# PROJECT MANUAL

**FOR** 

PROPOSED ADDITIONS AND IMPROVEMENTS TO

# HINDU COMMUNITY AND CULTURAL CENTER

1200 & 1232 Arrowhead Avenue Livermore, CA 94551

**CONTACT: B.R. GOVINDARAO S.E.** 

**Engineer of Record** 

October 2010

# **DOCUMENT 00010**

# **TABLE OF CONTENTS**

# PROJECT MANUAL INTRODUCTORY INFORMATION

Document	00001	Project Title Page
	00010	Table of Contents
	00011	Instruction to Bidders
	00012	Bid Breakdown Form

# **CONTRACTING REQUIREMENTS**

Document	00700	General Conditions (AIA A201-2007)
	00800	Supplementary Conditions

#### **SPECIFICATIONS**

# **DIVISION 1 GENERAL REQUIREMENTS**

Section	01110	Scope of Work
	01230	Alternates
	01300	Administrative Requirements
	01310	Project Management and Coordination
	01400	Quality Requirements
	01500	Temporary Facilities and Controls
	01600	Product Requirements
	01630	Product Substitution Procedures
	01700	Execution Requirements
	01730	Cutting and Patching
	01735	Selective Demolition for Remodeling
	01770	Closeout Procedures

# **DIVISION 2 TO DIVISION 10**

Refer to Drawing Sheets for specifications.

# **DIVISION 11 EQUIPMENT**

Kitchen Equipments as indicated on Sht. K-1 & K-2 Owner furnished Contractor installed including co-ordination with Kitchen Hood Manufacturer/Installer.

# **DIVISION 12 FURNISHINGS**

Not used.

# **DIVISION 13 SPECIAL CONSTRUCTION**

Not used.

# **DIVISION 14 CONVEYING SYSTEMS**

Not used.

# **DIVISION 15 MECHANICAL**

For Building B Addition: Specifications on Drawings.

For Building C: Specifications attached.

# **DIVISION 16 ELECTRICAL**

Specifications attached for Building B & C.

# **END OF DOCUMENT**

# **DOCUMENT 00011**

# **INSTRUCTION TO BIDDERS**

# 1 BID SUBMITTAL

- A. Bids shall be prepared and submitted in accordance with AIA A701, Instruction to Bidders
- B. Bidders shall submit a list of major subcontractors in accordance with AIA G705, List of Subcontractors
- C. Bid prices shall be submitted using the template provided in the Bid Breakdown Form, Section 00011, attached.

# **END OF DOCUMENT**

# DOCUMENT 00012

# **BID BREAKDOWN FORM**

Bid Breakdown:		
Description		Amount
Site Work		
Landscape		
Concrete		
Masonry		
Structural & Misc. Steel		
Rough Carpentry		
Finish Carpentry		
Granite tops & shwr. surrounds		
Roofing: Built up		
EPDM		
Flashing & sheet metal		
Insulation		
Caulking & Sealants		
Windows		
Glass & Glazing		
Door, Frames & Hardware		
Lath & Plaster		
Drywall Assemblies		
Acoustical Ceiling		
Paint		
Ceramic tile		
Specialties		
Toilet Accessories		
HVAC		
Fire Sprinkler System		
Plumbing		
Electrical		
Fire Alarm		
Signage		_
	Sub	total:
General Conditions		
General Liability Insurance	0./	
G. Contractor's Fee, Overhead & Profit	_%	

Performance Bond

**Total Contract Amount:** 

# **DOCUMENT 00700**

# **GENERAL CONDITIONS**

# 1 GENERAL CONDITIONS

A. The General Conditions of the Contract for Construction, AIA Document A201, 2007 Edition, is a part of this Contract, and is incorporated herein as fully as if here set forth.

# 2 CONTRACT

A. It is the intent of the Owner to use AIA A101. Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum.

# **END OF DOCUMENT**

#### **DOCUMENT 00800**

#### SUPPLEMENTARY CONDITIONS

#### 1.1 REFERENCE TO DIVISION 1 - GENERAL REQUIREMENTS

- A. Where provisions of General Conditions relate to Project administration or work-related requirements of the Contract, those paragraphs are expanded in Division 1 General Requirements of the Specifications.
- B. General Conditions, Supplementary Conditions and Division 1 General Requirements contain information necessary for completion of every part of Project.
  - 1. Where items of Work are done under subcontracts, each item shall be subject to these conditions.

#### 1.2 SUPPLEMENTS

- A. The following supplements modify, change, delete from or add to General Conditions of the Contract as indicated in Section 00700 General Conditions.
- B. Where any part of the General Conditions is modified or deleted by these supplements, unaltered provisions of the modified article, paragraph, subparagraph or clause shall remain in effect.
- C. General: The Term "Architect" used throughout the AIA A201 shall refer to the Project Engineer of Record (hereinafter "EOR").

