

**SPECIFICATIONS FOR
SITE IMPROVEMENTS
OAK GROVE ESTATES
300 BLOCK OF OAK VIEW COURT / OAK PLACE COURT
HOLLAND, OHIO**

March 1, 2023

prepared by:

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300 BLOCK OAK VIEW COURT / OAK PLACE COURT
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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF WORK

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

The project consists of the following:

a. Project Location

300 Block of Oak View Court / Oak Place Court
Holland, Ohio

b. Owner

Lucas Metropolitan Housing
Modernization Department
424 Jackson Street
Toledo, Ohio 43604

c. Contract Documents Prepared by:

Rossi Associates, LLC
Architecture
1821 Spencer Street
Toledo, Ohio 43609

d. Project Architect

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e. Engineering Consultants for Plumbing

Ray Miller, P.E.
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Toledo, Ohio 43606
Phone: 419.536.0757
FAX 419.536.9447
rmiller@visiondgi.com

1.0 GENERAL CONDITIONS (continued)

1.02 WORK COVERED BY CONTRACT DOCUMENTS (continued)

Major items of work will consist of the following:

- a. Renovations of existing storage sheds, remove existing doors, divide shed space into half and add new doors per Drawings.
- b. Patch and repair existing aluminum siding per Drawings.
- c. Replace existing interior sanitary lines in existing units as indicated on Plumbing Drawings.
- d. Saw cut existing floor slabs in first floor levels for replacement of new 4" sanitary line. See Plumbing Drawings.
- e. Refurbish units that have sewer line replacements per Drawings.

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01011 - SPECIAL CONDITIONS

1.0 GENERAL CONDITIONS

1.01 GENERAL

The Specifications and Special Conditions shall have precedence over the General Conditions where and to the extent that any conflict may occur.

1.02 SCOPE OF WORK

The work includes the furnishing of all supervision, labor, materials, equipment, transportation, verification of existing conditions, etc., as required and shall be in compliance with these Specifications and accompanying Drawings and shall include all walls, doors, removals, plumbing and all other construction items necessary to complete the project, as herein specified and/or required to complete the work.

1.03 GENERAL PROVISIONS

Reference to any written permission, throughout this Specification, shall mean from the Architect.

Where industry standards and Specifications are referred to in this Specification, the Specifications and standards shall always be of the latest issue. In cases of conflict between the referenced Specifications or standards, the one having the more stringent requirements shall govern.

The Contracting Officer of LMHA shall be the only authority that may make changes or alterations to the Contract Drawings or Specifications.

There shall be no burning of trash or other open fires on the site. All trash, debris, etc., shall be removed from the building site.

Reference in the Specifications to any article, device, product, material, fixture, form or type of construction by name or catalog number shall be interpreted as establishing a standard of quality only and shall not be construed as limiting competition and the Contractor in such cases, may at his option, use any article, device, product, material, fixture, form or type of construction which in the judgment of the Architect is equal to that specified. The Base Bid Proposal must be compiled from costs using all standards herein specified.

Each Contractor shall be responsible for all permits, fees, regulations and taxes as required and shall include the costs of same as part of the Base Bid.

Each Contractor shall comply with all local and state codes and regulations, and all federal regulations, particularly Occupational Safety and Health Standards and National Consensus Standards. All Contractors and all construction must conform to the above mentioned regulations as they apply to this project.

1.0 GENERAL CONDITIONS (continued)

1.04 CONTRACTORS' AND SUBCONTRACTORS' INSURANCE

Each Contractor shall obtain and file with the Architect, the certificates of all insurance required by the General Conditions of the Contract in the following amounts.

The Contractors shall not commence work under this Contract until each has obtained all the insurance required hereunder and such insurance has been approved by the Architect, nor shall the Contractors allow any Subcontractor to commence work on his Subcontract until all similar insurance required of the Subcontractor has been so obtained and approved. Approval of the insurance by the Architect shall not relieve or decrease the liability of the Contractors hereunder.

a. Compensation and Employer's Liability Insurance

Each Contractor shall take out and maintain during the life of this Contract, the Statutory Workmen's Compensation and Employer's Liability Insurance for all of his employees to be engaged in work on the project under this Contract, and in case any such work is sublet, the Contractors shall require the Subcontractors similarly to provide Workmen's Compensation and Employer's Liability Insurance for all of the latter's employees to be engaged in such work, in the amount of not less than One Hundred Thousand Dollars (\$100,000.00).

b. Bodily Injury and Property Damage Liability Insurance

Each Contractor shall take out and maintain during the life of this Contract, such Bodily Injury Liability and Property Damage Liability Insurance and Automobile Bodily Injury Liability and Property Damage Liability Insurance as shall protect him and any Subcontractor performing work covered by this Contract from claims for damage for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this Contract, whether such operations be by himself or by any Subcontractor or anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than:

1. Bodily Injury Liability Insurance, in an amount not less than One Million Dollars (\$1,000,000.00) for injuries, including wrongful death to any one person, and subject to the same limit for each person in an amount not less than One Million Dollars (\$1,000,000.00) on account of one accident.
2. Property Damage Liability Insurance in an amount not less than One Million Dollars (\$1,000,000.00) for damages on account of each accident.
3. The Owner shall carry the Builders' Risk Insurance for Fire with extended coverage, except that the Contractor shall provide for insurance for full coverage for all theft on this project.
4. All insurance policies shall be amended to name the Owner and Architect as additional insured parties thereunder as their interests may appear and as they may act in their capacities as such.

2.0 JOB REQUIREMENTS

2.01 BUILDING SECURITY

The Contractor shall maintain fences and gates, if so required, so as to provide complete sealing off of all access to the construction area at the termination of work each day.

2.02 TEMPORARY SCAFFOLDS, STAGING AND SAFETY DEVICES

Provide, erect, maintain and remove as required, all scaffolding, staging, platforms, temporary runways, temporary flooring, guards, railings, fencing, stairs, etc., as required by local and state codes, or laws for the protection of workmen and the public.

The construction, inspection and maintenance of the above items shall comply with all safety codes and regulations as applicable to the project, in particular the requirements of the Occupational Safety and Health Act.

2.03 PROPERTY AND MATERIALS PROTECTION

It is required that the property and all materials be protected during the construction period. It shall be the responsibility of the Contractor to provide security measures as required to protect the property from all damage and losses up until the time the project is accepted by the Owner.

2.04 TEMPORARY WATER DURING CONSTRUCTION

The Contractor for Plumbing and Piping shall make the necessary arrangements with the Water Department to provide all water required during the entire construction period from existing sources.

2.05 TEMPORARY TOILET FACILITIES

The Contractor shall provide access to portable toilets with proper enclosures as necessary for the use of all *workmen of all Contractors*. Keep toilets clean and comply with all local and state health requirements and sanitary requirements.

2.06 TEMPORARY ELECTRICITY DURING CONSTRUCTION

The Contractor shall be responsible for making arrangements with the local power company to provide temporary power for use of all Contractors during construction.

Each Contractor shall provide extensions as required for his own purposes and at his own expense. All temporary installations must be installed in accordance with all controlling Codes and shall be removed, at the conclusion of the work, by the Contractor installing same.

The Contractor shall pay for all electricity; no charge shall be made to any Contractor for electricity.

2.0 JOB REQUIREMENTS (continued)

2.06 TEMPORARY ELECTRICITY DURING CONSTRUCTION (continued)

Whenever electric light for illumination purposes is found necessary in the progress of the work, each Contractor shall provide such lights as may be required to properly execute the work. This temporary lighting shall be so constructed and arranged as not to interfere with the progress of other trades throughout the building. This system of temporary lighting shall be erected and maintained strictly in accordance with the controlling codes. Each Contractor shall allow ample opportunity for other Contractors to make such extensions as may be required for the proper illumination of their work.

Each Contractor shall furnish all bulbs required to carry on his work under this Contract.

2.07 OWNER-CONTRACTOR RELATIONSHIP

The following definitions shall exist throughout the length of this work:

- a. Where the term "Owner" is used in reference to the legal Owner of the proposed building project, it shall mean the Lucas Metropolitan Housing.
- b. The project title shall be known as:

Site Improvements
Oak Grove Estates
300 Block of Oak View / Oak Place Court
Holland, Ohio
- c. The location of the project is at 300 Block of Oak View and Oak Place Court as located on the Cover Sheet.
- d. Where the term "Architect" is used, it shall mean the firm of Rossi Associates, LLC, Architects, 1821 Spencer Street, Toledo, Ohio 43609.
- e. Where the term "The Contractor" is used, it shall mean a person, firm or corporation holding a direct Contract with the Owner for the work.
- f. "The Work", as used herein, shall mean work to be performed, including work normally done, at the location of the building.
- g. "The Drawings", as used herein, shall mean the Architectural and Plumbing Drawings on which the work is shown.
- h. "The Specifications" shall mean the Contract Documents and detailed description of the work.

2.0 JOB REQUIREMENTS (continued)

2.08 TEMPORARY FIRE PROTECTION

During construction, the Contractor shall provide two and one-half gallon hand anti-freeze fire extinguishers, as required throughout the construction area.

2.09 SERVICE REQUIRED

The Contractor will definitely be required to furnish services as follows:

- a. Safe, approved temporary stairs, ladders, ramps, etc., will be maintained for workmen during construction for ingress and egress to the building site. *Coordination and cooperation shall be maintained by the Contractor between all Contractors.*

2.10 MAINTENANCE OF JOB SITE

Each Contractor, under the direction of the Contractor, shall be responsible for removal of rubbish, debris and trash from the building which results from his work. All rubbish, debris and trash shall be deposited in containers located on the site; said containers shall be furnished by the Contractor, unless otherwise hereinafter specified.

2.11 ROAD LOAD LIMIT

It is the responsibility of the Contractors to obtain and observe all load limits on all roads and highways while engaged in the construction of this project.

2.12 SIGNED CONTRACT DOCUMENTS

Immediately upon signing the Contract for the construction of the project, each Contractor is required to sign and file with the Contractor, a complete set of Drawings and Specifications, listed by numbers and dates, as evidence of his understanding of the work required. Documents shall include all modifications made before the signing of the Contract.

2.13 CONTRACTORS' RESPONSIBILITIES

Each Contractor shall be responsible for:

- a. The proper laying out of his own work and for any damage which may accrue to the work of any other branch by reason of his inaccuracy.
- b. The safety and good condition of all work and materials embraced in or affected by his Contract, until the completion of his Contract as an entirety.
- c. The accuracy of any layout work which may be done by the Architect shall be verified by the Contractor. In no case shall the Architect assume responsibility as to the accuracy of all work laid out. The Contractors shall be furnished reference lines and an adjacent bench mark, which shall be the responsibility of the Contractor.
- d. All additional lines, measurements and elevations which may be necessary to the proper construction of the work shall be the responsibility of each Contractor.

2.0 JOB REQUIREMENTS (continued)

2.13 CONTRACTORS' RESPONSIBILITIES (continued)

- e. Each Contractor shall protect his work from damage at all times in a proper manner, or as the Contractor may direct. Erect all necessary barriers, furnish and keep lighted the required danger signals at night, employ watchmen as necessary, and take every precaution to prevent injury to persons or property.
- f. Each Contractor shall be responsible for any damage which may accrue to the property of any other Contractor connected with the work, or to adjacent private or public properties, or to any portion of the structure which in any way results from the acts or neglect of his employees.
- g. Each Contractor shall afford other Contractors reasonable opportunity for the introduction or storage of their materials, and the execution of their work, and shall properly connect and coordinate his work with theirs.
- h. If any part of a Contractor's work is preceded by the work of any other Contractor, he shall inspect such other work and report to the Contractor any defects which render it unsuitable as related to his work. Failure to make such inspection and report shall constitute his acceptance of the other Contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other Contractor's work at a later date.
- i. To insure the proper execution of his subsequent work, each Contractor shall measure work already in place and shall at once report to the Contractor any discrepancy between the executed work and the Drawings.
- j. It shall be the responsibility of each trade to cooperate and coordinate with the Contractor and other Contractors in a timely manner, the location and dimensions of all pipes, sleeves and openings as shown or implied on the Drawings for the completed structure.
- k. It shall be the responsibility of the Contractor to make provisions for such and/or allow reasonable and sufficient time for such installation as the case may be, before covering or closing in the work.
- l. It shall be the responsibility of each Contractor to protect existing pavements that are not to be removed, from damage of any kind. Where trailers and equipment are parked on existing pavements, wheels and dollies shall be set on plywood pads and blocking large enough to prevent marking or sinking into the pavement. Likewise, material stored on existing pavements shall be placed on blocking and raised adequately so as not to block surface drainage.

2.14 DISCRIMINATION

Contractors shall comply with the state code and agree to the following:

- a. That in the hiring of employees for the performance of work under this Contract or any Subcontract, no Contractor, Subcontractor, or any person acting on his behalf, shall, by reason of race, creed or color, discriminate against any citizen of the state in the employment of labor or worker who is qualified and available to perform the work to which the employment relates.

2.0 JOB REQUIREMENTS (continued)

2.14 DISCRIMINATION (continued)

- b. That no Contractor, Subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this Contract on account of race, creed or color.

2.15 COORDINATION AND COOPERATION OF CONTRACTORS

The Plumbing Work will be awarded as part of the Base Bid Costs under one Contract with the Contractor as the coordinator of these Contractors.

The Contractor shall be held responsible for the general supervision and coordination of work.

All Contractors and Subcontractors shall be responsible to cooperate with the Contractor, coordinate and complete their work, so that the entire project will be accomplished according to the progress schedule.

It shall be the duty of each Contractor to notify their Subcontractors when their presence is required on the job, expedite the flow of materials and secure all necessary inspections. Each Contractor shall require that all Subcontractors have a competent supervisor on the site whenever his work is being performed.

Each Contractor shall give reasonable notice to the Contractor when his or the Architect's presence is required for special consultations, examinations or decisions.

It shall be the responsibility of each Contractor to cooperate with the Architect, the Owner and all other Contractors engaged in this project.

The entire work shall be carried forward harmoniously and erected in the proper sequence and without unnecessarily interfering with or delaying the work of any other Contractor. The work of each Contractor shall properly mesh with and conform to the work of the Contractors.

Each Contractor shall consult with the Architect and the other Contractors to advise and assist them in checking and verifying measurements, correcting errors and reconciling Working Drawings and Erection Drawings.

The work of each Contractor shall be erected in its various stages with due respect to the convenience of other Contractors, where work must be erected first or carried forward simultaneously.

Any dispute arising between the Contractors in regard to the sequence in which the various portions of the work are to be erected or the right of the Contractors to the use of the premises and all other questions where the rights of the Contractors appear to conflict shall be referred to the Architect. The decisions shall be accepted by all parties concerned without the right to appeal.

2.0 JOB REQUIREMENTS (continued)

2.15 COORDINATION AND COOPERATION OF CONTRACTORS (continued)

No Contractor shall erect any portion of his work where it is necessary that the work of other Contractors shall be erected first or carried forward simultaneously without having first given the Contractor notice, in writing, of his intentions. Should any Contractor, after such notices, fail to have his work in readiness, the Contractor's directions shall be followed.

2.16 MATERIALS

Contractors shall place orders for materials and equipment to be employed in the work as soon as possible after the award of the Contracts.

All Contractors shall keep the Architect informed as to the availability of all specified materials and equipment and of such materials and equipment as may not be obtainable for purposes of the Contract, whether due to conditions of the market or other limiting and governing factors.

