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Specifications & Description of Materials

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- 1. Introduction:** The text of this document, in conjunction with the attached plans, is intended to describe the significant details necessary for constructing a new single family home. The details written herein describe the Contractor's obligations and function as a compliment to the attached plans.

Products for which a specific manufacturer is not specified herein will be generally recognized brands as selected by the Contractor. Materials of equal or better quality may be utilized in place of materials specified herein at the sole discretion of the Contractor.

Installation of specific elements within the systems of the building may need to be modified, re-located, or otherwise altered from their originally specified (or unspecified) nature. These modifications or additions may include, but are not limited to utility entrance locations, venting locations, building additional chases to enclose mechanical systems, mechanical system access points, minor re-location or re-sizing of fixtures, ECT.

The finished elevation of the land surrounding the building may be influenced specific elements in the building including, but not limited to, the number of steps (interior & exterior), deck and patio elevations, necessity of handrails, installation of window wells, the final exterior grade, necessity of culverts, drainage locations, landscaping elements, necessity of retaining walls, and the configuration of the driveway or parking area.

- 2. General Description & Approximate Square Footage:** The house plan is a two story home designed by Highlander Construction & Development to be built on a crawl space. A set of plans are attached to these specifications. The plan includes (3) bedrooms, (2) full bathrooms, and (1) ½ bathroom. The approximate square footage for the house is as follows:

First floor	946 SQFT
Second floor	1,034 SQFT
Garage	408 SQFT
Master bedroom private deck	102 SQFT
Front covered porch	77 SQFT
<u>Screen porch, rear stoop & steps</u>	<u>134 SQFT</u>
Total	2,701 SQFT

- 3. Lot:** Improvements shall be constructed on the property located at Lot 2 on Piedmont Street in the Town of Blacksburg, Virginia. *The street address is 404-3 Piedmont Place, Blacksburg, VA 24060.*
- 4. Professional Engineering & Surveying**

- A. Engineering: Contractor to procure a site plan from a licensed Engineer. The site plan shall be attached to these specifications.
- B. Surveying: Contractor to procure a licensed Surveyor to locate the building, stake the foundation, and pin the corners of the footers. Neither a foundation survey nor final survey is included in the contract price. ***Contractor recommends Owners employ a surveyor to perform a final survey of the lot once all construction is complete, and that the survey be recorded with the Deed to the property.***
- C. Shrink / Swell Testing: If required, Contractor shall procure a shrink swell soil test from a certified inspector prior to the installation of footers.

5. Site Development: Clearing & Excavation: Contractor shall be responsible for the implementation of site work as outlined in the site plan.

- A. As necessary, a track propelled loader shall be utilized to initially clear the site to allow the Surveyor to stake the corners of the lot and the building location.
- B. Upon completion of the initial surveying, a track propelled loader or rubber tired backhoe shall be utilized to clear an area generally defined as 15' around the perimeter of the staked building location including the removal of all trees, shrubs, and brush. The building site shall then be excavated to the grade level required to dig footers.
- C. The existing topsoil shall be stripped from the surface of the site and stored on site for re-application after final grading. The temporary top soil pile shall be encircled by silk fence and seeded for temporary grass to reduce the potential for erosion during the construction period.

6. Footings

- A. A rubber tired backhoe shall be utilized for the excavation of the footers and drainage trenches.
- B. Depth: Footers shall be dug a minimum of 30" below the area's freeze line.
- C. Size: Footers shall be dug a minimum of 24" wide and 8" deep.
- D. Reinforcement: Footers to be reinforced with two runs of 1/2" #4 steel rebar, lapped a minimum of 18". Each run of steel rebar shall sit in steel foundation chairs which shall be spaced a minimum of every 6' so as to hold the steel rebar at least 2" up from the bottom of the footer.
- E. Forming: All footers to be earth formed with bulkheads, steps, and special forms as needed.
- F. Concrete: 3000 PSI. Note: the local building code only requires 2500 PSI concrete.
- G. Note: If required, Contractor shall procure a shrink swell test on the soil prior to the digging of footers. If the soil is determined to be expansive, additional engineering to design and install proper footers may be required.

7. Foundations

- A. Type: Conditioned crawl space.
- B. Foundation walls: Engineered poured concrete foundation walls reinforced with steel rebar installed per the attached plans. The concrete shall be a minimum of 3000 PSI.
- C. Foundation Center Piers: Engineered Metwood metal beams installed on concrete footings reinforced with steel rebar.

- D. Foundation Vents: None.
- E. Crawl Space Vapor Barrier: 6 mil black plastic. The poly shall be taped and sealed along all edges and the walls.
- F. Crawl Space Insulation: 1-1/2" Thermax
- G. Concrete Slab: None.
- H. Foundation Bolts: 1/2" x 10" bolts installed per code.
- I. Masonry Veneer: *See #16 Masonry Veneer.*
- J. Drain Tile & Filter Fabric: 4" black drain tile covered with clean 57 gravel and filter fabric per code.