#### **ARTICLE 1: CONTRACT DOCUMENTS**

**ADD** to 1.1 the following definitions:

- 1.1.8 **Approved**: The terms approved, directed, selected, required, ordered, designated, accepted, acceptable and satisfactory shall require written action by EOR.
- 1.1.9 **Equal, or Approved Equal:** The terms equal or approved equal shall require requests for substitutions for products or manufacturers not specified; requests for substitutions shall be in accordance with requirements of Section 01630 Product Substitution Procedures.
- 1.1.10 **Furnish:** The term furnish means supply and deliver to Project, unless otherwise defined in greater detail.
- 1.1.11 **Install:** The term install is used to describe operations at Project, from inspecting and unloading, to completion in place, ready for intended use.
- 1.1.12 **Provide:** The term provide means furnish and install, complete and ready for intended use, unless otherwise defined in greater detail.

#### **ARTICLE 2: OWNER**

**DELETE** Subparagraph 2.2.5 in its entirety and substitute the following:

2.2.5 **Copies of Contract Documents:** Contractor will be furnished a reasonable number of copies of Drawings and Project Manuals, along with a set of electronic copies.

# **ARTICLE 3: CONTRACTOR**

**ADD** the following to Subparagraph 3.4.2:

3.4.2.1 **Substitutions:** After Contract has been executed, the Owner and EOR will consider formal requests for substitution of products in place of those specified only under conditions set forth in Section 01630 - Product Substitution Procedures.

#### **ARTICLE 5: SUBCONTRACTS**

**ADD** the following to Paragraph 5.3:

5.3.2 **Materials Suppliers:** For purposes of this Contract materials suppliers shall be considered a Subcontractor regardless of whether or not they perform their portion of the Work at the site. Do not agree that material suppliers should be considered as Subcontractors.

#### **ARTICLE 9: PAYMENTS AND COMPLETION**

**ADD** the following to 9.3.2.

9.3.2.1 **Stored Materials:** Payments for materials stored off-site will be made, subject to Owner's approval, if Contractor provides invoice, lien release, certificate of insurance covering stored materials, and stores material in approved, bonded warehouse. Such payments should be limited to no more than 75% of each invoice.

#### ARTICLE 11: INSURANCE AND BONDS

**ADD** the following to Subparagraph 11.1.2:

11.1.2.1 **Insurance Amounts:** Amount of insurance shall be as approved by Owner. When additional insurance is required, Owner reserves right to negotiate difference in cost directly with Contractor's Insurance Carrier. Insurance requirement amounts must be listed herein if not listed elsewhere.

**ADD** the following to 11.1.3:

- 11.1.3.1 **Certificate of Insurance:** Furnish one copy of each Certificate of Insurance required for each copy of Agreement. Owner should be listed as insured.
- 11.1.3.1.1 Form of certificate shall be an approved certificate which specifically sets forth evidence of all coverage required.
- 11.1.3.1.2 Furnish to Owner copies of any endorsements subsequently issued amending coverage or limits.
- 11.1.3.2 Upon receipt of any notice of cancellation or alteration, Contractor shall, within five days, procure other policies of insurance similar in all respects to policy or policies about to be canceled or altered.
- 11.1.3.2.1 If Contractor fails to provide acceptable policies of insurance, Owner may obtain such insurance at cost and expense of Contractor.

# **Modify** 11.4.1

11.4.1 Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

# **END OF DOCUMENT**

#### SUMMARY OF WORK

#### **PART 1 - GENERAL**

#### 1.1 SUMMARY

- A. Project involves Phase 1A, an addition to the existing building "B". The project also involves Phase 1B, Site development of adjacent lot (south of existing temple) as indicated on drawings including trash enclosure building, compost structure, connecting walkway structure in the north lot and demolition and refurbishing as called out or shown on drawings, construction of building "C" and entry walkway structure in the south lot of the Hindu Community and Cultural Center,1200 &1232 Arrowhead Avenue, Livermore, California 94551. Also included is curb and gutter improvements at Arrowhead Ave. and asphalt driveways to overflow parking lot at Eastside of Arrowhead Ave.
  - 1. Items noted "NIC" (Not In Contract) will be furnished and installed by the Owner or under separate contract.
    - a. Hazardous Materials Removal: Known hazardous materials will be removed under separate contract (NIC); inform Owner immediately where materials suspected of being hazardous are encountered.
  - 2. All kitchen appliances will be furnished by the Owner and installed by the Contractor.
  - 3. Owner reserves right to remove and retain possession of existing items prior to start of Contract.

# 1.2 REQUIREMENTS INCLUDED

- A. This section includes administrative provisions:
  - 1. Work sequence.
  - 2. Contractor use of premises.
  - 3. Building occupancy.
  - 4. Lines and levels.
  - 5. Regulatory requirements and reference standards.

#### 1.3 WORK SEQUENCE

- A. Coordinate construction schedule and operations with the EOR.
  - Construction work to accommodate building occupancy requirements during construction period.
- B. Perform construction in phases as directed by the Owner.

C. All work on Phase 1B & driveways to East lot to be completed before any work can start on phase 1A. All work on new addition of Building B in phase 1A to be completed before any work on existing portion of Building B work can start.

