

61 Granite Street  
Portland, Maine  
04102

SPECIFICATIONS:

Bidding Information:

5.

Building Permit:

The Owner, shall file for and pay for the Building Permit.

6.

Allowances:

Where stated in the construction documents / specifications the Contractor shall provide allowances in his Bid. The allowances are for the purchasing of the items and their delivery to the site. All other work, i.e. installation, handling, miscellaneous materials, etc., shall be part of this Contract and be included in the Contractor's Base Bid. Receipts for all allowances items shall be sent to the Architect / Owner.

7.

Work Not in This Contract (N.I.C.):

The following Work is not part of this Contract. However, the General Contractor shall cooperate with these Contractors, and shall coordinate his work with their needs and requirements.

A. Landscaping: Except as otherwise noted all landscaping shall N.I.C.:

B. Fire & Security Systems: By Owner / Contractor to coordinate w/ sub.

C. Structured Wiring (Audio / Cable /Internet/ Tel): By Owner / Contractor to coordinate w/ sub.

Division #1: General Requirements:

The following General Notes shall apply to all sections and divisions of the Specifications, to the Working Drawings and to the entire project.

1 The contractor shall furnish all labor, materials, equipment and services required to complete all work described in and implied by these specifications and Working Drawings.

2 In order not to delay the work, the contractor shall order all specified materials and fabricated items with sufficient lead time as to ensure the proper sequencing of the work.

3 The standards indicated shall apply to the work except when applicable governing codes or regulations are more restricted, in which case such codes and regulations shall govern the work.

4 In general, manf. recommendations and installation instructions shall be followed for all materials used in this project.

5 *Checking and Scaling Drawings:* The contractor shall verify all dimensions shown on the working drawings and will be responsible for the correctness of the setting of the "work". The contractor shall not "set" work by "scaling" the drawings. He will follow dimensions rather than scale. All dimensions shown to be "verified" or "confirmed" shall be verified in the field. Contractor to inform architect prior to placement of work all dimensions that do not correlate with intended noted dimensions / design intent.

6 All work shall comply with state, local and applicable IRC Building Codes.

7 The working drawings and specifications are to be considered as cooperative. Any work shown in the drawings, but not described in the specifications, or visa-versa, or any work within the limits of the drawings and specifications, is to be considered as part of the contract and shall be executed by the contractor.

8 The contractor shall be responsible for debris removal. All debris shall be disposed of properly, all fees and permits for disposal to be the responsibility of the contractor. If requested all disposal tickets / receipts / etc. are to be available for owner records.

9 The contractor shall provide and execute all shoring's, jacking's, bracing's, etc. required to accomplish the work. The contractor shall be responsible for the design and execution of these items. He shall provide engineering for approval where noted prior to start of work.

10. The contractor shall provide for approval by Architect Shop Drawings for all items provide by others requiring design development and field condition amendments prior to fabrication. Typical items include and not limited to: special structural conditions, all cabinetry, millwork profiles, etc. Provide samples for approval as requested.

11. Note: Final selection of all material used in the construction of the project shall be by the contractor with owner approval.

The contractor shall verify the health / safety of all materials used in the construction of the project by obtaining either Material Safety Data Sheets (MSDS) or other manufacture contact data.

A copy of the MSDS and other material safety data used on the job and installed in the project shall be kept on site and made available to all workers on site and presented to the owner at the completion of the project.

Division #2: Site Work / Excavation / Septic System / Utility Connections:

Site Work:

1 Landscaping: Landscaping is (N.I.C.). However, the contractor shall do those things indicated on the plans and necessary to the carrying out of the construction work. He shall protect from damage those items which might be harmed by his work. All plantings close to the construction will be protected from damage. Provide and spread top soil & grass seed in disturbed areas and areas indicated on the Site Plan.

2 Site Preparation: The contractor shall organize the storing of materials / tools / etc and the placement of debris containers in an orderly and neat manner as approved by the Owner. The "work areas" shall be kept clean and neat at the end of the work day.

3 Staking and Layout: Before starting the new work, the contractor shall stakeout the new work and investigate the foundation conditions. He shall verify final locations and conditions with the Owner and the Architect before proceeding. Contractor to have surveyor locate final footprint locations of all new additions and amend site survey. Contractor is responsible for surveying costs.

4. It is the responsibility of the contractor to locate all underground utilities and service lines that may exist on the site prior to excavation.

5. Provide fences, barricades or other necessary protection around all open trenches, excavations and other hazards.

6. Contractor shall use appropriate measures to protect the site, adjacent properties and roads from silting and erosion during construction as noted in the plans and as required by site conditions.

Excavation and Grading:

1 Contractor shall verify the adequacy and soundness of existing footings and foundations.

2 Excavate for foundations as required by plans, details, and job conditions. All footings shall rest on undisturbed soil, a minimum of 4'-0" below grade or as noted on drawings. Assume no rock excavation requiring blasting. Provide all Labor and materials as per details.

3 Provide New Underground Footing and Basement Drain tiles as indicated on Drawings and / or required by code. Provide Site Drainage / Dry Wells / Etc. as indicated. Confirm drywell locations with Architect in field.

4 Provide for all temporary Utilities, Water, Electrical, Telephone, Cable TV, Well Line, etc. as required.

5 Grading: Backfill and grade around foundations and slab work as required by job conditions and as indicated on Plans. Foundation backfill shall be placed, compacted, and puddled in layers 12 inches deep.

6 Strip topsoil from areas to be excavated, stock pile and protect close by. Re-install on all disturbed, filled and backfilled areas at the end of construction. Seed / finish to match existing.

7 Septic System:

9 Water Supply: Contractor to verify existing system and confirm viability for new conditions. Report to Architect and propose new work as req'd. Provide min 60 psi water supply at all location. Plumber to verify if booster is needed. Provide allowance for booster if required.

10 Utility Connections: The contractor shall verify existing system and confirm viability for new conditions and code compliance. Report to Architect and propose new work as req'd. If need be the contractor shall contact and coordinate services and work with local utilities and others as required and obtain all necessary permits and approvals. All work shall be done as per code and governing regulations. See electrical specifications for more information.

Division #3: Masonry

Concrete and Foundations:

1 See Plans, Notes, and other Details, for Concrete Slabs, Slab Pitching, and other foundations and structural conditions.

2 Concrete: No concrete shall be poured subject to freezing conditions or on frozen ground. All footings shall be formed to meet sizes indicated on drawings and details and should rest on undisturbed soil / a minimum of 4'-0" below grade. Twenty-eight days comprehensive strength for concrete shall be as follows: Footings 3500psi, Slab on Grade 3500psi, Walls 3000psi. New Slab areas on grade shall be 4" (unless otherwise noted) thick stone concrete with WWF 6x6 1.8x1.8 over 6" 3/4" structural gravel bed (tamped). Provide 6 mil Polyethylene Vapor Barrier under slab (including crawl space

slabs) unless otherwise noted. Slab shall be finished in accordance with ACI Standards 318, 304, and 310.

All reinforcing bars shall be billet steel conforming to ASTM A615, grade 60. Ties and stirrups must be grade 40. All welded wire mesh (WWF) shall conform to ASTM A185. All vertical surfaces of concrete shall be formed for walls.

Reinforcing steel shall be placed to provide the following minimum concrete cover: Slab on Grade 1 1/2", Walls 2", Footings 3". The contractor shall verify all drawings for coordination between trades and provide and or install anchors, inserts, sleeves, hangers, etc. required for various trades.

3 Provide damproofing and 2" insulation at new foundation walls and slabs / as per details and per code. Confirm R value per code requirements. Provide Dow Styrofoam SM Insulation Extruded Polystyrene (Type 4) 2" R-10. See manf installation instructions for more information.

4 Concrete Blockwork: If concrete blockwork is used, the block shall be hollow load bearing units conforming to ASTM C-90-85 grade NI. Mortar shall be ASTM C-270 types, and installation shall conform to recommendations of the National Concrete Masonry Association. Fill Block voids under all bearing points and top 2 courses. Provide continuous masonry reinforcing at each second block course (Durowall or equal)

Division #4: Carpentry / Wood / Steel:

Rough Carpentry / Wood:

1 All framing shall be done in accordance with the latest edition of "National Design Specification for Stress Graded Lumber and Its Fastening" as published by the National Lumber Manf. Asso.

2 All lumber materials used in the building shall be good, sound, dry material free from rot, large and loose knots, shakes, and other imperfections whereby the strength may be impaired and of sizes indicated on the drawings.

3 All work and workmanship including nailing, blocking, bridging, etc shall conform to State / Local Code Requirements and IRC Building Codes.

4 Provide Ledger, Blocking, Nailers and Rough Framing Hardware as required.

5 Unless other wise noted, all lumber for roof and floor joists and other structural members shall be Spruce - Pine - Fir No. 2 or better with min. FB-1500psi and E-1.7 psi and shall bear visible grade stamp.

- 6 All beams and joists and rafters to be set with natural crown up.
- 7 Provide double joists and headers around all roof openings unless otherwise noted on plans and details.
- 8 Unless otherwise noted provide a header upto 4' Span of (2) 2x8; upto 6' Span of (2) 2x10; upto 8' Span of (2) 2x12;
- 9 Plywood subfloor shall be 3/4" thick Advantech (as manf by Huber Engineered Woods) rated floor sheathing index stamp shall be visible on all sheets. Fasten to supports with a combined nail and glue system. Glue shall conform to APA specs AFG-01 and be applied in accordance with manf. recommendations. 6D ring or screw shank nails shall be spaced at 12" oc. along panel edges and at intermediate supports. All panels to be tongue and groove. All work shall conform to the recommendations of the manufacturer. Note: At all bathrooms & tiled areas provide double layer subfloor - cross run with no same-line joints.
- 10 Material used for wall sheathing and roof sheathing (where required) shall be as manf by Huber Engineered Woods. Zip System Products - Zip Wall Sheathing and Zip Roof Sheathing (T&G 5/8" thick @ roofs 1/2" @ walls). Install per manf instructions and recommendations. Provide code compliance confirmation for Building Department Submission at end of Job. Product stamp shall be visible on all sheets. All edges shall be supported on 2x blocking, or tongue and groove or polyclips. Nail material at 6" o.c. at panel edges and 12" o.c. at intermediate supports; with 6D nails, allow spacing per manf requirements, Tape all joints with Zip Panel Systems Gasket Tape per manf requirements.
- 11 Unless otherwise noted, joist hangers, framing anchors, rafter anchors, and cross bridging shall be minimum 18 gauge prime galvanized steel as manufactured by Simpson, or approved equal. Special nails as supplied by manufacturer shall be used for required nailing.
- 12 Provide "x" bridging or solid blocking 6'-0" minimum o.c. bottom ends of bridging shall not be nailed until after subfloors and partitions above are constructed.
- 13 Wood plates and sill in contact with concrete foundation walls and concrete slabs shall be pressure treated.
- 14 Pressure preservative treatment for wood shall be "Wolmanized Natural Select", "Preserve and NatureWood", "MicroPro", "Smart Sense", "Advance Guard" or approved equal.
- 15 All joists, beams, trusses, or rafters, which are flush framed, shall be connected with approved type galvanized metal joists or beam hangers.

16 Provide a minimum of three studs (one end trimmer / two bearing trimmers) at end of all beams and headers if no posts are specified on Structural Plans.

17 Infiltration Barrier (Membrane): Provide and Install "TYVEK" membrane (by Dupont), in lieu of building paper at exterior wall areas and as per manufacturers specifications. (12" overlap w/ taped joints)

18 All bolts shall be made from steel which satisfies the requirements of ASTM-A307 "Standard Specification for Carbon Steel Bolts and Studs, 60,000psi tensile strength". Bolts shall be inserted in holes with a diameter 1/16" larger than the bolt diameter. The end distance, edge distance, and spacing of bolts shall be as shown in the details.

19 All lag screws shall be made from steel which satisfies the requirements of ASTM A307. Lag screws shall be inserted in lead holes as follows: 1. The lead hole for the shank shall have the same diameter and depth of penetration as the shank., 2. The lead hole for the threaded portion shall have a diameter equal to 1/2 the shank diameter and a depth equal to the length of the threaded portion.

20 See Typical Wall Details and Specifications and other Details for other requirements and materials.

21 Structural Steel:

Finish Carpentry:

1 See plans, and details for other work and materials.

2 Exterior Siding: To be match existing Color Finish to be as selected by Owner . Install per manf recommendations. Provide samples for approval prior to ordering.

3 Exterior Trim: Trim pieces, as indicated, shall be Hardie Trim Boards in dimension and profiles as indicated / inferred by drawings and as approved by Owner / Architect approved.

4 Exterior Roof Soffits: Soffits shall be Hardie Board (min 4" width) Provide wood blocking 16"o.c. maximum as required.

5 Columns: NA

6 Interior Wood Floors: Shall match existing flooring (2 1/2" strip oak). Provide for approval samples prior to install. Finish as selected by Owner / Architect approved. Provide in field (4) finish samples for approval prior to finishing (3 samples of applied

stain (color per Architect) / 1 sample natural finish). Areas to be carpeted shall be prepared with 3/8" P.T.S. under-layment over sub floor. Existing wood floors to remain affected by construction are to be refinished. (See Finish Schedule).

7 Interior Wood Trim: All interior trim, including window trim, door trim, baseboards, etc. shall be milled from solid pine (non finger-jointed). All profiles and details shall be mid range based per Dyke's Lumber / Rings End Lumber. Provide samples for approval.

8 Handrails and Balustrades: Shall be as indicated / inferred and as per all code requirements. Provide allowance in base bid. Provide samples for approval.

9 Closet shelves and poles: Closets shall have 1 1/2" diameter chrome rods and 12" deep "baltic birch" veneered plywood shelves. (face with 1x3 Birch lip).

10 All finish carpentry shall be top quality workmanship. All work shall be true, level, and smooth and shall be made ready for finishing work. All nails and screws shall be countersunk and plugged. All corners shall be mitered.

Division #5: Roofing:

Roof Shingles:

1 Main House Roofing to be CertainTeed Landmark Premium / Architect 80 Series two-piece laminated fiberglass Asphalt Shingle. (30-year) UL Class A Fire rated - ASTM D3462 / ASTM 3018 Type I rated. Provide all required flashings and accessories (24oz copper per CDA recommendations) (i.e. drip edge, roof penetration flashings (with rubber boot), etc.) Provide samples for Owner / Architect - Provide underlayment of 30 lb felt / building paper and EDPM Self Sealing Roof Membrane as manf by WR Grace and Co. or approved equal / see drawings for more information. All work and specifications shall be in accordance with the recommendations of the manufacturers product specifications.

Roof Flashing / Gutters / Leaders:

1 Roof flashing, including all hips and valleys, as noted elsewhere. All work shall be in accordance with the roofing manufacturers recommendations.

2 Gutters to be half round copper (18oz) as manf by Berger or approved equal - 5" radius, using continuous lengths with no joints. Provide all required accessories (copper) including adjustable spring tab roof hangers, quarter ball end caps, seamless miters, etc. Gutters to be pitched to leaders/ / drains. Provide sample for approval. Note: Provide Add Alternate Cost for gutter to be half round powder coated / paint finished aluminum.



3 Roof gutter leaders to be copper (18oz) as manf by Berger or approved equal - 4" smooth round - drains with strainer baskets and all other required accessories (copper). Provide sample for approval. Note: Provide Add Alternate Cost for powder coated / painted aluminum.

4 All required leaders from gutters shall be attached to building face with appropriate rack and key fasteners. Leaders shall have cleanouts and be attached to existing drywell drain lines (verify in field). Provide sample for approval. Note: Code requirement - all storm water drywells shall be 20'-0" min away from building face & 50'-0" min away from any septic system.

#### Division #6: Building Insulation / Sealants / Flashing:

1 Building Insulation: Shall be spray in insulation "Demilec - Agribalance" open cell, as manf by Demilec USA 2925 Galleria Drive Arlington, TX. 76011 (817) 640-4900 and / or approved equal. Install per manf. direction. Min. R-38 at all cathedral & attic joists spaces / Min. R-19 at all wall locations (confirm code requirements prior to install). Manf. shall supply to Architect code conformance data and approved new york state code use approval for submission to Building Department. Note: At crawl space provide 3" continous spary insulation thinkness on all vertical surfaces - use "Demilec - HeatLocSoy" closed cell material / Min R-15. (Note: insulate perimeter of foundation min 2'-0" @ first floor system (see details)).

2 Vapor Barrier: Not required if insulation is spray in "Demilec" and / or approved equal. If fiber batt insulation is used all interior spaces shall be sealed on the inside face of framing members with a 6 mil polyethylene vapor barrier (12" overlap / taped).

3 Under Slab Insulation and Foundation Wall Insulation: Shall be 2" rigid insulation board as manf by Dow Building Solutions (866) 583-2583 - "Styrofoam SM (R-10) or approved equal (over 6 mill PVB (12" overlaped / taped joints).

#### Sealants

1 One part silicone sealant, in color as selected by owner, at all exterior frames in contact with cement, plaster, concrete, wood, etc. and at joints and locations noted on drawings.

2 Filler: Filler material shall be closed cell, compressible, resilient, free from tar, asphalt, oil, or other foreign substances. Filler shall be approved expanded polyethylene form in rod shape.

3 Caulking primer shall be non staining primer as recommended by the caulking compound manuf.

## Flashing:

- 1 All building flashing indicated / inferred and required by good building practices shall be 12oz lead coated copper unless otherwise noted.
- 2 For other flashing and waterproofing materials see details.
- 3 The contractor shall provide flashing and counter flashing at all penetrations of roof and exterior walls at windows and door heads and at door sills and at all other areas indicated and required by good construction. Note: All windows and doors require built-in head flashing. All doors to have built-in copper sill pans. Provide alternate cost deduct for edpm sill / head flash "Vycor" or equal.
- 4 Elastomeric Flashing: Provide and Install Elastomeric Flashing as manf. by WR Grace and Co or approved equal @ Roof Eaves as indicated and all valley / roof intersections for a min of 3'-0" coverage each side of break (12" overlap)

## Division #7: Exterior Windows and Doors / Interior Doors:

- 1 All windows and doors shall be Marvin Ultimate Casement Units and Marvin Wood French Door Units (as indicated) as per plans, specs and window schedule. Without Exterior Trim / Standard Sizes / Finish to be White Prime Exterior and White Prime Interior / Hardware - Shall be WC-10 Nobilus Series Authentic Hardware and / or approved equal (provide samples for approval) / Glazing - insulated glass with simulated divided lites (brown spacer bar) (5/8" mutts) as indicated - Northern Low E - Argon Filled / Each Window (where combination of units) to be mullied. Trim to as directed by architect and inferred by drawings. Note: Provide screen panel - charcoal fiberglass screen material w/ white aluminum frame. Note: Shop Drawings to be provided for all window types - it is the responsibility of the contractor to confirm all lite sizes / mutt patterns.
2. Interior doors to be Tru-Stile door units to as noted in door schedule. Hardware as selected by architect / owner approved. Provide allowance in Bid Estimate for hardware. Base allowance on Schlage passage & privacy sets - "Andover" Series. Assume all hardware, including hinges to be brass unless otherwise indicated. Provide samples for approval.
- 2 Contractor shall confirm and check all RO Sizes, Frame Sizes, etc. prior to ordering. Provide shop drawings for approval.
- 3 Interior Wood Trim / Casing Trim / Extension Jambs / Sills / Etc. Shall be supplied and installed by the contractor as required. Profiles / Details as selected by Owner / Architect approved. Provide samples for approval. See Finish Schedule.

4 Existing Interior doors shall remain the same unless otherwise noted. Provide allowance for hardware tune-up for all doors in affected areas.

5 The contractor shall provide rough openings / casing trim / stone saddles / 5/4" jambs, etc as required. All doors shall be painted.

Division #8: Interior Finishes:

1 All Gypsum Drywall work shall conform strictly to the standards of the Gypsum Drywall Construction Handbook by US Gypsum Company.

2 All Drywall products shall be as manf. by US Gypsum Co.

3 Gypsum Board: Shall be as manf by USG - "Mold Tough" Panels (with tapered edges) 1/2" thick at walls - Ceilings to be USG - Sag Resistant (with tapered edges) 1/2" thick. Follow USG. Specs and Reco's. Final Finish be painted. Provide USG Type "X" 5/8" fire rated sheetrock throughout garage area.

4. For treatment of sheetrock joints see U.S. Gypsum Specs 3.1.1. Basic single layer system treated joints a thru e USG Folder SA-927 Gypsum Panels and Accessories, Latest Edition. Use series 200 metal trim throughout as required.

5. Screws: Self drilling, corrosion resistant, 1 1/4" phillips head for base layer / 5/8" if second layer, electrically driven / max spacing 12" o.c. @ ceilings - 16" o.c. @ walls.

6. Metal trim / corner beads / jay beads / etc. Series 200. Install at all interior corners and as reco'd by manf.

7. Installation:

A. Installation shall not be started until windows are glazed and doors are installed - Areas to be taped shall maintain 60 degrees for 3 days prior to install.

B. Gypsum board shall be fastened in horizontal position securely to studs with screws specified. Place boards with minimum amount of joints. Where free ends occur between studs, back blocking shall be required.

C. Drywall construction with defects of such characters that will mar the appearance of finished work, or which is otherwise defective, will be rejected and shall be removed and replaced at not expense to the owner.

D. All gypsum drywall work shall conform strictly to the standards fo the Gypsum Drywall Construction Handbook, latest edition, by the U.S. Gypsum Company.

8 Gypsum Board at bath and lavatories shall be the moisture resistant type, with impregnated face paper as manf by USG - Water Resistant Series or approved equal. Treat cut surfaces of moisture resistant board as recommended by the manf. At all constant moisture areas i.e. showers, tubs etc. use 1/2" Durock Cement Board or approved equal.

9 Joint taping and nail hold spackling materials as manf. by US Gypsum. Provide on all joints, all internal angels and casing bead trim.

10 Sound retardant (non frying) caulking shall be clear silicone as manf. by Geo-Cell and / or approved equal.

#### Tile Work:

1 The contractor shall prepare the tile areas and install the tile which shall be supplied by the owner. Note: Tile work consists of mud room floor.

2 The contractor shall verify the quantity required and report to Architect / Owner for ordering. He shall receive, store and inspect the tile upon delivery.

3 The contractor shall supply all other materials, labor, and tools required for the tile work including grout (color as selected by owner - provide samples for approval) setting beds, etc. and shall clean and seal all tile areas at the completion of the work.

4 All floor tile shall be laid by Thinset Method and all wall / ceiling tiles are to be laid by Thinset Method. Method of installation shall conform to the recommendations of the Ceramic Tile Institute of America.

5 Note: Prepare mud room floor area and all bath floor areas with Schluter- Ditra-XL uncoupling membrane base. Tiled bath area walls to have Schluter Ditra waterproof membrane installed. Each as manf by Schluter Systems (800) 472-4588. Install per manf recommendations and instructions.

#### Division #9: Cabinetry:

Note: All Kitchen & Mudroom Cabinetry shall have shop drawings produced for Architect approval prior to fabrication.

1 All work shall be in accordance with all applicable local and state codes.

2 The contractor shall supply all labor and materials to do all work shown, described and required to accomplish all the work indicated on the drawings. and in these specs.

3 The contractor shall verify all field dimensions and locations. The contractor shall follow dimensions shown on drawings and shall not set work by scaling the drawings.

4 The contractor shall supply complete shop drawings for approval by Architect prior to any and all fabrication.

5 All work shall be top quality cabinetry / carpentry work and all materials shall be new. All work shall be typ 3/4" thick flush cabinetry. Exposed edges to have typ solid hardwood edges.

6 All natural wood shall have a natural clear finish (oil or wax) as approved by the owner. Provide samples for approval. All wood to be painted shall receive sealer / prime coats in the shop and finish coats applied in the field. Interior of cabinets to be Birch (natural finish) or plastic laminate (white) unless otherwise indicated.

7 Hardware: All doors shall be hung on concealed type hinges, all drawers shall have full extension ball bearing slides with auto-closers (as manf by Hettich / Grant or Accuride or better), adjustable shelves to be held by recessed hubs and hanger clips, all doors and drawers shall have pulls as provided by the Owner / Contractor installed.

#### Division #10: Painting and Finishing:

1 All colors shall be as selected by the owner. Samples for all colors, paints, and finishes shall be prepared by the contractor for the owners approval. Base painting estimate on a three color scheme in all locations (ie. Ceiling / Trim / Wall).

2 All painting and finishing shall be performed and all surfaces prepared for painting and finishing in strict accordance with manf. recommendations and specifications. All new surfaces and altered existing surfaces shall be properly prepared to receive the finish.

3 The following is a list of approved manf.: 1 Pratt and Lambert, 2 Benjamin Moore, 3 Cabot's Stain, 7 Cuprinol, 8 Peno-Fin.

4 All paint, pigments, oils, etc. shall be of "first line quality", requiring no addition of thinners or other vehicles, and shall be delivered to the site in manf. sealed and labeled containers. All products shall be oil based unless otherwise noted.

5 Hardware, hardware accessories, machined surfaces, plates, lighting fixtures and similar items in contact with painted surfaces and not to be painted, shall be removed, masked or protected prior to surface preparation and painting operations.

#### Exterior Finishing:

1 All new exterior wood, including Trim, Deck Floors, Handrails / Balustrades, etc. shall receive one prime coat and two finish coats. Note: All material is to be backprimed prior to installation.

2 In general, all exterior wood shall be finished as described above. Supply samples for owner approval.

3 All cement plaster shall receive two coats of Cabot's clear 5% silicone waterproofing or approved equal.

#### Interior Finishing:

1 Walls and Ceilings: All sheetrock / plaster surfaces shall be painted: one prime coat / two finish coats.

2 Wood: Unless otherwise noted, all wood surfaces shall be painted: one prime coat / two finish coats. Cabinetry to be field painted shall be primed by cabinetry subcontractor and finish painted in field: finish with 2 coats.

3 Wood Floors: Wood floors to have a clear satin finish as follows:

a) Cutting to be with 60 grit paper, followed by 80 grit paper and finish sanding with 100 grit paper. Final pass after sanding to be finished with 80 cut on a polished machine.

b) Stain / Color as directed by Architect / Owner - provide (4) samples for approval.

c) Apply three final coats (minimum) of Minwax Water Based Polyurethane Satin or approved equal.

4 Concrete floors shall receive two coats of Cabot's Clear 5% Silicone Waterproofing applied in accordance with manf. recommendations. Unless otherwise noted - see finish schedule.

5 All interior stone, tile, etc. shall be properly sealed with a clear natural sealer.

6. Basement & Garage Floor to be finished w/ U-Coat Epoxy 3 step finish (or approved equal). Color as selected by owner - provide samples for approval.

#### Division #11: Plumbing:

1 All work shall comply with all applicable state and local codes. All certificates, approvals and permits shall be obtained by this contractor and surrendered to the owner at the completion of the work.

- 2 Hot and Cold water system shall be tested and proven tight under a hydrostatic pressure of at least a 10 foot column of water for a period of 24 hours.
- 3 Sanitary work shall be tested and proven tight under a test pressure of at least a 10 foot column of water for a period of 24 hours.
- 4 Provide roughing and connections to all equipment or devices supplied by other trades.
- 5 Furnish and install exterior frost free sill cocks (bibs) with recessed seat (anti-freeze) as manf by "B#K" or Moen, or approved equal.
- 6 Coordinate all work and all locations with owner.
- 7 All soil, waste and vent piping above ground shall be schedule 40 PVC or approved equal.
- 8 Insulation: All hot and cold piping shall be insulated with foam wrap and / or glass fiber insulation in molded sections 1/2" thick. Confirm with Architect.
- 9 All hot and cold piping shall be copper (type L). Provide shutoff valve for all branches 1/2" or larger or at all fixtures. Provide add / deduct alternate for PVC and / or Viega Pex supply lines with manifold system in bid estimate. Confirm with Architect prior to placement.

#### 11 Plumbing Fixtures and Fittings:

- a) Provide and install fixtures and fittings as selected by Architect / Owner for locations shown on plans. Provide cuts to the architect / owner and verify items with prior to ordering. Provide stated allowance for all fixture & fitting purchases in bid for kitchen (assume Elkay SS Sinks & Moen Fittings) and bath areas (assume Toto Mercer Suite Fixtures and Toto Mercer Suite Fittings).

#### Division #12: Electrical:

- 1 All work shall conform to and be in accordance with all applicable codes including Fire Underwriter's Specifications. Provide Fire Underwriter's Approval for all required stages of construction.
- 2 Furnish and install all light and power wiring services, equipment, conduits, outlet boxes, junction boxes, pull boxes, floor boxes, wiring devices, dimming devices, and cover plates for a complete working system.
- 3 Lamp all fixtures at completion of job.

4 Furnish and install all required wiring and electrical connections to all HVAC Equipment, Appliances, and all other Electrical Devices supplied by the other trades.

5 Provide and install empty conduit lines and junctions as directed in field by Architect. Leave a drag wire in all such areas.

6 Electrical Fixtures /Devices/ Etc. Provide and Install all electrical fixtures, devices, etc. Provide stated allowance for fixtures provided by contractor. Supplied by Owner Fixtures shall be installed by Contractor.

7 Coordinate work and locations with owner / architect prior to rough in. Coordinate a walk-thru with Architect / Owner for electrical placement prior to rough in. Architect, after walk thru shall provide updated electrical layouts prior to rough in.

8 All wiring shall be run concealed, except in basement areas that are unfinished.

9 All work under this section shall include cutting necessary to install the electrical work and to make same come together with the work required under other operations involved in the construction. All cutting shall be done in a neat workman like manner.

10 Cleaning: All equipment installed shall be wiped clean of all dust and debris. All temporary stickers, labels, and markings, shall be removed before final acceptance.

11. Contractor is to verify existing service and report to owner / architect prior to performing any and all work. Verify existing electrical service is adequate for new electrical installation. If system is in-adequate provide add alternate cost for upgrading system. Provide sub-panels as required by code. Note: Install whole building surge protection at main panel.

12. Structured Wiring - Architect & Owner to coordinate with Contractor and electrician shall install Cat 5 / Coax / 4 Line Telephone / Etc. Architect, after walk thru shall provide structured wiring layouts prior to rough in by electrician.

13. Security System is N.I.C. - Owner to coordinate with Contractor and provide sub-contractor.

14. Provide Fire / Carbon Monoxide Detectors as required by code and as located in plan per Section 313 of the New York IRC. Shall be interconnected with Security System.

Division #13: HVAC:



1. Existing HVAC System shall remain (alter as required by new work). Contractor and HVAC Sub-Contractor shall provide design layout drawings including a "Manual J" report for approval by Owner and Architect. All ductwork shall conform to SMACNA's Standards for Metal Duct Construction. Ductwork shall be constructed of best grade prime galvanized sheet metal, gauges and supports per ASHRAE Guide (latest edition). All ductwork to be seamed and crossbroken for flutter prevention. All ductwork intersections shall be metal taped sealed. All ductwork to be insulated with min R-6 wrap. Paint all visible interior ductwork flat black at all registers / grilles. All grilles and registers shall be Hart & Cooley or approved equal (floor (411 deluxe diffuser) and wall A500 series). Provide samples for approval. Confirm fresh air exchange requirements per proposed construction.

Note: HVAC Contractor to confirm / verify in field existing system is adequate to support new additional heating requirements. Provide Add-Alternate if existing system is inadequate to support new addition.