

Location of Construction: 332 Warren Ave		Owner: Allen Potoff		Phone: 878-3121		Permit No: 961253	
Owner Address:		Leasee/Buyer's Name:		Phone:		Business Name:	
Contractor Name: Portland Builders		Address: P.O. Box 4902, Portland 04112-4902		Phone: 879-0118		PERMIT ISSUED DEC 31 1996 CITY OF PORTLAND	
Past Use: Vet clinic		Proposed Use: Same w/out reno		COST OF WORK: \$ 60,000.00		PERMIT FEE: \$ 320.00	
		FIRE DEPT. <input type="checkbox"/> Approved <input type="checkbox"/> Denied		INSPECTION: Use Group: Type:		Zone: CBL: 303-G-001	
Proposed Project Description: let reno as per plans		Signature:		Signature:		Zoning Approval:	
		PEDESTRIAN ACTIVITIES DISTRICT (P.U.D.)		Action:		Special Zone or Reviews:	
		Approved with Conditions: <input type="checkbox"/>		Approved <input type="checkbox"/>		<input type="checkbox"/> Shoreland	
		Denied <input type="checkbox"/>		Denied <input type="checkbox"/>		<input type="checkbox"/> Wetland	
		Signature:		Date:		<input type="checkbox"/> Flood Zone	
Permit Taken By: Vicki Dover		Date Applied For: 12/27/96				<input type="checkbox"/> Subdivision	
						<input type="checkbox"/> Site Plan <input type="checkbox"/> minor <input type="checkbox"/> mm <input type="checkbox"/>	
1. This permit application doesn't preclude the Applicant(s) from meeting applicable State and Federal rules.						Zoning Appeal	
2. Building permits do not include plumbing, septic or electrical work.						<input type="checkbox"/> Variance	
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.						<input type="checkbox"/> Miscellaneous	
						<input type="checkbox"/> Conditional Use	
						<input type="checkbox"/> Interpretation	
						<input type="checkbox"/> Approved	
						<input type="checkbox"/> Denied	
						Historic Preservation	
						<input type="checkbox"/> Not in District or Landmark	
						<input type="checkbox"/> Does Not Require Review	
						<input type="checkbox"/> Requires Review	
						Action:	
						<input type="checkbox"/> Approved	
						<input type="checkbox"/> Approved with Conditions	
						<input type="checkbox"/> Denied	
						Date:	
SIGNATURE OF APPLICANT Joyce Burke Portland Builders		ADDRESS: P. O. Box 4902, Portland 04112-4902		DATE: 12/27/96		CEO DISTRICT 4	
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE White-Permit Desk Green-Assessor's Canary-D.P.W. Pink-Public File Ivory Card-Inspector							

PERMIT ISSUED WITH REQUIREMENTS

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provisions of the code(s) applicable to such permit

COMMENTS

1-23-97 see below -
 4-29-97 Re cgo inspection by St. MacDougal.
 Need vacuum breaker) on tank - commercial.
 Fire rate pressure down.
 Items completed per owner.

Inspection Record

Type

Foundation:

N/A

Framing:

OK to start work

Plumbing:

OK 2" vent

Final:

Other:

Date

1-23-97

1-23-97

SECTION 13090

RADIATION PROTECTION

PART 1. GENERAL

- 1.1 Related work specified elsewhere
- a. Painting - Section 09900
 - b. Gypsum Board - Section 09250
 - c. Doors and Frames - Section 08100

PART 2. PRODUCTS

2.1 Storage and handling

- a. Deliver materials in their original packages, containers, or bundles bearing the brand name and the manufacturer or the supplier for whom the product is manufactured.
- b. Keep materials dry by storing inside of the building under the roof.

2.2 Materials

- a. Lead Lined Gypsum Wallboard by Ray-Bar, A&L Lead Inc., Radiation Protection Products Inc. or equal.
 - 5/8" thick fire code drywall, factory laminated with unpierced 1/16" sheet lead, shall be installed to 7 feet high in CT Scanner room and on ceiling under Alternate #1.
- b. Lead Lined Viewing window and glazing by Ray-Bar, A&L Lead Inc., Radiation Protection Products Inc. or equal.
 - 16 gauge hollow metal frame, lined with lead equal to lead in adjacent partition. Glazing shall be lead protected equal to lead in adjacent partition. Size of viewing window as indicated on the drawings.
- c. Lead Lined Door and Frame by Ray-Bar, A&L Lead, Inc., Radiation Protection Products Inc. or equal.
 - Lead lined solid particle board laminated door with unpierced sheet lead extending to all hardwood edges. Lead thickness shall equal to that of adjacent walls. Face veneer shall be birch for a painted finish.
 - Lead lined hollow metal door frame - provide lead insulation equal to that of adjacent partitions. Reinforce frames and provide hardware to support weight of lead lined door.

PART 3. EXECUTION

3.1 Installation of lead lined gypsum wall board

- a. Install per manufacturers standard details and recommendations.
- b. Use either lead headed nails or sheet rock screws with lead tabs.
- c. All wood framing that lead lined Gyp. Bd. is applied to shall have 2 inch wide lead battens applied prior to installing Gyp. Bd.
- d. Refer to Section 09250 for standard finishing of Gypsum Board.