# 1.4 CONTRACTOR USE OF PREMISES

- A. Limit use of premises for work and construction operations to allow for:
  - 1. Building occupancy.
  - 2. Work by other contractors.
  - 3. Authorized access.
  - 4. Public access to public areas.
- B. Coordinate use of premises and access to site under direction of the EOR.

#### 1.5 BUILDING OCCUPANCY

A. Building will be occupied during construction for conduct of normal operations; cooperate with the EOR to minimize conflict and to facilitate building operations.

#### 1.6 LINES AND LEVELS

A. Establish lines and levels by use of recognized engineering practices.

# 1.7 REGULATORY REQUIREMENTS AND REFERENCE STANDARDS

- A. Regulatory Requirements:
  - 1. EOR has reviewed design requirements of local, state and federal agencies for applicability to Project.
  - 2. Contractor shall be responsible for contacting governing authorities directly for necessary information and decisions bearing upon performance of Work.

# B. Reference Standards:

- For Products specified by association or trade standards, comply with requirements of referenced standard, except when more rigid requirements are specified or are required by applicable codes.
- 2. Applicable date of each standard is that in effect as of date on proposal or date on Contract where no proposal is available, except when a specific date is specified.

#### **ALTERNATES**

#### **PART 1 - GENERAL**

# 1.1 SUMMARY

- A. This section includes a description of alternate work.
- B. Related Requirements:
  - 1. Pricing Documents: Quotation of cost of each alternate.
  - 2. Owner-Contractor Agreement: Alternates accepted by Owner for incorporation into the Work.
  - 3. Sections of Specifications identified in each Alternate.

# 1.2 PROCEDURES

- A. Alternates will be exercised at EOR's option.
- B. Coordinate Related Work: and modify surrounding work as required to complete Work, including changes under each alternate, when acceptance is designated in Owner-Contractor Agreement.

# 1.3 ALTERNATES

Not Applicable.

**END OF SECTION** 

01230 - 1 Alternates

#### **ADMINISTRATIVE REQUIREMENTS**

#### **PART 1 - GENERAL**

# 1.1 SUMMARY

- A. This section describes general procedural requirements for ongoing submittals.
- B. Related Requirements:
  - Section 01630: Product substitution request procedures. There must be a time limit stated for cut-off of all substitutions and a statement requiring that the Contractor is to be responsible for all costs and no delays will be forthcoming relative to substitutions. This has no bearing on products found to no longer be available, etc.
  - 2. Section 01770: Closeout requirements including Project Record Documents.

#### 1.2 PROCEDURES

- A. Submittals: Transmit each item under form acceptable to EOR.
  - 1. Identify Project, Contractor, subcontractor, major supplier.
    - a. Date and attach sequential identification number for each new submittal.
    - b. Identify each resubmittal using original submittal number and sequential identification clearly indicating item is resubmitted.
  - 2. Identify pertinent Drawing sheet and detail number, and Specification section number as appropriate.
  - 3. Identify deviations from Contract Documents.
  - 4. Provide space for Contractor and EOR review stamps.
  - Contractor: Review and stamp submittals from subcontractors prior to submitting to EOR. Review submittals and indicate where conflicts occur with Contract Documents and with work of other subcontractors.
- B. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.
- C. After EOR review of submittal, revise and resubmit as required, identify changes made since previous submittal.
- D. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply.

# 1.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit construction progress schedule with separate item for each major trade and operation, identifying first day of each week.
- B. Progress Schedule Format: Horizontal bar chart as approved. This form of scheduling is OK, but not much compatible with a Schedule of Values.

# 1.4 SCHEDULE OF VALUES

- A. Submit typed schedule on AIA Form G703 or another approved 8-1/2" by 11" paper format; Contractor's standard media-driven printout will be considered on request. Submit within 15 days after award of Contract.
- B. Format: Table of Contents of this Project Manual, identify each line item with number and title of major Specification sections.

#### 1.5 SHOP DRAWINGS

- A. Submit three reproducible prints; minimum sheet size 8-1/2" by 11". All Shop Drawings shall be accompanied by a licensed stamp of the submitter. No substantial changes to the Contract Plans and Specs will be allowed.
- B. After review, reproduce and distribute.

#### 1.6 PRODUCT DATA/MANUFACTURERS' LITERATURE

- A. Mark each copy to identify applicable Products, models, options, and other data; supplement manufacturers' standard data to provide information unique to the Work.
- B. Include manufacturers' installation instructions only when required by Specifications or specifically requested by EOR.
  - 1. Maintain copy of manufacturer installation instructions and recommendations in Contractor's field office for review.
- C. Submit number of copies Contractor requires, plus one copy to be retained by EOR.

#### 1.7 SAMPLES

- A. Submit full range of manufacturers' standard colors, textures, and patterns for EOR's selection.
- B. Submit samples to illustrate functional characteristics of Product, with integral parts and attachment devices.
- C. Coordinate submittal of different categories for interfacing work.
- D. Include identification on each sample, giving full information.
- E. Submit number of samples required by Contractor plus one to be retained by EOR.
  - 1. Maintain one set of approved samples at Project Field Office.

