1: GENERAL DATA

1.) Work performed shall comply with the following:

a. These general notes unless otherwise noted on plans or specifications
b. Building Code as specified on the architectural drawings.
c. All applicable local and state codes, ordinances and regulations.
d. In areas where the drawings do not address methodicalness, the Contractor shall be bound to perform in strict compliance with manufacturer's specifications and/or recommendations.

2.) On-site verification of all dimensions and conditions shall be the responsibility of the Contractor and his subcontractors. Contractor shall contact the Architect in case of any question or discrepancy.

3.) Noted dimensions take precedence over scale. Never scale directly off the drawings. Contractor shall contact the Architect in case of any question or discrepancy.

4.) The General Notes and typical details shall apply throughout the Work unless otherwise noted or shown.

5.) The Contractor shall compare and coordinate all drawings. When in the opinion of the Contractor a discrepancy exists, he shall promptly provide notice to the Architect before proceeding with the Work, or he shall be responsible for the same and any indirect results of his actions.

6.) The conditions and assumptions stated in these specifications shall be verified by the Contractor for conformance to local codes and conditions. In the event of a discrepancy between these specifications and local codes or conditions, the Contractor shall notify the Architect in writing of the discrepancy.

7.) Architectural drawings and specifications shall be considered as part of the conditions for the Work. In the event that certain features of the construction are not fully shown on the drawings, current national, state and local codes, ordinances. regulations or agreements as well as current acceptable building practices shall govern, and their construction shall be of the same character as for similar conditions that are shown or noted.

8.) The Designer will not be responsible for and will not have control over construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and will not be responsible for the failure of the Client or his contractors, subcontractors, or anyone performing any of the work, to carry out the work in accordance with the approved contract documents.

9.) Any and all drawings and specifications for site work, plumbing supply or waste, electrical circuitry, and heating, ventilating, prefabricated trusses, and air conditioning systems are not a part of the professional services provided to the Client by the Architect unless included under their agreement. Any discrepancies with these documents by any of the above listed services as shown in documents prepared by others should be indicated in writing to the Architect immediately.

10.) These requirements may be superseded by more stringent information contained within the drawings. The more stringent requirements shall be followed.

11.) Use of these documents without written permission of the Architect is forbidden.

12.) Structural Loadings: Live Loads: maximum foundation lateral pressure--30 pcf; garage--50 psf; floors--40 psf (except sleeping rooms--30 psf); offices-50psf; corridors-100psf; stair landings--40 psf; balconies or decks--per adjoining interior space; roof-- 30 psf; wind load--15 psf. Dead Loads: roof--17 psf; all others--10 psf.

DIVISION 2: SITEWORK

1.) Soil conditions shall conform to or exceed the following conditions:

Bearing Capacity: Min. 2000 psf, field verified, if deemed necessary by the Contractor, by a licensed site engineer, under all footings and unreinforced slabs.

Water Table: Min. 2'-0" below bottom of all concrete slabs and footings. Footings, foundations, walls, and slabs shall not be placed on or in Marine Clay, Peat or other organic materials.

2.) Soil Investigation and report: All earth work compaction and supervisions shall be done according to the recommendations of the soil investigation report prepared by a geotechnical engineer licensed in the locality where the project is being built. Concrete slab and footing calculations are based on the bearing capacity value in Note 1 above. If on site test borings indicate lesser values, the Architect shall be notified in writing prior to beginning the work so that necessary structural modifications can be made.

3.) Bottom of all footings shall extend below the local frost line and a minimum of 2'-0" below existing grade to undisturbed soil or soil compacted to 95% dry density having a load carrying capacity as specified in Note 1, as verified by a soils engineer licensed in the locality where the project is being built.

4.) All foundation wall backfill under slabs where the distance from edge of wall to edge of undisturbed soil exceeds 16" , but less than 4'-0", shall consist of clean, porous, soil compacted in 6" lifts to 95% dry density or provide #4 rebars at 2'-0" o.c., 1'-0" beyond edge of undisturbed soil and embeded 1'-0" into the foundation wall.

