

SECTION 01210
ALLOWANCES

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section specifies each Prime Contractor's administrative and procedural requirements governing handling and processing allowances

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.
- B. Each section of the specifications including an allowance.

1.3 COORDINATION

- A. Designate required selection and delivery dates for products under each allowance in the Contractor's Construction Schedule.
- B. Designate each allowance with extensions based on estimated quantities for unit price allowances on Contractor's Schedule of Values.

1.4 DEFINITIONS

- A. Refer to Section 00700.

1.5 ALLOWANCES

- A. Include in Total Base Bid Amount, an amount equal to Two Percent (2%) of the base bid amount for payment of permit fees. This is a direct cost; no mark-ups will be permitted.
- B. Amount of each allowance (excluding 1.5.A above) shall include:
 - 1. Net cost of product.
 - 2. Delivery to site.
 - 3. Applicable taxes.
 - 4. Preparing submittals.
- C. In addition to amounts of allowances (excluding 1.5.A above), include in the base bid amount, the Contractor's cost for:
 - 1. Assisting in selection and obtaining proposals from suppliers and subcontractors.
 - 2. Processing submittals.
 - 3. Handling at site, including unloading, uncrating and storage.
 - 4. Protection from elements and from damage.
 - 5. Labor, installation and finishing.
 - 6. Other expenses required to complete installation.
 - 7. Overhead and profit.

1.6 SELECTION OF PRODUCTS

- A. Design Professional shall issue by Change Order a full specification for the final selected product.
- B. Contractor's Duties
 - 1. Notify Design Professional of deadlines for specification of final products, allowing for Contractor's required submissions as required to meet Date of Completion.
 - 2. Provide cost proposals for products being considered when requested by Design Professional.
 - 3. Notify Design Professional of any effect anticipated by selection of product or supplier under consideration as it relates to:
 - a. Construction Schedule.
 - b. Contract Sum.
 - c. On notification of selection, enter into purchase agreement with designated supplier.

1.7 INSTALLATION

- A. Comply with requirements of applicable specification section, including warranties/guarantees.

1.8 ADJUSTMENT OF COSTS

- A. Should actual purchase cost be more or less than specified amount of allowance, Contract Sum shall be adjusted by Change Order equal to amount of difference. A percentage to cover Contractor's overhead and profit, as stated in Standard Contract Requirements, will be applied to difference in cost.
- B. For products specified under unit cost allowance unit cost applies to quantity required to complete the Work as determined by the Contractor.
 - 1. Submit invoices or other data to substantiate quantity actually used.
- C. Submit request for other costs, claimed for additional work caused by increase over amount of allowance, prior to required submission for product.

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

- END -

SECTION 01250

CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.1 CHANGE ORDER PROCEDURE

- A. If a change in the design of any portion of the work or the requirements of the Project Manual is deemed necessary by the Department of Public Property, the Department may order an alteration to, or a change in, the work covered by the Contract Documents, and the contractor shall comply with such orders. If such changes increase the cost of the work to the Contractor, the PRA will allow additional compensation. If such changes diminish the cost of the work to the Contractor the PRA may deduct the amount of the diminution. No consequential loss or profit due to reduction in the scope of work will be allowed the Contractor, but the Contractor may be entitled to an extension of time in these instances. No changes shall be made except upon a PRA standard Change Order Form, signed and executed by the Contractor and the Department of Public Property authorizing the change and fixing the method of compensation or deduction. This Section specifies administrative and procedural requirements for handling and processing Change Orders.
- B. The execution of a change order (increase or decrease) will require a proposal from the Contractor on company letterhead. Such proposal will include a complete description of the change and schedule impact and a complete cost breakdown including such items as Labor, Materials, Equipment, Crew Composition, Sub-Contractor costs, and associated Insurance and Bonding costs (if applicable). The contractor is entitled to percentage mark-ups on some of these items as stated in the Standard Contract Requirements. The proposal is to be submitted to the identified Department of Public Property Project Coordinator. Upon review and approval by the Department of Public Property Project Team, a signed Department of Public Property standard Change Order Form will be forwarded to the Contractor for final execution.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements and other Division 1 sections including Sections 48 through 52 of the Standard Contract Requirements (00700).

1.3 CONTRACTOR'S RESPONSIBILITY TO INFORM

- A. Communication, either verbal or written, between the PRA or Design Professional and the Contractor, Subcontractors, or other parties involved, during the normal course of administration of the Contract, does not in any way constitute acceptance of a Change Order or direction to modify the Contract unless said communication is in the form of a written Change Order or Construction Change Directive as specified herein.
- B. Communication from the PRA or Design Professional including, but not limited to the following, does not constitute approval of a Change Order:
 - 1. Submittal review including submittals returned with notations and corrections;
 - 2. Site observation, conversation and reports;
 - 3. Participation in pre-construction, pre-installation, progress or other meetings;

4. Clarification sketches or drawings.
- C. It is the responsibility of the Contractor to inform the PRA that any communication has, in the Contractor's opinion, caused reason to modify the Contract. The Contractor shall not undertake work which, in his opinion, requires a Change Order without completing procedures outlined herein.
- D. Work done without completing Change Order procedures is entirely at the Contractor's own risk, even if the Contractor believes that communications from the PRA or Design Professional contain instructions to do work outside of the Contract scope.
- E. The PRA and Design Professional will not willfully instruct work to be done that differs from the contract except through the Change Order procedures contained herein.

1.4 MINOR CHANGES IN THE WORK

- A. Supplemental instructions, not involving an adjustment to the Contract Sum or Contract Time, may be issued in writing by the PRA.

1.5 CHANGE ORDER PROPOSALS

- A. PRA-Initiated Change Order Proposal - Proposed changes in the Work that will require adjustment to the Contract Sum or Contract Time will be issued by the PRA, with a detailed description of the proposed change and supplemental or revised Drawings and Specifications, if necessary.
 1. Change Order Proposal requests issued by the PRA are for information only. Do not consider them as instruction either to stop work in progress, accelerate the work or to execute the proposed change.
 2. Unless otherwise indicated in the Change Order Proposal request, within 20 days of receipt of the Change Order Proposal request, submit to the PRA for review, an estimate of cost necessary to execute the proposed change.
 - a. Include a list of quantities of products to be purchased and unit costs, along with the total amount of purchases to be made. Separate labor and material charges. Where requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include a statement indicating the effect the proposed change in the Work will have on the Contract Time or any special efforts of the Contractor that will be employed to reduce the delay.
 - d. Indicate that the Change Order Proposal is in response to a PRA request and submit it to the PRA as stated in 1.1 (B) of this section.
- B. Contractor-Initiated Change Order Proposal – When Contractor claims latent or other unforeseen conditions require modifications to the Contract, the Contractor may propose changes by submitting a Change Order Proposal.
 1. Include a statement outlining the reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.
 2. Include a list of quantities of products to be purchased and unit costs along with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.

3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Comply with requirements in Section 01630 "Substitution Procedures" if the proposed change in the Work requires the substitution of one product or system for a product or system specified.
5. Submit the proposal to the PRA as stated in 1.1 (B) of this section.

1.6 ALLOWANCES

- A. Refer to Section 01210, Allowances.

1.7 CONSTRUCTION CHANGE DIRECTIVE (Force Account)

- A. When the PRA and Contractor are not in total agreement on the terms of a Change Order Proposal, the PRA may issue a Construction Change Directive instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- B. The Construction Change Directive will contain a complete description of the change in the Work.
- C. Documentation - Maintain detailed records on a time and material basis of work required by the Construction Change Directive. After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
 1. Contractor's documentation will not, by itself, establish the final cost.
 2. The PRA reserves the right to determine the value of the change in Work per the requirements of this Section.


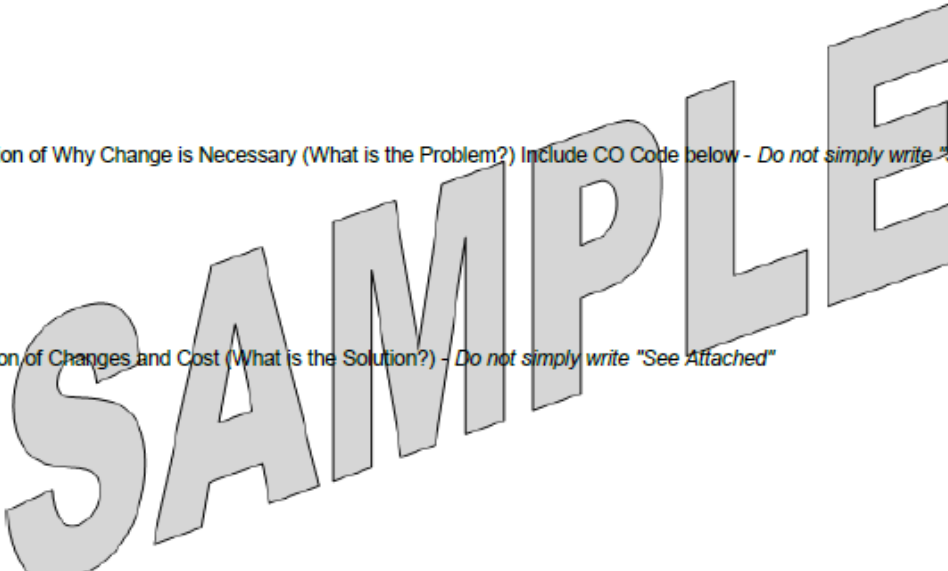
1.8 DETERMINATION OF COST

- A. PRA reserves the right to use established estimating methods (including but not limited to industry standards and unit prices listed in this manual) to determine a fair and reasonable cost for changes in the Work.

PART 2 PRODUCTS Not used.

PART 3 EXECUTION

- 2.1 Sample Change Order Form, contact Project Coordinator for actual document.