---END OF SECTION---

BUILDING PERMIT REPORT

DATE: 31 Dec 96 ADDRESS: 352 Warren Ave

REASON FOR PERMIT: To make interior renovations

BUILDING OWNER: Alan Poff

CONTRACTOR: Portland Builders

PERMIT APPLICANT: _____ APPROVAL: *6, *15, *16, *17, *18

~~DEMAND:~~ *19, *24

CONDITION OF APPROVAL OR ~~DEMAND~~

1. This permit does not excuse the applicant from meeting applicable State and Federal rules and laws.
 2. Before concrete for foundation is placed, approvals from the Development Review coordinator and Inspection Services must be obtained. (A 24 hour notice is required prior to inspection)
 3. Precaution must be taken to protect concrete from freezing.
 4. It is strongly recommended that a registered land surveyor check all foundation forms before concrete is placed. This is done to verify that the proper setbacks are maintained.
 5. Private garages located beneath habitable rooms in occupancies in Use Group R-1, R-2, R-3 or I-1 shall be separated from adjacent interior spaces by fire partitions and floor/ceiling assembly which are constructed with not less than 1-hour fire resisting rating. Private garages attached side-by-side to rooms in the above occupancies shall be completely separated from the interior spaces and the attic area by means of ½ inch gypsum board or the equivalent applied to the garage means of ½ inch gypsum board or the equivalent applied to the garage side. (Chapter 4 Section 407.0 of the BOCA/1996)
 - *6. Guardrail & Handrails A guardrail system is a system of building components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level. Minimum height all Use Groups 42", except Use Group R which is 36". In occupancies in Use Group A, B, H-4, I-1, I-2 M and R and public garages and open parking structures, open guards shall have balusters or be of solid material such that a sphere with a diameter of 4" cannot pass through any opening. Guards shall not have an ornamental pattern that would provide a ladder effect.
 7. Headroom in habitable space is a minimum of 7'6".
 8. Stair construction in Use Group R-3 & R-4 is a minimum of 10" tread and 7 3/4" maximum rise. All other Use group minimum 11" tread. 7" maximum rise.
 9. The minimum headroom in all parts of a stairway shall not be less than 80 inches.
 10. Every sleeping room below the fourth story in buildings of use Groups R and I-1 shall have at least one operable window or exterior door approved for emergency egress or rescue. The units must be operable from the inside without the use of special knowledge or separate tools. Where windows are provided as means of egress or rescue they shall have a sill height not more than 44 inches (1118mm) above the floor. All egress or rescue windows from sleeping rooms shall have a minimum net clear opening height dimension of 24 inches (610mm). The minimum net clear opening width dimension shall be 20 inches (508mm), and a minimum net clear opening of 5.7 sq. ft.
 11. Each apartment shall have access to two (20 separate, remote and approved means of egress. A single exit is acceptable when it exits directly from the apartment to the building exterior with no communications to other apartment units.
 12. All vertical openings shall be enclosed with construction having a fire rating of at least one (1) hour, including fire doors with self closer's.
 13. The boiler shall be protected by enclosing with (1) hour fire-rated construction including fire doors and ceiling, or by providing automatic extinguishment.
 14. All single and multiple station smoke detectors shall be of an approved type and shall be installed in accordance with the provisions of the City's building code Chapter 9, Section 19, 920.3.2 (BOCA National Building Code/1996), and NFPA 101 Chapter 18 & 19. (Smoke detectors shall be installed and maintained at the following locations):
 - In the immediate vicinity of bedrooms
 - In all bedrooms
 - In each story within a dwelling unit, including basements
- In addition to the required AC primary power source, required smoke detectors in occupancies in Use Groups R-2, R-3 and I-1 shall receive power from a battery when the AC primary power source is interrupted. (Interconnection is required)

- *15. A portable fire extinguisher shall be located as per NFPA #10. They shall bear the label of an approved agency and be of an approved type.
- *16. The Fire Alarm System shall be maintained to NFPA #72 Standard.
- *17. The Sprinkler System shall maintained to NFPA #13 Standard.
- *18. All exit signs, lights, and means of egress lighting shall be done in accordance with Chapter 10 Section & Subsections 1023. & 1024. Of the City's building code. (The BOCA National Building Code/1996)
19. All construction and demolition debris must be disposed at the City's authorized reclamation site. The fee rate is attached. Proof of such disposal must be furnished to the office of Inspection Services before final Certificate of Occupancy is issued or demolition permit is granted.
20. Section 25-135 of the Municipal Code for the City of Portland states, "No person or utility shall be granted a permit to excavate or open any street or sidewalk from the time of November 15 of each year to April 15 of the following year".
21. The builder of a facility to which Section 4594-C of the Maine State Human Rights Act Title 5 MRSA refers, shall obtain a certification from a design professional that the plans commencing construction of the facility, the builder shall submit the certification to the Division of Inspection Services.
22. This permit does not excuse the applicant from obtaining any license which may be needed from the City Clerk's office.
23. Ventilation shall meet the requirements of Chapter 12 Sections 1210. of the City's Building Code.
24. The proposed New Spiral Stairways shall mean the requirements of Section 1014.6.4 of The City's Building Code. (The BOCA National Building Code/1996)
25. _____
26. _____


P. Samuel Hoffses, Chief of Code Enforcement

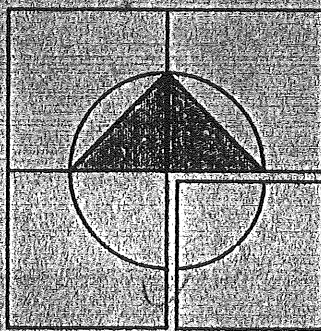
cc: Lt. McDougall, PFD
Marge Schmuckal

773 8871 Home
878-3722 office

ANIMAL NEUROLOGICAL CLINIC EXPANSION

PORTLAND, MAINE

PROJECT MANUAL



FOSTER ASSOCIATES - ARCHITECTS

P.O. Box 6650
PORTLAND, MAINE 04101
207-772-4073

November 21, 1995

SECTION 01010

SUMMARY OF THE WORK

PART 1. GENERAL

Expansion of the Animal Neurological Clinic into a condo space adjacent to the one currently occupied.

In general - wood framing with gypsum wall board / paint finishes, ceramic tile and paint flooring, wood base and susp. acoustical tile ceilings. The second floor framing will be prefab. joists. The second floor will be finished except for flooring, which will be installed by the Owner.

One of the new rooms will house a CT Scanner. This room will have leaded walls, doors, & windows as required.

Another room will be used for EMG. This room will require special radio frequency shielding. The Owner will purchase the brass shielding material. The Contractor shall work closely with the owner in putting together a room that is properly shielded.

Mechanical, Plumbing, and Electrical items will be performed by Contractors hired directly by the Owner. The General Contractor shall coordinate fully with these Contractors.

--- END OF SECTION ---

SECTION 01500

TEMPORARY FACILITIES

PART 1. GENERAL

1.1 Responsibilities

- a. The work of this Section is the responsibility of the General Contractor unless specifically stated otherwise in this Section.