5.) Free draining granular backfill (SM or better) shall be used against foundation walls consistent with the architectural plans and related details. Equivalent fluid pressure of backfill not to exceed 30 pcf (pounds per cubic foot). If backfill pressures exceed 30 pcf, then the walls must be designed for actual pressures by a professional engineer or an architect licensed in the locality where the project is being built.

6.) NOT USED

DIVISION 3: CONCRETE

A.) General:

1.) The concrete properties shall be as follows:

Item	Min. Compress. Strength @ 28 Days (psi)	Aggregate Size (in.)	Slump
Footings	3,000	1/2"-1"	4"± 1"
Slab-on-grade	3,000	1/2"-1"	4"± 1/2"
Walls	3,000	1/2"-1"	4"± 1/2"
Garage and exterior slabs	3,500 w/5% air entrainment	1/2"-1"	4"± 1/2"

2.) Concrete work shall conform to all requirements of ACI 318-89.

3.) All reinforcement, anchor bolts, pipe sleeves and other inserts shall be positively secured in place and located according to the appropriate architectural drawings and details before concrete is placed.

B.) Reinforcing Steel:

1.) Reinforcing steel shall be intermediate grade, new billet deformed bars, grade 60, conforming to ASTM A82-90a. Welded wire fabric shall conform to ASTM A185-90a. See architectural drawings for sizes and locations.

2.) Detailing, fabricating and placing of reinforcement shall be in accordance with ACI-315 Manual of Standard Practice for Detailing Reinforced Concrete Structures. Furnish support bars and all required accessories in accordance with CRSI standards.

3.) All reinforcing bars which intercept perpendicular elements shall terminate in hooks, placed two (2) inches clear from outer face of element.

4.) Minimum protective cover for reinforcing steel shall be as follows:

a. Footings: 3"
b. Beams and columns: 2"
c. Slab: 3/4" (wire mesh to be placed at mid-depth of slab)
d. Walls: 1" at interior face; 3" at exterior face

C.) Foundation:

1.) Footing depths are shown on the architectural drawings. Footing shall bear a minimum of 1'-0" into original undisturbed soil and a minimum of 2'-0" below finished grade. Where required, step footings at a ratio of 2 horizontal to 1 vertical.

2.) Where conditions develop requiring changes in excavations, such changes shall be made as directed by the Architect.

3.) The Contractor shall notify the building official prior to each concrete pour. No concrete shall be placed into footings containing standing water or mud. Footings shall be dewatered prior to placement of concrete. No concrete shall be placed until all reinforcing has been installed by the Contractor and inspected by the building official.

4.) Slab-on-grade shall, unless noted otherwise, be 4" thick and reinforced with 6x6 W1.4 x W1.4 Welded Wire Fabric and shall be placed on 6 mil vapor barrier on 4" crushed stone.

5.) Slab-on-grade at porches shall be 4" thick unless noted otherwise.

6.) Install anchor straps as per manufacturer's recommendations; 12" from corners and intervals of not more than 4'-0" o.c. Minimum embedment for anchors shall be as specified by manufacturer.

7.) Beam pockets shall be formed into concrete walls to provide a continuous level flat solid bearing surface for all beams.

DIVISION 4: MASONRY

A.) General:

1.) Materials

a.) Mortar shall be type ASTM C270-92a
b.) Hollow CMU shall meet ASTM C90-92a
c.) Face brick shall meet ASTM C216-91c

2.) All masonry work shall conform to the applicable requirements of BIA and NCMA.

3.) All masonry shall be protected from freezing for not less than 48 hours after installation and shall not be constructed below 35 degrees Fahrenheit without precautions necessary to prevent freezing. No antifreeze admixtures shall be added to the mortar.

4.) Brick veneer shall be attached to wood frame with minimum #22 galvanized sheet gauge corrosive resistive corrugated metal ties min. 7/8" wide at 16" vertical intervals min. and 24" horizontal intervals. Provide 1" min. airspace and 15# asphalt felt over sheathing as a moisture barrier. Provide base course flashing with drainage of one open vertical brick joint at 2'-0" o.c. at lowest course above finished grade.

DIVISION 5: METALS

A.) General:

1.) Structural steel shall conform to the requirements of the AISC Manual of Steel Construction, latest edition. Structural steel shall conform to ASTM A36-91. Steel for pipe columns shall be of equivalent capacity and weldability to ASTM A501, A53. All welding shall be in accordance to the American Welding Society Code and be performed by welders qualified in accordance with AWS procedures. Electrodes shall conform to ASTM A-233, E70 series.