8. Radon Mitigation: As required by code standard piping for the removal of radon gas shall be installed in a location to be determined by the Contractor. The piping will be marked and capped off for future radon mitigation if necessary. Contractor is not responsible for the existence or removal of radon gas other than the installation of piping. Any other cost for labor and materials to test for and mitigate radon emissions shall be the sole responsibility of Owners.

9. Damp-proofing: The perimeter of the foundation to grade shall be treated and protected with the patented "Watch Dog" type damp-proofing system. A Certificate of Limited Guarantee shall be provided to Owners upon completion of the building.

10. Termite Protection: The foundation square footage and perimeter shall be pre-treated for termites. A Certificate of Five-year Guarantee shall be provided to the Owners.

11. Interior Slabs

A. Garage Slab

1. Expansion Protection: Impregnated sheathing black expansion joint installed around the perimeter of the slab.
2. Gravel Sub-base: Clean #57 stone
3. Vapor Barrier: 6 mil black plastic
4. Control Joints: Screed key installed as needed.
5. Reinforcement: #4 rebar 2' on center.
6. Concrete: 3500 PSI poured to an average depth of 4".
7. Add-mixtures: Accelerator added as needed during periods of sever cold weather.
8. Color: Natural; no color additives.
9. Finish: Smooth.
10. Sealer: A single coat of standard sealer shall be applied to the concrete slab within 5 days of the pouring of the slab.
11. Drainage: The garage floor shall be sloped to drain excess water to the exterior.
12. Other: The finish floor elevation shall be adjusted so as to allow for a minimum 8' ceiling height taking into account the 16" TJI floor system above.

12. Framing: All framing per the attached plans and specified as follows:

A. Exterior Walls

1. Type: Wood frame #2 Spruce, Pine, or Fir. 2" x 4" and 2" x 6" studs are installed 16" on center.
2. Sheathing: 7/16" solid OSB nailed 8" on center in the field and 6" on center along the edges per code.
3. Building Wrap: All exterior wood walls wrapped and taped with Tyvek building wrap.
4. Seam Sealer: Seam sealer shall be installed between the subfloor and bottom plate of all exterior walls on all floors.

B. Chimney:

1. Type: Wood frame #2 Spruce, Pine, or Fir. 2" x 4" studs are installed 16" on center.
2. Sheathing: 7/16" solid OSB nailed 8" on center in the field and 6" on center along the edges per code.
3. Building Wrap: All exterior wood walls wrapped and taped with Tyvek building wrap.
4. Cap: 7/16" solid OSB installed with a 4/12 pitch and covered with 15 LB roof felt and Class A, architectural 30-year fire rated shingles to match the main roof.

C. Interior Partitions: Studs: 2" x 4" Studs- Spruce, Pine, or Fir installed 16" on center, except plumbing walls which may be 2" x 6" Spruce, Pine, or Fir. All bottom plates on interior walls sealed to the subfloor with caulk.

D. Floor Framing

1. First floor: 2 x 12 Yellow Pine installed 16" on center. All bracing to meet local code. 3/4" sub-flooring applied with sub-floor adhesive, screws, and nails.
2. Second floor: 11-7/8" TJI's installed 19" on center, except the floor joist in the master bedroom above the garage which shall be 16" TJI's installed 16" on center. All bracing to meet local code. 3/4" sub-flooring applied with sub-floor adhesive, screws, and nails.
3. Garage floor: Concrete slab, *see #11 Interior Slabs.*

E. Sub-flooring (where applicable)

1. Sub-flooring Materials overtop the floor joists: 3/4" OSB Advantec type Sheathing Tongue & Groove, or equal product. Flooring is glued with sub-floor adhesive, nailed, and screwed.
2. Additional sub-flooring Materials in tile flooring or wall areas: 1/2" x 3' x 5' Durock. Note: Durock is not required when tile is installed overtop of concrete slabs.
3. Additional sub-flooring Materials in hardwood areas: 15 LB black felt paper.

F. Ceiling Framing

1. 2nd Floor Ceiling Joists: Bottom cords of the engineered and manufactured roof trusses. All bracing to meet local code. In addition, the master bedroom shall be framed with "cathedral" ceilings.
2. 1st Floor Ceiling Joists: Bottom of the 2nd floor-floor joists. All bracing to meet local code. In addition, the dining room shall be framed with a "Richmond Trey" ceiling.

3. Other: Ceiling heights are as follows:
 - a. First floor: 8' throughout except the dining room which shall have a Richmond trey ceiling which is 8' in the center and 7'6" around the perimeter.
 - b. Second floor: 8' throughout except the master bedroom which shall have vaulted ceilings.

