

*****NOTE TO PROPOSER: Use preferably BLACK ink for completing this Proposal form.

PROPOSAL

To: The City of Key West
Address: 3126 Flagler Street, Key West, Florida 33040
Project Title: CCTV SURVEILLANCE SYSTEM RFP #05-015

Proposer's contact person for additional information on this Proposal:

Company Name: Bazon-Cox & Associates, Inc.

Contact Name & Telephone #: Rich Stalnaker 321-607-2606

Email Address: r.stalnaker@bazcox.com

PROPOSER'S DECLARATION AND UNDERSTANDING

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

The Proposer further declares that he has carefully examined the Contract Documents for the construction of the project, that he has personally inspected the site, 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 Proposal is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Proposal.

CONTRACT EXECUTION AND BONDS

The Proposer agrees that if this Proposal 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 to the Owner examples of the Performance Bond and Payment Bond required herein, and evidence of holding required licenses and certificates, and will, to the extent of his Proposal, 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.

PROPOSAL FORM

PROPOSER MUST SUBMIT ON THEIR OWN FORM A DETAILED SCHEDULE OF VALUES FOR EACH PORTION OF THE PROJECT

The City has the right to award all or portions of the project based on the schedule of values.

KEY WEST HISTORIC SEAPORT – CCTV SURVEILLANCE SYSTEM

The KWHS CCTV Surveillance System is broken into two areas; KWHS Exterior Common Areas and The Ferry Terminal Building and Grounds. Proposers will provide a lump sum proposal for each area. **The attached maps are for approximate coverage areas.**

KWHS EXTERIOR COMMON AREAS LUMP SUM PROPOSAL

\$ 117,692.72

Proposal Total in Words

ONE HUNDRED SEVENTEEN THOUSAND SIX HUNDRED NINETY TWO DOLLARS AND SEVENTY TWO CENTS

FERRY TERMINAL BUILDING AND GROUNDS LUMP SUM PROPOSAL

\$ 35,945.25

Proposal Total in Words

THIRTY FIVE THOUSAND NINE HUNDRED FOURTY FIVE DOLLARS AND TWENTY FIVE CENTS

The Proposer shall submit a Schedule of Values for each portion of the project with the Proposal. It shall be broken down by unit and unit price and it shall be used as a basis for payment. The Proposer will be considered non-responsive if Schedule of Values is not included in Bid package.

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

All labor and materials installation

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SURETY

Ironshore Indemnity whose address is
2307 River Road Suite 200, Louisville, KY, 40206
Street City State Zip

PROPOSER

The name of the Proposer submitting this Proposal is

Bazon-Cox & Associates, Inc. doing business at
1244 Executive Blvd. Suite B113, Chesapeake, Virginia, 23320
Street City State Zip

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

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

John Lentini, President _____

Gerald Brooks, CFO _____

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this _____ day of _____ 2015.

Signature of Proposer

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 7th day of April 2015.

(SEAL)

Bazon-Cox and Associates Inc.

Name of Corporation

By *Gerald Brooks*

Title *CEO / Treasurer*

Attest *R. [Signature]*
Secretary

EXPERIENCE OF PROPOSER

The Proposer states that he is an experienced CONTRACTOR and has completed similar projects within the last 5 years.

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

City of Portsmouth Virginia Portsmouth Behavioral Health security, access and cctv installation

Value: \$311,000

Doyle Construction Company Kroger Store #343 security camera installation \$35,996.00

Virginia Aquarium and Marine Science Museum annual camera installation contract

Virginia Beach City Public Schools Salem and Tallwood High Schools Camera Installation \$110,000

FLORIDA BID BOND

BOND NO. BA-2951601

AMOUNT: \$ Five Percent (5%)

KNOW ALL MEN BY THESE PRESENTS, that Bazon-Cox and Associates, Inc.

hereinafter called the PRINCIPAL, and Developers Surety and Indemnity Company

a corporation duly organized under the laws of the State of California having its principal place of business at 17771 Cowan, Suite 100, Irvine, California 92614

in the State of California and authorized to do business in the State of Florida, as SURETY, are held and firmly bound unto The City of Key West

hereinafter called the OBLIGEE, in the sum of Five Percent (5%) of amount bid

DOLLARS (\$5% of amount bid) 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 the KWHS CCTV SURVEILLANCE SYSTEM, 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:

KWHS CCTV SURVEILLANCE SYSTEM – RFP #05-015

WHEREAS, it was a condition precedent to the submission of said proposal that a cashier's check, certified check, or bid bond in the amount of 5 percent of the base bid be submitted with said proposal as a guarantee that the Proposer 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 8th day of April, 2015.



Bazon-Cox and Associates, Inc.

By *Severell Brooks*

Developers Surety and Indemnity Company

SURETY

By *Jeffrey D. Clark*
Jeffrey D. Clark, Attorney-in-Fact

POWER OF ATTORNEY FOR
DEVELOPERS SURETY AND INDEMNITY COMPANY
PO Box 19725, IRVINE, CA 92623 (949) 263-3300

KNOW ALL MEN BY THESE PRESENTS, that as except as expressly limited, DEVELOPERS SURETY AND INDEMNITY COMPANY, do each, hereby make, constitute and appoint:

Jeffrey D. Clark

as their true and lawful Attorney(s)-in-Fact, to make, execute, deliver and acknowledge, for and on behalf of said corporations, as sureties, bonds, undertakings and contracts of suretyship giving and granting unto said Attorney(s)-in-Fact full power and authority to do and to perform every act necessary, requisite or proper to be done in connection therewith as each of said corporations could do, but reserving to each of said corporations full power of substitution and revocation, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This Power of Attorney is granted and is signed by facsimile under and by authority of the following resolutions adopted by the respective Board of Directors of DEVELOPERS SURETY AND INDEMNITY COMPANY, effective as of January 1st, 2008.

RESOLVED, that the chairman of the Board, the President and any Vice President of the corporation be, and that each of them hereby is, authorized to execute Powers of Attorney, qualifying the attorney(s) named in the Powers of Attorney to execute, on behalf of the corporations, bonds, undertakings and contracts of suretyship; and that the Secretary or any Assistant Secretary of the corporations be, and each of them hereby is, authorized to attest the execution of any such Power of Attorney;

RESOLVED, FURTHER, that the signatures of such officers may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures shall be valid and binding upon the corporations when so affixed and in the future with respect to any bond, undertaking or contract of suretyship to which it is attached.

IN WITNESS WHEREOF, DEVELOPERS SURETY AND INDEMNITY COMPANY have severally caused these presents to be signed by their respective Vice President and attested by their respective Assistant Secretary this January 1st, 2008.

By: [Signature]
Stephen T. Pate, Senior Vice President

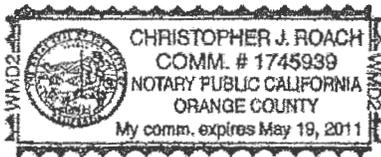
By: [Signature]
Charles L. Day, Assistant Secretary



State of California
County of Orange

On January 1st, 2008 before me, Christopher J. Roach, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared Stephen T. Pate and Charles L. Day
Name(s) of Signer(s)



Place Notary Seal Above

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature]
Christopher J. Roach

CERTIFICATE

The undersigned, as Assistant Secretary, of DEVELOPERS SURETY AND INDEMNITY COMPANY, does hereby certify that the foregoing Power of Attorney remains in full force and has not been revoked, and furthermore, that the provisions of the resolutions of the respective Boards of Directors of said corporations set forth in the Power of Attorney, are in force as of the date of this Certificate.