2.) Provide base plate for all structural steel beams bearing on concrete or masonry. Provide standard angle anchors and inserts, ties, clips, anchors, straps, hangers, bolts, bearing plates and other hardware and fastening devices as may be required or indicated on the architectural drawings. All connections shall be AISC standard.

DIVISION 6: WOOD & PLASTICS

A.) Lumber Grade:

1.) All lumber grading shall comply with PS 20-70 "American Softwood Lumber Standard" and applicable Western Wood Association standards. All lumber shall be, unless otherwise noted, no. 2 grade, Hem-fir with the following minimum structural values:

a. Extreme fiber bending stress: Fb=1000 psi (repetitive member use)
b. Horizontal Shear: 75 psi
c. Compression perpendicular to grain: Fc =245 psi
d. Compression parallel to grain: Fc =875 psi
e. Modulus of elasticity: E =1,300,000 psi
f. Moisture content: 19% maximum (see below)

2.) Other species may be used provided substituted species meets or exceeds requirements noted above or approved by the Architect.

3.) Moisture content: All lumber 4" and deeper shall have a moisture content not greater than 19%. Air dried lumber is desired but not necessary. Lumber may be kiln dried, however drying process must be slow and regulated to cause a minimum amount of checking, comparable with air dried stock.

4.) All exterior lumber and lumber in contact with earth, masonry or concrete shall be pressure preservative treated in accordance with AWPA standards and appropriately stamped for each location.

5.) Grade stamps shall appear on all lumber.

6.) Store all lumber above grade and protect from exposure to weather.

B.) Flitch Beams:

Flitch beams shall have a minimum Fb = 1500 psi, E=1.4 x 106 with min. 1/2" bolts located not closer than 2" from the top and bottom edge unless otherwise noted. There shall be a bolt, top and bottom, 2" from each end.

C.) Joist Hangers:

1.) All purlins, joists and beams not framed over supporting members shall be supported by means of metal hangers.

2.) Joist hangers shall be prime quality steel which conforms to ASTM-A526, min. 22 gauge. Products acceptable shall be Simpson, Kant-Sag, or equivalent.

D.) Bolts in Wood Framing:

1.) All bolts in wood framing shall be standard machine bolts with standard malleable iron washers or steel plate washers.

2.) Steel plate washer sizes shall be as follows:

a. 1/2" and 5/8" bolts- 2 1/4" sq. x 5/16"
b. 3/4" bolts- 2 5/8" sq. x 5/16"

3.) Each bolt hole in wood shall be drilled 1/16" larger than diameter of bolt.

4.) For sill anchors, see typical details on architectural drawings.

E.) Lag Bolts:

1.) Shall be square headed and of structural grade steel.

2.) Washers shall be placed under the head of lag bolts bearing on wood. Length of lag bolts shall be a minimum 2/3 depth of members being bolted together.

F.) Altering Structural Members:

No structural member shall be omitted, notched, cut, blocked out or relocated without prior written approval by the Architect. Do not alter sizes of members noted without approval of the Architect.

G.) Built-up Beams

Built-up beams or joists formed by a multiple of 2 x members shall be interconnected as follows:

1.) Members 9-1/4" and less in depth: glue and internail w/ 2 rows 16d spikes at 32" o.c. staggered.

2.) Members greater than 9-1/4" in depth or multiple 3x6: glue and through bolt with 1/2" machine bolts at 24" o.c. staggered.

H.) Cutting of Beams, Joists and Rafters:

Cutting of wood beams, joists and rafters shall be limited to cuts and bored holes not deeper than 1/6 the depth of the member and shall not be located in the middle 1/3 of the span. Notch depth at the ends of the member shall not exceed 1/4 the depth of the member. Holes bored or cut into joist shall not be closer than 2 inches to the top or bottom of the joists and the diameter of the hole shall not exceed 1/3 the depth of the joist. The tension side of the beams, joists and rafters of 4 inches or greater nominal thickness shall not be notched, except at ends of members.