PART 2. PRODUCTS AND EXECUTION

2.1 Heat

- a. The interior of the building shall have a temperature of approximately 60 deg. F. for the spackling of gypsum drywall, installation of wood finish, installation of floor coverings, and interior decoration.
- b. The General Contractor shall provide, and maintain any temporary heating equipment as may be required. The H&V Contractor shall permanently connect as many permanent heating system units as possible for use as temporary heat. The General Contractor shall assume full responsibility for the care and operation of the new equipment during its temporary use and to return the equipment to the H&V Contractor in perfect order. At the conclusion of the temporary heating period, the complete system shall be cleaned including new filters. Fuel required to operate heating system for temporary heat shall be provided by the General Contractor. Note: Heating and ventilating equipment warranties shall begin upon Owner acceptance at building completion.

2.2 Doors and Screens

- a. Install temporary batten type or other suitable doors at exterior door openings. Keep doors locked during non-working hours. Install polyethylene or cloth screens at windows and other non-covered openings until permanent installations are made.

2.3 Temporary Stairs, Ladders, Ramps, Platforms, Hoists

- a. Provide and maintain all necessary means of access as above listed or as required for the proper execution of the work. Such work shall comply with the requirements of applicable Federal, State, and Local Laws and Requirements.

2.4 Scaffolding and Shoring

- a. Provide centering, platform scaffolding and other non-mobile type scaffolding as necessary for the proper completion of the work of all trades. Assume all responsibilities for such work and make good any damages resulting from improper supports and/or failure of shoring in any respect.

2.5 Policing

- a. At all times during the construction phase, provide and maintain adequate access and egress to the property. Properly screen, barricade, guard and protect all areas affected by the work against hazards of any kind that may affect life, limb or property.
- b. Periodically, during the progress of the work, remove all debris from the building and premises to make and maintain the entire Project in a neat and orderly condition.

2.6 Removal of Temporary Facilities

- a. Remove all temporary facilities at the completion of the work. Materials used for such facilities shall become the property of the Contractor.

--- END OF SECTION ---

SECTION 01700
PROJECT CLOSEOUT

PART 1. GENERAL

1.1 Contractor's Responsibilities

a. Before completion of the project the Contractor shall be responsible for the following:

- [1] Complete cleaning up of the site and the building including new glass.
- [2] Transmission of all extra materials as specified, i.e. Flooring tiles, etc.
- [3] Transmission of all maintenance data and instruction manuals for heating and plumbing systems to the Owner by formal letter with copy to the Architect.
- [4] Transmission of copies of all required guarantees and warranties including his own one (1) year guarantee for the entire project.
- [5] Final inspection will be made at such time that the Architect and the Owner agree that the work is substantially complete.

--- END OF SECTION ---

SECTION 02050

DEMOLITION

PART 1. GENERAL

1.1 General

- a. The work of this Section shall be the responsibility of the General Contractor unless stated otherwise herein.

1.2 Coordination of Work

- a. The Demolition Contractor shall coordinate his work with the electric and mechanical trades as necessary for the reasonable progression of the work.
- b. Removal or discontinuances of existing mechanical and electrical items shall be done by qualified persons, licensed to perform such work.

1.3 Areas Not Renovated

- a. The contractor shall be responsible for keeping the completed portions of the new and unaltered buildings reasonably free from dust and debris. The Contractor shall take reasonable precautions to protect such areas.

PART 2. PRODUCTS

2.1 Materials - General

- a. Materials used to replace, patch or repair existing exposed work shall match or be compatible with existing adjacent surfaces when finished, or be redone in accordance with the Finish Schedule on the Drawings and as specified. All such finishes shall be to the approval of the Architect.
- b. New construction and new items shall be as specified in the applicable Sections of these Specifications.

2.2 Items To Be Saved

- a. Most minor, loose items the Owner wants to retain will be removed prior to start of work on the Contract.
- b. Those items specifically noted on the Drawings or listed herein shall be moved and/or relocated as noted.
- c. The contractor shall verify with the Owner all additional items the Owner wants to retain. The Owner shall make arrangements for the removal of all such items.
- d. Those items not specifically noted, specified, or identified by the Owner to be saved shall become the property of the Contractor and be removed from the site.

PART 3. EXECUTION

3.1 Precautions for Removing Existing Work

- a. The removal of all portions of the structure to be removed shall be done with utmost care. Use tools and methods that will not transfer any heavy shocks to the remaining portions of the building. All possible care shall be taken to avoid excessive vibration and other disturbances to the structure. Repair any damage caused by removal of any item. Such repair shall be at the expense of the Contractor doing the work.
- b. Do not allow debris to accumulate. Sprinkle debris during handling and loading.

c. When removing materials and making openings in walls, or other portions of the buildings. Take all necessary precautions and use whatever protection devices, shoring, guard rails and similar devices as may be required to assure that the remaining and adjacent portions of the existing work which is to remain is substantially supported and/or not loaded beyond safe limits.

d. Materials indicated on the Drawings to be removed shall be taken down in a workmanlike manner so as not to damage the existing materials noted to remain. Any items noted to remain which are damaged during the course of construction, shall be replaced at no cost to the Owner.

e. Where new work joins or abuts existing work, do cutting carefully, accurately, and true to lines indicated.

f. Do not disturb existing pipe insulations.

3.2 Disposal of Work Removed

a. Remove non-salvageable refuse and debris from the site. It is the responsibility of the General Contractor and his sub-contractors to make all required arrangements for legal disposal of such materials in connection with their respective interests in the work.

b. Do not allow refuse or debris of any nature to accumulate to the detriment of the work or to the good appearance of the facility. Refuse and debris shall be gathered and disposed of at frequent, regular intervals as required by the work. Disposal shall occur at least every week, regardless of the amount of accumulation.

3.3 Cleaning Up

a. Rubbish, debris, waste materials, and salvaged materials from and about the building; and tools, scaffolds, apparatus, and appliances used shall be removed by the Contractor. The premises shall be left in clean condition and made ready for the work as described under the applicable Sections of these Specifications and as shown on the Drawings.

---END OF SECTION---

SECTION 05715
SPIRAL STAIRWAY

PART 1. GENERAL

1.1 Related Work Specified Elsewhere

- a. Rough Carpentry - Section 06100
- b. Finish Carpentry - Section 06200

1.2 Submittals

- a. Submit satisfactory catalog cuts, installation details, & dimensions for products to be used.

