shall be nailed together

3. All framing lumber and sheathing shall be nailed in place in accordance with the fastening All unsupported stair stringers shall have metal stringer straps.

6. All girder trusses shall be supported by minimum triple studs and solid blocking to foundation. 7. Provide treated structural framing members within 8" of grade. 8. General Contractor shall layout all stairs in field prior to framing the floor to ensure proper fit and

9. All headers shall be (2) 2x10's Fb=1050 psi, #2 grade southern pine unless noted otherwise. All partitions shall be spruce/fir/pine 2x4 studs @16"o.c. unless noted otherwise.

10. All floor joists shall be per TJExpert layout 11. All framing shall be in conformance with the National Forest Products Manual for house framing. 12. Join and install Microllams and Parallams per manufacturer's instructions.

All nailing shall comply with the 2012 IRC. 14. Cutting, notching and/or boring holes in wood beams, joists, rafters or studs shall not exceed the limitations of the 2012 IRC. 15. Provide dropped soffits over all wall-hung cabinets.

16. Firestop all stud walls at top and bottom of wall. Firestop all stud walls over 8'-0" tall and the 17. All soffits and dropped ceilings shall be firestopped as per code

18. Truss design shall be provided by the truss fabricator. Trusses shall comply with NfoPA NDS-91 and TPI-95 and the 2012 IRC 19. All roof framing shall be designed to support the following minimums:

Top chord - live load 20 lb per sq ft Bottom chord - dead load 10 lb per sq ft or 20 lb when the area above the horizontal (not vaulted) bottom chord has a clear height of 42" or greater and the area is accessible by a pull down stair 20. Truss manufacturer shall verify knee hoeghts and roof configuration and shall notify the Architect

of any inconsistencies prior to fabrication. tie-down anchors shall be used on all roof trusses where they meet bearing walls. 21. all floor framing members shall be designed to support the following minimums: Floor areas other than sleeping rooms shall be designed for a live load of 40lbs/sf

Sleeping rooms shall be designed for a live load of 30lbs/st 22. Trusses shall be nailed to the top plate of the wall w/ 16d nails, toe nailed without splitting the end of the truss.

23. Minimum size exterior entry door shall be 36" in width. 24. Keyed locks are not permitted on the inside of exterior doors. Locks with thumb turns on the inside are permitted. 25. Minimum clear opening of an interior egress door leaf for bathrooms and habitable spaces (spaces used for living, sleeping, eating or cooking) is 28" unless specified differently in local

26. Minimum clear width of doors to and from stairways within the dwelling is 29.3/4" unless specified differently in local ordinances 27. Minimum clear (drywall face to drywall face) width of stairway is 36"

28. Minimum clear headroom in stairways is 6'-8" measured vertically from the tread nosing and from the floor surface of a landing or platform 29. Note number and size of stair stringers (2x12's minimum) and material used for treads. Stairs shall be designed for 40psf live load or 300 lb concentrated load on4 sq inches at mid span of a

tread; whichever produces the greater stress and deflection. Risers must be solid. 31. Stair must have one continuous handrail mounted at 34" to 38" above nosing for stairs with 4 or more risers. The handrail ends must return to the wall. Handrails must not project into the required stair width more than 4.1/2". Stair handrails must have a circular cross section with a minimum diameter of 1.1/4" but no larger than 2" diameter. or else be an approved shape having a

maximum allowable horizontal width of 2.1/4". maximum graspable perimeter dimension of 6.1/4" and a minimum graspable perimeter of 4". 32 Guards along stair openings shall be solid or have intermediate vertical balusters no more than 4" apart and be a minimum height of 36" above the finish floor 33. All interior stairways shall have a maximum riser height of 7.3/4" and a minimum tread depth of

10". Solid risers must have a 1" nosing. 34. All exterior stairways shall have a maximum riser height of 7" and a minimum tread depth of 11". 35. Spaces between solid floor joists and suspended ceilings in finished areas must be draftstopped at 500 square feet intervals parallel to joists.

36. Use (2) 8d nail driven at an angle 1.5" from end of joist into bearing plates, one on each side of flange per joist into plates, joists spliced over beams shall be butted together and blocked. 37. Firestop all areas as required by the 2012 IRC, including all dropped soffits, ceiling areas and at floor & roof levels within fireplace flue chases.

38. Stairways shall be installed per 2012 IRC code Section R311.7. 39. Building corners shall be laterally reinforced for 4'-0", minimum, in each direction with 1/2"

plywood or OSB sheathing or with equivalent APA narrow braced wall per APA's "Whole House Wall 40. See sheet 5 for number of full height studs next to exterior openings per 2012 IRC code Table 602.7.5

06170 - PREFABRICATED STRUCTURAL WOOD

Unless noted directly on these plans, engineered lumber shall not be cut or notched without prior approval from Trus-Joist MacMillan field representative, and the Architect/ Structural Engineer of

06200 - FINISH CARPENTRY All exposed materials for porches, gables, soffits, overhangs, trim etc. shall be of approved exterior

06400 - ARCHITECTURAL WOODWORK 1. Guardrails (where occuring) shall be installed at 36" high, minimum above finished floor per 2012

International Residential Code 2. Stair handrails (where occuring) shall be installed per 2012 International Residential Code. Handrail cross section shall not exceed 2.1/4" or 6.1/4" circumference. Mount handrail 34" above 3. All open stairways and guardrails (where occuring) shall have balusters or intermediate spindles

spaced such that no opening exceeds 4". 4. All stairs shall have at least one continuous handrail running the full length of the stair run. The required handrail CANNOT dead-end into a wall, ceiling, newel post or any other object. A stair is defined as having four or more risers. The required minimum stair width is 36" with projections into that width not greater than 4.1/2" on each side at or below handrail height.

07100 - THERMAL & MOISTURE PROTECTION

1. All required underlayments shall be a minimum of Type 1 per ASTM D226-95 AND 2012 IRC 2. Corrosion resistant metal flashing shall be used at all roof intersections, roof and wall intersections, etc. Rolled roofing or two layers of Type 14 asphalt saturated felt or adhesive ice and water shield may be substituted for flashing at roof valleys provided the shingles are interlaced 3. 15# roofing felts are required under all asphalt roof shingles 4. Caulking and Sealants: Exterior joints around windows and door frames, between wall and

floors, walls and roofs and all other openings in the exterior envelope shall be sealed in an 5. An ice shield of two layers of underlayment cemented together or a waterproof membrane shall be provided from the edge of the eave to a point at least 24" inside the exterior wall line and/or where roof pitch is less than 4/12.

foundation, between wall and roof, between wall panels at penetrations of utility services through

07200 - WATERPROOFING & DAMPPROOFING

1. Wall or portions thereof that retain earth and enclose interior spaces and floors below grade shall be waterproofed or dampproofed depending on the presence or absence of groundwater. 2. An evaluation of the soil for the presence or absence of groundwater is require. The evaluation report shall be based on either a subsurface soil investigation or satisfactory data from adjacent areas together with an inspection of the excavation prior to pouring concrete. 3. No Ground water present - Provide drain tile, perforated pipe, or other approved foundation drainage system around the perimeter of the outside of the foundation or inside the foundation Drain discharge shall be by gravity to daylight or be connected to a basement floor sump. An approved filter membrane shall be placed over the top of the joints /pipe perforations. The tile/pipe shall be placed on 2" minimum gravel or crushed stone and have 6" minimum cover. Drainage system shall discharge by gravity to daylight or be connected an approved sump (18"dia x 24" deep with fitted cover). A sump pump shall be provided if basement is finished or partially finished with pump discharge by an approved method. Provide Dampproofing of floor slab with a 6 mil polyethylene film below slab, with joints in membrane lapped a minimum of 6". Walls shall be dampproofed with a bituminous material, 3lb/sq yd of acrylic modified cement, 1/8" coat of surface bonding mortar or by any of the materials permitted for wall waterproofing.

4. Ground water present - Provide drain tile, perforated pipe, or other approved foundation drainage system both inside and outside of the foundation. Drainage system shall discharge by gravity to daylight or be connected an approved sump (18"dia x 18" deep with fitted cover) having a sump pump that discharges into an approved disposal system. Provide a 6 mil polyethylene film below slab, with joints in membrane lapped a minimum of 6". Foundation to be waterproofed with two-ply hot-mopped felts, 6 mil PVC, 40 mil polymer modified asphalt, or 6 i\mil polyethylene. Joints shall be sealed per manufacturers written installation instructions. Waterproofing shall be applied from the top of the footing to the finished grade.

5. Downspout discharge shall be directed away from foundation. 6. Sump pump discharge and roof drainage shall be piped to a storm drain or to an approved water course. Discharging to or within 10' of a sidewalk, driveway, street or to create a nuisance to adjoining properties is prohibited

07600 - FLASHING AND SHEET METAL

Corrosion resistant flashing is required at the top and sides of all exterior window & door openings and at the intersection of concrete, masonry and frame walls. Flashing is not required where approved water-resistant sheathing & caulking is used at the top & sides of openings so as to be

1. All underlayment shall be a minimum of Type I per ASTM D 226-06 or Type I per ASTM D4869-05e01 (Type I is commonly called No. 15 asphalt felt). 2. Indicate corrosion-resistant flashing at all wall and roof intersections, changes in roof slope or direction, around all roof openings, etc. Valley flashing shall be installed per 2012 IRC 3 Underlayment for asphalt shingles - for slopes equal to or exceeding 4/12 shall be protected with one layer of underlayment. Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2", fastened sufficiently to hold in place. End laps shall be offset 6".

1. If batt and blanket insulation, including facings such as vapor retarders or other vapor permeable membranes are left exposed (in areas like unfinished basements), the material shall have a flame spread rating of 25 or less. Limitations do not apply to facings that are installed in substantial contact with the unexposed surface of the ceiling, floor or wall finish.

07400 - ENERGY CONSERVATION

1. Energy compliance path - Projects shall comply with one of the 3 following methods: A. Sections N1101.14 through N1104 as amended.

B. Section N1105 and the provisions of Sections N1101.14 through N1104 labeled "Mandatory." C. An energy rating index (ERI) approach in Section N1106.

2. Certificate (Mandatory) Unless otherwise presented to the home owner and building official in writing, a permanent certificate shall be completed by the builder or registered design professional and posted on a wall in the space where the furnace is located, a utility room or an approved location inside the building. Where located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall list the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawl space, wall and/or floor) and ducts outside conditioned spaces; U-factors for fenestration and the solar heat gain coefficient (SHGC) of fenestration, and the results from any required duct system and building envelope air leakage testing done on the building. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the types and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the certificate shall list "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be listed for gas-fired unvented room heaters, electric furnaces or electric baseboard

3. Insulation and fenestration requirements by component - The minimum insulation R-value within attics to be R-38 using an average computation method. The average computation method (for example) will allow tighter attic spaces near the truss heel to have R30 and other open areas with R-49 to provide and overall average of R-38 throughout the attic. Exterior wall insulation R-value shall remain at R-13 although will now require a significantly increased caulking and sealing program to tighten the perimeter thermal envelope. Low expansive foam shall be used around doors and windows. Foam insulations shall be applied around all exterior wall penetrations and electrical boxes, and caulking shall be applied at the top and bottom of wall plates. Unfinished basements may have up to a maximum of 20 percent of the total basement wall area exposed above the outside finished grade/ground level as uninsulated concrete foundation walls. The foundation wall area above the outside grade/ground level that may be uninsulated is determined by the formula 1,20 times the basement wall height of all walls (including insulated exterior frame walls for walkout basements and walls common to both basement and attached garages) times the perimeter of these basement walls]. In unfinished areas, the basement foundation wall insulation shall extend down to the basement floor slab or to a minimum of 24 inches below outside finished grade when the grade is above the floor slab elevation. Basement insulation blankets will be required only to depth of the frost line. Exhaust systems shall be installed in the home and designed to have the capacity to exhaust a minimum air flow rate of 50 cfm intermittent or 20 cfm continuous to help provide outside air through typical home use and passive air infiltration.

4. Recessed Lighting -Recessed luminaires penetrating the building thermal envelope shall be sealed with a gasket or caulking to limit air leakage. 5. All windows shall be wood clad, double glazed with 1/2" thick insulated glass (overall thickness) Energy Conservation and a thermal break. Window maximum U-value of 0.56

6. Makeup air required - Exhaust hood systems capable of exhausting in excess of 600 cubic feet per minute shall be mechanically or naturally provided with makeup air at a rate approximately equal to the exhaust air rate. Such makeup air systems shall be equipped with a means of closure and shall be automatically controlled to start and operate simultaneously with the exhaust system. 7. Joints, seams and connections - Joints of duct systems shall be made substantially airtight in an unconditioned area by means of tapes, mastics, liquid sealants, gasketing or other approved closure

8. Window and door U-values shall be determined in accordance with NFRC 100-2004 and labelled or certified by the manufacturer or shall be assigned the U-values listed in the Code. 9. Typical sections through the building are provided indicating the type, thickness and R-value of insulating materials and the U-values of windows and doors. R-values shown indicate only the insulation material used, not the total assembly.

10. The following represent the minimum insulation to be used: Roof/Ceiling - minimum R38 insulation

Wood frame walls and band joists/boards minimum R13 Concrete/masonry Basement Foundation walls for finished basement area - minimum R-13 (full

Concrete/masonry Basement Foundation walls for unfinished basement area - minimum R-5 11. All doors except overhead garage doors shall have a maximum U-factor of 0.40

07500 - FIREBI OCKING 1. Top and bottom of all conventional, double studded, furred spaces and staggered stud frame walls shall be fireblocked vertically at the ceiling and floor levels and horizontally at intervals not

exceeding 10'. 2. Fireblocking required at all soffits and dropped ceilings 3. Fireblocking required between stairway stringers at the top and bottom of the run. Enclosed accessible spaces under stairs shall have walls, under stair surface and any soffits protected on the

enclosed side with 1/2" drywall. 4. Fireblocking required around vent, pipe and duct penetrations of ceilings and floors. 07600 - FLASHING AND SHEET METAL

Corrosion resistant flashing is required at the top and sides of all exterior window & door openings and at the intersection of concrete, masonry and frame walls. Flashing is not required where approved water-resistant sheathing & caulking is used at the top & sides of openings so as to be leak-proof.

07900 - SEALANTS

Exterior joints around window & door frames, between wall cavities & door frames, between wall & foundation, between wall & roof, between wall panels, at all penetrations & utility services though walls, floors & roofs, and all other openings in the exterior envelope shall be sealed with caulking and/or sealant in an approved, workmanlike manner.

08100 - ATTIC ACCESS

1. A 22"x 30" minimum access opening is required for attic areas which exceed 30 sq ft and have

a clear height of over 30". The access shall be installed in a hallway or other accessible location. 30" minimum headroom is required at some point vertically above the access opening. Access doors in draft stopping shall be self-closing and made of approved materials.

1. Glazing in exterior doors, sidelights, windows within 24" of doors, windows greater than 9 square feet with sills and less than 18" above the adjacent floor, and all glazing in tub & shower enclosures 2. General Contractor & window manufacturer representative shall verify the size, fit and proper

installation requirements of all windows and sliding glass doors prior to manufacture and notify the Architect in writing of any drawing errors or inconsistencies 3. Glass area in habitable and occupiable rooms shall not be less than 8% of the floor area being served. One half of this area must be openable for unobstructed ventilation with screens included. 4. All basements and each bedroom must have one window for emergency escape meeting the

following minimum requirements: Maximum height to bottom of clear opening - 44"

Minimum clear opening width - 20" Minimum net clear opening height - 24" Minimum net clear opening area - 5.7 sq ft (the net clear opening dimension shall be obtained by the normal operation of the window from the inside). Exception: Grade floor windows are

permitted to have a minimum net clear area of 5.0 sq ft. 5. Attic and enclosed rafter space ventilation (net free) area is to be at least 1/150 of the area served. Two remote vents are required for each attic/space (minimum). Exception: required ventilation area may be reduced to 1/300 if a vapor retarder having a transmission rate not exceeding 1 perm is provided on the conditioned side on the insulation, or if the gable or ridge vents are located in the upper third of the attic or enclosed rafter space and provide 50% to 80% of the required vent area with the balance of the required area being supplied by eave vents. 6. A 1" clear space is required between the top of the insulation and the bottom of the roof sheathing

7. Foundation crawl spaces shall have a minimum height of 18" and shall be provided with vent opening located within 3' of each corner. The total vent area shall be at least 1/150 of the area served. Exception: when an approved vapor barrier is provided over the surface of the ground the required vent area may be reduced 10% of the above and the vents may have operable louvers. Clear heights may be reduced when preservative-treated or naturally durable wood is used for 8. Unfinished basements and utility rooms require natural ventilation (net openable area) at the ratio of 1% of the square footage floor area served. Mechanical ventilation with outdoor area (not

recirculated air) in accordance with the 2012 IRC may be substituted at a rate of .05 cfm/sq ft of

Division #15 - MECHANICAL

when ventilation is provided by eave vents.

Maximum flame-spread rating on all interior finish materials shall be 200 or less. Exposed insulation shall have a flame-spread not greater than 25 and a smoke-developing rating of 450 or less.

09250 - GYPSUM WALLBOARD 1. Gypsum wallboard shall be installed in accordance with the Gypsum Association's recommended practice as to thickness (walls minimum 1/2" thick, ceilings minimum 5/8" thick with nails should be spaced at no greater than 12" o.c. and screws should be spaced at no greater than 16"o.c.), screwed & taped over framing at specified spacing. All fire-rated gypsum wallboard assemblies shall be installed in accordance with the specifications of the approved tested assembly. 2. Green board gypsum wallboard shall be used behind one-piece tub/shower & shower enclosures. 3. Mold-resistant gypsum wallboard shall be used behind multi-piece tub/shower & shower

4. Durarock or approved equivalent shall be used beneath all tile wall & floors.

15000 - GENERAL PROVISIONS All mechanical work shall meet the requirements of the 2014 International Mechanical Code.

15010 - HEATING VENTILATING AND AIR CONDITIONING 1. Heating and air conditioning contractor shall furnish plans shall indicating furnace location, type source of combustion air, flue sizes, duct layout, diffuser locations and at least one programmable thermostat. A section detail shall be provided showing all gas appliances, flue sizes, connectors,

lengths, heights and clearance dimensions. Supply ductwork outside of building envelope shall be insulated to a minimum of R-6. 2. Approved vent systems for appliances shall be sized, installed and terminated per manufacturers written installation instructions. Unvented appliances that require an open window are prohibited. 3 Metal flues shall extend above the roof that they penetrate at least a minimum of 36". Flue outlets shall be at least 24" higher than any portion of the building within a radius of 10'-0" horizontally. 4. Gas appliances located in rooms or spaces whose volume is less than 50 cubic feet/1000BTU/hour input rating shall have combustion and dilution air provided in

accordance with the following: Using inside air: 1sq in of free area shall be provided per 1000 BTU/hour at each opening Openings shall not be less than 100 sq in of free area. One opening shall be provided within 12" of the ceiling and one within 12" of the floor, no common ducts permitted. Combustion air may not be obtained from bedrooms. Using outside air: One opening shall be provided within 12" of the ceiling with a net free area of

1 sq in/300 BTu/hour total input rating of all appliances located in the enclosure. 5. Appliances shall not be installed in a bedroom, bathroom or storage closet. Exceptions: A. The appliance is a direct vent unit obtaining all combustion air directly from the

door is self closing, solid, and weather stripped, and combustion air is provided 6. Minimum appliance clearance from appliances is 18", unless the listed manufacturers written installation instructions allow for an alternate clearance dimension. A minimum of 30" of clearance is required at the front of the appliance for servicing. 7. Each gas appliance shall have a gas shut-off valve located in the same room and within 6' of the

B. The appliance is installed in a closet used solely for the appliance, the closet

appliance, and a ground union joint. A sediment trap is required downstream at the appliance shut-off valve and each appliance 8. Household cooking appliances shall be listed and labelled and shall be installed in accordance with the manufacturers written installation instructions. An anti-tip device shall be installed if equired by the manufacturers written installation instructions.

Gas piping shall be labelled at intervals of no more than 5'. Exception: Black iron gas piping does not need to be labelled. 10. Clothes dryer exhaust shall be independent of all other systems and exhaust through smooth ductwork to the exterior. All dryer exhaust systems shall meet Section M1501 of the 2012 IRC. Provide duct runs & termination per the plans. The maximum developed length of the duct run shall be 25' from the clothes dryer to the wall or roof termination (calculated by adding 5' for each 90 degree bend and 2.5' for each 45 degree bend to the overall length of the straight runs).

Screens shall not be installed at the duct termination 11. Bathrooms and toilet rooms shall exhaust 50cfm/min to the exterior 12. Thermostats used for heating and cooling shall be capable of being set from 55 degrees F to 85 degrees F and shall be capable of operating the systems heating and cooling sequence. 13. HVAC equipment and ductwork shall comply with 2012 IRC 14. Clothes dryer shall be independent of other systems and vented to the exterior.

15. HVAC contractor shall size heating and cooling units 16. Gas heating shall be used for furnace and cooling units, unless noted otherwise. 17. Concealed gas piping shall be identified every 25' minimum and every 50' when exposed. 18. Vent exhaust fans to the exterior. (50 cfm in bathrooms, 100 cfm for kitchen vent hood) 19. Gas vents shall extend above the roof that they penetrate at least a minimum of 36" and be at least 24" higher than any portion of the building within a radius of 10'-0" horizontally. Exception: U.L. listed vents may be installed in accordance with their listing). 20. Metal flues shall not be visible from main street or road on which the building is located and shall be painted or treated in such a manner as to match the adjacent roof color as closely as possible.

21. Ducts exposed to non-conditioned spaces shall be insulated flex duct, limited to a maximum duct run of 14' and free of deformities. 22. Kitchen ranges shall have a listed hood or downdraft exhausted to exterior with a 100cfm fan (intermittent use) or a 20 cfm fan (continuous use). Alternately a listed and labelled recirculating ductless range hood installed in accordance with the manufacturers written installation instructions (if equipped with the filtration system for grease removing and odor control) is not required to

23. Makeup air shall be provided during the operation of the kitchen exhaust system when exceeding 600cfm exhaust flow. See code for further requirements and controls. 24. Gas water heater tanks shall be strapped securely to solid walls. 25. Return air ducts shall be sealed with foam sealing tape meeting burn test requirements of the 2012 International Residential Code.

15400 - PLUMBING 1. All plumbing work shall meet the requirements of the 2012 International Plumbing Code. 2. 'No lead' lead-free solder is required on all copper water supply piping. 3. Plumbing contractor shall install pressure-balance valves, individual mixing temperature control valves on all showerheads set at 120 degrees Fahrenheit, maximum.

4. Exterior & garage hose bibbs shall be the freeze-proof type with the vacuum breakers. 5. Install expansion tank on all water heaters (even tankless water heaters if required by manufacturer). 6. The water service pipe and the building sewer are to be a minimum of 10' apart horizontally 7. The water service line shall be a minimum of 1" up to the first branch. Plastic water service piping shall terminate a minimum of 10' outside the foundation wall and the metallic piping brought into the house up to the outlet of the house valve or the pressure relief valve outlet, whichever is further from the point of entrance to the building. Minimum water main pressure must be considered when

sizing the water service piping. 8. Showers and bathtub/shower enclosures shall have walls constructed of smooth non-corrosive non-absorbent and waterproof materials to a height of not less than 72" above the adjacent finish 9. Shower floor surfaces shall be constructed of smooth non-corrosive non-absorbent and

10. Basement areaway drains and foundation drain tiles are not to be connected to the sanitary 11. A floor drain is required within 15' of a water heater and must be within the same room as the

waterproof materials.