CHANGE ORDER		CITY OF PHILADELPHIA Department of Public Property ONE PARKWAY BLDG. 1515 ARCH STREET PHILADELPHIA, PA 19102			
Change Order No.:		Date:			
Project No.:		Contractor Name:			
Contract No.:		Contractor Address:			
Bid Number:					
Project Title:		Contact Person:			
Facility Name:		Phone No.:		Fax:	
Facility Address:					
JUSTIFICATION: (*unmerge* cell if different format is desired)(Format-Cells-Alignment)					
I) Description of Specified Work (What is Required By the Contract?) - <i>Do not simply write "See Attached"</i>					
					
II) Explanation of Why Change is Necessary (What is the Problem?) Include CO Code below - <i>Do not simply write "See Attached"</i>					
III) Description of Changes and Cost (What is the Solution?) - <i>Do not simply write "See Attached"</i>					
CO Category Codes: Unforeseen Condition (UF), Design Error/Omission (EO), User Scope Change (UC), DPP Scope Change (DPP), Time Extension Only (TO), Other (explain)					
CO Type:	<input type="checkbox"/> Negotiated	<input type="checkbox"/> Force Account	Cost Impact (CO\$):	Time Impact (days)	
<p>This Change Order shall cover all of Contractor's costs associated with the change reflected by this change order, including all costs incurred by the Contractor for time, material, labor, and/or overhead. The contract time extension granted by the City for this Change Order shall be the sole time extension granted for this change and for which contractor is entitled, and no other time extension shall be granted by the City. Contractor agrees that this Change Order shall operate as a complete waiver and release of all claims related to the change, whether such is considered individually or cumulatively, including, but not limited to, any claim by Contractor for extended home office overhead, extended field office overhead, time-impact costs, schedule delay costs, acceleration costs, compression, loss of productivity costs, extra work, additional work, and/or interference costs. This Change Order shall supersede the proposal of the contractor to the extent that it conflicts with the proposal.</p>					
REVIEW BY		Additional Funding Required		Cost Recap:	
5. Contractor	Date	<input type="checkbox"/> Yes <input type="checkbox"/> No			
1. Construction Representative	Date	Source:	(a) Original Contract Limit	\$125,000.00	
		Amount:	(b) Prior Amendment(s)		
		Source:	(c) Bid Amount	\$100,000.00	
		Amount:	(d) Contingency (a+b)-c	\$25,000.00	
APPROVALS		Source:	(e) CO's Approved to date	\$4,000.00	
2. Project Coord./Manager	Date	Amount:	(f) Contingency Available (d-e)	\$21,000.00	
		Source:	(g) Cost of this CO	\$5,000.00	
		Amount:	(h) Total COs After this CO (e+g)	\$9,000.00	
3. Project Director	Date	Add'l Funding Approval	(i) Contin. Bal. After CO (f-g)	\$16,000.00	
		Budget Office	(j) Contin. Orig % (d/c) =max 25%	25%	
			(k) Contin. % After CO (e+g)/c	9%	
4. Deputy Commissioner	Date		Change Order Category Amount		
		Date	Release Contingency		
			Amend Contract		

cc: Original to File (4,10), Project Director, Project Coord./Manager, Construction Representative, Budget Coord., Contractor, Contracts Management (with Invoice)

-END-

SECTION 01290
PAYMENT PROCEDURES

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section specifies administrative and procedural requirements governing each Prime Contractor's submission of invoices for Payment. These may also be referred to as "Current Estimates" in the Standard Contract Requirements (00700).
- B. Coordinate the Contractor's Construction Schedule, List of Subcontracts, and Submittal Schedule with the Standard Cost Breakdown.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements and other Division 1 sections including Sections 53 through 57 of the Standard Contract Requirements (00700).

1.3 GENERAL REQUIREMENTS

- A. Each invoice for payment shall be consistent with previous applications and payments.
- B. The initial submission of the Standard Cost Breakdown at time of Substantial Completion, and the final Standard Cost Breakdown involve additional requirements.
- C. Withholding Payment - Any payment may be withheld in accordance with the Contract Documents
 - 1. Any payment may be withheld if the procedural requirements including submittal of current administrative items listed including Certificates of Insurance are incomplete or outdated.
 - 2. Portions of payment requested for Work installed without approved submittals may be withheld.
- D. Use Department of Public Property, "Standard Cost Breakdown".
- E. Standard Cost Breakdown Preparation - Complete every entry on the Standard Cost Breakdown:
 - 1. Contractor (name and address)
 - 2. Contract number (from Notice to Proceed);
 - 3. Requisition No. (sequential number);
 - 4. Date Prepared;
 - 5. Project (title of project);
 - 6. Project No. (project number).
 - 7. STANDARD COST BREAKDOWN

- a. No. (sequentially numbering);
 - b. Item (phases of scope of work);
 - c. Unit (each, sq. ft., etc.);
 - d. Material;
 - e. Labor;
 - f. Unit Cost;
 - g. Total (total of Material and Labor).
8. PAYMENT APPLICATION
- a. Previous Billing (as billed previous application);
 - b. Percent Complete (completed to date);
 - c. Total Completed (Total column under COST BREAKDOWN multiplied by Percent Complete column under PAYMENT APPLICATION.)

Incomplete Standard Cost Breakdowns will be returned without action.

- F. Entries shall match data on the Contractor's Construction Schedule. Use updated schedules if revisions have been made.
- G. Include amounts of Change Orders issued prior to the last day of the construction period covered by the Standard Cost Breakdown.
- H. Submit original plus 2 copies of each Standard Cost Breakdown to the Project Robert LaBrum, Director, Design and Construction, Philadelphia Redevelopment Authority, 1234 Market Street, 16th Floor, Philadelphia, PA 19107. Robert.labrum@pra.phila.gov

1.4 INITIAL STANDARD COST BREAKDOWN

- A. Actions and submittals that shall precede or coincide with submittal of the first Standard Cost Breakdown include the following:
 - 1. List of subcontractors.
 - 2. List of principal suppliers and fabricators.
 - 3. Schedule of Values.
 - 4. Contractor's Construction Schedule (preliminary if not final).
 - 5. Schedule of unit prices.
 - 6. Submittal Schedule (preliminary if not final).
 - 7. List of Contractor's staff assignments.
 - 8. List of Contractor's principal consultants.
 - 9. Copies of building permits.
 - 10. Copies of authorizations and licenses from governing authorities for performance of the Work.
 - 11. Report of pre-construction meeting.
 - 12. Certificates of insurance.
 - 13. Performance and payment bonds.

14. Complete Submittals for each product or system included in the Application.
15. Initial settlement survey and damage report.
16. Reference Point Survey.
17. Current Daily and Monthly Reports.
18. Initial Construction Photographs and/or videos.

1.5 STANDARD COST BREAKDOWN AT SUBSTANTIAL COMPLETION

- A. This Standard Cost Breakdown shall reflect any Certificates of Partial Substantial Completion issued previously for City occupancy of designated portions of the Work.
- B. Actions and submittals which shall proceed or coincide with this Standard Cost Breakdown include:
 1. Occupancy permits and similar approvals.
 2. Warranties (guarantees) and maintenance agreements.
 3. Test/adjust/balance records.
 4. Maintenance instructions.
 5. Utility meter readings.
 6. Start-up performance reports.
 7. Certified improvement survey.
 8. Change-over information related to City's occupancy, use, operation and maintenance.
 9. Final cleaning.
 10. Final progress photographs.
 11. List of incomplete Work (punchlist), recognized as exceptions to Certificate of Substantial Completion.
 12. Record Documents.

1.6 FINAL STANDARD COST BREAKDOWN

- A. Actions and submittals which shall precede or coincide with submittal of the final Standard Cost Breakdown include the following:
 1. Project Closeout Form fully executed (signed).
 2. Completion of items specified for completion after Substantial Completion (punchlist).
 3. Assurance that unsettled claims will be settled.
 4. Assurance that Work not complete and accepted will be completed without undue delay.
 5. Transmittal of required Project construction records to PRA.
 6. Proof that taxes, fees and similar obligations have been paid.
 7. Removal of temporary facilities and services.

8. Removal of surplus materials, rubbish and similar elements.
9. Change of door locks to City's access.

- END -

SECTION 01291
SCHEDULE OF VALUES (CURRENT ESTIMATE)

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes administrative requirements for each Prime Contractor's Schedule of Values, referred to as "Current Estimate" in the Standard Contract requirements.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.

1.3 COORDINATION

- A. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - 1. Contractor's Construction Schedule.
 - 2. Standard Cost Breakdown
 - 3. List of subcontractors.
 - 4. Schedule of allowances.
 - 5. Schedule of alternates.
 - 6. Schedule of submittals.
- B. Submit the Schedule of Values to the PRA no later than ten (10) days after receipt of the Notice to Proceed. Submit six (6) copies.

1.4 FORMAT AND CONTENT

- A. Arrange the Schedule of Values in a tabular form with separate columns to indicate the following for each item listed:
 - 1. Generic name.
 - 2. Related Specification Section.
 - 3. Name of subcontractor.
 - 4. Name of manufacturer or fabricator.
 - 5. Name of supplier.
 - 6. Change Orders (numbers) that have affected value.
 - 7. Dollar value.
 - 8. Percentage of Contract Sum to the nearest one-hundredth percent, adjusted to total 100 percent.
 - 9. Margins of Cost - Show line items for indirect costs, and margins on actual costs, only to the extent that such items will be listed individually in Standard Cost Breakdown. Each item in the Schedule of Values and Standard Cost Breakdown shall be complete including its total cost and proportionate share of general overhead and profit margin unless otherwise indicated.

10. At the Contractor's option, temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown as separate line items in the Schedule of Values or distributed as general overhead expense.
11. Itemize separate line item cost for the following items under Division 1:
 - a. Field Engineering.
 - b. Construction Photographs.
 - c. Mock-up.
12. Itemize separate line item cost for each of the construction cost items under Divisions 2 through 16 per individual specification sections.
13. Itemize separate line item cost for each service contract.
14. Breakdown costs into:
 - a. Delivered cost of material, with taxes paid, with overhead and profit.
 - b. Installation cost, with overhead and profit.
 - c. If requested, break down high value line items to list major materials or operations.
 - d. Round off figures to nearest ten dollars.
 - e. Make sum total costs of all items listed in Schedule equal to Contract Limit.

1.5 UPDATING

- A. After review by the PRA, revise and resubmit schedules as required.
- B. Update and resubmit the Schedule of Values when change orders or construction change directions result in a change in the Contract Limit.

PART 2—PRODUCTS Not Used

PART 3—EXECUTION Not Used

END OF SECTION

SECTION 01311
PROJECT COORDINATION

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes each Prime Contractor's responsibilities to coordinate the work and related administrative procedures.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.

1.3 SUBMITTALS

- A. Submit the following prior to or coincidental with the initial application for payment.
1. List of contractor's staff assigned to the project and responsibilities including personnel on and off-site. Include mailing address, delivery address, phone, fax, mobile phone, etc. For at least three (3) staff, list phones where personnel can be reached during non-work hours for emergencies.
 2. List of contractor's consultants and sub-contractors with similar requirements as above.
 3. List of principal suppliers and fabricators with similar requirements as above. No emergency phone number required.

1.4 OBSERVATION OF WORK BY OTHERS

- A. Observation of the Work by the PRA, Design Professional, Inspection and Testing Agencies or any other party shall not be interpreted as relieving the Contractor from responsibility for coordination of all Work, superintendence of the Work, and scheduling and direction of the Work or any other requirement of the Contract.