PART 2. PRODUCTS

2.1 Provide and Install a Steel Spiral Stairway as manufactured by Stairways, Inc., Arcways, Boston Design Corp., The Iron Shop or an approved equal.

- a. Spiral Stair Diameter - 48 inches.
- b. Finish floor to finish floor - 108 inches plus/minus (field verify).
- c. Center Column - Standard size with flat steel cap.
- d. Degree - Standard 27 degree - 13 1/2 treads per circle
- e. Tread type - 12 gauge steel checkerplate.
- f. Balusters - Two 3/4 inch. square steel balusters per tread.
- g. Railing - 1 1/2 inch. round steel rail.
- h. Platform - Square 12 gauge steel checkerplate.
- i. Platform Rails & Balusters - To match stairs.
- j. Finish - Factory primed with a rust inhibitive primer and finished with black satin enamel finish.

PART 3. EXECUTION

3.1 Installation

- a. Install Stair unit per manufacturers recommendations.
- b. Provide all fasteners and hardware necessary for a complete installation.

---END OF SECTION---

SECTION 06100

ROUGH CARPENTRY

PART 1. GENERAL

1.1 Related Work Specified Elsewhere

- a. Items of Finish Carpentry and Millwork - Section 06200
- c. Metal Flashing - Section 07600, Flashing and Sheet Metal
- d. Special caulking and sealing - Section 07900, Sealants
- e. Windows - Section 08610
- f. Finish Hardware - Section 08710
- g. Gypsum Wallboard - Section 09250

PART 2. PRODUCTS

2.1 General

- a. Lumber shall be well seasoned with not over 15% moisture content for treated lumber and not over 19% moisture for untreated lumber. Protect all lumber and keep dry, both in transit and at the job site.

2.2 Lumber Requirements

- a. Lumber for rough carpentry, unless otherwise indicated shall be as follows:
 - [1] Blocking and framing for general use - Select Structural #2, Eastern Spruce, Fir, or Hemlock.
 - [2] Pressure treated lumber - Select Structural #2, Southern Pine.
- b. Strapping - Native Spruce, Fir, or Hemlock. Use pressure treated for blocking and framing if in contact with masonry or concrete.
- c. Plywood:
 - [1] Roof/wall sheathing, soffits, & other exterior concealed uses - APA rated sheathing, exposure 1 (CDX).
 - [2] Shelving, interior partitions, and backing for equipment of Electrical & Mechanical trades - APA, A-D, exposure 1. (shall be 3/4" thick if not indicated on drawings)
 - [3] Subflooring - APA rated sheathing, exposure 1.
- d. Incidental Products
 - [1] Nails for exterior use - Stainless steel of correct type and size for the work. Use uncoated steel nails for other nailing uses.

PART 3. EXECUTION

3.1 Erection

- a. Accurately and properly fit, brace and secure all work in position and direction. Erect framing, fillers and blocking as directed on the Drawings or required by the work.
- b. Cooperation is required with all other trades.

3.2 Cutting and Patching

- a. Do all cutting, patching, heading and blocking required for work of all trades.

3.3 Blocking and Supports

- a. Install 2 in. thick blocking of width necessary in wood stud partitions for anchoring mirrors, accessories, cabinets, shelves, grab bars and other items as necessary. Securely anchor blocking within studs.

3.4 Backing Boards

- a. Install 3/4 in. thick plywood backing boards for electrical and mechanical trades as required.

3.5 Subflooring/Underlayment

- a. Subflooring and Underlayment shall be installed as detailed and noted on the drawings. Plywood shall be attached by construction **adhesive** and **screws** as required by code.

3.6 Finish Hardware

- a. The finish hardware specified in Section 08700 shall be received, checked against the invoices, stored, cared for, and installed under this Section of the Specifications. All keys shall be properly tagged, indexed, and filed in key cabinet and/or turned over to the Owner on acceptance of the Project.
- b. Install hardware in accordance with the manufacturer's instructions, accurately fitted, securely fixed and carefully adjusted.

---END OF SECTION---

SECTION 06190
PREFABRICATED WOOD JOISTS

PART 1. GENERAL

1.1 Related Work Specified Elsewhere.

- a. Rough Carpentry - Section 06100

PART 2. PRODUCTS

2.1 Materials

- a. Prefabricated Wood Joists - "TJI's" by Truss Joist MacMillan. Sizes as indicated on drawings.
- b. Joist Hangers - "Strong Tie Connectors" by Simpson. Sizes as indicated on drawings.

PART 3. EXECUTION

3.1 Installation

- a. Protect joists delivered to the site from harmful elements, store above ground on suitable supports. Keep joists dry, free on dirt and other foreign matter.
- b. Unless specified otherwise, erect joists in accordance with the manufacturer's recommendations and standard installation procedures.
- c. Damaged joists shall not be used.
- d. Seat joists level and true, and secure them with proper stiffening plates and edge blocking to remain during placing of roof deck.
- e. Space as shown except for minor adjustments as required to avoid conflict with openings and with other trades.
- f. Except for cutting to length, top and bottom flanges of Wood I Beams shall not be cut, drilled, or notched.
- g. Any penetrations thru the web of the joists shall be done in accordance with the manufacturers directions as not to effect the structural integrity of the members.

---END OF SECTION---

SECTION 06200

FINISH CARPENTRY

PART 1. GENERAL

1.1 Related Work Specified Elsewhere.

- a. IRough Carpentry - Section 06100
- d. Windows - Section 08610

PART 2. PRODUCTS

2.1 Materials

- a. Painted interior wood trim - Poplar. Note: all wood trim - base board, door and window trim to match existing.
- b. Exterior wood trim and siding - to match existing.
- c. Plywood for concealed closet shelves and other concealed uses - APA fir, AB INT. use 3/4" thick for shelves. Other uses shall be of thickness noted or detailed.
- d. Plastic Laminate for cabinet and counter tops - 1/16" in. thick standard grade Formica, Wilsonart, or Nevamar. Colors as selected by Owner. Plastic Laminate shall be mounted on 3/4" plywood.
- e. Cabinets - Modular or custom built to match existing.