This Certificate is executed in the City of Irvine, California, the 8th day of April 2015.

By: [Signature]
Albert Hillebrand, Assistant Secretary

ANTI - KICKBACK AFFIDAVIT

STATE OF Virginia)
 : SS
COUNTY OF Chesapeake City)

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: *Gerald L. Brooks*
Gerald L. Brooks CEO

Sworn and subscribed before me this 7th day of April 2015,
2015.

Deborah H. Baker
Deborah H. Baker 194909

NOTARY PUBLIC, State of Virginia at Large

My Commission Expires: 09/30/2015

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 _____
RFP# 05-015 Key West Historic Seaport Closed Circuit
Television Surveillance System _____

2. This sworn statement is submitted by Bazon-Cox & Associates, Inc.
(Name of entity submitting sworn statement)

whose business address is 1244 Executive Blvd. Suite B113
Chesapeake, VA 23320

and (if applicable) its Federal Employer Identification Number (FEIN) is _____
54-1635186

(If the entity has no FEIN, include the Social Security Number of the individual
signing this sworn statement N/A

3. My name Gerald L. Brooks
(Please print name of individual signing)

and my relationship to the entity named above is CEO and Treasurer

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
- a. A predecessor or successor of a person convicted of a public entity crime; or
 - b. 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.)

Gerald L. Brooks

(Signature)
04/07/2015

(Date)

STATE OF Virginia

COUNTY OF Chesapeake City

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Gerald L. Brooks who, after first being sworn by me, affixed his/her
(Name of individual signing)

Signature in the space provided above on this 7th day of April, 2015.

My commission expires: 09/30/2015

Dwornak Biker
NOTARY PUBLIC 194909

INDEMNIFICATION

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: Bazon-Cox & Associates, Inc.

SEAL:

1244 Executive Blvd. Suite B113
Address


Signature

Gerald L., Brooks
Print Name

CEO
Title

DATE: 4/7/13

**LOCAL VENDOR CERTIFICATION PURSUANT TO
CITY OF KEY WEST ORDINANCE 09-22 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 Ordinance 09-22 Section 2-798
 - Qualifies as a local vendor pursuant to Ordinance 09-22 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: _____

_____ Date: _____

Signature of Authorized Representative

STATE OF _____ COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 2015.

By _____, of _____

(Name of officer or agent, title of officer or agent
acknowledging)

(Name of corporation)

or has produced identification _____ as
identification
(Type of identification)

Signature of Notary

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

Print, Type or Stamp Name of

Title or Rank

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF Virginia)
 : SS
COUNTY OF Chesapeake City)

I, the undersigned hereby duly sworn, depose and say that the firm of Bazon-Cox & Associates, Inc. provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses per City of Key West Ordinance Sec. 2-799.

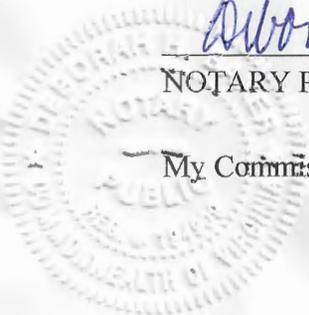
By: *Gerald L. Brooks*
Gerald L. Brooks, CEO

Sworn and subscribed before me this

7th Day of April, 2015.

Alvonne Baker 194909
NOTARY PUBLIC, State of Virginia at Large

My Commission Expires: 09/30/2015



PROPOSER'S CHECKLIST

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

1. All Contract Documents thoroughly read and understood. [X]
2. All blank spaces in Proposal filled in, using black ink. [X]
3. Total and unit prices added correctly and attached Schedule of Values [X]
4. Addenda acknowledged. [X]
5. Subcontractors are named as indicated in the Proposal. [X]
6. Experience record included. [X]
7. Proposal signed by authorized officer. [X]
8. Bid Bond completed and executed, including power-of-attorney dated the same date as Bid Bond. [X]
9. Proposer familiar with federal, state, and local laws, ordinances, rules and regulations affecting performance of the work. [X]
10. Proposer, if successful, able to obtain and/or demonstrate possession of required licenses and certificates within (10) ten calendar days after receiving a Notice of Award. [X]
11. PROPOSAL submitted intact with the volume entitled "Proposal Requirements" and "Contract Forms", 1 original and 2 flash drives as stated in the Request for Proposal. [X]
12. Proposal Documents submitted in sealed envelope and addressed and labeled in conformance with the instructions in the Request for Proposal. [X]

PART 2

CONTRACT FORMS

CONTRACT

This Contract, made and entered into this _____ day of _____ 2015,
by and between the City of Key West and the CRA, 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 **RFP #05-015 KWHS CCTV Surveillance System**, Key West, Florida to the extent of the Proposal made by the Contractor, dated the _____ day of _____ 2015, all in full compliance with the Contract Documents referred to herein.

The CONTRACT DOCUMENTS, including the signed copy of the PROPOSAL, CONTRACT FORMS, PERFORMANCE & PAYMENT BONDS, SUMMARY OF WORK, DRAWINGS, SPECIFICATIONS, GENERAL CONDITIONS OF THE CONTRACT.
& SUPPLEMENTARY CONDITIONS.

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 Proposal 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 forty-five (45) days and to accept as full payment hereunder the amounts computed as determined by the Contract Documents and based on the said PROPOSAL.

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 hold the Owner harmless from any costs encountered in remedying such defects.

It is agreed that the Contract, based upon the PROPOSAL, shall be fully complete within the stated number of consecutive calendar days from the date the Notice to Proceed is issued.

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 \$250 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 effect.

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

_____ Day of _____, 2015.

CITY OF KEY WEST

By _____

Title _____

CONTRACTOR

By _____

Title _____

* * * * *

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 _____, 2015, 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 proposers, the CONTRACTOR'S bid as accepted by the above CITY, the bid and contract performance and payment bonds, and all

addenda, if any, issued prior to the opening of proposals), 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 _____, 2015, 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

RFP #05-015 KWHS CCTV SURVEILLANCE SYSTEM attached hereto, with

the CITY, dated _____, 2015, 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 proposers, the

CONTRACTOR’S bid as accepted by the CITY, the bid and contract and payment bonds, 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 is 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 _____, 2015, 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

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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. PROPOSER

The person or persons, partnership, firm, or corporation submitting a Proposal 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 notice 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. PROPOSAL
- C. SUPPLEMENTARY CONDITIONS
- D. INVITATION TO BID
- E. INSTRUCTIONS TO PROPOSERS
- 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 SUBCONTRACTORS or employees be subagents of the OWNER or of the ENGINEER.

32. (a.) 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 Proposal. 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 Workmen'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 under 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, 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.

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 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.

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 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.

Prior to the issuance of a formal Change Order, nor shall such 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 Proposal 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”

Delete Article “ENGINEER” in its entirety and substitute the following:

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

ARTICLE 34 "INSURANCE & LIABILITY”

Delete Articles 34A, 34B and 34C and substitute 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 | \$1,000,000 | 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.

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) 809-3963 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 Article:

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. If requested, Contractor shall Provide Proof of Florida Licensure for all insurance companies. The City of Key West shall be named as Additional Insured on the insurance certificates.