- F. Sizes: Provide following sizes unless otherwise specified.
  - 1. Flat or Sheet Products: Minimum 6" square, maximum 12" by 12".
  - 2. Linear Products: Minimum 6", maximum 12" long.
  - 3. Bulk Products: Minimum one pint, maximum one gallon.
- G. Full size samples may be used in the Work upon approval.

# 1.8 MANUFACTURERS' CERTIFICATES

A. Submit certificates, in duplicate in accordance with requirements of each Specification section.

#### PROJECT MANAGEMENT AND COORDINATION

#### **PART 1 - GENERAL**

# 1.1 SUMMARY

- A. Section Includes: Description of Project management and coordination.
- B. Related Sections:
  - 1. Section 01300: Administrative requirements.

# 1.2 COORDINATION

- A. Coordination: Coordinate construction operations included in various Specifications sections to ensure efficient and orderly installation of each part of Work.
  - 1. Coordinate construction operations that depend on each other for proper installation, connection, and operation.
  - 2. Coordinate work to assure efficient and orderly sequence of installation of construction elements.
  - Make provisions for accommodating items installed by Owner or under separate contracts.
- B. Prepare memoranda for distribution to each party involved as needed, outlining special procedures required for coordination.
  - 1. Include required notices, reports, and list of attendees at meetings; include EOR in distribution.
- C. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings.
  - 1. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated; coordinate locations of fixtures and outlets with finish elements.
- E. Administrative Procedures: Coordinate scheduling and timing of administrative procedures with other construction activities and activities of other contractors to avoid conflicts and ensure orderly progress of Work.

# 1.3 PROJECT MEETINGS

- A. Schedule and administer Project meetings throughout progress of Work:
  - 1. Pre-construction meeting.
  - 2. Progress meetings at weekly intervals.
  - 3. Pre-installation conferences.
  - 4. Coordination meetings.
  - 5. Special meetings.
- B. Weekly meetings will be held at existing Building B, prepare agenda with copies for participants, preside at meetings, record minutes and distribute copies within two days to EOR, participants, and those affected.
- C. Attendance: Project Manager, Job superintendent, major subcontractors and suppliers as appropriate to agenda along with EOR, reps of Temple Construction Committee and consultants
- D. Suggested Agenda: Review of Work progress, status of progress schedule and adjustments, delivery schedules, submittals, requests for information, maintenance of quality standards, pending changes and substitutions, and issues needing resolution.

# **SECTION 01400**

# **QUALITY REQUIREMENTS**

# **PART 1 - GENERAL**

- 1.1 SUMMARY
  - A. This section describes general quality control requirements.
- 1.2 QUALITY CONTROL, GENERAL
  - A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of best practices and quality.

#### TEMPORARY FACILITIES AND CONTROLS

#### **PART 1 - GENERAL**

#### 1.1 SUMMARY

- A. This section describes temporary construction facilities and temporary controls.
- B. Related Requirements:
  - 1. Section 01700: Progress cleaning and final cleaning.
- C. Provide temporary construction facilities and temporary controls as required to conform to applicable authorities and as required to complete Project in accordance with Contract Documents.
  - 1. Authorities: Contact EOR to establish extent of temporary facilities and temporary controls required by authorities.
  - 2. General Contractor: Contact EOR to establish extent of temporary facilities and temporary controls required by EOR.

#### 1.2 ELECTRICITY AND LIGHTING

- A. Provide electrical service required for construction operations, with branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords.
  - 1. Contractor will pay costs of energy used from existing on-site services unless otherwise directed by EOR.
- B. Provide lighting for construction operations.
  - 1. Permanent lighting may be used during construction; maintain lighting and make routine repairs.

#### 1.3 WATER AND SANITARY FACILITIES

- A. Provide water service required for construction operations; extend branch piping with outlets located so water is available by use of hoses.
  - Connection to existing facilities is permitted unless otherwise directed by EOR.
  - 2. Contractor will pay for water used from existing on-site services.
- B. Provide and maintain required sanitary facilities and enclosures.
  - 1. Existing facilities shall not be used unless otherwise directed by EOR.

#### 1.4 CONSTRUCTION AIDS

- A. Noise, Dust and Pollution Control: Provide materials and equipment necessary to comply with local requirements for noise, dust and pollution control.
- B. Fire Protection: Maintain on-site fire protection facilities as required by applicable authorities and insurance requirements.
- C. Use of Existing Facilities: Verify availability of existing facilities for construction operations with the Manager prior to beginning on-site construction.

# 1.5 CLEANING DURING CONSTRUCTION

- A. Control accumulation of waste materials and rubbish; recycle or dispose of off-site.
- B. Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.

#### 1.6 PROJECT IDENTIFICATION

A. Signs: Subject to approval by EOR.

#### 1.7 FIELD STORAGE

- A. Storage for Tools, Materials, and Equipment: Limit on-site storage to Project area; provide weather-tight storage, with heat and ventilation for products requiring controlled conditions.
  - 1. Maintain adequate space for organized storage and access.
  - 2. Provide lighting for inspection of stored materials.