PART 3. EXECUTION

3.1 Installation

- a. Make all work in accordance with measurements taken at the job site. Accurately assemble finished carpentry work and properly secure together and in place.
- b. Sand interior exposed work to even, smooth surfaces ready for finish with all holes filled with plastic wood filler (where to be painted) and sanded exposed faces.
- c. Exterior wood siding, soffits and trim shall be accurately cut, fit and secured with appropriate non-corrosive nails and fasteners. Use the longest practical trim pieces, with scarf joints where necessary.
- d. Mill assemble work insofar as is practical and deliver ready for erection

3.2 Delivery and Storage

- a. Woodwork manufacturer and General Contractor shall jointly be responsible to make certain that items of woodwork are not delivered until building or storage area is sufficiently dry so that woodwork will not be damaged by excessive changes in moisture content.

---END OF SECTION---

SECTION 07200

BUILDING INSULATION

PART 1. GENERAL

1.1 Related Work Specified Elsewhere.

- a. Gypsum Drywall - Section 09250
- b. Rough Carpentry - 06100

PART 2. PRODUCTS

- a. Insulation for ceiling, fascias, overhangs and exterior stud walls - Batt or roll type friction fit fiberglass or mineral fiber as manufactured by Owens-Corning, Gustin-Bacon, W.R. Grace, or U.S. Gypsum. Thicknesses as indicated on the drawings.
- b. Vapor Barrier - 6 mil., clear polyethylene by Vis-Queen, Gerpak, Union Carbide, or approved equal.
- c. Sill Sealer - Closed cell foam for width of sill shown.

PART 3. EXECUTION

3.1 Installation

- a. Wedge friction fit type insulation between studs as recommended by the manufacturer.
- b. Place sill sealer between foundation and stud shoe before attaching shoe into place.
- c. Place polyethylene vapor barrier specified on warm side of area insulated. Use adhesive on studs to hold in place until wall board is attached. Use adhesive full length on seams and joints. Tape tightly at openings, breaks and at top and bottom of walls.

---END OF SECTION---

SECTION 07900

SEALANTS

PART 1. GENERAL

1.1 Related Work Specified Elsewhere

- a. Rough Carpentry work - Section 06100
- b. Windows - Section 08610

PART 2. PRODUCTS

2.1 Materials

- a. Caulking compound for general use on interior work - Thermo-Mono by Tremco, Hornseal by A.C. Horn, Butyl-Flex by DAP, Inc., Weatherban 202 by 3M Co. or approved equal butyl type calking compound.
- b. Sealant for exterior uses and interior of metal frames and concrete and masonry expansion and construction joints - A single component polyurethane conforming to Federal Specification TT-S-00230C, Type II, Class A and ASTM C-920, Type S, Grade NS, Class 25, use NT,M,G,A. Use primer as recommended by sealant manufacturer as necessary or required. Colors shall match adjacent work and be as selected by the Architect.
- c. Back-up material for deep joints and where shown on Drawings - Closed cell polyethylene tubing 1/3 larger than the width of the space being filled.

PART 3. EXECUTION

3.1 Installation

- a. Do all caulking in accordance with the best practices. All work shall be neatly done. Start of work shall indicate acceptance of the surfaces by the approved subcontractor.
- b. Clean excess mortar and other debris and foreign matter from all joints.
- c. Fill large joints with backer rod (filler) specified.
- d. Apply, tool and finish calking compound and sealant as required by the manufacturer.
- e. Apply calking compound and sealant to joints with a caulking gun equipped with a nozzle of suitable size. Fill void completely and point compactly, neatly, and slightly concave. Remove excess material and carefully clean with a cleaner approved by the sealant or calking compound manufacturer.
- f. Set thresholds in beds of caulking and bolt or screw tightly to the floors.

--END OF SECTION---

SECTION 08100
DOORS AND FRAMES

PART 1. GENERAL

1.1 Related Work Specified Elsewhere

- a. Finish Carpentry - Section 06200
- b. Finish Hardware - Section 08710
- c. Radiation Protection - Section 13090

PART 2. PRODUCTS

2.1 Wood Doors & Frames

- a. Furnish doors and frames to match existing wood doors and frames. Refer to section 13090 for doors and frames for radiation protection.

2.2 Metal Doors & Frames

- a. Furnish Doors & Frames as manufactured by Ceco, Fenestra, Steelcraft, Amweld, or equal. Furnish labeled U.L. frames where scheduled or required by law.

[1] Frames - 16 gauge, cold rolled prime quality galvanized steel. Furnish six (6) suitable wall anchors as required for the type of wall construction shown. Reinforce strike and hinge locations with 3/16" thick plate. Furnish three (3) rubber silencers for each strike jamb. Provide for 1 1/2 pairs of butts per door. Templates for hardware shall be furnished by the hardware supplier as required. Frames shall be bonderized and have baked-on prime coat of paint.

[2] Doors - 1 3/4" thick, manufactured from 18 gauge cold rolled stretcher leveled, prime quality steel. Where closers are scheduled, provide 12 gauge reinforcement welded within the door for closer attachment. Doors shall be bonderized and have one coat of baked-on prime coat of paint. Exterior doors shall be fully insulated with urethane foam.

PART 3. EXECUTION

3.1 Installation

- a. Erect doors and frames plumb and true, with hardware left in proper working order. Do erection in accordance with door manufacturer's instructions.
- b. Prepare all doors for hardware as scheduled.

--END OF SECTION--

SECTION 08610

WINDOWS

PART 1. GENERAL

1.1 Related Work Specified Elsewhere

- a. Sealants - Section 07900
- b. Finish Carpentry - 06200

PART 2. PRODUCTS

2.1 Manufacturers

- a. Windows shall be clad E-Z tilt double hung, and clad awnings by Marvin Windows or "Architect Series" by Pella.