ARTICLE 35 “INDEMNITY”

Delete Article “INDEMNITY” in its entirety and substitute 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. PERMIT FOR WORK WITHIN LOCAL RIGHTS-OF-WAY

The Contractor shall obtain from the City of Key West the necessary permits for work within the rights-of-way. The Contractor shall abide by all regulations and conditions, including maintenance of traffic.

B. 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.

C. "LICENSES"

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

1. Within 10 days of Notice of Award, the successful Proposer must represent that he holds all applicable, 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.
2. Further, the successful Proposer 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.
3. Specifically, within 10 days after Notice of Award, the successful Proposer must demonstrate that he holds, as a minimum, the following licenses and certificates:
 - a. City of Key West Tax License Receipt;
 - b. A valid Certificate of Competency issued by the Chief Building Official of Key West, Florida
 - c. A valid occupational license issued by the City of Key West, Florida.

D. WORK DURING HOLIDAYS

There shall be no work during City Holidays, State Holidays and National Holidays. Any construction operations during these days shall be approved by the City of Key West.

ARTICLE 40 "SUPERINTENDENCE"

Add the following sub article:

The CONTRACTOR shall keep at the project site, competent supervisory personnel, able to read, write and speak English to effectively communicate with City staff.

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 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. The 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 68 "PAYMENT"

Sub article C. "COST REIMBURSEMENT WORK"

Delete the third & fourth paragraph in its entirety & substitute the following;

In addition to 1 through 5 above , an added fixed fee of 15 percent (%) for general overhead & profit shall be allowed for the CONTRACTOR (or approved SUBCONTRACTOR) actually executing the Cost Reimbursement work.

An additional fixed fee of 5 % will be 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 the SUBCONTRACTOR of a SUBCONTRACTOR.

ARTICLE 69 "PARTIAL PAYMENTS"

Delete the first paragraph of Sub article B. "ESTIMATE" 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. Payment will be made by the Owner to the Contractor within 40 days receipt of the written recommendation of payment from the Engineer.

Sub Article C. "DEDUCTION FROM ESTIMATE"

Delete third sentence in its entirety and substitute add the following;

1. When the work is 90 per cent 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 greater retainage.

Delete Sub article E. "PAYMENT" in its entirety and substitute the following:

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"

Delete Article "FINAL PAYMENT" in its entirety and substitute the following:

FINAL PAYMENT

Upon completion of the work the Contractor shall notify the Engineer, in writing, that he has completed it and shall request final payment. The Contractor shall be responsible for keeping an accurate and detailed record of his actual construction. Upon completion of construction and before final acceptance and payment the Contractor shall furnish the Engineer as-built drawings of his construction. Upon receipt of a request for final payment and the as-built drawings 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.

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 (8) 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 Final payment will not be released until the City receives Certified As-built drawings in Auto Cad & adobe format as well as:

As-Built Drawing Standards:

All supplied data collections, as-builts, drawings 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:

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

If there are any questions or concerns on whether your files meet this request. Please contact the City of Key West GIS department. 305-809-3721.

* * * * *

PART 5

SPECIFICATIONS AND DRAWINGS

**SECTION 01001
GENERAL REQUIREMENTS**

PART 1 - GENERAL

1.01 WORK INCLUDED

1. This project will provide the Owner with the design and installation of CCTV Surveillance System according to the requirements in Section 01010 – Summary of Work. 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.
2. The following additional information, though not all-inclusive, is given to assist the Contractor in his/her evaluation of the work required to meet the project objective.

1.02 RELATED REQUIREMENTS

1. Proposal Documents

PART 2 - PRODUCTS

1. Not Applicable

PART 3 - EXECUTION

3.01 MOBILIZATION AND DEMOBILIZATION

1. Contractor shall be responsible for mobilization and demobilization of labor, materials and equipment. Payment for said will be included in the Proposal price indicated in the Proposal.

3.02 SCHEDULING

1. All work shall be planned and executed with minimum interference to the operation of the existing facilities. Prior to starting work, confer with the Deputy Port and Marine Services Director or Owner's representative to develop an approved work schedule.
2. All equipment and materials necessary to complete the job requirements (including any required emergency equipment) shall be on hand prior to the shutdown of any existing services or utilities.

3.03 SITE CONDITIONS

1. 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 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. 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.

2. Information On Site Conditions

- a. The Contractor shall examine the site and may make arrangements with the Owner to conduct his own investigation.

3.04 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

1. Where the Contractor's operations could cause damage or inconvenience to domestic water, gas, irrigation, electrical, sewer, or telecommunication systems, the operations shall be suspended until the Contractor has made all arrangements necessary for the protection of these utilities and services.
2. 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 that may result from the construction operations under this Contract.
3. The Contractor shall be responsible for determining, at his own expense, the location of all utilities in each project area.

3.05 INTERFERING STRUCTURES

1. The Contractor shall take necessary precautions to prevent damage to existing structures whether on the surface, aboveground, or underground.

3.06 TEMPORARY CONSTRUCTION UTILITIES AND FACILITIES

1. Temporary Water
 - a. The Contractor shall make his own arrangements to obtain suitable water from the building supply when needed.
2. Temporary Electric Power
 - a. The Contractor shall make his own arrangements to obtain electrical power from the building supply, and extension cords, etc. shall not interfere with building and staff operations.
3. Safety Requirements For Temporary Electric Power
 - a. Any Temporary electric power installation shall meet the construction Safety requirements of OSHA, State, and other governing agencies.
4. Sanitary Facilities
 - a. The Contractor shall make his own arrangements for sanitary facilities for his employees and his subcontractor's employees.

3.07 SAFETY AND CONVENIENCE

1. Safety Equipment
 - a. The Contractor shall do all work necessary to protect the general public from hazards, including, but not limited to, surface irregularities, or un-ramped grade changes in pedestrian walkways. Barricades and proper signs shall be furnished in sufficient amounts to safeguard the public and the work.
2. Accident Reports
 - a. The Contractor shall promptly report in writing to the Project Manager 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 death or serious damages are caused, the accident shall be reported immediately to the Project Manager by telephone or messenger.

3.08 PROTECTION OF PROPERTY

1. Protection and Replacement

- a. The Contractor shall preserve from damage all property along the line of the work, or which is in the vicinity of or is in any way affected by the work, the removal or destruction of which is not called for in the Contract Documents. Any and all modifications to existing systems including, but not limited to, damp proofing, roofing, telecommunications, etc., must be performed by the manufacturer of said system in order to maintain system guarantees and/or warranties. The Contractor shall be responsible for contracting with the appropriate manufacturer.
- b. Contractor shall replace all damaged materials and equipment, at no cost to the Owner, whenever such property is damaged due to the activities of the Contractor.
- c. Materials and equipment installer shall advise Contractor of required protection for all work during remainder of construction period, to avoid damage and deterioration.

2. Cleaning

- a. Clean all installed surfaces and repair any marred or scratched surfaces with Manufacturer's touch-up paint.

3.09 FIRE PREVENTION AND PROTECTION

1. 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.

3.10 PROTECTION OF THE ENVIRONMENT

1. The Contractor shall maintain all work areas within and outside the project boundaries free from environmental pollution, which would be in violation to any federal, state, or local regulations.

3.11 PRESERVATION, RESTORATION AND CLEANUP

1. Site Restoration And Cleanup

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

PART 4 - PAYMENT

4.01 GENERAL

1. Payment for work in this section will be included as part of the Proposal totals stated in the Proposal.

PART 5 - PERMITS

5.01 GENERAL

1. All permits are the responsibility of the Contractor, including all submittals and plans as may be required to secure said permits.