# 1.8 SITE WASTE MANAGEMENT

- A. Site Waste Management: Comply with applicable regulations for diverting Project waste from landfill; aim for waste management goal of 50% or higher.
  - 1. Effect optimum control of solid wastes.
  - 2. Prevent environmental pollution and damage.
- B. Reports: Provide as required by applicable authorities.
- C. Recycling: Implement recycling program that includes separate collection of waste materials of types as applicable to Project; recycling program to be applied by Contractors and subcontractors.
- D. Handling: Keep materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to recycling process.
  - 1. Clean materials contaminated prior to placing in collection containers.

#### HINDU CULTURAL and CULTURAL CENTER

- 2. Arrange for collection by or delivery to appropriate recycling center or transfer station that accepts construction and demolition waste for purpose of recycling.
- E. Participate in Re-Use Programs: Rebates, tax credits, and other savings obtained for recycled or re-used materials shall accrue to Owner.

# 1.9 REMOVAL

- A. Remove temporary materials, equipment, services, and construction prior to Substantial Completion Inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities.
- C. Restore existing facilities used during construction to specified or original condition.

#### PRODUCT REQUIREMENTS

#### **PART 1 - GENERAL**

#### 1.1 SUMMARY

- A. This section describes basic product requirements governing material and equipment.
  - 1. General product requirements.
  - 2. Product list.
  - 3. Quality assurance.
  - 4. Delivery, storage, and handling.
- B. Related Requirements:
  - 1. Section 01300: Submittal of manufacturers' certificates.
  - 2. Section 01630: Product substitution procedures.
  - 3. Section 01770: Operation and maintenance data.

#### 1.2 GENERAL PRODUCTS REQUIREMENTS

- A. Products include material, equipment, and systems.
- B. Comply with Specifications, referenced standards, and applicable codes and regulations as minimum requirements.
- C. Provide new materials except as specifically allowed by Contract Documents.
- D. Materials to be supplied in quantity within a Specification section shall be by one manufacturer, shall be the same, and shall be interchangeable.
- E. Provide equipment and systems composed of materials from a single manufacturer except where otherwise recommended by equipment or systems manufacturer or where otherwise indicated in Contract Documents.

# 1.3 SUBMITTALS

- A. Product List: Prior to submittal of second Request for Payment, submit to EOR complete list of major products which are proposed for installation, with name of manufacturer, trade name, and model.
  - 1. Tabulate products by Specification number and title.
- B. Substitutions: Refer to Section 01630 Product Substitution Procedures.

# 1.4 QUALITY ASSURANCE

A. Comply with industry standards and applicable codes except when more restrictive tolerances or requirements indicate more rigid standards or precise workmanship.

- B. Perform work by persons qualified to produce workmanship of specified quality.
- C. Install products straight, true-to-line, and in correct relationship to adjacent materials, with hairline joints, free of rough, sharp and potentially hazardous edges.
- D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.
  - 1. Seismic Anchors: Conform to code requirements.

# 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Transport products by methods to avoid product damage, deliver in undamaged condition in manufacturer's unopened containers or packaging.
- B. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
- C. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- F. Arrange storage to provide access for inspection; periodically inspect to assure products are undamaged and are maintained under required conditions.
- G. Provide equipment and personnel to handle products by methods to prevent soiling and prevent damage.
- H. Promptly inspect shipments to assure products comply with requirements, quantities are correct, and products are undamaged.
- I. Immediately remove from Project products damaged, wet, stained, and products with mold and products with mildew.
  - 1. Take special care to prevent absorbent products such as gypsum board and acoustical ceiling units from becoming wet.

#### PRODUCT SUBSTITUTION PROCEDURES

#### **PART 1 - GENERAL**

# 1.1 SUMMARY

- A. Provide products listed in Contract Documents, products by manufacturers listed in Contract Documents, and products meeting specified requirements.
  - 1. Contract Amount: Base on materials and products included in Contract Documents.
    - a. Where listed in Contract Documents, materials and products by manufacturers not listed shall not be used without EOR's approval of Contractor's written request for substitution.
  - Purpose: Substitutions will only be considered where Owner will receive benefit or because specified materials are no longer available due to conditions beyond Contractor control.
    - a. Owner benefits either from a Contractor proposed reduction of the Contract amount or from a reduction in Contract time based on acceptance of proposed substitution.
    - b. List proposed cost or time reductions on request for substitution.
    - c. Requests not including a proposed cost or time reduction will not be considered unless Contractor submits supporting information indicating specified materials are not available.
- B. Procedures are described for requesting substitution of unlisted materials in lieu of materials named in Specifications or approved for use in addenda.

# 1.2 CONTRACTOR'S OPTIONS

- A. Products Identified by Reference Standards: Select product meeting referenced standard for products specified only by reference standard.
- B. Named Manufacturers and Named Products: Select products of any named manufacturer meeting Specifications for products specified by naming one or more products or manufacturers.
- C. Substitutions for Named Manufacturers and Named Products: Submit request for substitution for products and for manufacturers not specifically named where products or manufacturers are named in Specifications.
- D. "Or Equal" Clauses: Submit request for substitution for product or manufacturer not specifically named in Specifications where terms "or equal", "or approved equal", or similar references are made.