2.2 Wood Windows

- a. Frame/Sash - Clear Western Ponderosa pine. Frame/Sash exteriors shall be factory primed and factory cured exterior finished. (Color shall be selected by Architect from Manufacturers standard colors)
- b. Hardware - Balancing; coil spring block and tackle system with nylon cord and steel clutch. Track; vinyl extrusion with foam backing. Lock; High pressure zinc die cast cam lock with heavy gauge steel keeper and lock base. Sash lift; High pressure Die cast zinc with matching lock. (finishes to match window frame color selection)
- c. Weatherstripping - Continuous, leaf type weatherstripping on head jamb part stop which seals against top sash; dual durometer double leaf at check rail; bulb type dual durometer weatherstripping at bottom rail. Leaf type weatherstrip at vinyl hardware track.
- d. Jamb extensions - Provide factory installed jamb extensions for wall thicknesses indicated or required. Match interior frame finish
- e. Glazing - Clear 1/2" & 3/4" double pane, Low E, sealed insulating glass - CBA SIGMA rated and labeled.
- f. Screens - Factory installed screens. Aluminum mesh set in aluminum frame. (finish to match window frame color selection)

PART 3. EXECUTION

3.1 Installation

- a. Install complete factory assembled units in openings shown on Drawings in accordance with Detail Drawings and approved Shop Drawings. Use attachment means necessary to satisfy Details given. Windows shall be installed square, plumb, and level in a secure and workmanlike manner to assure a neat and weather tight installation.
- b. Sealing - See specification Section 07900 - Sealants.

---END OF SECTION---

SECTION 08710

FINISH HARDWARE

PART 1. GENERALS

1.1 Related Work Specified Elsewhere

- a. Installation of Finish Hardware - Section 06100, Rough Carpentry
- b. Wood Doors & Frames - Section 08100

1.2 Warranty

- a. The finish hardware specified for this project shall be guaranteed against defects in material and workmanship for a period of (1) year from date of completion and acceptance of this building. In addition, door closers shall carry a guarantee of ten (10) years from same date.

PART 2. PRODUCTS

2.1 Finish Hardware

- a. **Hinges** - All hinges shall be solid steel full mortise, five knuckle, flush ball bearing design. Provide (3) hinges for each door leaf. Hinges shall be Standard Weight Average Frequency FBB Line by Stanley.
- b. **Locksets** - Extra heavy duty cylinder type lever handle locksets. Furnish 10 line by Sargent with LNL design lever handles or approved equal.
- c. **Door Closers** - 1250 Series, parallel arm mounting, by Sargent or approved equal. Closers shall warrantied for 10 years.
- d. **Exit Devices** - 8800 Series Rim Devices by Sargent with pull bars or lever handles.
- e. **Kick Plates** - Kick plates shall be plastic 8" high by 1 1/2" less door width. Apply kick plates to push side of all doors where scheduled.
- f. **Door Stops** - Provide Ives #436 & 438 .
- g. **Door Holders** - Provide Stanley #CD7096 or approved equal.
- h. **Thresholds** - Mill finished aluminum with vinyl top thresholds by Pemko - field conditions shall dictate size. Thresholds shall have bevel edges and corrugated surface with not less than 4 stainless steel screws.
- i. **Finishes** - All hardware items shall be furnished in Polished Brass finish.

2.2 Finish Hardware Schedule

DOOR #	HARDWARE SET
01,02,06,07,08	Hinges, Lockset, Door Stop.
03,04	Hinges, Lockset, Door Stop, Kick Plate
09	Hinges, Lockset, Closer, Kick Plate
05	Hinges, Exit Device, Closer, Kick Plate, Threshold, Weatherstripping

PART 3. EXECUTION

3.01 Installation & Adjustment

- a. All doors and frames, requiring field preparation for finish hardware, shall be carefully mortised, drilled for pilot holes, or tapped for machine screws for all items of finish hardware in accordance with the manufacturers templates and instructions.
- b. All items of finish hardware shall be installed in a workmanlike manner following the manufacturer's instructions. All mechanisms shall operate smoothly without friction or binding. All door closers, and other items requiring final adjustment, shall be adjusted by an experience workman to proper operation of all features.

3.02 Protection & Cleaning

- a. Exposed finish hardware & toilet accessories shall be protected from damage to mechanism and finish by the General Contractor until completion of the project. The General Contractor shall also clean all items of finish hardware just prior to final inspection.

3.03 Instructions and Tools

- a. The finish hardware supplier shall furnish the Owner with installation, repair manuals, and adjustment tools for the Locksets, Exit Devices, and Door closers.

---END OF SECTION---

SECTION 09250

GYPSUM BOARD

PART 1. GENERAL

1.1 Related work specified elsewhere

- a. Painting - Section 09900
- b. Radiation Protection - Section 13090

PART 2. PRODUCTS

2.1 Storage and handling

- a. Deliver materials in their original packages, containers, or bundles bearing the brand name and the manufacturer or the supplier for whom the product is manufactured.
- b. Keep materials dry, preferably by storing inside of the building under the roof.

2.2 Materials

- a. Wall board - In general, 5/8 in thick type X, tapered edge gypsum board by U.S. Gypsum, National Gypsum, Georgia-Pacific or Flintkote. Lengths shall be as long as possible to eliminate vertical joints (up to 16 feet long.)
- b. Cementitious Backer Board - Durock by U.S. Gypsum, or equal.
- c. Screws - Bugle head type. Lengths shall be 1/2 inch longer than the thickness of the board or boards being attached. Use Galvanized or Stainless steel screws at locations where MR board is installed.
- d. Outside corner beads, control joint channels, edge channels and other trim as required - Galvanized metal by the gypsum board manufacturer. Casing beads shall be square type.
- e. Tape joint system - As provided by the Gypsum Board Manufacturer.
- f. Metal furring channels - Galvanized type of size shown on the Drawings by U.S. Gypsum, Dale Industries, or by Gold Bond.