Each Contractor shall submit to the Contractor each month, on forms furnished by the Contractor, the "material status" for his portion of the project.

All materials delivered to the job in finished condition, installed in finished condition, or installed and finished before completion of the work, shall be protected from damage until acceptance of the work. All finished materials which are damaged either before or after installation shall be replaced with new and perfect material, without cost to the Owner.

2.17 WORKING HOURS

The normal job working hours shall be those established by local standards and/or as directed by the Contractor.

During established working hours, it shall be the responsibility of all Contractors, and their Subcontractors, to provide all necessary skilled craftsmen as to cause no delays to any phase of construction work.

2.18 COMPLIANCE WITH LAWS

Each Contractor shall ascertain that all completed installations comply with state laws and local ordinances and regulations relating to the performance of the work and the protection of adjacent property. The maintenance of exits and fences are the responsibility of the Contractor.

2.0 JOB REQUIREMENTS (continued)

2.19 OPERATING INSTRUCTIONS

Except as otherwise set forth in the detailed Specifications, each Contractor shall furnish and deliver to the Architect, two complete sets of instructions, technical bulletins, parts list and other printed matter.

All approved material submitted shall include diagrams, Drawings and schedules containing full information required for the proper operation, maintenance, and repair of all items of equipment furnished and installed by the Contractor.

All required operating manuals, parts lists and completion of *all* items on *all* Punch Lists are prerequisite for Final Payment.

2.20 SAFETY REGULATIONS

Contractors shall take all necessary precautions for the safety of employees on the site, and shall comply with all applicable provisions of federal, state and municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed.

In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor, without special instruction or authorization from the Contracting Officer of LMHA, is hereby permitted to act at his discretion, to prevent such threatened loss or injury, and he shall so act, without appeal.

Protection shall be afforded to all adjacent buildings, roads, walks, and all other adjacent property. Any portion of building or other property injured during construction operations shall be properly and thoroughly repaired and replaced by the party responsible therefore, without cost to the Owner.

Each Contractor, alone, shall be responsible for the safety, efficiency, and adequacy of his plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

It is required that each Contractor furnish his employees with proper safety equipment such as hard hats and necessary protective clothing.

No metal ladders are permitted on the premises at any time. All ladders are to be equipped with safety spikes or shoes. All scaffolds are to have safety railings.

All welders must be equipped with approved fire extinguishers. Vaporizing liquid type extinguishers containing carbon tetrachloride are not permitted.

All hoisting equipment must be in good state of repair and operated by an experienced operator. Operator must be licensed as required by law.

Pneumatic impact breakers, spades and similar equipment must be equipped with approved, manufacture-identified, conductive-type air hose.

2.0 **JOB REQUIREMENTS** (continued)

2.20 **SAFETY REGULATIONS** (continued)

Cans for storage of flammable liquids, fire extinguishers, fire resistant tarpaulins, etc., must be provided.

All open pits, trenches and other excavations must be guarded.

2.21 **FIRE PREVENTION**

All flammable liquids must be stored and transported in approved containers. Do not pour flammable solvents, thinners, etc., into drains and sewers. Paint, paint thinners, gasoline, oil, roofing materials or other flammable materials shall be stored 50'-0" outside of all buildings, marked as to contents and properly protected.

2.22 **STANDARDS**

Reference to recognized Standard Specifications such as Federal, State, Technical Society or Institute, Manufacturers or Trade Organization, shall mean the latest or current edition of such Standard Specifications, including revisions thereof, adopted, published and in effect thirty days prior to the date for receiving Bids, and shall govern the work.

Such Standard Specifications are made a part of these Specifications as referenced and applicable to the work.

Reference to technical society, organization or body is made in the Specifications in accordance with the following abbreviations:

AA	Aluminum Association
AABC	Associated Air Balance Council
AAMA	Architectural Aluminum Manufacturers Association
ABMA	American Boiler Manufacturer's Association
AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ADA	The Americans with Disabilities Act
ADC	Air Diffusion Council

2.0 **JOB REQUIREMENTS** (continued)

2.22 **STANDARDS** (continued)

AGA	American Gas Association
AI	Asphalt Institute
AIA	The American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Movement and Control Association
ANSI	American National Standards Institute
APA	The Engineered Wood Association
ARI	Air Conditioning and Refrigeration Institute
ASCE	American Society of Civil Engineers (ASCE latest edition)
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing Materials
AWI	Architectural Woodwork Institute
AWPA	American Wood Preservers Association
AWS	American Welding Society
BIA	Brick Institute of America
BOCA	Building Officials and Code Administrators International
CAGI	Compressed Air and Gas Institute
CMAA	Crane Manufacturer's Association of America
CPSC	Consumer Product Safety Commission

2.0 **JOB REQUIREMENTS** (continued)

2.22 **STANDARDS** (continued)

CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard of NBS (U. S. Department of Commerce)
DHI	Door and Hardware Institute
DOC	United States Department of Commerce
DOT	Department of Transportation
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration (U. S. Department of Transportation)
FGMA	Flat Glass Marketing Association
FMRC	Factory Mutual Research Corporation
FS	Federal Specification (General Services Administration)
GA	Gypsum Association
HIS	Hydraulic Institute Standards
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society of North America
IRI	Industrial Risk Insurers
ISA	Instrument Society of America
MBMA	Metal Building Manufacturers Association
MCAA	Mechanical Contractors Association of America
MIA	Marble Institute of America
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry
NAAMM	The National Association of Architectural Metal Manufacturers

2.0 JOB REQUIREMENTS (continued)

2.22 STANDARDS (continued)

NCMA	National Concrete Masonry Association
NEC	National Electrical Code (by NFPA)
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
N.F.P.A.	National Forest Products Association
NRCA	National Roofing Contractors Association
NSF	National Sanitation Foundation
NWMA	National Wood Manufacturers Association
OBC	Ohio Building Code
OSHA	Occupational Safety Health Administration (U. S. Department of Labor)
PCI	Precast/Prestressed Concrete Institute
PDI	Plumbing and Drainage Institute
PS	Product Standard of NBS (U. S. Department of Commerce)
RFCI	Resilient Floor Covering Institute
RMA	Rubber Manufacturers Association
SBCCI	Standard Building Code
SCS	Soil Conservation Service (U. S. Department of Agriculture)
SDI	Steel Deck Institute
S.D.I.	Steel Door Institute
SIGMA	Sealed Insulating Glass Manufacturers Association
SJI	Steel Joist Institute

2.0 JOB REQUIREMENTS (continued)

2.22 STANDARDS (continued)

SMACNA	Sheet Metal and Air Conditioning Contractors' National Association
SPIB	Southern Pine Inspection Bureau (Grading Rules)
SPRI	Single Ply Roofing Institute
SSPC	Steel Structures Painting Council
TCA	Tile Council of America
TIMA	Thermal Insulation Manufacturers Association
TPI	Truss Plate Institute
UBC	Uniform Building Code
UL	Underwriters' Laboratories, Inc.
WWPA	Western Wood Products Association (Grading Rules)

2.23 DEFINITIONS

a. Indicated

The term "indicated" is a cross-reference to details, notes or schedules on the Drawings, to other paragraphs or schedules in the Specifications and to similar means of recording requirements in the Contract Documents. Where terms such as "shown", "noted", "scheduled" and "specified" are used in lieu of "indicated", it is for the purpose of helping the reader locate cross-reference, and no limitation of location is intended except as specifically noted.

b. Directed, Requested, Etc.

Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted" and "permitted" mean "directed by the Architect", "requested by the Architect", etc. However, no such implied meaning will be interpreted to extend the Architect's responsibility into the Contractor's area of construction supervision.

c. Approve

Where used in conjunction with the Architect's response to submittals, requests, applications, inquiries, reports and claims by the Contractor, the meaning of the term "approved" will be held to limitations of the Architect's responsibilities and duties as specified in the General Conditions. In no case will "approval" by the Architect be interpreted as a release of the Contractor from responsibilities to fulfill requirements of the Contract Documents.

2.0 JOB REQUIREMENTS (continued)

2.23 DEFINITIONS (continued)

d. Project Site

The space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other work as part of the project. The extent of the project site is shown on the Drawings, and may or may not be identical with the description of land upon which the project is to be built.

e. Furnish

Except as otherwise defined in greater detail, the term "furnish" is used to mean supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.

f. Install

The term "install" is used to describe operations at the project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.

g. Provide

The term "provide" means furnish and install, complete and ready for the intended use, as applicable in each instance.

h. Installer

The entity (person or firm) engaged by the Contractor or his Subcontractor or Sub-Subcontractor for performance of a particular unit of work at the project site, including installation, erection, application and similar required operations. It is a general requirement that such installers be expert in their particular field.

2.24 ENFORCEMENT OF REGULATIONS

It is the responsibility of the Contractor to monitor the enforcement of all local, state and federal regulations, including OSHA. Each Contractor is responsible for the enforcement, etc. Each Contractor must provide proper safety precautions, atmospheres, working conditions, etc., in accordance with all controlling regulations, for all workmen and required inspections by all personnel employed by the Owner, the Architect and inspectors of controlling agencies.

2.25 GUARANTEES AND MANUFACTURER'S WARRANTIES

Guarantee provisions of this Specification do not modify, extend or shorten the guarantee provisions outlined in the Contract between the Contractor and the Owner. All guarantee periods shall start at occupancy or substantial completion. Subcontractors shall note work completed earlier will in effect have longer guarantee periods. It is understood that some manufactured products have more limited guarantees. Work under these Specifications shall carry the longest and least restricted manufacturer's guarantees or warranties available from the accepted manufacturer.

2.0 JOB REQUIREMENTS (continued)

2.25 GUARANTEES AND MANUFACTURER'S WARRANTIES (continued)

Written guarantees shall be delivered by the Contractor to the Architect on or before completion of the work and prior to final payment. Guarantees shall clearly identify the work guaranteed and shall state the work and all of its components will remain, if normally used and maintained by the Owner as recommended by the Contractor, Subcontractor or manufacturer, in normal operating condition and be free of any defects in material and/or workmanship for a period of at least one year, or longer if so specified, from the date of substantial completion of the total project or occupancy whichever comes first. If an element is defective at substantial completion or occupancy as evidenced by the Punch List, the warranty of that element shall be extended so that the guarantee period will start on final acceptance of that element.

In the event of failure of any guaranteed work, the Owner will give the Contractor timely notice and the Contractor shall promptly affect the necessary repairs, adjustment or replacements as applicable. Should any adjoining work be damaged by the failure or during repair or replacement of faulty work, the Contractor shall cause it to be restored without cost to the Owner.

2.26 EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

The Contract Specification Sections being general may contain items not required on this project or some inconsistencies in its various sections. However, in general, the Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intention of the Documents is to include all labor and materials, equipment, transportation and services necessary for the proper execution and completion of the work.

The Drawings shall take precedence over the Contract Specifications. However, if the Drawings and Specifications are at variance with each other, the Contractor shall promptly notify the Architect, in writing, and the Architect shall investigate the circumstances and give appropriate instructions to the Contractor. The Contractor shall not take advantage of any manifestly unintentional error or omission, nor shall he proceed with any work where there is uncertainty.

2.27 COMPLIANCE WITH LAWS

Each Contractor shall ascertain that all complete installations comply with state laws and local ordinances and regulations relating to the performance of the work and the protection of adjacent property.

2.28 SUBSTITUTION OF MATERIALS

No substitution requests will be considered by the Architect unless the data, as described below, is received seven days prior to the bid due date. If any substitutions are approved, an Addendum will be issued prior to the bid due date. Base bid costs shall include the specified materials and equipment. Substitutions will not be considered in awarding the Contract.

2.0 JOB REQUIREMENTS (continued)

2.28 SUBSTITUTION OF MATERIALS (continued)

If substitutions are proposed by any Contractor, Subcontractor or material supplier, the following data must be submitted, three copies, fully identified for product, material or method being replaced by the substitution, including referenced Specification Sections and Drawings. Include product data, Drawings, performance data, description of methods, samples where applicable, comparison between the specified item and the proposed substitution statement of effect on construction, if applicable, coordination with other trades and a statement as to the cost effect on the proposed substitution, if granted, will have with other trades and Contractors.

Approval of any substitution of materials or equipment items by the Architect shall be deemed to be granted for the convenience of the requesting Contractor, and all costs growing out of the substitutions shall be the responsibility of the Contractor. No extra costs resulting from a substitution proposed by the Contractor shall devolve upon the Owner or the Architect.

2.29 TESTING

All testing called for in the project Specifications will be performed by a testing laboratory acceptable to the Architect. All testing services will be paid for by the Contractor, except as otherwise stated in the project Specifications.

Where material fails to meet specified requirements, the Contractor involved will pay for any additional testing required.

Testing of sewers, pipe lines, etc., will be performed and paid for by the Installing Contractor and witnessed and approved by the Contractor, Contracting Representative for LMHA, Architect, responsible public authority and/or others as designated at the time the tests are performed.

2.30 SITE USE

All trailers are to be parked in the areas designated by the Owner's representative or the Architect.

Access to the site by all construction vehicles will be as designated on the Drawings. No other site roads or entrances are to be used except as may be authorized for special situations by the Owner.

All Contractors will be responsible for cleaning up all dirt carried onto permanent roads and streets by their trucks and equipment.

2.31 SNOW REMOVAL

General snow removal on roads and for access into the building will be provided by the Owner. Clearing of snow in work areas will be the responsibility of the affected Contractors.

2.32 PROGRESS MEETINGS

Regularly scheduled meetings will be held with the Contractor to keep everyone informed as to the progress of the construction.

2.0 JOB REQUIREMENTS (continued)

2.33 JOB MEETINGS

The Contractor shall arrange for, duly notify all affected Subcontractors, establish an agenda and conduct job meetings as scheduled during the course of the Contract. Each Contractor and major Trade Subcontractor shall be represented at *every* meeting by a responsible member of his organization.

The job meeting schedule shall be agreed to by mutual consent among the Subcontractors at the first job meeting. Meetings will be held on a regular basis.

The Contractor shall advise all parties concerned, in advance, of any change of day or time from an established date, if such change is required.

The proceeding of these meetings will be recorded by the Contractor, and each Contractor will be furnished one copy of the minutes for his use. The Contractor's conducting of the job meeting and his recording and distributing of the meeting minutes shall not be construed as coordinating or scheduling any Contractor's work in detail.

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01330 - SUBMITTAL DATA

1.0 GENERAL CONDITIONS

1.01 DESCRIPTION

The following requirements apply to the work specified in all Sections of the Contract Documents. Additional submittal requirements, above what is described herein, may be required by individual Sections in other Divisions of the project Specifications.

1.02 DEFINITION

Submittals include, but are not limited to, such information as letters, selection of samples and colors, Shop Drawings, product data, diagrams, schedules, lists, illustrations, performance charts, brochures, test reports and inspection reports which are prepared by the Contractor or his Subcontractors, illustrating or certifying some part of the work.

2.0 PROCEDURES

2.01 CONTRACTOR'S REVIEW

The Contractor shall review, stamp and submit all submittals at the appropriate times and in proper sequence so as to cause no delay in the performance of the work.

At the time of submittal, the Contractor shall inform the Architect, in writing, of any deviation in the submittals from the Contract Documents.

By sending a submittal, to the Architect, the Contractor certifies that he has reviewed and approved the submittal data for conformance to the Contract Documents.