G. Roof Framing

1. Trusses: Engineered and manufactured roof trusses constructed with SPF dimensional lumber installed per code. All bracing to meet local code.
2. Roof Pitches: Main:8/12, Porch: 4/12
3. Sheathing: Sheathing: 7/16" OSB, secured with hurricane clips and nailed 8" on center in the field and 6" on center along the edges per code.

H. Air Sealing Measures

1. All edges, seams, and breaks in the building wrap must be taped and sealed.
2. All gaps in exterior wall sheathing sealed.
3. An air barrier such as 1/4 Luan or Foam Board (not poly) shall be installed behind all tub, tub-shower, fireplaces, and chases.
4. All window and door rough openings sealed.

I. Other

1. Advanced framing techniques shall be implemented throughout including the use of 2 stud corners and T walls.
2. Wall bracing per code as shown the attached plans.
3. All lumber cutting shall be conducted in a designated and specified central cut area.
4. No headers shall be installed over non-load bearing interior walls.
5. All doors and windows shall be installed and flashed in accordance with the manufacturer's recommendations.

13. Insulation, Fire Caulking, & Air Sealing Measures:

- A. Insulation installed per code which at minimum shall be as follows:
1. Ceiling (vaulted): R38 paper faced fiberglass insulation.
 2. Ceiling (non-vaulted): Cellulose cube insulation blown to an average depth necessary to support an R38 value
 3. Between the Crawl Space & First Floor: None.
 4. Between the First Floor & Second Floor: None, except the area between the garage ceiling and master bedroom floor system which shall be spray foam insulation blown to a thickness of 3" (minimum R Value of 13) then filled in with R19 un-faced fiberglass insulation.
 5. Exterior Walls: Minimum R13 value of blown cellulose
 6. Interior Walls:
 - a. R11 fiberglass insulation installed in the laundry room and bathroom walls.
 - b. Minimum R13 value of blown cellulose installed in the interior garage walls abutting to the interior walls of the house which have heated and cooled space.
 7. Bands: Spray foam insulation blown to a thickness of 3-1/2" (minimum R Value of 13)

8. Crawl space: 1-1/2" Thermax installed on all interior crawls space walls.
- B. Fire Caulking: All areas shall be fire caulked as required by code.
- C. Air Sealing Measures:
 1. All penetrations through the top & bottom plates sealed.
 2. All penetrations through the insulated subfloor sealed.
 3. All shower and tub drains sealed.
 4. All cantilevered floors sealed above the supporting wall.
 5. All gaps in exterior wall sheathing sealed.
 6. All sheathing penetrations (excluding exterior light fixtures or receptacles) sealed.
 7. All penetrations through drywall in the attached garage sealed.
 8. All penetrations through the bands sealed.
 9. All penetrations through the insulated ceiling sealed.
 10. A blower door test shall be conducted with a minimum result of <0.50 cfm50/square foot of the building envelope.

14. Permanent Roofing

- A. Underlay: 30 LB black roof felt
- B. Shingles:
 1. Type: Class A, architectural 30-year fire rated shingles
 2. Brand & Manufacturer: Oakridge by Owens Corning; however Contractor reserves the right to change the brand & manufacturer of the shingles.
 3. Color: Onyx Black.
- C. Flashing: Standard 14" wide aluminum flashing installed as needed.
- D. Other:
 1. Ridge vent and gable vents installed as needed per the attached plans.
 2. Ice & water shield installed in all valleys and along the roof edge.

15. Fireplaces:

- A. Location: Family Room only.
- B. Type: MPD3530 CPM "Merit" LP manufactured fireplace unit manufactured by Lennox.
- C. Amenities: Gas logs are preinstalled in the sealed fireplace unit.
- D. Installation: Installed flush and complemented with a paint grade wood mantel. Contractor to select and install the paint grade wood mantel.
- E. Hearth & Tile Surround: Ceramic tile.
 1. Size / Type: 12" x 12" Ceramic Tile.
 2. Brand / Style: Prairie Beiger
 3. Manufacturer: Mulia.
 4. Grout: Marble Beige by Laticrete.
 5. Installation Pattern: Standard square layout.

16. Exterior Siding & Trim: Installed in areas per the attached plans.

- A. Siding: 5" "Woodsmen Select" Dutch Lap vinyl siding manufactured by Norandex Reynolds installed. The color is Champagne.
- B. Soffit: White, vinyl vented soffit manufactured by Norandex Reynolds installed.
- C. Fascia: White, aluminum fascia manufactured by Norandex Reynolds installed.