PART 3. EXECUTION

3.1 Installation of gypsum wall board

- a. Preparation - Examine and inspect materials to which gypsum board is to be applied. Remedy all defects prior to installation of wall board. Any defects in the finished installation due to misaligned framing or other cause will be the responsibility of those doing the work performed under this Section. Starting of work shall imply the acceptance of conditions. Refer to General Notes on Drawings for special requirements.
- b. Insulation - Make sure that acoustical insulation has been installed where required before applying wall board to both sides of the partition or wall. (Installation is specified under Section 07200, Building Insulation).
- c. Cutting - Cut gypsum wall board by scoring and breaking or by sawing, working from the face side. Scribe neatly where board meets projecting surfaces.
- d. Placing - Bring boards into contact with each other, but do not force into place. Maximum allowable gap at end joint is 1/4 inch. Neatly fit and stagger all end joints. Arrange joints on opposite sides of partitions so as to occur on different studs. Make joint layout at openings so that no end joint will align with edges at openings. Where double layers of wall board are required, stagger vertical joints one stud. Note requirements for extending wall board to floor or roof above. Hold top edge of board down 1/2 inch from deck above.

[1] Space screws not less than 3/8 inch from edges and ends of wall board. Locate screws a maximum of 12 inches o.c. in field and 8 inches o.c. at edges. Refer to ASA Specification for screw attachment procedure.

[2] Hold the board in firm contact with the member into which the screws are being driven. Attachment shall proceed from central portion of board toward ends and edges. Drive screws home with heads slightly below the surface of the board. Take care to avoid breaking the paper face. Remove improperly driven screws.

e. Joint treatment - Apply field joints and corners in strict accordance with the direction of the wall board manufacturer. Use specified tape and a minimum of three (3) coats of cement. Finish coat shall be with wide, flat trowel to feather both sides of joint. Use cement in accordance with recommendations of manufacturer. Sand each coat as necessary to prepare for following coat. Make finish coat smooth and to a plane surface. Protect external corners with metal corner beads. Treat screw head dimples as outlined above for joints, but without tape.

f. Accessories

[1] Install corner beads on all outside corners.

[2] Use square casing beads where gypsum board abuts dissimilar materials and is not covered by casing or other concealment.

[3] Use expansion joints and other metal trim where necessary. In no case shall Gypsum wall board walls exceed 30 feet without an expansion joint.

[4] Use furring strips for gypsum wall board ceilings as indicated on the Drawings or required by the work.

g. Patching - After trim has been applied and prior to decoration, correct damage and defects as required.

---END OF SECTION---

SECTION 09300

CERAMIC TILE

PART 2. PRODUCTS

2.1 Floor Tile

- a. Match existing floor tile in areas schedule for the ceramic floor tile.

2.2 Dog Run Tile Enclosures

- a. Floor - Unglazed Ceramic Mosaic Floor Tile by Dal-Tile or approved equal.

Type - Porcelain

Size - 2" x 2"

- b. Walls - Glazed Wall Tile by Dal-Tile or approved equal.

Type - Porcelain

Size - 4" x 4"

- c. Setting materials - Dry-set mortar conforming to ANSI 118.1.
- d. Grouting materials - Dry-set grout conforming to ANSI 118.6.
- e. Trim - provide all trim pieces necessary to complete installation. Color, size, and finish to match adjacent tile.

PART 3. EXECUTION

3.1 Installation

- a. Install tile specified with competent workmen using layout shown and detailed in plans.
- b. Install tile in accordance with manufacturer's recommendations and ANSI A-108 series for ceramic tile installation.
- c. Verify condition of subfloor and notify owner of any discrepancies before start of work.
- d. Extend tile work into recesses, under and behind equipment fixtures except as noted otherwise. Fit tile to electric outlets, piping fittings and other penetrations so that plates, collars, covers, etc... overlap the tile. Install tile in thresholds of doors.
- e. Align joints vertically and horizontally between trim and field tile.
- f. Finish installation shall be free of cracked, chipped, broken, unbonded, or otherwise defective tile work. Protect all floor tile installations with kraft paper or other heavy duty covering during construction period to prevent staining or damage. No foot or wheel traffic shall be permitted on floor for at least seven days after grouting.

---END OF SECTION---

SECTION 09500
ACOUSTICAL CEILINGS

PART 1. GENERAL

1.1 Related Work Specified Elsewhere

- a. Gypsum board ceilings - Section 09250.

1.2 Submittals

- a. Submit samples and technical literature for approval.
- b. Furnish to the Owner, one (1) extra carton of each type of unit specified for future use. Units shall be in sealed polyethylene bags.

PART 2. PRODUCTS

2.1 Materials

- a. 24" x 24" Acoustical Units - 5/8 in. thick, tegular edge, white painted lay in mineral fiber units. Units shall be Cortega by Armstrong or approved equal.
- b. Exposed grid mounting system - Steel tee sections with 15/16 in. wide exposed faces with white enameled finish. Provide Aluminum with moisture resistant tile.
 - [1] Main tees - Heavy duty minimum 1 1/2 in. deep sections.
 - [2] Cross tees - Minimum 1 in. deep.
 - [3] System shall be as manufactured by Cupples Products Corp., Bonn Products Corp., Armstrong, Chicago Metallic, or approved equal. Supporting wires shall be of size and spacing recommended by the ceiling tile manufacturer.

PART 3. EXECUTION

3.1 Installation

- a. Ceilings
 - [1] Install suspension systems specified with competent workmen approved by the tile manufacturer. Layout shall conform to detailed reflected ceiling plans.
 - [2] Install tile in accordance with manufacturer's recommendations.
 - [3] Installer shall coordinate his work with electrician in areas having lights recessed in ceilings. Provide full support for light fixtures to main runners of suspension system.

3.2 Cleaning

- a. On completion, clean all material and accessories. Leave ceilings free of finger marks, dirt, in perfect condition and acceptable to the Architect.
- b. Replace abraded or damaged materials as directed by the Architect.

---END OF SECTION---

SECTION 09900

PAINTING

PART 1. GENERAL

1.1 Related Work Specified Elsewhere

- a. Prime coat for structural steel and other factory finished items is specified in their respective Sections.

1.2 Colors and Samples

- a. Paint colors shall be as selected by the Architect. Before any work is done, the Architect will furnish the Contractor with a set of color cards, and a schedule showing where the various colors shall go. The contractor shall prepare samples at the job as required until the colors and textures are satisfactory to the Architect.