The Architect's approval of the submittals is not authorization for the Contractor to perform extra work or to change work.

The Contractor shall determine and verify all field measurements, field construction criteria, materials, finishes, fastenings, clearances, sequencing, abutting work, electrical requirements, catalog numbers, availability and the like. He shall check and coordinate each submittal with the requirements of the Contract Documents and the particular needs of the work.

2.02 ARCHITECT'S REVIEW

The submittals listed in each Section of the Contract Documents shall be submitted to the Architect.

The Architect will review submittals only for conformance with the design concept of the project and with the information given in the Contract Documents.

The Architect's review of a separate item shall not indicate approval of an assembly in which the item functions.

2.0 PROCEDURES (continued)

2.02 ARCHITECT'S REVIEW (continued)

The Architect's review of submittals shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents, unless the Contractor has informed the Architect, in writing, of the deviation.

The Architect's review of submittals shall not relieve the Contractor from responsibility for errors or omissions in the submittals.

The Architect will acknowledge that each submittal has been reviewed and will return the submittal to the Contractor, together with any notes pertaining to the conformance and/or nonconformance of the submittals with the Design Drawings of the project and information given in the Contract Specifications.

2.03 REVIEW, CORRECTIONS AND NOTATIONS

The Contractor shall review the Architect's comments, notations and dimensional changes, make any appropriate corrections and resubmit the corrected and revised submittals until no further submission is requested by the Architect.

Whenever submittals are stamped "Approved as Noted", the Contractor shall resubmit revised submittals with the noted corrections made. In some cases, the resubmittals may be for "Record" purposes only, and in other cases, the resubmittals may be for a second review to confirm that the noted changes have been made.

No portion of the work requiring a submittal shall be commenced until the submittal has been reviewed and approved by the Architect. All such portions of the work shall be constructed in accordance with the approved submittals.

3.0 FORM OF SUBMITTALS

3.01 MATERIAL LIST

A material list shall be submitted within two weeks after award of the Contract, and when accepted by the Architect, shall be considered the list of materials the Contractors will furnish.

Any substitutions for or deviations from the specified products shall have been approved, in writing, by the Architect prior to bidding.

Identify each item on the material list by the manufacturer's trade name and catalog or other identifying number. The term "as specified" will not be accepted.

3.02 SCHEDULE OF CONTRACTOR FURNISHED MATERIALS

The Contractor shall submit an "Equipment and Material List".

The Contractor shall update the list each month and resubmit same to the Architect. Updates shall include the name of the carrier, purchase order numbers, revised anticipated delivery dates and actual delivery dates.

3.0 FORM OF SUBMITTALS (continued)

3.03 COST BREAKDOWN

Within ten days after award of the Contract, the Contractor shall refer to the HUD General Conditions (HUD 5370), a cost breakdown according to the job order numbers for the total amount of the Contract price.

3.04 LETTER SUBMITTALS

Submittals in letter form are specified for certain products and methods for which the name and statements of special qualities is sufficient. Such letters shall originate with, or shall be endorsed by the Contractor.

3.05 SAMPLES

Submit color and finish selection samples in book or kit form for final selection of color, finish, texture and pattern.

Include information with each sample to show generic description, source or product name and manufacturer, limitations and compliance with standards. Samples will be returned by the Architect for comparisons with furnished materials.

Samples shall represent the full range of color and finish, which are or will be available for the specified product at the time the work is to be built.

Samples shall be of a size necessary to adequately represent the product. If there are color or texture ranges in the product, submit extreme samples (not less than three units).

Samples shall have firmly attached labels bearing the following information:

- a. Name of product
- b. Description of product and finish
- c. Name of Contractor
- d. Trade name and number of product
- e. Quality and standards met by product

3.06 SHOP DRAWINGS

The Contractor shall submit Shop Drawings in the form of three prints. Also refer to DIVISION 01 - GENERAL REQUIREMENTS, SECTION 01780 - CONTRACT CLOSEOUT DATA.

The Architect may make changes or corrections to the Shop Drawings and return marked-up copies to the Contractor for corrections and resubmission.

The Contractor shall identify Shop Drawings with the project name and project number, date and edition of submittal and the Contractor's name and address.

The Contractor shall refer to other Sections of this Specification for additional requirements for submittal of Shop Drawings applicable to the various areas of work.

3.0 FORM OF SUBMITTALS (continued)

3.07 PRODUCT DATA

Product data, including but not limited to, such items as catalog cuts, code compliance certificates, brochures, performance charts, illustrations, lists and schedules, shall be submitted for approval with three copies of each. The Contractor shall include any additional copies required for the Contractor's use, and as may be required by DIVISION 01 - GENERAL REQUIREMENTS, SECTION 01780 - CONTRACT CLOSEOUT DATA.

The Architect will note corrections, make changes and return two copies to the Contractor. If major revisions are required, all copies but one will be returned to the Contractor for correction and resubmission.

The Contractor shall identify product data with the project name and number, date and edition of submittal and the Contractor's name and address.

When the manufacturer's standard catalogs and brochures are submitted, *clearly mark each copy to identify the pertinent data*, which applies to this project on the schedules, diagrams, performance charts, models and illustrations.

3.08 MATERIAL SAFETY DATA SHEETS

The Contractor, Subcontractors and Material Suppliers shall submit Material Safety Data Sheets to the Architect for approval by the Owner's representative for any chemicals that are to be brought onto the property of the Owner for the use of any materials installation, cleaning or any other reason herein specified.

This procedure covers all quantities of chemicals, including "samples". *No chemicals will be introduced to the property of the Owner unless there is a current Material Safety Data Sheet on file or approved by the Owner.*

3.09 TEST AND INSPECTION REPORTS

Submit two copies of all test and inspection reports and any other verifications of work performed on forms standard with the testing or inspecting laboratories. All forms shall be signed by the testing or inspecting technician.

3.10 PROGRESS SCHEDULE

Upon the execution of the Contracts, the General Contractor shall submit an outline Progress Schedule to the Architect. The Schedule shall indicate the various trade divisions of work, organized by the related Specification Section numbers, the proposed starting period and completion and the percent of total Contract. Plumbing work shall be broken down between exterior underground work and interior underground and overhead work.

3.11 CLOSEOUT SUBMITTALS

Refer to individual Sections of the Specifications and to DIVISION 01 - GENERAL REQUIREMENTS, SECTION 01780 - CONTRACT CLOSEOUT DATA for more specific requirements on submittals of closeout information and data.

3.0 FORM OF SUBMITTALS (continued)

3.12 MISCELLANEOUS SUBMITTALS

Provide miscellaneous submittals such as property surveys, field measurements, damage surveys, photographs and similar data as may be required.

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01730 - REMOVALS, CUTTING, PATCHING AND REWORKING

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

Provide all labor, materials, tools, services, equipment and transportation necessary to perform all required removals, cutting, patching and reworking of existing construction, as shown on the Drawings and herein specified.

All removals, cutting, patching and reworking shall be done under the supervision of the Contractor's project superintendent. Any unforeseen or questionable structural problems arising shall be cleared with the Architect and the Owner's representative prior to removal of the questionable construction.

1.03 REMOVALS

All salvageable equipment and materials removed shall become the property of the Owner, unless otherwise directed by the Architect or herein mentioned. All items shall be cleared with the Architect prior to submitting a bid and prior to removal of same.

All items, such as barrier beams, doors, siding, heaters, structural steel, and other reusable items, are to be assumed to be the property of the Owner and shall be delivered to the locations as directed by the Owner's representative or reused as shown on the Drawings and/or specified herein.

All removed materials that are obviously not reusable are to be removed from the site by the Contractors removing same.

All questionable items shall be cleared with the Owner's representative as to whether or not they are to be salvaged or removed from the site.

The Contractors removing the existing materials shall have the responsibility of either removing same from the site, storing the items as directed by the Owner's representative or protecting same until reinstalled if to be reused in this project.

1.04 CUTTING AND PATCHING

This Contractor shall do all cutting of all present work as caused by the alterations and installation of new work.

1.0 GENERAL CONDITIONS (continued)

1.04 CUTTING AND PATCHING (continued)

The size, location, etc., of items requiring an opening, chase or other provisions to receive it for any trade, shall be given by the trade requiring the information in ample time to avoid undue cutting of any new work to be installed. This provision shall not relieve the Contractor from the responsibility of keeping informed as to the required openings, chases, etc., nor from the responsibility for the correctness thereof, or for cutting and repairing after the new work is in place.

For each trade, the Contractor shall include all cutting in connection with existing construction that may be required to make its several parts come together and fit it to receive or be received by the work of other trades, as shown and/or specified or reasonably implied by the Drawings and Specifications. All patching shall be done under the supervision of the Contractor.

All repairing, patching, piecing-out, filling-in, restoring and refinishing shall be neatly done by mechanics skilled in their trade and completed in a proper workmanlike manner to leave the work in a condition satisfactory to the Architect and as described throughout the various Sections of the Specifications.

1.05 PROTECTION AND REPAIRING

Any and all existing work and finish materials of the present construction not directly affected by this work shall be properly protected in a manner as approved to insure against undue damage or injury caused by work performed under this Contract. Any and all such existing work that is in any way cut, damaged, disturbed or otherwise interfered with in such manner, as to cause damage thereto during the progress of the work of the various trades, contrary to intent of the foregoing provisions, shall be fully, properly and carefully repaired and made good in a workmanlike manner as herein before stated or removed, replaced and/or refinished with new materials as may be directed.

Existing materials to be reused shall be carefully dismantled, properly stored and protected and reset as required, furnishing new parts as required.

Work in existing areas shall be carried on only at such times as approved by the Owner's representative. Work shall not interfere with the operation of the Owner and all services are to be maintained.

1.06 TEMPORARY CONSTRUCTION

Provide temporary protection as necessary to partition off working areas required by the Owner's operations.

Where existing exterior walls are removed, the existing building area shall be protected with weathertight, insulated temporary partitions to seal off the area from the exterior.

The temporary partitions shall be constructed with openings as required to maintain the operations of the Owner and shall be reasonably weathertight.

1.0 GENERAL CONDITIONS (continued)

1.07 SAFETY

This Contractor shall observe and adhere to state and local building codes governing all construction operations during the erection, alterations, repair or removal of buildings or structures.

2.0 EXTENT OF REMOVALS

2.01 GENERAL

The following is a general list and description of the various items that are to be removed, reworked, replaced and/or reinstalled. It shall be understood that this list may not include all the items that must be removed, relocated, patched and/or reworked. It is the intent that all Bidders visit the site and inspect same and review the Drawings and the Specifications in order to determine all the requirements to furnish a complete project. Refer to the Mechanical, Fire Protection and Electrical Sections of these Specifications for any additional removals, etc., which may be required under their Divisions of work.

2.02 DOORS

Where existing doors and frames are called for to be removed and the openings closed up with new materials, the new wall finishes shall blend in and be flush with the adjacent existing wall surfaces.

Where existing doors and frames are noted to be removed and the remaining opening is noted to be closed in, the existing floor and base materials shall be removed from the opening.

2.03 FLOORING MATERIALS

Remove existing sheet flooring, resilient flooring, ceramic tile and carpeting, where so noted or as required by the new construction. Existing concrete floors shall be patched, as required, to match existing, after the removal of walls, fixtures, piping and conduit. Where the existing flooring materials, such as resilient flooring or ceramic tile are to remain and it is required that these materials are to be patched or repaired, the new materials used shall match as closely as possible the existing materials in respect to color, size and texture.

Where existing flooring materials are to be removed, if adhesives were used, the adhesive that remains after the flooring has been removed, shall be removed by scraping or sanding, as required to achieve a smooth subsurface acceptable to the Subcontractor installing the new floor materials. Also refer to DIVISION 09 - FINISHES for additional requirements.

Remove the existing carpet and base, where called for on the Drawings. Existing carpet that is removed shall be rolled, tied and delivered to the areas as designated by the Owner's representative or removed from the site.

Where existing rubber or vinyl base materials are to be removed, the remaining wall adhesives used to secure the base materials, shall be removed completely by scraping, sanding, etc. If the existing wall surfaces were painted, sand the surface at the intersection of the painted wall surface and the line at the top of the existing base, after removal, to relieve the built-up paint terminations.

2.0 EXTENT OF REMOVALS (continued)

2.04 WALLS AND/OR PARTITIONS

All existing walls shall be removed and patched, if called for, as required to allow for the new construction, to close up existing openings or to provide new openings.

Where existing partitions are noted to be removed, the depression which remains between the adjacent flooring materials shall be filled in with latex or with similar flooring materials of equal thickness so that when the new flooring materials are installed, a smooth and level surface remains.

Where existing partitions are removed and they abut existing walls which are to remain, the disrupted surfaces shall be patched and made level and true to line to match the adjacent existing construction.

Remove existing concrete block, face brick, plaster, glazed tile, ceramic tile and wood paneled walls where so noted and/or as required by the new construction. Where patching, filling in and repairing are called for or required by the new construction, the new materials shall match as closely as possible the existing materials in respect to color, size and texture.

All existing masonry walls shall be removed and patched, as required, to allow for new construction, to close up existing openings or to provide new openings. All masonry removals, patching and reworking shall be done by the Masonry Contractor. Consult all Drawings to verify requirements.

2.05 CONCRETE FLOORS

This Contractor shall sawcut the existing concrete floor slabs, break out and remove the existing concrete, as required to install new footings, foundations, trenches, utility lines, etc., as shown on the Drawings or as required by the new construction. Care shall be taken not to damage any existing uncovered underground installations.

After the removal of the concrete areas, excavate to the depths required by the new construction. All excavations shall be braced and shored, as may be required, to prevent the caving-in of the adjacent fill areas. All excavation areas shall be kept free of water at all times and provide pumping as required.

At all removed floor areas, where called for to be replaced, the new surfaces shall be finished off level with the adjacent existing surfaces.

After the construction of any new foundations, place and compact all backfill materials, install all required dowels, thicken edges, curb angles, etc., as may be required prior to pouring any new concrete floor slabs.

2.06 EXTERIOR

Sawcut and remove existing asphalt pavement, concrete curbs, concrete pavements and concrete walks, as required by the new construction. The existing surface shall be patched, as required, to match the existing construction after the installation of the site utilities and the new construction.

2.0 EXTENT OF REMOVALS (continued)

2.06 EXTERIOR (continued)

The existing asphalt pavement, as indicated on the Drawings, shall be resurfaced and sealed with Advanced Formula J-16 pavement sealer, applied cold with a squeegee or other approved means, using one and one-half to two gallons per 100 square feet.

The existing parking stalls and lane markings shall be restriped with a high quality pavement marking paint, equal to Sherwin-Williams. The color and width of lines shall match what is existing.

Remove and replace with new, any existing concrete sidewalks and curbs, which become damaged or broken during the new construction work.

Provide any new topsoil, regrade and seed any existing site lawn areas, which are disrupted and/or damaged by the new construction.

Repair, replace and restore any site areas used for the storage of materials, trailers and construction equipment to their original condition upon completion of the construction work.

Remove all existing bituminous paving within the construction area, for all new underground piping and sewers, all new building foundations, ramps and roadways. All bituminous paving shall be broken out and removed from the site. None of these materials, except for compactible granular materials shall be used for fill materials.

2.07 UTILITY LINES

All existing piping, ductwork, conduit, electrical panels, equipment, etc., in the area to be reworked shall be removed and/or relocated if not to be used in the layout when completed. Consult the Mechanical and Electrical Drawings and Specifications for the extent of these removals covered under their work to avoid duplication.