12. Window areaway drains less than 10 sq ft in area shall be served by a 2" pipe drained to daylight or a sump pit served by an approved pump installation. Window areaway drains 10 sq ft or greater but less than 100 sq ft in area shall be served by a 3" pipe drained in the same manner. Areaways greater than 100 sq ft require that the drain be sized in accordance with Table 11-2 of the Plumbing Code. The presence of a cover over the areaway does not negate the need for a drain. 13. Provide continuous drainage to sump or daylight under the basement floor slab. Sump must be 18 inches minimum diameter by 24 inches deep and fitted with a cover. Sump shall discharge to an approved storm sewer or a swale at least 10' away from a property line, driveway or sidewalk. 14. CSST piping electrical bonding - CSST electrical bonding jumper must be a minimum of 6 AWG of copper wire or equivalent and shall not exceed 75' in length. 15. Drain, waste and vent system testing - The head pressure for a water test on drain, waste and vent (DWV) systems shall be 10'.

16. Protection against physical damage - Piping installed through bored holes or in notches shall have a minimum clearance distance from the concealed piping to the edge of the framing member of 1 ¼". 17. Sink & dishwasher - The dishwasher waste discharge pipe/hose shall be elevated and securely attached to the bottom side of the countertop before connecting to the head of the food-waste disposer or to a wye fitting in the sink tailpiece. This method is intended to reduce the potential for dishwasher waste material from potential backflow into the dishwasher 18. Water heater relief valve discharge pipe - The temperature and pressure relief valve discharge pipe termination is considered a potable water outlet and therefore must be protected against backflow

potential. The discharge pipe must be held above the floor drain or waste receptor a minimum of 2 times the discharge pipe diameter size with a maximum of 6" above it. 19. Trap seal protection - Trap seal protection of basement floor drains shall allow a deep seal trap as per city ordinance amendment of this code section.

15600 - POWER OR HEAT GENERATION Flue sizes & types must meet all applicable codes and manufacturer's specifications.

15800 - AIR DISTRIBUTION 1. Sub-contractor shall furnish HVAC layout and specifications. 2. Bathroom exhaust fans shall be vented to the exterior.

Division #16 - ELECTRICAL

16010 - GENERAL PROVISIONS 1. All electrical work shall meet the requirements of the 2011 NEC (National Electrical Code) and related codes adopted by the municipality. . Electrical service shall be 200 amps.

Electrical panels: A. Electrical panels shall not be installed in bathrooms or clothes closets B. Lighting is required in the vicinity of the electrical panel C. Electrical panels shall not be installed in areas with less than 6'-6" headroom

D. A minimum clearance of 36" and 30" wide is required in front of electrical panels. Counters and cabinets cannot be installed under the electrical panel. Grounding: Receptacle outlets for ranges and clothes dryers must be a 3-pole with ground type. 5. If the underground metal water pipe is used and the grounding electrode, the connection must be made to the pipe within 60" of the point of entrance to the building. A supplemental grounding electrode shall be provided as specified in NEC Sections 250-50 and 250-53. All electrical service wiring, cable television service wiring and telephone wiring shall be installed

7. Aluminum wiring is prohibited from the load side of the service equipment to any outlet. 8. Intersystem bonding terminal shall be provided for grounding communication systems (cable 9. Voltage drop for branch circuits exceeding fifty feet may require one or more increases in wire

10. All receptacle outlets, switches, thermostats to be 15" min. above finished floor and 48" maximum above finished floor.

Exceptions: A. Receptacle outlets serving a dedicated use. B. Floor receptacle outlets. C. HVAC diffusers. D. Controls mounted on ceiling fans.

and single recentacle dedicated to sump nump

14. Receptacles shall not be installed within a bathtub or shower space.

E. Controls or switches mounted on appliances. F. Plumbing fixture controls 11. Receptacles are required to be installed in the following locations: A. all habitable rooms except bathrooms so that no space along a wall is more than 72" from a

receptacle. All wall spaces 24" or wider require receptacles. Fixed panels of glass doors, fixed room dividers such as free standing bar-type counters or railings shall be included in the 72" measurement. B. hallways of 10' or more in length (Foyer is considered an entry hallway) C. kitchen and dining area countertop receptacles shall be supplied by at least two different 20 amp circuits. Receptacles shall be installed so that no point along the counter is more than 24' from a receptacle. All countertop areas 12" wide or greater separated by sinks, ranges or refrigerators shall be provided with receptacles. Receptacles installed face-up on counter work surface are prohibited. At least one receptacle shall be installed to serve each island or

peninsula space that is 24"x 12" or greater. D. bathrooms at least one wall mounted receptacle installed within 36" of each basin. E. outdoor receptacles (weather-proof type) installed at the front and back of the house, accessible to grade level and not more the 6'-6" above grade level F. at least one receptacle in laundry areas supplied by a dedicated 20 ampere branch circuit

G at least one receptacle in unfinished basement areas and the garage in addition to the laundry H. required receptacle outlets located in floors shall be within 18" of wall or fixed room divider and shall be installed in boxed listed for that purpose I, at least one communication outlet shall be installed within the dwelling and cabled to the

service provider demarcation point. 12. Arc-fault circuit interruption protection shall be provided by an arc-fault circuit interrupter listed to provide protection of the entire branch circuit for all circuits supplying power to 120 volt, single phase 15 and 20 ampere outlets in bedrooms. 13. Ground fault circuit interruption protection shall be provided for all 120 volt, single phase, 15 and

20 ampere receptacles installed in the following locations: B. All receptacles within 6' of a sink. Basin receptacles shall be on a 20 amp circuit and can only be wired to other required GFIC bathroom receptacles. C. Garages, unfinished portions of accessory buildings at or below grade level.

Exceptions: 1. Ceiling mounted receptacles for garage door opener. 2. A single or double duplex receptacle for appliances located in a dedicated space for normal use D. Unfinished basement areas and crawl spaces except for laundry circuit, opt. freezer circuit

E. Receptacle intended to serve kitchen countertop surfaces F. Receptacles intended to serve the countertop surfaces of a wet bar that are located within 72" of the outside edge of the wet bar sink G. Balconies, decks and porches H. Less than 25' from an air conditioning condensing unit

15. Provide a GFI duplex outlet in the basement next to the electrical panel. 16. At least one receptacle in bathrooms installed adjacent to each basin shall be supplied by a dedicated 20 ampere branch service. 17. Do not wire outdoor or garage receptacles on kitchen or bath circuits. 18. Garage receptacle shall be on a separate circuit that does not supply other outlets. Provide at least one garage receptacle for each car space 19. GFCI Protection -All 125 volt 15 and 20 ampere receptacles that are not otherwise arc-fault protected

shall require GFCI protection unless specifically exempted below or per the 2012 IRC ordinance amendments as adopted by the municipality. 20. Kitchen receptacles - 125 volt, single phase, 15 and 20 ampere receptacles that serve kitchen countertop surfaces shall have GFCI protection. Exception - Fastened in-place appliances or outlets designated for refrigerators/freezers. 21. All 125 volt 15 and 20 ampere receptacles located within 6' horizontally of the outside edge of

bathtubs or shower stalls shall be GFCI protected. 22. All 125 volt 15 & 20 ampere receptacles in laundry areas shall be GFCI protected. 23. Tamper resistant receptacles are not required in projects located in the City of St. Charles, Missouri. 16500 - LIGHTING

1. Interior stairways to be provided with a minimum of 10 footcandles measured at every nosing. All exterior stairways serving the dwelling shall have a minimum of 1 footcandle measured on the tread run, from a light fixture in the immediate vicinity of the stair landing closest to the house. 2. Interior stairways shall have lighting controls (3 way switches) at each floor level. Switches must be operable from the top and bottom of the stairway without traversing any step of the stairway. Light switches at top and bottom of stairs shall be internally illuminated 3. All exterior stairways serving the dwelling shall have lighting controlled by one of the following

A. controls inside the dwelling B. Automatically C. Continuously operated Lighting is required in the following areas:

to a wall switch or be equipped with a manual override and be located at the customary wall switch B. At least one lighting outlet and one receptacle are required in each attic, crawl space, basement or utility room that is used for storage or contains heating, air conditioning or other equipment requiring servicing, The light switch shall be located at the point of entry.

A. At least one wall switched outlet shall be installed in every habitable room, bathroom, hallway,

stairway, attached garage, and at exterior doors. Occupancy sensors may be used in addition

A. the use of incandescent fixtures with open or only partially enclosed lamps and the use of pendent fixtures are prohibited. B. Fixtures may be located only where there are the following minimum clearance to the nearest

. Surface mounted incandescent fixtures - 12" minimum 2. Surface mounted fluorescent fixtures and recessed fixtures 6" minimum 5. Lighting fixtures above bathtubs & showers: a. No parts of hanging fixtures, track lighting and ceiling fans shall be installed within 36" horizontally of a bathtub, measured from the outside edge of the tub and 96" vertically from the

outside of the tub rim. Light fixtures above tub areas & shower stalls shall be recessed &

7. All recessed light fixtures in insulated ceiling and attic spaces shall be type IC.

point of storage space:

16600 - SPECIAL SYSTEMS SMOKE AND CARBON MONOXIDE DETECTORS 1. UL listed smoke detectors shall be located on each floor level in the vicinity of all bedroom entrance doors (bedroom hallway) and within each bedroom 2. Locate bedroom hallway smoke detector upstream of any return air grilles, in applicable. Floor levels that do not contain bedrooms shall have the detector located at the ceiling near the stairway. If there is an intervening door between the adjacent levels a smoke detector shall be installed on 3. When more than one detector is required within the dwelling unit, the detectors shall be interconnected so that the activation of one alarm will activate all alarms throughout the dwelling. 4. The smoke detectors shall be AC powered and have battery backup. The installation shall also

5. A carbon monoxide alarm is required outside of sleeping areas, in the immediate vicinity of the sleeping areas, if the dwelling unit contains a fuel fired appliance or has an attached garage. The carbon monoxide detector shall comply with UL 2034-2008.

2012 International Residential Code Climatic and Geographic Design Criteria the following values shall be entered into the table and footnotes b and h to the table are amended as Table R301.2(1) Ultimate Wind Speed: 115 (51) Ground Snow Load: 20 psf Wind Design Speed: 90 mph Wind Topographical Effect: No Seismic Design Category: C (unless indicated otherwise in a soils evaluation report from an approved geotechnical agency) Weathering: Severe Frost Line Depth: 36 inches Termite: Heavy to Severe Winter Design Temp: 6 Ice Barrier Underlayment Required: No Flood Hazards: (a) 4-9-1977, (b) 8-2-1996 Air Freezing Index: 1000 Special Wind Region: No Windborne Debris Zone: No Mean Annual Temp: 55.2 Foot Notes b and h are amended to read as follows:

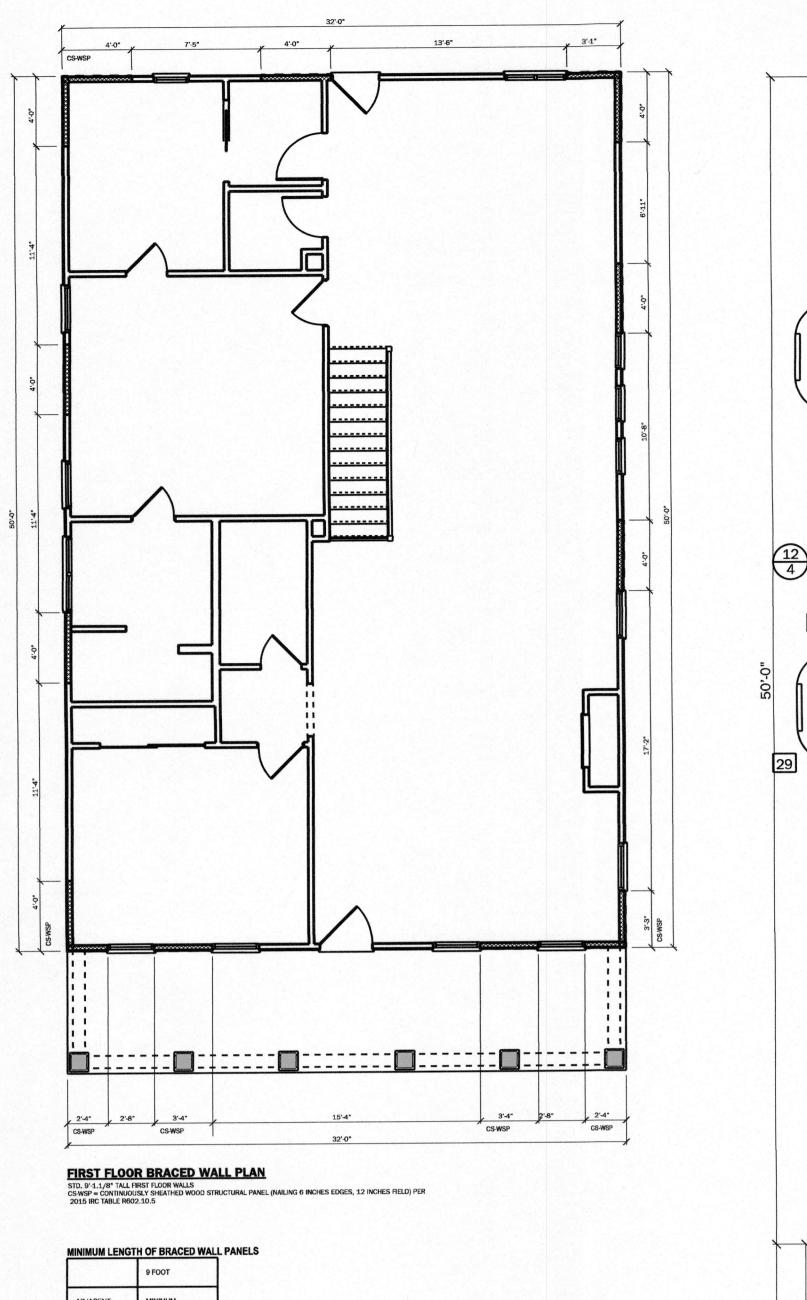
b. The frost line depth may require deeper footings than indicated in Figure R403.1 (1). The jurisdiction

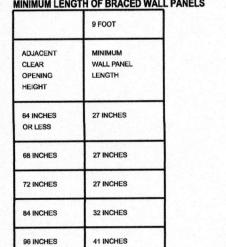
h. The jurisdiction shall fill in this part of the table with "No."

shall fill in the frost line depth column with 36", the minimum depth of footing below finish

Proposed residence, 1600-32 model Permit # Lot #5, 504 NW Main Street Lee's Summit, Jackson County, Missouri 64063 for Walker Custom Homes LLC

PROJECT DATA OWNER/CONTRACTOR: Walker Custom Homes, LLC PO Box 3194 Independence, MO 64055 913.208.2026 ARCHITECT:	BUILDING CODE INFORMATION APPLICABLE CODES: 2018 IRC International Residential Code 2017 National Electrical Code 2018 International Fire Code 2018 International Plumbing Code 2018 International Mechanical Code 2009 ANSI/ICC Accessibility	STUDIOARCE		A E O S 433 BLUFF STREET, ALTON, IL 62002 314 SOURI STATE CERTIFICATE OF AUTHORITY #2	
Studio Archaeos Tim Busse, AIA 433 Bluff Street Alton, IL 62002 314.280.3855	USE GROUP: R3-RESIDENTIAL CONSTRUCTION TYPE: 5B, UNPROTECTED FRAME	The second secon	by Tim	chkd issued for building permit approval	date 5/22/2
BUILDING DATA OTAL BUILDING AREA: 1,600 SI	F				
NIET INDEV	REVISED	Copyright 2020, Archaeos, LLC MISSOURI STATE CERTIFICATE OF AUTHORITY #2011021199 These drawings are copyrighted and are subject to copyright protection as an 'architectural work' under Section 102 of the Copyright Act, 17 U.S.O. as amended December 1990, and las Architectural Works Copyright Protection Act of 1990. The	t e knowr		
SHEET INDEX 1 General Notes 2 Foundation & Floor Plan 3 Exterior Elevations 4 Details 5 Connections	REVISED	protection includes but is not limited to the overall form as we as the arrangement and composition of spaces and elements the design. Under such protection, unauthorized use of thes plans, work, or forms represented, can legally result in the cessation of such construction or buildings being seized and razed. Actual construction and dimensions may vary in fie	ell is of se l/or	Timothy Louis Busse - Archite MO# A-007231	ect
		Exterior elevations shown as artist's concepts only. DO NOT SCALE DRAWINGS.		sheet OT231	5





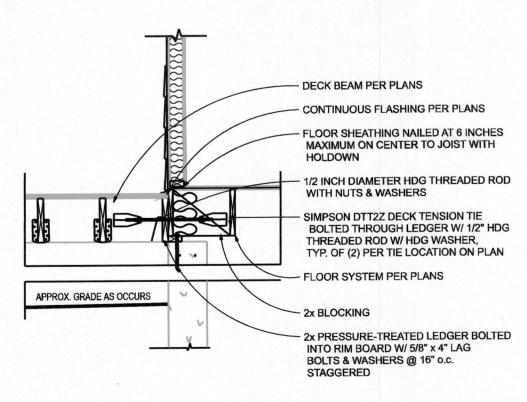
WALL BRACING NOTES

1. WALL BRACING SHALL MEET 2015 IRC CODE SECTION 602.10

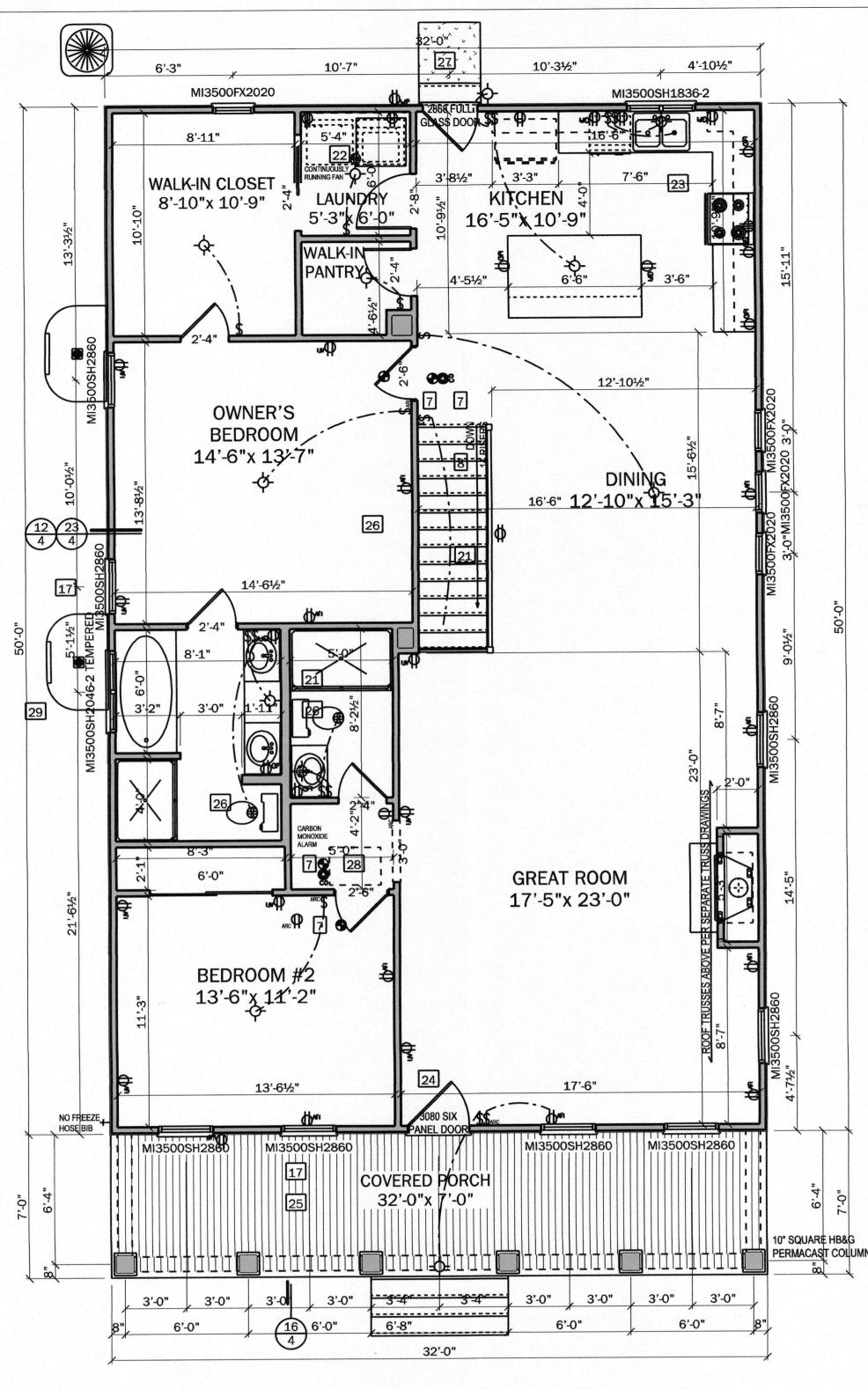
2. MAXIMUM SPACING OF BRACED WALL LINES IS 60 FEET

3. THE EXTERIOR WALLS OF THE ENTIRE STRUCTURE WILL BE
CONTINUOUSLY SHEATHED AND BRACED WITH 36" MINIMUM THICKNESS
STRUCTURAL RIBERBOARD SHEATHING (SESSE) WITH 240 SPAN RATING PER
2015 IRC CODE SECTION 602.10.42

1. NAIL EACH STRUCTURAL WOOD PANEL TO WALL FRAMING WITH 64 COMMON
NAILS WITH 1.5 INCH PENETRATION @ 6" O.C. EDGES, 12" O.C. FIELD



DDT2Z DECK TENSION TIE



FIRST FLOOR PLAN STD. 9'-1.1/8" HIGH FIRST FLOOR W.

GENERAL FLOOR PLAN NOTES

A. STD. 9'-1" HIGH FIRST FLOOR WALLS

B. ALL LOAD-BEARING HEADERS SHALL BE 3.1/2"x 9.1/4"X 1.7E TIMBERSTRAND LVL WITH (2) 2x4 JACK

STUDS WITH (2) 2x4 JACKS STUDS ON EACH SIDE UNLESS NOTED ON THE EXTERIOR ELEVATIONS C. ALL INTERIOR WALLS TO BE 3.1/2" (2x4 STUDS) UNLESS NOTED OTHERWISE