END OF SECTION

**SECTION 01010
SUMMARY OF WORK**

PART 1 - GENERAL

1.01 WORK INCLUDED

1. The Contractor will design and furnish all CCTV Surveillance System material, equipment, machinery, and labor to accomplish the following minimum requirements for each site:
 - a. **Key West Historic Seaport Exterior Common Areas (Drawing A):**
 - Wide Angle Fixed 3 Megapixel HD Weatherproof Network IR Cameras (1080p resolution)
 - PTZ 3 Megapixel HD Weatherproof Network IR Cameras ((1080p resolution)(23x optical zoom))
 - Full-HD Network Video Recorder with 30 day Back-up Storage Capability and room for future expansion
 - 21.5” Full-HD (1080p) LCD Monitor
 - b. **Ferry Terminal Building and Grounds (Drawings B & C):**
 - Wide Angle Fixed 3 Megapixel HD Weatherproof Network IR Cameras (1080p resolution)
 - Wide Angle Fixed 3 Megapixel HD Network IR Cameras (1080p resolution)
 - c. **General:**
 - Proposer’s representative must inspect site to determine potential re-use of existing power sources and conduit.
 - System must have remote viewing capabilities on the City’s Network for employee’s computers and iPhones and other hand-held devices
 - System shall include all necessary software and licenses
 - There shall not be re-occurring licensing fees
 - System shall have a complete stand-alone monitoring system (located at 201 William Street)
 - System shall have constant coverage of areas
 - System shall have viewing in color
 - System shall be capable of withstanding harsh environment including corrosive conditions caused by saltwater and hurricane winds and/or be in protective housing
 - Cables shall be protected from vandalism by the use of conduit or other means
 - System shall be capable of withstanding power surges and regular power outages
 - Cameras shall be vandal resistant

2. Contractor will be responsible for identifying and verifying availability of locations for mounting cameras or equipment. If mounting locations are not available, Contractor will be responsible for installing mounting locations. Installation shall be included with Proposal.
3. Contractor to provide a complete written description including system capabilities, type of cameras including brand, capability of cameras, recording ability in quality and quantity and upgrade/ expansion capabilities.
4. Contractor to provide a complete written description including type of system and brand of stand-alone monitoring / retrieval system. Description shall include playback capability, copying to DVD, print screen ability, etc...
5. Contractor to provide a complete system layout showing camera locations, wiring, antennas, etc.
6. Contractor to provide cut sheets on all equipment including cameras, computers, recording devices, wiring, etc.
7. The City is requiring the Proposer to warranty all materials and labor for two (2) years. Warranty will begin once the City determines the system is operating as specified in the technical specifications for a period of 30-days. Provide complete written description of warranty and what it covers.
8. Contractor to describe how the cameras, antennas, etc. will be protected in the harsh coastal environment including type of housing units.
9. Contractor to describe how the cameras, antennas, monitoring / recording equipment etc. will be protected against power surge.
10. Contractor to describe the type of training, if any, provided with the proposed system.
11. Contractor shall secure permits as necessary for proper execution and completion of the work and shall ensure that all Federal, State, and Local codes are followed.
12. Contractor shall take the necessary steps to secure the site including fencing, barricades, and/or security to prevent entry by unauthorized persons. The Deputy Port & Marine Services Director or designee shall approve security measures.
13. It shall be the Contractor's responsibility to request approval for entrance to certain areas of worksite for work on Saturdays, Sundays, holiday, and weekday hours other than 7:00 am until 5:00 pm.

END OF SECTION

**SECTION 01014
PROTECTION OF THE ENVIRONMENT**

PART 1 GENERAL

- A. The Contractor shall maintain all work areas within and outside the project boundaries free from environmental pollution, which would be in violation to any federal, state, or local regulations.
- B. The work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls as necessary.
- C. Temporary erosion controls include, but are not limited to, grassing, mulching, watering, and reseeding on-site surfaces and spoil and borrow area surfaces and providing interceptor ditches at ends of berms and at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the OWNER.
- D. Temporary sedimentation controls include, but are not limited to, silt dams, traps, barriers, and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the OWNER.
- E. CONTRACTOR is responsible for providing effective temporary erosion and sediment control measures during construction or until final controls become effective.

PART 2 PROTECTION OF AIR QUALITY

- A. The air pollution likely to occur due to construction operations shall be minimized by wetting down bare soils during windy periods, requiring the use of properly operating combustion emission control devices on construction vehicles and equipment used by contractors, and by encouraging the shutdown of motorized equipment not actually in use.
- B. Trash burning will not be permitted on the construction site.
- C. Contractor shall provide dust control for any asphalt / concrete removal and during the asphalt milling operations.

PART 3 CONSTRUCTION NOISE CONTROL

1 GENERAL

- A. The Contractor shall conduct all his work, use appropriate construction methods and equipment, and furnish and install acoustical barriers, all as necessary so that no noise emanating from the process or any related tool or equipment will exceed legal noise levels, as set forth in the Code of Ordinances, City of Key West, Florida.

2. MITIGATION OF CONSTRUCTION NOISE IMPACT

- A. The Contractor shall submit to the Engineer his plans to mitigate the construction noise impacts and to comply with the noise criteria specified herein, including the method of construction, the equipment to be used, and acoustical treatments if necessary.

PART 4 PAYMENT

7.1 GENERAL

- A. Payment for the work will be incidental to the contract.

* * * * *

**SECTION 01050
FIELD ENGINEERING**

PART 1 GENERAL

1.01 DESCRIPTION:

- A. Work Included:
 - 1. Provide field-engineering services required for the Project, including but not limited to:
 - a. Survey work required in execution of the Work.
 - b. Civil, Structural, or other professional engineering services specified or required to execute the Contractor's construction methods.
- B. Related Work:
 - 1. General and Supplementary Conditions of the Contract.
 - 2. Section 01010 Scope of Work.

1.02 QUALITY ASSURANCE:

- A. Qualifications of Surveyor or Engineer: Professional Engineer and/or Surveyor currently licensed in the State of Florida.

1.03 SUBMITTALS:

- A. Submit name and address of proposed Surveyor and/or Contractor's Engineer to the City.
- B. Upon request of the City's Engineer, submit documentation to verify accuracy of field engineering work.
- C. Submit certificates signed by the Surveyor or Engineer certifying that elevations and locations of the work of this Project are in conformance, or non-conformance, with the Contract Documents.

PART 2 EXECUTION

2.01 EXAMINATION AND PREPARATION OF SITE

- A. Before starting operations, Contractor shall examine site of work to acquaint himself with conditions to be encountered.
- B. Compare actual site with drawings and specifications.
- C. Report discrepancies affecting work or cost thereof to the City.

- D. Verify exact locations of sewers, water mains, gas mains, above or below ground electrical wires and conduits and structures which may interfere with work.
- E. No extra compensation will be allowed for any extra work made necessary due to conditions or obstacles encountered during progress of work, which could have been determined by examination of site or by contacting Owners of utilities, pipelines and conduits before starting operations.
- F. Comply with State law concerning Sunshine State One Call of Florida, State Statute Title 33, Chapter 556.

2.02 LINES AND GRADES

- A. Prior to staking out work, Contractor shall verify established base line, benchmarks, and control points provided.
- B. Contractor shall furnish and maintain lines and grades.
- C. Contractor shall take immediate steps to correct errors or inconsistencies in lines and grades of work to be in conformity with Contract Documents.
- D. Contractor shall be fully responsible for accuracy of lines and grades of work and control and checking and immediate correction of it.

2.03 RESTORATION

- A. Items to remain which are disturbed, damaged, or removed when performing required work or for convenience of Contractor or to expedite his operations shall be restored, repaired, reinstalled, or replaced with new work and refinished, as appropriate, so as to be left in as good condition as existed before work commenced and such restoration shall be considered incidental to the work.
- B. Any sidewalks or pavement replaced or installed shall meet ADA requirements.
- C. Existing items to be altered, extended, salvaged, or relocated and reused, if found to be defective in any way, shall be reported to the City before items are disturbed.
- D. Materials and workmanship used in restoring work shall conform in type and quality to original existing construction.

PART 4 - PAYMENT

4.1 GENERAL

- A. Payment for work specified in this section will be incidental to the contract.

**SECTION 01300
SUBMITTALS**

PART 1 GENERAL

1.01 GENERAL

- A. Inquiries: Direct to ENGINEER 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.
- 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.
- 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 ENGINEER:
 - 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, resequencing 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.
- F. 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.
- G. Transmit Submittals in accordance with current accepted schedule of Submittal submissions, and deliver as follows:
1. Submittals to: Key West Historic Seaport, Deputy Port and Marine Services Director.
- H. 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. Reviewed as Noted:
 - a. Reference the General Conditions for intent.
 - b. CONTRACTOR may proceed to perform Submittal related Work.
 - c. One copy for ENGINEER's file.
 - d. One copy returned to CONTRACTOR.
 2. 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.
- I. ENGINEER's Review: ENGINEER will act upon CONTRACTOR's Submittal and transmit response to CONTRACTOR not later than 30 days after receipt, unless: (i) specified otherwise or (ii) accepted by ENGINEER as set forth in Paragraph ENGINEER's Duties below and identified on current accepted schedule of Submittals submissions. Re-submittals will be subject to the same review time.

1.02 SHOP DRAWINGS

- A. Description: Reference the General Conditions.
- B. Excessive Shop Drawing Review: Review of the first submission and two resubmissions of Shop Drawings will be performed by ENGINEER at no cost to CONTRACTOR. Subsequent additional resubmissions of that Shop Drawing will be reviewed by ENGINEER, however, ENGINEER will document work hours and other expenses required to perform such additional review(s). OWNER shall deduct these costs from Contractor's contract for reimbursement to the ENGINEER.
- C. Copies: Submit two (2) copies.
- D. Submit Shop Drawings to ENGINEER in accordance with the General Conditions and as specifically required by individual Specification sections for equipment and materials to be furnished under these Contract Documents.
- E. Identify and Indicate:
 - 1. Pertinent Drawing sheet(s) and detail number(s), products, units and assemblies, and system or equipment identification or tag numbers.
 - 2. Critical field dimensions and relationships to other critical features of Work.
 - a. Each deviation or variation from Contract Documents.
- F. Resubmissions: Clearly identify each correction or change made.
- G. Foreign Manufacturers: When proposed, include following additional information:
 - 1. Names and addresses of at least two companies closest to Project that maintain technical service representatives.
 - 2. Complete inventory of spare parts and accessories for each piece of equipment.
- H. Preparation:
 - 1. Format: Whenever possible, schedule for and combine Shop Drawings required for submission in each Specification section into a single Submittal package.
 - 2. Present in a clear and thorough manner and of sufficient detail to show kind, size, arrangement, and function of components, materials, and devices and compliance with Contract Documents. Identify details by reference to sheet and detail, and schedule or room numbers shown on Drawings.

PART 4 PAYMENT

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

**SECTION 01530
BARRIERS**

PART 1 - GENERAL

1.01 REQUIREMENTS

Furnish, install, and maintain suitable barriers as required to prevent public entry, and to protect the work, existing facilities, trees, and plants from construction operations; remove when no longer needed, or at completion of work.

1.02 RELATED REQUIREMENTS

- A. Section 01010 Scope of Work.

PART 2 - PRODUCTS

2.01 MATERIALS - GENERAL

Materials may be new or used, suitable for the intended purpose, but must not violate requirements of applicable codes and standards.

2.02 FENCING

Minimum fence height shall be four feet. Open-mesh orange plastic fence shall be used to prohibit entry to the construction zone.

2.03 BARRIERS

Materials are Contractor's option, as appropriate to serve required purpose.

PART 3 - EXECUTION

3.01 GENERAL

- A. Install facilities of a neat and reasonably uniform appearance, structurally adequate for the required purposes.
- B. Maintain barriers during entire construction period.
- C. Relocate barriers as required by the progress of construction.

3.02 FENCES

- A. Provide and maintain fences necessary to assure security of the site during construction to keep unauthorized people and animals from the site when construction is not in progress.
- B. Provide additional security measures as deemed necessary and approved by the OWNER.

3.03 TREE AND PLANT PROTECTION

- A. Preserve and protect existing trees and plants at site which are designated to remain, and those adjacent to site.
- B. Consult with the OWNER, and remove agreed-on roots and branches which interfere with construction. Employ a qualified tree surgeon to remove branches and treat cuts.
- D. Protect root zones of trees and plants:
 - 1. Do not allow vehicular traffic or parking.
 - 2. Do not store materials or products.
 - 3. Prevent dumping of refuse or chemically injurious materials or liquids.
 - 4. Prevent puddling or continuous running water.
- D. Carefully supervise excavating, grading and filling, and other construction operations, to prevent damage.
- E. Replace, or suitably trim trees and plants designated to remain which are damaged or destroyed due to construction operations.

3.04 REMOVAL

- A. Completely remove barricades when construction has progressed to the point that they are no longer needed and when approved by the OWNER.
- B. Repair damage caused by construction. Fill and grade areas of the site to the required evaluations, and clean up the area.

**SECTION 01700
CONTRACT CLOSEOUT**

PART 1 - GENERAL

1.01 REQUIREMENTS

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

1.02 SUBSTANTIAL COMPLETION

- A. When Contractor considers work has reached substantial completion, he shall submit to the OWNER the following:
- a. Written notice that the work is substantially complete in accordance with Contract Documents.
 - b. 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 work is not substantially complete:
- a. The OWNER will promptly notify the Contractor in writing, giving the reasons thereof.
 - b. Contractor shall remedy the deficiencies in the work and send a second written notice of Substantial Completion to the OWNER.
 - c. Upon receipt of the second notice, the OWNER will review the work.
- E. When the OWNER finds that the Work is substantially complete he will issue a Certificate of Substantial Completion with a tentative list of items to be completed or corrected before final inspection.

1.03 FINAL INSPECTION AFTER COMPLETION

- A. When Contractor considers the Work is complete with all minor deficiencies completed or corrected, he shall submit written certification that:
 - a. Contract Document requirements have been met.
 - b. Work has been inspected for compliance with Contract Documents.
 - c. Work has been completed in accordance with Contract Documents.
 - d. All minor deficiencies have been corrected or completed and the Work is ready for final inspection.
 - e. 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:
 - a. The OWNER will promptly notify the Contractor in writing, listing the incomplete or defective work.
 - b. Contractor shall remedy the deficiencies in the work and send a second written certification to the OWNER that the work is complete.
 - c. 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, he shall request the Contractor to make closeout submittals.

1.04 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.

1.05 CONTRACTOR'S CLOSEOUT SUBMITTALS

- A. Project Record Documents
 - a. At Contract Closeout, submit documents with transmittal letter containing date, project title, Contractor's name and address, list of documents, and signature of Contractor.
 - b. O&M Manual for entire system.

c. Changes made by Field Order or by Change Order.

B. Evidence of payment and Release of Liens.

1.06 FINAL ADJUSTMENT OF ACCOUNTS

A. Submit a final statement of accounting to the OWNER.

B. Statement shall reflect all adjustments to the Contract Sum.

a. The original Contract sum.

b. Additions and deductions resulting from:

- Previous change orders or written amendment.
- Allowances
- Unit prices
- Deductions for uncorrected work.
- Deductions for liquidated damages
- Other adjustments

c. Total contract sum as adjusted

d. Previous payments

e. Sum remaining due

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

KWHs CCTV Design Install

| ITEM NO | DESCRIPTION OF WORK | SCHEDULED VALUE | WORK COMPLETED | | | COMPLETED AND STORED TO DATE (D+E+F) | % (G/C) | BALANCE TO FINISH (C-G) | RETAINAGE 0 |
|---------|---------------------------------------|-------------------|-----------------------|------------------|----------------------------------|--------------------------------------|-----------|-------------------------|----------------|
| | | | Previous Applications | This Application | | | | | |
| | | | | Work in Place | Stored Materials (not in D or E) | | | | |
| 1 | KWHs EXTERIOR COMMON AREAS | | | | | | | | |
| 2 | Labor | 18,162.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 18,162.90 | 0.00 |
| 3 | Pier Diem, Lodging, Travel | 11,313.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 11,313.84 | 0.00 |
| 4 | Material | 84,788.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 84,788.04 | 0.00 |
| 5 | Bond | 3,427.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 3,427.94 | 0.00 |
| 6 | | | | | | | | | |
| 7 | FERRY TERMINAL BUIDLING AND GROUNDS | | | | | | | | |
| 8 | Labor | 7,744.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 7,744.80 | 0.00 |
| 9 | Pier Diem, Lodging, Travel | 5,498.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 5,498.80 | 0.00 |
| 10 | Material | 21,654.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 21,654.70 | 0.00 |
| 11 | Bond | 1,046.95 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 1,046.95 | 0.00 |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | Subcontract Total | 153,637.97 | | | | | | | |
| 17 | Change Orders | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | Subcontract Change Order Total | 0.00 | | | | | | | |
| 20 | | | | | | | | | |
| 21 | Totals This Page | 153,637.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 153,637.97 | 0.00 |
| | TOTAL COST | 153,637.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0% | 153,637.97 | 0.00 |

IP Video Surveillance System

KWHS Exterior Common Areas

Record Studio

(11 Mbit/s total) Wireless antenna kit -KBC WESII-KT-P8

3 Samsung SNV-7084 fixed dome IP cameras at 3MP at 15fps (2.5 Mbit/s)

1 SAMSUNG SNP-6320H PTZ IP camera at 1080p resolution at 15fps (3.5 Mbit/s)

Schooner Wharf

(5 Mbit/s total) Wireless antenna kit -KBC WESII-KT-P5

2 Samsung SNV-7084 fixed dome IP cameras at 1080p resolution at 15fps (2.5 Mbit/s)

Conch Republic

(8.5 Mbit/s total) Wireless antenna kit -KBC WESII-KT-P8

2 Samsung SNV-7084 fixed dome IP cameras at 3MP at 15fps (2.5 Mbit/s)

1 SAMSUNG SNP-6320H PTZ IP camera at 1080p resolution at 15fps (3.5 Mbit/s)

Building not shown

(5 Mbit/s total) Wireless antenna kit -KBC WESII-KT-P5

2 Samsung SNV-7084 fixed dome IP cameras at 3MP at 15fps (2.5 Mbit/s)

Dock masters Office

(18.5 Mbit/s total) Wireless antenna kit -KBC WESII-KT-P8

2 Samsung SNV-7084 fixed dome IP cameras at 3MP at 15fps (2.5 Mbit/s)

5 SAMSUNG SNP-6320H PTZ IP camera at 1080p resolution at 15fps (3.5 Mbit/s)

Workstation with 42" monitor

Half Shell Raw Bar

(5.5 Mbit/s total) Wireless antenna kit -KBC WESII-KT-P5

1 Samsung SNV-7084 fixed dome IP cameras at 3MP at 15fps (2.5 Mbit/s)

1 SAMSUNG SNP-6320H PTZ IP camera at 1080p resolution at 15fps (3.5 Mbit/s)

Turtle Kraals

(7.5 Mbit/s total) Wireless antenna kit -KBC WESII-KT-P5

3 Samsung SNV-7084 fixed dome IP cameras at 3MP at 15fps (2.5 Mbit/s)

Flagler Station

(5.5 Mbit/s total) Wireless antenna kit -KBC WESII-KT-P5

1 Samsung SNV-7084 fixed dome IP cameras at 3MP at 15fps (2.5 Mbit/s)

1 SAMSUNG SNP-6320H PTZ IP camera at 1080p resolution at 15fps (3.5 Mbit/s)

201 Williams Street

Wireless antenna kit -KBC WESII-KT-P5 connected to 24 port switch.

10 Samsung SNV-7084 fixed dome IP cameras at 3MP at 15fps

Samsung SRN-4000-30TB NVR (400Mbit/s capable)

Samsung iES4024GP 24 port POE switch

Workstation with 32" monitor

Notes: Cables in 201 Williams street will be Category 6 plenum. Cables at all other locations will be Category 6 indoor/outdoor rated cable. All cameras will power over POE/POE+. The wireless infrastructure will utilize a 5GHz signal that will not require FCC licensing and will be protected from unauthorized use by utilize MAC address assignments.

Ferry Terminal

Ferry Terminal

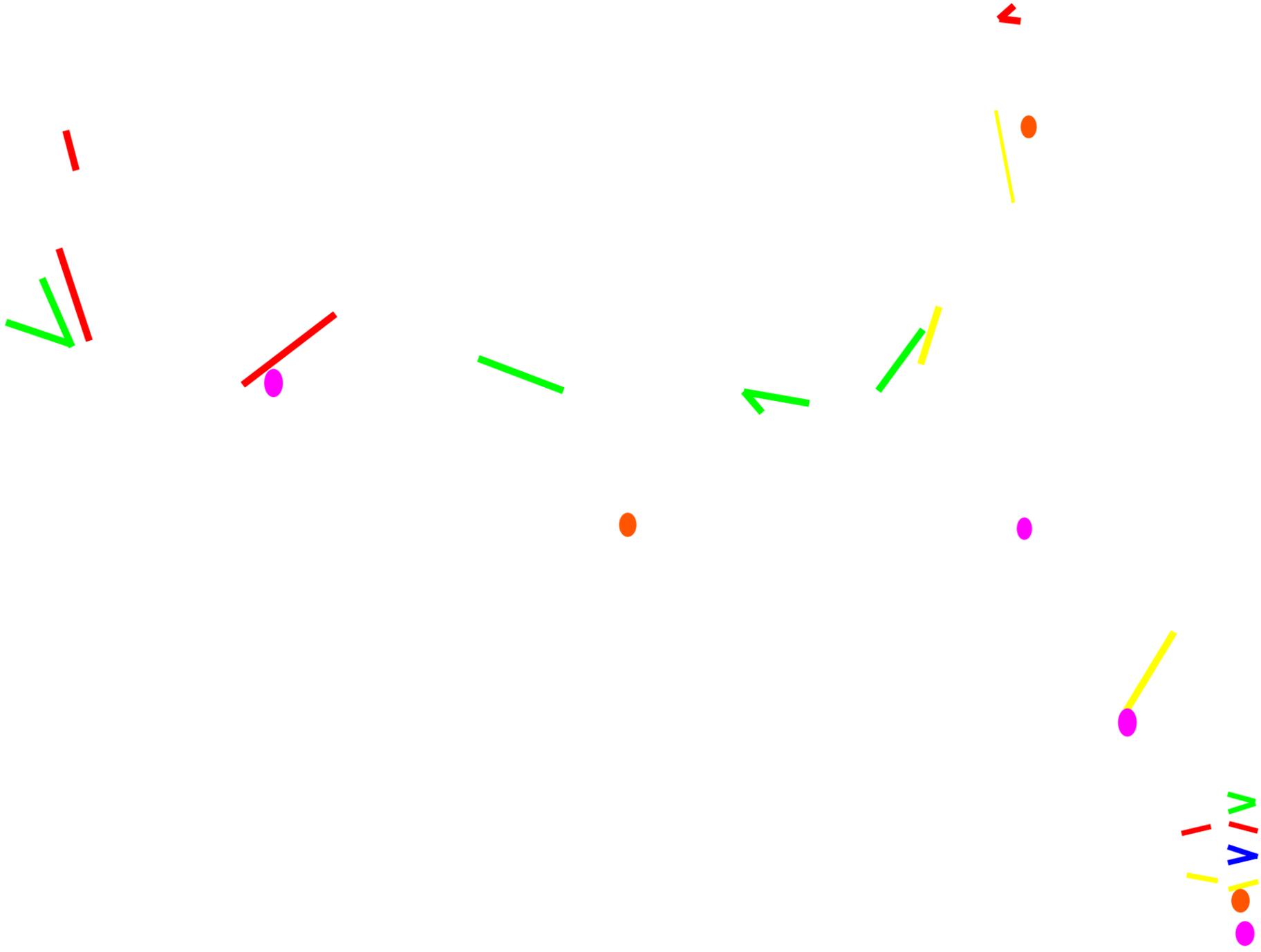
11 Samsung SNV-7084 fixed dome IP cameras at 3MP at 15fps (2.5 Mbit/s)

2 SAMSUNG SNP-6320H PTZ IP camera at 1080p resolution at 15fps (3.5 Mbit/s)

Samsung SRN-1000-12TB NVR (100Mbit/s capable)

Samsung iES4024GP 24 port POE switch

Notes: Cables will be Category 6 plenum. All cameras will power over POE/POE+. All cameras will be homerun to a central location where the NVR and switch will connect to the city's network.



SRN-4000



64CH 400Mbps Premium Network Video Recorder

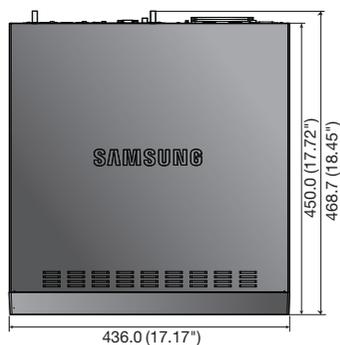


Key Features

- Up to 64CH and 5MP supported
- 400Mbps network camera recording
- Max. 12 hot swap HDDs (RAID 5/6)
- VGA/HDMI local monitor
- iSCSI storage supported
- Redundant hot swap power supply

Dimensions

Unit : mm (inch)



| | | SRN-4000 |
|------------------------------|---------------------------------|--|
| DISPLAY | | |
| N/W Camera | Inputs | Up to 64CH |
| | Resolution | CIF ~ 5M |
| | Protocols | Samsung, ONVIF |
| Live | Local Display | HDMI / VGA |
| | Multi Screen Display | [Local monitor] : 1 / 4 / 9 / 16 / 1+5 / 1+7 / 1+12 / Sequence [Web] : 1 / 4 / 9 / 16 / 32 / 64 / Sequence |
| PERFORMANCE | | |
| Operating System | Embedded | Linux |
| Recording | Compression | H.264, MPEG-4, MJPEG |
| | Recording Bit Rate | Max. 400Mbps (2M 64camera real-time recording) |
| | Resolution | CIF ~ 5M |
| | Mode | Manual, Schedule (Continuous / Event), Event (Pre / Post) |
| | Event Trigger | Alarm input, Video loss, Camera event (Sensor, MD, Video Analytics), VA (Upto 4CH selectable, Advanced MD, Object classification (People, Car)) |
| Search & Playback | Event Action | E-mail, PTZ preset, Alarm out, Buzzer, Monitor out |
| | Playback Bandwidth | 25Mbps (16CH simultaneously) |
| | Search Mode | Date & Time (Calendar) / Event log list |
| | Simultaneous Playback | [Local monitor] : Max. 16CH, [CMS] : Max. 16CH, [Web] : Max. 4CH |
| Storage | Resolution | CIF ~ 5M |
| | Playback Function | Fast forward / backward, Move one step up / down |
| | Built-In HDD | 2TB 1ea |
| | Max. Internal HDDs | 12ea (Hot swap), Max. 36TB |
| Back up | External RAID | NAS (iSCSI) : vesaRaid 1840i, Max. 192TB (JBOD) RAID-5/6 |
| | File Back up (Via Web) Function | [GUI] : BU / Exe, [Network] : JPEG / AVI Single channel play, Date-time / Title display |
| Sensor | Input / Output | 8 / 4 (NO/NC selectable) |
| | Audio | 64CH (Network) |
| Audio | Compression | G.711, G.726 |
| | Audio Communication | 2-way |
| NETWORK | | |
| Interface | | RJ-45, Gigabit Ethernet 4ea |
| Protocol Support | | TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP, PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, UPnP, ONVIF, HTTPS, SNMP |
| DDNS | | Samsung iPOLiS DDNS |
| Network | Total Throughput Bandwidth | Max. 700Mbps |
| | Transmission Bandwidth | Max. 400Mbps |
| Max. Remote Users | | Search 1 / Live unicast 10 / Live multicast 20 |
| IP | | IPv4 / IPv6 |
| Security | | IP address filtering, User access log, 802.1x authentication, Encryption |
| Language | | English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese, Japanese, Thai |
| OS | | Window XP (service pack 2 or above), Vista, 7, 8, Mac OS X (10.4.8 or above) |
| Web Browser | | MS IE 8.x, 9.x, Google Chrome, Mac Safari, Firefox 2.x, 3.x |
| Viewer Software | Type | Webviewer, SmartViewer |
| Smart Phone | CMS Support | SDK / CGI |
| | OS | Android, iOS |
| Smart Phone | Protocol Support | RTP, RTSP, HTTP, CGI |
| | Max. Remote Users | Live 10, Playback 1 |
| FUNCTIONS | | |
| Camera Setup | Register | Auto, Manual |
| | Setup Items | 1) IP Address, Add Profile Edit, Bitrate, Compression, GOP, Quality 2) Video setup (MD, ABF, Brightness/Contrast, Flip/Mirror, IRIS, WDR, D&N, SSMR, Shutter) |
| PTZ | Control | Via GUI, Webviewer |
| System Control | Preset | 256 presets |
| | | Mouse |
| INDICATOR / INTERFACE | | |
| Front | Indicator | LED status indicator : HDD action 12, RAID status 1, Alarm 1, Power 1, Record 1, Back up 1, Network 1 |
| | Switch | PWR switch 1ea, Key-lock 1ea |
| | VGA | 1ea |
| | HDMI | 1ea |
| Connections | Audio | Out (1ea, RCA, Line) |
| | Ethernet | RJ-45 Gigabit Ethernet 4ea [Camera 1] : 1ea, [Camera 2] : 1ea, [Viewer] : 1ea, [iSCSI] : 1ea |
| | Alarm | In 8ea (Terminal block) / Out 4ea (Terminal block) |
| | USB | 2ea (Front) |
| | Reset | Switch 1ea |
| | Power Cord | AC Inlet 2ea |
| | | |
| SYSTEM | | |
| Log | Log List | Max. 20000 (System log, Event log, Back up log each) |
| GENERAL | | |
| Electrical | Input Voltage / Current | 100 ~ 240V AC ±10%, 50/60Hz, 4 ~ 1.5A (Dual SMPS) |
| | Power Consumption | Max. 217W (546 BTU with 2TB HDD 12ea) |
| Environmental | Operating Temperature | +0°C ~ +40°C (+32°F ~ +104°F) |
| | Operating Humidity | 20% ~ 85% RH |
| Mechanical | Color / Material | Black / Metal |
| | Dimensions (WxHxD) | 436.0 x 132.0 x 450.0mm (17.17" x 5.2" x 17.72") (3U) |
| | Weight | 12.44Kg (27.43 lb) (2TB HDD 1ea included) |
| Approvals | Safety | UL |
| | EMC | CE, FCC, KCC, CCC, Gost-R |