Alterations to existing sprinkler lines shall be made by the Contractor for that work.

Existing utilities at existing walls, and as otherwise shown or required, shall be removed and relocated as called for on the Drawings and herein specified, and as required to allow for and provide for the expansion of the building.

2.08 ELECTRICAL WORK

Existing electrical installations shall be removed and/or reworked as required by the Electrical Contractor to allow for the new construction.

2.09 MECHANICAL WORK

Existing mechanical installations shall be removed and/or reworked as required by the Mechanical Contractor to allow for the new construction.

2.10 PLUMBING WORK

Existing plumbing installations shall be removed and/or reworked as required by the Plumbing Contractor to allow for the new construction. Refer to the Plumbing Drawings.

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01740 - CLEAN UP

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

a. General

The following requirements shall apply to the work specified in all Sections of the Contract Documents. Additional requirements or more specific information, above what is described herein, may be required by the individual Sections in other Divisions of the project Specifications.

b. Final Clean Up

All work, as specifically mentioned herein and as required to place the facility in a condition for occupancy and ready for its intended use, shall be completed as directed by the Architect.

It is intended that all the work covered in this Section be performed immediately preceding final acceptance of the facility, and is in addition to that specified elsewhere in the Specifications.

c. Construction Clean Up

The Contractor shall provide the following clean-up services during the construction period:

1. The necessary labor to keep the work areas in a broom clean condition on a once-a-week basis. High debris creating areas shall be cleaned daily, if necessary, to keep from tracking dirt into other areas of construction or into existing occupied areas.
2. Provide all required containers or bins for the deposit of small trash and debris in all areas of construction. The containers shall be emptied weekly. Trash and debris shall be picked up daily by the trade creating same.
3. Provide all required on-site, dumpster-type containers for the collection of all trash and debris.

1.03 OPERATION

All facilities, as covered in the other Sections of the Specifications, shall be placed in a satisfactory working condition as determined by the Owner's Representative and Architect.

1.0 GENERAL CONDITIONS (continued)

1.03 OPERATION (continued)

All hardware, operators and closers on doors shall be adjusted for proper closing speed and for smooth operation. Binding and poor alignment between doors and frames shall be corrected.

All mechanical, electrical, plumbing, fire protection, utility and safety facilities shall be placed in operation with all components in a good working condition, serviced, lubricated and properly adjusted to fulfill the intended design requirements of the Drawings and the Specifications.

2.0 EXECUTION

2.01 CONSTRUCTION CLEAN UP

All Contractors and their employees shall perform the following clean up services in all work areas:

- a. Pick up all trash and debris created by them in excess of 2" in any one dimension, and place in small containers located around the construction work site or in the dumpster boxes on a daily basis.
- b. Breakdown all crates, packing cases, boxes, etc. Take out of the building and place in dumpster boxes or otherwise remove from the site.
- c. Keep all trash picked up around containers and dumpster boxes.
- d. Move material and equipment, as necessary, to permit the broom cleaning of the work areas by others.
- e. Keep the change and storage rooms, break areas and yard areas specifically assigned to them picked up and broom clean at all times.
- f. Place all food wrappings and containers in the proper containers at the end of each break or lunch period.

2.02 FINAL CLEAN UP

All work shall be cleaned to provide a neat appearing and properly functioning facility acceptable to the Owner and the Architect.

Existing roads and site areas used during the construction period shall be cleaned and repaired as required to restore them to their original condition that existed prior to the start of the construction work.

All staging, storage and parking areas used during the construction period shall be returned to their original condition upon completion of this project.

All exterior wall surfaces, aluminum entrances and framing systems, glass, doors, frames and louvers shall be cleaned of all mud, dirt, dust, labels, markings and protective coverings prior to final acceptance.

2.0 EXECUTION (continued)

2.02 FINAL CLEAN UP (continued)

All operating utilities such as plumbing lines, drains, piping, sewer lines, manholes and catch basins shall be cleaned of all construction debris and must be in a proper working order.

All interior surfaces and areas, including walls, floors, ceilings, glass, windows, doors and related trim, shall be cleaned of dust, dirt, debris, labels, markings, wrappings, paint splatter and cartons.

Clean dirt and debris from ductwork and any air handling equipment or systems. Clean and replace any dirty or damaged filters.

Flush drainage systems, cleaning strainers, grates and traps. Plumbing fixtures and operating controls shall be cleaned, removing all labels and markings and set all escutcheons in place.

Clean all lighting fixtures, lens and trim of all dust, dirt and construction debris. All bulbs shall be installed and be in working order. Clean all electrical control devices, set cover plates and wipe clean. Install all securing screws and hardware.

After all rooms and/or areas have been finished, i.e., walls painted or wall coverings installed, floor and ceiling materials installed, prior to the final clean up, any dust, dirt or debris created in such rooms will be cleaned and wiped down by the trade that created the condition, before final cleaning is performed.

Once final clean up has been performed in a room or area, any and all additional clean up required will be performed by the trade that created the condition.

2.03 SITE CLEARANCE

All excess construction materials, trash and other debris resulting from the construction of the facility, shall be removed from the site and disposed of to the satisfaction of the Owner and the Architect.

All construction equipment and other property not a part of the finished facility, nor owned by the Owner shall be removed from the site as directed by the Architect.

Upon completion of this project and before the final acceptance of the project by the Owner, the entire area covered by this project shall be reviewed for any and all construction materials, tools, equipment, debris, etc., which may have been left behind during construction. All items not part of the finished project shall be removed from the areas and disposed of to the satisfaction of the Owner and the Architect.

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01780 - CONTRACT CLOSEOUT DATA

1.0 GENERAL CONDITIONS

1.01 GENERAL

The following requirements shall apply to the work specified in all Sections of the Contract Documents. Additional closeout data requirements, above what is described herein, may be required by the individual Sections in other Divisions of the project Specifications.

1.02 GENERAL DATA REQUIREMENTS

- a. Certificates of Approval
- b. Guarantees/Warranties
- c. Record Drawings
- d. Record Shop Drawings
- e. Inspection/Test Reports
- f. Master Keys and Keying Schedule
- g. Paint Schedule
- h. Spare Materials
- i. Instructions to the Owner's Personnel

2.0 DOCUMENTATION PRESENTATION

2.01 CERTIFICATES OF APPROVAL

Include Certificates of Approval, Certificates of Substantial Completion, Certificates verifying the required fire resistance classifications on all interior finishes and Certificates of Inspection covering the mechanical, plumbing, electrical and fire protection work.

2.02 GUARANTEES/WARRANTIES

Include all manufacturers' and Contractors' Guarantees/Warranties covering materials, equipment and workmanship for the periods specified. All Guarantees/Warranties shall be dated to correspond with the date of substantial completion of the total project or occupancy, whatever comes first. Refer to DIVISION 01 - GENERAL REQUIREMENTS, SECTION 01011 SPECIAL CONDITIONS, Item 2.25 - GUARANTEES AND MANUFACTURER'S WARRANTIES.

All Guarantees/Warranties shall include the following information:

- a. Item of Work
- b. Manufacturer's/Contractor's Name

2.0 DOCUMENTATION PRESENTATION (continued)

2.02 GUARANTEES/WARRANTIES (continued)

- c. Specification Section
- d. Time Periods

2.03 RECORD DRAWINGS

Each Contractor shall keep an accurate record of all deviations from the Contract Drawings and Specifications. He shall neatly and correctly enter in colored pencil any deviations on the Drawings affected and shall keep the Drawings available for inspection. Extra sets of Drawings will be furnished for this purpose.

Record Drawings are to be reviewed monthly by the Architect and the Contractor as a prerequisite for payment to each Contractor.

At the completion of the job and before final acceptance, make any final corrections to the Drawings and certify to the accuracy of each print by the signature thereon and deliver same to the Architect.

Record Drawings shall be legibly marked to record the actual construction data and shall include the following:

- a. Locations of internal utilities, which are concealed within the construction or which are not visible or accessible.
- b. Field changes of dimensions and details.
- c. Changes made by Work Order Changes.
- d. Details not shown on the original Contract Drawings.

2.04 INSPECTION/TEST REPORTS

Include copies of all inspection reports and test reports covering the following:

- a. Plumbing Inspections
- b. Test Reports covering the Sewer Lines, etc.
- c. Valve Tags and Charts - Plumbing.

2.05 MASTER KEYS AND KEYING SCHEDULE

Include the keying schedule used for the project. Deliver to the Owner's representatives all master keys and key cabinet. Also include any installation instructions, templates, adjusting tools and keys.

2.0 DOCUMENTATION PRESENTATION (continued)

2.06 PAINT SCHEDULE

Include a neatly typed list of all the painting materials used for the project, giving the location, manufacturer, supplier, type and color numbers.

2.07 SPARE MATERIALS

Deliver to the Owner's representative and to the storage areas designated, all extra boxes or cartons of ceiling tile, floor tile, rolled carpet, wrenches, keys, filters, sprinkler heads and cabinets and any other materials specifically called for in other Sections of the Specifications.

2.08 INSTRUCTIONS TO THE OWNER'S PERSONNEL

Provide the services of qualified supervisory personnel to start equipment and instruct the Owner's representatives in the starting, operating, closing down and maintaining all mechanical and electrical systems and equipment. Instruct the operating personnel as to the procedures for lubricating, oiling and adjusting systems and equipment.

End of Section

DIVISION 02 - EXISTING CONDITIONS

SECTION 02530 - SITE SANITARY FACILITIES

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

This Section of the Specifications shall include the underground exterior sanitary sewer systems from a point 5'-0" outside of the building to the points as shown and indicated on the Drawings. Work shall include all piping, connections, manholes, fittings, covers, frames, excavation, backfilling, grading, inspections, fees, permits and testing as required and as herein specified.

1.03 GUARANTEE

The Subcontractor shall guarantee his work against faulty materials and workmanship (and from faulty design or detail if within his control) for a period of one year from date of occupancy or substantial completion of the entire project.

1.04 SUBMITTAL DATA

Submit copies, for approval by the Architect, of all the materials that this Contractor will be using. Copies of the manufacturer's standard data sheets and brochures will be acceptable.

2.0 MATERIALS

2.01 GENERAL

It is the intent that all underground exterior sanitary sewers be constructed of concrete pipe, acrylonitrile-butadiene-styrene (ABS) pipe or polyvinyl chloride (PVC) pipe. All piping materials and fittings shall conform to the requirements of the local authorities and their Specifications for sanitary sewers.

The following are the classes of pipe, which may be used, unless designated otherwise on the Drawings.

2.02 CONCRETE PIPE AND FITTINGS

a. Pipe and Fittings

Lines up to 10" in diameter shall conform to ASTM C14, Class III. Lines larger than 12" in diameter shall conform to ASTM C76, Class V.

2.0 MATERIALS (continued)

2.02 CONCRETE PIPE AND FITTINGS (continued)

b. Joint Material

ASTM C443, rubber "O" ring gasket type

2.03 ACRYLONITRILE-BUTADIENE-STYRENE (ABS) PIPE AND FITTINGS

a. Pipe and Fittings

ASTM D2680, ABS composite pipe, 8" diameter and larger

ASTM D2751, ABS solid wall pipe, 6" diameter

b. Joints

Solvent cemented type

c. Installation

ASTM D2321

2.04 POLYVINYL CHLORIDE (PVC) SEWER PIPE, TYPE PSM, SDR-35

a. Pipe and Fittings

ASTM D3034

b. Joints

ASTM D3213, push-on type

c. Solvent Cement

ASTM D2564

d. Installation

ASTM D2321

3.0 EXECUTION

3.01 GENERAL

a. Trenching

The width of trenches for pipe shall not be greater than necessary to permit satisfactory jointing and thorough tamping of the bedding material under and around the pipe.

The bottom of the trench shall be carefully shaped and rounded.

3.0 EXECUTION (continued)

3.01 GENERAL (continued)

b. Sheeting and Bracing

Provide as required to prevent caving of the trench sidewalls or sidewalls of excavation for other drainage structures and/or other types of structures.

c. Rock

Where rock is encountered, it shall be removed and replaced with No. 46 stone or sand, well compacted, to provide a cushion, have a thickness under the pipe of not less than 6" of fill over the top of the pipe, with a minimum thickness of 12".

d. Soft, Spongy, Unstable Material

Soft, spongy or otherwise unstable material encountered and which will not provide a firm foundation for pipe shall be removed and replaced with acceptable material.

e. Bedding

The bedding surfaces for pipe shall provide a firm foundation throughout the entire length.

3.02 INSTALLATION OF PIPE

Pipe shall be laid upgrade beginning at the lower end of the pipe line and shall have spigot ends pointing in the direction of flow.

Lines shall be laid to the grades and alignment shown on the Drawings. Defective pipe will be rejected.

Pipe shall be laid true to grades and elevations shown on the Drawings. Each section of the pipe shall rest upon the pipe bed for the full length of its barrel, with recesses excavated to accommodate bells and joints. No pipe shall be laid when the trench conditions or weather are unsuitable for such work. Any pipe, which has its grade or joint disturbed after laying, shall be taken up and relaid. If not indicated otherwise, the minimum cover over pipe shall be 2'-0" from the top of pipe to grade.

Unless shown otherwise, manholes shall be provided at 300 foot centers or at any change in direction of the sewer line.

3.03 BACKFILLING FOR PIPE

Backfill under or directly adjacent to floor, paved areas or building areas shall be thoroughly compacted granular material. Insure compaction under the haunches of the pipe.

Continue this method to a point 12" above the pipe. The balance of the trench shall be filled and compacted in layers of 12".

Backfill shall be compacted to a minimum density of 95% as determined by the Modified Proctor Method, in all areas to be occupied by buildings, drives or parking areas. Backfill in other areas shall be excavated material placed and compacted by machine methods.

3.0 EXECUTION (continued)

3.04 SEWER CONNECTIONS

Make all required connections to the existing sewer systems in strict accordance with the local building code Specifications.

3.05 FRAME AND COVER INSTALLATION

Manhole frames shall be firmly set on the top of the adjusting rings or dome section in a full leveling bed of 1:1 cement mortar with the covers set flush with the top of pavement or 2" above grade.

3.06 TESTS (Exterior Sewer Lines)

It is the intent that all exterior sanitary sewer lines be tested and inspected in accordance with the procedures as outlined in the state building code and as required by the local authorities for sanitary sewers. Tests shall include leakage, infiltration, exfiltration and air.

3.07 RECORD DRAWINGS

The Contractor shall provide to the Architect, upon completion of his portion of the work, one set of prints accurately locating all underground lines installed, relative to the building and property lines and the corresponding invert elevations.

3.08 CLEAN UP

Upon completion of the work specified in this Section, this Contractor shall thoroughly clean the area of operations and remove all surplus construction materials, tools, equipment and debris resulting from his operations. Pavement and road areas shall be cleaned of any mud, dirt or debris, which is a result of any hauling operations.

End of Section

DIVISION 02 - EXISTING CONDITIONS

SECTION 02920 - SEEDED LAWNS

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

Work under this Section shall consist of supplying all labor, equipment and materials and performing all operations in connection with surface preparation, seeding operations and other miscellaneous related work, in strict accordance with this Specification and the applicable Drawings, and subject to the terms and conditions of the Contract.