I.) Pipes in Stud Bearing Walls or Shear Walls:

Notches or bored holes in studs of bearing walls or partitions shall not be more than 1/3 the depth of the stud.

J.) Bridging and Blocking:

1.) There shall be not less than one line of bridging in every eight feet of span in floor, attic and roof framing. The bridging shall consist of not less than one by three inch lumber double nailed at each end or of equivalent metal bracing of equal rigidity. Midspan bridging is not required for floor, attic or roof framing where joist depth does not exceed twelve (12) inches nominal. Block solid at all bearing supports where adequate lateral support is not otherwise provided. Block all stud walls at maximum intervals of eight feet with a minimum of 2 x solid material with tight joints. Provide 2 x firestops at midpoint vertically of stud wall.

2.) Provide double trimmers under all headers 4 x 6 or larger. All such members shall be glued and spiked together.

K.) Lintel Schedule:

1.) Unless otherwise shown, provide 1 lintel with 6" minimum bearing at each end for each 4" of wall thickness.

2.) Lintel sizes:

Span:	Size of Member:
up to 4'-0"	/ 3-1/2" x 3-1/2" x 1/4" or 2-2x8
4'-1" to 5'-0"	/ 4" x 3-1/2" x 5/16" or 2-2x10
5'-1" to 6'-0"	/ 5" x 3-1/2" x 5/16" or 2-2xl2
6'-1" to 8'-0"	/ 6" x 3-1/2" x 3/8" or 2-1 3/4 x 9 1/2 LVL

L.) Plywood:

1.) All plywood shall be Douglas Fir and shall be manufactured and graded in accordance with U.S. Product Standard PS 1-83 for Construction and Industrial Plywood.

2.) Each plywood sheet shall bear the "APA" grade trademark.

3.) All end joints shall be staggered and shall butt along the centerlines of framing members.

4.) The face grain of the plywood shall be laid at right angles to the joists and trusses and parallel to the studs.

5.) Nails shall be placed 3/8" minimum from the edge of the sheets. The minimum nail penetration into framing members shall be 1-1/2" for 8d nails and 1-3/8" for 10d nails.

6.) All floors shall be glued and nailed with APA approved elastomeric structural adhesive and 8d common, smooth, or ring shank nails spaced at 6" o.c. at panel edges and 10" o.c. at intermediate supports.

M.) Corner Bracing:

Unless otherwise noted, brace exterior corners of building with 1x4 diagonals, let into studs, or with 4x8 plywood sheet of thickness to match that of sheathing, or with an approved metal strap devices installed in accordance with manufacturer's insructions (16 ga. compression-tension)

N.) Nailing:

All nailing shall comply with nailing schedules in IBC,IRC (as applicable), latest edition and all state and local building codes, or manufacturer's recommendations.

O.) Fire Stopping:

Fire stopping shall be provided to cut off all concealed draft openings (both vertical and horizontal) with 2" nominal lumber or 2 thicknesses of 1" nominal lumber with broken lap joints or other approved material.

P.) Alignment:

1.) All rafters and joists framing from opposite sides shall lap at least six (6) inches and be spiked together.

2.) When framing end to end, joists shall be secured together by metal straps.

Q.) Partitions:

1.) General:

a. Double joists centered under all parallel partitions for conventional wood members. Single joist centered under all parallel partitions for floor trusses.
b. Provide solid blocking at 4'-0" o.c. between the band board and the first interior parallel joist.
c. Splices of the top and bottom portion of double top plates must be staggered a minimum of 4'-0".
d. Lap top plates at corners and intersections.
e. Structural variations are allowed if substantiated by engineering calculations stamped by a professional engineer licensed to practice in the jurisdiction where construction is taking place. One set of calculations is to be provided to the Architect for approval prior to construction.

2.) Bearing Walls Supporting One Floor or More:

a. Partitions must be constructed of minimum 2 x 4 studs spaced 16" o.c. of type lumber specified.
b. If a double top plate of less than 2-2x6's or 2-3x4's is used, floor joists shall be centered directly over and below bearing wall studs with a tolerance of no more than 1" unless substantiated by engineering calculations. Bearing stud walls must be sheathed with a minimum 1/2" gypsum board fastened according to drywall manufacturer's recommendations.

