

1. See Door Schedule
2. Window manufacturer must certify that egress windows as designated on plans and in specifications must meet IBC and applicable codes for opening size
3. Windows, door glass and miscellaneous glazing must be thoroughly cleaned, including removal of all labels, prior to substantial completion.
4. Any possible new units to replace existing deteriorated sash and frames shall be custom-sized to fit masonry openings.

810. Doors, Exterior

1. Main Front Entrance: Re-use and repair existing as required.
2. Front Porch door: Therma Tru Smooth Star S2200, fiberglass
3. Rear Entrance: Mastercraft E-2, or approved equal, fiberglass panel type with smooth finish (no imitation grain surfaces allowed)
4. Front Porch door, Rear Entry Door: CDC #50 wood primed combination door with interchangeable storm/screen inserts.

820. New Wood Doors/frames, interior

Materials:

1. Door manufacturer: Builders Choice, clear pine panel-type
 - a. Performance standards shall require maximum allowable gap or warp between door face and frames: 3/16"
 - b. warp: maximum allowable warp or gap between any door face and frame measured diagonally between opposite corners – 3/16"
 - c. Garage service door: Jeld-Wen, steel, 6 panel, or approved equal.

Methods:

1. Install interior doors with proper interior temperature conditions
2. Doors shall be installed by workers experienced in finish carpentry
3. Doors shall be capable of shutting and closing smooth operation.

822. Overhead Garage Doors

Materials and Methods:

1. Overhead Garage Door Co or approved equal, metal overhead garage door with Stockton clear glazing 90 mph rating and two operators required. Install with all necessary track system, connecting devices, lockset, manual and remote operations, with remote electronic opener device. Door shall be capable of shutting and closing smooth operation.

860. Wood Clad Windows

Materials:

1. Existing windows in main house, except where noted for removal, shall remain.
2. New windows: Window manufacturer: Kolbe Classic Series or equal, low E argon-filled glazing, double-hung, casement and awning as noted, clad type with wood interior, 5/8" insulating glazing; crank operators for awning and casements units.
2. Combination units: SP Carpentry or equal, wood surround with aluminum inserts at double-hung locations
3. Window units shall have exterior casing as indicated on plan details or spec references: no stock brick-mold accepted unless otherwise noted

Methods:

1. Repair existing windows: examine window sash and repair as required for structural integrity; in particular, the lower rail of bottom sash. Revise jambs of existing sash and plow grooves for new spring sash balance strips; install weather stripping as necessary.
2. New windows: Install strictly in accordance with manufacturer's instructions.
3. New window units shall be sized as required for new masonry openings or wood framing conditions; casing shall have same dimensions as existing with similar profiles. No brickmold acceptable.

880. Hardware

Materials: Schlage Residential Series, rubbed bronze finish

1. Hinges shall be rubbed bronze finish, 1 1/2 butts per door.

2. Locksets shall be installed at each exterior door, keyed deadbolt at entry side with thumb-release at interior side.
3. See Hardware Schedule for hardware types, door stops, etc.

Methods:

1. Install per manufacturer's instructions; provide smooth operation
2. Verify hardware types with hardware schedule with owners
3. Provide owners with three sets keys at time of completion

Division Nine: Finishes, Interior and Exterior

Scope of Work: All finishing work and materials necessary for a complete project and for completely finished surfaces at all occupiable areas. It is the intention of these plans and specifications that all surfaces exterior and interior shall receive finish paint coat or pre-finished surface treatment. All surfaces must be prepared as required: washing, sanding, cleaning, etc. before finish surface is applied. Defective substrates shall be examined by contractor and project architect to determine proper remedy or replacement.

Submittals: Submit color samples for all finish materials and surfaces for final approval by Owner or project Architect.

Quality Assurance: All finish work must conform to standard practices of the appropriate trades. References by the American Gypsum Association, Handbook for Ceramic Tile Installation, Tile Council of America, Carpet and Rug Institute of America. Install finish materials strictly in accordance with manufacturer's instructions.

All caulks and sealants, including floor finishes, must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District <http://www.baaqmd.gov/dst/regulations/rg0851.pdf> and may not exceed 250 grams of VOC per liter of coating as thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to the tint bases.

Job Conditions: Protect all adjacent surfaces during finish work procedures. Work shall be performed only under temperate weather conditions and proper interior temperature conditions.

900 Finishes: General Notes

1. See Room Finish Schedule

925. Gypsum Board/Drywall

Materials:

1. All gypsum board, materials and labor and accessories necessary for complete installation so as to provide substrate for finish surfaces for all interior walls, ceilings, soffits, bulkheads, partial height walls, etc. for all occupiable spaces.
2. Gypsum Board: ASTM C-36, United States Gypsum, all material 5/8" thickness, National Gypsum or equal
3. Regular board except where otherwise noted
4. Gypsum board and taping materials as required for fire-rated separations
5. Water resistant Gypsum board: ASÂ C-630
6. Joint treatment: ASTM 475 complete system conforming to the requirements of the board manufacturer, with perforated tape, corner bead, J-bead where required; joint compound shall be 2 separate grades: bedding and filling, and topping and sanding; miscellaneous materials as required
7. All ceilings shall be taped as required to prepare for flat paint finish: no spray texture
8. Screws shall be ASTM 646 where required

Methods:

1. Install gypsum board in strict accordance with manufacturer's requirements and finishing standards ASTM C-840 and GA 216
2. All board 5/8" thickness at walls and typical ceilings.
3. Install whole boards wherever possible, avoiding small pieces at typical walls; doorway and window openings shall receive large enough boards to eliminate joints at upper corners of openings.
4. Gypsum board wrapped passage openings shall have straight, plumb and square surfaces that will be subject to inspection by project Architect.
5. New gypsum board walls and ceilings shall integrate finish surfaces with adjacent plaster surfaces to achieve consistent integration of existing and new surfaces.

6. Provide proper and continuous temperature during entire tape joint procedures. Contractor shall be responsible for temporary heat; new furnace shall not be used for taping procedures.

960. Ceramic Tile

Materials and Methods:

1. Install 5/8" fiberglass reinforced cement composition boards such as Durock® or HardieBacker™ in area specified to accept ceramic tile. Space edges 1/4" from adjoining surfaces and fasten with minimum 1 1/4" long No. 8 x 0.375" HD self-drilling corrosion-resistant ribbed wafer-head screws (i.e. High-Low Rock On screws) designed specifically for backer board. Use product specified by manufacturer for particular application (such as walls or floors). For floors bond backer board to plywood subfloor with thinset mortar using a 1/4' square notched trowel. On walls, all edges of backer boards must be supported by full face 2' framing secured to the structure. On floors, backer board must be installed on 3/4" plywood over joists 16" on center or the joist/subfloor assembly must meet the manufacturer's specifications.
2. All ceramic floor or shower stalls to have membrane under water proofing.
1. Typical Ceramic tile allowance: \$8.00 per square foot materials only. Ceramic tile shall include all floor, base, and wall tile, including bullnose edges where edges exposed to view. Base shall be minimum 4" in height.
2. Ceramic wall tile shall include 6'-0" high tile walls at shower.
3. Install built-in soap dish in ceramic tile shower wall.

962. Hardwood Flooring Finishing

1. Examine condition of hardwood for refinishing: see reference 620.
2. Clean all wood floor surfaces thoroughly before applying polyurethane.
3. Counter sink all nails and fill holes. Drum sand and edge floor finishing with 120 grit sandpaper. Vacuum and tack rag room. Apply a coat of Minwax Water Based Polyurethane Base Coat followed by 3 coats of Minwax Water-Based Polyurethane for Floors, or a floor finish that complies with regulation 8, rule 51, of the Bay Area Air Quality Management District <http://www.baaqmd.gov/dst/regulations/rg0851.pdf> and may not exceed 250 grams of VOC per liter of coating as thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to the tint bases.

966. Resilient Flooring

Materials and Methods:

1. See Room Finish Schedule for areas of application.
2. Congoleum Endurance, vinyl plank, direct glue adhered to concrete. Installation must strictly follow manufacturer's instructions.

968. Carpet

Materials and Methods:

1. Install FHA approved, Nylon/Olefin blend cut pile weave carpet. Install over a matched 1/2" medium density rebond pad w/ a minimum of seams. Carpet and Pad must meet the Carpet and Rug Institute's Green Label certification. Stretch carpet to eliminate puckers, scallops & ripples. Cover entire stair treads and risers. ALLOWANCE: Carpet & pad \$30.00/sy.
2. Comply with manufacturer's instructions and recommendations for seam location and direction of carpet weave, maintain uniformity of direction and lay of pile. Seams shall be at center of doors, perpendicular to traffic.
3. Carpet shall be extended under all open-bottomed equipment, casework, etc., under removable flanges and covers.
4. Install carpet in all closets adjacent to carpet areas.
5. Provide cut-outs where required, and bind or roll-edge cut edges where edge of carpet is not intended to be concealed.

990. Painting: Exterior/Interior

Materials:

1. All paints and primers must meet the Green Seal G-11 Environmental Standard <http://www.greenseal.org/certification/standards/paints.cfm>
2. Benjamin Moore, Fuller O'Brien or approved equal, Low VOC paint, Low-VOC primer at exterior surfaces.
3. Satin finish latex enamel at toilet and kitchen walls and ceilings.
4. Eggshell finish at typical interior walls

5. Semi-gloss enamel at interior trim where indicated
6. Varnish (polyurethane) "safe encasement" at typical interior wood trim, doors, railings and miscellaneous wood trim
7. Primers, cleaning materials as required.
8. Ultra-flat latex at all ceilings except toilets.
9. Exterior Hardie trim and siding. Follow James Hardie specifications for paint; Super Paint or Duration are the only approved products (dry film thickness of 2.88 mils. Minimum required on James Hardies materials).
10. Elastomeric "safe encasement" 20 year lead encapsulant paint on all retained wood siding and trim.

Methods:

1. Examine all areas to be painted or varnished to verify completion of sanding, typical cleaning, puttying and other work by related trades and other trades
2. Verify paint and stain/varnish colors with project architect before proceeding
3. Where existing wood is to be refinished and painted, verify with general contractor that presence of lead paint has been analyzed and abated per approved city procedures.
4. Prior to commencing finish work, prepare work areas with taped masking, fixture cover removal and other protection of items with finish surface that could be marred by paint or varnish.
5. Preparation of wood surfaces for painting:
Counter sink all nails and fill holes. Drum sand and edge floor finishing with 120 grit sandpaper. Vacuum and tack rag room. Apply a coat of Minwax Water Based Polyurethane Base Coat followed by 3 coats of Minwax Water-Based Polyurethane for Floors, or a floor finish that complies with regulation 8, rule 51, of the Bay Area Air Quality Management District <http://www.baaqmd.gov/dst/regulations/rg0851.pdf> and may not exceed 250 grams of VOC per liter of coating as thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to the tint bases.
5. If lead paint is determined to be present:
Using lead work safe practices, remove & properly dispose all loose materials prior to installation of new materials. Using lead work safe practices, prepare existing wood surfaces specified for stabilization prior to paint application by securing, replacing or repairing all loose, broken, rotted, or deteriorated materials to provide a sound surface for paint application. Prepare wood surfaces by removing all loose paint using lead work safe practices & according to paint manufacturer's recommendations. Use a 25-year or better paintable Low-VOC caulk matched for color to fill all cracks, voids, holes, etc. prior to painting. Apply a compatible exterior Low-VOC primer to all bare areas. Apply two coats of quality exterior LOW VOC paint to specified trim. All paints and primers must meet the Green Seal G-11 Environmental Standard: <http://www.greenseal.org/certification/standards/paints.cfm>.
Adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District <http://www.baaqmd.gov/dst/regulations/rg0851.pdf>. Match existing color as close as possible. All work to be done in a neat & professional manner. Use care to protect all surfaces not intended for paint coverage.
6. Paint and varnish shall be applied in a smooth and uniform manner, with no visible signs of abrupt change of brush or roller direction, removal of drips and blemishes; cut-in edges with adjacent finishes or other surfaces with neat and straight line edge.
7. Varnish (polyurethane) work shall include light sanding between coats
8. Re-install all surface-mounted items and masking materials after paint is thoroughly dry
9. Provide touch-up work as required
10. Provide three colors for exterior finish
11. Provide three colors for interior walls; ceilings shall be white unless otherwise noted
12. Backprime exterior trim and wood panels (except James Hardie siding – trim can be backprimed).
13. Special painting, interior: apply paint to walls with "cutting in" at ceiling; ceiling to be painted white; white color exclusive of three colors per reference #10 above.
14. Refinish all interior window sills: prepare worn surfaces as necessary; apply polyurethane finish to match adjacent wood trim.

Division Ten: Specialties

1. Toilet Accessories: Delta or equal, rubbed bronze, 18" towel rod, 12" towel rod, paper holder
2. Window Shades: mini-blinds, no lead permitted.

3. Medicine Cabinet: Nutone Model 781021, Recess Mount Cabinet - polished stainless
4. Mail box, house address numbers: provide construction manager with mail box selection options; Provide options for house address numbers, 4" height, to be mounted at house front and garage near overhead door.
5. Closet shelving:
 Manufacturer: Closet Maid 5631 SuperSlide, shelf with closet rod
 Materials:
 Steel Wire: Basic cold drawn, Grade C-1006, average tensile strength over 100,000 psi; Coating: Proprietary heavy-duty poly-vinyl chloride (PVC) formula resin, plasticizers, stabilizers, pigments and other additives. Thickness: 9 to 11 mils; Classification: No ingredients listed as hazardous per OSHA 29CFR1910.0017. Provide intermediate support for spans over 3'-5" or less if recommended by manufacturer.
 Wire shelving: coated steel wire, 1/2 to 1 inch incremental cross-deck spacing.
 Hang rod: 1 inch diameter by 20ga epoxy-coated tubular steel.
 Accessories: wall clips; end brackets; support brackets; poles; standards, shelf brackets, pole clips, anchors.

Division Eleven: Appliances

1. Refrigerator: GE 6TH 181BDWW, Energy Star, 18 cu. ft., white
2. Range: Whirlpool WFE510SOAW 4.8 c. ft. electric range with self-cleaning oven, white.
3. Range hood: See 1540
4. Grease Shield: Sears Kenmore, color to match range
5. Dishwasher: GE built-in, model #GSD 4000DWW
6. Laundry:
 - A. Kenmore 3.4 cu. ft. Top-Load Washer, item #: 21202 Model #: 2120, white
 - B. Kenmore 7.0 cu. ft. Gas Dryer - White, item #02671202000 M fr. m odel#71202, wh
 - C. Laundry vent: contractor selection: non-flexible venting with exterior grille.
7. Install 4" rigid aluminum vent tubing from the specified dryer location to a 4" wall mounted dryer vent hood with a back-flow preventer and NO screening. Do not fasten with nails, screws or other fasteners that protrude into the interior of the exhaust duct. Seal all seams in the system with duct mastic or aluminum foil tape, not duct tape. Secure duct and hood to framing.

Division Fifteen: HVAC and Plumbing

Part One: HVAC

1500. Heating and Ventilation

Scope of Work: All heating and ventilating as shown on plans and specifications including all accessories, connections, devices, etc. required for complete installation and operation. HVAC contractor shall determine heat loss/heat gain calculations and final system design size to meet all the requirements of the building as described in the drawings and specifications and to conform to all related codes and ordinances. Provide instruction and operating manuals for all equipment.

Verify location of all HVAC and related equipment for clearance and access to maintenance and inspection before fixing them in place. Immediately notify General Contractor of any conflicts with fixed equipment or structure/architectural surfaces.

1510. Furnace:

- A. Use the Air Conditioning Contractors of America (ACCA) 8th Edition of their Manual J Heat loss calculation tool <http://www.acca.org/tech/manual J/> (calculate manual J based on the post rehab building envelope), and use ACCA's Manual S for equipment selection. NOTE: Provide both Manual J & S reports with first Draw documents. Size furnace to the living unit considering any areas which may be added or subtracted from the plan.

AIR CONDITIONING: Carrier Performance 16 Central Air Conditioner 24ACC6

- B. **FURNACE:** Carrier 59MN7A Infinity Modulating 4-Way Multipoise Condensing Gas Furnace with 95% AFUE rating. New furnace to be vented with PVC piping per manufacturer's specifications. Provide with manufacturer's longest guarantee. Include auto set back thermostat controls, vent pipe & new shut-off

valve. Ductwork layout shall be presented to construction manager and architects for review before installation. Ductwork layout shall allow gypsum board wrapped enclosures to integrate with architectural spaces. Locate cold air return if necessary to ensure easy access, good fit & easy replacement of air filter. An exterior return air filter box shall be installed on one side, both sides, or bottom of new furnace. Seal all exposed duct joints as a part of this item with Duct Mastic. 2. Examine existing furnace for re-use operation and a 10 year operational life. If experienced HVAC Technical specialist verifies operation per above reference, the Construction Manager may designate the furnace unit shall be re-used and repaired. If the determination is for replacement, the following reference shall be applied:

- C. FURNACE: Carrier 59MN7A Infinity Modulating 4-Way Multipoise Condensing Gas Furnace with 95% AFUE rating. New furnace to be vented with PVC piping per manufacturer's specifications. Provide with manufacturer's longest guarantee. Include auto set back thermostat controls, vent pipe & new shut-off valve.
- Ductwork layout shall be presented to construction manager and architects for review before installation. Ductwork layout shall allow gypsum board wrapped enclosures to integrate with architectural spaces. Locate cold air return if necessary to ensure easy access, good fit & easy replacement of air filter. An exterior return air filter box shall be installed on one side, both sides or bottom of new furnace. Seal all exposed duct joints as a part of this item with Duct Mastic.
- Basement shall have in-floor sealed joint PVC ducts.
- D. All ventilating fan units shall be vented with ductwork to the exterior.
- E. Mechanical heating system for this project shall be included with the general contractor's bid. The system shall be based the total heating requirements for the project and all applicable code requirements. The design/build system shall be proposed to the Owner and project Architects for review before contract signing and commencement of work
- F. The references in this section are intended for general scope of work, and may not include all items required for total project requirements, and may be modified and supplemented by the electrical contractor per/design/build documents.
- G. Mechanical contractor shall coordinate planning of duct layout with general contractor before commencement of work. Any irregular duct layouts or furnace and flue locations or any layouts that conflict with architectural spaces shall be reported to the project architect so that a mutually agreeable and workable layout can be achieved.
- H. Forced air system shall not be used for heating during gypsum board taping operations.
- I. Ductwork interiors shall be vacuum-cleaned as required before final completion.
- J. Re-use existing wall-mounted registers for heating supply as is possible; re-use existing return air grilles if possible.

1522. Temporary Heat

1. General contractor shall be responsible for temporary heat as required for finish surface installations. Heat supply shall be continuous and at proper temperature for finish material installation as required by standard practices and finish material requirements.

1530. Toilet and Bath Ventilation

1. Install a Panasonic Whisper Green-Lite II Model # FV-08VKML1 ceiling mounted Fan only fixture with a modulating DC motor capable of 80 CFM operating at less than .3 Sones, switched by a built in motion detector and night light, vented w/ damper to exterior. <http://www.panasonic.com/business/building-products/ventilation-systems/products/whisper-green-lite.asp> Install insulated flex duct and vent to the exterior ideally through a wall or gable end using a 4" hooded vent with damper. All duct seams and connections shall be sealed with duct mastic. Insulate the ductwork with vinyl or foil faced R 6 minimum duct insulation. Repair any damage to the ceiling installation and air seal fan/light assembly to the ceiling with low VOC caulk. Set the continuous level of ventilation to meet ASHRAE 62.2. Fan shall be wired to room lighting: high speed when light is on, with time delay switch fan continues on high speed to 20 minutes.

1540. Kitchen Range Vent Hood

1. Install Broan QSE130WW, 30" 220 CFM white under cabinet range hood with integral fan control and light switched separately, with exterior ducting. Attach hood to cabinet with screws. Include metal vent with all seams sealed with duct mastic, and roof or wall cap/damper assembly flashed appropriately for the exterior finish.

Part Two: Plumbing

Scope of Work: All plumbing as shown on plans and specifications including street connections, all supplies required for installation, wastes, vents, supply pipes, fire protection, filler valves, shut-offs, mixers, fixture hardware and accessories necessary for complete installation and efficient operation, and applicable for all local and state codes.

Verify location of all plumbing fixtures and related items for clearance and access to maintenance and inspection before fixing them in place. Immediately notify General Contractor of any conflicts with fixed equipment or structure/architectural surfaces.

Plumbing products proposed for substituted fixtures may be determined to be equal by the Construction Manager.

Submittals: General Contractor and Mechanical contractor shall verify plumbing layouts of supply lines, waste lines, vents so as to verify complete integration with architectural design conditions.

1540. Plumbing General Notes

1. Verify location of system for clearance and access to controls before fixing system in place. Notify General Contractor of conflicts with other systems, structure or revision of architectural design.
2. Plumbing Contractor shall be responsible for proper excavation, fill, backfill, cutting, patching, and repair necessary for complete work, including repair to site, public walks, curbs and street.
3. Plumbing system shall be installed within the insulated building envelope that will be protected from freezing.
4. Install each fixture with traps easily removable for servicing and cleaning. Install shut-off valves in readily accessible locations for servicing. Install escutcheons to cover pip penetrations through walls and floors.
5. Verify exact location of plumbing fixtures with dimensions of architectural plans.

1551. Floor Drains

1. Josam or equal cast iron grate, set in sloped concrete area, at Laundry/Storage room.

1552. Exterior Sillcocks

1. Install 2 non-freezable type devices with shut-off valves. Location to be determined by Owner.

1554. Plumbing Fixtures

1. Water Closet: Install a 1.3 GPF close coupled, white, vitreous china commode such as an American Standard FloWise Compact Cadet 3 EL 3305.000, or any commode tested through the latest "Maximum Performance" (MaP) testing sponsored by Canadian Water and Wastewater Association (CWWA), the California Urban Water Conservation Council (CUWCC), the U.S.-Canadian Alliance for Water Efficiency (AWE) and Veritec Consulting Inc. that has shown to score 800 or better on the MaP Flush Performance test (grams of solid waste removed in a single flush). See the following link for the November 2008 report. <http://www.allianceforwaterefficiency.org/MaP-main.aspx> Include a manufacturer's approved plastic or pressed wood white seat, supply pipe, shut-off valve, and wax seal.
2. Tub: white 5' American Standard Cambridge Americast w/ Delta single lever diverter valve, shower head with a maximum 2.0 GPM flow rate & friction fit rubbed bronze shower rod; (note: exterior wall sections behind the tub shower unit must be completely air-sealed prior to installation)
3. Shower valve: install a chrome plated brass shower head with a maximum 2.0 gallons per minute flow rate. Include arm where required. Note: any low-flow showerhead should be controlled by a valve that has been designed, tested, and verified to function safely at the reduced flow rate.
4. Lavatory: American Standard Aqualyn
5. Lav faucets: Install a washerless, single control, metal bodied faucet with a 15 year drip-free warranty and a maximum flow rate of 2.0 GPM, Delta or Moen. Allowance of \$250.00/ fixture. Include chromed brass shut off valves and trap.
6. Sink: install a 22 gauge 33"x22"x7" double bowl, stainless steel, self rimming kitchen sink including a steel, metal body faucet, rated at 2.0 GPM or less, with a 15 year drip-free warranty, grease trap, supply lines, full port ball type shut-off valves & escutcheon plates on all supply & drain lines. NOTE: All copper is to be soldered (no compression fittings) & all PVC fittings glued.
7. Faucet, Kitchen: Install a single lever, washerless, metal bodied faucet with 15 year drip-free guarantee and maximum flow of 2 gallons per minute, Delta or Moen with sprayer. Allowance of \$250.00.

1555. Miscellaneous Plumbing Fixtures, Devices

1. Faucet boxes for laundry washer/dryers: contractor selection; install as required

1561. Rough-in Plumbing

1. Install plumbing backcheck valve if required by local code requirements and job conditions.

1565. Water Heater

1. A.O. Smith ProMax, power vented, 40 gallon gas hot water heater; glass lined, insulated to R-7, with a 6 year warranty. Include pressure & temperature relief valve, discharge tube to within 6" of floor, condensate pump, owner's manual & all duct work to power vent to exterior. Provide separate electrical circuit & new gas piping from shut-off valve to fixture. Discharge tube shall be directed into a floor drain.

Division Sixteen: Electrical

Scope of Work: All electrical work, equipment, fixtures, devices, connections and accessories required for complete operation of electrical system as indicated per schematic reference and specifications. All electrical runs shall be concealed unless otherwise noted.

Submittals: Provide manufacturers' data and catalog cuts for all lighting fixtures for final selection by owner. Provide load calculations and power requirements. For commercial projects, provide lighting power calculations required for building permit submission.

Quality Assurance: Electrical contractor is responsible for verifying the system size, service size, proper over-load protection, load balance and other requirements to comply with the current National Electrical Code, International Building Code, and all other local requirements. System shall include connection to and cost of power company connection from nearby power lines to building masthead and meter.

1600 Electrical / General Notes

1. The electrical contractor is responsible for all excavation, cutting, adjustments, patching, and repair necessary to accomplish electrical work. No structural members may be cut without permission of the project architect.
2. All parts of the electrical system except fixtures must be concealed unless otherwise noted. No exposed conduit runs in occupied rooms will be accepted without prior approval.
3. Provide temporary power and lighting as directed by the general contractor.
4. Verify location of masthead, electrical meter and panels with project architect. Clearly mark all circuits as to size and area use.
5. All outlets within 5' of a sink shall be GFI.
6. Electrical Contractor shall provide approved rated covers for all fixtures installed in rated ceilings and for fixtures installed in insulated ceilings.
7. Verify cover or fixture plate to cover wall or ceiling opening; do not install until general contractor has corrected situation.
8. All fixtures must be installed with flanges flush to finish surfaces, be anchored securely so as not to be moved by touching them. Provide all necessary blocking, backing, spacers, anchors necessary for secure installation. Identify with colored marker all special circuits (computer circuits, exhaust fan switches, GFI, etc.
9. Verify exact location of smoke detectors, doorbell chime devices, thermostats, TV cable outlets, etc. before final installation.
10. Provide GFI outlets (2) and light fixture in garage; 20 amp circuit.

1603. Electrical System Design:

1. The electrical contractor, as selected by the general contractor to be awarded this project, shall provide a design/build electrical system for this project to be included with the general contractor's bid. The system shall be based on the total electrical requirements for the project and all applicable code requirements.
2. The system may be based on the existing electrical system in the building that may contain elements that can be removed, left in place inactive, revised.
3. The design/build system shall be proposed to the owner and project architects for review before contract signing and commencement of work.
4. The Architects will prepare a schematic lighting plan as part of final architectural document references in this section are intended for general scope of work, and may not include all items required for total project.

requirements, and may be modified and supplemented by the electrical contractor per/design/build documents.

5. The design/build plans shall include low voltage and computer connection system.
6. Coordination of openings for equipment, shafts, ductwork, piping and other significant openings as is essential for the Work of this Project.
7. Contractor: Coordinate meetings with the following Sub-contractors and Design-Build Trades:
Carpentry: Items passing through floor and roof assembly, shaft walls

1610. Service Distribution

1. Per design/build system
2. Re-use existing electrical panel in Basement.

1614. Panel Boards

1. Locate panel accessible and according to code, with secure cover.
2. Contractor to properly balance all circuits per area and power requirements. Clearly mark all circuits as to size and use.
3. Provide separate circuits for:
 - A. Equipment
 - B. HVAC
 - C. Computers, if identified for special requirements in specifications

1620. Switching locations

1. See electrical plan for schematic references

1621. Wiring / Receptacles / 220 V / Special

1. All wiring shall be romex in concealed locations.
Wire gauge and size to be determined by load requirements and code.
2. All devices, switches, receptacles, plates, etc. shall be contractor selection unless otherwise noted.
3. See 1622 for GFI, smoke detector installations.
4. Contractor shall include in contract price provision for three additional receptacles for installation if required by field conditions.

1622. Weatherproof Receptacles / GFI

1. Install GFI receptacles (with re-set device at receptacle) per code requirements and electrical plan.

1630. Equipment / Appliance Connection

1. Install connections to all equipment as required. Verify locations of service connections on appliances for appropriate installation.
 - a. Refrigerator / 115
 - b. Range, electric 220, glass top
 - c. Clothes Washer / 115
 - d. Clothes Dryer / 115
 - e. Smoke detectors /115
 - f. Door Bell / 115
 - g. Range Exhaust Hood / 115
 - h. Dishwasher / 115
 - i. Bath Exhaust Fans /115

1640. Lighting Fixtures: Interior / Exterior

1. Provide Electrical Plan with schematic references to construction manager
2. Lighting Fixture Allowance: \$75.00 per light fixture; \$150.00 for dining room fixture.
3. Bathrooms: Install an Energy Star approved ceiling mounted Fan/Light fixture rated for a min 100 watts w/ an exterior ducted vent fan capable of min. 80 CFM operating at 1 Sone or less, vented w/ damper to exterior such as NuTone QTREN080FLT. Switch fan & light using a single switch with a time delay for the fan such as the EFI Fan/Light Time Delay Switch part # 5100.505 (in Ivory)
http://www.energyfederation.org/consumer/default.php/cPath/39_766_134) or equipped with a humidistat sensor. Install 4" metal duct and vent to the exterior ideally through a wall or gable end using a 4" hooded

vent with damper. All duct seams shall be sealed with duct mastic. Insulate the ductwork with vinyl or foil faced R 6 minimum duct insulation. Repair any damage to the ceiling installation and air seal fan/light assembly to the ceiling with low VOC caulk.

4. Install exterior lighting fixtures at each entrance (2); install floodlighting fixture at garage, exclusive of fixture allowance (2 double-lamp type).

1650. Smoke Detectors, Carbon Monoxide Detectors

1. 115v smoke detectors, ionization type, direct wired, 4 devices to be located per code requirements, with final locations by advice of construction manager on site.
2. Carbon Monoxide detectors: Install at each sleeping area, minimum of one per floor, a hard wired or plug-in carbon monoxide detector with audible alarm, battery back up and with a digital display capable of showing both peak CO level recorded by the alarm since it was last reset or unplugged, and the present level of carbon monoxide the unit is sensing.

1653. Telephone System

1. Coordinate installation with local telephone system; install jacks in living room, kitchen, basement and master bedroom.

1662. Cable TV

1. Prewire Cable for all rooms



208-210 Bates, 216-218 Bates, and 716 Wilson Avenues, St. Paul, MN

ADDENDUM 1

Release Date: December 7, 2012

Contents

1. Civil Drawings (three pages) for the project have been released. They are available on the City of St. Paul's website: <http://www.stpaul.gov/index.aspx?NID=2837> or by contacting Becky Clawson at Load-Bearing, Inc., 612-721-8747 or becky@load-bearing.com. Printed copies are available through ARC, 2007 East 24th St., Minneapolis, 612-722-2303.

2. In Division Two: Site Work for all properties (all properties' site work is bid as a single item), the retaining wall block product specified is:
Allan Block, AB Classic Collection by Amcon

3. A FINAL WALKTHROUGH will take place on Wednesday, December 12, 2012 at 10:00 a.m. The walkthrough will begin at 208-210 Bates. THIS WILL BE THE ONLY OTHER OPPORTUNITY TO WALK THROUGH THE PROPERTIES BEFORE THE BIDS ARE DUE.

4. The three rehabs and related site work are being bid as a single project. NO partial bids for individual buildings will be accepted.



208-210 Bates, 216-218 Bates, and 716 Wilson Avenues, St. Paul, MN

ADDENDUM 2

Release Date: December 10, 2012

Contents

1. Under Instructions to Bidders, Item 3. Bidder Qualifications, add:

K. All bidders must be eligible to post a payment and performance bond should the owners determine one is necessary.

2. In Specifications for 208-210 Bates, Division 15: HVAC and Plumbing, Item 1554. Plumbing Fixtures, add:

8. In the second floor front bathrooms, where the sink is located adjacent to a window, install Kohler K-2844-8 Tresham 24" Pedestal Bathroom Sink with 8" Centers and Pedestal Base and Delta Trinsic Faucet, Model #:559LF-MPU.

END OF ADDENDUM



208-210 Bates, 216-218 Bates, and 716 Wilson Avenues, St. Paul, MN

ADDENDUM 4

Release Date: December 17, 2012

Contents

1. If bidder wishes to attempt to avoid installing retention sheathing at the east side of 716 Wilson, bidder may provide a voluntary alternate to move the building 4'-5' to the west. If provided, the voluntary alternate must itemize all costs associated with such a move, as well as any related net deducts from your original bid. Provide the voluntary alternate with your base bid, on a separate sheet that includes your firm's name, the date of your bid, alternate bid details listed above, and an authorized signature.

2. The distance between the retaining wall at the 22'x22'garage and the property line is as follows:

East side: 3 feet

South side: 8 feet

3. The drive appears on sheet 2 of the civil drawings. No additional drawings (i.e. cross sections) will be provided prior to the bid due date.

4. Clarification of new water/sewer service requirements (bid under Division 15):

208-210 Bates:

Replace existing 3" sewer line with new 4" sewer line per code requirements.

Replace existing 3/4" water service line with new 1" water service line per code requirements.

216-218 Bates:

Replace existing 3/4" water service line with new 1" water service line per code requirements.

716 Wilson:

No new water or sewer lines required.

5. Clarification of sod versus seeding: Sod installation (per the specifications) should be included in base bid (disregard Green Communities spec, which calls for seeding disturbed areas)

6. Recycled base may be used.

7. 208-210 Bates west wall: The existing structural supports for two cantilevered bay structures will be determined in the field during construction. No additional drawings will be provided prior to the bid due date.

8. Acceptable hours of work are 7:00 a.m. to 5:00 p.m.

9. Substitutes (such as Versa-loc) are not acceptable for the retaining walls; Allen is the product approved by the Heritage Preservation Commission.

10. Clarification of sheet waterproofing and draitile at 208-210 Bates and 216-218 Bates:
208-210 Bates: Sheet waterproofing and draitile are to be installed below grade on all elevations; Carlisle is an acceptable substitute manufacturer.
216-218 Bates: Sheet waterproofing and draitile are to be installed below grade on east wall; Carlisle is an acceptable substitute manufacturer.

11. Ceramic tile at tub surrounds in 208-210 Bates and 216-218 Bates should extend 6' above finished floor. See notes in specifications for tub surround installation requirements at 716 Wilson.

12. Countertop products and installation requirements appear in Division Six, Item 640 Wood Casework / Countertops - 3. Countertops.

13. Bidding clarification for refinishing wood floors on second floor of 208-210 Bates:
Base bid should include refinishing all floors on the second floor and provide an allowance for replacement of 10% of existing flooring; base bid will also include a separate, per square foot cost to replace additional flooring (see revised bid form).

14. 716 Wilson - Division Eight, Item 810. Doors, Exterior should read:

1. Main Front Entrance: Re-use and repair existing as required.
2. Front Porch door: 6'8" Therma Tru Smooth Star S2200, fiberglass, and existing panel above door to remain (the Therma Tru door is not available in a 7' model as originally specified).
3. Rear Entrances (two): Mastercraft E-2, or approved equal, fiberglass panel type with smooth finish (no imitation grain surfaces allowed).
4. Rear Entry Doors (two) : CDC #50 wood primed combination door with interchangeable storm/screen inserts.

15. A revised Bid Form is provided with this addendum. Bidder must use this revised form when presenting their bid.

END OF ADDENDUM

**208-210 Bates, 216-218 Bates, and 716 Wilson
Bid Tally**

The following bids were submitted:

Contractor	Total Base Bid	Site Work - all properties	208-210 Bates	216-218 Bates	716 Wilson
Pollock Construction	\$1,641,541.03	\$216,711.59	\$622,231.44	\$539,237.76	\$263,360.24
AA Contracting	\$1,655,150.00	\$117,500.00	\$625,710.00	\$640,740.00	\$271,200.00
Synergy Builders	\$1,839,239.00	\$410,718.00	\$607,281.00	\$565,800.00	\$255,440.00
Flannery Construction	\$1,992,329.00	\$218,000.00	\$760,264.00	\$612,036.00	\$402,031.00
<i>Building Code Tech: bid withdrawn</i>	\$794,000.00				



BATES AV.

Hudson Av.

PLUM

EUCLID

BATES AV.

Hudson Av.

Hudson

Wm. M. M. & Co. 1120 N. 11th St. Chicago

EUGENE VIEW FLEMING

STORAGE

BROWN & SONS BIRTHING COMPANY

RENTALS ON 230

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UNDEVELOPED

UNDEVELOPED

UNDEVELOPED

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6 IN PIPE

716 HUDSON AV 720

710

218

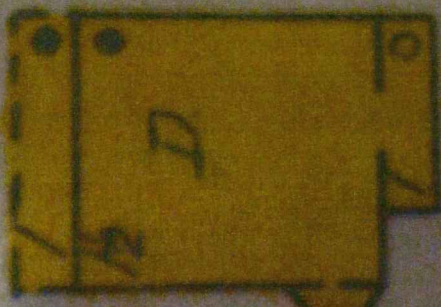
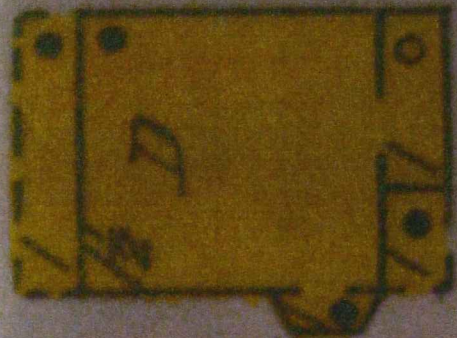
STAB

GARAGE
CAPCY 2 CARS
HEAT STEAM LIGHTS
ELEC. CONC. FLR
PIRSTERS

5.6

ST. O

5



6



216

2 AUTO
PARKING 2ND
20' REAR LOUVER



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