1.03 RELATED WORK SPECIFIED ELSEWHERE

a. DIVISION 02 - EXISTING CONDITIONS

1.04 COORDINATION

This Contractor shall coordinate his work with that of the Contractor for earthwork in establishing the necessary backfill and rough grading requirements.

2.0 MATERIALS

2.01 TOPSOIL

Topsoil, as required for lawn construction, shall be as previously removed and stockpiled, and any additional topsoil required shall be furnished by this Contractor. Topsoil shall be without admixture of subsoil, and shall be clean and reasonably free from clay lumps, stones, stumps, plants and their roots, or similar substances 1-1/2" or more in diameter, debris or other deleterious materials, which might be a hindrance to lawn construction.

2.02 LAWN MATERIALS

Grass seed shall be fresh, clean, new crop seed, composed of the varieties specified and mixed in proportions and testing minimum percentages of purity and germination indicated below:

Scientific and Common Names	Proportion by Weight	% of Purity	% of Germination
Kentucky Blue Grass	50	95	75
Manhattan Rye Grass	25	98	95
Penn Lawn Fescue	25	95	85

2.0 MATERIALS (continued)

2.03 SURFACE PREPARATION

Areas to be seeded shall be brought to finished grades, as indicated on the Drawings, and smoothed. The surface shall be cleaned of stones or other objects larger than 2" in diameter, and of all roots, brush, wire, grade stakes and any other rubbish. An allowance for settlement shall be made.

Areas where the topsoil has not been removed shall be scarified to a depth of 6", smoothed, and sticks, stones and rubbish shall be removed.

Fine rake soil to break up lumps and to remove all foreign matter. Stones 1-1/2" or larger exposed during fine raking/seeding/fertilizing operations, remove and dispose of off the site. Soil to be raked to a true, even grade, including all grades to existing structures.

The fertilizer is to be delivered to the site in unbroken bags. Spread 12-12-12 fertilizer evenly with a mechanical spreader, 10 pounds per 1,000 square feet. Thoroughly incorporate into the soil to 1" depth. Immediately before sowing seed, rework the surface until fine, pulverized, smooth seed bed, varying not more than 1" in 10'-0" is established.

3.0 EXECUTION

3.01 TOPSOIL

Topsoil shall not be handled while wet or while subsoil is wet.

Spread and fine grade topsoil to a compacted depth of 6" in all seeded areas indicated on the Drawings.

Regardless of the finish grading elevations shown on the Drawings, it is intended that grading be such that proper drainage of surface water occurs and that no low areas will be created to allow ponding. Consult the Architect regarding minor variations in grade elevations before grading is completed.

Finish grading such that water is not trapped on lawn areas. Grades shall be free flowing, without ridges or depressions, uniform and meeting the finish grades of abutting finished grades.

Mounds shall be free flowing in shape and design, as indicated on the Drawings. Mounds to blend into the existing grades gradually so that the toe of the slope is not readily visible.

3.02 SEEDING

Immediately before any seed is to be sown, the ground shall be scarified to a depth of 4" or more, and shall be raked until the surface is smooth and of uniformly fine texture. Prepare only enough ground that can be seeded evenly with a mechanical spreader at the rate of 5 pounds to 1,000 square feet of area, lightly raked and rolled with a 200 pound roller, and watered with a fine spray. Equal quantities of seed shall be sown in two directions at right angles to each other to produce an even distribution of seed over the entire area.

No seeding shall be done when wind velocities exceed 5 MPH.

3.0 EXECUTION (continued)

3.02 SEEDING (continued)

No seeding shall be done after a rain, or if the surface has become compacted, without first loosening the surface of the ground.

Apply straw to uniform depth of 1/2" to 1" over all slopes and where necessary, and keep wet as required.

Preparation of lawn areas should be accomplished during the summer months, well in advance of actual lawn seeding operations. Grass seed should be sown between August 15 and September 15 and if necessary to sow grass seed during the spring season, which is less desirable, it may be done between April 1 and April 30.

3.03 MAINTENANCE

Maintenance shall begin immediately after each portion of the lawn is seeded and shall continue only until a uniform strand of grass is attained and accepted.

All lawns shall be kept in a healthy growing condition by watering, weeding, mowing, trimming and any other necessary operation.

At the conclusion of the maintenance period, all lawns shall have a close strand of the grasses specified to be planted and shall be free of weeds. If not, the maintenance period shall be continued until these requirements are met.

Bare patches shall be scratched, reseeded, rolled and watered, as often as may be necessary, until a close strand of grass is obtained over the entire lawn area. Scattered bare spots not exceeding 1 square foot will be allowed up to a maximum of 3% of the area.

3.04 FINAL INSPECTION AND GUARANTEE

Inspection of work of lawns will be made at the conclusion of the maintenance period required or after sixty days.

Written notice requesting inspection shall be submitted to the Architect at least ten days prior to the anticipated inspection date.

The work under this Contract will be accepted for the Owner by the Architect upon the satisfactory completion of all work, including maintenance if purchased.

This Contractor shall guarantee the production of a close strand of grass.

3.05 CLEAN UP

Upon completion of the work outlined and required, the Contractor shall remove all debris from the site caused by his portion of the work.

End of Section

DIVISION 06 - WOOD, PLASTICS AND COMPOSITES

SECTION 06100 - ROUGH CARPENTRY

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

This Contractor shall furnish all labor, materials and equipment to complete all rough carpentry work shown on the Drawings, herein specified and/or required for a complete installation, including but not limited to, framing lumber, nailers, plates, plywood, screws, bolts, nails, anchors and installation of finish hardware.

This Contractor shall provide all labor and tools required to install the materials furnished by others, where called for in other Sections of the Specifications.

1.03 WORK SPECIFIED ELSEWHERE

a. DIVISION 08 - OPENINGS

1.04 PROTECTION

The Carpentry Contractor shall protect all his work in an approved manner and shall make good all damage arising from improper protection.

Provide and maintain suitable temporary railings, barricades and all necessary barricade lights, signs and warnings for the protection of the public and others having access to the site.

1.05 GENERAL REQUIREMENTS

Carefully lay out, cut, fit and erect all framing, trusses, ledgers, blocking and other items of carpentry.

Do cutting and carpentry work required for building in work of their trades.

Brace, plumb and level all members and secure with sufficient nails, spikes and bolts to insure rigidity.

Provide and superintend installation of all bolts set into concrete and masonry for attachment of plates and other items of carpentry.

Assist the Contractor for concrete and masonry work in laying out and placing all anchors, clips and supports.

2.0 MATERIALS

2.01 LUMBER

Lumber shall be sound stock thoroughly seasoned and well manufactured, free from warp or other defects which would impair strength or durability. Moisture content of lumber shall not exceed 19%. Lumber for rough carpentry, blocking, nailers, etc., shall be Construction Grade Douglas Fir, Southern Pine No. 2 or Owner approved equal.

All permanent plywood backing, if shown or called for on the Drawings, shall be 3/4" thick, exterior grade, plywood C-C EXT-APA, unsanded pressure treated to meet Federal Specification TT-W-550 and TT-W-535, unless specifically called out differently on the Drawings.

2.02 ROUGH HARDWARE

Provide and install all rough hardware, including bolts, screws, nails, anchors and metal fastenings of any nature for proper installation of carpentry.

3.0 WORKMANSHIP

3.01 GENERAL

All work shall be well fitted, accurately set and rigidly secured in place. Leveling of members resting on concrete or masonry shall be done with wood or other similar material.

Cutting and fitting to accommodate other work shall be done as required and in a neat, workmanlike manner; any damaged work shall be patched or replaced.

4.0 INSTALLATION

4.01 WOOD NAILERS AND BLOCKING

Nailers shall be provided where shown on the Drawings and/or required to complete work. Bolts shall be countersunk into nailers. Top members of nailers shall be thoroughly spiked in place. Exterior face of nailers shall be plumb, level and straight in an even plane.

5.0 MISCELLANEOUS ITEMS

5.01 ANCHORS

Set anchors furnished by the Contractor for miscellaneous metal.

5.02 INSTALLATION OF DOORS AND FINISH HARDWARE

This Contractor is to receive, inspect, inventory, store, protect, distribute and install all hollow metal doors, wood doors, transom panels, finish hardware and weatherstripping for all door openings requiring same.

This Contractor will be expected to sign for all materials delivered for his installation under this Section and will be held fully responsible for any shortages or disappearance of items signed for.

5.0 MISCELLANEOUS ITEMS (continued)

5.02 INSTALLATION OF DOORS AND FINISH HARDWARE (continued)

This Contractor shall cooperate with other trades to secure the building as necessary and to schedule his work to aid prefinishing of doors. No hardware shall be installed on any door, or any door hung without the consent or direction of the Contractor.

This Contractor shall take utmost care in handling doors and hardware to avoid scratches, deformations, or any other defects that would impair the appearance or function of the unit. Materials damaged by this Contractor shall be repaired to a new condition or replaced at no cost to the Owner.

This Contractor shall inspect and adjust all doors and hardware just prior to occupancy by the Owner to insure that all items function as designed and are installed and anchored in accordance with the manufacturer's recommendations.

5.03 STUD FRAMING

Arrange three studs to provide for nailing at all corners. Double all studs at sides of openings. Inside studs to be broken at head to receive headers.

Space studs to accommodate ducts and strap studs together where holes are cut. All studs shall be spaced 16" on center unless noted or specified otherwise, and unless other spacing is required for ducts or pipes. Securely spike studs to ribbons, joists, plates and sills. Provide diagonal bracing on all partitions once in height with 2" x 4" studs.

6.0 GUARANTEE

6.01 GENERAL

The Subcontractor shall guarantee his work against faulty materials and workmanship (and from faulty design or detail if within his control) for a period of one year from date of occupancy or substantial completion of the entire project.

End of Section

DIVISION 06 - WOOD, PLASTICS AND COMPOSITES

SECTION 06200 - FINISH CARPENTRY

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

Under this heading are included all labor and materials necessary for the proper completion of all finish carpentry work and millwork shown on the Drawings, specified herein and/or necessary to properly complete the construction.

Installation of materials furnished by others. All items are specified to be furnished complete with all hardware, fasteners and accessories, including installation instructions that may be required for a complete installation. This Contractor shall inventory all items furnished and shall verify that the materials are complete for the required installation.

1.03 RELATED WORK SPECIFIED ELSEWHERE

- a. DIVISION 06 - WOOD, PLASTICS AND COMPOSITES
- b. DIVISION 08 - OPENINGS
- c. DIVISION 09 - FINISHES

1.04 PROTECTION

The Carpentry Contractor shall provide all required protection for wood doors, furnished by others, and all other millwork in an approved manner and shall make good any and all damage arising from improper protection, without any expense to the Owner.

Cover and protect unfinished millwork and shelves against damage or staining. Remove protection upon completion of work or as requested by the Contractors applying other surface finishes.

1.05 QUALITY ASSURANCE

The current edition of the "American Softwood Lumber Standard PS 20", issued by the National Bureau of Standards (NBS), shall govern where applicable, unless otherwise specified.

The current edition of the "Quality Standards of the Architectural Woodwork Industry", issued by the Architectural Woodwork Institute (AWI), shall govern where applicable, unless otherwise specified.

1.0 GENERAL CONDITIONS (continued)

1.06 JOB CONDITIONS

This Contractor shall advise the Contractor of the required temperature and humidity requirements for the installation of all finish carpentry. Do not install all finish carpentry work until the required temperature and relative humidity have been stabilized and will be maintained in the installation area.

1.07 SUBMITTAL DATA

Submit detailed Shop Drawings to the Architect, for approval, prior to the fabrication. Include materials, profiles, fastening methods, joint details, hardware and finishes.

Submit samples and color charts showing the full range of colors, textures and patterns available.

2.0 PRODUCTS

2.01 MATERIALS

Provide materials that comply with the requirements of the referenced product standards indicated:

- | | | | |
|----|------------------|---|---|
| a. | Softwood Plywood | - | DOC PS-1 |
| b. | Softwood Lumber | - | DOC PS-20 |
| c. | Adhesives | - | Contact, Semi-Rigid (PVAC) or Rigid (Urea Resorcinol) |

Wood materials shall be the best of their respective kinds, those for finishing work, unless otherwise directly specified, shall be absolutely clear and free from knots, cracks, sap or other defects, shall be thoroughly seasoned, kiln dried and protected from the weather.

Plywood, where shown or specified, shall have sound face veneers on exposed surfaces with compensating veneers on back of concealed surfaces. Plywood shall be equal to products of American Plywood Corporation or U. S. Plywood Corporation. Plywood used for interiors of cabinet work shall have face veneers of selected birch.

Interior casework, wood trim, etc., which is to receive a clear finish, shall be select red birch, premium grade rotary cut unless noted otherwise.

Finish wood trim and shelving scheduled to receive a paint finish shall be "B" and Better, clear white pine or poplar.

All open shelving shall be constructed of 3/4" Douglas Fir plywood with "A" face one side and with solid edge birch strips on the front of shelves.

2.02 WORKMANSHIP

Wood finish shall be put together with close fitting miters and other joints, thoroughly workmanlike in every respect.

2.0 PRODUCTS (continued)

2.02 WORKMANSHIP (continued)

Moldings shall be mitered at corners and coped at angles. All joints shall be made to conceal shrinkage. All millwork shall be furnished in full lengths, as far as possible. Should splices be required, they shall be mitered and glued. No splices will be allowed in window or door casings.

Finish and trim members shall be secured with fine finishing nails, screws or glue where required. All nails shall be set for putty stopping. All trim members shall be glued at the corners.

All millwork shall be erected straight, plumb and level and in true alignment, with nail heads filled and hand sanded and left smooth and ready for the specified finish.

2.03 EXTERIOR MILLWORK

Exterior door frames shall be completely assembled at the shop and delivered ready to set into rough openings. Sills, mullion casings and similar wide or heavy sections shall be one piece moldings to the shape required and shall be saw kerfed on the concealed side. Provide interior glazing stops fitted and set loose for glazing by others at the job.

Exterior stops and joints in sill members shall be set in waterproof type glue. Outside perimeter moldings shall be set loose for installation at job after frames are set anchored.

Exterior wood trim member shall have all built-up items assembled with waterproof glue in addition to the necessary nailing and screwing. Trim or moldings for door or window frames shall be single lengths. Where required lengths are in excess of those commercially available, lengths shall be as long as practical, with joints staggered and concealed or located in unobjectionable places. Molded work shall be coped at returns and mitered at corners. Intersections of flat work shall be shouldered. Wide members shall be kerfed on back side.

2.04 ADJUSTMENT, CLEANING, FINISHING AND PROTECTION

Repair damaged and defective finish carpentry work wherever possible to eliminate defects functionally and visually. Where not possible to repair properly, replace woodwork. Adjust all operating hardware for proper operation.

Clean finish carpentry work on exposed and semi-exposed surfaces. Surfaces shall be left prepared for the surface finishes, as specified in DIVISION 09 - FINISHES.

This Contractor shall advise the Contractor, of the final protection and the required maintained conditions necessary to ensure that the work will be without damage or deterioration at time of acceptance.

3.0 GUARANTEE

3.01 GENERAL

The Subcontractor shall guarantee his work against faulty materials and workmanship (and from faulty design or detail if within his control) for a period of one year from date of occupancy or substantial completion of the entire project.