# 1.3 SUBSTITUTIONS

- A. Prior to submittal of second Request for Payment EOR will consider formal requests for substitutions from Contractor as specified in 1.1 Summary.
  - 1. EOR will consider only one request for substitution for each material; where requests are denied Contractor shall be required to provide specified materials.
  - 2. After payments begin, requests will be considered only when a product becomes unavailable through no fault of Contractor; more than one request for substitution will be considered if necessary.
- B. Submit each request with sequentially numbered "Substitution Request Transmittal" acceptable to EOR; submit separate request for each product and support each request with:
  - 1. Product identification with manufacturer's literature and samples where applicable.
  - Name and address of similar projects on which product has been used, and date of installation.
- C. Submit itemized comparison of proposed substitution with product specified and list significant variations.
- D. Submit data relating to changes in construction schedule.
- E. Note effect of substitution on other work, products, or separate contracts.
  - Note if acceptance of substitution could require revision of Contract Documents, Drawings, details or Specifications.
- F. Include accurate cost data comparing proposed substitution with product and amount of net change in Contract price.
  - Include costs to other contractors and costs for revisions to Drawings, details or Specifications.
- G. Substitutions will not be considered for acceptance when:
  - 1. They are indicated or implied on submittals without a formal request from Contractor.
  - 2. They are requested directly by a subcontractor or supplier.
  - 3. Acceptance will require substantial revision of Contract Documents.
- H. Substitute products shall not be ordered without written acceptance of Owner and EOR.
- I. Owner and EOR will determine acceptability of proposed substitutions and reserves right to reject proposals due to insufficient information.

# 1.4 CONTRACTOR'S REPRESENTATION

- A. Requests constitute a representation that Contractor:
  - Has investigated proposed product and determined it meets or exceeds, in all respects, specified product.
  - 2. Will provide same warranty or longer warranty for substitution as for specified product.
  - 3. Will coordinate installation and make other changes that may be required for Work to be complete in all respects.
  - 4. Waives claims for additional costs that subsequently become apparent.
  - 5. Will pay costs of changes to Contract Documents, Drawings, details and Specifications required by accepted substitutions.

# 1.5 EOR'S DUTIES

- A. Review Contractor's requests for substitutions with reasonable promptness.
  - 1. EOR will recommend that accept or reject substitution request.
  - 2. Upon request, EOR will provide cost for changes to Contract Documents, Drawings, details and Specifications required for substitutions.
- B. Notify Contractor in writing of decision to accept or reject requested substitution.

#### **EXECUTION REQUIREMENTS**

#### **PART 1 - GENERAL**

#### 1.1 SUMMARY

- A. This section describes execution requirements.
- B. Related Requirements:
  - 1. Section 01500: Cleaning during construction.
  - 2. Section 01770: Closeout procedures.

#### 1.2 INSTALLER QUALIFICATIONS

A. Experienced Installers: Installers to have minimum five years successful experience installing items similar to those required for Project, except for individuals in training under direct supervision of experienced installer.

#### 1.3 EXAMINATION

- A. Acceptance of Conditions: Beginning installation of a product signifies installer has examined substrates, areas, and conditions for compliance with manufacturer requirements for tolerances and other conditions affecting performance.
- B. Field Measurements: Take field measurements as required to fit Work properly; recheck measurements prior to installing each product.
  - Where portions of Work are to fit to other construction verify dimensions of other construction by field measurements before fabrication; allow for cutting and patching in order to avoid delaying Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

# 1.4 MANUFACTURERS' INSTRUCTIONS

- A. Manufacturer's Recommendations: When work is specified to comply with manufacturers' recommendations or instructions, distribute copies to persons involved and maintain one set in field office.
  - Conform to requirements specified in Section 01300 for submittal of recommendations or instructions to EOR; submit to EOR only where specified or where specifically requested.
- B. Perform work in accordance with details of recommendations and instructions and specified requirements.
  - 1. Should a conflict exist between Specifications and recommendations or instructions consult with EOR.
- C. Where manufacturer's information notes special recommendations in addition to installation instructions, comply with both recommendations and instructions.

# 1.5 INSTALLATION

- A. Pre-Installation Meetings: Installers and suppliers are to attend pre-installation meetings scheduled by Contractor.
- B. Comply with manufacturers written recommendations and installation instructions unless more restrictive requirements are specified.
- C. Locate Work and components accurately, in correct alignment and elevation.
  - 1. Make vertical work plumb and horizontal work level.
  - 2. Install components to allow space for maintenance and ease of removal for replacement.
- D. Install products at time and under conditions to ensure best possible results; maintain conditions required for product performance until Substantial Completion.
- E. Conduct operations so no part of Work is subject to damaging operations or loading in excess of that expected during normal conditions.
- F. Securely anchor permanent construction in place, accurately located and aligned with other portions of Work.
- G. Allow for building movement including thermal expansion and contraction.
- H. Make joints of uniform width; arrange joints as indicated, for best visual effect where not otherwise indicated; fit exposed connections together to form hairline joints except where otherwise indicated.

