

F. Interior Wood - Paint Latex - Semi-Gloss Finish:  
1st Coat: S-W Pro Mar 200 Latex Wall Paint  
2nd Coat: S-W ProMar 200 Semi-Gloss.

#### PREPARATION

- A. Prepare all interior and exterior surfaces in strict compliance with paint manufacturer's published instructions for each particular substrate condition, and as specified with paint systems indicated in this section.
1. Schedule the cleaning and painting so that contaminants from cleaning process will not fall on wet, newly painted surfaces.
  2. Clean surfaces to be painted before applying paint or surface treatments.
  3. Remove oil and grease prior to mechanical cleaning.
  4. Correct minor defects and clean surfaces which affect the work of this section.
  5. Shellac and seal marks which may bleed through surface finishes.
  6. Daily Clean-Up and Protection: As specified in this section.
  - C. Items to be Removed and Replaced:
    1. Prior to surface preparation and painting operations, remove hardware, hardware accessories, machined surfaces, electrical plates, fittings and fastenings, lighting fixtures and similar items already installed which are not to be painted and carefully store from paint and other damage.

2. Upon completion of painting work of each space or area, reinstall the items previously removed.
- D. Exterior Galvanized Metal:
  1. Prepare galvanized surfaces in accordance with paint manufacturer's published instructions.
  2. Remove surface contamination and oils and wash with solvent.
  3. Apply coat of etching primer.
  - E. Exterior Metal (Shop-Primed):
    1. Prepare shop-primed steel surfaces in accordance with paint manufacturer's published instructions.
    2. Not applicable to Sections 05120-Structural Steel and Section 05999-Miscellaneous Metals.
    3. Sand and scrape to remove loose primer and rust.
    4. Feather edges to make touch-up patches inconspicuous.
    5. Clean surfaces with solvent. Prime bare steel surfaces.
    6. Prime metal items including shop primed items.

- F. Exterior Steel (Not Shop-Primed):
1. Prepare uncoated steel in accordance with paint manufacturer's published instructions.
  2. Not applicable to Sections 05120-Structural Steel and Section 05999-Miscellaneous Metals.
  3. Remove grease, scale, dirt, and rust.
  4. Where heavy coatings of scale are evident, remove by wire brushing or sandblasting; clean by washing with solvent.
  5. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned.
  6. Spot prime and paint after repairs.

- G. Interior Gypsum Board:
1. Prepare gypsum board in accordance with paint manufacturer's published instructions.
  2. Fill minor defects with latex.
  3. Spot-prime defects after repair.
  - H. Interior Wood-Paint:
    1. Prepare interior wood for painting in accordance with paint manufacturer's published instructions.
    2. Wipe off dust and grit prior to priming.
    3. Seal knots, pitch streaks, and sappy sections with sealer.
    4. Fill nail holes and cracks after primer has dried; sand between coats.
    5. Prime back surfaces of interior woodwork scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with mineral spirits.

- J. Impervious Surfaces: Prepare in accordance with paint manufacturer's published instructions.
1. Remove mildew by scrubbing with solution of trisodium phosphate and bleach.
  2. Rinse with clean water and allow surface to dry.

#### APPLICATION

- A. All painting work shall be completed before carpet work is started.
- B. Apply all interior and exterior coatings in accordance with manufacturer's published instructions.
1. Do not paint over dirt, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of paint film.
  2. Provide barrier coats over incompatible primers or remove and reprime as required.
  3. Notify Architect in writing of any anticipated problems in using the specified coating system with substrates primed by others.
  4. Do not paint over code-required labels.
  5. Do not paint sprinklers and testing agency labels.
  - C. During progress of painting work:
    1. Adequately protect other surfaces from paint and damage.
    2. Repair damage as a result of inadequate or unsuitable protection.
    3. Remove from site discarded paint materials, rubbish, cans and rags at end of each work day.
    4. Maintain premises free of unnecessary accumulation of tools, equipment, surplus materials and debris.
    5. Remove paint where spilled, splashed, or splattered.