End of Section

DIVISION 08 - OPENINGS

SECTION 08110 - HOLLOW METAL DOORS AND FRAMES

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

The work under this Section consists of all labor, materials, tools, services, transportation and equipment required to furnish all hollow metal doors and frames as shown and scheduled on the Drawings and as specified herein, including all details of every kind necessary for the fabrication, delivery, erection and securing of all such work in place.

1.03 WORK INCLUDED

The work included for this project shall be as follows:

- a. Hollow metal doors
- b. Required fasteners and accessories.
- c. Knockdown frames.

1.04 WORK SPECIFIED ELSEWHERE

- a. DIVISION 06 - WOOD, PLASTICS AND COMPOSITES
- b. DIVISION 08 - OPENINGS
- c. DIVISION 09 - FINISHES

1.05 SHOP DRAWINGS

This Contractor shall furnish detailed Shop Drawings to the Architect for approval prior to fabrication of the doors and frames. Shop Drawings shall show each type of door, hand, different jamb and head sections, frame conditions, anchors, reinforcing, glass openings, vision-lites, frames, louvers, insulation, finish, etc. Submit prints of all Shop Drawings.

1.06 ASSURANCE OF QUALITY

The door manufacturer must be a member of the Steel Door Institute.

All steel doors and frames shall be manufactured in accordance with the SDI and ANSI Specifications.

The Architect reserves the right to disqualify manufacturers based on past performance, geographical location or other criteria. (Bidders should request approval of other manufacturers before bidding.)

1.0 GENERAL CONDITIONS (continued)

1.07 ACCEPTABLE MANUFACTURERS

The following is a list of acceptable manufacturers:

- a. Ceco Door Products
- b. Curries Company
- c. Steelcraft Manufacturing Company, Inc.
- d. Amweld Building Products, Inc.
- e. Pioneer Industries, Inc.

2.0 HOLLOW METAL DOORS

2.01 MATERIALS

Doors shall be made of commercial quality, level, cold rolled steel conforming to ASTM Designation A366, latest edition, and be free of scale, pitting or other surface defects. Face sheets for exterior doors and all labeled fire rated doors shall be 16 gauge and not less than 18 gauge for interior doors, unless indicated otherwise.

2.02 DESIGN AND CONSTRUCTION

All doors shall be of the types and sizes shown on approved Drawings, and shall be welded construction with no visible seams or joints on their faces or vertical edges.

All doors shall be strong, rigid and neat in appearance, free from warpage or buckle. Corner bends shall be true and straight and of minimum radius for the gauge of metal used.

Hollow metal doors shall be 1-3/4" thick, unless noted otherwise. Core edges shall be roughened and securely bonded to both face sheets. The vertical door edges shall be mechanically interlocked. All doors shall have flush seamless face sheets.

Door faces shall be joined at their vertical edges by mechanical interlocking with spot welds. All exposed welds shall be ground, filled and dressed smooth to provide a smooth flush surface.

Top and bottom edges of all doors shall be closed with a continuous recessed 16 gauge steel channel extending the full width of the door and spot welded to both faces. Exterior doors shall have an additional flush closing channel at their top edges and, where required for attachment of weatherstripping, a flush closure also at their bottom edges. Openings shall be provided in the bottom closure of exterior doors to permit the escape of entrapped moisture. The top closures shall be made of rigid vinyl.

Edge profiles shall be provided on both vertical edges of doors, as follows:

- a. Single-Acting Swing Doors - Beveled 1/8" in 2".

All hardware furnished by the Hardware Contractor for single-acting doors shall be designed for beveled edges as specified above. See Drawings for Door Hardware.

2.0 HOLLOW METAL DOORS (continued)

2.03 HARDWARE REINFORCEMENTS

Doors shall be mortised, reinforced, drilled and tapped at the factory for fully templated hardware only, in accordance with the approved Hardware Schedule and the templates provided by the Hardware Contractor. Where surface mounted hardware is to be applied, doors shall have reinforcing plates only; all drilling and tapping shall be done by others.

Minimum gauges for hardware reinforcing plates shall be as follows:

- | | | |
|----|--|-----------------|
| a. | Hinge and Pivot Reinforcements | 7 Gauge Minimum |
| b. | Reinforcements for Lock Face, Flush Bolts, Concealed Holders, Concealed or Surface Mounted Closers | 12 Gauge |
| c. | Reinforcements for all other Surface Mounted Hardware | 16 Gauge |
| d. | Rim Panics | 14 Gauge |

Coordinate the hardware reinforcement locations with the listings shown on the Hardware Data Schedule. Hardware will be furnished by the Finish Hardware Contractor.

2.04 SHOP PAINT

After fabrication, all tool marks and surface imperfections shall be dressed, filled and sanded as required to make all faces and vertical edges smooth, level and free of all irregularities. Doors shall then be chemically treated to insure maximum paint adhesion and shall be coated, on all exposed surfaces, with two coats of rust-inhibitive metallic primer, which is fully cured before shipment.

3.0 HOLLOW METAL FRAMES

3.01 MATERIALS

Frames for exterior openings shall be made of commercial grade cold rolled steel conforming to ASTM A366, latest edition, and shall be not less than 16 gauge.

Frames for interior openings shall be either commercial grade cold rolled steel conforming to ASTM A366, latest edition, or commercial grade hot rolled steel conforming to ASTM A569, latest edition, 16 gauge for 1-3/4" hollow metal doors, double egress frames and 18 gauge for 1-3/4" wood doors and cased opening frames.

3.02 DESIGN AND CONSTRUCTION

Unless designated otherwise on the Door Schedule, all frames shall be welded units with integral trim, of the sizes shown on the Drawings. Otherwise, unless specifically requested, the frame shape shall be per the industry standard for the width indicated and wall type.

Rigidly interlock knockdown frame joints so as to maintain alignment of parts and provide functionally satisfactory performance of completed frames when field assembled. Ship knockdown frames unassembled in securely strapped bundles.

3.0 HOLLOW METAL FRAMES (continued)

3.02 DESIGN AND CONSTRUCTION (continued)

All finished work shall be strong and rigid, neat in appearance, square, true and free of defects, warp or buckle. Moulded members shall be clean cut, straight and of uniform profile throughout their lengths.

Frame jamb widths shall be 2", jamb depths, trim, profile and backbends shall be as scheduled and detailed on the Drawings.

Corner joints shall have all contact edges closed tight, with trim faces mitered and continuously welded and stops mitered or butted. The use of gussets will not be permitted.

Minimum depth of stops shall be 5/8".

3.03 HARDWARE REINFORCEMENTS

Frames shall be mortised, reinforced, drilled and tapped at the factory for fully templated mortised hardware only, in accordance with the approved Hardware Schedule and per the templates provided by the Hardware Contractor. Where surface mounted hardware is to be applied, frames shall have reinforcing plates only; all drilling and tapping shall be done by others.

Minimum thickness of hardware reinforcing plates shall be as follows:

- | | | |
|----|---|------------------------------------|
| a. | Hinge and Pivot Reinforcements | 7 Gauge, 1-1/4" x 10" Minimum Size |
| b. | Strike Reinforcements | 14 Gauge |
| c. | Flush Bolt Reinforcements | 14 Gauge |
| d. | Closer Reinforcements | 14 Gauge |
| e. | Reinforcements for Surface Mounted Hardware | 14 Gauge |

3.04 FLOOR ANCHORS

Floor anchors shall be securely fastened inside each jamb, with two holes provided at each jamb for floor anchorage.

Adjustable floor anchors, providing not less than 2" height adjustment, shall be provided.

Minimum thickness of floor anchors shall be 14 gauge.

3.05 MISCELLANEOUS

All frames shall be provided with a steel spreader temporarily attached to the bottom of both jambs to serve as a brace during shipping and handling.

Provide three rubber silencers per frame.

3.0 HOLLOW METAL FRAMES (continued)

3.05 MISCELLANEOUS (continued)

After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be ground smooth. Frames shall then be chemically treated to insure maximum paint adhesion and shall be coated on all exposed surfaces with one coat of rust-inhibitive primer, which is fully cured before shipment. All frames set in masonry walls shall be back painted with a bituminous coating.

Frames for double-acting doors shall be reinforced to prevent frame deflection. Provide continuous reinforcement from top to bottom, inside of jamb.

4.0 SPECIAL INSTRUCTIONS

4.01 HARDWARE LOCATIONS

All labeled fire doors and frames shall be of a type which has been investigated and tested in accordance with UL10B/ANSI A2-2, ASTM E152, NFPA 252 and UL63.

The location of hardware on doors and frames shall be as follows:

- a. Deadlocks 60" to centerline of cylinder
- b. Hinge Manufacturer's standard

4.02 CLEARANCES

Edge clearances shall be provided as follows:

- a. Between Doors and Frame, at Head and Jambs 1/8"
- b. At Door Sills:
 - 1. Where no threshold is used 3/4" maximum
 - 2. Where threshold is used 1/4" maximum between door and threshold
- c. Between Meeting Edges of Pairs of Doors 3/16"
- d. Hinge Side 3/32"

4.03 SHIPPING

Doors shall be wrapped in paper and crated to prevent damage.

All doors, frames and transoms shall be tagged with the individual door numbers per the approved Door Schedule.

5.0 EXECUTION

5.01 INSTALLATION

All hollow metal doors and frames furnished by this Contractor shall be installed under DIVISION 06 - WOOD, PLASTICS AND COMPOSITES, SECTION 06100 - ROUGH CARPENTRY and shall be erected plumb, square and in true alignment. Frames shall be rigid and securely anchored in place to the adjacent wall construction, using the appropriate anchors. Doors shall be installed using the scheduled hardware in a manner which will achieve the intended functional operation and appearance.

Installation of labeled doors and frames, including all UL listed hardware, shall be in accordance with NFPA No. 80 and No. 101 and with the codes of local authorities having jurisdiction.

6.0 GUARANTEE

6.01 GENERAL

The Subcontractor shall guarantee his work against faulty materials and workmanship (and from faulty design or detail if within his control) for a period of one year from date of occupancy or substantial completion of the entire project.

This Contractor shall repair or replace, at his own expense, all labor, materials, transportation and any finish painting required to correct any and all defective work during the guarantee period.

End of Section

DIVISION 08 - OPENINGS

SECTION 08700 - FINISH HARDWARE

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

Furnish all finish hardware for the proper operation and fastening of all doors. The hardware specified herein is intended to cover all necessary materials required to fully complete the hardware requirements of the building. It is the intention and it shall be understood that the hardware herein specified shall be furnished in sufficient quantities to fill the requirements of the Contract Drawings even though every item necessary to do so is not herein specified.

Within fifteen days of the Contract award, the supplier shall provide catalog cut sheets with the manufacturer's part number for each and every different piece of hardware that will be used on the job (identified per the Schedule codes).

All hardware shall meet the requirements of the local and state building codes and the Occupational Safety and Health Act Requirements.

The supplier shall examine all door and frame details shown on the Drawings and be responsible for proper fitting to details as intended, such as proper centering of locks, proper back sets, providing strikes with sufficient lips for trim, projection and proper length, bolts, rods, pintles and screws. Where the finished shape or size of the member taking hardware is such as to prevent the use of or make unsuitable the exact type specified, suitable types shall be furnished having as nearly as practicable the same operation as that which is specified.

If substitutions are proposed, submit detailed typewritten letters and include such samples and/or catalog cut sheets as the Architect may require for evaluation and approval.

1.03 QUALITY ASSURANCE

Following is a list of acceptable manufacturers:

- a. Locksets Schlage
- b. Weatherstrip Pemko, National Guard, Reese, Zero

1.04 SUBMITTALS

Before any materials are released, schedules required under Item 1.02 - SCOPE OF WORK, the second paragraph, must be approved.

The schedule shall be prepared by an "Architectural Hardware Consultant" in the employ of an authorized distributor of the specified lock manufacturer.

1.0 GENERAL CONDITIONS (continued)

1.04 SUBMITTALS (continued)

Submit prints of the Schedule for approval by the Architect.

Submit one *catalogue cut* of each type of item to be furnished to the Architect, along with the Schedule for approval.

1.05 PACKING AND MARKING OF HARDWARE

Prior to shipment of any hardware, the supplier shall provide, by opening number, a complete listing of each piece of hardware being provided for the opening.

All hardware shall be delivered to the building site properly wrapped with correct trim, screws and bolts for fastening and shall be free from flaws and defects. It shall be properly labeled for location with specific individual door numbers corresponding with the Hardware Schedule and Drawings.

1.06 TEMPLATES

Supply templates to the door and frame manufacturers for the proper size and location of cutouts and reinforcements for hardware.

1.07 MATERIALS AND WORKMANSHIP

All hardware shall be of the highest grade case or wrought metal, and be furnished by an authorized distributor of the approved lock manufacturer.

All shall be entirely free of imperfections in both manufacture and finish. Quality, weights and sizes, as indicated, shall be the minimum acceptable.

1.08 FINISHES

All items of hardware shall be of the standard US finish as designated in the Hardware Schedule (if not shown, units shall be 626). Where indicated, split finishes shall be provided. Items that are not available plated shall have lacquer enamel finish to match the color indicated.

Weatherstripping and thresholds shall be aluminum in natural finish, unless specified otherwise.

1.09 WARRANTY

All door closers shall have a five year factory warranty against defects in materials and workmanship from the date of occupancy of the project.

2.0 MATERIALS

2.01 BUTTS AND HINGES

Hinges shall comply with FS-FF-H-116D and ANSI A156.1 Specifications.

Provide three hinges per door, 90" or less in height.

2.0 MATERIALS (continued)

2.01 BUTTS AND HINGES (continued)

All hinges shall be square corner full mortised template hinges by a single manufacturer. Steel hinges 4-1/2" x 4-1/2" x .134" shall be used for doors up to 36" wide and for doors over 36" wide use 5" x 4-1/2" hinges.

All hinges shall have button tips, with a hole in the bottom tip for easy pin removal.

Reverse bevel doors with locksets and all exterior doors shall have non-removable pins.

All doors equipped with closers (both doors on pairs with only one closer), the hinge shall be five knuckle flush ball bearing design.

Where spring hinges are scheduled, provide matching ball bearing hinges where the spring hinges are not required. Where only one spring hinge is required, it shall be located in the center position.

Types	Manufacturers
a. B2 (Standard Weight)	Hager 1279 McKinney T2714 Stanley F179

2.02 LOCKSETS, LATCHES AND DEAD BOLTS (Federal Specifications function letter will appear in the Schedule)

Locks and latches shall be of types and functions as indicated on the approved Hardware Schedule. The Schedule will identify lock class and appearance. If the design is not indicated, furnish Plymouth or Levon by Schlage.

All locksets shall be the product of one manufacturer. The lock case shall be of a single unit size, allowing for the interchangeability of lock functions in a standard opening.

All locks shall be provided with box strikes and with strike lips of sufficient length to clear the trim. Locks with die cast parts are not acceptable. Latch bolts shall provide for 2-3/4" set back and have anti-friction insert and anti-pick features with 1/2" throw.

Letters indicate lock function code per the Federal Specification Function System, numbers in () indicate ANSI function and (*) indicate mortise locks and the corresponding Federal and ANSI functions. The descriptions which are summarized in the following are for cylindrical locks or latches:

a. Functions

1. Storeroom Lock

D (F86-1) Outer knob fixed, entrance by key only. Inner knob always free.

2.03 CYLINDERS

Cylinders shall be pin tumbler type, six pins.

2.0 MATERIALS (continued)

2.03 CYLINDERS (continued)

All cylinders shall be set to a master key system as directed by the Architect or Owner's representative.