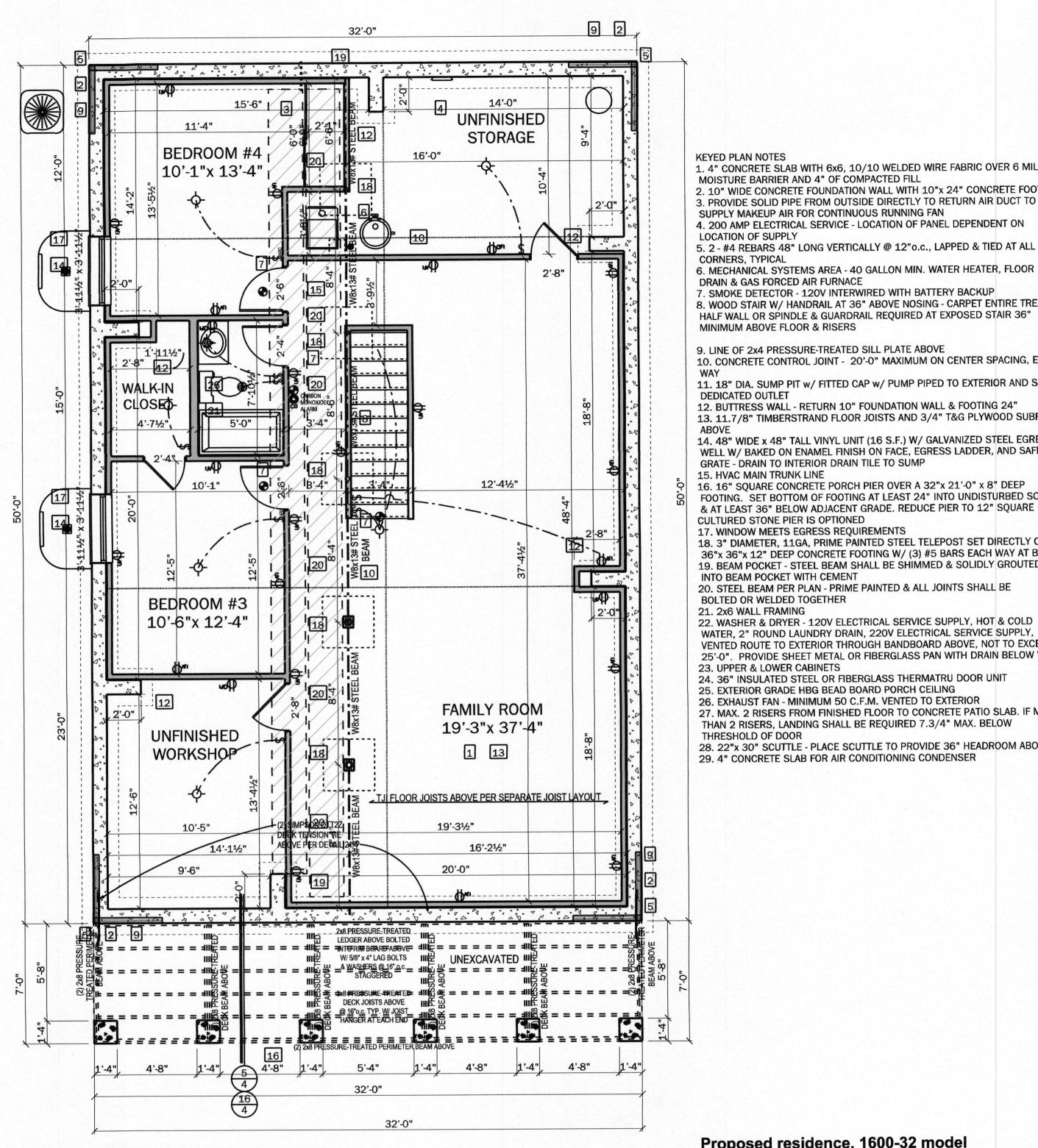
D. INTERIOR DIMENSIONS ARE TO ROUGH FRAMING, EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING

E. NO SUPPLY WATER PIPING SHALL BE LOCATED IN EXTERIOR WALL OR CANTILEVERED FLOOR CAVITIES

F. MAXIMUM RISER HEIGHT IS 7.3/4", MINIMUM RISER HEIGHT IS 4"

G. SEE EXTERIOR ELEVATIONS FOR EXTERIOR DOORS NOT NOTED ON PLAN

H. SEE EXTERIOR ELEVATIONS FOR WINDOW SIZED & HEAD HEIGHT I. PROVIDE FIRE BLOCKING WHERE REQUIRED BY CODE OR LOCAL JURISDICTIONS J. WINDOWS SHOWN ARE MI WINDOWS SERIES 3500 VINYL WINDOWS WITHOUT GRILLES



BASEMENT PLAN 1146 square feet of finished living area

FOUNDATION GENERAL NOTES: A. STD. 7'-10" HIGH CONCRETE FOUNDATION WALLS (ALL FOUNDATION

WALL HEIGHTS ARE APPROXIMATE)

B. BOTTOM OF FOOTINGS SHALL BE MINIMUM OF 36" BELOW FINISH GRADE ON UNDISTURBED SOIL.

C. ALL METAL FASTNERS, HANGERS, ANCHOR BOLTS, ETC. IN CONTACT WITH TREATED LUMBER SHALL BE STAINLESS STEEL OR TRIPLE DIPPED

GALVANIZED. D. ALL STEEL SHALL BE ASTM A615 GRADE 60.

E. PROVIDE 1/2" DIAMETER FOUNDATION ANCHOR BOLTS @ 4'-0" o.c. WITH NUTS AND WASHERS SET A MINIMUM OF 8" INTO CONCRETE. PROVIDE MINIMUM OF (2) ANCHORS PER PLATE AND MAXIMUM

DISTANCE OF 12" FROM ENDS. SEE FIRST FLOOR PLAN FOR PORTAL FRAMES AND SHEAR WALLS WHICH REQUIRE ADDITIONAL CAST IN PLACE ANCHORS.

F. NO-FREEZE HOSE BIBB TO BE LOCATED AT WATER SERVICE ENTRY TO

1. 4" CONCRETE SLAB WITH 6x6, 10/10 WELDED WIRE FABRIC OVER 6 MIL MOISTURE BARRIER AND 4" OF COMPACTED FILL

2. 10" WIDE CONCRETE FOUNDATION WALL WITH 10"x 24" CONCRETE FOOTING 3. PROVIDE SOLID PIPE FROM OUTSIDE DIRECTLY TO RETURN AIR DUCT TO SUPPLY MAKEUP AIR FOR CONTINUOUS RUNNING FAN

4. 200 AMP ELECTRICAL SERVICE - LOCATION OF PANEL DEPENDENT ON LOCATION OF SUPPLY

CORNERS, TYPICAL 6. MECHANICAL SYSTEMS AREA - 40 GALLON MIN. WATER HEATER, FLOOR

DRAIN & GAS FORCED AIR FURNACE

7. SMOKE DETECTOR - 120V INTERWIRED WITH BATTERY BACKUP 8. WOOD STAIR W/ HANDRAIL AT 36" ABOVE NOSING - CARPET ENTIRE TREAD. HALF WALL OR SPINDLE & GUARDRAIL REQUIRED AT EXPOSED STAIR 36"

9. LINE OF 2x4 PRESSURE-TREATED SILL PLATE ABOVE

10. CONCRETE CONTROL JOINT - 20'-0" MAXIMUM ON CENTER SPACING, EACH

11. 18" DIA. SUMP PIT w/ FITTED CAP w/ PUMP PIPED TO EXTERIOR AND SINGLE, DEDICATED OUTLET

12. BUTTRESS WALL - RETURN 10" FOUNDATION WALL & FOOTING 24" 13. 11.7/8" TIMBERSTRAND FLOOR JOISTS AND 3/4" T&G PLYWOOD SUBFLOOR

14. 48" WIDE x 48" TALL VINYL UNIT (16 S.F.) W/ GALVANIZED STEEL EGRESS WELL W/ BAKED ON ENAMEL FINISH ON FACE, EGRESS LADDER, AND SAFETY

GRATE - DRAIN TO INTERIOR DRAIN TILE TO SUMP 15. HVAC MAIN TRUNK LINE 16. 16" SOUARE CONCRETE PORCH PIER OVER A 32"x 21'-0" x 8" DEEP FOOTING. SET BOTTOM OF FOOTING AT LEAST 24" INTO UNDISTURBED SOIL & AT LEAST 36" BELOW ADJACENT GRADE. REDUCE PIER TO 12" SQUARE IF

CULTURED STONE PIER IS OPTIONED 17. WINDOW MEETS EGRESS REQUIREMENTS 18. 3" DIAMETER, 11GA, PRIME PAINTED STEEL TELEPOST SET DIRECTLY ON A 36"x 36"x 12" DEEP CONCRETE FOOTING W/ (3) #5 BARS EACH WAY AT BOTTOM

19. BEAM POCKET - STEEL BEAM SHALL BE SHIMMED & SOLIDLY GROUTED INTO BEAM POCKET WITH CEMENT 20. STEEL BEAM PER PLAN - PRIME PAINTED & ALL JOINTS SHALL BE

BOLTED OR WELDED TOGETHER 21. 2x6 WALL FRAMING 22. WASHER & DRYER - 120V ELECTRICAL SERVICE SUPPLY, HOT & COLD

WATER, 2" ROUND LAUNDRY DRAIN, 220V ELECTRICAL SERVICE SUPPLY, VENTED ROUTE TO EXTERIOR THROUGH BANDBOARD ABOVE, NOT TO EXCEED 25'-0". PROVIDE SHEET METAL OR FIBERGLASS PAN WITH DRAIN BELOW WASHER 23. UPPER & LOWER CABINETS

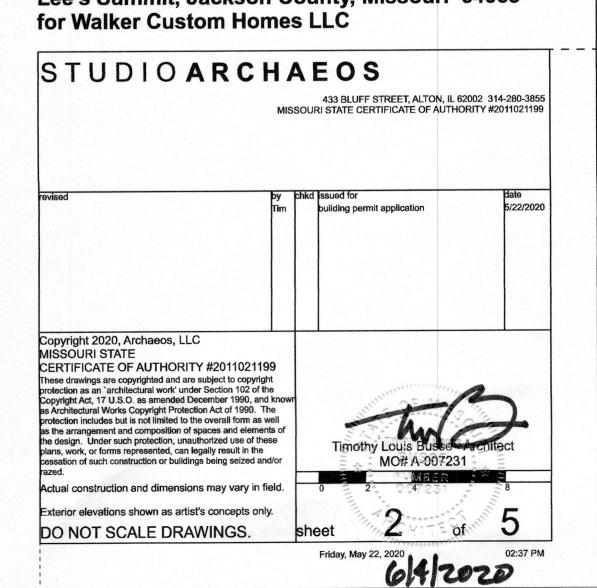
24. 36" INSULATED STEEL OR FIBERGLASS THERMATRU DOOR UNIT 25. EXTERIOR GRADE HBG BEAD BOARD PORCH CEILING 26. EXHAUST FAN - MINIMUM 50 C.F.M. VENTED TO EXTERIOR

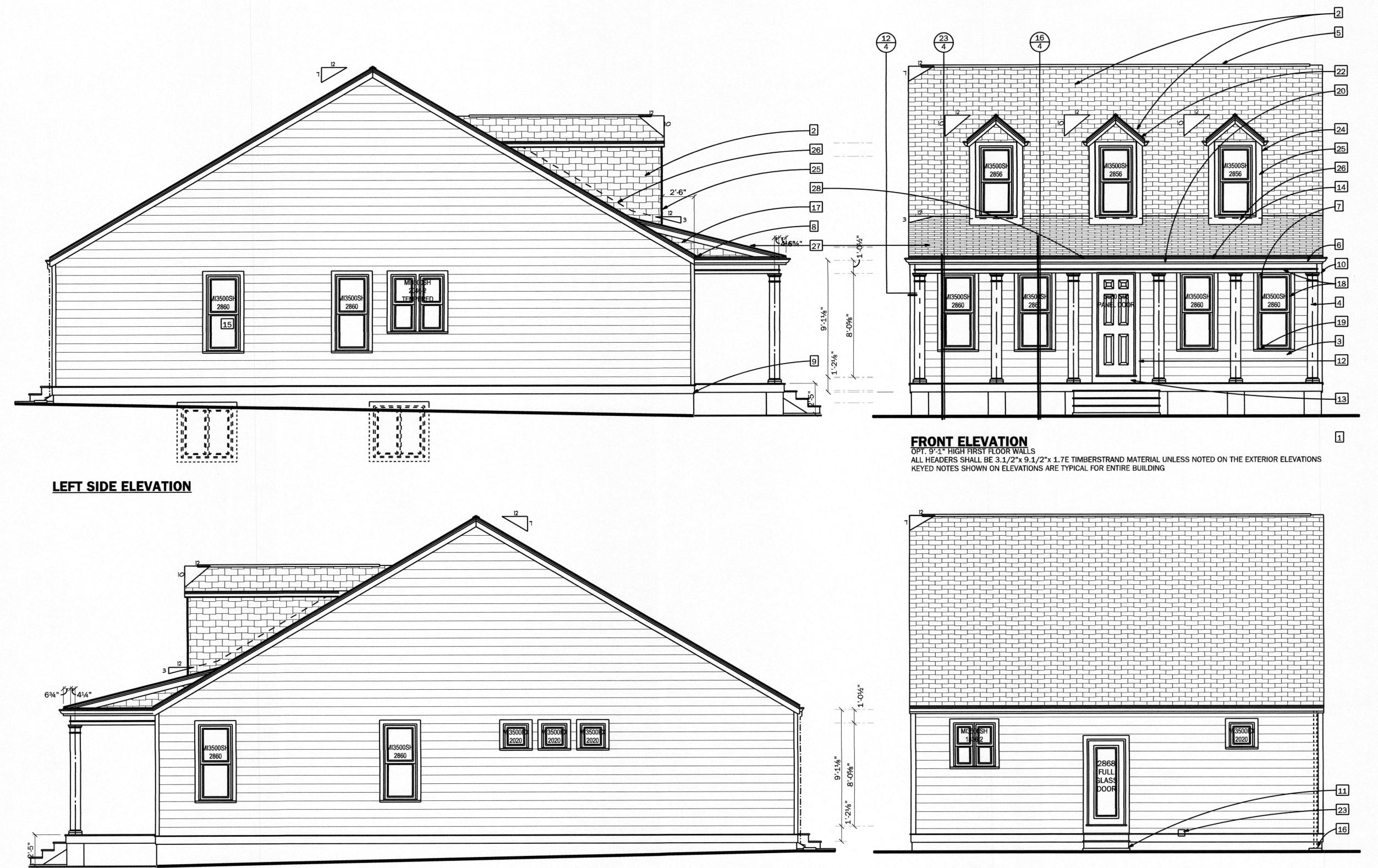
27. MAX. 2 RISERS FROM FINISHED FLOOR TO CONCRETE PATIO SLAB. IF MORE THAN 2 RISERS, LANDING SHALL BE REQUIRED 7.3/4" MAX. BELOW THRESHOLD OF DOOR