#### 1.6 CLEANING

- A. Cleaning During Construction: Specified in Section 01500 Temporary Facilities and Controls.
- B. Progress Cleaning: Keep installed areas clean using cleaning materials specifically recommended by manufacturers of product being cleaned; where not otherwise recommended use nontoxic materials that will not damage surfaces.
  - 1. Remove debris from concealed spaces before enclosing space.
  - Supervise construction operations to assure no part of construction, completed
    or in progress, is subject to harmful, dangerous, damaging, or otherwise
    deleterious exposure during construction period.
- C. Final Cleaning: Execute final cleaning at Substantial Completion.
  - Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances; polish transparent and glossy surfaces; vacuum carpeted and soft surfaces.
    - a. Vacuuming Equipment: Type with high efficiency particulate arrestor (HEPA) type filters; properly maintained.

- 2. Clean equipment and fixtures to a sanitary condition, clean filters of mechanical equipment, replace filters where cleaning is impractical.
- 3. Clean site; sweep paved areas.
- 4. Remove waste, surplus materials and rubbish from Project and site; recycle to maximum extent feasible.

#### 1.7 PROTECTION

- A. Protect products subject to deterioration with impervious cover. Provide ventilation to avoid condensation and trapping water.
- B. Take care to use protective covering and blocking materials that do not soil, stain, or damage materials being protected.
- C. After installation, provide coverings to protect products from damage from traffic and construction operations, remove when no longer needed.
- D. Protect interior materials from water damage; immediately remove wet materials from site to prevent growth of mold and mildew on site.

#### **CUTTING AND PATCHING**

#### **PART 1 - GENERAL**

#### 1.1 SUMMARY

- A. Contractor shall be responsible for cutting, fitting and patching required to complete Work and to:
  - 1. Make its parts fit together properly.
  - 2. Uncover work to provide for installation of ill-timed work.
  - 3. Remove and replace defective work.
  - 4. Remove and replace work not conforming to Contract Documents.
  - 5. Remove samples of installed work as required for testing.
  - 6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

# B. Related Requirements:

- 1. Section 01500: Temporary facilities and controls.
- 2. Section 01735: Selective demolition for remodeling.

# 1.2 SUBMITTALS

- A. Submit a written request to EOR well in advance of executing cutting or alteration which affects:
  - 1. Work of Owner or separate contractor.
  - 2. Structural value or integrity of any element of Project.
  - 3. Integrity of weather-exposed or moisture-resistant elements.
  - 4. Efficiency, operational life, maintenance or safety of operational elements.
  - 5. Visual qualities of sight-exposed elements.

# B. Request shall include:

- 1. Identification of Project and description of affected work.
- 2. Necessity for cutting or alteration.
- 3. Effect on work of Owner or separate contractor.
- 4. Effect on structural integrity, or weatherproof integrity of Project.
- 5. Alternatives to cutting and patching.
- 6. Cost proposal, when applicable.
- 7. Written permission of separate contractor whose work will be affected.
- 8. Description of proposed work including:
  - a. Scope of cutting, patching, alteration, or excavation.
  - b. Products proposed to be used.
  - c. Extent of refinishing to be included.

- Should conditions of Work or schedule indicate a change of products from original installation, Contractor shall submit request for substitution as specified in Section 01630 -Product Substitution Procedures.
- D. Submit written notice to EOR designating date and time work will be uncovered.

#### **PART 2 - PRODUCTS**

# 2.1 MATERIALS

- A. Comply with Specifications and standards for each specific product involved.
- B. Where Specifications and standards have not been provided, provide materials and fabrication consistent with quality of Project and intended for commercial construction.
- C. Provide new materials for cutting and patching unless otherwise indicated.

#### **PART 3 - EXECUTION**

#### 3.1 INSPECTION

- A. Inspect existing conditions of Project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, inspect conditions affecting installation of products, or performance of work.
- C. Report unsatisfactory or questionable conditions to EOR in writing; do not proceed with work until EOR has provided further instructions.

#### 3.2 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of Work.
- B. Protect other portions of Project from damage.

#### 3.3 PERFORMANCE

- A. Execute cutting by methods that provide proper surfaces to receive installation of repairs and finishes.
- B. Employ same installer or fabricator to perform cutting and patching work as employed for new construction for sight-exposed finished surfaces.
- C. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- D. Restore work that has been cut or removed; install new products to provide completed Work in accordance with requirements of Contract Documents.
- E. Fit work tight to pipes, sleeves, ducts, conduit and penetrations through surfaces.

- F. Refinish entire surfaces as necessary to provide even finish to match adjacent finishes:
  - 1. For continuous surfaces, refinish to nearest intersection.
  - 2. For an assembly, refinish entire unit.