Cylinders shall be furnished with construction cores or other construction locking system.

Cylinder guards shall be furnished for key cylinders on the exterior side of aluminum entrance doors.

2.04 FASTENINGS

Fastenings of suitable size, quantity, type and finish shall be provided to secure hardware in position for heavy use and long life. Hardware for application on metal surfaces shall be made to standard templates. Fastenings shall harmonize.

3.0 EXECUTION

3.01 MOUNTING HEIGHTS

Following are mounting heights for various items of door hardware, as measured from the finish floor line:

- | | | |
|----|--------------------|--|
| a. | Centerline of knob | Manufacturer's standard - All locks must be at the same height |
| b. | Cylinder deadlocks | 60" (48" for handicapped) |
| c. | Hinges | Industry standard |

3.02 BEVELS

Hardware shall be designed to fit door bevels as follows:

- | | | |
|----|---------------------------|--------------------|
| a. | Single-Acting Swing Doors | Beveled 1/8" on 2" |
|----|---------------------------|--------------------|

3.03 INSTALLATION

Hardware shall be installed in strict conformance to the manufacturer's latest printed instructions. Holes and mortises in wood doors for locks and other hardware shall be cut with a jig approved and provided by the manufacturer of the item to be applied. All holes and mortises shall fit snugly to provide as much support as possible to the hardware. All cylinders and/or keyway cores shall be installed in such a manner that the key enters the keyway with its smooth edge down.

After the hardware has been fitted, exposed portions, except those primed for paint finish, shall be removed until final painting has been completed. Hardware shall be reinstalled after painting is completed, properly adjusted, tested and left in perfect working order. Thresholds shall be set in a full bed of mastic and securely anchored in place.

3.0 EXECUTION (continued)

3.04 ADJUSTING AND CLEANING

After completion, all hardware shall be left clean and free from disfigurement. Remove protective coverings as directed by the Contractor. Make final adjustments to all operating hardware, i.e., closers, exit devices, locksets and passage sets. Where hardware is found to be defective, repair or replace as directed.

3.05 EXTRA STOCK

Furnish two dozen extra screws and other fasteners of each type, size and finish used with the hardware items furnished. All extra screws and fasteners and all special installation tools furnished with the hardware shall be turned over to the Owner's representative at completion of the project.

4.0 GUARANTEE

4.01 GENERAL

The Subcontractor shall guarantee his work against faulty materials and workmanship (and from faulty design or detail if within his control) for a period of one year from date of occupancy or substantial completion of the entire project.

End of Section

DIVISION 09 - FINISHES

SECTION 09650 - RESILIENT FLOORING AND BASE

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

Furnish all labor, equipment, tools, transportation and services required to install first class quality resilient flooring and base materials where called for on the Drawings and in the Room Finish Schedule. Resilient flooring and base materials shall be applied in strict accordance with the manufacturer's current Specifications.

Adhesives and other application materials shall be those as recommended specifically by the manufacturer of the material specified.

During the normal heating season, a constant temperature of at least 70°F shall be maintained by the Mechanical Contractor, forty-eight hours prior to installation, during installation and forty-eight hours after the installation. A minimum temperature of 55°F shall be maintained thereafter.

This Subcontractor shall indicate adverse conditions of any type by a letter to the Contractor. Starting of any work shall indicate acceptance by the Subcontractor.

Before installation is initiated, properly identified samples shall be submitted by this Subcontractor, for approval by the Architect. Samples shall be marked with brand, size, gauge and color.

The Concrete Floor Contractor shall prepare all new and existing concrete floor surfaces, as required to the satisfaction of this Subcontractor, prior to the start of the work under this Contract. Floor depressions, holes, etc., which are too large in size to be leveled with the filler material specified in *Item 2.09 - FILLER OR UNDERLAYMENT* of this Section, shall be filled, smoothed and leveled off with concrete to an acceptable surface, able to receive the materials herein specified. If grinding of the surfaces is required in order to obtain a smooth, defect free floor surface, the Concrete Floor Contractor shall provide all the labor and materials required to obtain the surface conditions acceptable to this Subcontractor.

1.03 ASSURANCE OF QUALITY

a. Quality Assurance

The material shall be certified by the manufacturer to meet the following fire test performance criteria:

1. ASTM E648, Critical Radiant Flux of 0.45 watts/cm² or greater.
2. ASTM E84, Flame-Spread Rating of 75 or less.

1.0 GENERAL CONDITIONS (continued)

1.03 ASSURANCE OF QUALITY (continued)

a. Quality Assurance (continued)

3. ASTM E662, Smoke Generation of 450 or less.
4. FS-SS-T-312B(1), Type IV, Comp. 1 (VCT).
5. FS-L-F-475A(3), Type II, Grade A (SV).

b. Acceptable Flooring Manufacturers

1. Armstrong World Industries, Inc.
2. Azrock Commercial Flooring/Domco, Inc.
3. Kentile, Inc.
4. Tarkett, Inc.

c. Acceptable Base, Reducers, Etc., Manufacturers

1. Mercer Products Company, Inc.
2. R. C. Musson Rubber Company
3. The R.C.A. Rubber Company
4. Roppe Corporation
5. Vinyl Plastics, Inc.
6. Johnsonite, Inc.

1.04 SHOP DRAWINGS

If required, prepare and submit Shop Drawings for approval by the Architect showing the pattern layout and distribution of color.

1.05 SAMPLES

Submit, for approval and selection by the Architect, two sets of samples of the proposed flooring materials and accessories. Samples shall be labeled with the manufacturer's name, number and color, project name and Subcontractor's name.

1.06 CERTIFICATION

This Subcontractor shall submit an affidavit or certification indicating that materials being furnished are in compliance with the Specifications and meet the fire test performance requirements of the local and state building codes.

1.0 GENERAL CONDITIONS (continued)

1.07 PRODUCT DELIVERY, STORAGE AND HANDLING

All materials shall be delivered in the original packages, containers, boxes or containers with labels indicating the brand names, colors and patterns, and quality designations legible and intact.

All material shall be stored in a continuously warm space for at least three days at a minimum temperature of 70°F prior to installation.

2.0 MATERIALS (See Room Finish Schedule for required materials)

2.01 FLOOR TILE (VCT)

Tile shall be similar and equal to Armstrong's Excelon SDT or Imperial Texture, 12" x 12" x 1/8", in colors and patterns selected by the Architect. Tile shall be installed in strict accordance with the manufacturer's *latest* written instructions.

2.02 SHEET VINYL FLOORING (SV)

Sheet vinyl flooring shall be similar and equal to Armstrong's Classic Corlon, 0.085" gauge, in 6'-0" wide rolls. The flooring shall be able to withstand static loads of 100 PSI. Patterns and colors shall be selected from the current range available. Install with a minimum of seams using Armstrong Secureboard Installation System with S200 adhesive at the seams and S235 multipurpose adhesive in the field.

If called for and detailed on the Drawings, provide an integral core by extending the flooring material 4" or 6" on the wall, supported by a cove stick having a minimum radius of 7/8" and adhering to the wall with adhesive. Cap the integral coving with an approved metal cap flashing.

All materials for installation such as mastic, etc., shall be only those products as approved by the flooring manufacturer.

The entire installation shall be in strict accordance with the written instructions of the manufacturer.

2.03 BASE (VB or RB)

Provide base materials complying with FS-SS-W-40a, Type I rubber or Type II vinyl, with matching end stops and preformed corner units.

Base material shall be a vinyl or rubber cove base where scheduled, 0.080" thick, 4" high, set-on type with round top. Preformed inside or outside corner pieces shall be furnished for corners. Vinyl or rubber base used in Toilet Rooms shall be 6" high.

Vinyl or rubber base scheduled with carpeting shall be as specified above, except it shall be a "straight type" (without cove).

Base shall be furnished in plain colors, as selected from the manufacturer's standard color range.

Install base materials using Armstrong's S-285 wall base adhesive.

2.0 MATERIALS (See Room Finish Schedule for required materials) (continued)

2.04 REDUCER STRIPS

Reducer strips shall be 1/8" gauge, and a minimum of 1" wide, color as selected from submitted samples.

2.05 STAIR TREADS (ST)

Provide vinyl or rubber stair treads complying with FS-RR-T-650 and a flame spread rating of 25 or less.

Rubber stair treads with matching stringer materials shall not be less than 1/8" thick and taper to 3/16" thick at the nosing, smooth surface type, square nosed and with abrasive safety inserts similar to Design No. 555 and manufactured by The R.C.A. Rubber Company.

The top of the stair tread shall be installed flush with the adjacent floor tile.

2.06 ADHESIVES

Adhesives for installing floor tile, stair treads, base and edge strips shall be as recommended by the flooring material manufacturer.

2.07 BASE ACCESSORIES

Base accessories such as 3/4" radius cove supports and preformed aluminum capstrips shall be furnished as required.

2.08 CLEANING AND WAXING

It shall be the responsibility of this Subcontractor to have the finished resilient floors cleaned and waxed not sooner than five days following installation. Clean with a neutral cleaner, rinse, dry thoroughly and apply one coat of high grade water emulsion wax. The floor shall be protected with building paper or traffic controlled as necessary. Immediately prior to final inspection (not less than forty-eight hours after first waxing), dry or damp mop floors and apply one coat of water emulsion wax as stated above, then buff with power machine to an even luster after each coat of wax.

2.09 FILLER OR UNDERLAYMENT (If required)

Trowel type filler or underlayment shall be a factory prepared cementitious material equal to floorstone underlayment as manufactured by Tamms Industries.

2.10 RESILIENT FLOORING FOR REMODEL WORK

Existing floors shall be reviewed for irregularities or other imperfections, and if required, shall be filled and leveled with a trowelled type underlayment.

Resilient flooring in the existing buildings shall be patched and matched where cut, damaged, or altered by any construction work, unless noted or scheduled to be replaced with new material.

3.0 EXECUTION

3.01 INSPECTION

The Subcontractor shall be responsible for preparing all existing surfaces that are to receive his materials in such a manner that these surfaces have been properly conditioned or repaired (filling of cracks, holes or voids; removal of oil, paint, wax, lumps or ridges) to provide a smooth unbroken surface, so that no defects will show through the resilient flooring material. All existing floor conditioning or preparation shall be in accordance with the resilient flooring manufacturer's latest printed recommendations.

The Contractor shall inspect all new surfaces which are to receive his materials, and shall notify the Contractor of any defects found in same. Starting of the work by the Contractor will imply his approval of the work of others.

3.02 COOPERATION

It is intended to give the Composition Tile Floor Contractor unobstructed use of areas specified for the installation of his work. He shall cooperate with other trades so as to avoid delaying the completion of the project.

3.03 WORKMANSHIP

All resilient flooring shall be accomplished with mechanics thoroughly skilled in the application of specified materials with all workmanship to be of the very best, and shall be done in such a manner as to fulfill the requirements of the Drawings and Specifications. Any specific directions furnished by the manufacturer regarding the installation of his materials shall be faithfully followed.

Maintain reference markers, holes, or openings that are in place or plainly marked for future cutting by repeating on the finish tile as marked on the subfloor. Use chalk or other nonpermanent marking devices.

3.04 INSTALLATION

Installation of resilient flooring shall meet the applicable requirements of the RFCI "Recommended Installation Specifications" previously cited.

Layout pattern in advance, square with axis of room, such that border tile are greater than one-half tile in width. All resilient flooring material used shall be from the same factory run. Shuffle tile to mix variations in mottling from the box to prevent uneven floor color from one area to another. Unmatched materials will be rejected and shall be reinstalled to the Owner's satisfaction with no additional expense. Lay with uniform tight joints in perfect alignment. Scribe and fit tile carefully and accurately at all obstructions, edging strips or intersections. Resilient tile shall extend under all demountable type partitions, thresholds, freestanding cabinetwork, floor mounted toilet compartments, radiation convention (fin tube) units and all other furniture and equipment unless otherwise indicated.

Resilient floor adhesive shall be applied in a thin film and spread evenly with a trowel of the type recommended by the tile manufacturer. If a notched trowel is used, notches shall be 1/16" deep or 3/16" centers and shall be renewed periodically, depending on wear on the trowel. Do not use excess cement and immediately remove any surplus which appears as material is worked into position.

3.0 EXECUTION (continued)

3.04 INSTALLATION (continued)

Roll all surfaces within one-half hour after laying to remove trapped air and insure equal bonding.

Resilient flooring material is required under permanently installed base cabinets and similar items. Flooring shall be installed wherever knee holes and open areas occur under counters and desks.

The base shall be set with tight butt joints, and throughout its entire length, the base shall have its top and bottom edges in firm contact with walls and floors. The base shall be installed on all fixed cabinet bases, freestanding columns, and similar items in rooms scheduled to have base. Apply the base on wood and metal cabinets after the cabinets are in place.

Flash cove flooring up walls, as indicated or noted on the Drawings, over solid backing, adhere tightly to wall and floor surfaces, terminate at top with capstrip.

Before application, all traces of packing powder shall be removed from the adhesive applied side of the base.

Rubber stair treads shall be applied in full width of stairs, and the depth of each tread closely fitted and scribed on all sides without voids or irregularities. The top tread at the floor and intermediate landings shall have a rubber nosing to match the tread. Sheet vinyl on risers, stringers and similar areas shall be laid in mastic cement conforming to the manufacturer's standard practice by mechanics skilled in handling and laying of this material. All joints or seams, if required, shall be kept to a minimum.

Install reducer strips at unprotected or exposed edges where flooring terminates.

3.05 EXTRA TILE

Upon completion of the tile installation, the Contractor shall leave one full carton of color and pattern of tile used on the project for use in patching. Store extra tile where indicated by the Owner's representative.

3.06 CLEAN UP

This Contractor shall remove from the site, all excess materials and debris that results from his portion of the work.

Remove excess adhesive from floor, base and wall surfaces without damage, while adhesive is still wet.

Clean floor and base surfaces in accordance with the manufacturer's instructions.

4.0 GUARANTEE

4.01 GENERAL

The Subcontractor shall guarantee his work against faulty materials and workmanship (and from faulty design or detail if within his control) for a period of one year from date of occupancy or substantial completion of the entire project.

The material manufacturers shall warrant their products are free from defects in materials and workmanship for a period of one year.

End of Section

DIVISION 09 - FINISHES

SECTION 09900 - PAINTING

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

The work under this Section consists of all labor, materials, tools, equipment, transportation and shop service, as required for all interior and exterior painting, as described herein, and for all interior and exterior surfaces not specifically mentioned herein, but shown on the Drawings, and as called for in the Room Finish Schedule.

This Contractor shall note that a full, complete job of painting work is required, which shall include the preparations required to make the various surfaces ready for coatings, the application of primers, sealers, stains, oil, alkyd, latex, polyurethane, epoxy and enamels on all surfaces as set forth in the Schedule of Painting and all other surfaces described herein. Included in the above are concrete, concrete masonry units, plaster, drywall, all ferrous metals, both plain and galvanized, insulation for piping and ductwork. This Contractor shall further note that where an item, material or surface is specified to be coated, it shall mean that all parts exposed in the finished construction shall be prepared and painted as specified.

In addition to the above, this Contractor shall thoroughly examine the Drawings and each *Division of the Specifications* so as to determine the full extent of the work to be performed and to note all items that will be factory finished, prime coated or painted under other trade divisions. This Contractor shall visit the site, examine the surfaces and make his own estimate of the extent of the work. No claim for additional compensation will be allowed that is based on this Contractor's failure to observe any condition existing at the time of his visit to the site.