R.) Wood Roof Trusses (where applicable):

1.) Timber trusses shall be designed in accordance with N.Fo.P.A. standards. Calculations, joint strength information (allowable load per square inch or per nail, allowable edge distance, allowable end distances), load test data and other information as necessary shall be submitted to local authorities for approval prior to fabrication. Each truss shall be secured at bearing with one "rafter tie" metal type anchor at each end.

2.) Scissor Trusses: Manufacturer to calculate horizontal thrust of trusses subjected to design loads and to include this information with shop drawings. Each truss to be anchored at one end with a metal "rafter tie" type anchor and a scissors truss connector, "Cleveland" or approved equal, at the other end to tie down the truss while permitting the truss to move outward without deflecting the wall.

3.) Truss diagrams and truss layout plan show design intent only. Truss manufacturer shall verify all spans, dimensions, heel heights, pitches, etc. Fabricator must submit two sets of component shop drawings and truss layout plan, each sealed by a professional engineer registered in the jurisdiction where the construction is taking place, to the Architect prior to fabrication, one for the Architect's records and one to be returned to the Contractor after review.

4.) Truss shop drawings indicating calculations, loadings, load test data, horizontal thrust and any other information required shall be sealed by a professional engineer registered in the jurisdiction where construction is taking place and be submitted to building officials prior to fabrication.

5.) Store trusses above ground on wood sticking in such a way so as to prevent bending, warping or deflection of trusses.

6.) Roof Truss Bracing: Install permanent bracing for all wood roof trusses as specified below. Follow all recommendations specified in Bracing Wood Trusses Commentary and Recommended BWT-76 published by the Truss Plate Institute, Inc.

a. Top Chord Plane: Properly installed plywood sheathing with staggered joints and correct nailing should adequately brace the top chord plane. However, when gable end trusses are used, continuous 2 x 4 braces should be installed at a 45Â angle to the truss framing. These braces should occur at 3 points on each gable end: midspan between roof center-line and wall on each side of center-line and at center-line of roof.
b. Web Member Plane: Provide continuous 2 x 4 braces at 45Â angle from the bottom chord of the truss. This brace should cross at least 4 adjacent trusses and terminate at the truss ridge. Securely nail this brace to all members it crosses. Install this bracing at all gable or end wall conditions and at 14 foot minimum intervals throughout the truss system.
c. Bottom Chord Plane: Provide continuous 2 x 4 braces on top of the bottom chord of all roof trusses. Three rows minimum are required, located at the 1/4 points of the truss span. Securely nail these braces to all members that it crosses.

S.) Wood Floor Trusses (where applicable):

1.) Floor trusses to be manufactured and installed in strict accordance with manufacturer's recommendation. All spans, joist depth and spacing to be verified by manufacturer. Shop drawings indicating calculations, loadings, load test data and any other information required shall be sealed by a professional engineer registered in the jurisdiction where the construction is taking place. Truss manufacturer shall verify all spans, dimensions, bearing points, spacing, etc. Fabricator must submit two sets of component shop drawings and truss layout plan, each sealed by a professional engineer registered in the jurisdiction where the construction is taking place, to the Architect prior to fabrication, one for the Architect's records and one to be returned to the Contractor after review.

2.) Store trusses above grade on wood sticking to prevent contact with bare earth. Cover with tarpaulins to prevent exposure to the elements. Always store upright, especially if stacking.

DIVISION 7: THERMAL AND MOISTURE PROTECTION

A.) Roofing:

Fiberglass Shingles:
Unless noted otherwise, provide 40-year dimensionsal fiberglass shingle over 1 layer of 15# asphalt saturated felt underlay.

B.) Flashing:

1.) All flashing, counter flashing, and coping, when of metal, shall be of not less than 26 gauge corrosion-resistant metal.

2.) Flash all exterior openings and all building corners with approved material to extend at least 4" behind wall covering. Cover all exposed plywood at building corners with waterproof building paper.

3.) Step flashing at all roof to wall conditions. Flash and caulk wood beams and other projections through exterior walls or roof surfaces.

4.) Eave flashing, when required, shall consist of two layers of 15# asphalt saturated felt cemented together in addition to required nailing, from the edge of the eave up the roof to overlay a point 24" inside the interior wall line of the building.