1.5 GENERAL CONTRACTOR'S RESPONSIBILITIES

- A. Coordinate the Work and Schedules of each separate Prime Contractor.
- B. Coordinate construction activities included under each Prime Contractor to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Contracts that are dependent upon each other for proper installation, connection, and operation.
- C. Where installation of one part of the Work is dependent on installation of other components by other Prime Contractors, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.
- D. Where availability of space is limited, coordinate installation by each Prime Contractor of different components to assure maximum accessibility for required maintenance, service and repair.
- E. Make adequate provisions to accommodate items scheduled for later installation.
- F. Where necessary, prepare memoranda for distribution to each Prime Contractor outlining special procedures required for coordination. Include such items as

PHILADELPHIA ZOO ANIMAL HOSPITAL AND SMALL PRIMATE
HOLDING MECHANICAL UPGRADES

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PROJECT COORDINATION

required notices, reports, and attendance at meetings. Copy memoranda to PRA and Design Professional.

- G. Coordinate compatibility of products furnished by each Prime Contractor. Refer to Section Materials and Equipment, Division 1.
 - H. Administrative Procedures - Coordinate scheduling and timing of each Prime Contractor's required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractors Construction Schedules and Schedules of submittals .
 - 2. Installation and removal of temporary facilities.
 - 3. Delivery and processing of submittals.
 - 4. Progress meetings.
 - 5. Project Closeout activities.
- 1.6 EACH PRIME CONTRACTOR'S RESPONSIBILITIES (including the General Contractor)
- A. Cooperate with the General Contractor's coordination efforts for orderly progress of the Work without delay or covering work which needs to be accessible to other Primes.
 - B. Coordinate the Work of associated sub-contractors.
 - C. Establish a Contractor's Construction Schedule and coordinate with General Contractor.
 - D. Maintain on the job-site at all times during the performance of the Work, a competent, English speaking superintendent.
 - E. Coordinate construction activities included under various Sections of these Specifications to assure efficient and orderly installation of each part of the work. Coordinate construction operations included under different Sections of the Specifications that are dependent upon each other for proper installation, connection, and operation.
 - F. Where availability of space is limited, coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
 - G. Make adequate provisions to accommodate items scheduled for later installation.
 - H. When necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings. Copy memoranda to PRA and Design Professional.
 - I. Coordinate compatibility of products. Refer to Products and Materials, Division
 - J. Administrative Procedures - Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the work. Such administrative activities include, but are not limited to, the following:

1. Preparation of schedules.
2. Installation and removal of temporary facilities.
3. Delivery and processing of submittals.
4. Progress meetings.
5. Project Closeout activities.

1.7 LACK OF COOPERATION BETWEEN CONTRACTORS

- A. Delays attributable to lack of cooperation between the separate Prime Contractors and their sub-contractors shall not be recognized as a claim for delay. Claims by a contractor for costs due to such delays shall not be paid by the PRA.
- B. Delays, including delays caused by lack of cooperation, shall result in penalties by the PRA as stipulated under paragraph 26e of the Standard Contract Requirements.

1.8 SUBCONTRACTOR'S RESPONSIBILITIES

- A. Comply with the direction of each Prime Contractor in coordination efforts listed above.

PART 2—PRODUCTS Not Used

PART 3—EXECUTION Not Used

END OF SECTION

SECTION 01312
PROJECT MEETINGS

PART 1— GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section specifies each Prime Contractor's administrative and procedural requirements for project meetings. Requirements contained herein in no way limit each Prime Contractor's responsibility to effectively communicate with parties involved in order to meet the requirements of the Contract.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.
- B. Project Coordination: Division 1.
- C. Construction Scheduling: Division 1.

1.3 ADMINISTRATION

- A. The Project Coordinator will schedule and administer the pre-construction meetings, periodic project meetings, pre-installation, coordination and other specially called meetings throughout the progress of the work. She/he will also:
 - 1. Prepare agenda for meetings.
 - 2. Distribute written notice of each meeting four (4) days in advance of meeting date.
 - 3. Make physical arrangements for meetings.
 - 4. Preside at meetings.
- B. During the course of the pre-construction meetings, periodic project meetings, pre-installation, coordination and other specially called meetings throughout the progress of the work, the Design Professional will:
 - 1. Record the minutes, including all significant proceedings and decisions.
 - 2. Reproduce and distribute copies of minutes within three (3) days after each meeting to: all participants in the meeting; and all parties affected by decisions made at the meeting.
- C. Representatives of Contractors, subcontractors and suppliers attending the meetings shall be qualified and authorized to act on behalf of the entity each represents.

1.4 PRE-CONSTRUCTION MEETING

- A. Attendance
 - 1. Project Coordinator.
 - 2. Design Professional's Representative.
 - 3. Prime Contractor's Representatives.
 - 4. Major subcontractors.
- B. Suggested Agenda
 - 1. Discussion of coordination of Prime Contracts.

2. Discussion on major subcontracts and suppliers and projected construction schedules.
3. Critical work sequencing.
4. Major equipment deliveries and priorities.
5. Project Coordination and designation of responsible personnel.
6. Procedures and processing of field decisions, proposal requests, submittals, change orders and applications for payment.
7. Procedures for maintaining Record Documents.
8. Use of premises, office, work and storage areas, and City's requirements.
9. Construction facilities.
10. Temporary utilities.
11. Housekeeping procedures.
12. Dispute resolution.

1.5 PROGRESS, PRE-INSTALLATION AND COORDINATION MEETINGS

- A. Schedule regular and special meetings, as required by progress of the Work.
- B. Location of the Meetings - The Project field office of the Contractor [or as otherwise directed].
- C. Attendance
 1. Project Coordinator.
 2. Design Professional's Representative.
 3. Contractor's Representatives.
 4. Subcontractors as appropriate to the agenda.
 5. Suppliers as appropriate to the agenda.
 6. Others as appropriate.
- D. Suggested Agenda
 1. Review and approval of minutes of previous meeting.
 2. Review of work progress since previous meeting.
 3. Field observations, problems, conflicts.
 4. Problems which impede Construction Schedule.
 5. Coordination issues between Prime Contractors.
 6. Review of off-site fabrication, delivery schedules.
 7. Corrective measures and procedures to regain projected schedule.
 8. Revisions to Construction Schedule.
 9. Plan progress, schedule, during succeeding work period.
 10. Coordination of schedules.
 11. Review submittal schedules; expedite as required.

12. Maintenance of quality standards.
13. Review proposed changes for:
 - a. Effect on Construction Schedule and on completion date.
 - b. Effect on other contracts of the Project.
14. Review record drawings.
15. Other business.

PART 2—PRODUCTS Not Used

PART 3—EXECUTION Not Used

END OF SECTION

PRASECTION 01321
CONSTRUCTION PHOTOGRAPHS

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes photographic services provided by the General Contractor required to record the progress of the work of all Prime Contractors.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.

1.3 SUBMITTALS

- A. Digital images - Three (3) hard copies of each view. Forward one (1) print each to PRA and Design Professional and retain one (1) for Contractor's files. Submit also catalog of all views on PC-Formatted Compact Disc (s).
- B. Submit hard copy images and DVD or CD with each monthly progress report.

PART 2—PRODUCTS

2.1 DIGITAL IMAGES (HARDCOPY)

- A. color
- B. Minimum image size shall be 3 inches by 5 inches.
- C. Identify each image listing:
 - 1. Name of project.
 - 2. Orientation of view.
 - 3. Date and time recorded.

PART 3—EXECUTION

3.1 DIGITAL IMAGES (HARDCOPY)

- A. Take 72 initial photographs and 36 photographs once monthly or at designated points in the work when critical systems or conditions are exposed, from points designated by the Project Coordinator or Design Professional, for the length of the Contract. First photographs shall be taken prior to start of construction.
- B. Retain electronic files on PC-Formatted Compact Disc for three (3) years and make additional copies as may be requested by PRA or Design Professional at cost of reproduction.

END OF SECTION

SECTION 01322
PROGRESS REPORTS

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section specifies administrative and procedural requirements for progress reports prepared by each Prime Contractor.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements and other Division 1 sections

1.3 DAILY REPORT

- A. Each Prime Contractor shall prepare a Daily Report including:
1. Name of project.
 2. PRA Project number.
 3. Date of report.
 4. Weather conditions.
 5. Manpower status on each type of work being performed.
 6. Overtime worked, and planned.
 7. Work progress.
 8. Environmental problems and corrections.
 9. Other information, such as special events or occurrences, accidents, recommendations, suggestions, visitors, major equipment or materials received, tests, inspections, equipment start-up and check out, occupancy.
- B. Submit copies of reports weekly to Project Coordinator and Design Professional.

1.4 MONTHLY REPORT

- A. Each Prime Contractor shall prepare a synopsis of the previous month's activities, including:
1. Name of project.
 2. PRA Project number.
 3. Date of report.
 4. Weather conditions for the month compared to normal.
 5. Work progress from previous month.
 6. Copies of all previous month's schedules.
 7. Updated schedules with explanations of deviation from previous.
 8. Milestone schedule events for the upcoming month.

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9. Corrective measures and procedures to regain projected construction schedule.
10. Review of status of submittals.
11. Review of status of Change Orders and/or requested Change Orders.
12. Other information of importance from previous month or forecasted for upcoming month.
13. Bind in submission of Construction Photographs.
14. Bind in submission of monthly settlement survey.

B. Submit copies of reports monthly to Project Coordinator and Design Professional.

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

- END -

SECTION 01323
CONSTRUCTION SCHEDULING

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section specifies administrative and procedural requirements for schedules prepared by each Prime Contractor.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.

1.3 CONSTRUCTION SCHEDULE

- A. Each Prime Contractor shall prepare a Contractor's Construction Schedule including all phases of work as follows:
1. Initial Construction Schedule - Within 14calendar days after Notice to Proceed, submit an initial construction schedule. Break down at least by 16 Division Specification format for General Construction. This schedule must be in agreement with the time frame stated in the Bid Proposal. Coordinate schedule with the following:
 - a. Pre-purchase products.
 - b. Allowances.
 - c. Application for Payments.
 - d. Mock-ups.
 - e. Schedule of Submittals.
 - f. Schedule of Values.
 2. Final Construction Schedule - Within 14 calendar days after Notice to Proceed, submit a complete detailed construction schedule showing each activity having impact upon the timely completion of the Project. Activities shall be broken down generally similar to the individual specification sections but not less than 20 separate operations. The schedule shall include, but not be limited to the following:
 - c. Time frames for shop fabrication and delivery of all parts of the work. Identify by specification section number and title. Coordinate with Schedule of Submittals. Allow time for reviews, resubmissions and approval.
 - d. Decision dates for selection of finishes and colors.
 - e. Decision dates for selection of products specified by allowances.
 - f. Deadlines for submissions of substitutions.
 - g. Identification for work of mock-ups separate phases or other logically grouped activities.
 - h. Separate network for each trade or operation.

1.4 FORMAT

- A. Initial Construction Schedule - Horizontal bar chart form divided vertically by weeks.
- B. Final Construction Schedule - Horizontal bar chart form showing each trade or operation.

1.5 SCHEDULE OF SUBMITTALS

- A. Submit a preliminary Schedule of Submittals within 30 days after the Notice to Proceed. Submit the final schedule with the final Contractor's Construction Schedule.
- B. Coordinate submittal schedule with the list of subcontracts, schedule of values, submittal register and the Contractor's construction schedule.
- C. Coordinate scheduling of interrelated submissions to allow for review of required data and to avoid delays in reviewing submittals caused by lack of coordinated submission.
- D. Coordinate scheduling of submission to allow for approval of products prior to construction of mock-up.
- E. Contractor shall estimate number of resubmissions required for each submittal based on complexity. However, the submittal schedule in no way binds the PRA to approve a submittal to meet the submittal schedule or construction schedule. It is the contractor's sole responsibility to prepare acceptable submissions in a timely fashion in order to maintain schedule.
- F. Allow for City's and Design Professional's review of each submission and resubmission.
- G. Prepare the schedule in chronological order. Provide the following information:
 - 1. Related Section number.
 - 2. Submittal category.
 - 3. Name of subcontractor.
 - 4. Description of the part of the Work covered.
 - 5. Scheduled date for the first submittal.
 - 6. Scheduled date for resubmittal or resubmittals.
 - 7. Scheduled date the PRA's final release or approval.
- H. Distribution - Following response to initial submittal, print and distribute copies to the PRA, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.
- I. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

1.6 COORDINATION

- A. All Prime Contractors shall submit their schedules to the General Contractor.

- B. The General Contractor shall prepare an overall schedule including all trades and contracts.
- C. The PRA will resolve conflicts among schedules of various Prime Contractors.
- D. The General Contractor shall distribute copies of the approved final Construction Schedule to other Prime Contractors involved.

1.7 UPDATING

- A. Updating of the final Construction Schedule and Schedule of Submittals shall be required on a monthly basis.
- B. Show all changes occurring since previous submission of updated schedules.
- C. Indicate progress of each activity, show completion dates.
- D. Include major changes in scope, activities modified since previous updating, revised projections due to changes and other identifiable changes.

1.8 DISTRIBUTION

- A. Distribute copies of revised schedules to:
 - 1. Project Coordinator.
 - 2. Design Professional.
 - 3. Other Prime Contractors.
 - 4. Subcontractors.
 - 5. Other Concerned Parties (surety, insurance, etc.).
 - 6. Instruct recipients to report any inability to comply, and provide detailed explanation, with suggested remedies.

PART 2—PRODUCTS Not Used

PART 3—EXECUTION Not Used

END OF SECTION

SECTION 01330
SUBMITTALS

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes each Prime Contractor's administrative and procedural requirements for submission of shop drawings, product data, samples and other required information.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.
- B. Submittal Schedule specified in Construction Scheduling, Section 01323.

1.3 WORK WITHOUT APPROVED SUBMITTALS

- A. PRA may withhold payment for the value of Work installed without first obtaining approved submittals, when submittal is required by individual specification sections. Refer to section 01290 "Payment Procedures".

1.4 SHOP DRAWINGS

- A. Shop drawings are Contractor's or subcontractor's Drawings made specifically for this Project, for use in fabrication and installation.
- B. Shop drawings must show sufficient data including layout, fabrication and erection details to establish evidence of conformance with design concept and compliance with the Contract Documents. Shop drawings must show relationships with adjacent construction.
- C. Do not use reproductions of Contract Drawings as Shop Drawings unless specifically permitted in the Contract Documents.
- D. Identify details by reference to sheet and detail numbers shown on Contract Drawings and by reference to paragraphs and specification section.
- E. Orient Shop Drawings in same manner as drawings.
- F. Manufacturer's Standard Schematic Drawings
 - 1. Modify drawings to delete information that is not applicable to Project. Drawings showing information which is not applicable or unaltered standard drawings shall be returned without review.
 - 2. Add supplemental information applicable to Project.

1.5 PRODUCT DATA

- A. Manufacturer's Catalog Sheets, Brochures, Diagrams, Schedules, Performance Charts, Illustrations and Other Standard Descriptive Data.
- B. Clearly mark each copy to identify materials, products or models applicable to this Project. Submittals not marked shall be returned without review.
- C. Show colors when required for evaluation, record or other purpose. Where product data is printed in color, submit all copies in original colors as published.
- D. Show dimensions and clearances required.
- E. Show performance, characteristics and capacities.

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- F. Show wiring and piping diagrams, and controls.
 - G. Show by reference to paragraphs and specification section.
- 1.6 SAMPLES
- A. Samples: Actual samples of products proposed for use. Samples must be of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of product or material, with integrally related parts and attachment devices.
 - 2. Full range of color, texture and patterns.
- 1.7 FIELD SAMPLES AND MOCKUPS
- A. Erect at project site in location as directed.
 - B. Construct each sample or mock-up complete, including work of all trades required in the finished work.
 - C. Remove mockup at conclusion of work or when directed by City.
- 1.8 COORDINATION
- A. Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - B. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - C. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - D. The PRA reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
 - E. When mock-ups are required, submittals for all products used in mock-up shall be coordinated with schedule for mock-up construction.
- 1.9 SUBMISSION REQUIREMENTS
- A. Comply with Schedule of Submittals.
 - B. Accompany each submission with a transmittal indicating project name, location, PRA's project number, referenced specification number, submission number, date, item submitted, Contractor's name, Sub-contractor, supplier or manufacturer.
 - 1. Transmittal shall include Contractors certification that information complies with Contract Documents.
 - 2. Indicate on transmittal or on submittal deviations from Contract Documents requirements.
 - C. Copies
 - 1. For hard copy submission, submit five (5) prints of each shop drawing.
 - 2. Submit [five (5)] copies of product data. [One (1)] copy will be retained by Design Professional.

3. Electronic Submission. Electronic submission of shop drawings and product data is permitted. Submit in PDF or other authorized format with transmittal as indicated in B above. Electronic submission of samples and color charts is not permitted.
 4. For sample selections, submit [one (1)] set. For sample approval, submit [three (3)] sets. The Design Professional will retain one (1) set.
- D. Where product data is printed in color and requires color for evaluation, record, or other purpose, all copies submitted shall be in original colors as published.
- E. In addition to information required on the transmittal, submittals shall include:
1. Relation to adjacent structure or materials.
 2. Field dimensions, clearly identified as such.
 3. Finishes.
 4. Shipping and operating weights
 5. Gauges, fastenings, reinforcements, welding details.
 6. Applicable standards, such as ASTM or Federal Specification numbers.
 7. A blank space, 3 inches by 10 inches for action stamp.
- F. Contractor's Review:
1. Contractor shall review each submittal and indicate approval with a stamp, dated, initialed and/or signed. Review shall include but not be limited to; verification of field measurements, coordination with all trades involved and compliance with Contract Documents. The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the PRA's or Design Professional's action on submittals unless the Contractor has given specific notice of deviation at the time of submission and written approval of the specific deviation is given. The Contractor shall not be relieved from responsibility for errors or omissions in submittals by the PRA's or Design Professional's approval thereof.
 2. If Contractor does not review submittals and provide the signed approval stamp before sending them to the Design Professional, they will be returned unchecked.

1.10 SUBMISSION ROUTING

- A. Forward submittal direct to Design Professional and fax copy of transmittal letter to Project Coordinator.
- B. Design Professional will forward Submittals marked as "Approved" or Approved as Noted to Project Coordinator.
- C. Design Professional will forward Submittals marked as "Revise and Resubmit" or "Rejected" back to Contractor and will fax copy of transmittal to Project Coordinator.
- D. Project Coordinator will forward Submittals back to Contractor and will fax copy of transmittal to Design Professional.

- E. Electronic submittals are permitted. –Must have stamp of general contractor.
Submittal Routing summary:
Approved: Contractor. à Design Prof à DPPà Contractor.
Rejected: Contractor. à Design Prof à Contractor. and copy of transmittal to DPP.
- 1.11 DESIGN PROFESSIONAL'S DUTIES
- A. Review submittals within 10 working days of receipt.
 - B. Review for conformance to design concept of Project and for compliance with information given in Contract Documents. Review of separate item does not constitute review of an assembly in which item functions.
 - C. Affix stamp and initials or signature certifying to review of submittal.
 - D. Design Professional's action on submittals will result in the making of one of the following notations with related meanings:
 - 1. NO EXCEPTION TAKEN: The work involved may proceed, and no further submission is required.
 - 2. EXCEPTION TAKEN AS NOTED: The work involved may proceed incorporating comments. Annotations do not authorize changes to Contract Sum.
 - 3. REVISE AND RESUBMIT: The work involved may not proceed. Submittal must be corrected and resubmitted.
 - 4. REJECTED: The submittal is not in accordance with the Contract Documents, and a completely new submittal is required.
 - E. In the event any comment made to the Submittal results in a claim for a change in the Contract, the Project Coordinator shall be notified immediately and fabrication may not be undertaken until contract modification procedures are completed.
- 1.12. PRA'S RESPONSIBILITY
- A. Review submittals within 5 working days of receipt.
 - B. Review for compliance Contract Documents. Review of separate item does not constitute review of an assembly in which item functions.
 - C. Affix stamp and initials or signature certifying to review of submittal.
 - D. PRA's action on submittals will result in the making of one of the following notations with related meanings:
 - 1. APPROVED FOR CONSTRUCTION: The work involved may proceed, and no further submission is required.
 - 2. APPROVED AS NOTED: The work involved may proceed incorporating comments. Annotations do not authorize changes to Contract Sum.
 - 3. REVISE AND RESUBMIT: The work involved may not proceed. Submittal must be corrected and resubmitted.
- 1.13 RESUBMISSION REQUIREMENTS

- A. Identification of Changes - Clearly identify changes made from the initial submittal other than those requested by the Design Professional. The Design Professional will review only those changes requested and those identified by the Contractor.

1.14 DISTRIBUTION OF APPROVED SUBMITTALS

- A. Contractor shall reproduce and distribute copies of submittals having the Design Professional's and PRA's stamp ("Approved" or "Approved as Noted") as required to coordinate and complete the Work and to records documents file.

1.15 SUBSTITUTIONS

- A. Substitutions submitted as a shop drawing, product data or sample will be returned without action.

PART 2—PRODUCTS Not Used

PART 3—EXECUTION Not Used

END OF SECTION

SECTION 01410
CODES, REGULATIONS AND STANDARDS

PART 1— GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes each Prime Contractor's responsibilities regarding codes, regulations and standards included in the Contract Documents by reference.

1.2 RELATED REQUIREMENTS

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.
- B. All technical sections.

1.3 APPLICABLE CODES AND REGULATIONS

- A. The following codes and regulations are applicable to the project. The list does not represent all codes, regulations and standards:
 - 1. The Philadelphia Building Construction and Occupancy Code
 - a. The Philadelphia Administrative Code
 - b. The Philadelphia Building Code
 - c. The Philadelphia Electrical Code
 - d. The Philadelphia Fire Prevention Code
 - e. The Philadelphia Mechanical Code
 - f. The Philadelphia Plumbing Code
 - g. The Philadelphia Property Management Code
 - 2. NFPA 241, Standard for Safe Guarding Construction, Alterations, and Demolition Operations.
- B. It is not the intent of the Contract Documents to conflict with any Code, or Regulation. Report any conflicts to Design Professional for clarification.

1.4 REFERENCED STANDARDS

- A. For products or workmanship specified by association, trade, or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes or intended use.
- B. The referenced standards shall have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- C. Should specified reference standards conflict with Contract Documents, request clarification from Design Professional before proceeding but generally the more stringent requirement shall apply.
- D. In the absence of specific instructions in the specifications, materials, products, equipment, and their installation shall conform to the applicable codes, regulations and standards specified herein.

- E. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any referenced document.
- F. Dates of codes, regulations and standards specified shall be the latest date prior to the date of issue of this Project Manual, except where, prior to the date of issue of this Project Manual, modified or otherwise directed by the applicable codes and their supplements and amendments adopted by the code authorities having jurisdiction.
- G. Each entity engaged in construction of the Project shall be familiar with industry standards applicable to its construction activity. If unfamiliar, obtain copies and review with all workers. Obtain copies of standards when required by individual specification sections. Maintain copy at job site until Substantial Completion.
- H. Associations, Institutions, and Societies and their abbreviations if any, appearing in the Project Manual or elsewhere in the Contract Documents, shall be as generally recognized in the industry. Refer to the “Encyclopedia of Associations” published by Gale Research Company for abbreviations, addresses and phone numbers.

PART 2—PRODUCTS Not Used

PART 3—PRODUCTS Not Used

END OF SECTION

SECTION 01450
CONTRACTOR'S QUALITY CONTROL

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This section describes each Prime Contractor's requirements for quality assurance including:
 - 1. Control of installation
 - 2. Tolerances
 - 3. Mockups
 - 4. Inspection and Testing services
 - 5. Manufacturer's field services

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.
- B. Each technical section required for materials and products in mockup
- C. Each technical section requiring independent inspection and testing.

1.3 QUALITY ASSURANCE – CONTROL OF INSTALLATION

- A. Each Prime Contractor is responsible to deliver Work of quality specified regardless Contractor's sub-contracting or purchasing arrangements.
- B. Monitor quality control over suppliers, manufacturer's products, services, site conditions and workmanship to produce Work of specified quality.
- C. Comply with manufacturers written instructions, including preparation and each step in sequence.
 - 1. Should manufacturer instructions differ from Contract Documents, request clarification but assume the more stringent will apply.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.

1.4 TOLERANCES

- A. Monitor tolerance control of installed products to produce acceptable Work. Do not allow tolerances to accumulate.
- B. Comply with manufacturers written tolerances.
 - 1. Should manufacturer tolerances differ from Contract Documents, request clarification but assume the more stringent will apply.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.5 MOCK-UPS

- A. Construct mock-up to meet all indicated requirements, identical to proposed final Work.
- B. Locate mock-up on-site at location directed.
- C. Mock-up may be incorporated into final Work after acceptance by PRA.
- D. Extent of mock-up shall be as indicated on drawings or in specifications.
- E. Obtain approval of mock-up before performing construction involving products and systems included in mock-up.
- F. Approved mock-up shall establish the required quality of final Work, notwithstanding other requirements of the specifications.
- G. Maintain approved mock-up until all work included in the mock-up has been completed and accepted.

1.6 INSPECTION AND TESTING SERVICES

- A. Each Prime Contractor shall retain independent inspection and testing services when required by individual specification sections or by building code authority.
- B. The independent agency shall perform inspection and testing services on and off site as required by individual specification sections and as required to comply with requirements of the building code authority.
- C. Independent agency shall submit reports to Prime Contractor and direct to PRA indicating compliance or non-compliance. Notify PRA the same day of non-compliance.
- D. Cooperate with independent agency; furnish samples, mix designs, equipment, tools, storage, safe access, and assistance by incidental labor.
- E. Inspection and testing does not relieve Contractor to perform Work to contract requirements.
- F. Retesting required because of non-conformance to specified requirements shall be performed by the original agency at no additional cost to PRA.

1.7 MANUFACTURERS FIELD SERVICES

- A. When specified in individual specification sections, require manufacturer to provide qualified technical staff personnel to observe site conditions, quality of workmanship, start-up or training of PRA personnel as specified.
- B. Technical staff shall not be the local sales staff or independent manufacturers sales representatives.
- C. Manufacturers technical representative shall submit written reports of findings to Contractor and direct to PRA. Notify PRA the same day of non-compliance

PART 2—PRODUCTS Not Used

PART 3—EXECUTION Not Used

END OF SECTION

SECTION 01500
TEMPORARY FACILITIES AND CONTROLS

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes each Prime Contractor's construction facilities and services required for performance of the Work but not a permanent part of the finished construction. Included are temporary utilities, temporary construction and support facilities and security and protection services.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.
- B. Environmental Controls: Division 1.

1.3 SUBMITTALS

- A. Submit reports of tests, inspection, meter readings and similar procedures performed on temporary utilities.

1.4 INSPECTION

- A. Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certificates and permits.

PART 2—PRODUCTS

2.1 TEMPORARY MATERIALS

- A. Materials may be new or used, but must be adequate for the required usage and must not violate requirements of applicable codes and standards. Generally, temporary materials shall comply with related specification sections for materials to be incorporated into final work.

PART 3—EXECUTION

3.1 TEMPORARY UTILITIES

- A. PRA will not charge Contractor for utilities used. Contractor shall not waste or misuse utilities.

3.2 TEMPORARY ELECTRICIPRA

- A. Provide electrical service adequate for work of all trades, and terminate in fused safety switch and circuit breaker distribution panels as required.
- B. For welding at site or electrical requirements beyond the area of temporary system, supply generator, fuel, maintenance, and other incidentals required.

3.3 TEMPORARY LIGHTING

- A. Provide temporary lighting if required for construction operations
- B. Permanent building lighting may be utilized during construction.

3.4 HEATING AND VENTILATING

- A. Provide temporary heat as if required for construction operations. Temporary sources of heat shall be direct vented and thermostatically controlled. Open flame devices or solid fuels are not allowed.

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- B. Provide forced ventilation by portions of the permanent system or by portable units, to cure materials, to disperse humidity, and to prevent accumulations of dust, fumes, vapors, or gases. Provide ductwork with temporary filters to prevent the broadcasting of dust and debris.
 - C. In occupied facilities, while performing operations that generate fumes or dust, provide both fresh air intake and fan powered ventilation to control spread of fumes or dust to occupied areas of the building.
- 3.5 TEMPORARY TELEPHONE
- A. Provide telephone service and a facsimile machine on-site for Contractor's, PRA's and Design Professional's use. Contractor shall pay cost of service.
 - B. PRA telephones on-site may not be used by Contractors.
- 3.6 TEMPORARY WATER SUPPLY
- A. Provide temporary water service of adequate size as required for fire protection and construction operations. Temporary connections may be made to building systems where appropriate. Temporary connections must be acceptable to Plumbing Inspector.
 - B. Provide drinking water, paper cups, and waste receptacles for personnel.
- 3.7 SANITARY FACILITIES
- A. Enforce use of sanitary facilities. Evidence to the contrary shall require removal, disinfecting, and reconstruction of defaced work.
 - B. The use of the Owner's toilet facilities by construction personnel will be permitted.
- 3.8 FIRE PROTECTION
- A. Provide temporary fire protection and portable fire extinguishers according to law.
- 3.9 CONSTRUCTION AIDS
- A. Provide construction aids required for execution of the work, including scaffolds, staging, ladders, stairs, ramps, runways, platforms, railings, hoists, cranes, chutes, and other facilities and equipment as required.
- 3.10 BARRIERS
- A. Provide barriers to prevent unauthorized entry to construction areas while allowing for PRA's use of site, and to protect existing facilities and adjacent properties from damage from construction and demolition operations.
 - B. Coordinate with Fire Department to maintain access to the building entrance and egress from fire doors at all times.
 - C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
- 3.11 FENCING
- A. Construction - Commercial grade chain link
 - B. Provide 6 foot high temporary type fence around construction site; equip with pedestrian gates with locks.

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3.12 EXTERIOR ENCLOSURES

- A. Provide temporary weather tight closure if required to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.
- B. Provide temporary tarps or other protection to roofs and unprotected deck areas made open to weather by construction operations.

3.13 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- C. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by covering with durable sheet materials.
- D. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- E. Prohibit traffic from landscaped areas.

3.14 SITE SECURITY

- A. The PRA assumes no responsibility for loss, theft, or damage to the work, tools, equipment, and construction. In the instance of any such loss, theft, or damage, the Contractor shall be responsible to renew, restore, or remedy the work, tools, equipment, and construction in accordance with requirements of the Contract Documents without additional cost to the PRA.
- B. The Contractor, at his own cost, may provide watchman services, and other means of site security.
- C. Site parked equipment, operable machinery, and hazardous parts of the new construction subject to mischief and accidental operation, shall be inaccessible, locked, or otherwise made inoperable when left unattended.
- D. Liability - The PRA is not responsible for damage, liability, theft, casualty, or other hazard to the automobiles or other vehicles, nor to injury including death to occupants of automobiles or other vehicles on the PRA's property. Provide signs to this effect in the designated parking area.

3.15 ACCESS ROADS AND PARKING AREAS

- A. Access Roads
 - 1. Use existing roads on Site for access. Protect roads from damage from extra heavy loading by use of timbers or other approved means.
- B. Parking Areas
 - 1. PRA will permit use of a designated area of the existing parking lot on the Site for exclusive parking of workmen's automobiles and of the automobiles of the Design Professional, Consultants, and other visitors having business at the Site.

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3.16 PROJECT SIGN

- A Provide project identification sign, and temporary information and direction signs as required and approved. See Specification section 01580 for requirements.

3.17 FIELD OFFICE

- A. Contractor shall provide a field office on the site where directed as required to complete the Work.

3.18 TERMINATION AND REMOVAL

- A. Remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, but no later than Substantial Completion. Complete or restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
- B. Materials and facilities that constitute temporary facilities are property of the Contractor
- C. Remove temporary paving that is not intended for or acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and aggregate fill that does not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances which might impair growth of plant materials or lawns. Repair or replace street paving, curbs and sidewalks at the temporary entrances, as required by the governing authority.

END OF SECTION

SECTION 01510
ENVIRONMENTAL CONTROLS

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes each Prime Contractors requirement for protection of the atmosphere, waterways, groundwater, plants, animal habitats, soils, etc., both on and off site.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.
- B. Earthwork and Grading in Division 2.

1.3 REGULATORY AGENCIES AND CODES

- A. Comply with the following in accordance with Division 1:
 - 1. United States Department of Agriculture (USDA)
 - 2. Urban Hydrology for Small Watersheds, Technical Release No. 55, Engineering Division, Soil Conservation Service.
 - 3. National Engineering Handbooks, Section 4 (Hydrology); Section 5 (Hydraulics); Section 16 (Drainage), Soil Conservation Service.
 - 4. City of Philadelphia

1.4 DEFINITIONS

- A. Sediment - Soil that has been eroded and transported by runoff water.
- B. Degradable Debris - Debris which can undergo biodegradation or combustion, or which can be dissolved in or suspended by water.
- C. Nondegradable Debris - Inorganic debris which will not disintegrate nor dissolve when exposed to moisture or water.
- D. Chemicals - Petroleum or cementitious products, bituminous materials, salts, acids, alkalis, herbicides and pesticides.
- E. Waste - Sewage, including domestic sanitary sewage, garbage, and trash.

PART 2—PRODUCTS

2.1. MATERIALS

- A. Silt Fences: Three (3) foot wide fabric designed to filter sediment, as manufactured by Mirafi, Inc. Amoco, or Exxon.
- B. Earth Stabilizer: Rye grass seed, hay, straw mulch, chemical stabilizer, or other devices approved by the environmental protection agency having jurisdiction and by the Design Professional.
- C. RipRap: Sizes as shown on drawings.

PART 3—EXECUTION

3.1 GENERAL

- A. Establish and enforce ecological preservation measures which will avoid

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pollution of the atmosphere, waterways, groundwater, plants, soils, animal habitats, landfills, wetlands, the site, adjacent sites, roadways, etc.

- B. Prevent spilling of chemicals or waste. Provide emergency plans and methods for abatement of accidental spills of toxic substances.

3.2 SEDIMENT CONTROL

- A. Until permanent work establishes sediment control, provide temporary control, using vegetative cover with seeding, mulch, and binder within [ten (10)] days after completion of grading of any given area.
- B. As a temporary measure, provide silt fences, arranged along the toe of surface drainage ways and inlets, in such a manner that water will pass through the silt fences and filter the sediment. Embed silt fence in ground 6 inches deep and anchor to the ground with posts, as shown on the drawings. Replace silt fences when they become clogged and ineffective.
- C. During pipe laying work, prevent silt from entering the piping systems by use of hay bales, silt fence, temporary closures of pipe ends, or other means as best suited to the conditions.

3.3 DUST CONTROL

- A. Keep dust down at all times, including non-working days, weekends, and holidays. Wet down or treat disturbed soil with dust suppressers as required and approved.
- B. Do not leave areas of disturbed earth unworked for long periods of time. Provide temporary or permanent earth stabilization promptly.
- C. In sandblasting operations, confine the dust.
- D. Use wet-cutting methods for cutting concrete, asphalt, and masonry.
- E. Do not shake out bags containing dust-causing substances.

3.4 NOISE CONTROL

- A. Provide mufflers on internal combustion engine equipment. Maximum noise level shall be 90 dbA at 50 feet.
- B. Limit hours of operation of noisy construction to limits set by City ordinance.

3.5 INDOOR AIR POLLUTION

- A. Guard against indoor air pollution by protecting air intakes from dust and harmful vapors.
- B. Coordinate with Fire Department and DPP to shut down air intakes temporarily if protection cannot be maintained.
- C. Facility is City's 24/7 Fire Dispatch Center and Emergency Management Center do not compromise habitability of work areas required for these functions.

3.6 DISPOSAL OF DEBRIS, CHEMICALS AND WASTE

- A. Legally dispose of debris, chemicals, and waste off the site
- B. Collect and contain materials before disposal in orderly fashion and by means which prevent contamination of air, water and soil.

- C. Store chemicals in watertight containers.
 - D. Do not burn materials on the site.
- 3.7 TRUCKS
- A. Dump trucks shall be tarpaulin-covered so that spillage does not occur.
- 3.8 MAINTENANCE AND TERMINATION
- A. Maintain in working order environmental protection measures until they are no longer required.
 - B. Terminate environmental control measures when there is no longer a threat of pollution. Remove temporary control measures. Complete or, if necessary, restore permanent construction that may have been delayed or damaged because of interference with environmental controls.

END OF SECTION

SECTION 01610
PRODUCTS AND MATERIALS

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes administrative procedures regarding each Prime Contractor's selection of products, materials, and equipment required for the completion of the Work. Requirements for handling, storing and installing products are also included.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.

1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties", "structure", "finishes", "accessories", and similar terms. Such terms are self-explanatory and have well recognized meanings in the construction industry.
- B. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material", "equipment", "system", and terms of similar intent.
- C. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature.
- D. "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
- E. "Equipment" is a product with operational parts, whether motorized or manually operated, that require service connections such as wiring or piping.
- F. "System" is an integrated assembly of materials and/or equipment which when combined form an integral whole to serve a function.

1.4 QUALITY ASSURANCE

- A. Source Limitations - To the fullest extent possible, provide products of the same kind, from a single source.
- B. Compatibility of Options - When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. Each Prime Contractor is responsible for providing products and construction methods that are compatible with products and construction methods of other prime or separate Contractors.
- D. If a dispute arises between prime Contractors over concurrently selectable, but incompatible products, the Design Professional will determine which products shall be retained and which are incompatible and must be replaced.

- E. Nameplates - Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view in occupied spaces or on the exterior.
 - F. Labels - Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
 - G. Equipment Nameplates - Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - 1. Name of product and manufacturer.
 - 2. Model and serial number.
 - 3. Capacity.
 - 4. Speed.
 - 5. Ratings.
- 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING
- A. Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.
 - B. Schedule delivery in accordance with the Construction Schedule and to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
 - C. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
 - D. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with legible labels and instructions for handling, storing, unpacking, protecting and installing.
 - E. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.
 - F. Store products at the site in a manner that will facilitate inspection and measurement of quantity of counting of units.
 - G. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
 - H. Store product subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.
- 1.6 OPERATION, MAINTENANCE, TRAINING AND CALIBRATION
- A. Furnish manuals and services specified and as required to start-up, operate and maintain all equipment and systems.

PART 2—PRODUCTS

2.1 GENERAL PRODUCT REQUIREMENTS

- A. Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation. All products shall be certified asbestos-free.
- B. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
- C. Where the work requires testing for assurance of performance, that portion of the work shall not proceed until such testing has been completed and written test report has been approved.
- D. Do not use material or equipment for any purpose other than for which it is designed or specified.
- E. Certification of Compatibility: If indicated, the material and equipment manufacturers shall certify in writing that:
 - 1. Other manufacturer's materials or equipment coming into contact with their product are compatible with their product in every way and that the intended performance of the system in which their product is incorporated will not be affected as a result of such contact. Also, physical breakdown of their product by chemical reaction or otherwise will not occur as a result of such contact.
 - 2. The combination of products by one (1) manufacturer to make up the manufacturer's specified system, will contribute to the performance of the system as intended, and will remain operational, reliable and durable. The manufacturer will be the source of routine maintenance and replacement parts.
- F. Reuse of Existing Material
 - 1. Except where indicated or otherwise approved in writing, materials and equipment removed from an existing structure shall not be used in the work.
 - 2. Where use of existing material is indicated or approved, use special care in removing, handling, storing, and reinstallation to assure proper function in the completed work.

2.2 PRODUCT SELECTION PROCEDURES

- A. Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
- B. Where products or manufacturers are specified by name, description, or performance accompanied by the term "or equivalent substitution", "or approved substitution", "or approved equal" or similar terms comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
- C. Proprietary Specification Requirements - Where products or manufacturers are named, provide the product indicated or submit a substitution request.

- D. Descriptive Specification Requirements - Where Specifications describe a product or assembly, listing exact characteristics required, without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements. If descriptive specification also includes manufacturers or products, provide product indicated of submit a substitution request.
- E. Performance Specification Requirements - Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. Compliance shall be certified by independent testing agencies furnished by manufacturer. General overall performance of a product is implied where the product is specified for a specific application.
- F. Manufacturer's recommendations may be contained in published product literature, or by the manufacturer's certification of performance.
- G. Compliance with Standards, Codes and Regulations - Where the Specifications require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified. Compliance shall be certified by independent testing agencies furnished by manufacturer.
- H. Visual Matching - Where Specifications require matching an established sample or existing construction, the Design Professional's decision will be final on whether a proposed product matches satisfactorily.
- I. Visual Selection - Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Design Professional will select the color, pattern and texture from the product line selected.
- J. Allowances - Refer to individual Specification Sections and "Allowance" provisions in Division 1 for allowances that control product selection, and for procedures required for processing such selections.

PART 3—EXECUTION

3.1 ACCEPTABLE INSTALLERS

- A. Installers shall be familiar with products and experienced in their installation. Comply with more stringent requirements of individual sections for installer qualifications.

3.2 EXAMINATION OF SUBSTRATE

- A. Each installer shall examine substrate onto which the product will be installed. Inspect for any condition which would in any way reduce the quality, performance or durability of the product including but not limited to; dimensional or location tolerances, dampness, dryness, installation not meeting specified criteria for substrate, poor workmanship, etc. Do not proceed with installation over unacceptable substrates. Notify Contractor to have substrate repaired. Work installed over unacceptable substrates shall be redone after substrate is repaired at no cost to the City.

3.3 PREPARATION

- A. Protect adjacent work from possible damage which installation could cause including but not limited to staining, overspray, denting, gouging, displacement, etc.
- B. Clean and prepare substrates to receive products with primers, bonding agents, barrier coats, etc. as per manufacturer's instructions.

3.4 PASSAGE OF MATERIALS AND EQUIPMENT

- A. Establish passage clearances required to deliver and install materials and equipment.
- B. Where there will be insufficient clearance for passage of materials and equipment, deliver and protect such equipment before confining construction is installed.
- C. If existing structures, equipment and systems must be altered to provide passage of new materials and equipment, engage those skilled in the respective trade to restore structures, equipment, and systems to their original condition at no additional cost. Do not alter structure, equipment, or systems without written approval.
- D. In lieu of altering structures to provide passage of materials and equipment, provide materials and equipment that can be disassembled, brought into the building, and reassembled.
- E. If exterior windows or doors must be removed to provide passage of materials and equipment into the building, store and protect removed work at the site and reinstall as soon as possible. If any damage occurs to the work during their removal, transit, storage or reinstallation, replace or repair the work to like new condition at no cost to Owner.

3.5 INSTALLATION

- A. Comply with manufacturer's instructions and recommendations and requirements of individual specification sections in the applications indicated. If manufacturer's instructions and specifications indicate differing installation techniques, request clarification from Design Professional but generally comply with more stringent requirement.
- B. Anchor each product securely in place accurately located and aligned with other Work.
- C. Coordinate installation with surrounding Work to allow for optimum end product.

3.6 FIELD QUALITY CONTROL

- A. Have manufacturer's technical representative on-site to observe crucial installation steps as required by individual specification sections or as required to meet manufacturer's warranty or to meet other indicated criteria.

3.7 ADJUSTING

- A. Adjust installed products for proper operation and fit.

END OF SECTION

SECTION 01630
SUBSTITUTION PROCEDURES

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section specifies each Prime Contractor's administrative and procedural requirements for handling requests for substitutions made after award of the Contract. Procedural requirements governing the Contractor's selection of products and product options are included under Section "Materials and Equipment".

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.

1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change or modify the meaning of other terms used in the Contract Documents.
- B. Substitutions - Requests for changes in products, materials, equipment, and construction required by Contract Documents proposed by the Contractor after award of the Contract are considered requests for "substitutions". The following shall not be considered substitutions:
 - 1. Substitutions requested by Bidders during the bidding period, and accepted in Addenda prior to award of Contract.
 - 2. Revisions to Contract Documents requested by the City or Design Professional.
 - 3. Specified options of products and construction methods included in Contract Documents.
 - 4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.
- C. "Or equal", "or equivalent", "approved equal", "approved equivalent", "equivalent substitution" and all other similar terms shall be interpreted as "substitution" as defined above.

1.4 SUBMITTALS

- A. Submit three (3) copies of each request for substitution. Submit requests with the form attached at the end of this Section and in accordance with procedures required for Change Order proposals. Attach all other data and certification.
- B. Identify the product, or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate.
- C. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.
- D. Samples, where applicable or requested.
- E. A detailed comparison of salient features and qualities of the proposed substitution with those of the Work specified. Salient features and qualities may

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include elements such as size, weight, durability, performance and visual effect as determined by the Design Professional. Submit documentation of salient features and qualities from independent testing agencies performing industry recognized tests. The manufacturer's claims of performance may or may not be used in evaluation of substitutions at the discretion of the Design Professional.

- F. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the PRA and separate Contractors, that will become necessary to accommodate the proposed substitution.
- G. A statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
- H. Cost information, including a proposal of the net change, if any in the Contract Sum. The Contractor shall certify that the cost data presented is complete and includes all related costs under this Contract, but excludes the Design Professional's redesign costs.
- I. Certification by the Contractor that the substitution proposed is equal-to or better in every significant respect to that required by the Contract Documents, and that it will perform adequately in the application indicated. Include the Contractor's waiver of rights to additional payment or time, that may subsequently become necessary because of the failure of the substitution to perform adequately.
- J. Certification that the Contractor will reimburse the PRA for all costs for additional services by the Design Professional and/or the Department of Public Property relating to any substitution that necessitates a design change and related documentation.
- K. Design Professional's Action - The Design Professional will notify the Contractor of acceptance or rejection of the proposed substitution. The Design Professional will be the sole judge of the acceptability of the proposed substitution. Acceptance will be in the form of a Change Order. The Change Order will include a deduction from the Contract Sum for additional costs incurred by the PRA because of the substitution including, but not limited to, Design Professional's fees.

PART 2—PRODUCTS

2.1 SUBSTITUTIONS

- A. Conditions - The Contractor's substitution request will be received and considered by the Design Professional when one or more of the following conditions are satisfied, as determined by the Design Professional; otherwise requests will be returned without action except to record noncompliance with these requirements.
 - 1. Extensive revisions to Contract Documents are not required.
 - 2. Proposed changes are in keeping with the general intent of Contract Documents.
 - 3. The request is timely, fully documented and properly submitted.
 - 4. The request is directly related to an "or approved substitution" clause or similar language in the Contract Documents.

5. The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
 6. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
 7. A substantial advantage is offered the PRA, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the PRA may be required to bear. Additional responsibilities for the PRA may include additional compensation to the Design Professional for redesign and evaluation services, increased cost of other construction by the PRA or separate Contractors, and similar considerations.
- B. The specified product or construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
 - C. The specified product or construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.
 - D. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provide the required warranty.
 - E. Where a proposed substitution involves more than one Prime Contractor, each Contractor shall cooperate with the other Contractors involved to coordinate the Work, provide uniformity and consistency, and to assure compatibility of products.
 - F. The Contractor's submittal and Design Professional acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

PART 3—EXECUTION Not Applicable

Attachment - Substitution Request Form (4 pages)

END OF SECTION

PRA SUBSTITUTION REQUEST FORM

INSTRUCTIONS:

- A. This request must be submitted and signed by the Prime Contractor.
- B. A request for each substitution must be exactly in this form, including all items. (One (1) item of substitution per form).
- C. Attach complete information on changes to Drawings and Specifications that proposed substitution will require for its proper installation.
- D. Submit with request, all necessary samples and substantiating data to prove quality and performance is equal to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance

CONTRACT AWARD DATE: _____ DATE OF REQUEST: _____

CONTRACTOR: _____

PROJECT: _____

We hereby submit for your consideration the following substitution in lieu of the specified item for the above project:

SPEC. SECTION NO.: _____ PARAGRAPH: _____ SPECIFIED ITEM: _____

PROPOSED
SUBSTITUTION: _____

REASON
FOR
REQUEST: _____

ITEMIZED COMPARISON OF SPECIFIED ITEM WITH THE PROPOSED SUBSTITUTION:
PERFORMANCE: _____

APPEARANCE: _____

REFERENCED
STANDARDS: _____

DEDUCT CHANGE ORDER OFFERED FOR PROPOSED SUBSTITUTION: _____

MANUFACTURER'S WARRANTIES OF THE PROPOSED AND SPECIFIED ITEMS:

LENGTH OF WARRANTY: AS SPECIFIED []. PROPOSED []

MATERIALS COVERED: AS SPECIFIED []. PROPOSED []

LABOR COVERED: AS SPECIFIED []. PROPOSED []

OTHER TERMS: AS SPECIFIED: _____

PROPOSED SUBSTITUTION: _____

DESIGNATION OF MAINTENANCE SERVICES AND SOURCES: _____

DOES SUBSTITUTION AFFECT DIMENSIONS OR CLEARANCES SHOWN ON THE
DRAWINGS? YES [] NO [].

IF YES, CLEARLY INDICATE
CHANGES: _____

WILL THE UNDERSIGNED PAY FOR CHANGES TO THE BUILDING DESIGN,
INCLUDING ENGINEERING AND DETAILING COSTS CAUSED BY THE REQUESTED
SUBSTITUTION? YES [] NO [].

IF NO, FULLY EXPLAIN: _____

WHAT EFFECT DOES SUBSTITUTION HAVE ON OTHER CONTRACTS OR TRADES?__

WHAT EFFECT DOES SUBSTITUTION HAVE ON CONSTRUCTION SCHEDULE?_____

CONTRACTORS CERTIFICATION OF EQUAL PERFORMANCE

The undersigned certifies that:

He/she has investigated the proposed substitution and has determined that it is equal to or better than the product specified.

He/she will guarantee the substitution in the same manner as the product specified.

He/she will coordinate and make other changes as required in the Work as a result of the substitution.

He/she waives all claims for additional costs as a result of the substitution, with the exception of those identified above under "cost data".

He/she will reimburse the PRA for all costs for design change resulting from the substitution.

Submitted by:

Signature _____

Name: _____ Title: _____

Firm: _____ Date: _____

Street: _____

City _____ State _____ Zip Code _____

Telephone: _____

Signature shall be by person having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in rejection without further review by Design Professional.

Design Professional's Action

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Accepted []

Accepted as noted []

Not accepted []

Received too late []

Signature: _____

END OF SECTION

SECTION 01770
CLOSEOUT PROCEDURES

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section specifies each Prime Contractor's administrative and procedural requirements for project closeout.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.

1.3 SUBSTANTIAL COMPLETION

- A. When the work is considered substantially complete, submit a written notice to Project Coordinator that the Work, or a designated portion thereof, is substantially complete. Include a list of all items that require completion or correction.
- B. Within a reasonable time after receipt of such notice, an inspection by the PRA will be made to determine the status of completion.
- C. If the Work is not considered substantially complete; the Contractor will be notified in writing, giving the reasons therefore.
- D. Contractor shall remedy the deficiencies in the Work, and send a second written notice of substantial completion. This notice shall include a statement of action taken on each item noted as requiring correction or completion to achieve "Substantial Completion" status.
- E. The Work will be inspected a second time and if not considered substantially complete, the two steps in paragraphs A and B above will be repeated.
- F. When the Project Coordinator concurs that the Work is substantially complete, he/she will:
1. Prepare a Certificate of Substantial Completion on PRA form, accompanied by Contractor's list of items to be completed or corrected, as verified and amended by the Project Coordinator.
 2. Submit the Certificate to Contractor for written notice of the responsibilities assigned in the Certificate.
- G. Contractor shall prepare Application for Payment at Substantial Completion and complete administrative and submittal requirements per Section 01290 "Payment Procedures".

1.4 FINAL OBSERVATION

- A. When the Work is considered complete, submit written certification that:
1. Contract Documents have been reviewed.
 2. Work has been inspected by the Contractor and has been completed in compliance with Contract Documents.
 3. Equipment and systems have been tested in the presence of the Project Coordinator and are operational.

4. Work is ready for final observation.
- B. Inspection by the PRA will be made to verify the status of completion with reasonable promptness after receipt of such certification.
- C. If the Work is not considered complete; the Contractor will be notified in writing, listing the incomplete or defective Work.
- D. Contractor shall take immediate steps to remedy the stated deficiencies, and, after correcting deficiencies, he shall send a second written certification that the Work is complete. This certification shall itemize each deficiency noted and a statement of action taken to remedy or complete the Work.
- E. The Work will be observed a second time and if not considered substantially complete, the two steps in paragraphs A and B above will be repeated.
- F. When the Work is acceptable under the Contract Documents, the Contractor shall be requested to make closeout submittals.

1.5 ADDITIONAL OBSERVATION FEES

- A. Should more than two observations at substantial or final completion and/or for required mock ups be required due to failure of the Work to comply with the claims of status of completion made by the Contractor:
 1. PRA will compensate the Design Professional for such additional services.
 2. PRA will deduct the amount of such compensation from the final payment to the Contractor.

1.6 CLOSEOUT SUBMITTALS

- A. When the Work is complete submit the following:
 1. Evidence of compliance with requirement of governing authorities as follows:
 - a. Certificate of Occupancy.
 - b. Certificates of Inspection for Work requiring Certificate of Inspection by governing authority.
 - c. Certificate and Reports of Inspection, Testing and Approval.
 2. Project Record Documents as specified under Division 1.
 3. Operating and Maintenance Manuals as specified under Division 1.
 4. Warranties as specified under Division 1.
 5. Spare Parts and Maintenance Materials as specified.
 6. Evidence of Payment and Release of Liens to the requirements of General and Supplementary Conditions.
 7. Requirements for Final Payment Application per Section 01290 Payment Procedures, Division 1.
 8. Consent of Surety.

1.7 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Furnish spare parts and maintenance materials as specified under various Sections of the Specifications.
 - B. Package and label parts and materials as directed and store in area of the building where directed by the Project Coordinator.
- 1.8 FINAL ADJUSTMENT OF ACCOUNTS
- A. Submit a final statement of accounting.
 - B. Statement shall reflect all adjustments to the Contract Sum:
 - 1. The original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders.
 - b. Change Orders caused by substitutions including deductions for review.
 - 3. Deductions for uncorrected Work.
 - 4. Deductions for re-inspection payments.
 - 5. Other adjustments.
 - 6. Total Contract Sum, as adjusted.
 - 7. Previous payments.
 - 8. Sum remaining due.
 - C. The Project Coordinator will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.
- 1.9 FINAL APPLICATION FOR PAYMENT
- A. Submit the final Application for Payment in accordance with procedures and requirements stated herein.

PART 2—PRODUCTS Not Used

PART 3—EXECUTION

- 3.1 Sample Certificate of Substantial Completion Form, see Project Coordinator for actual form.

CERTIFICATE OF SUBSTANTIAL COMPLETION

CITY OF PHILADELPHIA
Department of Public Property
ONE PARKWAY, 1515 ARCH
STREET
PHILADELPHIA, PA 19102



Architect/Engineer:

[Design Consultant
Street Address
City, State, Zip Code]

Owner:

City of Philadelphia / Dept. Of Public Property
One Parkway Building / 1515 Arch Street
Philadelphia, PA 19102

Location:

[Using Agency Name
Name of Facility
Address of Facility
Philadelphia, PA Zip Code]

Inspection Date: [Date]

DPP Project Number: [00-00-0000-00]

Contract Number: [00-0000]

Purchase Order Number: [POXX00000000]

Contractor:

[Name of Company
Address of Company
City, State, Zip Code]

Contract Description (Project Title):

The Work performed under this contract or designated portion of the contract has been observed by the Architect/ Engineer and to the best of his/her knowledge, information and belief the Work is hereby found to be substantially completed on the above date in accordance to the contract documents.

This certificate does not denote final acceptance. The date of Substantial Completion is the date of the start of the warranty and guarantee periods required by the contract documents, except as listed below:

[Enter Information or None]

The list of items to be completed or corrected is attached as exhibit "A". All items listed are to be completed no later than [00/00/00.] The completion of these items on the proposed date constitutes the effective warranty date for said items.

A list of items to be completed or corrected, commonly known as a punch list, is attached hereto. This list may not be exhaustive, and the failure to include an item on it does not alter the responsibility of the Contractor to complete all of the work in accordance with the contract documents.

[Design Consultant
Street Address
City, State, Zip Code]

Authorized Representative Date

The Contractor accepts this Certificate of Substantial Completion and agrees to complete and/ or correct the items on the list by [00/00/00].

[Name of Contractor
Address of Company
City, State, Zip Code]

Authorized Representative Date

The Owner accepts the Work as substantially complete and will assume full possession of the building on the date of [00/00/00]. The Owner accepts responsibility for utilities, security and insurance hereafter. All applicable warranties required by the contract documents become effective on the above date.

City of Philadelphia
Dept. Of Public Property
One Parkway Building
1515 Arch Street
Philadelphia, PA 19102

Authorized Representative (Project Coordinator) Date

Definition of Substantial Completion

The date of substantial completion of a project or specified area of a project is the date when the contract is sufficiently completed, in accordance with the contract documents, as modified by any change orders agreed to by the parties, so that the Owner can occupy or utilize the project or specified area of the project for the use for which it was intended.

cc. File-Project # Sect. 4.18

END OF SECTION

PHILADELPHIA ZOO ANIMAL HOSPITAL AND SMALL PRIMATE
HOLDING MECHANICAL UPGRADES

01770-4

CLOSEOUT PROCEDURES

SECTION 01781
OPERATION AND MAINTENANCE MANUALS

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes each Prime Contractor's procedural requirements for compiling and submitting operation and maintenance data.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.
- B. Individual Specifications Sections: Specific requirements for operation and maintenance data.

1.3 QUALITY ASSURANCE

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.4 FORMAT

- A. Prepare data in the form of an instructional manual.
- B. Binders: Commercial quality, 8-1/2 by 11 inch three ring binders with plastic covers. When multiple binders are used, correlate data into related consistent groupings.
- C. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- D. Provide tabbed flyleaf, indexed for each separate product and system, with typed description of product and major component parts of equipment.
- E. Text: Manufacturer's printed data or typewritten data.
- F. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- G. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Design Professional, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by [specification section. For each category, identify names, addresses and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment or product
 - c. Parts list for each component or product
 - d. Operating instructions.
 - e. Maintenance equipment for equipment and systems.

- f. Maintenance instructions for [special] finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
3. Part 3 - Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Photocopies of warranties and bonds.

H. Data

1. For Each Product or System - List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
2. Product Data - Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
3. Drawings - Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawing.

1.5 MANUAL FOR MATERIALS AND FINISHES

- A. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Provide information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional Requirements: As specified in individual Product Specification sections.

1.6 INSTRUCTION OF PRA PERSONNEL

- A. Before final inspection, instruct PRA's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems, at agreed upon times.
- B. Use operation and maintenance manuals as basis for instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- C. Prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

1.7 SUBMITTALS

PHILADELPHIA ZOO ANIMAL HOSPITAL AND SMALL PRIMATE
HOLDING MECHANICAL UPGRADES

01781-2

OPERATION AND MAINTENANCE MANUALS

- A. For equipment, or component parts of equipment put into service during construction and operated by PRA, submit documents within ten days after acceptance.
- B. Submit 2 copies of completed volumes 14 days prior to final inspection. This copy will be reviewed and returned after final observation, with comments. Revise content of all document sets as required prior to final submission.
- C. Submit six (6) sets of revised final volumes in final form prior to or coincidental with Final Application for Payment.

PART 2—PRODUCTS Not Used

PART 3—EXECUTION Not Used

END OF SECTION

SECTION 01782
WARRANTIES

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes each Prime Contractor's procedural requirements for executing, assembling and submitting warranties.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.
- B. Individual Specification sections requiring warranties or service/maintenance contracts.

1.3 SUBMITTAL REQUIREMENTS

- A. Submit two (2) sets of original signed copies of warranties, bonds, service and maintenance contracts, executed by the respective manufacturers, suppliers, and subcontractors.
- B. Contents - Neatly type, in orderly sequence, the following information for each item.
 - 1. Product or work item.
 - 2. Subcontractor supplier and manufacturers names, addresses, and telephone numbers.
 - 3. Date of beginning and duration time of warranty, bond, or service and maintenance contract.
 - 4. Proper procedure in case of failure.
 - 5. Instances which might affect the validity of warranty or bond.
- C. Bind each set in 8 1/2 inch by 11 inch commercial quality, three-ring binders with plastic covers. Identify each binder with typed or printed title "Warranties" with title of project and location.

1.4 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment placed into service during progress of construction, submit documents within ten (10) days after inspection and acceptance.
- B. Make other submittals within ten (10) days after Date of Substantial Completion, prior to final request for payment.
- C. For items of work, where acceptance is delayed materially beyond the Date of Substantial Completion, provide updated submittal within ten (10) days after acceptance, listing the date of acceptance as the start of the warranty period.

PART 2—PRODUCTS Not Used

PART 3—EXECUTION Not Used

END OF SECTION

PHILADELPHIA ZOO ANIMAL HOSPITAL AND SMALL PRIMATE
HOLDING MECHANICAL UPGRADES

01782-1
WARRANTIES

SECTION 01783
PROJECT RECORD DOCUMENTS

PART 1—GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section describes each Prime Contractor's administrative and procedural requirements for recording final product and material selections, changes to the Contract, and recording Work concealed by subsequent construction.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Applicable provisions of Bidding Requirements, Contract Requirements in Division 0 and all applicable Division 1 sections.

1.3 MAINTENANCE OF DOCUMENTS

- A. Maintain at job site, one (1) copy of record documents including Drawings, Specifications, Addenda, Change Orders and other modifications, Shop Drawings, product data and samples.
- B. In addition, maintain one (1) copy of field orders or written instructions, field test records, testing and inspection reports, progress reports, meeting minutes and construction photographs.
- C. Maintain documents in a clean, dry, legible condition and in good order.
- D. Make documents available at all times for inspection.
- E. Review documents at progress meetings.

1.4 RECORDING

- A. Neatly label each document and binder with "Project Record" and project name and location.
- B. Record information concurrently with construction progress.
- C. Do not conceal any work until required information is recorded.
- D. Record Construction Drawings and Shop Drawings: Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
 - 1. Note horizontal and vertical locations of concealed elements, referenced to permanent, visible features.
 - 2. Note field changes of dimension and detail.
 - 3. Note details not on original Contract Drawings.
- E. Record Project Manual: Mark to show substantial variations in actual Work performed in comparison with the text of the original. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and Product Data.

- F. Record Product Data: Maintain one copy of each Product Data submittal. Mark documents to show significant variations in actual Work performed in comparison with information submitted. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation. Note related Change Orders and mark-up of record drawings and Specifications.

1.5 SUBMITTALS

- A. Preceding or coincidental with the final pay application, submit the following:
- B. Record Construction Drawings: [One (1) set] of reproducible mylar transparencies showing all notations specified above. Transparencies of the Design Professional's drawings may be used for this purpose upon reimbursement of the printing costs to the Design Professional.
- C. Electronic submission may be permitted in AutoCAD format acceptable to the PRA.
- D. Record Shop Drawings: One (1) copy of any shop drawings.
- E. Record Project Manual: One (1) copy bound in 3 ring binders.
- F. Record Product Data: One (1) copy organized by CSI format bound in 3 ring binders.
- G. If review of Record Documents reveals noncompliance with Contract Documents, Contractor shall correct deficiencies and resubmit.

PART 2—PRODUCTS Not Used

PART 3—EXECUTION Not Used

END OF SECTION