By submitting a Bid, this Contractor confirms that he has inspected all the applicable Drawings and Specifications and understands all conditions pertaining to this work and the proper application of materials specified for it.

Coding, banding, labeling and identification of piping shall not be included.

1.03 SURFACES NOT TO BE PAINTED

Surfaces not to be painted shall be as follows:

- a. Concrete floors, concrete stairs and the cement fill of steel stair tread pans and landings.
- b. Aluminum, copper, bronze, stainless steel, brass and other similar metals not normally painted.

1.0 GENERAL CONDITIONS (continued)

1.03 SURFACES NOT TO BE PAINTED (continued)

- c. Painting of signs and lettering of any kind is excluded, unless specifically called for under Item 4.0 - SCHEDULE OF PAINTING.
- d. Baked enamel partitions, doors, frames, rails, metal siding, prefinished doors, plastic laminate and similar items recognized as being factory prefinished.
- e. Equipment, furnishings, partitions, etc., which are factory finished.
- f. Finish hardware, except door closers which shall be painted to match the door frame and hardware that is factory primed.

The painting of all finish hardware including knobs, roses, strike plates, push plates, kickplates, holders and all other builders hardware is prohibited, and this Contractor shall furnish all protections required to preserve the hardware from spotting, smears and any other marring or defacement due to his operations. *Door closers shall be painted in with the hollow metal door or frame surface.*

1.04 STORAGE OF MATERIALS

This Subcontractor shall store all materials, tools and accessories in a room or area as agreed upon with the Contractor and subject to the approval of the Owner. The room or area shall be accessible at all times to the Owner's representative for inspection purposes. It shall be maintained by this Subcontractor, in a neat and orderly manner and no benzene, oily rags, waste or other flammable materials shall be kept in it at any time. All paints shall be covered with tight fitting covers while within the storage area. This Subcontractor shall provide a 10 pound carbon dioxide fire extinguisher in the paint storage room or designated area.

1.05 SCAFFOLDS, EQUIPMENT, ETC.

This Subcontractor shall provide all scaffolding, staging, ladders, lifts, etc., required for the proper execution of the work. Such equipment shall be so placed as not to unduly interfere with the work of others. He shall also supply all brushes, rollers, scrapers, sandpaper and other required tools necessary for the completion of the work within the period stated in his proposal. All equipment shall be of sound, serviceable quality, suitable for each purpose, as required.

1.06 PROTECTION

This Subcontractor shall furnish all protections necessary to protect all surfaces that are not designated to be painted, from spotting, spatters, smears, etc. This Subcontractor shall provide and use ample quantities of drop cloths to protect all areas of floors, walls, windows, and all other work and equipment from damage and defacement. All equipment including that which is crated, awaiting installation or installed shall be completely covered during the work under this Contract. Lighting fixtures shall be fully protected. When painting surfaces adjacent to aluminum surfaces and all prefinished surfaces, special protections, masking, etc., shall be used to prevent soiling or defacement.

1.0 GENERAL CONDITIONS (continued)

1.06 PROTECTION (continued)

This Subcontractor shall be held responsible for all damage caused by or resulting from his operations and shall, at his own expense, repair or replace work so damaged, promptly and to the complete satisfaction of the Owner.

If any volatile and/or toxic thinners or materials are used during the work, this Subcontractor shall arrange to properly ventilate the areas of work and shall furnish any special protections required that may be required by the Owner's representative.

1.07 CONTRACTOR'S RESPONSIBILITY

This Subcontractor shall make a thorough examination of all surfaces that are to receive preparation and painting work, prior to the start of his work on the surfaces. If this Subcontractor finds that any surface, in his opinion, is in improper condition to receive the required work, he shall immediately report the condition found to the Contractor and shall not perform any work on the surface until he has received directions from the Contractor.

The application of any material on any surface by this Subcontractor shall signify this Subcontractor's acceptance of the surfaces as proper for his work and thereafter this Subcontractor shall be fully responsible for satisfactory work as required herein.

1.08 PREPARATION OF SURFACES

This Subcontractor shall be held responsible for the finished appearance and satisfactory completion of his work and therefore, *he shall not commence any painting until the surfaces to be painted are in a proper condition in every respect.*

All surfaces shall be clean, free of dirt, grease, oil and any other foreign matter that would adversely affect the finished appearance or protective properties of the paint applied. If for any reason the surface cannot be properly prepared by customary cleaning, sanding, or puttying operations, the condition shall be promptly reported to the Contractor or assume the responsibility for, and rectifying of any unsatisfactory finish resulting.

Do all spackling, patching, putty stopping of surfaces and sand smooth as required for first class work before start of painting. Defects which appear after priming or undercoating shall be corrected before final coat is applied, using materials that will not impair the gloss, color or coverage of the final coat.

All concrete surfaces shall be prepared by cleaning and spackling to provide surfaces free from voids, rough spots or other objectionable features. Spalls, broken or chipped edges need not be squared out, but shall be smoothed by rubbing on an applied light patching that will permanently adhere to the concrete. Small holes which may be completely bridged by the painting materials and other minor defects of like nature may be excluded from spackling in preparation. Where holes cannot be bridged by the painting materials, due to the condition of the surface, the Subcontractor shall immediately notify the Contractor and shall not proceed with the work until he has received approval from the Contractor.

Arrange with the Contractor to provide for the proper ventilation during the work and make certain that temperatures and atmospheric conditions are proper within the areas during the performance of the work.

1.0 GENERAL CONDITIONS (continued)

1.09 SPECIAL SURFACE PREPARATIONS

a. Ferrous Metal Surfaces

The surfaces of all steel and iron shall first be cleaned and inspected by the Painting Contractor to ensure that all weld splatter, weld slag, grease, oil and other foreign materials have been removed. Final surface preparation shall be outlined in the Steel Structures Painting Council's Surface Preparation Specifications (SSPC-SP).

Review erected structural steel for surfaces where the shop primer may have been omitted, or for the build up of mud and dirt, for labels and piece mark numbers, where field welding was performed and shop primer was disrupted. These surfaces shall receive one coat of the specified primer after the appropriate surface preparations have been completed.

Shop primer coats that have been ruptured or marred shall be hand tool cleaned per SSPC-SP2 to bare metal and reprimed with the specified primer.

b. Galvanized Metal Surfaces

Remove dirt and grease thoroughly with VM&P Naptha and etch with a solution of Chemical Phosphoric metal etch or appropriate galvanized metal primer and allow to dry.

c. Wood (Painted)

Clean wood surfaces to be painted, of all dirt, oil or other foreign substances with scrapers, VM&P Naptha and sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view and dust off. Scrape and clean small, dry seasoned knots and apply a thin coat of white shellac or other approved sealer, before application of priming coat. After priming, fill holes, cracks, open joints and imperfections in finish surfaces with putty or plastic wood filler. Sandpaper smooth when dried.

Prime, stain or seal wood required to be job painted immediately upon delivery to the job. Prime edges, ends, face undersides and backsides of such wood, including cabinets, counters, cases, paneling, etc. When transparent finish is required, use spar varnish for backpriming.

d. Existing Surfaces

Existing walls, ceilings or other surfaces which have been cut, patched, marred or added to in the demolition or remodeling process, shall have all previously painted surfaces repainted with one coat of paint completely and the new painting work shall extend in all directions to the first corner or break in the surface and shall match adjoining surfaces in finish and color regardless whether the walls or ceilings have been scheduled to be painted or not. The previously painted surfaces shall be prepared and put in a condition to provide good adhesion and to receive paint.

1.0 GENERAL CONDITIONS (continued)

1.10 Gypsum Drywall

All taped joints, joint compound, nail and/or screw head sets and filled dimples shall be sanded smooth and the entire wall and/or ceiling surface shall be dusted. Care shall be exercised during the sanding operation to avoid raising the nap of the paper surface.

This Subcontractor shall apply a thin skim coat of joint compound to the entire surface of the erected gypsum drywall. Caution should be taken to eliminate laps or tool marks in the skim coating operation. The entire wall or ceiling surface should be lightly sanded or sponged as required to assure a smooth and even surface.

1.11 EXTRAS

No payment by the Owner for work over the amount agreed upon in the awarding of this Contract will be allowed this Subcontractor unless authorized by the Architect, in writing.

1.12 SUBMITTAL DATA

This Subcontractor shall submit a typewritten list of the paint materials he intends to apply. This submittal data shall include the surfaces to be painted, product names, numbers and catalog data sheets.

1.13 COOPERATION WITH OTHER TRADES

This Subcontractor 's work shall be scheduled and coordinated with other trades and shall not proceed until other work and/or job conditions are as required to achieve satisfactory results.

2.0 MATERIALS

2.01 QUALITY ASSURANCE

Estimates shall be based on using materials as manufactured by one of the acceptable material manufacturers.

Any exceptions or variations must be requested by this Contractor, in writing, to the Architect prior to the award of the Contract.

All paint materials must be delivered to the job in the manufacturer's original sealed containers and bearing its label.

All thinners shall be as approved or recommended by the paint manufacturer and bearing identifying labels.

Colors for all coats shall be as selected or approved by the Owner with duplicates supplied to this Subcontractor. Colors which may appear in the Color Schedule are subject to the review and revision by the Owner.

2.0 MATERIALS (continued)

2.01 QUALITY ASSURANCE (continued)

The Architect shall be allowed the right to take representative samples of any materials the Painting Contractor brings on the job and have it tested by an approved testing laboratory to verify that the materials conform to the Specifications. The cost of tests, if the materials do not conform to the Specifications, shall be paid for by the Painting Contractor. If materials do conform to the Specifications, the cost of these tests will be paid by the Owner.

2.02 ACCEPTABLE MANUFACTURERS

Paint shall be of the quality established in the Materials Section and the Schedule of Painting, manufactured by Glidden, Sherwin Williams Co., Pratt and Lambert Paints, Pittsburgh Industries, Dean and Barry or Architect approved equal.

2.03 SAMPLES

On projects where gypsum drywall surfaces are scheduled to be painted, this Subcontractor shall finish a sample area of 96 square feet minimum for approval of the finish and texture by the Architect.

3.0 APPLICATION AND WORKMANSHIP

3.01 WORKMANSHIP

All materials shall be applied and cut in neatly so as to dry uniformly to the color and sheen specified, free from runs, sags, wrinkles, shiners, streaks and brush marks.

All materials shall be applied in accordance with the manufacturer's directions as printed on the container and any thinning required shall be done in the manner and exclusively with the type of reducer recommended.

Vary each coat of paint in shade from the preceding coat in a manner that will make each coat distinguishable without affecting finish color. Touch up all blemishes.

In enclosed spaces, application and drying of paint shall be performed only under the following conditions:

- a. When temperature is 65°F or above, maintain constantly to prevent condensation.
- b. When ventilation is adequate to maintain humidity lower than the dew point of the coldest wall.

No exterior painting shall be undertaken when surface or air temperatures are under 50°F or immediately following rain, frost or dew. Safe levels for painting shall be determined by the use of an electronic moisture meter.

The areas in which this Subcontractor has been conducting his work shall be left in a clean and orderly condition with all paint spots, rags and discarded equipment removed.

3.0 APPLICATION AND WORKMANSHIP (continued)

3.02 APPLICATION

Enamels shall be made to flow on smoothly, to a uniform finish, free from blemish. Defects affecting either the appearance or serviceability of the coatings will be rejected and shall be promptly repaired by this Subcontractor, at no expense to the Owner.

Only thoroughly skilled mechanics shall be employed for this work by this Subcontractor and all workmanship shall be first class in every respect.

Protective materials shall not be removed until all work in each affected area has been completed. This includes areas adjacent to areas where painting is in progress.

This Subcontractor's work shall be subject to the approval of the Owner's representative before acceptance, and any surface or area that is rejected shall be made good to the Owner's satisfaction before approval.

Do not use the same tools for application of paint on smooth surfaces that were originally used to paint concrete block.

All priming coats and undercoats shall be tinted to the approximate shade of the final coat.

Remove electrical panel box covers, fixtures, surface hardware and doors before painting the wall surface. Paint separately and reinstall after all paint is dry. Upon completion of each space, carefully replace all removed items.

All coats shall be thoroughly dry before applying succeeding coats.

Exterior doors shall have tops, bottoms and side edges finish painted the same as the exterior face of these doors. Change colors at the doorstops or cornerstop or other locations where colors differ between adjoining spaces or rooms and where door frames match wall colors.

Interior wood doors shall be sealed on the tops and bottoms. Side edges of interior doors shall be finished at faces of these doors.

Paint interior surfaces of ducts, where visible through registers or grilles, with a flat nonspecular black paint. Consult the Mechanical Drawings for locations.

4.0 SCHEDULE OF PAINTING

4.01 PAINTED SURFACES

The following surface types are to be used as a guide in determining the painting requirements in the building and do not necessarily reflect the exact extent of the surface types to be painted.

In all cases, where the surface to be painted is delivered to the job site with a prime or shop coat of paint, the field prime coat may be omitted and a "touch-up" coat only applied prior to the finish coat of paint, unless specified otherwise.

4.0 SCHEDULE OF PAINTING (continued)

4.01 PAINTED SURFACES (continued)

In these Specifications, no attempt is made to enumerate or describe each item required, but simply to indicate the principal parts and to describe the general finishing and certain special items which are to apply. Any work that is normally painted, but not specifically mentioned herein, shall be finished the same as herein specified for other similar items. Generally, the surfaces to be finished are as follows, unless specifically excluded by the Room Finish Schedule.

a. Exterior

1. Doors and Frames
2. Existing Surfaces of wood sheds.

b. Interior

1. Plaster and Gypsum Drywall Surfaces
2. Hollow Metal Doors, Frames and Exposed Linels

4.02 SURFACES

The number of coats specified that all finish coats must cover is minimum.

a. Metal Doors and Frames

One coat Rust Inhibitive Metal Primer (1.6 mil dry)
Two coats Alkyd Industrial Gloss Enamel (2.0 mil dry)
or
High Performance Acrylic Coating

b. Wood - Exterior Painted

One coat Exterior Alkyd Prime Coat (2.2 mil dry)
Two coats Alkyd Industrial Enamel (2.0 mil dry)

c. Drywall Ceilings

One coat PVA Primer Sealer (1.0 mil dry)
Two coats Latex Flat (3.0 mil dry)

d. Drywall - Paint Type 1

One coat PVA Primer Sealer (1.0 mil dry)
Minimum of two coats Satin (3.0 mil dry)

4.0 SCHEDULE OF PAINTING (continued)

4.03 GENERAL PAINTING REQUIREMENTS

a. Exterior

Paint all unfinished exposed surfaces of doors, door frames, galvanized metal, wood and plywood.

4.04 GUARANTEE

This Subcontractor shall furnish a written guarantee to the Owner, to make good, at this Subcontractor's sole expense, all defects that develop in one year in all materials that he furnishes. This Subcontractor shall also guarantee to make good all defects in workmanship that may be discovered during the guarantee period.

4.05 CLEAN UP

Upon completion, this Subcontractor shall remove all excess Contractor purchased materials, equipment, tools and all debris due to his work from the premises and leave all areas broom clean or a satisfactory equivalent.

Upon completion of the work under this Section, furnish to the Architect a neatly typed list of the paints used in finishing, giving location, manufacturer, supplier, type and color.

End of Section