- D. Gable Vents: White, louvered vinyl gable vents manufactured by Alcoa installed in locations per the attached plans.
- E. Shutters: Paneled vinyl shutters manufactured by Mid America installed on the front windows only. The color is 20/CC Forest Green.
- F. Other: None.

17. Masonry Veneer:

- A. Location: Per the attached plans.
- B. Brick:
 - 1. Type: Modular.
 - 2. Style: Old English Tudor.
 - 3. Manufacturer: General Shale.
 - 4. Sand: Yellow masonry
 - 5. Mortar: Type S
 - 6. Course Pattern: ½ Bond
 - 7. Joints: Cove

18. Gutters and Downspouts

- A. Gutter material: 5" wide white seamless aluminum (.027) installed per contractor design.
- B. Downspout material: 2" X 3" white seamless aluminum (.027) installed per contractor design.
- C. Downspout connections: All downspouts shall be connected to buried 4" drain tile per the attached site plan.
- D. Other: No Leaf guard mesh system is included.

19. Windows

- A. Type: Double Hung, except the windows over the tub in the master bathroom which shall be fixed picture windows.
- B. Brand: 3900 Series Silver Line
- C. Material: Vinyl with wood extension jambs
- D. Sizes & Locations: Per attached plans
- E. Screens: Standard screens are included and installed for all operable windows.
- F. Other:
 - 1. All windows shall have a UL rating of .35 and a SHGC rating of .32
 - 2. All windows are insulated with Low E
 - 3. All windows have grills between the glass panes
 - 4. All windows shall have wood extension jambs.
 - 5. All windows are picture framed after installation with WM356 2-1/4" colonial casing.
 - 6. No storm windows included.

20. Skylights: None.**21. Exterior Doors**

- A. Front Door: 36" wide fiberglass door with a half circle insert manufactured by Thermatru. Door style to be determined. The door shall be constructed with

- mullion thick enough to provide for the installation of storm door and shall include a pre-installed dead bolt bore. The door shall have U Value of .19 and a SHGC of .07.
- B. Door from the Nook to the Screen Porch: 72" Sliding Door manufactured by Silver Line. The door shall have U Value of .35 and a SHGC of .32.
 - C. Door from the Master bedroom to the Private Deck: 72" wide full view patio door #SS108 with grills between the glass panes manufactured by Thermatru. Both panels shall operate and shall include a pre-installed dead bolt bore. The door shall have U Value of .33 and a SHGC of .19.
 - D. Door from the Garage to Exterior: 36" wide steel insulation door manufactured by Thermatru and shall include a pre-installed dead bolt bore. The door shall have U Value of .16 and a SHGC of .01.
 - E. Door from the Hallway to the Garage: 36" wide steel insulated 6-panel door pre-drilled with a dead bolt bore manufactured by Thermatru.
 - F. Garage Doors: 16' wide by 7' tall white insulated garage doors with a torsion spring lift, automatic opener, and two remotes. The door shall also include decorative "Sunburst" glass inserts. Contractor to select the brand and manufacturer of the garage door.
 - G. Storm Door: Full view "Signature Series" storm door manufactured by Larson installed.
 - H. Exterior door hardware: "Soma Collection series 8400 round nickel entrance and deadbolt lock combinations manufactured by Better home Products installed on all exterior doors, except the front door which shall have a thumb latch lock installed. All exterior doors shall be keyed alike.

22. Lath and Plaster

- A. Walls: ½" smooth drywall installed. All wall joints and nails shall be taped and all corners beaded.
- B. Ceilings: ½" smooth drywall installed. All joints and nails shall be taped and the ceiling shall have a textured finish.
- C. Air Sealing Measures:
 - 1. The ceiling drywall shall be sealed to the top plate with a single bead of caulk.
 - 2. Penetrations through drywall in the attached garage sealed.

23. Interior Doors & Hardware

- A. Interior doors: 6 Panel hardboard doors with finger jointed split jambs and satin nickel hardware. Types, sizes, and locations per the attached plans. Contractor to select brand and manufacturer.
- B. Door trim: WM356 2-1/4" colonial casing, except Bi-fold doors and designated openings, which have colonial cased openings.
- C. Door finish: All interior doors are painted with one color of interior semi-gloss paint. In addition, all joints are caulked with standard interior, white, paint-able caulk.
- D. Interior door hardware: "Soma Collection, series 8400" round handle nickel door hardware installed.
- E. Other: None.

24. Interior Trim & Details

- A. Closet Shelving: Vinyl coated steel closet shelving installed per contractor's layout.
- B. Base Mold
 - 1. Areas of Installation: All finished rooms.
 - 2. Type: 5-1/4" MDF speed base
 - 3. Finish: Painted with one color of interior semi-gloss paint.
- C. Crown Mold:
 - 1. Areas of Installation: All first floor finished rooms only.
 - 2. Type: EC40 4-1/4"
 - 3. Finish: Painted with one color of interior semi-gloss paint.
- D. Chair Mold & Backer:
 - 1. Areas of Installation: Dining Room & Stair Landing only
 - 2. Backer Type: EC425 4-1/2"
 - 3. Chair Type: EC302 2-3/4"
 - 4. Finish: Painted with one color of interior semi-gloss paint.
- E. Shadow Boxing:
 - 1. Areas of Installation: Dining Room & Stair Landing only.
 - 2. Type: Inverted base cap.
 - 3. Finish: Painted with one color of interior semi-gloss paint.
- F. Shoe Mold
 - 1. Areas of Installation: All hardwood flooring areas
 - a. Type: Oak
 - b. Finish: 1 coat of natural semi-gloss polyurethane.
 - 2. Areas of Installation: All ceramic tile flooring areas
 - a. Type: Pine
 - b. Finish: Primed and painted with one color of interior semi-gloss paint.
- G. Fireplace Mantels:
 - 1. Areas of Installation: Family Room
 - 2. Type: Oak.
 - 3. Finish: Natural finish.
- H. Ceiling Medallions:
 - 1. Areas of Installation: Dining Room & Nook.
 - 2. Type: 14" plain round installed in the Nook and 19" decorative installed in the Dining Room.
 - 3. Finish: Painted with one color of interior semi-gloss paint.
- I. Plant Shelves: None.
- J. Access to attic storage: 22" x 30" scuttle hole trimmed with WM356 colonial casing. The access panel shall be insulated from the attic side with two layers of 2" foam board or four layers of 1" blue board glued. Weather stripping shall be installed under the edges of the casing.
- K. Book Cases / Built In Furniture: None.
 - 1. Adjustable oak shelves with natural finish installed over the whirlpool tub in the master bathroom.

- L. Other: All knee walls are capped with 1"x 8" MDF then routed and trimmed with inverted base cap.

25. Landings, Stairs, & Stair Parts:

- A. Interior Stairs to 2nd Floor (open rail oak stairs to the landing turn then carpeted treads)
 - 1. Treads: 5/4" Oak stair treads with natural finish installed to the landing with 5/4" OSB stair treads carpeted installed to the second floor.
 - 2. Risers: 1" x 8" MDF, prime and painted on the Oak treads and carpeted on the OSB treads.
 - 3. String sideboards: 1" x 12" MDF
 - 4. Open Handrail: L.J. Smith #6010
 - 5. Balusters: L.J. Smith #2011
- B. Attic Access Stairs: None.

26. Interior Wall Coverings & Decorations

- A. Painting:
 - 1. Interior Walls (not bath or kitchen): Primed and painted with one color of Promar 200 (or equal brand) flat interior paint. Promar 200 is a trademark paint product of Sherwin Williams. The color is #6141 Softer Tan.
 - 2. Bath & Kitchen Interior Walls: Primed and painted with one color of Duration (or equal brand) moisture resistant semi gloss interior paint. Duration is a trademark paint product of Sherwin Williams. The color #6141 Softer Tan.
 - 3. Trim (doors, casing, ect.): Primed and painted with one color of Promar 200 semi-gloss interior paint. Promar 200 is a trademark paint product of Sherwin Williams. The color is White.
 - 4. Exterior: All designated areas (if applicable) shall be painted with one color of Promar 200 exterior semi-gloss paint. Promar 200 is a trademark paint product of Sherwin Williams. The color of the posts and railings is White. The color of the front door is Maroon to match the color of the shutters.
- B. Mini Blinds: None included.
- C. Other: The installation wall papering, or other finish decorating is not included.

27. Cabinets & Interior Details: The layout is TBD by Contractor.

- A. Cabinetry (Kitchen & Master Bedroom): Maple cabinetry with Cafe finish manufactured by Marsh with "Florence" raised panel doors and nickel round knobs installed.
- B. Counter Tops: Granite, the color and style is Santa Cecilia Dark.
- C. Bath Vanities: White Thermo foil cabinetry manufactured by Marsh with "Fairmont" raised panel doors and nickel round knobs installed.
- D. Bath Tops: White on white cultured marble
- E. Wall or Special Tiling:
 - 1. Back-splashes: None.
 - 2. Bath Walls: None.
 - 3. Whirlpool Surround
 - a. Areas of installation: Master bath whirlpool tub

- b. Courses: 3-5 per Contractor field design
- c. Tile Material: White 4-1/4" x 4-1/4" ceramic tile manufactured by Dal.
- d. Color: White
- e. Grout: Bright white
- f. Installation Pattern: Square

28. Floor Coverings:

A. Hardwood Flooring:

- 1. Areas of Installation: Foyer, Dining Room, Great Room, Kitchen, Nook, ½ Bath, and Hallway.
- 2. Type: 2-1/4" wide planks of #1 Common Red Oak
- 3. Stain: None.
- 4. Finish: Semi Gloss.