28. 22"x 30" SCUTTLE - PLACE SCUTTLE TO PROVIDE 36" HEADROOM ABOVE 29. 4" CONCRETE SLAB FOR AIR CONDITIONING CONDENSER

- - -

Proposed residence, 1600-32 model Permit # Lot #5, 504 NW Main Street Lee's Summit, Jackson County, Missouri 64063





RIGHT SIDE ELEVATION

REAR ELEVATION

4. 10" SQUARE HB&G PERMACAST COLUMN 5. CONTINUOUS RIDGE VENT FOR CONCEALED ATTIC SPACES 6. S-400 STRIP COR-A-VENT IN EAVE 7. MI WINDOWS 3500 SERIES VINYL WINDOW UNIT, TYP. 8. PREFINISHED ALUMINUM 'OGEE' STYLE GUTTER & DOWNSPOUT 9. 1x8 HARDIETRIM BANDBOARD WITH 1.5/8" x 11/16" TALL DRIP CAP 10. 5/4x 4 HARDIETRIM CORNERS 11. WOOD OR CONCRETE STEPS TO PATIO SLAB, NUMBER OF STEPS IS DETERMINED IN FIELD BY ACTUAL DISTANCE FROM GRADE TO FINISHED FLOOR - PROVIDE HANDRAIL ON STAIRS WITH MORE THAN 3 RISERS 12. DOOR TRIM - 5/4" x 4" HARDIETRIM (1" THICK) 13. 1 5/8" DRIP CAP ON TOP OF PORCH DECKING AT SIDING, INSTALL 5/4"x 6" HARDIETRIM KICK BOARD UNDER DOOR 14. MAIN HOUSE FASCIA BOARD - 5/4" x 8" HARDIETRIM (1" THICK) 15. WINDOW MEETS EGRESS REQUIREMENTS. PROVIDE MANUFACTURERS SAFETY LOCK WHEN WINDOW SILL IS LESS THAN 24" ABOVE FINISH FLOOR 16. SPLASH BLOCK 17. PREFINISHED SHINGLE STYLE FIBER CEMENT SIDING PAINTED TO MATCH TRIM 18. WINDOW TRIM - 5/4" x 4" NOMINAL HARDIETRIM AT HEAD AND JAMBS OF MI WINDOWS, TYPICAL 19. WINDOW SILL TRIM - 5/4" x 1.1/2" NOMINAL HARDIETRIM AT SILL OF MI WINDOWS, TYPICAL 20. WRAP PORCH BEAM WITH 5/8"x 7.1/4" HARDIETRIM TRIM 21. FRIEZE BOARD - 5/4" x 6" HARDIETRIM (1" THICK) 22. PLASTIC DRIP EDGE AT ALL EAVES & RAKES 23. DRYER VENT COVER 24. INACTIVE DORMER, TYP. OF (3) - PAINT INSIDE OF WINDOW GLAZING WITH OPAQUE BLACK PAINT 25. 5/4x 5.5" HARDIETRIM DORMER FACE 26. 6" 'L' FLASHING AT ALL ROOF/WALL INTERSECTIONS 27. PROVIDE ICE & WATER SHIELD BELOW ALL ROOF SHINGLES SET AT LESS THAN 4/12 ROOF SLOPES, TYP. 28. 1.5/8" x 11/16" TALL DRIP CAP

KEYED ELEVATION NOTES

3. 8 1/4" LP SMARTSIDE SIDING, 7" EXPOSURE

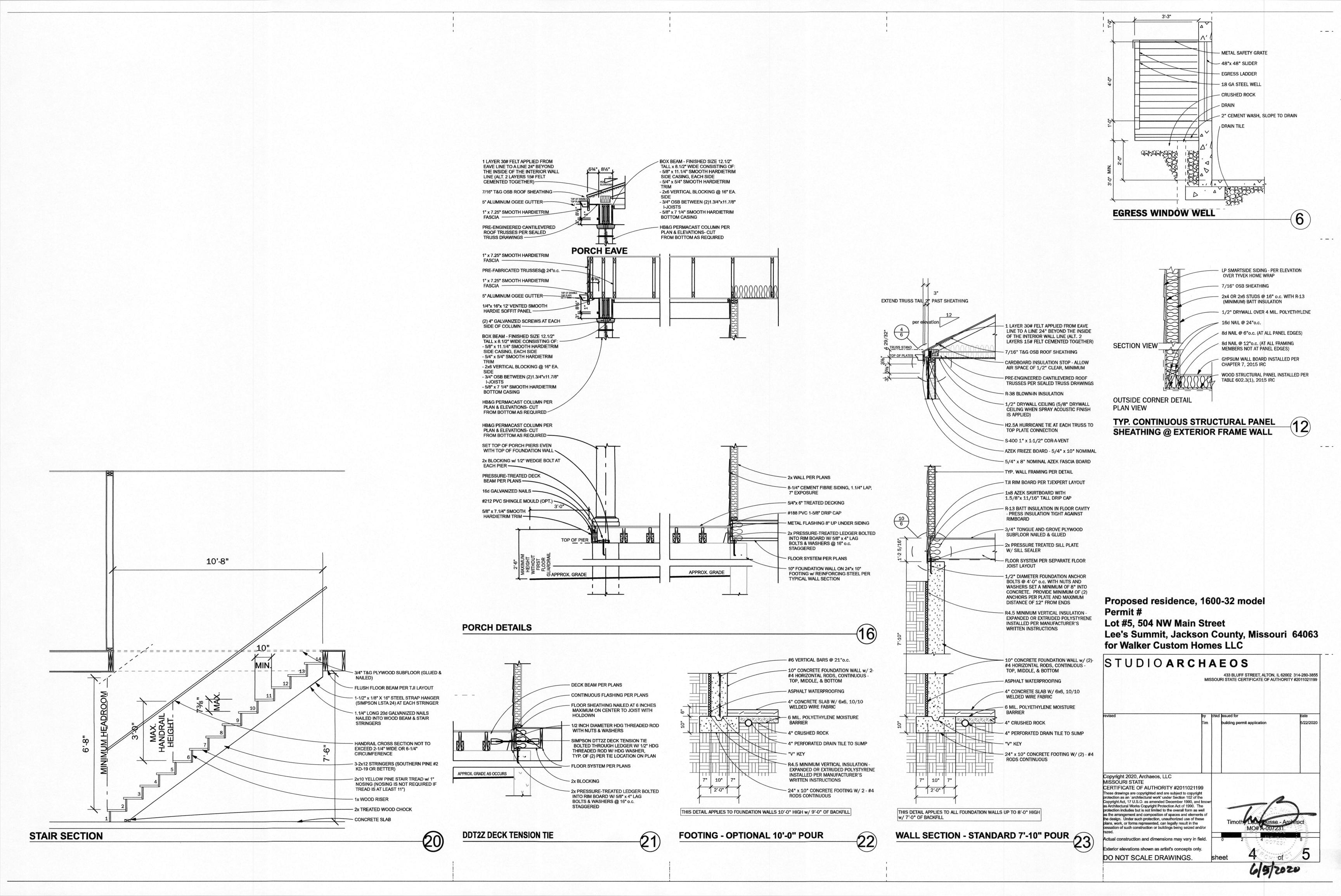
1. APPROXIMATE FINISH GRADE - SLOPE AWAY FROM HOUSE AT 1" PER FOOT

AT VALLEYS, TYPICAL - INSTALL PER MANUFACTURERS SPECIFICATIONS

2. 220# FIBERGLASS SHINGLES WITH SEAL DOWN TABS, INTERLACE SHINGLES

Proposed residence, 1600-32 model
Permit #
Lot #5, 504 NW Main Street
Lee's Summit, Jackson County, Missouri
for Walker Custom Homes LLC

STUDIOAR		EOS 433 BLUFF STREET, ALTON, IL DURI STATE CERTIFICATE OF AUTH	
revised	by ch	kd Issued for building permit application	date 5/22/2020
Copyright 2020, Archaeos, LLC MISSOURI STATE CERTIFICATE OF AUTHORITY #20 These drawings are copyrighted and are subject protection as an 'architectural work' under Sectic Copyright Act, 17 U.S.O. as amended December as Architectural Works Copyright Protection Act of protection includes but is not limited to the overa as the arrangement and composition of spaces at the design. Under such protection, unauthorized lans, work, or forms represented, can legally re cessation of such construction or buildings being trazed.	to copyright on 102 of the r 1990, and knowr of 1990. The ill form as well and elements of d use of these sult in the	Timothy Louis Vusse	6 c
Actual construction and dimensions may	vary in field.	0 2 5 00723	8
Exterior elevations shown as artist's cond			



EVCEDDTS EDOM IDC EASTENING SCHEDING

	DESCRIPTION OF BUILDING ELEMENTS	NUMBER & TYPE OF FASTENER	SPACING OF FASTENERS	
	ROOF			
6	Roof truss to plate	3-16d box nails (31/2" × 0.135"); or 3-10d common nails (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or trussi	
	WALL			
8	Stud to stud (not at braced wall panels)	10d box (3" × 0.128"); or 3" × 0.131" nails	16" o.c. face nail	
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (31/2" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail	
10	Built-up header (2,c to 2,c header with 1/2,cfnspacer)	16d box (31/2" × 0.135")	12" o.c. each edge face nail	
11	Continuous header to stud	5-8d box (21/2" × 0.113"); or 4-8d common (21/2" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail	
12	? Top plate to top plate	10d box (3" × 0.128"); or 3" × 0.131" nails	12" o.c. face nail	
13	Double top plate splice for SDCs A-D2 with seismic braced wall line spacing < 25,,S	8-16d common (31/2" × 0.162"); or 12-16d box (31/2" × 0.135"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)	
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d box (31/2" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail	
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (31/2" × 0.135"); or 2-16d common (31/2" × 0.162"); or 4-3" × 0.131" nails	3 each 16" o.c. face nail 2 each 16" o.c. face nail 4 each 16" o.c. face nail	
16	Top or bottom plate to stud	4-8d box (21/2" × 0.113"); or 3-16d box (31/2" × 0.135"); or 4-8d common (21/2" × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail	
16	Top or bottom plate to stud	3-16d box (31/2" × 0.135"); or 2-16d common (31/2" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail	
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-16d common (31/2" × 0.162"); or 3-3" × 0.131" nails	Face nail	
	FLOOR			
21	Joist to sill, top plate or girder	4-8d box (21/2" × 0.113"); or 3-8d common (21/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail	
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d common (21/2" × 0.131"); or 10d box (3" × 0.128"); or 3" × 0.131" nails	6" o.c. toe nail	
23	1" × 6" subfloor or less to each joist	3-8d box (21/2" × 0.113"); or 2-8d common (21/2" × 0.131"); or 3-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 13/4" long	Face nail	
26	Band or rim joist to joist	3-16d common (31/2" × 0.162") 4-10 box (3" × 0.128"), or 4-3" × 0.131" nails; or 4-3" × 14 ga. staples, 7/16" crown	End nail	
27	Built-up girders and beams, 2-inch lumber layers		Nail each layer as follows: 32" o.c. at top and bottom and staggered.	
27	Built-up girders and beams, 2-inch lumber layers		24" o.c. face nail at top and bottom staggered on opposite sides	
27	Built-up girders and beams, 2-inch lumber layers	And: 2-20d common (4" × 0.192"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Face nail at ends and at each splice	
28	Ledger strip supporting joists or rafters	4-16d box (31/2" × 0.135"); or 3-16d common (31/2" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	At each joist or rafter, face nail	
	Wood structural panels, subfloor, roof and interior wall sheathing to framing [see Table R602.3(3) for wood structural panel exterior wall sheathing to wall framing]			
	3/8" – 1/2"	6d common (2" × 0.113") nail (subfloor, wall)i 8d common (21/2" × 0.131") nail (roof)	6 inch at edge, 12 inch at intermediate suppor	
31	19/32" – 1"	8d common nail (21/2" × 0.131")	6 inch at edge, 12 inch at intermediate suppor	
	Wood structural panels, combination subfloor underlayment to framing			
7	3/4" and less	6d deformed (2" × 0.120") nail; or	6 inch at edge, 12 inch at intermediate suppor	

a. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but

not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.

b. Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown width.

c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.

d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.

e. Spacing of fasteners not included in this table shall be based on Table R602.3(2). f. Where the ultimate design wind speed is 130 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. Where the ultimate design wind speed is greater than 130 mph, nails for attaching panel roof sheathing to intermediate supports shall be

spaced 6 inches on center for minimum 48-inch distance from ridges, eaves and gable end walls; and 4 inches on center to gable end wall framing. g. Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C 208.

h. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.

i. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.

Silent Floor System Nailing Requirements for TJI/Pro 120TS Joists Per Trus Joist MacMillan publication JM0399/30M - reorder # 2027

TJI Joists at bearing: (2) 10d or 12d box nails, 1 1/2" min. from end, one each side.

Blocking panels, rim joists or rim board to bearing plate:

TJI blocking panels or rim joists: 10d box nails @ 6" o.c. Timberstrand LSL rim board: Toe nail 10d box nails @ 6" o.c., or 16d box nails @ 12" o.c.

Shear transfer: Connections equivalent to decking nail schedule Rim board, rim joist or closure to TJI joist: 1 3/4" width or less: (2) 10d box nails, one each @ top & bottom Rim board, rim joist or closure to TJI joist:

2x4 minimum squash blocks: (2) 10d box nails, one each @ top and bottom flange

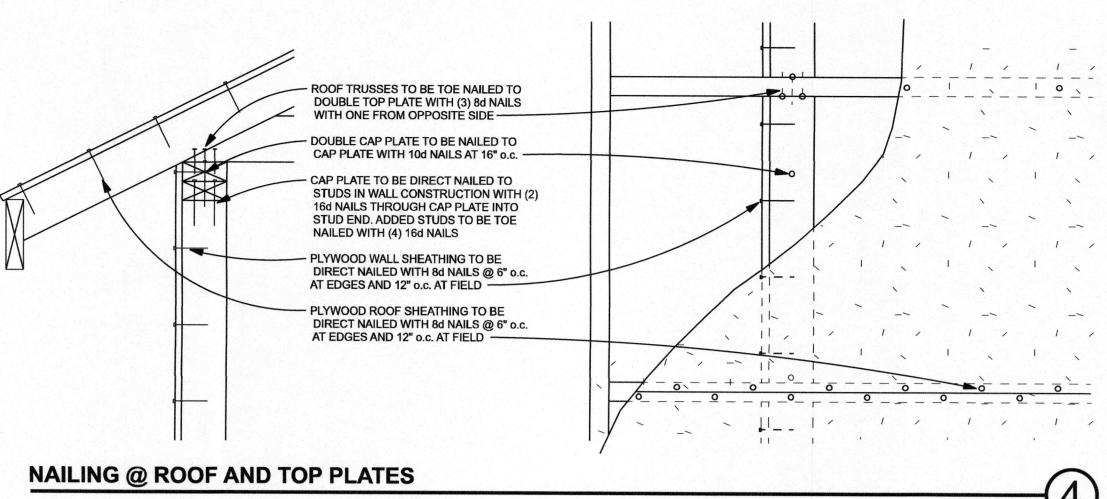
TJI/Pro 120TS rim joist: (2) 10d box nails, one each @ top and bottom flange

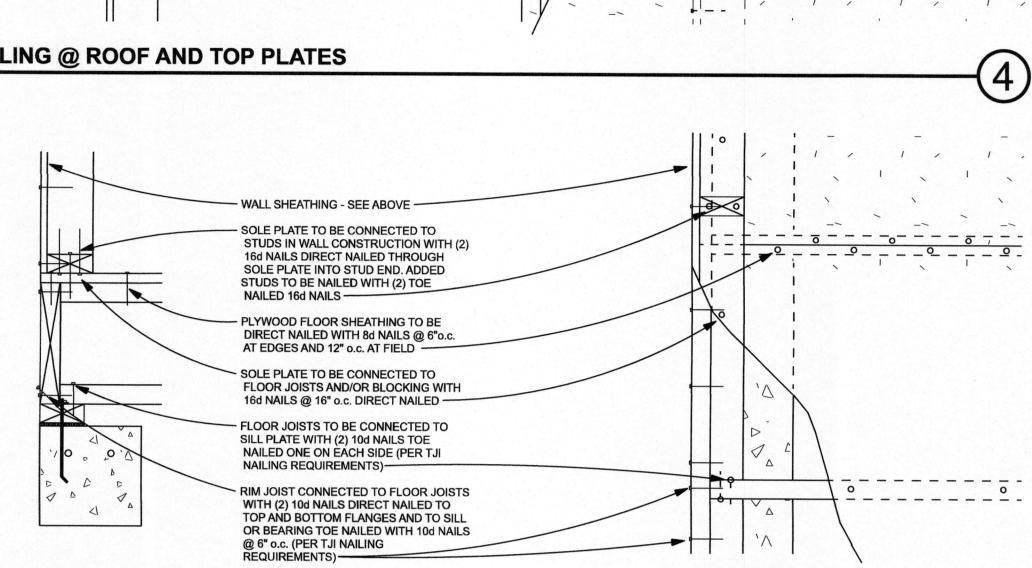
Silent Floor System Nailing Requirements for TJI/Pro 150, 250, 350 & 550 Joists Per Trus Joist MacMillan publication NW0798/30M - reorder # 2025 TJI Joists at bearing: (2) 10d or 12d box nails, 1 1/2" min. from end, one each side

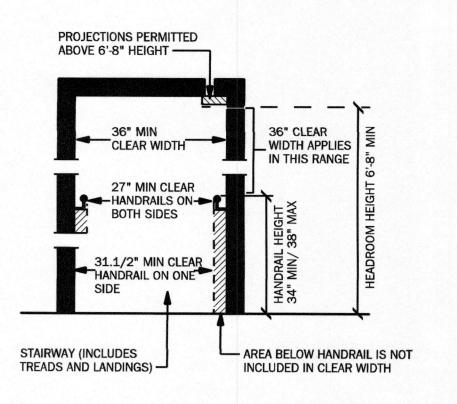
Blocking panels, rim joists or rim board to bearing plate: TJI blocking panels or rim joists: 10d box nails @ 6" o.c.

Timberstrand LSL or Microllam LVL rim board: Toe nail 10d box nails @ 6" o.c., or 16d box nails @ 12" o.c. Shear transfer: Connections equivalent to decking nail schedule

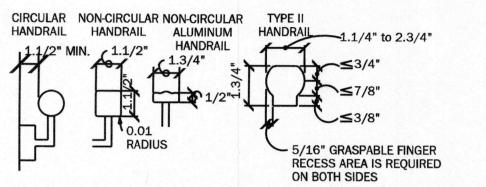
1 3/4" width or less: (2) 10d box nails, one each @ top and bottom flange TJI/Pro 350 rim joist: (2) 16d box nails, one each @ top and bottom flange TJI/Pro 550 rim joist: Toe nail joist to rim joist with (1) 10d box nail on each side of top flange 2x4 minimum squash blocks: (2) 10d box nails, one each @ top and bottom flange



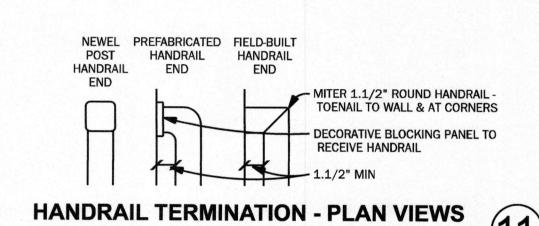


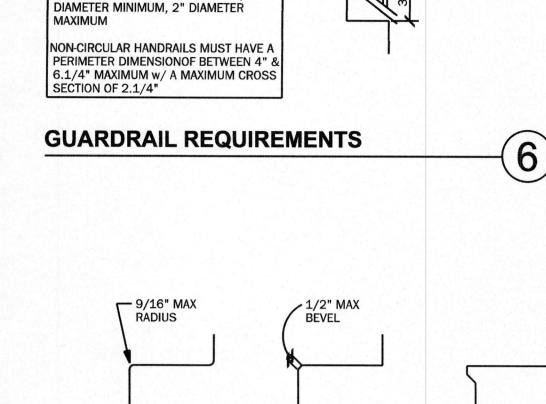


STAIRWAY CROSS SECTIONAL CLEARANCES



HANDRAIL CROSS SECTIONS





SPHERE 4" CANNOT PASS THROUGH

SPHERE 6" CANNOT PASS THROUGH

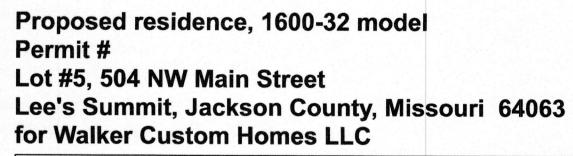


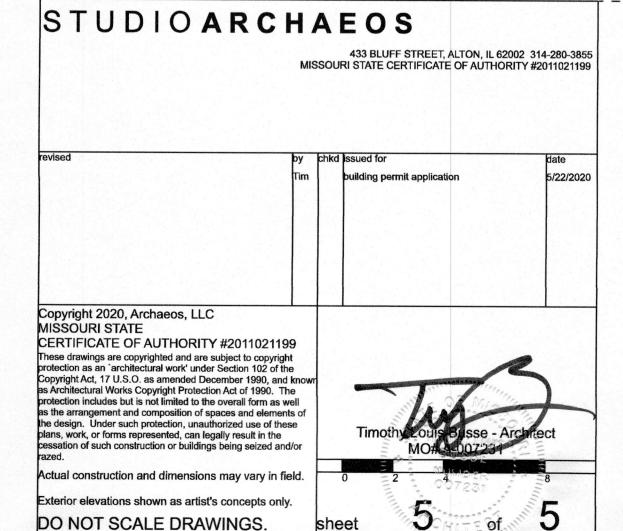
CIRCULAR HANDRAIL SHALL BE 1.1/4"

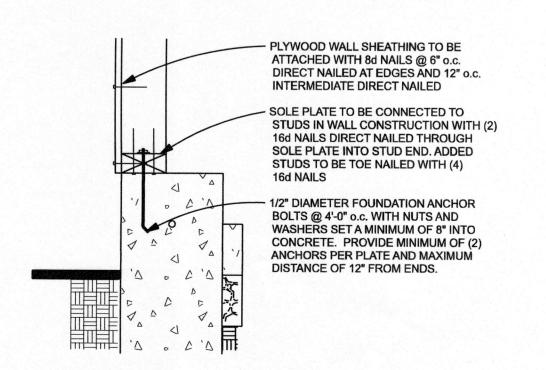
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR

HEADER SPAN	16 INCHES MAXIMUM STUD SPACING	24 INCHES MAXIMUM STUD SPACING
3 FEET OR LESS	1	1
4 FEET	2	1
8 FEET	3	2
12 FEET	5	3
16 FEET	6	4

WALLS (IRC TABLE R602.7.5)

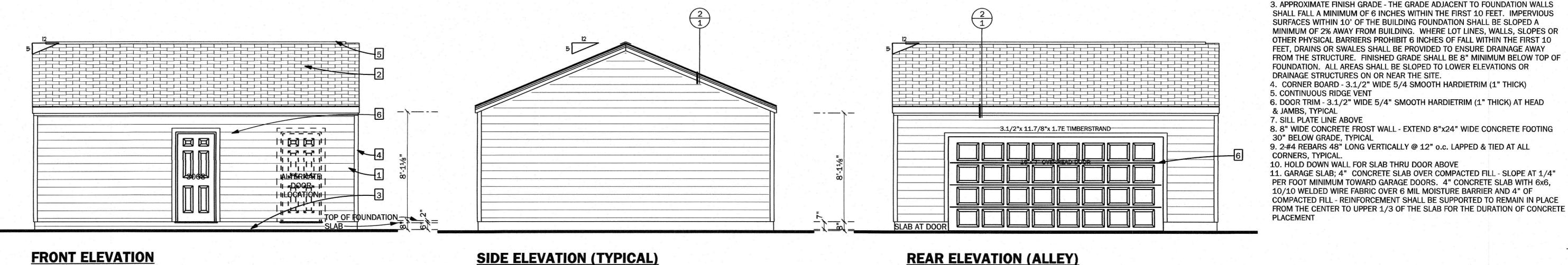


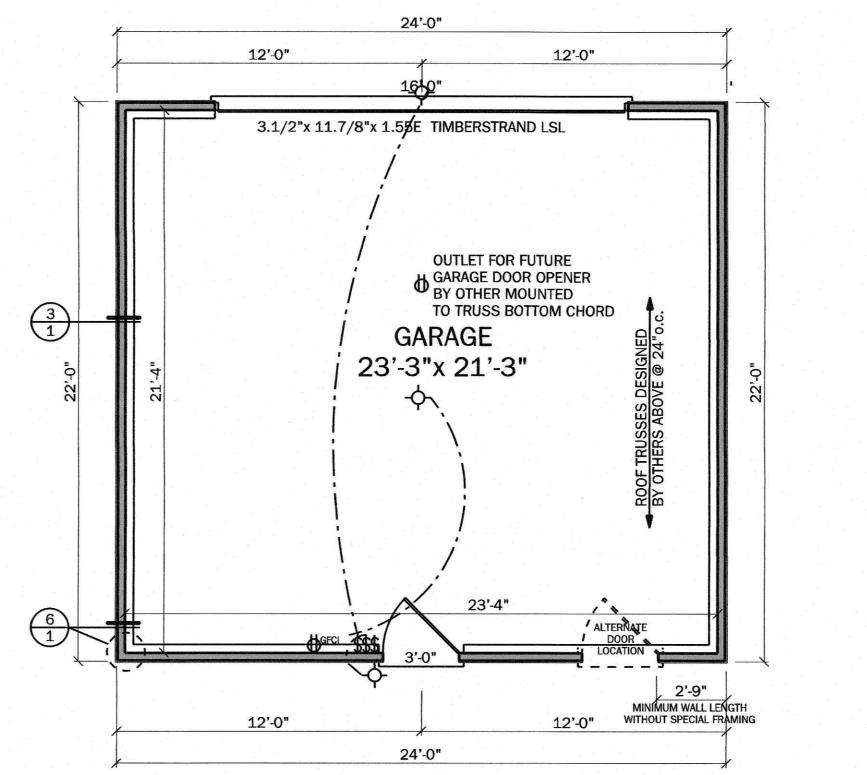




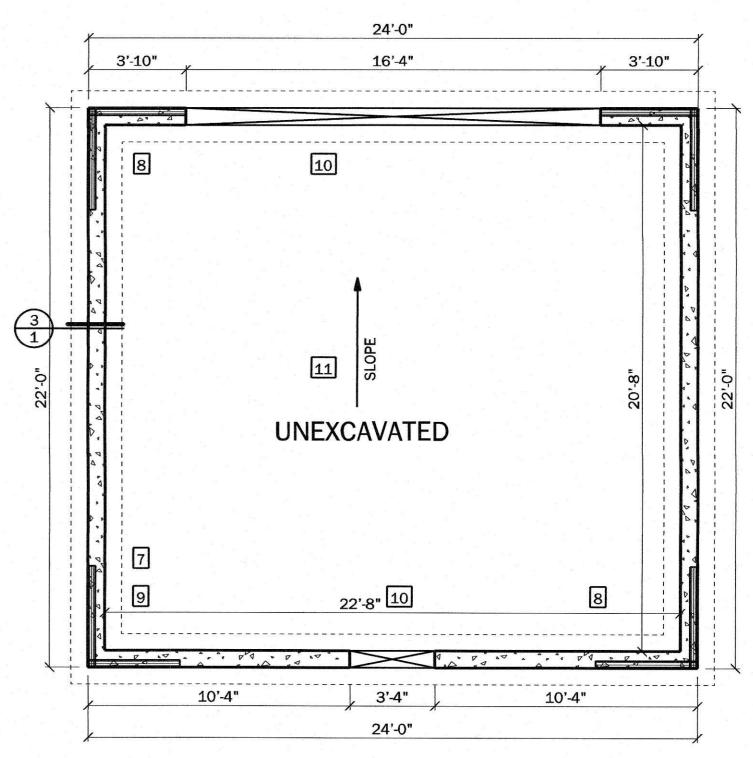
NAILING @ JOISTS OVER CONCRETE

NAILING @ FRAMING OVER FROST WALL





FLOOR PLAN
528 SQUARE FEET (unfinished, uninsulated garage) STANDARD 8'-1" HIGH FIRST FLOOR WALLS ALL HEADERS SHALL BE (2) 2X10 #2 KDYP UNLESS NOTED ON PLAN OR ELEVATIONS WHEN TWO OR MORE CIRCUITS ARE RUN, SUB-PANEL IN GARAGE IS REQUIRED



FROST WALL PLAN

ELEVATION

7/16" OSB SHEATHING

- 2x4 STUDS @ 16" o.c.

16d NAIL @ 24"o.c.

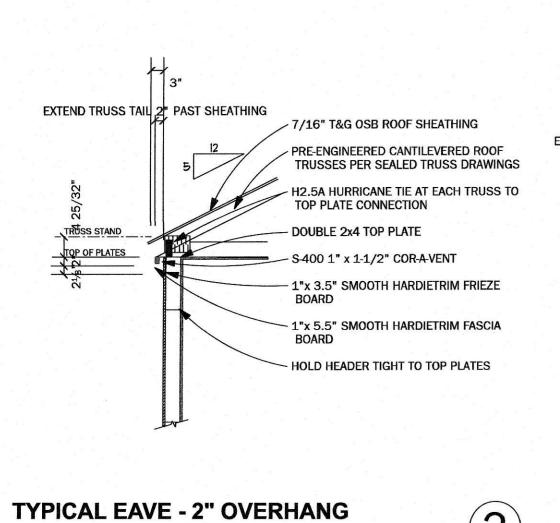
TABLE 602.3(1), 2006 IRC

KEYED GARAGE NOTES

MANUFACTURERS SPECIFICATIONS

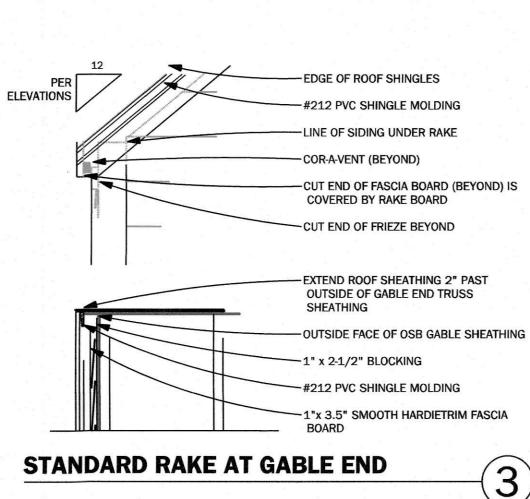
1. 8.25" PRE-PREFINISHED HARDIEPLANK FIBER CEMENT SIDING, 7" EXPOSURE 2. LAMINATED ASPHALT SELF SEALING SHINGLES TO MATCH HOUSE - INSTALL PER

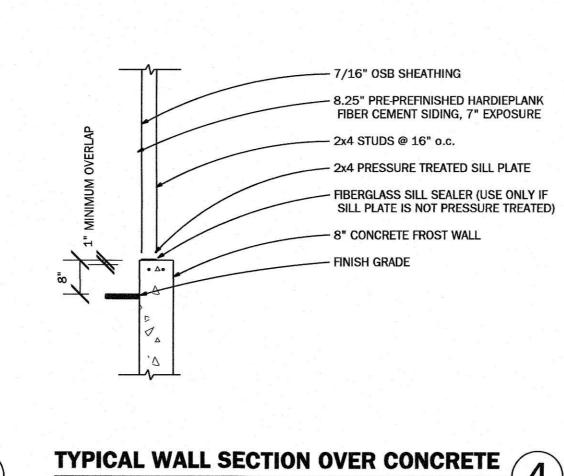
Proposed 24'x 22' garage Permit # Lots #2 & 5, 514 NW Main Street Lee's Summit, Jackson County, Missouri 64063 for Walker Custom Homes LLC

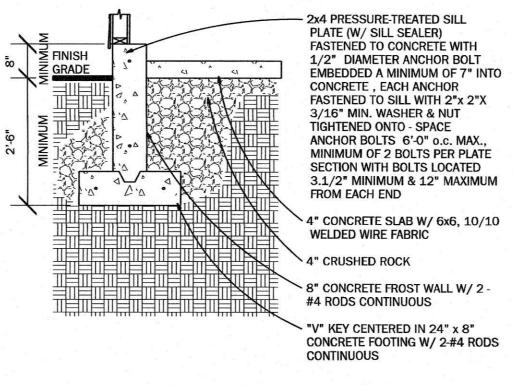


STANDARD 8'-1" HIGH WALLS,

ALL HEADERS SHALL BE (2) 2X10 #2 KDYP UNLESS NOTED ON PLAN OR ELEVATIONS







PLAN VIEW FROST WALL AT GARAGE TYP. CONTINUOUS STRUCTURAL PANEL SHEATHING @ EXTERIOR FRAME WALL

SECTION VIEW

OUTSIDE CORNER DETAIL

Michael

STUDIOARCHAEOS 3213 SOUTH MESTER STREET, ST. CHARLES, MO 63301 314-280-3855 MISSOURI STATE CERTIFICATE OF AUTHORITY #2011021199 PRE-FINISHED FIBER-CEMENT SIDING - PER building department submittal 8d NAIL @ 6"o.c. (AT ALL PANEL EDGES) 8d NAIL @ 12"o.c. (AT ALL FRAMING MEMBERS NOT AT PANEL EDGES) Copyright 2020, Archaeos, LLC MISSOURI STATE CERTIFICATE OF AUTHORITY #2011021199 WOOD STRUCTURAL PANEL INSTALLED PER hese drawings are copyrighted and are subject to copyright rotection as an 'architectural work' under Section 102 of the Copyright Act, 17 U.S.O. as amended December 1990, and know s Architectural Works Copyright Protection Act of 1990. The otection includes but is not limited to the overall form as well s the arrangement and composition of spaces and elements of the design. Under such protection, unauthorized use of these plans, work, or forms represented, can legally result in the cessation of such construction or buildings being seized and/or Timothy Louis Busse - Architect MO# A-007231 actual construction and dimensions may vary in fiel Exterior elevations shown as artist's concepts only. DO NOT SCALE DRAWINGS. sheet