# SELECTIVE DEMOLITION FOR REMODELING

#### **PART 1 - GENERAL**

#### 1.1 SUMMARY

- A. Remove materials, systems, components, fixtures and equipment as designated and as required for completion of remodeling as indicated.
  - 1. Cap and identify active utilities.
- B. Related Requirements:
  - 1. Section 01500: Site waste management requirements.
  - Section 01730: Cutting and patching.

# 1.2 PROTECTION

- A. Do not interfere with use of adjacent building spaces; maintain free and safe passage to and from.
  - 1. Cover and protect existing materials when demolition work is performed in areas where existing materials have not been removed.

#### 1.3 EXISTING SERVICES

- A. Disconnect or remove utility services as required for completion of Project; disconnect, stub off, and cap utility service lines not required for new construction.
  - 1. Do not remove utilities discovered during demolition but not indicated without first determining purpose for utility coordinate with EOR and Engineers.
- B. Do not disrupt services to adjacent building areas not in Project.
- Place markers to indicate location of disconnected services; identify service lines and capping locations on Project Record Documents.

#### **PART 2 - PRODUCTS**

# 2.1 MATERIALS

- A. Debris: Maintain possession of materials being demolished unless otherwise noted, immediately remove from site.
- B. Materials for Reinstallation: Carefully remove, store and protect materials indicated for reinstallation; where stored materials are damaged, repair to original condition or replace with new undamaged materials.
  - 1. Immediately remove from site wet materials and materials with water stains, with mold, and with mildew.

C. Materials to be Retained by Owner: Verify extent of materials to be retained by Owner prior to beginning selective demolition. Carefully remove materials indicated to be retained by Owner; deliver and store on-site where directed by Building Manager.

#### **PART 3 - EXECUTION**

# 3.1 DEMOLITION

- A. Demolish indicated appurtenances in an orderly and careful manner.
  - 1. Use methods that do not damage materials indicated to remain.
- B. Perform demolition in accordance with authorities having jurisdiction.
- C. Remove tools and equipment upon completion of work; leave area in condition acceptable to Owner and EOR.
- D. Remove demolished materials from site, unless otherwise directed.
  - Remove from site, contaminated, vermin infested, and dangerous materials encountered and dispose of by safe means so as not to endanger health of workers or public.

#### 3.2 REPAIR

- A. Repair damage to adjacent construction caused as result of this work.
- B. Repair demolition beyond that required.

#### **CLOSEOUT PROCEDURES**

#### **PART 1 - GENERAL**

# 1.1 SUMMARY

- A. This section describes Contract closeout procedures.
- B. Related Requirements:
  - 1. Section 01780: Warranties.

# 1.2 COMPLETION

- A. When Work is complete, submit written certification indicating:
  - 1. Work has been inspected for compliance with Contract Documents.
  - 2. Work has been completed in accordance with Contract Documents and deficiencies listed (in 'Punch List") with Certificate of Substantial Completion have been corrected.
  - 3. Equipment and systems have been tested in presence of Owner's representative and are operational.
  - 4. Work is complete and ready for final inspection.
- B. Special Submittals: In addition to submittals required by Contract, submit following.
  - 1. Provide submittals required by governing authorities to governing authorities with copies included in Project Record Documents.
  - 2. Submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.

# 1.3 PROJECT RECORD DOCUMENTS

- A. Keep documents current; do not permanently conceal any work until required information has been recorded.
  - Owner will provide Contractor with a separate set of Drawings to maintain for Project Record Documents.
  - 2. Indicate actual work on Drawings; indicate actual products used in Project Manual, including manufacturer, model number and options.
  - 3. Update Project Record Documents daily and allow for EOR inspection at least once a month.

B. At Contract close-out submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

#### 1.4 MATERIAL AND FINISH DATA

- A. Provide data for primary materials and finishes.
- B. Submit two sets prior to final inspection, bound in 8-1/2" by 11" three-ring binders with durable plastic covers, clearly identified regarding extent of contents.
  - 1. Electronic Format: Where available in electronic format, submit computerized compact disk (CD's) of material and finish data.
- C. Arrange by Specification division and give names, addresses, and telephone numbers of subcontractors and suppliers. List:
  - 1. Trade names, model or type numbers.
  - 2. Cleaning instructions.
  - 3. Product data.

# 1.5 OPERATION AND MAINTENANCE DATA

- A. Provide data for:
  - 1. Electrically operated items.
  - 2. Mechanical equipment and controls.
  - 3. Electrical equipment and controls.
- B. Submit two sets prior to final inspection, bound in 8-1/2" by 11" three-ring binders with durable plastic covers, clearly identified regarding extent of contents.
- C. Provide a separate volume for each system, with a table of contents and index tabs for each volume.
- D. Arrange by Specification division and gives names, addresses, and telephone numbers of subcontractors and suppliers. List:
  - 1. Appropriate design criteria.
  - 2. List of equipment and parts lists.
  - 3. Operating and maintenance instructions.
  - 4. Shop drawings and product data.
- E. Electronic Format: Where available in electronic format, submit computerized compact disk (CD's) of operation and maintenance data.
- F. Submit all keys and other physical properties required to maintain facilities all properly tagged and identified.