B. Carpet & Padding:

- 1. Areas of Installation: Stairs, Upstairs Hallway, and All Bedrooms & Closets.
- 2. Carpet Manufacturer: Shaw Industries
- 3. Carpet Brand / Style: Treasure II / Hang Time
- 4. Carpet color: Natural.
- 5. Padding information: 6 LB density "Black Diamond" padding installed.

C. Tile Flooring:

- 4. Areas of Installation: Utility Room, and all Full Bathrooms.
- 5. Size / Type: 12" x 12" Ceramic
- 6. Brand: Prairie – Beige
- 7. Manufacturer: Mulia
- 8. Grout: Marble Beige by Laticrete
- 9. Installation Pattern: Standard square layout.
- 10. Marble thresholds: As needed

D. Vinyl Flooring: None.

29. Plumbing & Bathrooms: Plumbing types and locations per attached plan. In addition, the following plumbing items shall also be installed: a single ice maker connection, a single washing machine hook up, a garbage disposal, and two exterior hose bibs.

- A. Water supply: Town of Blacksburg. Contractor shall install ¾" CTS water lines from the street connection to the house. Internal water lines are Pex. If necessary a pressure reducing valve shall be installed to ensure that the water pressure inside the house shall be 60 PSI or less.
- B. Sewage disposal: Town of Blacksburg. Contractor shall install SDR35 sewer lines from the street to the house. Internal sewer lines are Schedule 40.
- C. Sprinkling yard system: None.
- D. Internal fire sprinkling system: None.
- E. Floor drains: None.
- F. Water Heater: Rinnai natural gas tank-less water heater. The water heater shall be located per the attached plans.

- G. Kitchen Sink: 32-1/4"x18-1/2"x8" 18 gauge stainless steel double bowl under mount sink manufactured by Pro-Flow installed. Contractor to select the size, brand, and manufacturer.
- H. Kitchen Sink Faucet: Single lever satin nickel one touch "Extensa" faucet by Moen installed.
- I. Laundry Tub: None.
- J. General information:
 - 1. Isolation valves installed at all plumbing fixtures
 - 2. Freeze proof exterior faucets installed at all exterior hose bib locations
- K. Master Bedroom:
 - 1. Sink: Round stainless steel bar sink manufactured by Pro-Flow with a dual handle stainless steel bar faucet manufactured by Deco installed.
- L. Master Bath:
 - 1. Sinks: One piece double bowl cultured marble top included in the Cabinetry Allowance.
 - 2. Sink Faucets: "Eva" style faucet by Moen installed. Faucet is satin nickel with a single handle; supplies are 4" on center.
 - 3. Toilet: 1200 Series elongated white toilet manufactured by Pro-Flow installed.
 - 4. Toilet Seat: Elongated white plastic manufactured by Pro-Flow seat installed.
 - 5. Shower: 48" S-48 fiberglass shower unit manufactured by Maxx Aker installed.
 - 6. Shower Valve and Faucet:
 - a. Valve: Single lever, 4 port pressure balanced with sweat valve with integral stops, Moen #62320
 - b. Trim-out: "Eva" by Moen installed. The trim out is satin nickel with a single handle. The model number is #TL183.
 - 7. Shower Door: Satin nickel pivot shower door with obscure glass installed. Contractor to select the brand and manufacturer of the shower door.
 - 8. Whirlpool Tub: 72" x 26" ACR whirlpool tub manufactured by Pro-Flow installed. The whirlpool tub shall be complemented with a maximum of 3 courses of white 4-1/4" x 4-1/4" ceramic tile with 2" x 6" ceramic caps installed in a standard square pattern.
 - 9. Roman Tub Faucet & Trim: "Eva" Satin nickel Wing Handle Roman Tub Faucet manufactured by Moen installed.
 - 10. Bath Hardware: "Soma Collection, series 8400" nickel bath hardware installed. Contractor shall determine the layout and sizes of all bath hardware.
 - 11. Handicap Bars: None.
 - 12. Bath Fan or Fan-Light or Heat-Fan-Light: A standard bath exhaust fan installed.
 - 13. Mirrors: Standard 1/4" thick mirrors with seamed edges installed centered over vanities. Mirrors shall be 40" in height and the same width as the vanity top.
- M. 1/2 Bath

1. Sink: Pedestal sink. Series PF4600 white pedestal sink manufactured by Pro-Flow installed.
2. Sink Faucet: "Eva" style faucet by Moen installed. Faucet is satin nickel with a single handle; supplies are 4" on center.
3. Toilet: 1200 Series elongated white toilet manufactured by Pro-Flow installed.
4. Toilet Seat: Elongated white plastic manufactured by Pro-Flow seat installed.
5. Tub / Shower: None.
6. Shower Valve & Trim:
 - a. Valve: N/A
 - b. Trim: N/A
7. Shower Door: None.
8. Bath Hardware: "Soma Collection, series 8400" nickel bath hardware installed. Contractor shall determine the layout and sizes of all bath hardware.
9. Handicap Bars: None.
10. Bath Fan or Fan-Light or Heat-Fan-Light: A standard bath exhaust fan installed.
11. Mirrors: Standard 1/4" thick mirrors with seamed edges installed centered over vanities. Mirrors shall be 40" in height and the same width as the vanity top.

N. Guest Bath:

1. Sink: One piece single bowl cultured marble included in the Cabinetry Allowance.
2. Sink Faucet: "Eva" style faucet by Moen installed. Faucet is satin nickel with a single handle; supplies are 4" on center.
3. Toilet: 1200 Series elongated white toilet manufactured by Pro-Flow installed.
4. Toilet Seat: Elongated white plastic manufactured by Pro-Flow seat installed.
5. Tub / Shower: 60" LH CM60 white fiberglass tub-shower unit manufactured by Maxx Aker installed.
6. Shower Valve & Trim:
 - a. Valve: Single lever, 4 port pressure balanced with sweat valve with integral stops, Moen #62320
 - b. Trim-out: "Eva" by Moen installed. The trim out is satin nickel with a single handle.
7. Shower Door: None included. A standard 60" non-adjustable shower rod shall be installed. Contractor to select the shower rod.
8. Bath Hardware: "Soma Collection, series 8400" nickel bath hardware installed. Contractor shall determine the layout and sizes of all bath hardware.
9. Handicap Bars: None.
10. Bath Fan or Fan-Light or Heat-Fan-Light: A standard bath exhaust fan installed.

11. Mirrors: Standard 1/4" thick mirrors with seamed edges installed centered over vanities. Mirrors shall be 40" in height and the same width as the vanity top.

30. Heating, Cooling, & Ventilation:

- A. Description: Two Electric Heat Pumps with 13 Seer Electric Cooling Systems and variable speed fans manufactured by Heil installed per the following:
 1. The code complaint system shall be sized to comfortably accommodate the heating and cooling of all finished areas per manual J calculations provide by a licensed HVAC contractor.
 2. Cold air returns shall be installed on each floor in locations to be determined per code and in the master bedroom.
 3. The 2nd floor thermostat shall be installed in the master bedroom.
 4. All ductwork in unconditioned space shall be insulated and shall have a minimum R Value of 8.
- B. Thermostats: A programmable digital thermostat control shall be installed to operate each system.
- C. Air Sealing Measures:
 1. All ductwork shall be sealed with mastic.
 2. All HVAC boots shall be sealed to the subfloor or drywall.
 3. The ductwork shall be tested at rough in to ensure less than 6% leakage.
- D. Ventilation:
 1. All bathrooms and the laundry room shall be vented to the exterior per code.
 2. The range hood / over the range microwave shall vented to the exterior.
 3. Fresh Air Component: Panasonic FV-04VE1 Whisper Comfort Spot Energy Recovery Ventilator (ERV) installed to provide fresh ventilated air while maintaining indoor air quality.
- E. Propane Gas Stub outs in the following locations:
 1. Fireplace
 2. Water heater
- F. Other:
 1. The outdoor unit pads shall be made from recycled materials (whether concrete or plastic)
 2. The HVA Contractor shall provide a letter to Contractor certifying the proper refrigerant charge.

31. Electrical Wiring & Service: The Electrical System shall include the following:

- A. Service: 200 AMP underground service installed.
- B. Wiring: Standard per code
- C. Panel boards and circuits: 200 Amp panel board with a capacity of 40 circuits each installed. All required disconnects are included.
- D. Other general electrical information:
 1. Electrical Layout: Per the attached plans.
 2. Smoke detectors installed per code.
 3. One carbon monoxide detector installed on each finished floor.
 4. Exterior waterproof G.F.C.I. electrical outlets installed per code.

5. G.F.C.I. outlets installed in all bathrooms and all other areas per code.
6. Contractor shall provide a Cutler-Hammer Basic Package #CHSWPAK1 with a basic video and voice module for installation during the electrical rough in. Contractor to install structural wiring from the Communication Port to a maximum of (5) RJ45 multi media jacks.
7. Contractor shall install (5) Cat Five telephone only jack locations which shall all be "daisy chained" in one circuit.
8. Contractor shall install a single door chime kit shall be installed with a door bell button at the front door only.
9. Contractor shall pre-wire for two ceiling fans.

32. Electrical Fixtures: Contractor shall install Energy Star rated electrical fixtures costing no less than \$1,500.00 including all interior and exterior electrical light fixtures, bulbs, door chime kits, ceiling fans, heat-light-fan or fan-light units, and smoke detectors. The electrical layout is per the attached plans.

33. Appliances: Contractor shall install the following Energy Star rated appliances:

- #WMH1170XSS 1.7 CF Microwave/Hood Combo (vented to the exterior)
- #WDU850SWPS 4 cycle dishwasher
- #WRF362LXTS accubake flat surface electric range
- Badger 5 ½ HP Disposal (unseen and not stainless steel or manufactured by Whirlpool)

34. Porches / Decks:

- A. Covered Front Porch: Size per the attached plans. The front porch shall be constructed with the following materials & specifications.
1. Concrete Slab with brick rowlock.
 2. Expansion Protection: None.
 3. Insulation Board: None.
 4. Gravel Sub-base: Clean #57 stone
 5. Vapor Barrier: 6 mil black plastic
 6. Control Joints: None.
 7. Reinforcement: None.
 8. Concrete: 4000 PSI poured to an average depth of 4". Note: the local building code only requires concrete to be poured to an average depth of 3-1/2".
 9. Add-mixtures: Accelerator added as needed during periods of sever cold weather.
 10. Color: Natural; no color additives.
 11. Finish: Broom finish.
 12. Sealer: None.
 13. Drainage: The slab shall be sloped to drain excess water.
 14. Posts: 8" wood columns installed. Contractor to select the brand and manufacturer of the columns.
 15. Railing & Balusters: As required by code treated wood primed and painted per the attached plans if necessary.

16. Porch Ceiling Soffitt: White, vinyl solid soffitt manufactured by Norandex-Reynolds installed.
- B. Master Bedroom Private Deck: Size per the attached plans. The deck shall be constructed with the following materials & specifications.
 1. Beams & Deck Boards: Treated wood primed and painted per the attached plans.
 2. Railing & Balusters: Treated wood primed and painted per the attached plans.
 3. Rain water drainage system: A system shall be designed and installed to capture and drain rainwater so as to keep the screened porch below dry.
- C. Screen Porch & Rear Walkway: Size per the attached plans. The screen porch shall be constructed with the following materials & specifications.
 1. Beams & Deck Boards: Treated wood primed and painted per the attached plans.
 2. Railing & Balusters: Treated wood primed and painted per the attached plans.
 3. Screen Material& System: Black vinyl screen installed with the base and cap system.

35. Sidewalks / Patios:

- A. Sidewalks: 60" wide concrete sidewalks installed per the attached site plan. The sidewalks are constructed with the following:
 1. Gravel Sub-base: Clean 57 stone.
 2. Control joints: The sidewalk is formed in 4' sections with double edged cuts in between each section.
 3. Reinforcement: None.
 4. Concrete: 4000 PSI poured to an average depth of 4".
 5. Add mixtures: Accelerator added as needed during periods of sever cold weather.
 6. Color: Natural; no color additives.
 7. Finish: Broom finish.
 8. Sealer: None.
 9. Drainage: The slab shall be sloped to drain excess water.
 10. Other: No brick pavers are included.
- B. Rear Patio: None
- C. Rear Stoops / Pads: None

36. Driveway: Concrete for the driveway to be installed per the attached engineered site plan.

37. Landscaping: Contractor shall install Sod on the front and sides of the house with seed and straw installed in the rear of the house. Other landscaping installed per Contractor layout.

38. Exterior Cleaning & Job Site Organization: The job site shall be cleaned on a regular basis as needed. Upon completion of all work, all excess materials and tools shall be removed.

39. Interior Cleaning: Upon completion of all work Contractor shall leave the dwelling “Broom” clean. **Please note, “Broom” clean does not mean sterile. Additional cleaning may be necessary depending on the Purchaser’s preferences.**

Specifically, Contractor will ensure that the following items are completed:

- A. All trash and debris has been removed from the dwelling.
- B. All hardwood flooring areas have been swept and dusted.
- C. All casing and base mould have been dusted and all stray marks or dirt spots removed.
- D. All stickers/decals and paint/plaster droppings have been removed from the windows. (This does not mean the windows are completely free from dust, grime, or streaks)
- E. The window sills have been vacuumed.
- F. All counter tops and bath vanity tops have been wiped down.
- G. All toilets, tubs, and showers have been wiped down and are free of debris.
- H. All electrical fixtures have been dusted.
- I. All sidewalks, patios, porches, and decks have been pressure sprayed.
- J. Basement areas and garages have been swept.
- K. Mirrors have been wiped.
- L. All carpets vacuumed.
- M. All vinyl & tile floors swept and mopped.

40. Miscellaneous Information: None.