C.) Attic Ventilation:

Enclosed attic truss spaces and enclosed roof rafters shall have cross ventilation for each separate space with screened ventilating openings protected against the entrance of moisture and rain in accordance with the IBC or IRC code, latest (as applicable) edition and all state and local codes and ordinances. See details on architectural plans for locations and details.

DIVISION 8: DOORS AND WINDOWS

All windows shall have insulating glass, or single glass with storm windows or equal. Sizes indicated on plans are nominal only. Builder to consult with window manufacturer to determine exact sizes, rough openings, etc. At least one window from each bedroom area shall have a net clear opening of 5.7 sq. ft. with a net clear height of 25", a net clear width of 20", and a sill height of 44" or less above the floor for egress purposes. Operable windows shall be provided with a non-corrosive insect screen. Glazing in doors and fixed glazed panels immediately adjacent to doors or within 18" of the floor, which may be subject to frequent and recurrent accidental human impact, or any glazing within 6'-0" of a tub or shower shall be safety glazed as per IBC, IRC, state and local codes and ordinances.

DIVISION 9: FINISHES

1.) All gypsum wallboard shall be accordance with the provisions of the IBC,IRC, and state and local codes and ordinances (as applicable),

2.) Gypsum wallboard shall not be installed until weather protection for the installation is provided. Storage should be in accordance with manufacturer's instructions.

3.) All edges and ends of gypsum wallboard shall occur on the framing members except those edges which are perpendicular to the framing members. All edges of gypsum wallboard shall be in moderate contact except in concealed spaces where fire resistive construction is not required.

4.) The sizes and spacing of fasteners shall comply with IBC,IRC, and state and local codes and ordinances (as applicable).

5.) Provide moisture resistant drywall or cement board at tubs and showers as shown on details in architectural drawings.

6.) Fire-resistive construction: Garage ceilings and walls when adjacent to a dwelling unit shall be of fire-resistive construction according to the UL design specified on the drawings when units are designed under IBC or IRC standards as indicated on the drawings.

DIVISION 15: MECHANICAL

A.) Heating, Ventilating and Air Conditioning

1.) All work shall be in full accordance with current codes and regulations of the governing agencies.

2.) All work to be done in a neat and workmanlike manner and so as to not needlessly hamper that portion of the work to be performed by others.

3.) Mechanical subcontractor to submit shop drawings indicating duct layouts, condenser location, duct sizes, etc. to the Architect prior to installation. Mechanical subcontractor shall review structural shop drawings and notify the Architect of any mechanical, structural and design intent conflicts prior to construction.

B.) Plumbing

1.) All work shall be in full accordance with current codes and regulations of the governing agencies.

2.) All work to be done in a neat and workmanlike manner and so as to not needlessly hamper that portion of the work to be performed by others.

3.) Plumbing subcontractor shall review structural and mechanical drawings and notify the Architect of any plumbing, HVAC, structural, and design intent conflicts prior to construction.

DIVISION 16: ELECTRICAL

1.) All work shall be in fully accordance with all current codes and shall comply with the requirements of the serving power and telephone companies.

2.) All work to be done in a neat and workmanlike manner and so as to not needlessly hamper that portion of the work to be performed by others.

3.) All equipment installed outdoors and exposed to weather shall be ground fault interrupted and weatherproofed.

4.) Bottom of receptacles and switches shall be located 6" above the counter top unless otherwise noted on the drawings.

5.) Receptacles shall be installed vertically at 12" above finished floor and 12'-0" o.c. horizontally. All receptacles within 6'-0" horizontally of a sink lavatory or tub shall be wired to a ground fault interrupted circuit.

6.) Wall switches to be 48" above finished floor.

7.) All smoke detectors to be wired in a manner such that the activation one activates them all.

MLA
Michael Lyszcek Architect
124 Hillside Drive
Locust Grove, Virginia 22508
w.540-825-5591 m.540-229-5468

www.MichaelLyszcekArchitect.com

date:
4/22/2023

revisions:

PROPOSED ADDITION FOR
SLATER RESIDENCE
2331 ORANGE ROAD
PRATTS, VIRGINIA

GENERAL NOTES
& SPECIFICATIONS

scale:
1/4" = 1'-0"

sheet no.

seal: