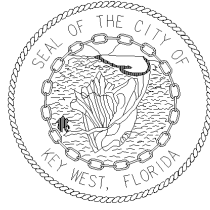


CONTRACT DOCUMENTS FOR:



ITB #012-16

**KEY WEST HISTORIC SEAPORT
THOMPSON FISH HOUSE
WALL RESTORATION**

AUGUST 2016

CITY OF KEY WEST

MAYOR: CRAIG CATES

COMMISSIONERS:

JIMMY WEEKLEY

SAMUEL KAUFMAN

BILLY WARDLOW

RICHARD G. PAYNE

MARGARET ROMERO

CLAYTON LOPEZ

PREPARED BY:
Bender & Associates

ITB DOCUMENTS

CITY OF KEY WEST
CAROLINE STREET AND BAHAMA VILLAGE
COMMUNITY REDEVELOPMENT AGENCY (CRA)

KEY WEST, FLORIDA

DOCUMENTS

for

**THOMPSON FISH HOUSE
WALL RESTORATION**

CONSISTING OF:

PROCUREMENT REQUIREMENTS
CONTRACT FORMS
CONDITIONS OF THE CONTRACT
TECHNICAL SPECIFICATIONS
DRAWINGS

KEY WEST HISTORIC SEAPORT (KWHS)

AUGUST 2016

TABLE OF CONTENTS

	<u>Page</u>
PART 1 - <u>PROCUREMENT REQUIREMENTS</u>	
INVITATION TO BID	1
INSTRUCTIONS TO BIDDERS	3
BID FORM	10
ANTI-KICKBACK AFFIDAVIT.....	20
PUBLIC ENTITIES CRIME FORM.....	21
CITY OF KEY WEST INDEMNIFICATION.....	23
EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT.....	24
CONE OF SILENCE	25
LOCAL VENDOR CERTIFICATION	26
BIDDER'S CHECKLIST	27
PART 2 - <u>CONTRACT FORMS</u>	28
CONTRACT	29
FLORIDA PERFORMANCE BOND	31
FLORIDA PAYMENT BOND.....	33
LICENSE REQUIREMENT AND COST	35
PART 3 - <u>CONDITIONS OF THE CONTRACT</u>	36
GENERAL CONDITIONS.....	37
SUPPLEMENTARY CONDITIONS.....	56
PART 4 – <u>SPECIFICATIONS</u>	64
01001 GENERAL REQUIREMENTS.....	65
01010 SCOPE OF WORK.....	71
01300 SUBMITTALS	72
01700 CONTRACT CLOSEOUT.....	74
PART 5 – <u>TECHNICAL SPECIFICATIONS</u>	77
DIVISION 2 - SITE WORK	
02070 SELECTIVE DEMOLITION	78
DIVISION 3 - CONCRETE	
03300 CAST-IN-PLACE CONCRETE	80
03310 CONCRETE REPAIRS	87
DIVISION 4 - MASONRY	
NOT USED	
DIVISION 5 – METALS	
NOT USED	
DIVISION 6 – WOOD AND PLASTICS	
06100 ROUGH CARPENTRY	95
06200 FINISH CARPENTRY	101

DIVISION 7 – THERMAL AND MOISTURE PROTECTION	
07600 – FLASHING AND SHEET METAL	105
07920 – SEALANTS AND CAULKING	110
DIVISION 8 – DOORS AND WINDOWS	
08420 ALUMINUM ENTRANCES	115
08520 ALUMINUM WINDOWS	118
DIVISION 9 – FINISHES	
09900 PAINTING	121
DIVISION 10 – SPECIALTIES	
NOT USED	
DIVISION 11 – EQUIPMENT	
NOT USED	
DIVISION 12 – FURNISHINGS	
NOT USED	
DIVISION 13 - SPECIAL CONSTRUCTION	
NOT USED	
DIVISION 14 – CONVEYING SYSTEMS	
NOT USED	
DIVISION 15 – MECHANIAL	
NOT USED	
DIVISION 16 – ELECTRICAL	
016400 ELECTRICAL	132
PART 6 - <u>DRAWINGS</u>	136
DRAWINGS	

PART 1

PROCUREMENT REQUIREMENTS

INVITATION TO BID

Sealed Bids for City of Key West Caroline Street and Bahama Village Community Redevelopment Agency (CRA) **“THOMPSON FISH HOUSE WALL RESTORATION,”** addressed to the City of Key West, will be received at the office of the City Clerk, 3126 Flagler Avenue, Key West, Florida until **3:00 p.m.**, local time, on the **28th day of September 2016**, and then will be publicly opened and read. Any bids received after the time and date specified will not be considered.

Please submit one (1) original bid package and two (2) electronic copies on USB drives with a single PDF file of the entire bid package. Bid package shall be enclosed in a sealed envelope, clearly marked on the outside **“ITB #012-16 KEY WEST HISTORIC SEAPORT – THOMPSON FISH HOUSE WALL RESTORATION”** addressed and delivered to the City Clerk at the address noted above.

The CRA is seeking BIDS from qualified individuals or firms for the stabilization and restoration of historic exterior concrete walls, including tremie concrete foundations below the waterline.

The full Invitation to Bid may be obtained from Demand Star by Onvia and The City of Key West website. Please contact Demand Star at www.demandstar.com or call 1-800-711-1712 or www.cityofkeywest-fl.gov

A **Mandatory pre-bid meeting** will be held in the conference room at the KWHS Port and Marine Services Offices, 201 William Street, Key West, Florida on **September 14, 2016 at 2:30 p.m.**

EACH BID MUST BE SUBMITTED ON THE PRESCRIBED FORM AND ACCOMPANIED BY BID SECURITY AS PRESCRIBED IN THE INSTRUCTIONS TO BIDDERS, PAYABLE TO THE CITY OF KEY WEST, FLORIDA, IN AN AMOUNT NOT LESS THAN FIVE (5) PERCENT OF THE AMOUNT BID.

THE BIDDER MUST BE A LICENSED CONTRACTOR BY THE STATE OF FLORIDA AND SUBMIT PROOF OF SUCH WITH THE BID.

The Bidder shall furnish documentation showing that they are in compliance with the licensing requirements of the State and the provisions of Chapter 66 Section 87 of the Code of Ordinances of the City of Key West; within 10 days the following the Notice of Award and must demonstrate that he holds at a minimum, the following licenses & certificates;

- A. City of Key West License, as defined in Code of Ordinances, Chapter 66, enabling the Contractor to perform the work stated herein.
- B. A valid occupational license issued by the City of Key West, Florida.
- C. City of Key West Business Tax License Receipt

All bid bonds, contract bonds, insurance contracts, and certificates of insurance shall be either executed by or countersigned by a licensed resident agent of the Surety or Insurance Company having his place of business in the State of Florida, and in all ways complying with the insurance

laws of the State of Florida. Further, the said Surety or Insurance Company shall be duly licensed and qualified to do business in the State of Florida.

Before a Contract will be awarded for the work contemplated herein, the CRA will conduct such investigation as is necessary to determine the performance record and ability of the apparent low Bidder to perform the size and type of work specified under this Contract. Upon request, the Bidder shall submit such information as deemed necessary by the CRA to evaluate the Bidder's qualifications.

The CRA hereby notifies all Bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, Disadvantaged Business Enterprise will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, gender, religion, age, disability, marital status or national origin in consideration for this award.

For information concerning the proposed work please contact Karen Olson, Deputy Port and Marine Services Director by email at kolson@cityofkeywest-fl.gov. Verbal communications, per the City's "Cone of Silence" ordinance are not allowed.

As stated above at the time of the BID submittal the Bidder must provide satisfactory documentation of State Licenses. The Bidder shall furnish documentation showing that he is in compliance with the licensing requirements of County, and City licenses as would be required within ten days of the award. The successful Bidder must also be able to satisfy the City Attorney as to such insurance coverage and legal requirements as may be demanded by the Proposal in question. The CRA may reject BID for any and/or all of the following reasons: (1) for budgetary reasons, (2) if the proposer misstates or conceals a material fact in its bid, (3) if the proposal does not strictly conform to the law or is non-responsive to the bid requirements, (4) if the proposal is conditional, or (5) if a change of circumstances occurs making the purpose of the proposal unnecessary to the CRA. (6) if such rejection is in the best interest of the CRA. The CRA may also waive any minor formalities or irregularities in any proposal.

The CRA retains the right to award bid to the bidder that best meet the needs of the City.

* * * * *

INSTRUCTIONS TO BIDDERS

1. CONTRACT DOCUMENTS

A. FORMAT

The Contract Documents are divided into parts, divisions, and sections for convenient organization and reference. Generally, there has been no attempt to divide the Specification sections into work performed by the various building trades, work by separate subcontractors, or work required for separate facilities in the Project.

B. DOCUMENT INTERPRETATION

Separate sections contained within these Contract Documents are intended to be mutually cooperative and provide all details reasonably required for the execution of proposed work.

Should there be any doubt as to the meaning or intent of said Contract Documents, the Bidder should request of the Deputy Port and Marine Services Director, in writing (at least **8** calendar days prior to Bid opening) an interpretation thereof. Any interpretation or change in said Contract Documents will be made only in writing in the form of Addenda to the Documents, which will be furnished to all registered holders of Contract Documents. Bidders shall submit with their Bids, or indicate receipt of all Addenda. The Owner will not be responsible for any other explanation or interpretations of said Documents.

2. SCOPE OF SERVICES

A general description of the work to be done is contained in the Scope of Services section.

3. REQUIRED QUALIFICATIONS

The prospective Proposers must meet the statutorily prescribed requirements before award of Contract by the CRA. Proposers must hold or obtain all licenses and/or certificates as required by the State and Local Statutes in order to bid and perform the work specified herein. Additionally all proposers must meet the minimum qualifications as described in Required Qualifications section.

4. BIDDER'S UNDERSTANDING

Each Proposer must inform himself of the conditions relating to the execution of the work and make himself thoroughly familiar with all the Contract Documents. Failure to do so will not relieve the successful Proposer of his obligation to enter into a Contract and complete the contemplated work in strict accordance with the Contract Documents.

Each Proposer shall inform himself of, and the Proposer awarded a Contract shall comply with, federal, state, and local laws, statutes, and ordinances relative to the execution of the work. This requirement includes, but is not limited to, applicable regulations concerning minimum wage rates, nondiscrimination in the employment of labor, protection of public and employee safety and health, environmental protection, the protection of natural

resources, fire protection, permits, fees, and similar subjects.

5. TYPE OF BID

LUMP SUM

The Proposal for the work is to be submitted on a lump sum basis. All items required to complete the work specified or shown on the Drawings but not included in the Proposal shall be considered incidental to those set forth in the Proposal. Payment to the Contractor will be made on the measurement of the work actually performed by the Contractor, as specified in the Contract Documents.

The Bidder further proposes to accept as full payment for the Work proposed herein, the amounts computed under the provisions of the Contract Documents and based on the following lump sum amounts. The Bidder agrees that the lump sums include all allowances for overhead and profit for each type and unit of work called for in these Contract Documents.

6. PREPARATION OF BIDS

A. GENERAL

All blank spaces in the BID form must be filled in for all schedules and associated parts, as required, preferably in BLACK INK. All price information shall be clearly shown in both words and figures where required. No changes shall be made in the phraseology of the forms. Written amounts shall govern in case of discrepancy between the amounts stated in writing and the amounts stated in figures. In case of discrepancy between unit prices and extended totals, unit prices shall prevail.

Any BID shall be deemed informal which contains omissions, erasures, alterations, or additions of any kind, or prices uncalled for, or in which any of the prices are obviously unbalanced, or which in any manner shall fail to conform to the conditions of the published Invitation to BID.

Only one BID from any individual, firm, partnership, or corporation, under the same or different names, will be considered. Should it appear to the Owner that any Bidder is interested in more than one BID for work contemplated; all Bids in which such Bidder is interested will be rejected.

B. SIGNATURE

The Bidder shall sign his BID in the blank space provided therefor. If Bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of the officer or officers authorized to sign Contracts on behalf of the corporation. If Bidder is a partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign Contracts in behalf of the partnership. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a notarized power-of-attorney must be on file with the Owner prior to opening

of Bids or submitted with the Bid otherwise the Bid will be regarded as not properly authorized.

C. SPECIAL BIDDING REQUIREMENTS

The Bidder's attention is brought to the hiring practices and licenses and permits of the City of Key West. These are defined in the addition to Article 39, ORDINANCES, PERMITS, AND LICENSES, as set forth in the Supplementary Conditions.

The Bidder shall submit with his Bid his experience record showing his experience and expertise in site construction and related work. Such experience record shall provide at least five current or recent projects of similar work, not more than 5 years old within the State Florida and preferably Monroe County. For each project the following information shall be provided:

1. Description and location of work.
2. Contract amount.
3. Dates work was performed.
4. Owner.
5. Name of Owner's contact person and phone number.
6. Engineer.
7. Name of Engineer's contact person and phone number.

The bidder shall submit with his bid a list of items to be performed by his own labor and that performed by subcontractors or others.

D. ATTACHMENTS

Bidder shall complete and submit the following forms with his bid:

1. Anti-Kickback Affidavit
2. Public Entity Crimes Form
3. City of Key West Indemnification Form
4. Equal Benefits for Domestic Partners Affidavit
5. Cone of Silence
6. Local Vender Certification
7. All Required Insurance Forms

E. CITY OF KEY WEST LICENSE REQUIRED

Contractor is required to have a Certified or Registered General Contractors City of Key West license. License fees not to exceed \$410.00. License shall be obtained within ten (10) days of Notice of Award.

7. STATE AND LOCAL SALES AND USE TAXES

Unless the Supplementary Conditions contains a statement that the CITY is exempt from state sales tax on materials incorporated into the work due to the qualification of the work under this Contract, all state and local sales and use taxes as required by the laws and statutes of the state and its political subdivisions shall be paid by the Contractor. Prices

quoted in the Bid shall include all nonexempt sales and use taxes, unless provision is made in the Bid form to separately itemize the tax.

8. SUBMISSION OF BID

All BIDS must be submitted no later than the time prescribed, at the place, and in the manner set forth in the Invitation to Bid. Bids must be made on the Bid forms provided herewith **submit one (1) ORIGINAL bid package and two (2) FLASH DRIVES containing a single PDF file of the entire bid package.**

Each Bid must be submitted in a sealed envelope, so marked as to indicate the Bidder's name and its contents without being opened, and addressed in conformance with the instructions in the Invitation to Bid.

9. MODIFICATION OR WITHDRAWAL OF BID

Prior to the time and date designated for receipt of Bids, any Bid submitted may be withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder or by telegram. If by telegram, written confirmation over the signature of the Bidder shall be mailed and postmarked on or before the date and time set for receipt of Bids. No Bid may be withdrawn after the time scheduled for opening of Bids unless the time specified in paragraph AWARD OF CONTRACT of these Instructions to Bidders shall have elapsed.

10. BID SECURITY

BIDS must be accompanied by cash, a certified check, or cashier's check drawn on a bank in good standing, or a bid bond issued by a Surety authorized to issue such bonds in the state where the work is located, in the amount of five (5) percent of the total amount of the Proposal submitted. This bid security shall be given as a guarantee that the Bidder will not withdraw his BID for a period of ninety (90) days after bid opening, and that if awarded the Contract, the successful Bidder will execute the attached Contract and furnish properly executed Performance and Payment Bonds, each in the full amount of the Contract price within the time specified. Agent and Surety phone numbers must be provided.

The Attorney-in-Fact who executes this bond in behalf of the Surety must attach a notarized copy of his power-of-attorney as evidence of his authority to bind the Surety on the date of execution of the bond. Where State Statute requires, certification by a resident agent shall also be provided.

If the Bidder elects to furnish a Bid Bond, he shall use the Bid Bond form bound herewith, or one conforming substantially thereto in form and content.

11. RETURN OF BID SECURITY

Within 15 days after the award of the Contract, the CITY will return the bid securities to all Bidders who's BIDS are not to be further considered in awarding the Contract. Retained bid securities will be held until the Contract has been finally executed, after which all bid

securities, other than Bidders' bonds and any guarantees, which have been forfeited, will be returned to the respective Bidders whose Proposals they accompanied.

12. AWARD OF CONTRACT

The Award will be made under one Contract by the Owner on the basis of the Bid from the lowest, responsive, responsible Bidder. The Owner may award entire Bid or selected line items based on the CRA's best interest and available funds a time of Award.

Within 90 calendar days after the opening of Bids, the Owner will accept one of the Bids or will act in accordance with the following paragraphs. The acceptance of the Bid will be by written notice of award, mailed to the office designated in the Bid, or delivered to the Bidder's representative. In the event of failure of the lowest responsive, responsible Bidder to sign the Contract and provide an acceptable Performance Bond, Payment Bond, insurance certificate(s) and evidence of holding required licenses and certificates, the Owner may award the Contract to the next lowest responsive, responsible Bidder. Such award, if made, will be made within 120 days after the opening of Bids. Bidders will guarantee their Bid price(s) for up to 120 calendar days after Bid opening.

The CRA reserves the right to accept or reject any or all Bids and to waive any formalities and irregularities in said Bids.

13. BASIS OF AWARD

The award will be made by the Owner on the basis of the BID from the lowest, responsive, responsible BIDDER which, in the Owner's sole and absolute judgment will best serve the interest of the Owner.

14. EXECUTION OF CONTRACT

The successful Bidder shall, within 10 working days after receiving Notice of Award, sign and deliver to the Owner a Contract in the form hereto attached together with the insurance certificate examples of the bonds as required in the Contract Documents and evidence of holding required licenses and certificates. Within 10 working days after receiving the signed Contract from the successful Bidder, the Owner's authorized agent will sign the Contract. Signature by both parties constitutes execution of the Contract.

15. CONTRACT BONDS

A. PERFORMANCE AND PAYMENT BONDS

The successful Bidder shall file with the CITY, at the time of delivery of the signed Contract, a Performance Bond and Payment Bond on the form bound herewith, each in the full amount of the Contract price in accordance with the requirements of Florida Statutes Section 255.05 or 713.23, as applicable, as security for the faithful performance of the Contract and the payment of all persons supplying labor and materials for the construction of the work, and to cover all guarantees against defective workmanship or materials, or both, during the warranty period following the date of final acceptance of the work by the CITY. The Surety furnishing this

bond shall have a sound financial standing and a record of service satisfactory to the CITY, shall be authorized to do business in the State of Florida, and shall be listed on the current U.S. Department of Treasury Circular Number 570, or amendments thereto in the Federal Register, of acceptable Sureties for federal projects. The CONTRACTOR shall supply the OWNER with phone numbers, addresses, and contacts for the Surety and their agents. Pursuant to Section 255.05(7), Florida Statutes, in lieu of the bond required by law, the contractor may file with the city an alternative form of security in the form of cash, a money order, a certified check, a cashier's check or an irrevocable letter of credit.

B. POWER-OF-ATTORNEY

The Attorney-in-Fact (Resident Agent) who executes this Performance and Payment Bond in behalf of the Surety must attach a notarized copy of his power-of-attorney as evidence of his authority to bind the Surety on the date of execution of the bond. All Contracts, Performance and Payment Bonds, and respective powers-of-attorney will have the same date.

16. FAILURE TO EXECUTE CONTRACT AND FURNISH BOND

The Bidder who has a Contract awarded to him and who fails to promptly and properly execute the Contract or furnish the required Bonds shall forfeit the bid security that accompanied his bid, and the bid security shall be retained as liquidated damages by the CITY, and it is agreed that this said sum is a fair estimate of the amount of damages the CITY will sustain in case the Bidder fails to enter into a Contract or furnish the required Bonds. Bid security deposited in the form of cash, a certified check, or cashier's check shall be subject to the same requirement as a Bid Bond.

17. TIME OF COMPLETION

The time of completion of the work to be performed under this Contract is the essence of the Contract. Delays and extensions of time may only be allowed in accordance with the provisions stated in the General Conditions. Time allowed for completion of the work authorized is stated in Bid.

When the Contractor receives a Notice to Proceed, he shall commence work as soon as possible and shall complete all work within the number of calendar days stipulated in the Contract.

The term of this contract will be **120** calendar days.

18. PUBLIC RECORDS REQUIREMENTS

In addition to other contract requirements provided by law, each public agency contract for services must include a provision that requires the contractor to comply with public records laws, specifically to (a) keep and maintain public records that ordinarily and necessarily would be required by the public agency in order to perform the service; (b) provide the public with access to public records on the same terms and conditions that the

public agency would provide the records and at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law; (c) ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; and (d) meet all requirements for retaining public records and transfer, at no cost, to the public agency all public records in possession of the contractor upon termination of the contract and destroy any duplicate public records that exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the public agency in a format that is compatible with the information technology systems of the public agency. If a contractor does not comply with a public records request, the public agency shall enforce the contract provisions in accordance with the contract.

19. PERMITS AND FEES

The Bidder awarded this project shall procure and pay all permits and licenses, charges, and fees, and give notices necessary and incidental to the due and lawful prosecution of the work, the cost of which shall be included in the fee received for the work, except where separately agreed.

20. BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the Owner, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.

The Bidder further declares that he has carefully examined the Contract Documents and that this Bid is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Bid.

21. SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes are included in the stated lump sum for the work.

* * * * *

BID FORM

To: City of Key West, Florida

Address: 3126 Flagler Avenue, Key West, Florida 33040

Project Title: **KEY WEST HISTORIC SEAPORT
THOMPSON FISH HOUSE WALL RESTORATION**

Project No.: ITB #012-16

Bidder's person to contact for additional information on this Bid:

Company Name: _____

Contact Name & Telephone #: _____

Email Address: _____

BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the Owner, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.

The Bidder further declares that he has carefully examined the Contract Documents, that he has personally inspected the Project, that he has satisfied himself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Contract Documents, and that this Bid is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Proposal.

The Bidder further agrees that the Owner may “non-perform” the work in the event that the low bid is in excess of available funding. Non-performance will be determined prior to Notice of Award.

The intent of the Bid Documents is to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any work, materials, or equipment that may reasonably be inferred from the Contract Documents, as being required to produce the intended result shall be supplied, whether or not specifically called for in the Contract Documents.

CONTRACT EXECUTION

The Bidder agrees that if this Bid is accepted, he will, within 10 days, not including Sundays and legal holidays, after Notice of Award, sign the Contract in the form annexed hereto, and will at that

time, deliver evidence of holding required licenses and certificates, and will, to the extent of his Bid, furnish all machinery, tools, apparatus, and other means of construction and do the work and furnish all the materials necessary to complete all work as specified or indicated in the Contract Documents.

CERTIFICATES OF INSURANCE

Bidder agrees to furnish the Owner, before commencing the work under this Contract, the certificates of insurance as specified in these Documents.

START OF CONSTRUCTION AND CONTRACT COMPLETION TIME

The Bidder agrees to begin work within fourteen (14) calendar days after the date of the Notice to Proceed and to fully complete all work under this contract within one hundred-twenty (120) calendar days, including construction of the foundation and assembly of the structure.

LIQUIDATED DAMAGES

In the event the Bidder is awarded the Contract and fails to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Contract Documents, liquidated damages shall be paid to the Owner at the rate of \$500.00 per day for all work awarded until the work has been satisfactorily completed as provided by the Contract Documents. Sundays and legal holidays shall be excluded in determining days in default.

Owner will recover such liquidated damages by deducting the amount owed from the final payment or any retainage held by Owner.

ADDENDA

The Bidder hereby acknowledges that he has received Addenda No's. _____, _____, _____, _____. (Bidder shall insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Contract Documents, and the Bidder further agrees that his Bid(s) includes all impacts resulting from said addenda.

SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes are included in the stated bid prices for the work.

LUMP SUM WORK ITEMS

The Bidder further proposes to accept as full payment for the Work proposed herein the amounts computed under the provisions of the Contract Documents and based on the following lump sum amounts.

The Bidder agrees that the lump sums represent a true measure of labor and materials required to perform the Work, including all allowances for overhead and profit for each type of work called for in these Contract Documents. The amounts shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.

BID SCHEDULE

KEY WEST HISTORIC SEAPORT THOMPSON FISH HOUSE WALL RESTORATION

LUMP SUM BID PRICE

Bidder will complete the Work in accordance with the Contract Documents for a fixed fee price.

1. Mobilization, General Conditions, Permit Fees, Bonds and Demobilization

1 LS \$ _____

2. Demolition (includes all labor, equipment and disposal for a complete product)

1 LS \$ _____

3. Concrete Walls (includes all labor, equipment and material for a complete product)

1 LS \$ _____

4. Porch Roof & Enclosures (includes all labor, equipment and material for a complete product)

1 LS \$ _____

5. Foundation (includes all labor, equipment and material for a complete product)

1 LS \$ _____

6. Mechanical, Electrical & Plumbing (includes all labor, equipment and material for a complete product)

1 LS \$ _____

TOTAL OF ALL EXTENDED LINE ITEMS LISTED ABOVE:

Total of lump sum items 1 - 6 \$ _____

_____ Dollars & _____ Cents
(amount written in words)

NOTE: THE TOTAL BID WILL BE THE BASIS OF EVALUATING LOW BIDDER AND BASIS OF AWARD

CONTRACTOR'S PROJECTED OPERATIONS LOAD AND COST ESTIMATE

List items to be performed by Contractor's own forces and the estimated total cost of these items.
(Use additional sheets if necessary.)

[illegible]

SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses will be awarded subcontracts for the following portions of the work in the event that the Bidder is awarded the Contract:

Portion of Work

Name

Street

City

State

Zip

Portion of Work

Name

Street

City

State

Zip

Portion of Work

Name

Street

City

State

Zip

Portion of Work

Name

Street

City

State

Zip

SURETY

_____ whose address is

_____, _____, _____
Street City State Zip

Phone Resident Agent

BIDDER

The name of the Bidder submitting this Bid is _____

_____ doing business
at

_____, _____, _____
Street City State Zip

email address

which is the address to which all communications concerned with this Bid and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Bid, or of the partnership, or of all persons interested in this Bid as principals are as follows:

Name	Title
_____	_____
_____	_____
_____	_____
_____	_____

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this _____ day of _____
20____.

Signature of Bidder

Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed
and its seal affixed by its duly authorized officers this _____ day of _____
20____.

(SEAL)

Name of Corporation

By _____

Title _____

Attest _____
Secretary

EXPERIENCE OF BIDDER

The Bidder states that he is an experienced Contractor and has completed similar projects within the last five (5) years.

(List similar projects, with types, names of owners, construction costs, Engineers, and references with phone numbers. Use additional sheets if necessary.)

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

* * * * *

FLORIDA BID BOND

BOND NO. _____

AMOUNT: \$ _____

KNOW ALL MEN BY THESE PRESENTS, that _____

hereinafter called the PRINCIPAL, and _____

a corporation duly organized under the laws of the State of _____

having its principal place of business at _____

_____ in the State of _____,

and authorized to do business in the State of Florida, as SURETY, are held and firmly bound unto

hereinafter CITY OF KEY WEST called the OBLIGEE, in the sum of _____

_____ DOLLARS (\$ _____

) for the payment for which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these present.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the PRINCIPAL is herewith submitting his or its Bid Proposal for Thompson Fish House Wall Restoration, said Bid Proposal, by reference thereto, being hereby made a part hereof.

WHEREAS, the PRINCIPAL contemplates submitting or has submitted a bid to the OBLIGEE for the furnishing of all labor, materials (except those to be specifically furnished by the CITY), equipment, machinery, tools, apparatus, means of transportation for, and the performance of the work covered in the Proposal and the detailed Specifications, entitled:

ITB #012-16

KEY WEST HISTORIC SEAPORT

TTHOMPSON FISH HOUSE WALL RESTORATION

WHEREAS, it was a condition precedent to the submission of said bid that a cashier's check, certified check, or bid bond in the amount of 5 percent of the base bid be submitted with said bid as a guarantee that the Bidder would, if awarded the Contract, enter into a written Contract with the CITY for the performance of said Contract, within 10 working days after written notice having been given of the award of the Contract.

NOW, THEREFORE, the conditions of this obligation are such that if the PRINCIPAL within 10 consecutive calendar days after written notice of such acceptance, enters into a written Contract with the OBLIGEE and furnishes the Performance and Payment Bonds, each in an amount equal to 100 percent of the base bid, satisfactory to the CITY, then this obligation shall be void; otherwise the sum herein stated shall be due and payable to the OBLIGEE and the Surety herein agrees to pay said sum immediately upon demand of the OBLIGEE in good and lawful money of the United States of America, as liquidated damages for failure thereof of said PRINCIPAL.

Signed and sealed this _____ day of _____, 2016.

By _____
PRINCIPAL

SURETY

By _____
Attorney-In-Fact

ANTI-KICKBACK AFFIDAVIT

STATE OF _____)

: SS

COUNTY OF _____)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

By: _____

Sworn and subscribed before me this _____ day of _____ 20__.

NOTARY PUBLIC, State of Florida at Large

My Commission Expires:

* * * * *

**SWORN STATEMENT UNDER SECTION 287.133(3)(A)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES**

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with Bid or Proposal for _____

2. This sworn statement is submitted by _____
(name of entity submitting sworn statement)
whose business address is _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____

(If the entity has no FEIN, include the Social Security Number of the individual
signing this sworn statement _____)
3. My name is _____
(please print name of individual signing)
and my relationship to the entity named above is _____
4. I understand that a “public entity crime” as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any bid or contract for goods or services to be provided to any public or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.
5. I understand that “convicted” or “conviction” as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
6. I understand that an “affiliate” as defined in Paragraph 287.133(1)(a), Florida Statutes, means
 1. A predecessor or successor of a person convicted of a public entity crime; or
 2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term “affiliate” includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm’s length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
8. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies).

____ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

____ There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

____ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

____ The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

(signature)

(date)

STATE OF _____

COUNTY OF _____

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

_____, who, after first being sworn by me, affixed his/her
(name of individual signing)

signature in the space provided above on this _____ day of _____, 20____.

My commission expires:

NOTARY PUBLIC

CITY OF KEY WEST INDEMNIFICATION FORM

To the fullest extent permitted by law, the CONTRACTOR expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents and employees *(herein called the "indemnitees") from liabilities, damages, losses and costs, including but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONTRACTOR, its Subcontractors or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONTRACTOR's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONTRACTOR under Workers' Compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONTRACTOR or of any third party to whom CONTRACTOR may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR: _____

SEAL:

Address

Signature

Print Name

Title

DATE: _____

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF _____)

: SS

COUNTY OF _____)

I, the undersigned hereby duly sworn, depose and say that the firm of _____

provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses, per City of Key West Code of Ordinances Sec. 2-799.

By: _____

Sworn and subscribed before me this _____ day of _____ 20 ____.

NOTARY PUBLIC, State of Florida at Large

My Commission Expires:

* * * * *

CONE OF SILENCE AFFIDAVIT

STATE OF _____)

: SS

COUNTY OF _____)

I, the undersigned hereby duly sworn, depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of _____ have read and understand the limitations and procedures regarding communications concerning City of Key West Code of Ordinances Sec. 2-773 Cone of Silence.

By: _____

Sworn and subscribed before me this

_____ day of _____ 20____.

NOTARY PUBLIC, State of _____ at Large

My Commission Expires: _____

* * * * *

**LOCAL VENDOR CERTIFICATION
PURSUANT TO CITY OF KEY WEST CODE OF ORDINANCES SECTION 2-798**

The undersigned, as a duly authorized representative of the vendor listed herein, certifies to the best of his/her knowledge and belief, that the vendor meets the definition of a "Local Business." For purposes of this section, "local business" shall mean a business which:

- a. Principle address as registered with the FL Department of State located within 30 miles of the boundaries of the city, listed with the chief licensing official as having a business tax receipt with its principle address within 30 miles of the boundaries of the city for at least one year immediately prior to the issuance of the solicitation.
- b. Maintains a workforce of at least 50 percent of its employees from the city or within 30 miles of its boundaries.
- c. Having paid all current license taxes and any other fees due the city at least 24 hours prior to the publication of the call for bids or request for proposals.
 - Not a local vendor pursuant to Code of Ordinances Section 2-798
 - Qualifies as a local vendor pursuant to Code of Ordinances Section 2-798

If you qualify, please complete the following in support of the self-certification & submit copies of your County and City business licenses. Failure to provide the information requested will result in denial of certification as a local business.

Business Name

Phone:

Current Local Address:

Fax:

(P.O Box numbers may not be used to establish status)

Length of time at this address

Signature of Authorized Representative

Date

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20__.

By _____, of _____
(Name of officer or agent, title of officer or agent) Name of corporation acknowledging)
or has produced _____ as identification
(type of identification)

Signature of Notary

Print, Type or Stamp Name of Notary

Title or Rank

Return Completed form with
Supporting documents to:
City of Key West Purchasing

BIDDER'S CHECKLIST

(Note: The purpose of this checklist is to serve as a reminder of major items to be addressed in submitting a bid and is not intended to be all inclusive. It does not alleviate the Bidder from the responsibility of becoming familiar with all aspects of the Contract Documents and Proper completion and submission of his bid.)

1. All Contract Documents thoroughly read and understood ☐
2. All blank spaces in Bid filled in black ink. ☐
3. Total and unit Prices added correctly. ☐
4. Addenda acknowledged. ☐
5. Subcontractors are named as indicated in the Bid. ☐
6. Experience record included. ☐
7. Bid signed by authorized officer. ☐
8. Bid Bond completed and executed, including power-of-attorney, dated the same date as Bid Bond. ☐
9. Bidder familiar with federal, state, and local laws, ordinances, rules and regulations affecting performance of the work. ☐
10. Bidder, if successful, able to obtain and/or demonstrate possession of required licenses and certificates within (10) ten days after receiving a Notice of Award. ☐
11. Bid submitted intact with the volume containing the Bidding Requirements, Contract Forms and Conditions of the Contract, one (1) original, two (2) USB drives. ☐
12. Bid Documents submitted in sealed envelope and addressed and labeled in conformance with the instructions in the Invitation to Bid. ☐
13. Anti-kickback Affidavit; Public Entity Crime Form; City of Key West Indemnification ☐
Equal Benefits for Domestic Partners Affidavit; Local Vendor Certification;

PART 2

CONTRACT FORMS

CONTRACT AGREEMENT

This Contract, made and entered into _____ day of _____, 20____, by and between the City of Key West, hereinafter called the "Owner", and _____, hereinafter called the "Contractor";

WITNESSETH:

The Contractor, in consideration of the sum to be paid him by the Owner and of the covenants and agreements herein contained, hereby agrees at his own proper cost and expense to do all the work and furnish all the materials, tools, labor, and all appliances, machinery, and appurtenances for **ITB #012-16 KEY WEST HISTORIC SEAPORT – THOMPSON FISH HOUSE WALL RESTORATION.**

Key West, Florida to the extent of the Bid made by the Contractor, dated the _____ day of _____, 20____, all in full compliance with the Contract Documents referred to herein.

The PROCUREMENT REQUIREMENTS, including the signed copy of the BID FORM, the CONTRACT FORMS, the CONDITIONS OF THE CONTRACT, and the SPECIFICATIONS, are hereby referred to and by reference made part of this Contract as fully and completely as if the same were fully set forth herein and are mutually cooperative therewith.

In consideration of the performance of the work as set forth in these Contract Documents, the Owner agrees to pay to the Contractor the amount bid in the Bid as adjusted in accordance with the Contract Documents, or as otherwise herein provided, and to make such payments in the manner and at the times provided in the Contract Documents.

The Contractor agrees to complete the work within one hundred-twenty (120) calendar days and to accept as full payment hereunder the amounts computed as determined by the Contract Documents and based on the said Bid.

The Contractor agrees to remedy all defects appearing in the work or developing in the materials furnished and the workmanship performed under this Contract during the warranty period after the date of final acceptance of the work by the Owner, and further agrees to indemnify and save the Owner harmless from any costs encountered in remedying such defects.

Liquidated Damages: The Contractor recognizes that time is of the essence and that the Owner will suffer financial loss if the Work is not completed within the dates specified in the paragraphs above, plus any extensions thereof allowed, in accordance with Article 58 of the General Conditions.

In the event the Contractor fails to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Contract Documents, liquidated damages shall be paid at a rate of \$500.00 per day. Sundays and legal holidays shall be included in determining days in default.

This contract will automatically expire upon completion of the project. Contractors warranty obligations remain in affect.

IN WITNESS WHEREOF, we, the parties hereto, each herewith subscribe the same this

_____ day of _____, A.D., 20_____.

CITY OF KEY WEST

By_____

Title_____

CONTRACTOR:

By_____

Title_____

APPROVED AS TO FORM

Attorney for Owner

* * * * *

FLORIDA PERFORMANCE BOND

BOND NO. _____

AMOUNT: \$ _____

KNOW ALL MEN BY THESE PRESENTS, that in accordance with Florida Statutes Section 255.05 _____

with offices at _____

hereinafter called the CONTRACTOR (Principal), and

_____ with offices at _____

a corporation duly organized and existing under and by virtue of the laws of the State of Florida, hereinafter called the SURETY, and authorized to transact business within the State of Florida, as SURETY, are held and firmly bound unto the **CITY OF KEY WEST**, hereinafter called the CITY (Obligee), in the sum of:

_____ DOLLARS (\$ _____), lawful money of the United States of America, for the payment of which, well and truly be made to the CITY, the CONTRACTOR and the SURETY bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the CONTRACTOR has executed and entered into a certain Contract hereto attached, with the CITY, dated _____, 2016, to furnish at his own cost, charges, and expense all the necessary materials, equipment, and/or labor in strict and express accordance with said Contract and the Contract Documents as defined therein, all of which is made a part of said Contract by certain terms and conditions in said Contract more particularly mentioned, which Contract, consisting of the various Contract Documents is made a part of this Bond as fully and completely as if said Contract Documents were set forth herein;

NOW THEREFORE, the conditions of this obligation are such that if the above bounden CONTRACTOR:

1. Shall in all respects comply with the terms and conditions of said Contract and his obligation there under, including the Contract Documents (which include the scope of work and conditions as prepared by the CITY, invitation to bid, instructions to bidders, the CONTRACTOR'S bid as accepted by the above CITY, the bid and contract performance and payment bonds (Not required as part of this contract), and all addenda, if any, issued prior to the opening of bids), being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and

2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying PRINCIPAL with labor, materials, or supplies, used directly or indirectly by PRINCIPAL in the prosecution of the work provided for in the contract; and

3. Pays CITY all losses, costs, expenses, damages, attorney's fees, including appellate proceedings, injury or loss of whatever kind and however arising including, without limitation, delay damages to which said CITY may be subject by reason of any wrongdoing, misconduct, want of care or skill, negligence, failure of performance, breach, failure to petition within the prescribed time, or default, including patent infringements, on the part of said CONTRACTOR, his agents or employees, in the execution or performance of said Contract; and

4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this obligation shall be void; otherwise, to remain in full force and effect for the term of said Contract.

AND, the said Surety for value received, hereby stipulates and agrees that no change involving any extension of time, or addition to the terms of the Contract Documents, or to the work to be performed, or materials to be furnished there under shall affect said obligation of said Surety on this Bond, and the said Surety does hereby waive notice of any such changes, extension of time, alterations, or additions of the terms of the Contract Documents, or to the work.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

IN WITNESS WHEREOF, the above parties bonded together have executed this instrument

this _____ day of _____, 2016, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

By: _____

(SEAL)

ATTEST

SURETY

By: _____

(SEAL)

ATTEST

FLORIDA PAYMENT BOND

BOND NO. _____

AMOUNT: \$ _____

KNOW ALL MEN BY THESE PRESENTS, that in accordance with Florida Statutes Section 255.05, _____

with offices at _____
hereinafter called the CONTRACTOR, (Principal), and

with offices at _____

a corporation duly organized and existing under and by virtue of the laws of the State of _____

_____, hereinafter called the SURETY, and authorized to transact business within the State of Florida, as SURETY, are held and firmly bound unto CITY OF KEY WEST, hereinafter called the City (Obligee), in the sum of:

_____ DOLLARS(_____),
lawful money of the United States of America, for the payment of which, well and truly be made to the CITY, and the CONTRACTOR and the SURETY bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the CONTRACTOR has executed and entered into a certain Contract for

ITB #012-16 KEY WEST HISTORIC SEAPORT – THOMPSON FISH HOUSE WALL RESTORATION attached hereto, with

the CITY, dated _____

_____, 2016, to furnish at his own cost, charges, and expense the necessary materials, equipment, and/or labor in strict and express accordance with said Contract and the plans, drawings (if any), and specifications prepared by the CITY, all of which is made a part of said Contract by certain terms and conditions in said Contract more particularly mentioned, which Contract, consisting of the various Contract Documents specifically mentioned herein and relative hereto, is made a part of this Bond as fully and completely as if said Contract Documents were set forth herein.

NOW THEREFORE, the conditions of this obligation are such that if the above bounden CONTRACTOR shall in all respects comply with the terms and conditions of said Contract and his obligation thereunder, including the Contract Documents ,which include Scope of work and conditions prepared by the CITY, invitation to bid, instructions to bidders, the

CONTRACTOR’S bid as accepted by the CITY, the bid and contract and payment bonds (Not required as part of this contract), and all addenda, if any, issued prior to the opening of bids), and further that if said CONTRACTOR shall promptly make payments to all persons supplying materials, equipment, and/or labor, used directly or indirectly by said CONTRACTOR or subcontractors in the prosecution of the work for said contract in accordance with Florida Statutes, Section 255.05 or Section 713.23, then this obligation shall be void; otherwise to remain in full force and effect for the term of said contract, including and all guarantee periods as specifically mentioned in said Contract Documents.

AND, the said SURETY for value received, hereby stipulates and agrees that no change involving any extension of time, or addition to the terms of the Contract or to the work to be performed, or materials to be furnished thereunder, or in the Contract Documents and specifications accompanying the said contract shall affect said obligation of said SURETY on this Bond, and the said SURETY does hereby waive notice of any such changes, extension of time, alternations, or additions of the terms of the Contract, or to the work, to the Contract Documents, or to the specifications.

Claimant shall give written notice to the CONTRACTOR and the SURETY as required by Section 255.05 or Section 713.23, Florida Statutes. Any action instituted against the CONTRACTOR or SURETY under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2) or Section 713.23, Florida Statutes.

IN WITNESS WHEREOF, the above parties bounded together have executed this instrument

this _____ day of _____, 2016, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

By:_____

(SEAL)

ATTEST

SURETY

By:_____

(SEAL)

ATTEST

LICENSE REQUIREMENT AND COST

License required for this Project. Contractor must be general contractor or building contractor.

Cost Not To Exceed \$410.00.

CITY OF KEY WEST BUSINESS LICENSE TAX RECEIPT

A City of Key West Business License Tax Receipt is required for this project. Contractor must be general contractor, building contractor or engineering contractor. Cost not to exceed \$410.00.

City of Key West Business License Tax Receipt may be found on the city website.

<http://www.keywestcity.com/egov/docs/1162843921181.htm>

PART 3

CONDITIONS OF CONTRACT

GENERAL CONDITIONS

Article

DEFINITIONS

1. AS APPROVED
2. AS SHOWN, AND AS INDICATED
3. BIDDER
4. CONTRACT DOCUMENTS
5. CONTRACTOR
6. CONTRACT COMPLETION
7. DAYS
8. DRAWINGS
9. ENGINEER
10. NOTICE
11. OR EQUAL
12. OWNER
13. PLANS
14. SPECIFICATIONS
15. NOTICE TO PROCEED
16. SUBSTANTIAL COMPLETION
17. WORK

CONTRACT DOCUMENTS

18. INTENT OF CONTRACT DOCUMENTS
19. DISCREPANCIES AND OMISSIONS
20. CHANGES IN THE WORK
21. EXAMINATION AND VERIFICATION OF CONTRACT DOCUMENTS
22. DOCUMENTS TO BE KEPT ON THE JOBSITE
23. ADDITIONAL CONTRACT DOCUMENTS
24. OWNERSHIP OF CONTRACT DOCUMENTS

THE ENGINEER

25. AUTHORITY OF THE ENGINEER
26. DUTIES AND RESPONSIBILITIES OF THE ENGINEER
27. LIMITATIONS ON ENGINEER'S RESPONSIBILITIES
28. REJECTED WORK
29. LINES AND GRADES
30. SUBMITTALS
31. DETAIL DRAWINGS AND INSTRUCTIONS

THE CONTRACTOR AND HIS EMPLOYEES

32. CONTRACTOR, AN INDEPENDENT AGENT
32. ASSIGNMENT OF CONTRACT
33. SUBCONTRACTING
34. INSURANCE AND LIABILITY
 - A. GENERAL
 - B. CONTRACTOR AND SUB-CONTRACTOR INSURANCE
 - C. COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE
 - D. GENERAL LIABILITY INSURANCE (INCLUDING AUTOMOBILE)

- E. BUILDER'S RISK ALL RISK INSURANCE
- F. NO PERSONAL LIABILITY OF PUBLIC OFFICIALS

35. INDEMNITY
36. EXCLUSION OF CONTRACTOR CLAIMS
37. TAXES AND CHARGES
38. REQUIREMENTS OF STATE LAW FOR PUBLIC WORKS PROJECTS
39. CODES, ORDINANCES, PERMITS, AND LICENSES
40. SUPERINTENDENCE
41. RECEPTION OF ENGINEER'S COMMUNICATIONS
42. SAFETY
43. PROTECTION OF WORK AND PROPERTY
44. RESPONSIBILITY OF CONTRACTOR TO ACT IN AN EMERGENCY
45. MATERIALS AND APPLIANCES
46. CONTRACTOR'S AND MANUFACTURERS' COMPLIANCE WITH STATE SAFETY, OSHA, AND OTHER CODE REQUIREMENTS
47. SUBSTITUTION OF MATERIALS
48. TESTS, SAMPLES, AND OBSERVATIONS
49. ROYALTIES AND PATENT
50. CONTRACTOR'S RIGHT TO TERMINATE CONTRACT
51. CORRECTION OF DEFECTIVE WORK DURING WARRANTY PERIOD

PROGRESS OF THE WORK

52. BEGINNING OF THE WORK
53. SCHEDULES AND PROGRESS REPORTS
54. PROSECUTION OF THE WORK
55. OWNER'S RIGHT TO RETAIN IMPERFECT WORK
56. OWNER'S RIGHT TO DO WORK
57. OWNER'S RIGHT TO TRANSFER EMPLOYMENT
58. DELAYS AND EXTENSION OF TIME
59. DIFFERING SITE CONDITIONS

Article

- 60. LIQUIDATED DAMAGES
- 61. OTHER CONTRACTS
- 62. USE OF PREMISES
- 63. SUBSTANTIAL COMPLETION DATE
- 64. PERFORMANCE TESTING
- 65. OWNER'S USE OF PORTION OF THE WORK
- 66. CUTTING AND PATCHING
- 67. CLEANING UP

PAYMENT

- 68. CHANGE ORDERS
 - A. UNIT PRICE
 - B. LUMP SUM
 - C. COST REIMBURSEMENT WORK
- 69. PARTIAL PAYMENTS
 - A. GENERAL
 - B. ESTIMATE
 - C. DEDUCTION FROM ESTIMATE
 - D. QUALIFICATIONS FOR PARTIAL
PAYMENT FOR MATERIALS DELIVERED
 - E. PAYMENT
- 70. CLAIMS FOR EXTRA WORK
- 71. RELEASE OF LIENS OR CLAIMS
- 72. FINAL PAYMENT
- 73. NO WAIVER OF RIGHTS
- 74. ACCEPTANCE OF FINAL PAYMENT
CONSTITUTES RELEASE

* * * * *

DEFINITIONS

Whenever in the Contract Documents the following terms are used, the intent and meaning shall be interpreted as follows:

1. AS APPROVED

The words “as approved”, unless otherwise qualified, shall be understood to be followed by the words “by the ENGINEER for conformance with the Contract Document”.

2. AS SHOWN, AND AS INDICATED

The words “as shown” and “as Indicated” shall be understood to be followed by the words “on the Drawings”.

3. BIDDER

The person or persons, partnership, firm, or corporation submitting a Bid for the work contemplated.

4. CONTRACT DOCUMENTS

The “Contract Documents” consist of the Bidding Requirements, Contract Forms, Conditions of the Contract, Specifications, Drawings, all modifications thereof incorporated into the Documents before their execution, Change Orders, and all other requirements incorporated by specific reference thereto. These form the Contract.

5. CONTRACTOR

The person or persons, partnership, firm, or corporation who enters into the Contract awarded him by the OWNER.

6. CONTRACT COMPLETION

The “Contract Completion” is the date the OWNER accepts the entire work as being in compliance with the Contract Documents, or formally waives nonconforming work to extent of nonconformity, and issues the final payment in accordance with the requirements set forth in Article, “Final Payment” of these General Conditions.

7. DAYS

Unless otherwise specifically stated, the term “days” will be understood to mean calendar days. Business day or working day means any day other than Saturday,

Sunday, or legal holiday.

8. DRAWINGS

The term “Drawings” refers to the official Drawings, profiles, cross sections, elevations, details, and other working drawings and supplementary drawings, or reproductions thereof, signed by the ENGINEER, which shows the location, character, dimensions, and details of the work to be performed. Drawings may either be bound in the same book as the balance of the Contract Documents, or bound in separate sets, and are a part of the Contract Documents, regardless of the method of binding.

9. ENGINEER

The person or organization identified as such in the Contract Documents. The Term “ENGINEER” means ENGINEER or his authorized representative.

10. NOTICE

The term “notice” or the requirement to notify, as used in the Contract Documents or applicable state or federal statutes, shall signify a written communication delivered in person or by registered mail to the individual, or to a member of the firm, or to an officer of the corporation for whom it is intended. Certified or registered mail shall be addressed to the last business address known to him who gives the notice.

11. OR EQUAL

The term “or equal” shall be understood to indicate that the “equal” product is equivalent to or better than the product named in function, performance, reliability, quality, and general configuration. Determination of equality in reference to the project design requirements will be made by the ENGINEER. Such equal products shall not be purchased or installed by the CONTRACTOR without written authorization.

12. OWNER

The person, organization, or public body identified as such in the Contract Documents.

13. PLANS (See Drawings)

14. SPECIFICATIONS

The term “Specifications” refers to those portions of the Contract Documents consisting of written technical

descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the work and certain

administrative details applicable thereto. Where standard specifications, such as those of ASTM, AASHTO, etc., have been referred to, the applicable portions of such standard specifications shall become a part of these Contract Documents. If referenced specifications conflict with specifications contained herein, the requirements contained herein shall prevail.

15. NOTICE TO PROCEED

A written notices given by the OWNER to the CONTRACTOR (with a copy to the ENGINEER) fixing the date on which the Contract time will commence to run and on which the CONTRACTOR shall start to perform his obligation under the Contract Documents. The Notice to Proceed will be given within 30 days following the execution of the Contract by the OWNER.

16. SUBSTANTIAL COMPLETION

“Substantial Completion” shall be that degree of completion of the Project or a defined portion of the Project, as evidenced by the ENGINEER’s written notice of Substantial Completion, sufficient to provide the OWNER, at his discretion, the full-time use of the Project or defined portion of the Project for the purposes for which it was intended. “Substantial Completion” of an operating facility shall be that degree of completion that has provided a minimum of 7 continuous days of successful, trouble-free, operation, which period shall begin after all performance and acceptance testing has been successfully demonstrated to the ENGINEER. All equipment contained in the work, plus all other components necessary to enable the OWNER to operate the facility in a manner that was intended, shall be complete on the substantial completion date.

17. WORK

The word “work” within these Contract Documents shall include all material, labor, tools, and all appliances, machinery, transportation, and appurtenances necessary to perform and complete the Contract, and such additional items not specifically indicated or described which can be reasonably inferred as belonging to the item described or indicated and as required by good practice to provide a complete and satisfactory system or structure. As used herein, “provide” shall be understood to mean “furnish and install, complete in-place”.

CONTRACT DOCUMENTS

18. INTENT OF CONTRACT DOCUMENTS

The Contract Documents are complementary, and what is called for by one shall be as binding as if called for by all. The intent of the Documents is to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any work, materials, or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials, or equipment, such words shall be interpreted in accordance with that meaning.

Reference to standard specifications, manuals, or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect on the first published date of the Invitation to Bid, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to ENGINEER, or any ENGINEER’s consultants, agents, or employees, any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility contrary to the provisions of Article LIMITATIONS ON ENGINEER’S RESPONSIBILITIES.

19. DISCREPANCIES AND OMISSIONS

Any discrepancies or omissions found in the Contract Documents shall be reported to the ENGINEER immediately. The ENGINEER will clarify discrepancies or omissions, in writing, within a reasonable time.

In resolving inconsistencies among two or more sections of the Contract Documents, precedence shall be given in the following order:

- A. CONTRACT
- B. BID
- C. SUPPLEMENTARY CONDITIONS
- D. INVITATION TO BID
- E. INSTRUCTIONS TO BIDDERS

- F. GENERAL CONDITIONS
- G. SPECIFICATIONS
- H. DRAWINGS

Addenda shall take precedence over all sections referenced therein. Figure dimensions on Drawings shall take precedence over scale dimensions. Detailed Drawings shall take precedence over general Drawings.

20. CHANGES IN THE WORK

The OWNER, without notice to the Sureties and without invalidating the Contract, may order changes in the work within the general scope of the Contract by altering, adding to, or deducting from the work, the Contract being adjusted accordingly. All such work shall be executed under the conditions of the original Contract, except as specifically adjusted at the time of ordering such change.

In giving instructions, the ENGINEER may order minor changes in the work not involving extra cost and not inconsistent with the purposes of the Project, but otherwise, except in an emergency endangering life and property, additions or deductions from the work shall be performed only in pursuance of an approved Change Order from the OWNER, countersigned by the ENGINEER.

If the work is reduced by alterations, such action shall not constitute a claim for damages based on loss of anticipated profits.

21. EXAMINATION AND VERIFICATION OF CONTRACT DOCUMENTS

The CONTRACTOR shall thoroughly examine and become familiar with all of the various parts of these Contract Documents and determine the nature and location of the work, the general and local conditions, and all other matters, which can in any way affect the work under this Contract. Failure to make an examination necessary for this determination shall not release the CONTRACTOR from the obligations of this Contract. No verbal agreement or conversation with any officer, agent, or employee of the OWNER or with the ENGINEER either before or after the execution of this Contract shall affect or modify any of the terms or obligations herein contained.

22. DOCUMENTS TO BE KEPT ON THE JOBSITE

The CONTRACTOR shall keep one copy of the Contract

Documents on the job- site, in good order, available to the ENGINEER and to his representatives.

The CONTRACTOR shall maintain on a daily basis at the jobsite, and make available to the ENGINEER on request, one current record set of the Drawings which have been accurately marked to indicate all modifications in the completed work that differ from the design information shown on the Drawings. Upon Substantial completion of the work, the CONTRACTOR shall give the ENGINEER one complete set of these marked up record Drawings.

23. ADDITIONAL CONTRACT DOCUMENTS

Copies of Contract Documents or Drawings may be obtained on request from the ENGINEER and by paying the actual cost of reproducing the Contract Documents or Drawings.

24. OWNERSHIP OF CONTRACT DOCUMENTS

All portions of the Contract Documents, and copies thereof furnished by the ENGINEER are instruments of service for this Project. They are not to be used on other work and are to be returned to the ENGINEER on request at the completion of the work. Any reuse of these materials without specific written verification or adaptation by the ENGINEER will be at the risk of the user and without liability or legal expense to the ENGINEER. Such user shall hold the ENGINEER harmless from any and all damages, including reasonable attorneys' fees, from any and all claims arising from any such reuse. Any such verification and adaptation shall entitle the ENGINEER to further compensation at rates to be agreed upon by the user and the ENGINEER.

THE ENGINEER

25. AUTHORITY OF THE ENGINEER

The ENGINEER will be the OWNER's representative during the construction period. His authority and responsibility will be limited to the provisions set forth in these Contract Documents. The ENGINEER will have the Authority to reject work that does not conform to the Contract Documents. However, neither the ENGINEER's authority to act under this provision, nor any decision made by him in good faith either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the ENGINEER to the CONTRACTOR, any SUBCONTRACTOR, their

respective Sureties, any of their agents or employees, or any other person performing any of the work.

26. DUTIES AND RESPONSIBILITIES OF THE ENGINEER

The ENGINEER will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the work and to determine, in general, if the work is proceeding in accordance with the intent of the Contract Documents. He will not make comprehensive or continuous review or observation to check quality or quantity of the work, and he will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work. Visits and observations made by the ENGINEER shall not relieve the CONTRACTOR of his obligation to conduct comprehensive inspections of the work and to furnish materials and perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

The ENGINEER will make recommendations to the OWNER, in writing, on all claims of the OWNER or the CONTRACTOR arising from interpretation or execution of the Contract Documents. Such recommendations will be of factual and/or technical nature, and will not include the legal interpretation of the Contract Documents. Any necessary legal interpretation of the Contract Document will be made by the OWNER. Such recommendation shall be necessary before the CONTRACTOR can receive additional money under the terms of the Contract. Changes in work ordered by the ENGINEER shall be made in compliance with Article CHANGES IN THE WORK.

One or more project representatives may be assigned to observe the work. It is understood that such project representatives shall have the authority to issue notice of nonconformance and make decisions within the limitations of the authority of the ENGINEER. The CONTRACTOR shall furnish all reasonable assistance required by the ENGINEER or project representatives for proper observation of the work. The above-mentioned project representatives shall not relieve the CONTRACTOR of his obligations to conduct comprehensive inspections of the work and to furnish materials and perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

27. LIMITATIONS ON ENGINEER'S RESPONSIBILITIES

ENGINEER will not be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for CONTRACTOR's failure to perform or furnish the work in accordance with the Contract Documents.

ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any SUBCONTRACTOR, any supplier, or of any other person or organization performing or furnishing any of the work.

Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved", or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper", or "satisfactory", or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility contrary to the provisions of this Article.

28. REJECTED WORK

Any defective work or nonconforming materials or equipment that may be discovered at any time prior to expiration of the warranty period shall be removed and replaced by work which shall conform to the provisions of the Contract Documents. Any material condemned or rejected shall be removed at once from the project site.

Failure on the part of the ENGINEER to condemn or reject bad or inferior work or to note nonconforming materials or equipment on CONTRACTOR submittals shall not be construed to imply acceptance of such work. The OWNER shall reserve and retain all of its rights and remedies at law against the CONTRACTOR and its Surety for correction of any and all latent defects discovered after the guarantee period.

29. LINES AND GRADES

Lines and grades shall be established as provided in the supplementary conditions. All stakes, marks, and other

reference information shall be carefully preserved by the CONTRACTOR, and in case of their careless or unnecessary destruction or removal by him or his employees, such stakes, marks, and other information shall be replaced at the CONTRACTOR's expense.

30. SUBMITTALS

After checking and verifying all field measurements and after complying with applicable procedures specified in Division I, GENERAL REQUIREMENTS, CONTRACTOR shall submit to ENGINEER, in accordance with the schedule for submittals for review, shop drawings, electrical diagrams, and catalog cuts for fabricated items and manufactured items (including mechanical and electrical equipment), which shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Documents with respect to the review of the submittal. All submittals shall be identified as ENGINEER may require. The data shown shall be complete with respect to quantities, dimensions specified, performance and design criteria, materials, and similar data to enable ENGINEER to review the information. CONTRACTOR shall also submit to ENGINEER for review, with such promptness as to cause no delay in work, all samples required by the Contract Documents. All samples shall have been checked by and accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Documents with respect to the review of the submission and shall be identified clearly as to material, supplier, pertinent data such as catalog numbers and the use for which intended.

Before submission of each submittal, CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and reviewed or coordinated each submittal with other submittals and with the requirements of the work and the Contract Documents.

At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of each variation that the submittal may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each shop drawing submitted to ENGINEER for review and approval of each variation.

ENGINEER will review submittals with reasonable promptness, but ENGINEER's review will be only for

conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences, or procedures of construction (except where a specific means, method, technique, sequence, or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate review of the assembly in which the item functions. CONTRACTOR shall make corrections required by ENGINEER, and shall return the required number of corrected copies of shop drawings and submit as required new samples for review. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

ENGINEER's review of submittals shall not relieve CONTRACTOR from the responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission and ENGINEER has given written approval of each such variation by a specific written notation thereof incorporated therein or accompanying the shop drawing or sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for errors or omissions in the shop drawings or from responsibility for having complied with the provisions herein.

Where a shop drawing or sample is required by the specifications, any related work performed prior to ENGINEER's review and approval of the pertinent submission shall be at the sole expense and responsibility of the CONTRACTOR.

31. DETAIL DRAWINGS AND INSTRUCTIONS

The ENGINEER will furnish, with reasonable promptness, additional instructions by means of Drawings or otherwise, if, in the ENGINEER's opinion, such are required for the proper execution of the work. All such Drawings and instructions will be consistent with the Contract Documents, true developments thereof, and reasonably inferable there from.

THE CONTRACTOR AND HIS EMPLOYEES

32. CONTRACTOR, AN INDEPENDENT AGENT

The CONTRACTOR shall independently perform all

work under this Contract and shall not be considered as an agent of the OWNER or of the ENGINEER, nor shall the CONTRACTOR's SUBCONTRACTOR's or employees be subagents of the OWNER or of the ENGINEER.

32. ASSIGNMENT OF CONTRACT

Assignment of any part or the whole of this Contract shall be subject to review and approval of the City Commission.

33. SUBCONTRACTING

Unless modified in the Supplementary Conditions, within 10 days after the execution of the Contract, the CONTRACTOR shall submit to the ENGINEER the names of all SUBCONTRACTORS proposed for the work, including the names of any SUBCONTRACTORS that were submitted with the Bid. The CONTRACTOR shall not employ any SUBCONTRACTORS to which the OWNER may object to as lacking capability to properly perform work of the type and scope anticipated.

The CONTRACTOR is as fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

Nothing contained in the Contract Documents shall create any contractual relationship between any SUBCONTRACTOR and the OWNER or ENGINEER.

34. INSURANCE AND LIABILITY

A. GENERAL

The CONTRACTOR shall provide (from insurance companies acceptable to the OWNER) the insurance coverage designated hereinafter and pay all costs.

Before commencing work under this Contract, the CONTRACTOR shall furnish the OWNER with certificates of insurance specified herein showing the type, amount class of operations covered, effective dates, and date of expiration of policies, and containing substantially the following statement:

"The insurance covered by this certificate shall not be canceled or materially altered, except after 30 days' written notice has been received by the OWNER."

In case of the breach of any provision of this Article, the OWNER, at his option, may take out and maintain, at the expense of the CONTRACTOR, such insurance as the OWNER may deem proper and may deduct the cost of such insurance from any monies which may be due or become due the CONTRACTOR under this Contract.

B. CONTRACTOR AND SUBCONTRACTOR INSURANCE

The CONTRACTOR shall not commence work under this Contract until he has obtained all the insurance required hereunder and such insurance has been reviewed by the OWNER, nor shall the CONTRACTOR allow any SUBCONTRACTOR to commence work on his subcontract until insurance specified below has been obtained. Review of the insurance by the OWNER shall not relieve or decrease the liability of the CONTRACTOR hereunder.

C. COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE

The CONTRACTOR shall maintain during the life of this Contract the statutory amount of Workmen's Compensation Insurance, in addition, Employer's Liability Insurance in an amount as specified in the Supplementary Conditions, for each occurrence, for all of his employees to be engaged in work on the project under this Contract. In case any such work is subcontracted, the Contractor shall require the Subcontractor to provide similar Worker's Compensation and Employer's Liability Insurance for all of the Subcontractor's employees to be engaged in such work.

D. GENERAL LIABILITY INSURANCE (INCLUDING AUTOMOBILE)

The CONTRACTOR shall maintain during the life of this Contract such general liability, completed operations and products liability, and automobile liability insurance as will provide coverage for claims for damages for personal injury, including accidental death, as well as for claims for property damage, which may arise directly or indirectly from performance of the work under this Contract. The general liability policy shall include contractual liability assumed by the CONTRACTOR under Article **INDEMNITY**. Coverage for property damage shall be on a "broad form" basis with no exclusions for "X, C & U". The amount of insurance to be provided shall be as specified in the Supplementary Conditions.

In the event any work under this Contract is performed

by a SUBCONTRACTOR, the CONTRACTOR shall be responsible for any liability directly or indirectly arising out of the work performed by the SUBCONTRACTOR, to the extent such liability is not covered by the SUBCONTRACTOR's insurance.

The OWNER and ENGINEER, their officers, agents, and employees shall be named as Additional Insured's on the CONTRACTOR's and any SUBCONTRACTOR's general liability and automobile liability insurance policies for any claims arising out of work performed under this Contract.

E. BUILDERS RISK ALL RISK INSURANCE

Unless otherwise modified in the Supplementary Conditions, the CONTRACTOR shall secure and maintain during the life of this Contract, Builders Risk All Risk Insurance coverage in an amount equal to the full value of the facilities/ work performed under this Contract/ construction. Such insurance shall include coverage for earthquake, landslide, flood, collapse, loss due to the results of faulty workmanship or design, and all other normally covered risks, and shall provide for losses to be paid to the CONTRACTOR, OWNER, and ENGINEER as their interests may appear.

The OWNER and ENGINEER, their officers, agents, and employees shall be named as additional insured's on the CONTRACTOR's and any SUBCONTRACTOR's Builders Risk All Risk insurance policies for any claims arising out of work performed under this Contract.

This insurance shall include a waiver of subrogation as to the ENGINEER, the OWNER, the CONTRACTOR, and their respective officers, agents, employees and SUBCONTRACTORS.

F. NO PERSONAL LIABILITY OF PUBLIC OFFICIALS

In carrying out any of the provisions hereof in exercising any authority granted by the Contract, there will be no personal liability upon any public official.

35. INDEMNITY

To the maximum extent permitted by law, the Contractor shall indemnify and defend the Owner and the Engineer, and their officers, employees, agents, and sub-consultants, from all claims and losses, including attorney's fees and litigation costs arising out of property losses or health, safety, personal injury, or death claims by the Contractor, its subcontractors of any tier, and their

employees, agents, or invitees regardless of the fault, breach of Contract, or negligence of the Owner or Engineer, excepting only such claims or losses that have been adjudicated to have been caused solely by the negligence of the Owner or the Engineer and regardless of whether or not the Contractor is or can be named a party in a litigation.

36. EXCLUSION OF CONTRACTOR CLAIMS

In performing its obligations, the ENGINEER and its consultants may cause expense for the CONTRACTOR or its SUBCONTRACTORS and equipment or material suppliers. However, those parties and their sureties shall maintain no direct action against the ENGINEER, its officers, employees, agents, and consultants for any claim arising out of, in connection with, or resulting from the engineering services performed or required to be performed.

37. TAXES AND CHARGES

The CONTRACTOR shall withhold and pay any and all sales and use taxes and all withholding taxes, whether State or Federal, and pay all Social Security charges and also all State Unemployment Compensation charges, and pay or cause to be withheld, as the case may be, any and all taxes, charges, or fees or sums whatsoever, which are now or may hereafter be required to be paid or withheld under any laws.

38. REQUIREMENTS OF STATE LAW FOR PUBLIC WORKS PROJECTS

When the Contract Documents concern public works of the state or any county, municipality, or political subdivision created by its laws, the applicable statutes shall apply. All parties to this Contract shall determine the contents of all applicable statutes and comply with their provisions throughout the performance of the Contract.

39. CODES, ORDINANCES, PERMITS AND LICENSES

The CONTRACTOR shall keep himself fully informed of all local codes and ordinances, as well as state and federal laws, which in any manner affect the work herein specified. The CONTRACTOR shall at all times comply with said codes and ordinances, laws, and regulations, and protect and indemnify the OWNER, the ENGINEER and their respective employees, and its officers and agents against any claim or liability arising from or based

on the violation of any such laws, ordinances, or regulations. All permits, licenses and inspection fees necessary for prosecution and completion of the work shall be secured and paid for by the CONTRACTOR, unless otherwise specified.

40. SUPERINTENDENCE

The CONTRACTOR shall keep at the project site, competent supervisory personnel. The CONTRACTOR shall designate, in writing, before starting work, a project superintendent who shall be an employee of the CONTRACTOR and shall have complete authority to represent and to act for the CONTRACTOR. ENGINEER shall be notified in writing prior to any change in superintendent assignment. The CONTRACTOR shall give efficient supervision to the work, using his best skill and attention. The CONTRACTOR shall be solely responsible for all construction means, methods, techniques, and procedures, and for providing adequate safety precautions and coordinating all portions of the work under the Contract. It is specifically understood and agreed that the ENGINEER, its employees and agents, shall not have control or charge of and shall not be responsible for the construction means, methods, techniques, procedures, or for providing adequate safety precautions in connection with the work under Contract.

41. RECEPTION OF ENGINEER'S COMMUNICATIONS

The superintendent shall receive for the CONTRACTOR all communications from the ENGINEER. Communications of major importance will be confirmed in writing upon request from the CONTRACTOR.

The ENGINEER may schedule project meetings for the purposes of discussing and resolving matters concerning the various elements of the work. Time and place for these meetings and the names of persons required to be present shall be as determined by the ENGINEER. CONTRACTOR shall comply with these attendance requirements and shall also require his SUBCONTRACTORS to comply.

42. SAFETY

The CONTRACTOR shall be solely and completely responsible for conditions of the jobsite, including safety of all persons (including employees) and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to U.S.

Department of Labor (OSHA), and all other applicable federal, state, county, and local laws, ordinances, codes, and regulations. Where any of these are in conflict, the more stringent requirement shall be followed. The CONTRACTOR's failure to thoroughly familiarize himself with the aforementioned safety provisions shall not relieve him from compliance with the obligations and penalties set forth therein.

The CONTRACTOR shall develop and maintain for the duration of this Contract, a safety program that will effectively incorporate and implement all required safety provisions. The CONTRACTOR shall appoint an employee who is qualified and authorized to supervise and enforce compliance with the safety program.

The duty of the ENGINEER to conduct construction review of the work does not include review or approval of the adequacy of the CONTRACTOR's safety program, safety supervisor, or any safety measures taken in, on, or near the construction site.

The CONTRACTOR, as a part of his safety program, shall maintain at his office or other well-known place at the jobsite, safety equipment applicable to the work as prescribed by the aforementioned authorities, all articles necessary for giving first-aid to the injured, and shall establish the procedure for the immediate removal to a hospital or a doctor's care of persons (including employees) who may be injured on the jobsite.

If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the ENGINEER and the OWNER. In addition, the CONTRACTOR must promptly report in writing to the ENGINEER all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses.

If a claim is made by anyone against the CONTRACTOR or any SUBCONTRACTOR on account of any accident, the CONTRACTOR shall promptly report the facts in writing to the ENGINEER, giving full details of the claim.

43. PROTECTION OF WORK AND PROPERTY

The CONTRACTOR shall at all times safely guard and protect from damage the OWNER's property, adjacent property, and his own work from injury or loss in connection with this Contract. All facilities required for

protection by federal, state, or municipal laws and regulations and local conditions must be provided and maintained.

The CONTRACTOR shall protect his work and materials from damage due to the nature of the work, the elements, carelessness of other CONTRACTORS, or from any cause whatever until the completion and acceptance of the work. All loss or damages arising out of the nature of the work to be done under these Contract Documents, or from any unforeseen obstruction or defects which may be encountered in the prosecution of the work, or from the action of the elements, shall be sustained by the CONTRACTOR.

44. RESPONSIBILITY OF CONTRACTOR TO ACT IN AN EMERGENCY

In case of an emergency which threatens loss or injury of property, and/or safety of life, the CONTRACTOR shall act, without previous instructions from the OWNER or ENGINEER, as the situation may warrant. The CONTRACTOR shall notify the ENGINEER thereof immediately thereafter. Any claim for compensation by the CONTRACTOR, together with substantiating documents in regard to expense, shall be submitted to the OWNER through the ENGINEER and the amount of compensation shall be determined by agreement.

45. MATERIALS AND APPLIANCES

Unless otherwise stipulated, the CONTRACTOR shall provide and pay for all materials, labor, water, tools, equipment, heat, light, fuel, power, transportation, construction equipment and machinery, appliances, telephone, sanitary facilities, temporary facilities and other facilities and incidentals necessary for the execution and completion of the work.

Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of good quality. The CONTRACTOR shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

In selecting and/or approving equipment for installation in the Project, the OWNER and ENGINEER assume no responsibility for injury or claims resulting from failure of the equipment to comply with applicable federal, state, and local safety codes or requirements, or the safety requirements of a recognized agency, or failure due to faulty design concepts, or defective workmanship and materials.

46. CONTRACTORS' AND MANUFACTURERS' COMPLIANCE WITH STATE SAFETY, OSHA, AND OTHER CODE REQUIREMENTS

The completed work shall include all necessary permanent safety devices, such as machinery guards and similar ordinary safety items required by the state and federal (OSHA) industrial authorities and applicable local and national codes. Further, any features of the work subject to such safety regulations shall be fabricated, furnished, and installed (including OWNER-furnished equipment) in compliance with these requirements. CONTRACTORS and manufacturers of equipment shall be held responsible for compliance with the requirements included herein. CONTRACTORS shall notify all equipment suppliers and SUBCONTRACTORS of the provisions of this Article.

47. SUBSTITUTION OF MATERIALS

Except for OWNER-selected equipment items, and items where no substitution is clearly specified, whenever any material, article, device, product, fixture, form, type of construction, or process is indicated or specified by patent or proprietary name, by name of manufacturer, or by catalog number, such specifications shall be deemed to be used for the purpose of establishing a standard of quality and facilitating the description of the material or process desired. This procedure is not to be construed as eliminating from competition other products of equal or better quality by other manufacturers where fully suitable in design, and shall be deemed to be followed by the words "or equal". The CONTRACTOR may, in such cases, submit complete data to the ENGINEER for consideration of another material, type, or process that shall be substantially equal in every respect to that so indicated or specified. Substitute materials shall not be used unless approved in writing. The ENGINEER will be the sole judge of the substituted article or material.

48. TESTS, SAMPLES, AND OBSERVATIONS

The CONTRACTOR shall furnish, without extra charge, the necessary test pieces and samples, including facilities and labor for obtaining the same, as requested by the ENGINEER. When required, the CONTRACTOR shall furnish certificates of tests of materials and equipment made at the point of manufacture by a recognized testing laboratory.

The OWNER, ENGINEER, and authorized government agents, and their representatives shall at all times be provided safe access to the work wherever it is in

preparation or progress, and the CONTRACTOR shall provide facilities for such access and for observations, including maintenance of temporary and permanent access.

If the Specifications, laws, ordinances, or any public authority require any work, to be specially tested or approved, the CONTRACTOR shall give timely notice of its readiness for observations. If any work should be covered up without approval or consent of the ENGINEER, it shall, if required by the ENGINEER, be uncovered for examination at the CONTRACTOR's expense.

Reexamination of questioned work may be ordered by the ENGINEER, and, if so ordered, the work shall be uncovered by the CONTRACTOR. If such work is found to be in accordance with the Contract Documents, the OWNER will pay the cost of uncovering, exposure, observation, inspection, testing and reconstruction. If such work is found to be not in accordance with the Contract Documents, the CONTRACTOR shall correct the defective work, and the cost of reexamination and correction of the defective work shall be paid by the CONTRACTOR.

49. ROYALTIES AND PATENTS

The CONTRACTOR shall pay all royalty and licenses fees, unless otherwise specified. The CONTRACTOR shall defend all suits or claims for infringement of any patent rights and shall save the OWNER and the ENGINEER harmless from any and all loss, including reasonable attorneys' fees, on account thereof.

50. CONTRACTOR'S RIGHT TO TERMINATE CONTRACT

If the work should be stopped under an order of any court or other public authority for a period of more than 3 months, through no act or fault of the CONTRACTOR, its SUBCONTRACTORS, or respective employees or if the ENGINEER should fail to make recommendation for payment to the OWNER or return payment request to CONTRACTOR for revision within 30 days after it is due, or if the OWNER should fail to pay the CONTRACTOR within 30 days after time specified in Article PARTIAL PAYMENTS, any sum recommended by the ENGINEER, then the CONTRACTOR may, upon 15 days' written notice to the OWNER and the ENGINEER, stop work or terminate this Contract and recover from the OWNER payment for all acceptable work performed and reasonable termination expenses, unless said default has been remedied.

51. CORRECTION OF DEFECTIVE WORK DURING WARRANTY PERIOD

The CONTRACTOR hereby agrees to make, at his own expense, all repairs or replacements necessitated by defects in materials or workmanship, provided under terms of this Contract, and pay for any damage to other works resulting from such defects, which become evident within 2 years after the date of final acceptance of the work or within 2 years after the date of substantial completion established by the ENGINEER for specified items of equipment, or within such longer period as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents. Un-remedied defects identified for correction during the warranty period but remaining after its expiration shall be considered as part of the obligations of the warranty. Defects in material, workmanship, or equipment which are remedied as a result of obligations of the warranty shall subject the remedied portion of the work to an extended warranty period of 2 years after the defect has been remedied.

The CONTRACTOR further assumes responsibility for a similar guarantee for all work and materials provided by SUBCONTRACTORS or manufacturers of packaged equipment components. The effective date for the start of the guarantee or warranty period for equipment qualifying as substantially complete is defined in Article SUBSTANTIAL COMPLETION, AND Article SUBSTANTIAL COMPLETION DATE, in these General Conditions.

The CONTRACTOR also agrees to hold the OWNER and the ENGINEER harmless from liability of any kind arising from damage due to said defects. The CONTRACTOR shall make all repairs and replacements promptly upon receipt of written order for same from the OWNER. If the CONTRACTOR fails to make the repairs and replacements promptly, or in an emergency where delay would cause serious risk, or loss, or damage, the OWNER may have the defective work corrected or the rejected work removed and replaced, and the CONTRACTOR and his Surety shall be liable for the cost thereof.

PROGRESS OF THE WORK

52. BEGINNING OF THE WORK

Following execution of the Contract, the CONTRACTOR shall meet with the OWNER and ENGINEER relative to his arrangements for prosecuting the work.

53. SCHEDULES AND PROGRESS REPORTS

Prior to starting the construction, the CONTRACTOR shall prepare and submit to the ENGINEER, a progress schedule showing the dates on which each part or division of the work is expected to be started and finished, and a preliminary schedule for submittals. The progress schedule for submittals shall be brought up to date and submitted to the ENGINEER at the end of each month or at such other times the ENGINEER may request.

The CONTRACTOR shall forward to the ENGINEER, at the end of each month, an itemized report of the delivery status of major and critical items of purchased equipment and material, including shop drawings and the status of shop and field fabricated work. These progress reports shall indicate the date of the purchase order, the current percentage of completion, estimated delivery, and cause of delay, if any.

If the completion of any part of the work or the delivery of materials is behind the submitted progress schedule, the CONTRACTOR shall submit in writing a plan acceptable to the OWNER and ENGINEER for bringing the work up to schedule.

The OWNER shall have the right to withhold progress payments for the work if the CONTRACTOR fails to update and submit the progress schedule and reports as specified.

54. PROSECUTION OF THE WORK

It is expressly understood and agreed that the time of beginning, rate of progress, and time of completion of the work are the essence of this Contract. The work shall be prosecuted at such time, and in or on such part or parts of the Project as may be required, to complete the Project as contemplated in the Contract Documents and the progress schedule.

If the CONTRACTOR desires to carry on work at night or outside the regular hours, he shall give timely notice to the ENGINEER to allow satisfactory arrangements to be made for observing the work in progress.

55. OWNER'S RIGHT TO RETAIN IMPERFECT WORK

If any part or portion of the work completed under this Contract shall prove defective and not in accordance with the Drawings and Specifications, and if the imperfection in the same shall not be of sufficient magnitude or

importance as to make the work dangerous or unsuitable, or if the removal of such work will create conditions which are dangerous or undesirable, the OWNER shall have the right and authority to retain such work but will make such deductions in the final payment therefore as may be just and reasonable.

56. OWNER'S RIGHT TO DO WORK

Should the CONTRACTOR neglect to prosecute the work in conformance with the Contract Documents or neglect or refuse at his own cost to remove and replace work rejected by the ENGINEER, then the OWNER may notify the Surety of the condition, and after 10 days' written notice to the CONTRACTOR and the Surety, or without notice if an emergency or danger to the work or public exists, and without prejudice to any other right which the OWNER may have under Contract, or otherwise, take over that portion of the work which has been improperly or non-timely executed, and make good the deficiencies and deduct the cost thereof from the payments then or thereafter due the CONTRACTOR.

57. OWNER'S RIGHT TO TRANSFER EMPLOYMENT

If the CONTRACTOR should abandon the work or if he should persistently or repeatedly refuse or should fail to make prompt payment to SUBCONTRACTORS for material or labor, or to persistently disregard laws, ordinances, or to prosecute the work in conformance with the Contract Documents, or otherwise be guilty of a substantial violation of any provision of the Contract or any laws or ordinance, then the OWNER may, without prejudice to any other right or remedy, and after giving the CONTRACTOR and Surety 10 days' written notice, transfer the employment for said work from the CONTRACTOR to the Surety. Upon receipt of such notice, such Surety shall enter upon the premises and take possession of all materials, tools, and appliances thereon for the purpose of completing the work included under this Contract and employ by Contract or otherwise, any qualified person or persons to finish the work and provide the materials therefore, in accordance with the Contract Documents, without termination of the continuing full force and effect of this Contract. In case of such transfer of employment to such Surety, the Surety shall be paid in its own name on estimates according to the terms hereof without any right of the CONTRACTOR to make any claim for the same or any part thereof.

If, after the furnishing of said written notice to the Surety, the CONTRACTOR and the Surety still fail to

make reasonable progress on the performance of the work, the OWNER may terminate the employment of the CONTRACTOR and take possession of the premises and of all materials, tools, and appliances thereon and finish the work by whatever method he may deem expedient and charge the cost thereof to the CONTRACTOR and the Surety. In such case, the CONTRACTOR shall not be entitled to receive any further payment until the work is finished. If the expense of completing the Contract, including compensation for additional managerial and administrative services, shall exceed such unpaid balance, the CONTRACTOR and the Surety shall pay the difference to the OWNER.

58. DELAYS AND EXTENSION OF TIME

If the CONTRACTOR is delayed in the progress of the work by any act or neglect of the OWNER or the ENGINEER, or by any separate CONTRACTOR employed by the OWNER, or by strikes, lockouts, fire, adverse weather conditions not reasonably anticipated, or acts of Nature, and if the CONTRACTOR, within 48 hours of the start of the occurrence, gives written notice to the OWNER of the cause of the potential delay and estimate of the possible time extension involved, and within 10 days after the cause of the delay has been remedied, the CONTRACTOR gives written notice to the OWNER of any actual time extension requested as a result of the aforementioned occurrence, then the Contract time may be extended by change order for such reasonable time as the ENGINEER determines. It is agreed that no claim shall be made or allowed for any damages, loss, or expense which may arise out of any delay caused by the above referenced acts or occurrences other than claims for the appropriate extension of time.

No extension of time will be granted to the CONTRACTOR for delays occurring to parts of the work that have no measurable impact on the completion of the total work under this Contract. No extension of time will be considered for weather conditions reasonably anticipated for the area in which the work is being performed. Reasonably anticipated weather conditions will be based on official records of monthly precipitation and other historical data. Adverse weather conditions, if determined to be of a severity that would impact progress of the work, may be considered as cause for an extension of Contract completion time.

Delays in delivery of equipment or material purchased by the CONTRACTOR or his SUBCONTRACTORS, including OWNER-selected equipment shall not be considered as a just cause for delay, unless the OWNER determines that for good cause the delay is beyond the

control of the CONTRACTOR. The CONTRACTOR shall be fully responsible for the timely ordering, scheduling, expediting, delivery, and installation of all equipment and materials.

Within a reasonable period after the Contractor submits to the Owner a written request for an extension of time, the Engineer will present his written opinion to the Owner as to whether an extension of time is justified, and, if so, his recommendation as to the number of days for time extension. The Owner will make the final decision on all requests for extension of time.

59. DIFFERING SITE CONDITIONS

The CONTRACTOR shall promptly, and before the conditions are disturbed, give a written notice to the OWNER and ENGINEER of:

- A. Subsurface or latent physical conditions at the site which differ materially from those indicated in this contract,
- B. Unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The ENGINEER will investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the CONTRACTOR's cost of, or the time required for, performing any part of the work under this Contract, whether or not changed as a result of the conditions, and equitable adjustment shall be made under this Article and the Contract modified in writing accordingly.

No request by the CONTRACTOR for an equitable adjustment to the Contract under this Article will be allowed, unless the CONTRACTOR has given the written notice required; provided that the time prescribed above for giving written notice may be extended by the OWNER.

No request by the CONTRACTOR for an equitable adjustment to the Contract for differing site conditions will be allowed if made after final payment under this Contract.

60. LIQUIDATED DAMAGES

Should the CONTRACTOR fail to complete the work, or any part thereof, in the time agreed upon in the Contract or within such extra time as may have been allowed for

delays by extensions granted as provided in the Contract, the CONTRACTOR shall reimburse the OWNER for the additional expense and damage for each calendar day, Sundays and legal holidays included, that the Contract remains uncompleted after the Contract completion date. It is agreed that the amount of such additional expense and damage incurred by reason of failure to complete the work is the per-diem rate, as stipulated in the Bid. The said amount is hereby agreed upon as a reasonable estimate of the costs which may be accrued by the OWNER after the expiration of the time of completion. It is expressly understood and agreed that this amount is not to be considered in the nature of a penalty, but as liquidated damages which have accrued against the CONTRACTOR. The OWNER shall have the right to deduct such damages from any amount due, or that may become due the CONTRACTOR, or the amount of such damages shall be due and collectible from the CONTRACTOR or Surety.

61. OTHER CONTRACTS

The OWNER reserves the right to let other Contracts in connection with the work. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his work with theirs.

If any part of the work under this Contract depends for proper execution or results upon the work of any other CONTRACTOR, utility service company or OWNER, the CONTRACTOR shall inspect and promptly report to the ENGINEER in writing any patent or apparent defects to deficiencies in such work that render it unsuitable for such proper execution and results. The CONTRACTOR's failure to so report shall constitute and acceptance of the work by others as being fit and proper for integration with work under this Contract, except for latent or non-apparent defects and deficiencies in the work.

62. USE OF PREMISES

The CONTRACTOR shall confine his equipment, the storage of materials and the operation of his workers to limits shown on the Drawings or indicated by law, ordinances, permits, or directions of the ENGINEER, and shall not unreasonably encumber the premises with his materials. The CONTRACTOR shall provide, at his own expense, the necessary rights-of-way and access to the work, which may be required outside the limits of the OWNER's property and shall furnish the ENGINEER copies of permits and agreements for use of the property

outside that provided by the OWNER.

The CONTRACTOR shall not load nor permit any part of the structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the work or adjacent property to stresses or pressures that will endanger it.

63. SUBSTANTIAL COMPLETION DATE

The ENGINEER may issue a written notice of substantial completion for the purpose of establishing the starting date for specific equipment guarantees, and to establish the date that the OWNER will assume the responsibility for the cost of operating such equipment. Said notice shall not be considered as final acceptance of any portion of the work or relieve the CONTRACTOR from completing the remaining work within the specified time and in full compliance with the Contract Documents. See SUBSTANTIAL COMPLETION under DEFINITIONS of these General Conditions.

64. PERFORMANCE TESTING

Operating equipment and systems shall be performance tested in the presence of the ENGINEER to demonstrate compliance with the specified requirements. Performance testing shall be conducted under the specified design operating conditions or under such simulated operating conditions as recommended or approved by the ENGINEER. Schedule such testing with the ENGINEER at least one week in advance of the planned date for testing.

65. OWNER'S USE OF PORTIONS OF THE WORK

Following issuance of the written notice of Substantial Completion, the OWNER may initiate operation of the facility. Such use shall not be considered as final acceptance of any portion of the work, nor shall such use be considered as cause for an extension of the Contract completion time, unless authorized by a Change Order issued by the OWNER.

66. CUTTING AND PATCHING

The CONTRACTOR shall do all cutting, fitting, or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other CONTRACTORS shown upon or reasonably implied by the Drawings.

67. CLEANING UP

The CONTRACTOR shall, at all times, keep property on which work is in progress and the adjacent property free from accumulations of waste material or rubbish caused by employees or by the work. Upon completion of the construction, the CONTRACTOR shall remove all temporary structures, rubbish, and waste materials resulting from his operations.

PAYMENT

68. PAYMENT FOR CHANGE ORDERS

The OWNER's request for quotations on alterations to the work shall not be considered authorization to proceed with the work prior to the issuance of a formal Change Order, nor shall such a request justify any delay in existing work. Quotations for alterations to the work shall include substantiating documentation with an itemized breakdown of CONTRACTOR and SUBCONTRACTOR costs, including labor, material, rentals, approved services, overhead, and profit. OWNER may require detailed cost data in order to substantiate the reasonableness of the proposed costs.

Any compensation paid in conjunction with the terms of a Change Order shall comprise total compensation due the CONTRACTOR for the work or alteration defined in the Change Order. By signing the Change Order, the CONTRACTOR acknowledges that the stipulated compensation includes payment for the work or alteration plus all payment for the interruption of schedules, extended overhead, delay, or any other impact claim or ripple effect, and by such signing specifically waives any reservation or claim for additional compensation in respect to the subject Change Order.

At the OWNER's option, payment or credit for any alterations covered by a Change Order shall be determined by one or a combination of the methods set forth in A, B, or C below, as applicable:

A. UNIT PRICES

Those unit prices stipulated in the Bid shall be utilized where they are applicable. In the event the Change Order results in a change in the original quantity that is materially and significantly different from the original bid quantity, a new unit price shall be negotiated upon demand of either party. Unit prices for new items included in the Change Order shall be negotiated and mutually agreed upon.

B. LUMP SUM

A total lump sum for the work negotiated and mutually acceptable to the CONTRACTOR and the OWNER.

Lump sum quotations for modifications to the work shall include substantiating documentation with an itemized breakdown of CONTRACTOR and SUBCONTRACTOR costs, including labor, material, rentals, approved services, overhead, and profit, all calculated as specified under "C" below.

C. COST REIMBURSEMENT WORK

The term "cost reimbursement" shall be understood to mean that payment for the work will be made on a time and expense basis, that is, on an accounting of the CONTRACTOR's forces, materials, equipment, and other items of cost as required and used to do the work.

If the method of payment cannot be agreed upon prior to the beginning of the work, and the OWNER directs by written Change Order that the work be done on a cost reimbursement basis, then the CONTRACTOR shall furnish labor, and furnish and install equipment and materials necessary to complete the work in a satisfactory manner and within a reasonable period of time. For the work performed, payment will be made for the documented actual cost of the following:

1. Labor including foremen for those hours they are assigned and participating in the cost reimbursement work (actual payroll cost, including wages, fringe benefits as established by negotiated labor agreements, labor insurance, and labor taxes as established by law). No other fixed labor burdens will be considered, unless approved in writing by the OWNER.
2. Material delivered and used on the designated work, including sales tax, if paid by the CONTRACTOR or his SUBCONTRACTOR.
3. Rental or equivalent rental cost of equipment, including necessary transportation for items having a value in excess of \$100.

Rental or equivalent rental cost will be allowed for only those days or hours during which the equipment is in actual use. Rental and transportation allowances shall not exceed the current rental rates prevailing in the locality. The rentals allowed for equipment will, in all cases, be understood to cover all fuel, supplies, repairs, and renewals, and no further allowances

- will be made for those items, unless specific agreement to that effect is made.
4. Additional bond, as required and approved by the OWNER.
 5. Additional insurance (other than labor insurance) as required and approved by the OWNER.

In addition to items 1 through 5 above, an added fixed fee for general overhead and profit shall be negotiated and allowed for the CONTRACTOR (or approved SUBCONTRACTOR) actually executing the Cost Reimbursement work.

An additional fixed fee shall be negotiated and allowed the CONTRACTOR for the administrative handling of portions of the work that are executed by an approved SUBCONTRACTOR. No additional fixed fee will be allowed for the administrative handling of work executed by a SUBCONTRACTOR of a SUBCONTRACTOR, unless by written permission from the OWNER.

The added fixed fees shall be considered to be full compensation, covering the cost of general supervision, overhead, profit, and any other general expense. The CONTRACTOR's records shall make clear distinction between the direct costs of work paid for on a cost reimbursement basis and the costs of other work. The CONTRACTOR shall furnish the ENGINEER report sheets in duplicate of each day's cost reimbursement work no later than the working day following the performance of said work. The daily report sheets shall itemize the materials used, and shall cover the direct cost of labor and the charges for equipment rental, whether furnished by the CONTRACTOR, SUBCONTRACTOR or other forces. The daily report sheets shall provide names or identifications and classifications of workers, the hourly rate of pay and hours worked, and also the size, type, and identification number of equipment and hours operated.

Material charges shall be substantiated by valid copies of vendors' invoices. Such invoices shall be submitted with the daily report sheets, or, if not available, they shall be submitted with subsequent daily report sheets. Said daily report sheets shall be signed by the CONTRACTOR or his authorized agent.

The OWNER reserves the right to furnish such materials and equipment as he deems expedient and the CONTRACTOR shall have no claim for profit or added fees on the cost of such materials and equipment. To receive partial payments and final payment for cost reimbursement work, the CONTRACTOR shall submit

to the ENGINEER, detailed and complete documented verification of the CONTRACTOR's and any of his SUBCONTRACTORS' actual costs involved in the cost reimbursement work. Such costs shall be submitted within 30 days after said work has been performed.

69. PARTIAL PAYMENTS

A. GENERAL

Nothing in this Article shall be construed to affect the right, hereby reserved, to reject the whole or any part of the aforesaid work, should such work be later found not to comply with the provisions of the Contract Documents. All estimated quantities of work for which partial payments have been made are subject to review and correction on the final estimate. Payment by the OWNER and acceptance by the CONTRACTOR of partial payments based on periodic estimates of quantities of work performed shall not, in any way, constitute acceptance of the estimated quantities used as a basis for computing the amounts of the partial payments.

B. ESTIMATE

At least 30 days before each progress payment falls due, as specified in the Supplementary Conditions, the CONTRACTOR shall submit to the ENGINEER a detailed estimate of the amount earned during the preceding month for the separate portions of the work, and request payment. As used in this Article, the words "amount earned" means the value, on the date of the estimate for partial payment, of the work completed in accordance with the Contract Documents, and the value of approved materials delivered to the project site suitable stored and protected prior to incorporation into the work.

ENGINEER will, within 7 days after receipt of each request for payment, either indicate in writing a recommendation of payment and present the request to OWNER, or return the request to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may, within 7 days, make the necessary corrections and resubmit the request.

ENGINEER may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such representations to OWNER. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests,

nullify any such payment previously recommended to such an extent as may be necessary in ENGINEER's opinion to protect the OWNER from loss because:

1. The work is defective, or completed work has been damaged requiring correction or replacement;
2. Written claims have been made against OWNER or Liens have been filed in connection with the work;
3. The Contract Price has been reduced because of Change Orders;
4. OWNER has been required to correct defective work or complete the work in accordance with Article OWNER'S RIGHT TO DO WORK;
5. Of CONTRACTOR's unsatisfactory prosecution of the work in accordance with the Contract Documents; or
6. CONTRACTOR's failure to make payment to SUBCONTRACTORS or for labor, materials, or equipment.

C. DEDUCTION FROM ESTIMATE

Unless modified in the Supplementary Conditions, deductions from the estimate will be as described below:

1. The OWNER will deduct from the estimate, and retain as part security, 10 percent of the amount earned for work satisfactorily completed. A deduction and retainage of 10 percent will be made on the estimated amount earned for approved items of material delivered to and properly stored at the jobsite but not incorporated into the work. When the work is 50 percent complete, the OWNER may reduce the retainage to 5 percent of the dollar value of all work satisfactorily completed to date provided the CONTRACTOR is making satisfactory progress and there is no specific cause for a greater retainage. The OWNER may reinstate the retainage up to 10 percent if the OWNER determines, at his discretion, that the CONTRACTOR is not making satisfactory progress or where there is other specific cause for such withholding.

D. QUALIFICATION FOR PARTIAL PAYMENT FOR MATERIALS DELIVERED

Unless modified in the Supplementary Conditions, qualification for partial payment for materials delivered but not yet incorporated into the work shall be as described below:

1. Materials, as used herein, shall be considered to be those items which are fabricated and manufactured material and equipment. No consideration shall be given to individual purchases of less than \$200 for any one item.
2. To receive partial payment for materials delivered to the site, but not incorporated in the work, it shall be necessary for the CONTRACTOR to include a list of such materials on the Partial Payment Request. At his sole discretion, the ENGINEER may approve items for which partial payment is to be made. Partial payment shall be based on the CONTRACTOR's actual cost for the materials as evidenced by invoices from the supplier. Proper storage and protection shall be provided by the CONTRACTOR, and as approved by the ENGINEER. Final payment shall be made only for materials actually incorporated in the work and, upon acceptance of the work, all materials remaining for which advance payments had been made shall revert to the CONTRACTOR, unless otherwise agreed, and partial payments made for these items shall be deducted from the final payment for the work.

3. CONTRACTOR warrants and guarantees that title to all work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER at the time of payment free and clear of all liens, claims, security interests, and encumbrances.
4. If requested by the ENGINEER, the CONTRACTOR shall provide, with subsequent pay requests, invoices receipted by the supplier showing payment in full has been made.

E. PAYMENT

After deducting the retainage and the amount of all previous partial payments made to the CONTRACTOR from the amount earned, the amount due will be made payable to the CONTRACTOR. Recommendations for payment received by the OWNER less than 9 days prior to the scheduled day for payment will not be processed or paid until the following month.

70. CLAIMS FOR EXTRA WORK

In any case where the CONTRACTOR deems additional time or compensation will become due him under this Contract for circumstances other than those defined in Article DELAYS AND EXTENSION OF TIME, the CONTRACTOR shall notify the ENGINEER, in writing, of his intention to make claim for such time or compensation before he begins the work on which he bases the claim, in order that such matters may be settled, if possible, or other appropriate action taken. The notice of claim shall be in duplicate, in writing, and shall state the circumstances and the reasons for the claim, but need not state the amount. If such notification is not given or if the ENGINEER is not afforded proper facilities by the CONTRACTOR for keeping strict account of actual cost, then the CONTRACTOR hereby agrees to waive the claim for such additional time or compensation. Such notice by the CONTRACTOR, and fact that the ENGINEER has kept account of the cost as aforesaid, shall not in any way be construed as proving the validity of the claim.

No extension of time will be granted to the CONTRACTOR for delays resulting from extra work that have no measurable impact on the completion of the total Work under this Contract. Claims for additional time or compensation shall be made in itemized detail and submitted, in writing, to the OWNER and ENGINEER within 10 days following completion of that portion of the work for which the CONTRACTOR bases his claim. Failure to make the claim for additional compensation in the manner and within the time specified above shall constitute waiver of that claim. In case the claim is found to be just, it shall be allowed and paid for as provided in Article PAYMENT FOR CHANGE ORDERS.

71. RELEASE OF LIENS OR CLAIMS

The CONTRACTOR shall indemnify and hold harmless the OWNER from all claims for labor and materials furnished under this Contract. Prior to the final payment, the CONTRACTOR shall furnish to the OWNER, as part of his final payment request, a certification that all of the CONTRACTOR's obligations on the Project have been satisfied and that all monetary claims and indebtedness have been paid. The CONTRACTOR shall furnish complete and legal effective releases or waivers, satisfactory to the OWNER, of all liens arising out of or filed in connection with the work.

72. FINAL PAYMENT

Upon completion of all the work under this Contract, the CONTRACTOR shall notify the ENGINEER, in writing, that he has completed his part of the Contract and shall request final payment. Upon receipt of such notice the ENGINEER will inspect and, if acceptable, submit to the OWNER his recommendation as to acceptance of the completed work and as to the final estimate of the amount due the CONTRACTOR. Upon approval of this final estimate by the OWNER and compliance by the CONTRACTOR with provisions in Article RELEASE OF LIENS OR CLAIMS, and other provisions as may be applicable, the OWNER shall pay to the CONTRACTOR all monies due him under the provisions of these Contract Documents.

73. NO WAIVER OF RIGHTS

Neither the inspection by the OWNER, through the ENGINEER or any of his employees, nor any order by the OWNER for payment of money, nor any payment for, or acceptance of, the whole or any part of the work by the OWNER or ENGINEER, nor any extension of time, nor any possession taken by the OWNER or its employees, shall operate as a waiver of any provision of this Contract, or any power herein reserved to the OWNER, or any right to damages herein provided, nor shall any waiver of any breach in this Contract be held to be a waiver of any other or subsequent breach. Acceptance or final payment shall not be final and conclusive with regards to latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the OWNER's rights under the warranty.

74. ACCEPTANCE OF FINAL PAYMENT CONSTITUTES RELEASE

The acceptance by the CONTRACTOR of the final payment shall release the OWNER and the ENGINEER, as representatives of the OWNER, from all claims and all liability to the CONTRACTOR for all things done or furnished in connection with the work, and every act of the OWNER and others relating to or arising out of the work except claims previously made in writing and still unsettled. No payment, however, final or otherwise, shall operate to release the CONTRACTOR or his Sureties from obligations under this Contract and the Performance Bond, Payment Bond, and other bonds and warranties, as herein provided.

SUPPLEMENTARY CONDITIONS

The General Conditions are hereby revised as follows:

ARTICLE 9 "ENGINEER"

Add the following:

Wherever in these Documents the word "Engineer" appears, it shall be understood to mean the City of Key West, Port & Marine Services Director or authorized representatives.

ARTICLE 12 "OWNER"

Add the following:

Wherever in these Documents the word "Owner" appears, it shall be understood to mean the City of Key West whose address is 3126 Flagler Avenue, Key West, Florida 33040.

ARTICLE 34 "INSURANCE AND LIABILITY"

Delete Article 34 Sections A, B, C and D and replace with the following:

CONTRACTOR is to secure, pay for, and file with the City of Key West, prior to commencing any work under the Contract, all certificates for workers' compensation, public liability, and property damage liability insurance, and such other insurance coverages as may be required by specifications and addenda thereto, in at least the following minimum amounts with specification amounts to prevail if greater than minimum amounts indicated. Notwithstanding any other provision of the Contract, the CONTRACTOR shall provide the minimum limits of liability insurance coverage as follows:

Auto Liability	\$1,000,000	Combined Single Limit
General Liability	\$2,000,000	Aggregate (Per Project)
	\$2,000,000	Products Aggregate
	\$1,000,000	Any One Occurrence
	\$1,000,000	Personal Injury
	\$ 300,000	Fire Damage/Legal
Additional Umbrella Liability	\$2,000,000	Occurrence / Aggregate

CONTRACTOR shall furnish an original Certificate of Insurance indicating, and such policy providing coverage to, City of Key West named as an additional insured on a PRIMARY and NON CONTRIBUTORY basis utilizing an ISO standard endorsement at least as broad as CG 2010 (11/85) or its equivalent, (combination of CG 20 10 07 04 and CG 20 37 07 04, providing coverage for completed operations, is acceptable) including a waiver of subrogation clause in favor of City of Key West on all policies. CONTRACTOR will maintain the General Liability and Umbrella Liability insurance coverages summarized above

with coverage continuing in full force including the additional insured endorsement until at least 3 years beyond completion and delivery of the work contracted herein.

Notwithstanding any other provision of the Contract, the CONTRACTOR shall maintain complete workers' compensation coverage for each and every employee, principal, officer, representative, or agent of the CONTRACTOR who is performing any labor, services, or material under the Contract. Further, CONTRACTOR shall additionally maintain the following minimum limits of coverage:

Bodily Injury Each Accident	\$1,000,000
Bodily Injury by Disease Each Employee	\$1,000,000
Bodily Injury by Disease Policy Limit	\$1,000,000

If the work is being done on or near a navigable waterway, CONTRACTOR's workers compensation policy shall be endorsed to provide USL&H Act (WC 00 01 06 A) and Jones Act (WC 00 02 01 A) coverage if specified by the City of Key West. CONTRACTOR shall provide the City of Key West with a Certificate of Insurance verifying compliance with the workman's compensation coverage as set forth herein and shall provide as often as required by the City of Key West such certification which shall also show the insurance company, policy number, effective and expiration date, and the limits of workman's compensation coverage under each policy.

United States Longshoremen and Harbor Workers (USL&H) coverage shall be maintained by SWUPS that will respond to the Federal USL&H statute (33 USC sections 901-950). Such coverage shall have minimum limits consistent with 33 USC sections 901-950 and in no case less than \$1,000,000.

Federal Jones Act Coverage shall be maintained by SWUPS that will respond to the Federal Jones Act (46 U.S.C.A., subsection 688) with limits not less than \$1,000,000. SWUPS shall be permitted to provide Jones Act Coverage through a separate Protection and Indemnity Policy, in so far as the coverage provided is no less restrictive than would have been provided by a Workers' Compensation policy.

CONTRACTOR's insurance policies shall be endorsed to give 30 days written notice to the City of Key West in the event of cancellation or material change, using form CG 02 24, or its equivalent.

Certificates of Insurance submitted to the City of Key West will not be accepted without copies of the endorsements being requested. This includes additional insured endorsements, cancellation/material change notice endorsements, and waivers of subrogation. Copies of USL&H Act and Jones Act endorsements will also be required if necessary. PLEASE ADVISE YOUR INSURANCE AGENT ACCORDINGLY.

CONTRACTOR will comply with any and all safety regulations required by any agency or regulatory body including but not limited to OSHA. CONTRACTOR will notify City of Key

West immediately by telephone at (305) 809-3811 any accident or injury to anyone that occurs on the jobsite and is related to any of the work being performed by the CONTRACTOR.

Add the following Section:

G. SURETY AND INSURER QUALIFICATIONS

All bonds, insurance contracts, and certificates of insurance shall be either executed by or countersigned by a licensed resident agent of the Surety or insurance company, having his place of business in the State of Florida, and in all ways complying with the insurance laws of the State of Florida. Further, the said Surety or insurance company shall be duly licensed and qualified to do business in the State of Florida.

ARTICLE 35 "INDEMNITY"

Delete Article 35 in its entirety and replace with the following:

INDEMNITY

To the fullest extent permitted by law, the CONTRACTOR expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents and employees (herein called the "indemnitees") from liabilities, damages, losses and costs, including but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONTRACTOR, its Subcontractors or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONTRACTOR's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONTRACTOR under Workers' Compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONTRACTOR or of any third party to whom CONTRACTOR may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

ARTICLE 39 "CODES, ORDINANCES, PERMITS, AND LICENSES"

Add the following:

A. NOISE ORDINANCE

City of Key West has a noise ordinance that allows working hours between 8:00 AM to 7:00 PM, Monday through Friday. No work should be performed during weekends or City Holidays, State Holidays and National Holidays. Any construction operations outside these hours and these days will require a variance from the City of Key West Commission.

B. "LICENSES"

Within 10 days of Notice of Award, the successful Bidder must represent that he holds all applicable state, county, and City of Key West licenses and permits required to do business as a contractor with respect to the work described in the Contract Documents.

Further, the successful Bidder must, within 10 days of Notice of Award, furnish documentation showing that, as a minimum, he has complied with the provisions of Chapter 18 of the Code of Ordinances of the City of Key West in order to enter into the Agreement contained in the Contract Documents.

Specifically, within 10 days after Notice of Award, the successful Bidder must demonstrate that he holds, as a minimum, the following licenses and certificates:

1. City of Key West, Engineering Contractor Class I license.
2. Holds a valid occupational license issued by the City of Key West.

ARTICLE 42 "SAFETY"

Add the following sub article:

OCCUPATIONAL SAFETY AND HEALTH

The Contractor shall observe and comply with all applicable local, state, and federal occupational safety and health regulations during the prosecution of work under this Contract. In addition, full compliance by the Contractor with the U.S. Department of Labor's Occupational Safety and Health Standards, as established in Public Law 91-596, will be required under the terms of this Contract.

ARTICLE 43 "PROTECTION OF WORK AND PROPERTY"

Add the following Article:

HISTORIC PRESERVATION

The Contractor shall comply with Florida's Archives and Historic Act (Florida Statutes, Chapter 267) and the regulations of the local historic preservation board as applicable and

protect against the potential loss or destruction of significant historical or archaeological data, sites, and properties in connection with the project.

ARTICLE 45 "MATERIALS AND APPLIANCES"

Add the following to the end of the first paragraph:

At contract completion, no equipment purchased by the contractor shall be transferred to state or local ownership.

ARTICLE 57 "OWNERS RIGHT TO TRANSFER EMPLOYMENT"

Add the following Article:

TERMINATION FOR CONVENIENCE AND RIGHT OF SUSPENSION

- A. Owner shall have the right to terminate this Contract without cause by written notice of Termination to the Contractor. In the event of such termination for convenience, the Contractor's recovery against the Owner shall be limited to that portion of the Contract amount earned through the date of termination, together with any retainage withheld and reasonable termination expenses incurred. Contractor shall not be entitled to any other or further recovery against the Owner, including, but not limited to, damages or any anticipated profit on portions of the Work not performed.
- B. Owner shall have the right to suspend all or any portions of the Work upon giving the Contractor prior written notice of such suspension. If all or any portion of the Work is so suspended, the Contractor shall be entitled to reasonable costs, expenses and time extension associated with the suspension.

ARTICLE 60 "LIQUIDATED DAMAGES"

Delete Article "LIQUIDATED DAMAGES" in its entirety and substitute the following:

LIQUIDATED DAMAGES

Should the Contractor fail to complete the work or any part thereof in the time agreed upon in the Contract Documents or within such extra time as may have been allowed for delays by extensions granted as provided in the Contract, the Contractor shall reimburse the Owner for the additional expense and damage for each calendar day, Sundays and legal holidays included, that project outlined in Contract Documents remains uncompleted after the completion date. Liquidated damages shall be assessed. It is agreed that the amount of such additional expense and damage incurred by reason of failure to complete the work is the per diem rate as stipulated in the Proposal. The said amount is hereby agreed upon as a reasonable estimate of the costs which may be accrued by the Owner after the expiration of the time of completion. It is expressly understood and agreed that this amount is not to be considered in the nature of a penalty but as

liquidated damages, which have accrued against the Contractor. The Owner shall have the right to deduct such damages from any amount due or that may become due the Contractor or the amount of such damages shall be due and collectible from the Contractor or Surety.

ARTICLE 69 "PARTIAL PAYMENTS"

Delete the first paragraph of Article "PARTIAL PAYMENTS" and substitute the following:

No more than once each month the Contractor shall submit to the Engineer a detailed estimate of the amount earned during the preceding month for the separate portions of the work and request payment. As used in this Article the words "amount earned" means the value, on the date of the estimate, for partial payment of the work completed in accordance with the Contract Documents and the value of approved materials delivered to the project site suitably stored and protected prior to incorporation into the work.

Add the following:

Payment will be made by the Owner to the Contractor within 40 days receipt of the written recommendation of payment from the Engineer.

Delete Sub-Article C "DEDUCTION FROM ESTIMATE" in its entirety and substitute the following:

DEDUCTION FROM ESTIMATE

The Owner will deduct from the estimate and retain as part security 10 percent of the amount earned for work satisfactorily completed. A deduction and retainage of 10 percent will be made on the estimated amount earned for approved items of material delivered to and properly stored at the jobsite but not incorporated into the work.

Delete Sub-Article E "PAYMENT" in its entirety and substitute the following:

PAYMENT

After deducting the retainage and the amount of all previous partial payments made to the Contractor from the amount earned the amount due will be made payable to the Contractor. Recommendations for payment received by the Owner less than 40 days prior to the scheduled day for payment will not be processed or paid until the following month.

ARTICLE 72 "FINAL PAYMENT"

Add the following;

- A. Acceptance and Final Payment.

Whenever the Contractor has completely performed the work provided for under the Contract and the Engineer has performed a final inspection and made final acceptance and subject to the terms of the Engineer will prepare a final estimate showing the value of the work as soon as the Engineer makes the necessary measurements and computations. The Engineer will correct all prior estimates and payments in the final estimate and payment. The OWNER will pay the estimate, less any sums that the OWNER may have deducted or retained under the provisions of the Contract, as soon as practicable after final acceptance of the work, provided the Contractor has met the requirements of (1) through (6) below.

- 1 The Contractor has agreed in writing to accept the balance due or refund the overpayment, as determined by the OWNER, as full settlement of his account under the Contract and of all claims in connection therewith, or the Contractor, accepted the balance due or refunded the overpayment, as determined by the OWNER, with the stipulation that his acceptance of such payment or the making of such refund does not constitute any bar, admission, or estoppel, or have any effect as to those payments in dispute or the subject of a pending claim between the Contractor and the OWNER. To receive payment based on a FINAL PAYMENT CERTIFICATE, The Contractor further agrees, by submitting a FINAL PAYMENT CERTIFICATE that any pending or future arbitration claim or suit is limited to those particulars, including the itemized amounts, defined in the original FINAL PAYMENT CERTIFICATE , and that he will commence with any such arbitration claim or suit within 15 calendar days from and after the time of final PAYMENT of the work and that his failure to file a formal claim within this period constitutes his full acceptance of the Engineer's final estimate and payment. The overpayment refund check from the Contractor, if required, will be considered a part of any Acceptance Letter executed.
- 2 The Contractor has properly maintained the project, as specified hereinbefore.
- 3 The Contractor has furnished a sworn affidavit to the effect that the Contractor has paid all bills and no suits are pending (other than those exceptions listed, if any) in connection with work performed under the Contract and that the Contractor has not offered or made any gift or gratuity to, or made any financial transaction of any nature with, any employee of the OWNER in the performance of the Contract.
- 4 The surety on the contract bond consents, by completion of their portion of the affidavit and surety release subsequent to the Contractor's completion of his portion, to final payment to the Contractor and agrees that the making of such payment does not relieve the surety of any of its obligations under the bond.
- 5 The Contractor has furnished all required mill tests and analysis reports to the Engineer.

- 6 The Contractor has furnished as-built drawings in AutoCad and Adobe PDF, in accordance with all supplied data collections and files to be compatible with Esri ArcGIS 10.2.2 Software. The current computing environment consists of:

- Microsoft SQL Server
- Windows 7/Server 2008
- ESRI GIS Platform

Interfaces and Integrations

* * *

PART 4

SPECIFICATIONS

SECTION 01001
GENERAL REQUIREMENTS

PART I-GENERAL

1.1 PROJECT DESCRIPTION

- A. The following information though not all-inclusive, is given to assist Contractors in the evaluation of the work required to meet the project objectives.

1. A brief description of the work is stated in the Invitation to Bid. To determine the full scope of the project or of any particular part of the project, coordinate the applicable information in the several parts of these Contract Documents.

- B. Related requirements in other parts of the Contract Documents: Include but not limited to:

1. General and Supplementary Conditions of the Contract for Construction.

- C. Contractor's Duties:

1. In addition to provisions stipulated in other portions of the Contract Documents, the Contractor shall:

- a. Secure permits as necessary for proper execution and completion of the work.
- b. Notify (in writing) all TENANTS and proprietors adjacent to construction site of work to be performed, more specifically the notice shall state the day and time construction will begin, hours of work, the name and phone number of the Contractor's Superintendent and an end date for the project.

- D. The Contractor shall be totally responsible for all required permits and payment of associated fees. Contractor shall ensure that construction complies with all applicable local, state, and federal codes.

- E. Provide an experienced, qualified, and competent Superintendent able to read, write and speak English to oversee the Work and perform quality assurance inspections. Prior to starting construction, the proposed Superintendent's qualifications shall be submitted in writing to the City for approval. The approved Superintendent shall be expected to remain for the duration of the Project, unless the City or Engineer deem him/her inadequate and requests his/her removal or the Contractor cannot continue his services to the Project for a reason or reasons that shall be communicated in writing to the City.

- F. A replacement Superintendent shall be required to follow the same approval process as required for the original. The Superintendent shall provide to the City Inspector Construction Reports for each day of construction, the reports shall be in English, legible, and signed. Contractor shall provide PDF copies monthly. Reports shall include quantity control checks done daily

- G. It shall be the Contractor's responsibility to request approval for entrance to the site for work on Saturdays, Sundays, holiday, and weekday hours other than 8:00AM until 7:00 PM. No construction can commence before 8:00 AM on weekdays.
- H. The Contractor is responsible for the removal & disposal and costs of existing roof membrane and all associated items used in the removal and replacement of the roof, including structural elements scheduled to be replaced. Contractor is responsible for all cost associated with the disposal & must dispose of all materials in an environmentally responsible manner.
- I. The Contractor shall provide material safety data sheets (2 copies) for chemicals, paints, coatings and materials used on-site prior to initiation of work.

1.2 CONTRACTOR'S USE OF PREMISES

- A. Work shall be scheduled as to not interfere with on-going area activities.
- B. Coordinate use of premises and requirements for security under direction of City.
- C. Assume full responsibility for the protection and safekeeping of products, under this Contract, stored on the site.
- D. Obtain and pay for the use of additional storage or work areas needed for operation.
- E. Contractor shall provide drinking water and toilet facilities for construction personnel; The City will not provide.

1.3 MAINTENANCE OF EXISTING UTILITIES OPERATION

- A. Provide at least three weeks' notice prior to interruption of utility services for temporary or permanent connections.
- B. Keep interruption of utility services, and utility outages during disconnection, moving, and reconnection to a minimum.
- C. Keys Energy shall be notified two weeks in advance in writing by the contractor for any KEYS support equipment required by the Contractor during any excavation. (e.g., Power poles next to excavations requiring support, etc.) No additional payment will be paid for this coordination.

1.4 COORDINATION

- A. Contractors shall cooperate in the coordination of their separate activities in a manner that will provide the least interference with the Owner's operations and other contractors and utility companies working in the area, and in the interfacing and connection of the separate elements of the overall project work.
- B. If any difficulty or dispute should arise in the accomplishment of the above, the problem shall be brought immediately to the attention of the Engineer

1.5 MOBILIZATION AND DEMOBILIZATION

- A. Contractor shall be responsible for mobilization and demobilization of labor, materials and equipment. Payment for mobilization and demobilization will be included in the unit price indicated in the BID.

1.6 SCHEDULING

- A. Plan the work and carry it out with minimum interference to the operation of the existing facilities. Prior to starting the work, confer with the Engineer and Owner's representative to develop an approved work schedule, which will permit the facilities to function as normally as practical. It may be necessary to do certain parts of the work outside normal working hours in order to avoid undesirable conditions. The Contractor shall do this work at such times and at no additional cost to the Owner.
- B. SPECIAL EVENTS: Contractor may be asked to stop work during special events.

1.7 WORK TO BE PERFORMED BY OTHERS

- A. During the construction period for this project, the Owner (either with his own forces or under a separate contract) may be performing work that may require the cooperation of the Contractors in scheduling and coordination to avoid conflicts.
- B. If any difficulty or dispute should arise in the accomplishment of the above, the problem shall be brought immediately to the attention of the Engineer.
- C. All Contractors working on this site are subject to this requirement for cooperation, and all shall abide by the Engineer's decision in resolving project coordination problems without additional cost to the Owner.

1.8 SITE INVESTIGATION AND REPRESENTATION

- A. The Contractor acknowledges satisfaction as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the prosecution of the work, and all other matters which can in any way affect the work or the cost thereof under this Contract.
- B. The Contractor further acknowledges satisfaction as to character, quality, and quantity of surface and subsurface materials to be encountered from his inspection of the site and from reviewing any available records of exploratory work furnished by the Owner or included in these Documents. Failure by the Contractor to become acquainted with the physical conditions of the site and all available information will not relieve the Contractor from responsibility for properly estimating the difficulty or cost of successfully performing the work.

- C. The Contractor warrants that as a result of examination and investigation of all the aforesaid data, the contractor can perform the work in a good and workmanlike manner and to the satisfaction of the Owner.
- D. The Owner assumes no responsibility for any representations made by any of its officers or agents during or prior to the execution of this Contract, unless (1) such representations are expressly stated in the Contract, and (2) the Contract expressly provides that the responsibility therefore is assumed by the Owner.

1.9 INFORMATION ON SITE CONDITIONS

- A. General: Any information obtained by the Engineer regarding site conditions, subsurface information, water level, existing construction of site facilities as applicable, and similar data will be available for inspection at the office of the Engineer upon request. Such information is offered as supplementary information only. Neither the Engineer nor the Owner assumes any responsibility for the completeness or interpretation of such supplementary information.

1.10 DIFFERING SUBSURFACE CONDITIONS

- A. The Engineer shall investigate such conditions promptly and following this investigation, the Contractor shall proceed with the work, unless otherwise instructed by the Engineer. If the Engineer finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for performing the work, the Engineer will recommend to the Owner the amount of adjustment in cost and time he considers reasonable. The Owner will make the final decision on all Change Orders to the Contract regarding any adjustment in cost or time for completion.

1.11 UTILITIES

- A. During excavation the Contractor shall be responsible for determining, at his cost, the locations of all known utilities in the project area.
- B. Contractor shall notify utility location service (e.g. Call Sunshine 1-800-432-4770) a minimum for 48 hours prior to work order mobilization. Assigned notification number shall be maintained at the job site at all times and recorded in the daily reports.

1.12 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

- A. Where the Contractor's operations could cause damage or inconvenience to telephone, television, gas, water, sewer, or irrigation systems, the operations shall be suspended until all arrangements necessary for the protection of these utilities and services have been made by the Contractor.
- B. Notify all utility offices, which are affected by the construction operation at least 48 hours in advance. Under no circumstances expose any utility without first obtaining permission from the appropriate agency. Once permission has been granted, locate, expose, and provide temporary support for all existing underground utilities.

- C. The Contractor shall be solely and directly responsible to the Owner and operators of such properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the construction operations under this Contract.
- D. Neither the Owner nor its Officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.
- E. In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, promptly notify the proper authority. Cooperate with said authority in restoration of services as promptly as possible and bear all cost of repair. In no case shall interruption of any water or utility service be allowed to exist outside working hours unless prior approval is granted.
- F. In the event the Contractor encounters water service lines that interfere with trenching, he may, by obtaining prior approval of the property owner, Florida Keys Aqueduct Authority (FKAA), or Fire Department as applicable, and the ENGINEER, cut the service dig through, and restore service with similar and equal materials at the Contractor's expense.
- G. The Contractor shall replace, at his own expense, all existing utilities or structures removed or damaged during construction, unless otherwise provided for in these Contract Documents or ordered by the Engineer.

1.13 TEMPORARY WATER

- A. The Contractor shall make his own arrangements to obtain suitable water for any need and shall pay all costs.

1.14 ACCIDENT REPORTS

- A. If death or serious injuries or serious damages are caused; the Contractor must promptly report by telephone or messenger to the Engineer. In addition, the Contractor must promptly report in writing to the Engineer all accidents whatsoever arising out of or in connection with, the performance of the work whether on, or adjacent, to the site, giving full details and statements of witnesses.
- B. If a claim is made against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim.

1.15 SITE RESTORATION AND CLEANUP

- A. At all times during the work keep the premises clean and orderly and upon completion of daily work repair all damage caused by equipment and leave the project free of rubbish or excess materials of any kind.

1.16 FIRE PREVENTION AND PROTECTION

- A. The Contractor shall perform all work in a fire-safe manner and shall supply and maintain on the site adequate fire-fighting equipment capable of extinguishing incipient fires. The Contractor shall comply with applicable federal, state, and local fire-prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed.

PART 2 – Not used

PART 3 – Not used

END OF SECTION

SECTION 01010
SCOPE OF
WORK

The project includes the restoration and/or replacement of historic concrete walls at the Thompson Fish House including Tremie concrete foundations.

a. DESCRIPTION

- i. Work Included: The furnishing of all materials, equipment and labor for the construction of THOMPSON FISH HOUSE WALL RESTORATION ITB #012-16 and all necessary appurtenances, record drawings, surveys, and incidental work to provide a complete and serviceable project. The work includes selective demolition of items attached to the building in order to allow access to the concrete. Such items include, but are not necessarily limited to: the porch roof on the west side of the building, shoring and/or bracing, rolling barn doors including tracks and hardware, electrical services entrance section with associated panels and conduits, air conditioning equipment, ice machines, equipment enclosures, and decking. Selected items requiring reinstallation after concrete restoration included, but are not necessarily limited to: the porch roof, meters and disconnects, mechanical equipment, fire hose, pump out equipment, rolling doors and track systems.

END OF SECTION

SECTION 01300
SUBMITTALS

PART 1 - GENERAL

1.1 GENERAL

- A. Inquiries: Direct to ARCHITECT regarding procedure, purpose, or extent of Submittal.
- B. Submittal Submission Procedures: As provided in General Conditions, as specified herein, and as may otherwise be established during the preconstruction conference. Provide a submittal log listing all required submittals within 14 days from the notice to proceed.
- C. OWNER's Authorization: At any time, OWNER may authorize changes to procedures and requirements for Submittals, as necessary to accomplish specific purpose of each Submittal. Such authorization will be by Field Order or Work Change Directive.
- D. Timeliness: Make submissions in accordance with requirements of individual Specification sections, as shown on the current accepted schedule of Submittals submissions, and in such sequence as to cause no delay in Work or in work of other contractors. Provide all submittals to the architect within 60 days from the notice to proceed.
- E. Identification of Submittals:
 - 1. Complete, sign, and transmit with each Submittal package, one Transmittal of CONTRACTOR's Submittal Form attached at the end of this section.
 - 2. Identify each Submittal with numbering and tracking system reviewed by ARCHITECT and ENGINEER as appropriate:
 - a. Sequentially number each Submittal.
 - b. Resubmission of a Submittal will have original number with sequential alphabetic suffix.
 - 3. Show date of submission and dates of previous submissions.
 - 4. Show Project title and OWNER's contract identification and contract number.
 - 5. Show names of CONTRACTOR, Subcontractor or Supplier, and manufacturer as appropriate.
 - 6. Identify, as applicable, Contract Document section and paragraph to which Submittal applies.
 - 7. Clearly identify revisions from previous submissions.
- F. Incomplete Submittal Submissions:
 - 1. At ENGINEER's sole discretion, ENGINEER will either (i) return the entire Submittal for CONTRACTOR's revision/correction and resubmission, or (ii) retain portions of the Submittal and request submission/resubmission of specified items or as noted thereon.

2. Submittals which do not clearly bear CONTRACTOR's specific written indication of CONTRACTOR review and approval of Submittal or which are transmitted with an unsigned or uncertified submission form or as may otherwise be required under Contract Documents, will be returned to CONTRACTOR unreviewed for resubmission in accordance with Contract Documents

3. Delays, re-sequencing or other impact to Work resulting from CONTRACTOR's submission of unchecked or unreviewed, incomplete, inaccurate or erroneous, or nonconforming Submittals, which will require CONTRACTOR's resubmission of a Submittal for ENGINEER's review, shall not constitute a basis of claim for adjustment in Contract Price or Contract Times

G. Non-specified Submissions: Submissions not required under these Contract Documents and not shown on schedule of Submittals submissions will not be reviewed and will be returned to CONTRACTOR.

H. Transmit submittals in accordance with current accepted schedule of Submittal submissions, and deliver the Engineer designated by the KWHS Port & Marine Services.

I. Disposition of Submittals: As specified herein for administrative Submittals. ENGINEER will review, stamp, and indicate requirements for resubmission or acceptance on Submittal as follows:

1. No Exceptions Taken.
2. Reviewed as Noted:
 - a. Reference the General Conditions for intent.
 - b. CONTRACTOR may proceed to perform Submittal related Work.
 - d. One copy for ENGINEER's file.
 - e. One copy returned to CONTRACTOR.
3. Revise and Resubmit (Revise/Correct or Develop Replacement and Resubmit):
 - a. Revise/correct in accordance with ENGINEER's comments and resubmit.
 - b. One copy to ENGINEER's file.
 - c. One copy returned to CONTRACTOR appropriately annotated.

J. Payment for the work in this section will be incidental

PART 2 -Notused

PART 3 -Notused

END OF SECTION

SECTION 01700
CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 REQUIREMENTS

- A. Contract completion includes substantial completion, final inspection after completion, final cleaning, contractor's closeout submittals, and final adjustment of accounts.

1.2 SUBSTANTIAL COMPLETION

- A. When Contractor considers work has reached substantial completion for an individual contract, they shall submit to the OWNER the following:
1. Written notice that the work is substantially complete in accordance with Contract Documents.
 2. A list of items yet to be completed or corrected and explanations thereof.
- B. Within a reasonable time upon receipt of such notice, the OWNER will make an inspection, if necessary, to determine the status of completion.
- C. Should the OWNER determine that the Contract is not substantially complete:
1. The OWNER will promptly notify the Contractor in writing, giving the reasons thereof.
 2. Contractor shall remedy the deficiencies in the work and send a second written notice of Substantial Completion to the OWNER.
 3. Upon receipt of the second notice, the OWNER will review the work.
- D. When the OWNER finds that the Contract is substantially complete, they will issue a Certificate of Substantial Completion with a tentative list of items to be completed or corrected before final inspection.

1.3 FINAL INSPECTION AFTER COMPLETION

- A. When Contractor considers the Contract complete with all minor deficiencies completed or corrected, he shall submit written certification that:
1. Contract Document requirements have been met.

2. Work has been inspected for compliance with Contract Documents.
 3. Work has been completed in accordance with Contract Documents.
 4. All minor deficiencies have been corrected or completed and the Work is ready for final inspection.
 5. Project record documents are complete and submitted.
- B. Within a reasonable time upon receipt of such certification, the OWNER will make an inspection to verify the status of completion.
- C. Should the OWNER determine that the work is incomplete or defective:
1. The OWNER will promptly notify the Contractor in writing, listing the incomplete or defective work.
 2. Contractor shall remedy the deficiencies in the work and send a second written certification to the OWNER that the work is complete.
 3. Upon receipt of the second certification, the OWNER will review the Work.
- D. When the OWNER determines that the work is acceptable under the Contract Documents, the Contractor shall provide all closeout submittals.

1.4 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean site; sweep paved areas, rake clean other surfaces.
- C. Remove waste and surplus materials, rubbish, and construction facilities from the Project and from the site.

1.5 CONTRACTOR'S CLOSEOUT SUBMITTALS

- A. Project Record Documents
 1. At Contract Closeout, submit documents with transmittal letter containing date, project title, Contractor's name and address, list of documents, and signature of Contractor.
 2. Changes made by Field Order or by Change Order.
- B. Evidence of payment and Release of Liens.

1.6 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the OWNER.
- B. Statement shall reflect all adjustments to the Contract Sum.
 - 1. The original Contract sum.
 - 2. Additions and deductions resulting from:
 - Previous change orders or written amendment.
 - b.^a Allowances
 - c. Unit prices
 - d. Deductions for uncorrected work.
 - e. Deductions for liquidated damages
 - f. Other adjustments
 - 3. Total contract sum as adjusted
 - 4. Previous payments
 - 5. Sum remaining due

1.7 FINAL AS-BUILT OR RECORD DRAWINGS

- A. All supplied data collections, as-builts, drawings and files to be compatible with esri ArcGIS 10.2.2 Software. The OWNER's current computing environment consists of *Microsoft SQL Server - Windows 7/Server 2008 - ESRI GIS Platform*.
- B. Interfaces and Integrations:
 - 1. The City of Key West uses a number of software applications critical to its core operation and mission. The proposed mobile asset data collection solution will need to interface or integrate with these existing platforms. - Arc Collector-ArcGIS Online - ArcMap 10.2
- C. Contact City GIS Manager, at 305-809-3721 with software related questions.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

PART 5

TECHNICAL SPECIFICATIONS

SECTION 02070
SELECTIVE DEMOLITION

PART 1 -GENERAL

1.1 DESCRIPTION

- A. Work included: Carefully demolish and remove from the site those items scheduled to be so demolished and removed.
- B. Related work:
 - 1. The Work of this Section must comply with all other Sections of these Technical Special Provisions.
- C. Preservation requirements:
 - 1. The work of this contract involves a significant historic site. Care shall be taken during all selective demolition activities to protect and preserve historic and/or archaeological resources.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Do not perform any operations that will disturb subsoils, except in the presence of a qualified archaeologist. The Owner will employ a qualified archaeologist to monitor construction activities.
- C. The Architect/Engineer reserve the right to have individual workmen, or subcontractors, removed from the work when in the Architect/Engineer's opinion, those parties are determined to be damaging historic materials or are not sensitive to the nature of the work.

PART 2 -PRODUCTS

(No products are required in this Section)

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 DEMOLITION

- A. By careful study of the Contract Documents, determine the location and extent of selective demolition to be performed.
- B. In company with the Architect/Engineer, visit the site and verify the extent and location of selective demolition required.
 - 1. Carefully identify limits of selective demolition.
 - 2. Mark interface surfaces as required to enable workmen also to identify items to be removed and items to be left in place intact.
 - 3. Identify historic elements to be protected.
- C. Prepare and follow an organized plan for demolition and removal of items.
 - 1. Shut off, cap, and otherwise protect existing public utility lines in accordance with the requirements of the public agency or utility having jurisdiction.
 - 2. Completely remove items scheduled to be so demolished and removed, leaving surfaces clean, solid, and ready to receive new materials specified elsewhere.
 - 3. In all activities, comply with pertinent regulations of governmental agencies having jurisdiction.
 - 4. Identify protective measures for historic fabric.
- D. The site is significant historically and archaeologically. The Architect/Engineer may identify areas where work may proceed without an archaeologist. However, if potential artifacts are uncovered, stop all work activities until an inspection by the Owner's archaeologist is conducted. Except for Owner requested material and artifacts, demolished material shall be considered to be property of the Contractor and shall be completely removed from the job site.
- E. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors, and to other work being performed on or near the site.
- F. Use protective measures as necessary to protect all historic materials to remain, and/or archaeological materials.

3.3 REPLACEMENTS

- A. In the event of demolition of items not so scheduled to be demolished, promptly replace such items to the approval of the Architect/Engineer and at no additional cost to the Owner.

END OF SECTION

SECTION 03300
CAST-IN-PLACE CONCRETE

PART 1 -GENERAL

1.1 DESCRIPTION

- A. Work included: Provide cast-in-place concrete, including formwork and reinforcement, where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. Related Work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Condition, Supplementary Conditions, and Sections in Part 4 -Scope of Work, and general requirements of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for the proper performance of the work in this Section.
- B. Comply with the "Specification for Structural Concrete Buildings", ACI 301, except as may be modified herein.
- C. Comply with Field Reference Manual, ACI Publication, SP-15 (88).
- D. The Thompson Fish House is a significant historic site. Replacement concrete must match adjacent historic concrete finish and appearance.

1.4 PRODUCT HANDLING

- A. Comply with product manufacturers printed instructions.

PART 2 - PRODUCTS

2.1 FORMS

- A. Design, erect, support, brace and maintain formwork so it will safely support vertical and lateral loads which might be applied until such loads can be supported

safely by the concrete structure.

- B. Construct forms to the exact sizes, shapes, lines and dimensions shown, and as required to obtain accurate alignment, location, grades, and level and plumb work in the finished structure.
- C. The majority of existing historic concrete was board formed. Construct all formwork with boards of the same size and configuration as the historic concrete.

2.2 REINFORCEMENT

- A. Comply with the following as minimums:
 - 1. Bars: ASTM A615, grade 60 unless otherwise shown on the Drawings, using deformed bars for number 3 and larger.
 - 2. Welded wire fabric: ASTM A185
 - 3. Bending: ACI 318
- B. Fabricate reinforcement to the required shapes and dimensions, within fabrication tolerances stated in the CRSI "Manual of Standard Practices".
- C. Do not use reinforcement having any of the following defects:
 - 1. Bar lengths, depths, or bends exceeding the specified fabricating tolerances;
 - 2. Bends or kinks not indicated on the Drawings or required for the Work;
 - 3. Bars with cross-section reduced due to excessive rust or other causes.

2.3 CONCRETE

- A. Comply with the following minimums:
 - 1. Portland cement: ASTM C150, type I or II, low alkali.
 - 2. Aggregate general:
 - a. ASTM C30, uniformly graded and clean;
 - b. Do not use aggregate known to cause excessive shrinkage.
 - 3. Aggregate, coarse: Crushed rock or washed gravel equal to 3/4" and with a maximum size number 4.
 - 4. Aggregate, fine: Natural washed sand of hard and durable particles varying from fine to particles passing a 3/16" screen, of which at least 12% shall pass a 50-mesh screen.
 - 5. Water: clean and potable
 - 6. Non-set accelerating corrosion inhibiting admixture: commercially formulated, non-set accelerating, anodic inhibitor or mixed cathodic and anodic inhibitor capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete complying with ASTM C1582. DCI S, Grace Concrete Products.
 - 7. Other ingredients as determined by tests of existing concrete.

B. Provide concrete with the compressive strengths shown on the Drawings. When such strengths are not shown on the Drawings, provide the following as minimums:

1. Tremie Concrete: 5000 psi
2. Concrete walls and beams: 5000 psi
3. Concrete walks and slabs on grade: 3000 psi
4. Structural concrete slabs and beams: 4000 psi
5. Minimum cement required per C.Y. and maximum cement ratio:
3000 psi - 430 pounds (W/C-0.60)
4000 psi - 480 pounds (W/C-0.56)
5000 psi - 564 pounds (W.C-0.45)

2.4 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect/Engineer.

PART 3 - EXECUTION

3.1 SURFACE CONDITION

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 REINFORCING

- A. Comply with the following, as well as the specified standards, for details and methods of reinforcing placement and supports.
1. Clean reinforcement and remove loose dust and mill scale, earth, and other materials which reduce bond or destroy bond with concrete.
 2. Position, support, and secure reinforcement against displacement by forms, construction, and the concrete placement operations.
 3. Place reinforcement to obtain the required coverages for concrete protection.
 4. Install welded wire fabric in as long lengths as practicable, lapping adjoining pieces one full mesh minimum.
 5. Unless otherwise shown on the Drawings, or required by governmental agencies having jurisdiction, lap bars 40 diameters minimum.

3.3 EMBEDDED ITEMS

- A. Do not embed piping, other than electrical conduit, in structural concrete.
 - 1. Locate conduit to maintain maximum strength of the structure.
 - 2. Increase the thickness of the concrete if the outside diameter of the conduit exceeds 30% of the thickness of the concrete.
- B. Set bolts, inserts, and other required item in the concrete, accurately secured so they will not be displaced, and in the precise locations needed.

3.4 MIXING CONCRETE

- A. Transit mix the concrete in accordance with provisions of ASTM C94.
- B. Mixing water:
 - 1. At the batch plant, withhold 2-1/2 gal of water per cu yd. of concrete.
 - 2. Upon arrival at the job site, add all or part of the withheld water (as required for proper slump) before the concrete is discharged from the mixer.
 - 3. Mix not less than five minutes after the withheld water has been added, and not less than one minute of that time immediately prior to discharge of the batch.
 - 4. Unless otherwise directed, provide 15 minutes total mixing time per batch after first addition of water.
- C. Do not use concrete that has stood for over 30 minutes after leaving the mixer, or concrete that is not placed within 60 minutes after water is first introduced into the mix.

3.5 PLACING CONCRETE

- A. Preparation:
 - 1. Remove foreign matter accumulated in the forms.
 - 2. Rigidly close openings left in the formwork.
 - 3. Wet wood forms sufficiently to tighten up cracks. Wet other material sufficiently to maintain workability of the concrete.
 - 4. Use only clean tools.
- B. Conveying:
 - 1. Perform concrete placing at such a rate that concrete which is being integrated with fresh concrete is still plastic.
 - 2. Deposit concrete as nearly as practicable in its final location so as to avoid separation due to re-handling and flowing.
 - 3. Do not use concrete which becomes non-plastic and unworkable or does not meet required quality control limits, or has been contaminated by foreign materials.
 - 4. Remove rejected concrete from the job site.

- C. Placing concrete in forms:
 - 1. Deposit concrete in horizontal layers not deeper than 24", and avoid inclined construction joints.
 - 2. Remove temporary spreaders in forms when concrete has reached the elevation of the spreaders.
- D. Placing concrete slabs:
 - 1. Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or a section is completed.
 - 2. Bring slab surfaces to the correct level with a straightedge, and then strike off.
 - 3. Use bullfloats or darbies to smooth the surface, leaving the surface free from bumps and hollows.
 - 4. Do not sprinkle water on the plastic surface. Do not disturb the slab surface prior to start of finishing operations.

3.6 CONSOLIDATION

- A. General
 - 1. Consolidate each layer of concrete immediately after placing, by use of internal concrete vibrators supplemented by hand spading, rodding, or tamping.
 - 2. Do not vibrate forms or reinforcement.
 - 3. Do not use vibrators to transport concrete inside the forms.

3.7 JOINTS

- A. Construction joints:
 - 1. Do not use horizontal construction joints except as may be shown on the Drawings.
 - 2. If additional construction joints are found to be required, secure the Architect/Engineer's approval of joint design and location prior to start of concrete placement.
- B. Expansion joints:
 - 1. Do not permit reinforcement or other embedded metal items that are being bonded with concrete (except dowels in floors bonded on only one side of the joints) to extend continuously through any expansion joint material approved by the Architect/Engineer.
 - 2. Fill expansion joints full depth with expansion joint material approved by the Architect/Engineer.

3.8 CONCRETE FINISHING

- A. Except as may be shown otherwise on the Drawings, provide the following finishes at the indicated locations:
1. Scratch finish:
 - a. Apply to monolithic slab surfaces that are to receive concrete floor topping or mortar setting bed.
 2. Float finish:
 - a. Apply to monolithic slab surface that are to receive trowel finish and other finishes specified hereinafter, and to slab surfaces which are to be covered with insulation.
 3. Trowel finish:
 - a. Apply to monolithic slab surfaces that are to be exposed to view, unless otherwise shown, and to slab surfaces that are to be covered with resilient flooring, carpeting, paint, or other thin-film finish coating system.
 4. Non-slip broom finish
 - a. Apply to walks, stairs, drives, ramps, and similar pedestrian and vehicular areas.

3.9 REMEDIAL WORK

- A. Repair or replace deficient work as directed by the Architect/Engineer and at no additional cost to the Owner.

3.10 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified independent testing and inspecting agency to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified in the Article.
- B. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mix exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
 2. ² Slump: ASTM C 143; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mix.
 - Perform additional tests when concrete consistency appears to change.

3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; ASTM C 173, volumetric method, for structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
 4. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg. F and below and when 80 deg F and above, and one test for each composite sample.
 5. Compression Test Specimens: ASTM C 31/C 31M; cast and laboratory cure one set of four standard cylinder specimens for each composite sample.
 - a. Cast and field cure one set of four standard cylinder specimens for each composite sample.
 6. Compressive-Strength Tests: ASTM C 39; test two laboratory-cured specimens at 7 days and two at 28 days.
 - a. Test two field-cured specimens at 7 days and two at 28 days.
 - b. A compressive-strength test shall be the average compressive strength from two specimens obtained from same composite sample and tested at age indicated.
- C. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
- D. Strength of each concrete mix will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive-strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.
- E. Test results shall be reported in writing to Owner, Architect/Engineer, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-and 28-day tests.
- F. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect/Engineer but will not be used as sole basis for approval or rejection of concrete.
- G. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect/Engineer. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42 or by other methods as directed by Architect/Engineer.

END OF SECTION

SECTION 03310
CONCRETE REPAIRS

PART 1 -GENERAL

1.1 DESCRIPTION

- A. Work included: Provide cast-in-place concrete repairs, including formwork and reinforcement, where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for the proper performance of the work in this Section.
- B. Comply with the "Specification for Structural Concrete Buildings", ACI 301, except as may be modified herein.
- C. Do not commence placement of concrete until mix designs have been reviewed and approved by the Architect/Engineer and all governmental agencies having jurisdiction.
- D. The Thompson Fish House is a significant historic site. All repairs must match adjacent historic fabric.

1.3 SUBMITTALS

- A. Submit concrete mix designs to the Architect/Engineer for review and approval.

1.4 PRODUCT HANDLING

- A. Comply with product manufacturers printed instructions.

PART 2 - PRODUCTS

2.1 FORMS

- A. Design, erect, support, brace and maintain formwork so it will safely support vertical and lateral loads which might be applied until such loads can be

supported safely by the concrete structure.

- B. Construct forms to the exact sizes, shapes, lines and dimensions shown, and as required to obtain accurate alignment, location, grades, and level and plumb work in the finished structure. Match existing adjacent historic board formed joints, sizes and patterns.

2.2 REINFORCEMENT

- A. Comply with the following as minimums:
 - 1. Bars: ASTM A615, grade 60 unless otherwise shown on the Drawings, using deformed bars for number 3 and larger.
 - 2. Welded wire fabric: ASTM A185
 - 3. Bending: ACI 318
- B. Fabricate reinforcement to the required shapes and dimensions, within fabrication tolerances stated in the CRSI "Manual of Standard Practices".
- C. Do not use reinforcement having any of the following defects:
 - 1. Bar lengths, depths, or bends exceeding the specified fabricating tolerances;
 - 2. Bends or kinks not indicated on the Drawings or required for the Work;
 - 3. Bars with cross-section reduced due to excessive rust or other causes.

2.3 CONCRETE

- A. Comply with the following minimums:
 - 1. Portland cement: ASTM C150, type I or II, low alkali.
 - 2. Aggregate general:
 - a. ASTM C33, uniformly graded and clean;
 - b. Do not use aggregate known to cause excessive shrinkage.
 - 3. Aggregate, coarse: Crushed rock or washed gravel equal to 3/4" and with a maximum size number 4.
 - 4. Aggregate, fine: Natural washed sand of hard and durable particles varying from fine to particles passing a 3/8" screen, of which at least 12% shall pass a 50-mesh screen.
 - 5. Water: clean and potable
- B. Surface treatment:
 - 1. Where "sealer", "liquid curing agent" or "hardener" is called for on the

drawings, or otherwise used, submit product data to the Architect/Engineer for approval.

2.4 ACAPS@ CONCRETE REPAIRS FOR SPALLED OR DETERIORATED CONCRETE

A. Repair Mortars

1. For formed horizontal and vertical repairs:
 - a. SikaTop III, extended with aggregate per Manufacturer
2. For form & pour and form & pump vertical, overhead, and horizontal surfaces full depth structural repair:
 - a. MAPEI Planitop 11 SCC (pre-extended) - up to 8"
 - b. MAPEI Planitop 15 extended with aggregate per Manufacturer.
3. For hand-packed vertical and overhead repairs:
 - a. SikaTop 123,
 - b. MAPEI Planitop 23
 - c. MAPEI Planitop XS.

B. Epoxy Adhesives

1. For sealing cracks to be injected:
 - a. Sidadur 31 Hi-Mod Gel Epoxy
 - b. MAPEi Planibond AE Fast
2. For injecting cracks in structure:
 - a. Sikadur 35 Hi-Mod LV Epoxy,
 - b. Simpson ETI 2 component injection epoxy,
 - c. MAPEi Epojet,
 - d. MAPEi Epojet LV.
3. For filling cracks in slabs on grade:
 - a. Sikadur 35 Hi-Mod LVEpoxy
 - b. MAPEi Planibond CR50
 - c. MAPEi Epojet LV.

C. Anti-Corrosion Protective Coating for Reinforcement:

1. SikaTop 108 Armatec
2. MAPEi Mapefer IK
3. SikaTop Armatec 110
4. MAPEi Planibond 3C

D. Concrete Bonding Agent:

1. Sikadur 32 Hi-Mod or LPL
2. MAPEi Planibond EBA
3. SikaTop108, Armatec
4. Sika Armatec 110
5. MAPEi Planibond 3C

E. Penetrating Sealer:

1. Sikagard 70, penetrating sealer
2. MAPEI Planiseal WR

- F. Plaster
 - 1. For base:
 - a. Thoroseal Cement Base plus Acryl 60
 - b. Planiseal 88 plus Planicrete AC
 - 2. For finish:
 - a. Thoroseal Plaster Mix plus Acryl 60
- G. Reinforcing Steel
 - 1. ASTM A615, Grade 60
- H. Aggregate
 - 1. Coarse: Pea gravel, 1/4" to 3/8" washed, round quartz conforming to ASTM C33.
 - 2. Fine: Clean, washed, dried silica sand to ASTM C33.
- I. Plaster Comer Bead
 - 1. Rigid vinyl or PVC comer bead with 22 inch perforated flanges.
 - 2. Any other plastering accessory or reinforcement to be of vinyl or PVC and of same material and manufacture as above.
- J. Concrete Patcher, Small Voids, Patching or Resurfacing Stairs, Etc.
 - 1. ABonsal@ vinyl concrete patcher
 - 2. Sika Monotop, SikaTop SF
 - 3. Sikachem 133
 - 4. MAPEI Planitop XS - Vertical, Overhead
 - 5. MAPEI Mapecem 102 - W' to 2" Neat - up to 6" extended or Planitop 18 ES - W' to 1" Neat. Up to 6" extended - horizontal repairs.
 - 6. Thorite
- K. Epoxy Resin Traffic Topping
 - 1. Mapei Traffic Topping. The manufacturer's installation instructions and specifications follow this section.

2.5 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for complete and proper installation, as selected by the Contractor subject to the approval of the Architect/Engineer.

2.6 SUBSTITUTIONS

- A. Substitutions of other products and methods will be allowed only after review and approval by the Architect/Engineer. Submit the manufacturer's specifications and technical data to the Architect/Engineer for approval.

PART 3 -EXECUTION

3.1 SURFACE AND CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
- B. Set bolts, inserts, and other required item in the concrete, accurately secured so they will not be displaced, and in the precise locations needed.

3.2 REINFORCING

- A. Comply with the following, as well as the specified standards, for details and methods of reinforcing placements and supports.
 - 1. Clean reinforcement and remove loose dust and mill scale, earth, and other materials, which reduce bond or destroy bond with concrete.
 - 2. Position, support and secure reinforcement against displacement by forms, construction, and the concrete placement operations.
 - 3. Place reinforcement to obtain the required coverages for concrete protection.
 - 4. Install welded wire fabric in as long lengths as practicable, lapping adjoining pieces on full mesh minimum.
 - 5. Unless otherwise shown on the Drawings, or required by governmental agencies having jurisdiction, lap bars 24 diameters minimum.

EMBEDDED ITEMS

- A. Do not embed piping, other than electrical conduit, in structural concrete.
 - 1. Locate conduit to maintain maximum strength of the structure.
 - 2. Increase the thickness of the concrete if the outside diameter of the conduit exceeds 30% of the thickness of the concrete.
- B. Set bolts, inserts, and other required item in the concrete, accurately secured so they will not be displaced, and in the precise locations needed.

3.4 REPAIR OF TOP SLAB DELAMINATIONS SHALL BE EXECUTED AS FOLLOWS:

- A. Remove all loose concrete and debris.
- B. Sawcut the perimeter of the spall to a depth of 2 inch +/-, do not cut reinforcement.
- C. Remove all concrete necessary to expose all corroded reinforcing steel. At least 3/4 inch of concrete all around corroded bars must be removed. At least 6 inches

of clean bar must be exposed before stopping demolition. The perimeter of the patched area must be square.

- D. Sandblast or wire brush the reinforcing steel, removing all corroded scale and returning steel to its original metallic color. Should the remaining cross-sectional area of a bar be reduced by more than 15% then a new bar must be properly lap spliced to replace the inadequate portion of the bar.
- E. Demolition should result in a concrete substrate with a surface profile that has a amplitude of at least 1/4 inch.
- F. The concrete substrate to be cleaned of all debris, dust and laitance.
- G. The reinforcing steel to be coated with corrosion protection material.
- H. The concrete substrate to be coated with bonding agent.
- I. The proper repair mortar shall be prepared, mixed and placed in strict accordance with the manufacturer's recommendations. The repair mortar should be extended with aggregate if the repair depth warrants it.

3.5 REPAIR OF FULL DEPTH SLAB DAMAGE SHALL BE EXECUTED AS FOLLOWS:

- A. Remove all debris, dust and laitance.
- B. Prepare concrete and reinforcing as in 3.4.C and 3.4.H above.
- C. The proper repair mortar shall be prepared, mixed and placed in strict accordance with the manufacturer's recommendations. The repair mortar should be extended with aggregate if the repair depth warrants it.

3.6 REPAIR OF COLUMN SPALLS TO BE EXECUTED AS FOLLOWS:

- A. Remove all loose concrete and debris, but only from one corner of the column at one time. Should removal of concrete extend to a depth greater than 6 inches then cease demolition and contact Engineer and wait for further direction before continuing work.
- B. Prepare concrete and reinforcing as in 3.4.C and 3.4.H above.
- C. The proper repair mortar shall be prepared, mixed, placed in strict accordance with the manufacturer's recommendations using a form and pump method of placement. The repair mortar should be extended with aggregate if the repair depth warrants it.

3.7 CONCRETE EXPOSED BY REPAIR AND NEW REPAIR AREAS

- A. All existing concrete exposed by repair and new repair areas and plaster shall be coated with the penetrating sealer in strict accordance with manufacturer's specs.

3.8 REMEDIAL WORK

- A. Repair or replace deficient work as directed by the Architect/Engineer, and at no additional cost to the Owner.

END OF SECTION

SECTION 06100
ROUGH CARPENTRY

PART 1 -GENERAL

1.1 DESCRIPTION

- A. Work included: Provide wood, nails, bolts, screws, framing anchors, other rough hardware and other items needed, and perform rough carpentry for the construction shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Part 4 - Scope of Work, & General Requirements of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Codes and standards:
 - 1. In addition to complying with the pertinent codes and regulations of governmental agencies having jurisdiction, unless otherwise specifically directed or permitted by the Architect/Engineer comply with:
 - a. "Product Use Manual" of the Western Wood Products Association for selection and use of products included in that manual;
 - b. "Plywood Specification and Grade Guide" of the American Plywood Association;
 - c. "Standard Specifications for Grades of California Redwood Lumber" of the Redwood Inspection Bureau for Redwood, when used.

1.3 PRODUCT HANDLING

- A. Comply with pertinent provisions of General Conditions, Supplementary Conditions, and Sections in Part 4 - Scope of Work, & General Requirements of these Specifications.
- B. Protection:

1. Deliver the materials to the job site and store, in a safe area, out of the way of traffic, and shored up off the ground surface.
2. Identify framing lumber as to grades, and store each grade separately from other grades.
3. Protect metals with adequate waterproof outer wrapping.
4. Use extreme care in offloading of lumber to prevent damage, splitting, and breaking of materials.

PART 2 - PRODUCTS

2.1 GRADE STAMPS

- A. Identify framing lumber by the grade stamp of the West Coast Lumber Inspection Bureau, or such other grade stamp as is approved in advance by the Architect/Engineer.
- B. Identify plywood as to species, grade, and glue type by the stamp of the American Plywood Association.
- C. Identify other materials of this Section by the appropriate stamp of the agency approved in advance by the Architect/Engineer.

2.2 MATERIALS

- A. Provide materials in the quantities needed for the Work shown on the drawings, and meeting or exceeding the following standards of quality:
 1. Horizontal framing members: Southern Yellow Pine or Douglas Fir-Hemlock, Table I, No. 1, pressure treated.
 2. Vertical framing members: Southern Yellow Pine, Table 1, Standard grade, pressure treated.
 3. Mill all exposed framing members to match existing form, profile, finish, and sizes exactly.
 4. Plywood sheathing: Structural II, C-C, exterior; or standard sheathing with exterior glue, pressure treated, where specifically shown on the Drawings.
 5. Roof sheathing: southern Yellow Pine, Table 1, No. 2, pressure treated, in thickness and style to match existing.
 6. Building paper: Kraft paper complying with Fed Spec UU-B-790A.
 7. Wood preservative: Ammoniacal copper arsenite, or 5% solution of pentachlorophenol.
 8. Rough hardware:
 - a. Steel items:
 - (1) Comply with ASTM A36 or ASTM A992.
 - (2) Use galvanized at all locations.

- b. Machine bolts: Comply with ASTM A307.
- c. Lag bolts: Comply with Fed Spec FF-B-561.
- d. Nails:
 - (1) Use common except as otherwise noted.
 - (2) Comply with Fed Spec FF-N-1.
 - (3) Use galvanized at all locations.
- e. Joist hangers: Simpson, Teco, or equal as approved by the Architect/Engineer, galvanized.

2.3 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect/Engineer.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 DELIVERIES

- A. Stockpile materials sufficiently in advance of need to assure their availability in a timely manner for this Work.
- B. Make as many trips to the job site as are needed to deliver materials of this Section in a timely manner to ensure orderly progress of the Work.

3.3 COMPLIANCE

- A. Do not permit materials not complying with the provisions of this Section to be brought onto or to be stored at the job site.
- B. Promptly remove non-complying materials from the job site and replace with materials meeting the requirements of this Section.

3.4 WORKMANSHIP

- A. Produce joints which are tight, true, and well nailed, with members assembled in accordance with the Drawings and with pertinent codes and regulations.
- B. Selection of lumber pieces:
 - 1. Carefully select the members.
 - 2. Select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing, and will allow making of proper connections.
 - 3. Cut out and discard defects which render a piece unable to serve its intended function.
 - 4. Lumber may be rejected by the Architect/Engineer, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting.
- C. Do not shim any framing component.

3.5 GENERAL FRAMING

- A. General
 - 1. In addition to framing operations normal to the fabrication and erection indicated on the drawings, install wood blocking and backing required for the work of other trades.
 - 2. Set horizontal and sloped members with crown up.
 - 3. Do not notch, cut, or bore members for pipes, ducts, or conduits, or for other reasons except as shown on the Drawings or as specifically approved in advance by the Architect/Engineer.
 - 4. Where new members replace existing, and will be exposed to view, mill and dress to match existing members as to size and texture.
- B. Bearings:
 - 1. Make bearings full unless otherwise indicated on the Drawings.
 - 2. Finish bearing surfaces on which structural members are to rest so as to give sure and even support.
 - 3. Where framing members slope, cut or notch the ends as required to give uniform bearing surface.

3.6 BLOCKING AND BRIDGING

- A. Install blocking as required to support items of finish and to cut off concealed draft openings, both vertical and horizontal, between ceiling and floor areas.

B. Bridging:

1. Install wood cross bridging (not less than 2" x 3" nominal), metal cross bridging of equal strength, or solid blocking between joists where the span exceeds 8'-0".
2. Provide maximum distance of 8'-0" between a line of bridging and a bearing.
3. Cross bridging may be omitted for roof and ceiling joists where the omission is permitted by code, except where otherwise indicated on the Drawings.
4. Install solid blocking between joists at points of support and wherever sheathing is discontinuous. Blocking may be omitted where joists are supported on metal hangers.

3.7 ALIGNMENT

- A. On framing members to receive a finished surface, align the finish subsurface to vary not more than 1/8" from the plane of surfaces of adjacent furring and framing members.

3.8 INSTALLATION OF SHEATHING

A. Placement:

1. Place boards perpendicular and plywood with face grain perpendicular to supports and continuously over at least two supports, except where otherwise shown on the Drawings.
2. Center joints accurately over supports, unless otherwise shown on the Drawings.

- B. Protect wood from moisture by use of waterproof coverings until the wood item has been covered with the next succeeding component or finish.

3.9 FASTENINGS

A. Nailing:

1. Use only common wire nails or spikes of the dimension required by Code, or as shown on the Nailing Schedule, except where otherwise specifically noted on the Drawings.
2. For conditions not covered in the Nailing Schedule provide penetration into the piece receiving the point of not less than 1/2 the length of the nail or spike, provided, however, that 16d nails may be used to connect two pieces of 2" (nominal) thickness.
3. Nail without splitting wood.
4. Pre-bore as required.
5. Remove split members and replace with members complying with the

specified requirements.

B. Bolting:

1. Drill holes 1/16" larger in diameter than the bolts being used.
2. Drill straight and true from one side only.
3. Do not bear bolt threads on wood, but use washers under head and nut where both bear on wood, and use washers under all nuts.

C. Screws:

1. For lag screws and wood screws, pre-bore holes same diameter as root of threads, enlarging holes to shank diameter for length of shank.

END OF SECTION

SECTION 06200
FINISH CARPENTRY

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Install wood, nails, screws, and other items as needed, and perform finish carpentry for the construction shown on the Drawings, as specified herein, and as need for a complete and proper installation.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Part 4 – Scope of work & General Requirements of these specifications.
- J. Preservation requirements:
 - 7. The work of this contract involves a significant historic site. Care shall be taken during all activities to protect and preserve historic and/or archaeological resources.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- K. The Architect/Engineer reserves the right to have individual workmen, or subcontractors removed from the work when in the Architect/Engineer's opinion, those parties are determined to be damaging historic materials or are not sensitive to the nature of the work.

PART 2 - PRODUCTS

2.1 GRADE STAMPS

- A. Identify lumber by the grade stamp of the West Coast Lumber Inspection Bureau, or such other grade stamp as is approved in advance by the Architect/Engineer.

- B. Identify plywood as to species, grade, and glue type by the stamp of the American Plywood Association.

2.2 MATERIALS

- A. Air dry all finish lumber to maximum 19% moisture content. Do not install "wet" lumber for finish carpentry applications. Provide materials in the quantities needed for the Work as shown on the Drawings, and meeting or exceeding the following standards of quality:
 - 1. Decorative rafter tails, fascias and miscellaneous trim: Match existing species, or if directed by the Architect/Engineer, Southern Yellow Pine, No. 1/appearance grade, pressure treated and kiln dried after treating.
 - 2. Other materials as specifically identified in the Drawings.
 - 3. All components exposed to view shall match existing size, profile, form and finish exactly.

2.3 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect/Engineer.

2.4 SAMPLES

- A. Provide samples of each material, cut and finished to the appropriate profile, prior to installation of any material. Do not commence work until approval from the Architect/Engineer has been obtained.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 WORKMANSHIP

- A. Produce joints which are true, tight, and well nailed with all members assembled in accordance with the Drawings.

- B Jointing:
1. Make joints to conceal shrinkage; miter exterior joints; cope interior joints; miter or scarf end-to-end joints.
 2. Install trim in pieces as long as possible, jointing only where solid support is obtained.
- C. Fastening:
1. Install items straight, true, level, plumb, and firmly anchored in place.
 2. Where blocking or backing is required, coordinate as necessary with other trades to ensure placement of required backing and blocking in a timely manner.
 3. Nail trim with finish nails of proper dimension to hold the member firmly in place without splitting the wood.
 4. Nail- exterior trim with galvanized nails, making joints to exclude water and setting in water-proof glue.
 5. On exposed work, set nails for putty.
 6. Screw, do not drive, wood screws; except that screws may be started by driving and then screwed home.

3.3 INSTALLATION OF OTHER ITEMS

- A. Install items in strict accordance with the Drawings and the recommended methods of the manufacturer as approved by the Architect/Engineer, anchoring firmly into position at the prescribed locations, straight, plumb, and level.

3.4 FINISHING

- A. Sandpaper finished wood surfaces thoroughly as required to produce a uniformly smooth surface, always sanding in the direction of the grain; except do not sand wood which is designed to be left rough.
- B. No coarse grained sandpaper mark, hammer mark, or other imperfection will be accepted.

3.5 CLEANING UP

- A. Keep the premises in a neat, safe, and orderly condition at all times during execution of this portion of the Work, free from accumulation of sawdust, cut-ends, and debris.

B. Sweeping:

1. At the end of each working day, and more often if necessary, thoroughly sweep surfaces where refuse from this portion of the Work has settled.
2. Remove the refuse to the area of the job site set aside for its storage.
3. Upon completion of his portion of the Work, thoroughly broom clean all surfaces.

END OF SECTION

**SECTION 07600
FLASHING AND SHEET METAL**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide flashing and sheet metal not specifically described in other Sections of these Specifications but required to prevent penetration of water through the exterior shell of the building.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Part 4 - Scope of Work & General Requirements of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. In addition to complying with pertinent codes and regulations, comply with pertinent recommendations contained in current edition of "Architectural Sheet Metal Manual" published by the Sheet Metal and Airconditioning Contractors National Association (SMACNA).
- C. Standard commercial items may be allowed by the Architect for flashing, trim, reglets, and similar purposes provided such items are approved for each specific use.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01300.
- B. Product data: Within 60 calendar days after the Contractor has received the

Owner's Notice to Proceed, submit:

1. Materials list of items proposed to be provided under this Section;
2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;
3. Shop Drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with the work of adjacent trades;
4. Mock ups of lock or standing seams, ornamentation, or other special details.
5. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section these specifications.

PART 2 - PRODUCTS

2.1 MATERIALS AND GAUGES

- A. Where sheet metal is required, and no material or gauge is indicated on the Drawings, provide the highest quality and gauge commensurate with the referenced standards.

2.2 GALVANIZED IRON

- A. Provide sheet metal or sheet iron of a standard brand of open-hearth copper-bearing steel, copper-molybdenum iron, or pure iron sheets.
- B. Zinc coating:
 1. Where galvanizing is required, provide zinc coating by hot-dip galvanize to all surfaces.
 2. Weight:
 - a. Provide not less than 1-1/4 oz per sq ft, not more than 1-1/2 oz per sq ft, to surfaces required to be galvanized.
 3. Comply with ASTM A93.

2.3 COPPER ROOF FLASHING

- A. Use 16 oz, type 110., cold rolled copper. Conform to ASTM - B370. Sheet copper, both plain and lead coated, shall not be installed in contact with or in close proximity to fire retardant lumber. Refer to manufacturer's specifications and warranties, for use with special types of exterior fire retardant treatments.

2.4 NAILS, RIVETS, AND FASTENERS

- A. Use only soft iron rivets having rust-resistive coating, galvanized nails, and cadmium plated screws and washers in connection with galvanized iron and steel.
- B. Use only copper rivets in connection with copper unless specifically noted otherwise on the Drawings or approved in advance by the Architect.
- C. Fasteners: Nails used for fastening copper shall be copper or hardware bronze of Stronghold type, or equal, with large flat head. They shall not be smaller than No. 12 Stubs gauge (0.109") and of sufficient length to penetrate roof boarding not less than 3/4".
Rivets shall be of hard copper, brass or bronze.
Screws and bolts used for fastening copper shall be copper, bronze, brass or stainless steel (passive).
Copper and bronze fasteners shall not be used to secure sheet copper to fire retardant treated lumber.

2.5 FLUX

- A. Where flux is required, use raw muriatic acid or muriatic acid killed with zinc for copper.

2.6 SOLDER

- A. Where solder is required, comply with ASTM B32.
- B. Where used on plain copper, solder composition shall be 50% block tin and 50% pig lead. Solder shall conform to ASTM specification B32 or Federal Specification QQ-S-571.

2.7 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 WORKMANSHIP

- A. General:
 - 1. Form sheet metal accurately and to the dimensions and shapes required, finishing molded and broken surfaces with true, sharp, and straight lines and angles and, where intercepting other members, coping to an accurate fit and soldering securely.
 - 2. Unless otherwise specifically permitted by the Architect, turn exposed edges back 1/2".
- B. Form, fabricate, and install sheet metal so as to adequately provide for expansion and contraction in the finished Work.
- C. Weatherproofing:
 - 1. Finish watertight and weathertight where so required.
 - 2. Make lock seam work flat and true to line, sweating full to solder.
 - 3. Make lock seams and lap seams, when soldered, at least 1/2" wide.
 - 4. Where lap seams are not soldered, lap according to pitch, but in no case less than 3".
 - 5. Make flat and lap seams in the direction of flow.
- D. Joints:
 - 1. Join parts with rivets or sheet metal screws where necessary for strength and stiffness.
 - 2. Provide suitable watertight expansion joints for runs of more than 40'-0", except where closer spacing is indicated on the Drawings or required for proper installation.
- E. Nailing:

1. Whenever possible, secure metal by means of clips or cleats, without nailing through the exterior metal.
2. In general, space nails, rivets, and screws not more than 8" apart and, where exposed to the weather, use lead washers.
3. For nailing into wood, use barbed roofing nails 1-1/4" long by 11 gauge
4. For nailing into concrete, use drilled plugholes and plugs.

3.3 EMBEDMENT

- A. Embed metal in connection with roofs in a solid bed of sealant, using materials and methods described in Section 07920 of these Specifications or other materials and methods approved in advance by the Architect.

3.4 SOLDERING

- A. General:
 1. Thoroughly clean and tin the joint materials prior to soldering.
 2. Perform soldering slowly, with a well heated copper, in order to heat the seams thoroughly and to completely fill them with solder.
 3. Perform soldering with a heavy soldering copper of blunt design, properly tinned for use.
 4. Make exposed soldering on finished surfaces neat, full flowing, and smooth.
- B. After soldering, thoroughly wash acid flux with a soda solution.

3.5 TESTS

- A. Upon request of the Architect, demonstrate by hose or standing water that the flashing and sheet metal are completely watertight.

END OF SECTION

**SECTION 07920
SEALANTS AND CAULKING**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. **Work included:** Throughout the Work seal and caulk joints where shown on the Drawings and elsewhere as required to provide a positive barrier against passage of moisture and passage of air.
- B. **Related work:**
 - 1. The Work of this Section must comply with all other Sections of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01300 of these Specifications.
- B. **Product data:** Within 45 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;
 - 3. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.
- C. **Samples:** Accompanying the submittal described above, submit Samples of each sealant, each backing material, each primer, and each bond breaker proposed to be used.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of **these specifications.**

- B. Do not retain at the job site material which has exceeded the shelf life recommended by its manufacturer.

PART 2 - PRODUCTS

2.1 SEALANTS

- A. Except as specifically otherwise approved by the Architect, use only the types of sealants described in this Article.
- B. Provide one component, nonmodulus sealant complying with Fed Spec TT-S-00230C, Class A, Type II with each color of sealant and each class of sealant the product of a single manufacturer selected from the following TREMCO products, or equal products approved by the Architect prior to award of Bid:
 - 1. Class A (for non-traffic bearing horizontal surfaces):
 - a. "Vulkem 921"
 - b. TREMCO Dymonic FC.
 - 2. Class B (for vertical surfaces):
 - a. "Vulkem 921"
 - b. TREMCO Dymonic FC
 - 3. For other services, provide products especially formulated for the proposed use and approved in advance by the Architect.
- C. Colors:
 - 1. Colors for each sealant installation will be selected by the Architect from standard colors normally available from the specified manufacturers.
 - 2. Should such standard color not be available from the approved manufacturer except at additional charge, provide such colors at no additional cost to the Owner.
- D. In concealed installations, and in partially or fully exposed installations where so approved by the Architect, use standard gray or black sealant.

2.2 PRIMERS

- A. Use only those primers which are non-staining, have been tested for durability on the surfaces to be sealed, and are specifically recommended for this installation by the manufacturer of the sealant used.

2.3 BACKUP MATERIALS

- A. Use only those backup materials which are specifically recommended for this installation by the manufacturer of the sealant used, which are non-absorbent, and which are non-staining.

- B. Acceptable types include:
 - 1. Closed-cell resilient urethane or polyvinyl-chloride foam;
 - 2. Closed-cell polyethylene foam;
 - 3. Closed-cell sponge of vinyl or rubber;

2.4 BOND-PREVENTATIVE MATERIALS

- A. Use only one of the following as best suited for the application, and as recommended by the manufacturer of the sealant used:
 - 1. Polyethylene tape, pressure-sensitive adhesive, with the adhesive required only to hold tape to the construction materials as indicated;
 - 2. Aluminum foil complying with MIL-A-148E;
 - 3. Wax paper complying with Fed Spec UU-P-270.

2.5 MASKING TAPE

- A. For masking around joints, provide masking tape complying with Fed Spec UU-T-106c.

2.6 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Concrete and ceramic tile surfaces:
 - 1. Install only on surfaces which are dry, sound, and well brushed, wiping free from dust.
 - 2. At open joints, remove dust by mechanically blown compressed air if so required.
 - 3. Use solvent to remove oil and grease, wiping the surfaces with clean rags.
 - 4. Where surfaces have been treated, remove the surface treatment by

- sandblasting or wire brushing.
- 5. Remove laitance and mortar from joint cavities.
- 6. Where backstop is required, insert the approved backup material into the joint cavity to the depth needed.

B. Steel surfaces:

- 1. Steel surfaces in contact with sealant:
 - a. Sandblast as required to achieve acceptable surface for bond and must be approved in advance by the Architect.
 - b. If sandblasting is not practical, or would damage adjacent finish, scrape the metal or wire brush to remove mill scale.
 - c. Use solvent to remove oil and grease, wiping the surfaces with clean rags.
- 2. Remove protective coatings on steel by sandblasting or by using a solvent which leaves no residue.

C. Aluminum surfaces:

- 1. Aluminum surfaces in contact with sealant:
 - a. Remove temporary protective coatings, dirt, oil, and grease.
 - b. When masking tape is used for protective cover, remove the tape just prior to applying the sealant.
- 2. Use only such solvents to remove protective coatings as are recommended for that purpose by the manufacturer of the aluminum work, and which are non-staining.

3.3 INSTALLATION OF BACKUP MATERIAL

- A. Use only the backup material recommended by the manufacturer of the sealant used, and approved by the Architect for the particular installation, compressing the backup material 25% to 50% to achieve a positive and secure fit.
- B. When using backup of tube or rod stock, avoid lengthwise stretching of the material. Do not twist or braid hose or rod backup stock.

3.4 PRIMING

- A. Use only the primer recommended by the manufacturer of the sealant, and approved by the Architect for the particular installation, applying in strict accordance with the manufacturer's recommendations as approved by the Architect.

3.5 BOND-BREAKER INSTALLATION

- A. Provide an approved bond-breaker where recommended by the manufacturer

of the sealant, and where directed by the Architect, adhering strictly to the installation recommendations as approved by the Architect.

3.6 INSTALLATION OF SEALANTS

- A. Prior to start of installation in each joint, verify the joint type according to details on the Drawings, or as otherwise directed by the Architect, and verify that the required proportion of width of joint to depth of joint has been secured.**
- B. Equipment:**
 - 1. Apply sealant under pressure with power-actuated hand gun, or by other appropriate means.**
 - 2. Use guns with nozzle of proper size, and providing sufficient pressure to completely fill the joints as designed.**
- C. Thoroughly and completely mask joints where the appearance of sealant on adjacent surfaces would be objectionable.**
- D. Install the sealant in strict accordance with the manufacturer's recommendation as approved by the Architect, thoroughly filling joints to the recommended depth.**
- E. Tool joints to the profile shown on the Drawings, or as otherwise required if such profiles are not shown on the Drawings.**
- F. Cleaning up:**
 - 1. Remove masking tape immediately after joints have been tooled.**
 - 2. Clean adjacent surfaces free from sealant as the installation progresses, using solvent or cleaning agent recommended by the manufacturer of the sealant used.**

END OF SECTION

**SECTION 08420
ALUMINUM ENTRANCES**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide aluminum entrances where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Part 4 Scope of Work & General Requirements of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of **Section 1300 of these Specifications.**
- B. Product data: Within sixty (60) calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;
 - 3. Shop Drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with the work of adjacent trades;
 - 4. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.
- C. Samples: Accompanying the Shop Drawings, submit:
 - 1. Sample of each exposed member.
 - 2. Samples of finish, showing complete range of color from darkest to lightest proposed for use on this Work. Samples, when approved by the Architect, will be used to verify that finish actually furnished is within the approved range.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of **these specifications.**

1.5 WARRANTY

- A. Upon completion of this portion of the Work, and as a condition of its acceptance, deliver to the Architect two copies of a written Warranty agreeing to replace work of this Section which fails due to defective materials or workmanship within two (2) years after Date of Substantial Completion as that Date is determined in accordance with the General Conditions.
- B. Failure due to defective materials or workmanship is deemed to include, but not to be limited to:
 - 1. Failures in operation of operating component or components;
 - 2. Leakage or air infiltration in excess of the specified standard;
 - 3. Deterioration of finish to an extent visible to the unaided eye;
 - 4. Defects which contribute to unsightly appearance, potential safety hazard, or potential untimely failure of the Work of this Section or the Work as a whole.

PART 2 - PRODUCTS

2.1 ALUMINUM ENTRANCES

- A. Provide aluminum entrances in the dimensions and arrangements shown on the Drawings.
 - 1. Main entrance doors: The basis of design is the CGI 450 Series.
 - 2. Equal products of other manufacturers will be allowed based on design compliance including:
 - a. PGT
 - b. Kawneer
 - c. YKK
- B. Finish all exposed aluminum to match existing systems using the manufacturer's standard finishes.

2.2 FINISH HARDWARE

- A. Prepare for, receive, and install the finish hardware furnished under this section, as shown on the drawings, and in accordance with approved Submittals.
- B. Procedures:
 - 1. Perform all fitting of finish hardware to doors and frames at the factory; except do not drill or tap for surface mounted items until time of installation at the site.
 - 2. Comply with finish hardware manufacturer's instructions and template requirements.
 - 3. Use concealed fasteners to the maximum extent practicable.

2.3 FABRICATION

- A. Fabricate in strict accordance with the manufacturers' specifications and Shop Drawings as approved by the architect, prefabricating in the shop to the maximum extent

practicable.

- B. Provide hairline fit at joints, with smooth continuity of line and accurate relation of planes and angles. Securely fasten.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 COORDINATION

- A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
- B. Make measurements as required in the field to assure proper fit.

3.3 INSTALLATION

- A. Install the work of this Section in strict accordance with the original design, the approved Shop Drawings, pertinent requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures as approved by the Architect, anchoring all components firmly into position for long life.
- B. Remove protective coating completely from exposed surfaces as soon as progress of the Work will permit with safety.
- C. When glazing is performed under this Section, provide the types of glass required and glaze in accordance with pertinent provisions of these Specifications and all applicable codes, laws and ordinances of the City of Key West and the State of Florida.

END OF SECTION

**SECTION 08520
ALUMINUM WINDOWS**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. **Work included:** Provide aluminum windows and screens where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. **Related work:**
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Part 4 - Scope of Work & General Requirements.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed proper performance of the work of this Section.
- B. In addition to complying with pertinent regulations of governmental agencies having jurisdiction:
 - 1. Comply with ANSI A134.1 (AAMA 302.9) for the designations specified;
 - 2. On each unit, provide an AAMA sponsored label certifying compliance with the specified requirements.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01300.
- B. **Product data:** Within 60 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;
 - 3. Shop Drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with the work of adjacent trades;
 - 4. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of these specifications.**

PART 2 - PRODUCTS

2.1 ALUMINUM WINDOWS

- A. Provide aluminum windows of the types and dimensions shown on the Drawings, complete with anchors of the types needed for the installation, and complying with the following standards as defined in ANSI A134.1:**
 - 1. Casement: C-A2-HP60**
 - 2. Projected: P-A2.50-HP60**
 - 3. Horizontal Sliding: HS-A2.HP60**
- B. Finish:**
 - 1. Provide the manufacturers standard finish and color as selected by the architect.**
- C. Factory glaze with channel type vinyl gaskets and laminated glass, capable of withstanding impact per Miami Dade protocol, and in accord with ANSI A134.1.**
- D. Provide the manufacturer's standard screen at all vents.**
- E. Windows are based on the products of CGI. Prior approval of substitutions is required.**

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.**

3.2 INSTALLATION

- A. Install the work of this Section in strict accordance with the manufacturer's recommendations as approved by the Architect, anchoring all units firmly into position square, plumb, straight, and true.**

A. Dissimilar materials:

- 1. Where aluminum surfaces come in contact with metals other than stainless steel, zinc, or white bronze of small area, isolate the aluminum by one of the following methods.**
 - a. Paint the dissimilar metal with a prime coat of zinc-chromate primer, followed by two coats of aluminum metal-and-masonry paint.**
 - b. Paint the dissimilar metal with a coating of heavy-bodied bituminous paint.**
 - c. Apply a good quality sealant material between the aluminum and the dissimilar metal.**
 - d. Isolate the dissimilar metals with non-absorptive tape or gaskets.**

3.3 CLEANING

A. Labels:

- 1. Leave all labels in place, intact and legible, until reviewed and approved by the Architect.**
- 2. Do not at any time remove required AAMA labels.**

B. Prior to completion of the Work thoroughly clean all exposed surfaces of windows and screens.

- 1. Use only the cleaning materials and techniques recommended by the manufacturer of the material being cleaned.**
- 2. Do not scratch or otherwise damage the glass, screen, or aluminum finish.**

END OF SECTION

SECTION 09900

PAINTING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Paint and finish the exterior and interior exposed surfaces listed on the Painting Schedule as specified in 3.5, and as needed for a complete and proper installation.
- B. Related work:
1. Documents affecting work of this Section include, but are not necessarily limited to, Sections in Part 4 – Scope of Work, & General Requirements of these Specifications.
 2. Priming or priming and finishing of certain surfaces may be specified to be factory-performed or installer-performed under pertinent other Sections.
- C. Work covered in this Section includes:
1. Painting all exterior concrete and plaster surfaces as called for in the drawings.
 2. Painting all exterior trim.
 3. Painting and finishing any other work requiring finishing, but left unfinished by other people.
- D. Work not included:
1. Unless otherwise indicated, painting other than protective prime coats, is not required on surfaces in concealed areas and inaccessible areas, and beam bearing pockets.
 2. Metal surfaces of chromium plate, copper, bronze, and similar finished materials will not require painting under this Section except as may be so specified.
 3. Do not paint moving parts of operating units; mechanical or electrical parts such as valve operators; linkages; sensing devices; and motor shafts, unless otherwise indicated.
 4. Do not paint over required labels or equipment identification, performance rating, name, or nomenclature plates.
- E. Definitions:
1. "Paint," as used herein, means coating systems materials including primers, emulsions, epoxy, enamels, sealers, fillers, and other applied

materials whether used as prime, intermediate or finish coats.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Paint coordination:
 - 1. Provide finish coats which are compatible with the prime coats actually used.
 - 2. Review other Sections of these Specifications as required, verifying the prime coats to be used and assuring compatibility of the total coating system for the various substrata.
 - 3. Upon request, furnish information on the characteristics of the specific finish materials to assure that compatible prime coats are used.
 - 4. Provide barrier coats over non-compatible primers, or remove the primer and re-prime as required.
 - 5. Notify the Architect/Engineer in writing of anticipated problems in using the specified coating systems over prime-coatings supplied under other Sections.

1.3 SUBMITTALS

- A. Product data: Within 60 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
- B. Samples:
 - 1. Following the selection of colors and glosses by the Architect/Engineer, as described under "Color Schedules" in Part 2 of this Section, submit Samples for the Architect/Engineer's review.
 - a. Provide Samples of each color and each gloss for each material on which the finish is specified to be applied.
 - b. Except as otherwise directed by the Architect/Engineer, make Samples approximately 8" x 10" in size.
 - c. If so directed by the Architect/Engineer, submit Samples during progress of the Work in the form of actual application of the

- approved materials on actual surfaces to be painted.
2. Revise and resubmit each Sample as requested until the required gloss, color, and texture is achieved. Such Samples, when approved, will become standards of color and finish for accepting or rejecting the work of this Section.
 3. Do not commence finish painting until approved Samples are on file at the job site, or applied to the designated areas of the project.
 4. The Painting Contractor shall be responsible for the finish of his work and shall not start painting until the surfaces are in proper condition to receive paint. If the Contractor considers any surfaces unsuitable to a degree that they cannot be corrected by scraping or sanding, he shall report this to the Architect/Engineer before applying any materials to same. Starting his own work shall be considered an acceptance of the surfaces.

1.4 PRODUCT HANDLING

- A. Comply with manufacturer's recommendations.

1.5 JOB CONDITIONS

- A. Apply solvent-thinned paints as permitted by the manufacturers' printed instruction as approved by the Architect/Engineer.
- B. Weather conditions:
 1. Do not apply paint in rain, fog, or mist; or when the relative humidity exceeds 90%; or to damp or wet surfaces, unless otherwise permitted by the manufacturers' printed instructions as approved by the Architect/Engineer.
 2. Applications may be continued during inclement weather only within the temperature limits specified by the paint manufacturer as being suitable of use during application and drying periods.

1.6 EXTRA STOCK

- A. Upon completion of the work of this Section, deliver to the Owner an extra stock equaling one (1) gallon of each color, type, and gloss of paint used in the Work, tightly sealing each container, and clearly labeling with contents and location where used.

PART 2 - PRODUCTS

2.1 PAINT MATERIALS

- A. Acceptable materials:
 - 1. The Painting Schedule in Part 3 of this Section is based on products of the Sherwin Williams Company.
 - 2. Equal products of Benjamin Moore, Dunn-Edwards, Deer-0, or Pittsburgh Paints. Stains as manufactured by Olympic, U.S. Plywood and Woodlife, or other manufacturers approved in advance by the Architect/Engineer, may be substitute in accordance with provisions of the Contract.
 - 3. Where products are proposed other than those specified by name and number in the Painting Schedule, provide under the products data submittal required by Article 1.3 of this Section a new painting schedule compiled in the same format used for the Painting Schedule included in this Section.
- B. Undercoats and thinners:
 - 1. Provide undercoat paint produced by the same manufacturer as the finish coat.
 - 2. Use only the thinners recommended by the paint manufacturer, and use only to the recommended limits.
 - 3. Insofar as practicable, use undercoat, finish coat, and thinner material as parts of a unified systems of paint finish.

2.2 COLOR SCHEDULES

- A. The Architect/Engineer will prepare a color schedule with samples for guidance in painting. The base color shall be white to match existing.
- B. The Architect/Engineer may select, allocate, and vary colors on different surfaces throughout the Work, subject to the following:
 - 1. Exterior and interior work: A maximum of six different colors may be used, with variations for trim, doors, miscellaneous work, and metal work.

2.3 APPLICATION EQUIPMENT

- A. For application of the approved paint, use only such equipment as is recommended for application of the particular paint by the manufacturer of the particular paint, and as approved by the Architect/Engineer.
- B. Prior to use of application equipment, verify that the proposed equipment is

actually compatible with the material to be applied, and that integrity of the finish will not be jeopardized by use of the proposed equipment.

2.4 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect/Engineer.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until satisfactory conditions are corrected.
- B. In place test panels of all coatings and colors applied to each different building material will be required for Architect/Engineer approval.

3.2 MATERIALS PREPARATION

- A. General:
 - 1. Mix and prepare paint materials in strict accordance with the manufacturers' recommendations as approved by the Architect/Engineer.
 - 2. When materials are not in use, store in tightly covered containers.
 - 3. Maintain containers used in storage, mixing, and application of paint in a clean condition, free from foreign materials and residue.
- B. Stirring:
 - 1. Stir materials before application, producing a mixture of uniform density.
 - 2. Do not stir into the material any film which may form on the surface, but remove the film and, if necessary, strain the material before using.

3.3 SURFACE PREPARATION

- A. General:
 - 1. Perform preparation and cleaning procedures in strict accordance with the paint manufacturers' recommendations as approved by the Architect/Engineer.
 - 2. Remove removable items which are in place and are not scheduled to

- receive paint finish; or provide surface applied protection prior to surface preparation and painting operations.
3. Following completion of painting in each space or area, reinstall the removed items by using workmen who are skilled in the necessary trades.
 4. Clean each surface to be painted prior to applying paint of surface treatment.
 5. Remove oil and grease with clean cloths and cleaning solvent of low toxicity and flash point in excess of 200 degrees F, prior to start of mechanical cleaning.
 6. Schedule the cleaning and painting so that dust and other contaminants from the cleaning process will not fall onto wet newly painted surfaces.
 7. Mask as required, lay drop cloths, and generally protect all adjacent surfaces. Properly protect or remove light fixtures, hardware, etc. during painting.
- B. Preparation of metal surfaces:
1. Thoroughly clean surfaces until free from dirt, oil, rust, scale and grease. Remove rust by scraping or sanding.
 2. On galvanized surfaces, use solvent for the initial cleaning, and then treat the surface thoroughly with phosphoric acid etch. Remove etching solution completely before proceeding.
 3. Allow to dry thoroughly before application of paint.
 4. Prime all non-galvanized metal with a zinc based primer.

3.4 PAINT APPLICATION

- A. General:
1. Touch up shop-applied prime coats which have been damaged, and touch up bare areas prior to start of finish coats application.
 2. Slightly vary the color of succeeding coats.
 - a. Do not apply additional coats until the completed coat has been inspected and approved.
 - b. Only the inspected and approved coats of paint will be considered in determining the number of coats applied.
 3. Sand and dust between coats to remove defects visible to the unaided eye from a distance of five feet.
 4. All workmanship shall be of a professional quality with paint spread evenly without runs. Colors shall be selected by the Architect/Engineer, and shall conform to the approved sample.
- B. Drying:
1. Allow sufficient drying time between coats, modifying the period as recommended by the material manufacturer to suit adverse weather

- conditions. Enamels, varnishes and exterior oil paints shall be allowed to d_{ry} at least 48 hours between coats. Interior paints shall be allowed to d_{ry} at least 24 hours between coats.
2. Consider oil-base and oleo-resinous solvent-type paint as dry for recoating when the paint feels firm, does not cause lifting or loss of adhesion of the undercoat.
- C. Brush applications:
1. Brush out and work the brush coats onto the surface in an even film.
 2. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, and other surface imperfections will not be acceptable.
- D. Spray application:
1. Except as specifically otherwise approved by the Architect/Engineer, confine spray application to metal framework and similar surfaces where hand brush work would be inferior.
 2. Where spray application is used, apply each coat to provide the hiding equivalent of brush coats.
 3. Do not double back with spray equipment to build up film thickness of two coats in one pass.
- E. For completed work, match the approved Samples as to texture, color, and coverage. Remove, refinish, or repaint work not in compliance with the specified requirements.

3.5 PAINTING SCHEDULE

Provide the following paint finishes as scheduled on the Drawings. See paragraph 2.2, this Section, for color schedule. Materials for painting and finishing are based on the products of the Sherwin Williams Co.

- A. INTERIOR SURFACES (NORMAL EXPOSURE)
1. CEMENT- Walls & Ceilings, Poured Concrete
 - a. Latex Systems
 1. Eg-Shel / Satin Finish

1st Coat: S-W PrepRite Masonry Primer, B28W300
(7 mils wet, 3 mils d_{ry})

2nd Coat: S-W ProMar 200 Latex Eg-Shel Enamel,
B20W200 Series

3rd Coat: S-W ProMar 200 Latex Eg-Shel Enamel,
B20W200 Series
(4 mils wet, 1.3 mils d_{ry} per coat)
 2. Flat Finish

1st Coat: S-W PrepRite Masonry Primer, B28W300

(7 mils wet, 3 mils d_r)
 2nd Coat: S-W ProMar 200 Latex Flat Wall Paint,
 B30W200 Series
 3rd Coat: S-W ProMar 200 Latex, Flat Wall Paint,
 B30W200 Series
 (4 mils wet, 1.4 mils d_r per coat)

2. METAL - (Structural Steel Columns, Joists, Trusses, Beams,
 Miscellaneous & Ornamental Iron, Structural Iron, Ferrous Metal)

a. Latex Systems

1. Eg-Shel / Satin Finish

1st Coat: S-W All Surface Enamel Latex Primer, A41W210
 (4 mils wet, 1.6 mils d_r)
 2nd Coat: S-W ProMar 200 Latex Eg-Shel, B20W200 Series
 3rd Coat: S-W ProMar 200 Latex Eg-Shel, B20W200 Series
 (4 mils wet, 1.5 mils d_r per coat)

2. Flat Finish

1st Coat: S-W All Surface Enamel Latex Primer, A41W210
 (4 mils wet, 1.6 mils dry)
 2nd Coat: S-W ProMar 200 Latex Flat, B30W200 Series
 3rd Coat: S-W ProMar 200 Latex Flat, B30W200 Series
 (4 mils wet, 1.4 mils d_r)

3. PLASTER - (Walls, Ceilings, Dadoes)

a. Latex Systems

1. Semi-Gloss Finish

1st Coat: S-W PrepRite Masonry Primer, B28W300
 (7 mils wet, 3 mils d_r)
 2nd Coat: S-W ProMar 200 Latex Semi-Gloss, B31W200 Series
 3rd Coat: S-W ProMar 200 Latex Semi-Gloss, B31W200 Series
 (4 mils wet, 1.3 mils d_r per coat)

2. Eg-Shel / Satin Finish

1st Coat: S-W PrepRite Masonry Primer B28W300
 (7 mils wet, 3 mils d_r)
 2nd Coat: S-W ProMar 200 Latex Eg-Shel, B20W200 Series
 3rd Coat: S-W ProMar 200 Latex Eg-Shel, B20W200 Series
 (4 mils wet, 1.5 mils dry per coat)

B. EXTERIOR SURFACES (NORMAL EXPOSURE)

1. CEMENT - (Stucco, and Poured-in-place Cement)

a. Latex Systems

1. Satin Finish

- 1st Coat: S-W Loxon Exterior Acrylic Masonry Primer, A24W300 (8 mils wet, 3.1 mils d_{ry})
 - 2nd Coat: S-W A-100 Exterior Latex Satin, A82 Series
 - 3rd Coat: S-W A-100 Exterior Latex Satin, A82 Series (4 mils wet, 1.4 mils d_{ry} per coat)
 - 2. Flat Finish
 - 1st Coat: S-W Loxon Exterior Acrylic Masonry Primer, A24W300 (8 mils wet, 3.1 mils d_{ry})
 - 2nd Coat: S-W A-100 Exterior Latex Flat, A6 Series
 - 3rd Coat: S-W A-100 Exterior Latex Flat, A6 Series (4 mils wet, 1.4 mils d_{ry} per coat)
2. MASONRY - (Concrete Masonry Units [CMU] - Cinder or Concrete Block)
- a. Latex Systems
 - 1. Satin Finish
 - 1st Coat: S-W Prep-Rite Block Filler, B25W25 (75 - 125 sq. ft./gal.)
 - 2nd Coat: S-W A-100 Exterior Latex Satin, A82 Series
 - 3rd Coat: S-W A-100 Exterior Latex Satin, A82 Series (4 mils wet, 1.4 mils d_{ry} per coat)
 - 2. Flat Finish
 - 1st Coat: S-W Prep-Rite Block Filler, B25W25 (75 - 125 sq. ft./gal.)
 - 2nd Coat: S-W A-100 Exterior Latex Flat, A6 Series
 - 3rd Coat: S-W A-100 Exterior Latex Flat, A6 Series (4 mils wet, 1.4 mils d_{ry} per coat)
3. METAL (Misc. Iron, Ornamental Iron, Handrails, Ladders, Fences)
- a. Alkyd Systems
 - 1. Gloss Finish
 - 1st Coat: S-W All Surface Enamel Primer, AllW210 (4 mils wet, 2.4 mils d_{ry})
 - 2nd Coat: S-W All Surface Enamel, Al 1 Series
 - 3rd Coat: S-W All Surface Enamel, Al 1 Series (4 mils wet, 2.4 mils d_{ry} per coat)
 - 2. Semi-Gloss Finish
 - 1st Coat: S-W Metalastic DTM Acrylic Enamel B55Z600 Series
 - 2nd Coat: S-W Metalastic DTM Acrylic Enamel B55Z600 Series (3-5 mils d_{ry} per coat)
 - b. Urethane Systems
 - 1. Gloss Finish

- 1st Coat: S-W Kem Bond HS Universal Metal Primer, B50Z Series
(8 mils wet, 5 mils dry)
- 2nd Coat: S-W Hi-Solids Polyurethane, B65-300 Series
- 3rd Coat: S-W Hi-Solids Polyurethane, B65-300 Series
(3-4 mils d_{ry} per coat)
2. Satin Finish
 - 1st Coat: S-W Kem Bond HS Universal Metal Primer, B50Z Series
(8 mils wet, 5 mils d_{ry})
 - 2nd Coat: S-W Corothane II Satin Polyurethane, B65-200 Series
 - 3rd Coat: S-W Corothane II Satin Polyurethane, B65-200 Series
(2-4 mils d_{ry} per coat)
4. METAL - (Structural Iron & Steel, Sashes, Trim, Conductors, Doors, Ducts, Vents)
 - a. Alkyd Systems
 1. Gloss Finish
 - 1st Coat: S-W Kem Bond HS Universal Metal Primer, B50Z Series (8 mils wet, 5 mils dry)
 - 2nd Coat: S-W Industrial Enamel, HS B54Z400 Series
 - 3rd Coat: S-W Industrial Enamel, HS B54Z400 Series
(2 - 4 mils d_{ry} per coat)
 2. Semi-Gloss Finish
 - 1st Coat: S-W Metalastic DTM Acrylic Enamel B55Z600 Series
 - 2nd Coat: S-W Metalastic DTM Acrylic Enamel B55Z600 Series
(3-5 mils d_{ry} per coat)
 3. Flat Finish
 - 1st Coat: S-W Kem Bond HS Universal Metal Primer, B50Z Series (8 mils wet, 5 mils d_{ry})
 - 2nd Coat: S-W ProMar Alkyd Flat Exterior, B38 Series
 - 3rd Coat: S-W ProMar Alkyd Flat Exterior, B38 Series
(4 mils wet, 2 mils d_{ry} per coat)
 - b. Urethane Systems
 1. Gloss Finish
 - 1st Coat: S-W Kem Bond HS Universal Metal Primer, B50Z Series (8 mils wet, 5 mils dry)
 - 2nd Coat: S-W Hi-Solids Polyurethane, B65-300 Series
 - 3rd Coat: S-W Hi-Solids Polyurethane, B65-300 Series
(3-4 mils d_{ry} per coat)
 2. Satin Finish
 - 1st Coat: S-W Kem Bond HS Universal Metal Primer, B50Z Series (8 mils wet, 5 mils dry)
 - 2nd Coat: S-W Corothane II Satin Polyurethane, B65-200 Series
 - 3rd Coat: S-W Corothane II Satin Polyurethane, B65-200 Series

(2-4 mils dry per coat)

5. WOOD - (Trim, Doors, Misc. Wood)
 - a. Latex Systems
 1. Semi-Gloss Finish

p^t Coat: S-W A-100 Exterior Latex Wood Primer, B42W41
(4mils wet, 1.4mils dry)
(If Tannin Bleeding occurs, use A-100 Exterior Oil Wood Primer, Y24W20)

2nd Coat: S-W DTM Acrylic Semi-Gloss Coating, 866-200 Series

3rd Coat: S-W DTM Acrylic Semi-Gloss Coating, 866-200 Series (2-4 mils dry per coat)
 2. Satin Finish

p^t Coat: S-W A-100 Exterior Latex Wood Primer, B42W41
(4mils wet, 1.4mils dry)
(If Tannin Bleeding occurs, use A-100 Exterior Oil Wood Primer, Y24W20)

2nd Coat: S-W A-100 Exterior Latex Satin, A82 Series

3rd Coat: S-W A-100 Exterior Latex Satin, A82 Series
(4mils wet, 1.4mils dry per coat)
 3. Flat Finish

p^t Coat: S-W A-100 Exterior Latex Wood Primer, B42W41
(4mils wet, 1.4mils dry)
(If Tannin Bleeding occurs, use A-100 Exterior Oil Wood Primer, Y24W20)

2nd Coat: S-W A-100 Exterior Latex Flat, A6 Series

3rd Coat: S-W A-100 Exterior Latex Flat, A6 Series
(4mils wet, 1.4mils dry per coat)

END OF SECTION

SECTION 16400 ELECTRICAL

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide complete electrical and telephone service removal and replacement where shown on the Drawings, as specified herein, and as needed for complete and proper installation including, but not necessarily limited to:
1. Main switchboard, metering facilities, main switch, and distribution board or boards as needed;
 2. Feeder system, in conduit to branch circuits panels;
 3. Branch circuit panels for power and lighting;
 4. Branch circuit wiring, in conduit, for lighting, receptacles, junction boxes, and motors;
 5. Telephone conduit and terminal boards;
 6. Hangers, anchors, sleeves, chases, supports for fixtures, and other electrical materials and equipment in association therewith;
 7. Lighting fixtures and lamps;
 8. Wiring system, in conduit, for equipment and controls provided under other Sections of these Specifications including, but not necessarily limited to, Plumbing and Fire Sprinkler Sections;
 9. Motor starters and controls for motors provided under the Contract, but for which motor starters and controls are not otherwise provided;
 10. Other items and services required to complete the systems.
- B. Related work:
1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Part 4- Scope of Work & General Requirements.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Without additional cost to the Owner, provide such other labor and materials as are required to complete the work of this Section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these Contract Documents.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01300.
- B. Product data: Within sixty (60) calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;
 - 3. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.
- C. Samples:
 - 1. When so requested by the Architect promptly provide Samples of items scheduled to be exposed in the final structure.
 - 2. When specifically, so requested by the Contractor and approved by the Architect, approved Samples will be returned to the Contractor for installation on the Work.
- D. Manual: Upon completion of this portion of the Work, and as a condition of its acceptance, deliver to the Architect two copies of an operation and maintenance manual compiled in accordance with the provisions of these Specifications. Include within each manual:
 - 1. Copy of the approved Record Documents for this portion of the Work;
 - 2. Copies of all circuit directories;
 - 3. Copies of all warranties and guaranties.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of these Specifications.

1.5 WARRANTY

- A. Provide standard two-year warranty on all labor and materials.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Provide only materials that are new, of the type and quality specified. Where Underwriters' Laboratories, Inc. have established standards for such materials, provide only material bearing the UL label.

B. Temporary Power:

1. In addition to providing temporary power as described in these Specifications, provide and pay the costs for installing permanent electrical meter or meters as required.
2. When permanent metering is in place and connected, the Owner will pay the costs for electrical power charged against the meter or meters.

2.2 LIGHTING FIXTURES

- A. Provide fixtures of the types shown on the Drawings, or as required where existing features are damaged.
- B. Where fixture substitutes are proposed, submit a Sample fixture with the materials list required to be submitted under Article 1.3 above.

2.3 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Coordinate:
 1. Coordinate as necessary with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
 2. Coordinate the installation of electrical items with the schedule for work of other trades to prevent unnecessary delays in the total Work.
 3. Where lighting fixtures and other electrical items are shown in conflict with locations of structural members or other equipment, provide required supports and wiring to clear the encroachment.
- B. Data indicated on the Drawings and in these Specifications are as exact as could be secured, but their absolute accuracy is not warranted. The exact locations, distances, levels, and other conditions will be governed by actual on-site conditions or construction and the Drawings and Specifications should be used

only for guidance in such regard.

- C. Where outlets are not specifically located on the Drawings, locate as determined in the field by the Architect. Where outlets are installed without such specific direction, relocate as directed by the Architect and at no additional cost to the Owner.
- D. Verify all measurements at the building. No extra compensation will be allowed because of differences between work shown on the Drawings and actual measurements at the site of construction.
- E. The Electrical Drawings are diagrammatic, but are required to be followed as closely as actual construction and work of other trades will permit. Where deviations are required to conform with actual construction and the work of other trades, make such deviations without additional cost to the Owner.

3.3 TESTING AND INSPECTION

- A. Provide personnel and equipment, make require tests, and secure required approvals from the Architect and governmental agencies having jurisdiction.
- B. Make written notice to the Architect adequately in advance of each of the following stages of construction:
 - 1. In the underground condition prior to covering, when all associated electrical work is in place;
 - 2. When all rough-in is complete, but not covered;
 - 3. At completion of the work of this Section.
- C. When material and/or workmanship is found to not comply with the specified requirements, within three days after receipt of notice of such non-compliance remove the noncomplying items from the job site and replace them with items complying with the specified requirements, all at no additional cost to the Owner.
- D. In the Architect's presence:
 - 1. Test all parts of the electrical system and prove that such items provided under this Section function electrically in the required manner.

3.4 PROJECT COMPLETION

- A. Upon completion of the work of this section, thoroughly clean all exposed portions of the electrical installation, removing all traces of soil, labels, grease, oil, and other foreign material, and using only the type cleaner recommended by the manufacturer of the item being cleaned.

END OF SECTION

PART 6

DRAWINGS