- D. The number of coats specified in this section for various finishes is customarily sufficient to obtain satisfactory finish, but should such finish not be obtained, it shall be responsibility of Contractor to apply additional coats as may be required to meet requirements of this section.
- E. Do not apply finishes to surfaces that are not dry. Allow previous coat to dry before next coat is applied.
- F. Apply each coat of paint to uniform finish. Apply each coat slightly darker than preceding coat unless otherwise approved. Sand lightly between coats to achieve required finish.
- G. For Job-Painted Woodwork: Prime back of interior and exterior woodwork with primer.
- H. Behind Movable Equipment & Furniture: Paint surfaces behind movable equipment and furniture same as similar exposed surfaces.

1. Paint surfaces behind permanently-fixed equipment or furniture with only a prime coat before final installation of equipment.
- I. Panels and Covers: Paint back sides of access panels, and removable or hinged covers to match exposed surfaces.
- J. Concealed Spaces: Unless otherwise indicated, painting is not required on walls and ceiling in concealed or generally inaccessible areas.

#### FIRE EXTINGUISHERS-Section 10520

Provide and install dry-chemical fire extinguishers and cabinets complete with accessories.

#### SUBMITTALS

- A. Manufacturer's Product Data: Clearly mark the technical data to identify type of extinguisher and cabinet specified in this section and as required to meet Contract Documents, including elevations, clearances required, rough-in and anchor placement dimensions and tolerances.
- B. Sample: Submit to include:  
Item S1.Cabinet with Extinguisher: One full size unit (if approved, unit can be installed as part of work).

#### MANUFACTURERS

- A. General: For the purpose of establishing the minimum functional, aesthetic and quality standards required for fire extinguishers, products of the following manufacturer are specified:

1. Larsen's Manufacturing Company / Minneapolis, MN (800) 527-7367
- B. Substitutions: Products of the following, and other fire extinguisher manufacturers, are acceptable only after full compliance with the requirements of this section, Contract Documents and Developer's written approval:
  1. J.L. Industries / Bloomington, MN (800) 5544077
  2. Potter-Rohmer / Div. of Smith Industries Inc. / Cerritos, CA (800) 386-3473

#### FIRE EXTINGUISHERS AND CABINETS

- A. Cabinets: Larsen Architectural Series Model 3012-RK semi-recessed cabinet with 5/16" flat trim, heavy-gauge cold-rolled steel construction, complete with attachments.
- B. Style: Vertical D.U.O. of cold-rolled steel and gray glass vision panel, with white letters on glass to read FIRE EXTINGUISHER.
- C. Finish: Standard white acrylic enamel.
- D. Fire Extinguishers: Larsen Model MP5 Multi-Purpose Dry Chemical unit which contains fluidized and siliconized mono ammonium phosphate powder which smothers and breaks the chain reaction on Class B fires, fuses and insulates Class A fires, and is a nonconductor of electricity.
1. Rating: UL 2A-10B-C, 5 lb capacity.
  2. Color/Finish: Standard red acrylic enamel.
  3. Provide brackets for fire extinguishers not requiring cabinets.

#### INSTALLATION

- A. Deliver inserts and rough-in frames to Project site at appropriate time for installation. Provide templates and rough-in measurements as required.
- B. Examine existing conditions. If wall conditions are unacceptable for proper installation, do a proceed until conditions are corrected.

#### POSTAL SPECIALTIES - Section 10550

Provide mailboxes and parcel boxes of aluminum construction.

#### SUBMITTALS

- A. Shop Drawings: Submit to include but not be limited to:  
1. All information and details indicating full compliance with U.S. Postal Service requirements and Contract Documents.  
2. Locations and anchorage details for each type of unit specified.  
3. Rough-in dimensions for each unit.
- B. Manufacturer's Product Data: Clearly mark the technical data to identify types of mailboxes specified in this section and as required to meet Contract Documents, including manufacturer's installation recommendation and compliance with U.S. Postal Service requirements.
- C. Hazardous Material Certificates:
  1. Manufacturer shall certify in writing that products, materials and processes used in manufacturing mailboxes do not contain lead, asbestos or polychlorinated biphenyls (PCB).
  2. Contractor and installer shall certify in writing that products, materials and methods used in the installation of mailboxes do not contain lead, asbestos or PCB.

#### MANUFACTURERS

- A. General: For the purpose of establishing the minimum functional, aesthetic and quality standards required for mailboxes, products of the following manufacturer are specified:  
I. Auth-Florence Manufacturing Company  
Chicago, IL (800)275-1747
- B. Substitutions: Products of the following, and other mailbox manufacturers, are acceptable only after full compliance with the requirements of this section, Contract Documents and Developer's written approval:
  1. American Device Manufacturing Company  
Steeleville, IL (800) 637-3763
  2. Cutter Manufacturing Corp Eaton, FL (800) 237-2312
  3. Bommer Industries Inc Landrum, SC (800)334-1654
  4. Salsbury Industries Los Angeles, CA (800) 323-3003
  5. Laramie Company Midobahn, IL (708) 388-7600
  6. Smedbo Inc Lake Bluff, IL (647) 615-0000

#### MAILBOXES

- A. Type: The Auth-Florence 1400 Series horizontal mailboxes with parcel boxes of aluminum construction, fabricated and complete with accessories in accordance with U.S. Postal Service requirements.
1. Model Required: As indicated on Drawings.
  2. Locks: 5-pin cylinder cam locks with 3 keys and 1,000 key changes.
  3. Number Slots: Engraved on door.
  4. Compartments/Doors: Meet USPS 4C code
  6. Finish: Anodized aluminum.

#### INSTALLATION

- A. Install postal specialty units in accordance with approved shop drawings, manufacturer's published instructions, U.S. Postal Service requirements and Contract Document.
- B. Examine existing conditions for compliance with United States Postal Service requirements.
2. If wall conditions are unacceptable, do not proceed with work until conditions are corrected.
- B. The completed installations shall be plumb, flush and secure in place.
- Adjust each unit for proper operation without racking and binding.

#### TOILET AND BATH ACCESSORIES - SECTION 10800

#### SECTION INCLUDES

- A. Toilet and bath accessories.
- B. Attachment hardware and related trim.

#### SUBMITTALS

- A. Submit the following in accordance with Section 01340.
- B. Product Data: Submit manufacturer's catalog cut sheets, data sheets, installation instructions, maintenance data, and operating instructions.

#### SEQUENCING AND SCHEDULING

- A. Coordinate work with placement of wall reinforcement and reinforcement of toilet partitions to receive anchor attachments. Supply rough-in data in sufficient time to be built into other work.
- C. Towel Bar:
  1. Truebro, Inc.
  - B. Do not install accessories until room finishes are completed.

#### MANUFACTURERS

- A. Better Home Products

#### 2.2 SCHEDULE OF ACCESSORIES (LIVING UNITS)

- A. Grab Bars:
  1. Material: 1 1/4 diameter stainless steel, satin finish.
  2. Construction: 1 1/2 inch clearance between grab bar and wall.
  3. Mounting: Surface mounted, exposed fasteners.
  4. Toilet Tissue Dispenser:
    1. Material: Polished chrome.
    2. Mounting: Surface mounted, concealed fasteners.
    3. Capacity: One roll.
    - C. Towel Bar:
      1. Material: Polished chrome.
      2. Construction: Surface mounted, concealed fasteners.
      - D. Medicine Cabinet: Jensen model 840M18, American Heritage No. AH-65
- E. Curved Shower Rod:
  1. Material: 28 gage, 1 inch diameter, aluminum.
  2. Mounting: 1 inch diameter flange; mount above tub surround.
  - F. Undervatory Guards:
    1. Brocar Products, In

#### FABRICATION

- A. Weld and grind smooth joints of fabricated components.

- B. Form exposed surfaces from single sheet of stock, free of joints.
- C. Form surfaces flat without distortion. Maintain flat surfaces without scratches or dents.
- D. Back panel components where contact is made with building finishes to prevent electrolysis.
- E. Shop assemble components and package complete with anchors and fittings.
- F. Provide steel anchor plates, adapters, and anchor components for installation.

#### FACTORY FINISHING

- A. Galvanizing: ASTM AV3 to 1.25 oz/sq ft.
- B. Chrome/Nickel Plating: ASTM B456, Type SC 2 polished finish.
- C. Stainless Steel: No. 4 satin luster finish.

#### EXAMINATION

- A. Examine conditions and proceed with Work in accordance with Section 01405.
- B. Verify that site conditions are ready to receive work and dimensions are as indicated on shop drawings and instructed by the manufacturer.
- C. Check openings for plumbness of blocking and frames.
- D. Beginning of installation means acceptance of existing conditions.

#### PREPARATION

- A. Deliver inserts and rough-in frames to site at appropriate time for building-in.
- B. Provide templates and rough-in measurements as required.
- C. Verify exact location of accessories for installation.
- D. Protect adjacent or adjoining finished surfaces and work from damage during installation.

#### INSTALLATION

- A. Install using skilled workmen in accordance with manufacturers' printed instructions.
- B. Install plumb and level, securely and rigidly anchored to substrate.
- C. Locate accessories in order that they do not interfere with door swings or use of fixtures. Install recessed accessories after wall finishes have been completed.
- D. Anchor accessories with bolts, plates, and approved type fasteners. Take down any loose items and repair damaged wall surfaces.
1. All information and details indicating full compliance with U.S. Postal Service requirements and Contract Documents.
  2. Locations and anchorage details for each type of unit specified.
  3. Rough-in dimensions for each unit.

#### RESIDENTIAL APPLIANCES - SECTION 11310

##### SECTION INCLUDES:

1. Refrigerator.
2. Range.
3. Microwave Oven/Hood.
4. Dishwasher.
5. Disposal.
6. Clothes Washer.
7. Clothes Dryer

#### SUBMITTALS

- A. Product Data: Manufacturers specifications and descriptive literature for each specified product.
- B. Shop Drawings: Furnish rough-in drawings for utility service.
- C. Operation and Maintenance Data: Manufacturers standard information.
- D. Manufacturer's Standard Warranty for each appliance.

#### MANUFACTURER

- A. Specified appliances are based on products of Whirlpool Appliances
- B. Substitutions will only be accepted with Owner approval.

#### REFRIGERATOR

- A. Whirlpool Model: WRT311FZBM, standard unit and ADA refrigerator
- B. Characteristics:
  1. Total Capacity: 22 cubic feet.
  2. Finish: Stainless Steel

#### RANGE

- A. Whirlpool Model: WFE510SOAS
- B. Characteristics:
  1. 4.8 cubic feet capacity electric range with self-cleaning system.
  2. Finish: Stainless Steel
  3. Accessible Units Only:
    - A. Whirlpool Model: GY397LXUS
    - B. Characteristics:
      1. 30 inch self-cleaning slide in electric range
      2. Finish: Stainless Steel
      3. Under Cabinet Range Hood
- A. Whirlpool Model UXT4230ADS
- B. Finish: Stainless Steel

#### DISPOSAL

- A. Whirlpool Model: GC2000PE
- B. Characteristics:
  1. In sink disposer with continuous feed operation
  - C. Electrical Requirements: 15 or 20 Amps. 60 Hz. 120 V.

#### MICROWAVE OVEN

- A. Whirlpool Model WMH3101TAS
1. Characteristics: 1.7 cubic feet microwave hood combination with 2-speed fan.
  2. Electrical: 15 Amps, 60 Hz, 120 V.
  3. Finish: Black on stainless, Universal Silver
- For Accessible Units Only:
  - A. Whirlpool Model WMC30516AS
  1. Characteristics: 1.7 cubic feet countertop microwave with 1,200 watts cooking power
  2. Electrical: 15 Amps, 60 Hz, 120 V.
  3. Finish: Black on stainless, Universal Silver
- A. Whirlpool Model WDF310PAAS
1. Characteristics: Dishwasher with energy star qualification.
  2. Electrical: 15 Amps, 60 Hz, 120 V, 15
  3. Finish: Black on stainless, Universal Silver

#### WASHER/DRYER:

- A. Side by Side Washer:
  1. WFW4850BW - Standard Units
  2. WFW70HEBW - Accessible Units
  - B. Side by Side Dryer
  3. WED4870BW - Standard Units
  4. WED70HEBW - Accessible Units
  - C. Stackable:
    1. WET3300XQ

#### INSTALLATION

- A. Comply with manufacturer's installation instructions, product data and shop drawings reviewed by Architect.

#### RESIDENTIAL CASEWORK - SECTION 12355

Provide and install kitchen cabinets, countertops, vanity cabinets and casework hardware.

#### SUBMITTALS

- A. Product Data: Provide component dimensions and construction details.
- B. Shop Drawings: Indicate casework locations, large scale plans, elevations, clearances required, rough-in and anchor placement dimensions and tolerances.
- C. Samples: Submit two cabinet doors, 12 x 24 inch in size, illustrating each color of finish.

#### MOCK-UP

- A. Provide full size mock-up of casework, each type of base unit, upper cabinets and counter top.
- B. Locate where directed.
- C. Mock-up may remain as part of the Work.
- D. Equipment Access: Fabricate chutes with access for maintaining equipment located within the chute, such as flushing and sanitizing units, fire sprinklers, and plumbing and electrical connections.

#### MANUFACTURERS

- A. Residential Casework:
  1. Leado
  2. Mid-America Cabinet Co.

#### COMPONENTS

- A. Cabinet Construction: Softwood lumber framing and particle board.
- B. Kitchen Countertop: 3 cm Level 1 granite.
- C. Vanity Countertop: 2 cm Level 1 granite.
- D. Door and Drawer Fronts: Manufacturer's standard materials shaker style birch full overlay design.
- E. Bolts, Nuts, Washers and Screws: Of size and type to suit application.
- F. Concealed Joint Fasteners: Threaded steel.
- G. Provide removable cabinets where shown to conform to requirements of ANSI A117.1-1998, Chapter 10.

#### HARDWARE

- A. Hardware: Manufacturer's standard bar pulls on doors and drawers.
- B. Drawer Slides: Extension arms, steel and ball bearing construction.
- C. Hinges: European, 110 degrees, self-closing.

#### FABRICATION

- A. Shop-assemble casework for delivery to site in units easily handled and to permit passage through building openings.
- B. Fabricate corners and joints without gaps or inaccessible spaces or areas where dirt or moisture could accumulate.
- C. Fabricate each unit to be rigid and not dependent on building structure for rigidity.
- D. Form smooth edges. Form material for countertops, facing, and shelves from continuous sheets.
- E. Provide cutouts for plumbing fixtures, appliances, and fixtures and fittings. Prime paint contact surfaces of cut edges.
- F. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

#### FINISHES

- A. Exposed To View Surfaces: Manufacturer's standard coated surfaces, color as selected.
- B. Interior Surfaces: Plastic laminate or melamine.

#### INSTALLATION

- A. Install casework, components and accessories in accordance with manufacturer's instructions.
- B. Use anchoring devices to suit conditions and substrate materials encountered.
- C. Set casework items plumb and square, securely anchored to building structure.
- D. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Use filler strips; not additional overlay trim for this purpose.
- E. Close ends of units, back splashes, shelves and bases.

#### CHUTES - SECTION 14560

##### SUMMARY

- A. This Section includes metal, vertical, gravity-type waste chutes.

#### SUBMITTALS

- A. Product Data: For each product indicated.
- B. Shop Drawings: Detail chute assemblies and indicate installation details, dimensions and locations and interconnecting devices; fire alarm signal lines to contacts in the machine area.
- C. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Use filler strips; not additional overlay trim for this purpose.
- E. Close ends of units, back splashes, shelves and bases.

#### QUALITY ASSURANCE

- A. NFPA Compliance: Provide chutes complying with NFPA 82.

#### MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Cutler Manufacturing Corporation.
  2. Midland Metalcraft Co.
  3. U.S. Chutes Corp.
  4. Wilkinson Co., Inc.

#### MATERIALS

- A. Chute Metal: Type 304 stainless steel, ASTM A 240/A 240M.
1. Specified (Nominal) Thickness: 0.080 inch (2.0 mm).

#### DOORS

- A. Intake Door Assemblies: ASTM A 240/A 240M, Type 302/304 stainless-steel, self-closing units with positive latch and latch handle; Class B labeled; 1-1/2-hour fire rated with 30-minute temperature rise of 250 deg F (121 deg C); and with frame suitable for enclosing chase construction.
1. Door Type: Hopper.
  2. Size: Manufacturer's standard size for door type, and chute type and diameter indicated.
  3. Finish: Manufacturer's standard satin or No. 3 directional polish finish.
  4. Locks: Cylinder locks with keys that are removable only when cylinder is locked. For each chute, key locks alike. For each door, furnish four keys.
  5. Foot Operators: Hopper-type door operators that unlatch and open door when foot pedal is depressed.
  6. Electrical Interlocks: Interlock system that is energized by opening one intake door; remaining doors automatically lock when system is energized.
  - B. Heat-Detector System: Interlock system with temperature-rise elements that lock chute doors when temperature in chute reaches a predetermined, adjustable temperature.

- C. Manual Control System: Control system with manual switches that lock doors of chute during shutdown hours and service operations.
- D. Discharge Door Assemblies: Aluminum-coated-steel doors of one-hour fire-rated construction that is suitable for Class B openings; equipped with fusible links that cause doors to close in the event of fire.
1. Direct Vertical Discharge: Provide inclined, horizontally rolling, shutter-type unit.
  2. Horizontal Discharge: Provide top-hinged, self-closing, hopper door with self-latching hardware; foot leg-brace designed to absorb impact of material dropping against chute; and minimum NPS 2 (DN50) drain pipe connection
  - E. Access Door Assemblies: Manufacturer's standard ASTM A 240/A 240M, Type 302/304 stainless-steel doors; Class B labeled; 1-1/2-hour fire rated with 30-minute temperature rise of 250 deg F (121 deg C); with frame suitable for enclosing chase construction; and in satin or No. 3 directional polish finish.

#### ACCESSORIES

- A. Fire Sprinklers: NPS 1/2 (DN 13) fire sprinklers ready for piping connections.
- B. Flushing Spray Unit: NPS 3/4 (DN 19) spray head unit located in chute above highest intake door, ready for hot-water piping connection, and with access for head and piping maintenance.
- C. Sanitizing Unit: NPS 3/4 (DN 19) disinfecting and sanitizing spray head unit located in chute above highest intake door, including 1-gal. (3.8-L) tank and adjustable proportioning valve with bypass for manual control of sanitizing and flushing operation, ready for hot-water piping connection, and with access for head and piping maintenance.

#### FABRICATION

- A. General: Factory assemble chutes to greatest extent practical with continuously welded or cold-seamed joints without bolts, rivets, or clips projecting on chute interior. Include intake-door assemblies and chute-support frames at each floor, and chute expansion joints between each support point.
- B. Roof Vent: Fabricate vent unit to extend 48 inches (1200 mm) above roof with full-diameter, screened vent and metal safety cap or glass explosion-release cap. Fabricate with roof-deck flange, and with counterflashing and clamping ring of nonferrous metal compatible with chute metal.
- C. Fire Sprinklers: Comply with NFPA 13. Locate fire sprinklers at or above the top service opening of chutes, within the chute at alternate floor levels in buildings more than two stories tall, and at the lowest service level.
- D. Equipment Access: Fabricate chutes with access for maintaining equipment located within the chute, such as flushing and sanitizing units, fire sprinklers, and plumbing and electrical connections.

#### ELECTRIC TRACTION ELEVATORS - SECTION 14210

##### SUMMARY

- A. This Section specifies electric traction elevators.
- B. Work Required:
1. The work required under this section consists of all labor, materials and services required for the complete installation (including operational verification) of all the equipment required for the elevator(s) as herein specified.
  2. All work shall be performed in a first class, safe and workmanlike manner.
  3. In all cases where a device or part of the equipment is herein referred to in the singular, it is intended that such reference shall apply to as many of such devices or parts as are required to make complete installation.
  - A. Related work not specified herein: The following sections contain requirements that relate to this section and are performed by trades other than the elevator manufacturer/installer.

1. Section 01500 - Construction Facilities and Temporary Controls: protection of floor openings and personnel barriers; temporary power and lighting.
2. Section 02200 - Earthwork: excavation for elevator pit.
3. Section 03300 - Cast-In-Place Concrete: elevator pit, and elevator machine foundation.
4. Section 04200 - Unit Masonry: masonry hoistway enclosure, building-in and grouting hoistway doorframes, and grouting of sills.
5. Section 05500 - Metal Fabrications: pit ladder, divider beams, and supports for entrances, rails and hoisting beam at top of elevator hoistway.
6. Section 07145 - Cementitious Waterproofing: waterproofing of elevator pit.
7. Section 15500 - Mechanical Ventilating, and Air Conditioning: ventilation and temperature control of elevator equipment areas.
8. Section 16100 - Electrical:
  - a. Main disconnects for each elevator.
  - b. Electrical power for elevator installation and testing.
  - c. Disconnecting device to elevator equipment prior to activation of sprinkler system.
  - d. The installation of dedicated GFCI receptacles in the pit and overhead.
  - e. Lighting in controller area, machine area and pit.
  - f. Wiring for telephone service to controller.

1. Section 16610 - Emergency (Standby) Power Supply Systems: emergency generator for elevator operation.
2. Section 16720 - Fire Alarm Systems: The installation of fire and smoke detectors, manual pull stations and interconnecting devices; fire alarm signal lines to contacts in the machine area.
3. Section 16740 - Telephone Systems: ADAAG-required emergency communications equipment.

#### SYSTEM DESCRIPTION

- A. Equipment Description: Gen2® gearless machine-room less elevator from Otis Elevator Company where all components fit inside the hoistway.
- B. Equipment Control: Eleviewic® Control System.
- C. Drive: Regenerative
- D. Quantity of Elevators: 3
- E. Stops : 5
- F. Openings: In line
- G. Entrances: Type and Width: Single-Slide Door 3500 lb.
- H. Rated Speed: 200 fpm
- I. Platform Size: 6'-6 3/4" W x 6'-1 1/8" D
- J. Clear Inside Dimensions: 6'-5 9/16" W x 5'-5 9/16" D
- K.
- L. Cab Height: 9'9"
- M. Clear Cab Height: assume 5/16" floor recess and 4 LED ceiling mounted at the top of the hoistway.
- N. Entrance Type and Width: Single-Slide Door 36" (915 mm)
- O. Entrance Height: 8'-0" (2438 mm)
- P. Main Power Supply: 208, 220-240, 440-480 or 600 Volts + or - 5% of normal, three-Phase, with a separate equipment grounding conductor. Transformer (by others) required for voltages other than 208, 220-240, 440-480 volts.
- Q. Car Lighting Power Supply: 120 Volts, Single-phase, 15 Amp, 60 Hz.
- R. Machine Location: Inside the hoistway at the top of the hoistway.
- S. Signal Fixtures: Manufacturer's standard with metal button targets (exc. CA).
- T. Controller Location: Machine-Roomless Controller(s) must be in the front wall on the same side as the counterweight, located at the top landing. Optional Machine Room/Space. Optional remote controller (max distance 250').
- U. Performance:
  - a. Car Speed: ± 3 % of contract speed under any loading condition or direction of travel.
  - C. Capacity: Safely lower, stop and hold up to 120% of rated load. (code required).
- V. Quality:
  - a. Vertical Vibration (maximum): 20 milli-g
  - b. Horizontal Vibration (maximum): 12 milli-g
  - c. Vertical Jerk (maximum): 4.59 ± 1.0 ft./sec<sup>3</sup> (1.4 ± 0.3 m/ sec<sup>3</sup>)
  - d. Acceleration/Deceleration (maximum): 2.62 ft./sec<sup>2</sup> (0.8 m/ sec<sup>2</sup>)
  - e. In Car Noise: 55 - 60 dBA
  - f. Stopping Accuracy: ± 0.375 in. (± 10 mm) max, ± 0.25 in. (± 6 mm) typical
  - g. Re-leveling Distance: ± 0.5 in. (± 12 mm)
- A. Operation:
  - B. Simplex Collective Operation: Using a microprocessor-based controller, operation shall be automatic by means of the car and hall buttons. If all calls in the system have been answered, the car shall park at the last landing served.
  - C. Operating Features - Standard
    1. Full Collective Operation
    2. Anti-nuisance.
    3. Fan and Light Protection.
    4. Load Weighing Bypass.
    5. Independent Service.
    6. Full Collective Operation.
    7. Firefighters' Service Phase I and Phase II
  8. Top of Car Inspection.
  - A. Door Control Features:
    1. Door control to open doors automatically when car arrives at a landing in response to a normal hall or car call.
    2. Elevator doors shall be provided with a reopening device that will stop and reopen the car door(s) and hoistway door(s) automatically should the door (s) become obstructed by an object or person.
    3. Door protection shall consist of a two dimensional, multi-beam array projecting across the car door opening.
    4. Door nudging operation to occur if doors are prevented from closing for an adjustable period of time.
    - A. Provide equipment according to seismic zone: 2

#### SUBMITTALS</