PART 2. PRODUCTS

2.1 Materials

- a. Paint, varnish, stains, and fillers - Of types and brands hereinafter specified under "Schedule of Painting". Materials such as linseed oil, shellac, turpentine, etc. shall be of highest quality, and have identifying labels on containers. Approved manufacturers: Pratt and Lambert, Sherwin Williams, Benjamin Moore, and California Products Corp.
- b. Deliver paint to site in manufacturers sealed containers. Each container shall be labeled by the manufacturer. Labels shall give manufacturer's name, type of paint, color of paint, and instructions for reducing. do thinning only in accordance with the manufacturer's instructions. Job tinting may be done when approved by the Architect.
- c. Base bids on the use of brands and quality as hereinafter specified. If Contractor desires to use materials of a manufacturer other than the materials specified, he shall make the request in writing to the Architect, giving the name of the manufacturer and the specific name of each product he offers as a substitute. He shall state the amount, if any to be added to or deducted from his bid for such substitution.
- d. Use materials only as specified by manufacturer's direction label on each container.
- e. Oil - Pure raw linseed oil or boiled linseed oil if specifically required.
- f. Paint thinner - Pure spirits of turpentine, or thinner recommended by the paint manufacturer.
- g. Shellac - 4 lbs. and shall meet U.S. Government Specifications as issued by the Bureau of Commerce.

PART 3. EXECUTION

3.1 Surfaces to be Painted

- a. See Drawings and Schedules for type and location of various surfaces requiring paint. Include all field painting necessary to complete work shown and specified. If not pre-finished, paint baseboard heating enclosures and convectors to match adjacent walls.
- b. Paint or finish any material introduced on the job which requires painting or finishing as part of this contract. This includes piping, either plumbing, heating, sprinkler, electric, or other, where such occurs in painted portions of the building. Ductwork in such areas shall also be painted.

3.2 Preparation of Surfaces - General

- a. Wood - Sandpaper to smooth and even surface and then dust off. After priming or stain coat has been applied, fill nail and other holes and cracks with plastic wood or putty. Use wood plugs over exposed screw heads. For natural finish, color putty to match wood. Sandpaper between coats if surfaces are not smooth.
- b. Steel and Iron - remove grease, rust scale and dust. Touch up any chipped or abraded places on items that have been shop coated. Where steel and iron have a heavy coating of scale, remove it by wire brush or sand blasting as necessary to produce a satisfactory surface for painting. Clean iron with benzine and galvanized iron with a solution of 4 oz. of copper sulfate to one gallon of water or with undiluted white vinegar.
- c. Concrete - Make sure surfaces are thoroughly dry. Test if there is any question. The General Contractor is required to patch and rub concrete surfaces. Painter shall remove dust and do minor smoothing or cleaning. Call major cracks, holes, or stains to the attention of the General Contractor. Painter shall not proceed if surface is not in proper condition.
- d. General - Before painting, remove hardware, accessories, plates, lighting fixtures and similar items or provide ample protection of such items. When necessary, disconnect radiators to permit painting of wall behind them. Replace and reconnect upon completion. Remove doors if necessary to paint bottom edges. Use only skilled mechanics for removal and connection of above items. Where painting signs or numerals are applied on glass doors, thoroughly clean glass with soap and water prior to painting.
- e. Cleaning - The cleaning up prior to painting is required to be done with vacuum cleaners. Painter shall not apply paint or varnish when potentially dusty conditions prevail.

3.3 Schedule of Painting:

a. EXTERIOR

<u>Surfaces to be Treated</u>	<u>Preparation & Pretreatment</u>	<u>1st Coat</u>	<u>2nd Coat</u>	<u>3rd Coat</u>
Misc. Wood Trim	Dryclean, Fill Sandpaper	Solid Color Exterior Stain	Solid Color Exterior Stain	None

b. INTERIOR

Ferrous Metals	Sandpaper, solvent clean, Touch-up	Interior Metal Undercoat primer	Enamel Semi-Gloss	Enamel Semi-Gloss
Galvanized Metals	Wash with White Vinegar	Interior Metal Primer	Enamel Undercoater	Enamel Eggshell
Gypsumboard	Dryclean	Undercoater	Enamel Match Exist'g	Enamel Match Exist'g
Wood for Paint Finish	Dryclean, Fill Sandpaper	Enamel Undercoater	Enamel Semi Gloss	Enamel Semi Gloss
Wood for Natural Finish	Dryclean, Fill Sandpaper	Filler Sealer	Oil Based Gloss Varnish	Oil Based Satin Varnish
Conc. Floor	Clean per Manuf. Rec.	Epoxy Industrial Coating per Manuf. Rec.		

3.4 Application

- a. Skilled mechanics shall do all painting in a workmanlike manner. Spread materials evenly, flow on smoothly, free from brush marks, hairs, runs, or sags. Rub down between coats. **All gypsum board surfaces shall be rolled, not sprayed.** Protect adjacent areas subject to spotting from spraying or rolling operations.
- b. Follow manufacturer's specific recommendations for application of epoxy paint.
- c. Do not apply paint or enamel until the preceeding coat is thoroughly dry and hard. In general, and unless otherwise specified, allow exterior oil paints to dry at least 72 hours between coats and interior coats to dry at least 48 hours between coats. Each undercoat shall differ in shade from the preceeding coat and shall be applied through one section to the building before the next coat is begun. Obtain tentative acceptance from the Architect before proceeding with successive coats.
- d. No interior painting will be permitted until the building has thoroughly dried out.
- e. Do no exterior painting in rainy or damp weather until the surface is thoroughly dry, or when the temperature is below 50 deg. F., or above 90 deg. F.
- f. Priming, sealing, and finish coats shall be by one manufacturer.
- g. Do not thin transparent finish in any manner or apply in a temperature below 70 deg. F., nor in any place not properly closed and protected from drafts and from dust. Flow evenly without runs, sags, or brush marks.
- h. Apply all materials in accordance with manufacturer's instructions.
- i. Adequately protect work adjacent to surfaces to be painted with drop cloths or other approved means.
- j. Rectify any damage caused by paint or painting operations by this sub-contractor and perform all necessary touch-up.
- k. Generally, the workmanship and the method of carrying out the work shall be in accordance with the "Paint Manual B.M.S. 105" issued by the National Bureau of Standards.
- l. Number of coats herein specified is the minimum required. If in the opinion of the Architect, surfaces do not conform to the approved samples, apply additional coats.

---END OF SECTION---

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