* The latest product information / specification can be found at www.samsungsecurity.com

SRN-1000



64CH 100Mbps Network Video Recorder

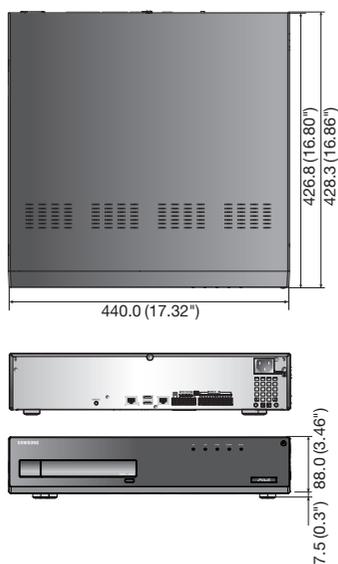


Key Features

- Up to 64CH 5MP supported
- 100Mbps network camera recording
- Max. 8 HDDs (RAID 5)
- iSCSI storage supported

Dimensions

Unit : mm (inch)



| SRN-1000 | | |
|--------------------|-----------------------------|---|
| DISPLAY | | |
| N/W Camera | Inputs | Up to 64CH |
| | Resolution | CIF ~ 5M |
| | Protocols | Samsung, ONVIF |
| Live | Multi Screen Display | 1 / 4 / 9 / 16, Sequence |
| PERFORMANCE | | |
| Operating System | Embedded | Linux |
| Recording | Compression | H.264, MPEG-4, MJPEG |
| | Recording Bit Rate | 100/64 (RAID-5)Mbps |
| | Resolution | CIF ~ 5M |
| | Mode | Manual, Schedule (Continuous / Event), Event (Pre / Post) |
| | Event Trigger | Alarm input, Video loss, Camera event (Video analytics, MD, Audio detection) |
| Search & Playback | Event Action | E-mail, PTZ preset, Alarm buzzer |
| | Search Mode | Date/time, Event |
| | Simultaneous Playback | 4CH |
| | Resolution | CIF ~ 5M |
| Storage | Playback Function | Fast forward / backward, Move one step up / down |
| | Internal HDD | Up to 8/6 (RAID-5) SATA HDDs |
| | External (e-SATA Interface) | e-SATA (2 ports), iSCSI storage (Max. 32TB) |
| | RAID | RAID-5 + Hot standby |
| | File Format (Back up) | JPEG, AVI via web browser |
| NETWORK | | |
| Interface | | RJ-45, Gigabit Ethernet x 2 |
| Protocol Support | | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, DHCP, PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, UPnP, ONVIF |
| DDNS | | Samsung iPOLiS DDNS |
| Transmission Speed | | Up to 64Mbps |
| Max. Remote Users | | Search 3 / Live unicast 10 / Live multicast 20 |
| IP | | IPv4 |
| Security | | IP address filtering, User access log, 802.1x authentication |
| Monitoring | | SmartViewer, Webviewer |
| Smart Phone | Platform | Android, iOS |
| | Protocol Support | RTP, RTSP, HTTP, CGI |
| | Max. Remote Users | Live 10, Playback 1 |
| INTERFACE | | |
| Audio | Input | 64CH (Network) |
| | Compression | G.711, G.726 |
| Alarm | Input / Output | Terminal 16 inputs (NO/NC), Terminal 4 outputs (Relay), Terminal 1 reset |
| Connections | Ethernet | 2 RJ-45 10/100/1000 Base-T |
| | eSATA | 2 ports |
| GENERAL | | |
| Electrical | Input Voltage / Current | 100 ~ 240V AC ±10%, 50/60Hz, 4 ~ 1.5A |
| | Power Consumption | Max. 45W (154 BTU with 1 HDD), Max. 170W (580 BTU with 8 HDD) |
| Environmental | Operating Temperature | +0°C ~ +40°C (+32°F ~ +104°F) |
| | Operating Humidity | 20% ~ 85% RH |
| Mechanical | Dimensions (WxHxD) | 440.0 x 88.0 x 426.8mm (17.32" x 3.46" x 16.80") |
| | Weight (1x Hard Disks) | Approx. 6.2Kg (13.67 lb) |

* The latest product information / specification can be found at www.samsungsecurity.com

5GHz, Multi-Input WESII PoE Kits

Up to 4 & Up to 7 Inputs over a Single Point-to-Point Link
WESII-KT-P5 / WESII-KT-P5T / WESII-KT-P8 / WESII-KT-P8T

Product Description

KBC wireless kits provide all the transmission equipment required to set up a point-to-point wireless link.

The wireless units within these kits operate in the licence-free, 5GHz band, and are factory-set to minimize configuration time. Passive PoE injector modules (PIM) and transformers are supplied for the wireless units along with mounting brackets.

The multi-input PoE kits also include either a 5-port or 8-port PoE Ethernet switch to allow up to 7 inputs to be transmitted over a single point-to-point wireless link. The Ethernet switches provide either 5 ports with IEEE802.3af PoE on 4 ports or IEEE802.3at PoE+ on 8 ports. The switch PoE power supplies are available as standard or extended temperature units providing 48V at either 120W or 240W depending on the switch required. Please note: the PoE switch powers the camera but the PIM is required for the WESII units.



Product Features

WESII Units

- IEEE802.11a/n compliant
- Transmission Power Control
- Up to 23dBm output power
- Secure: WPA2 - AES or TKIP encryption
- Antenna alignment & site signal survey tools
- Distance adjustment for long range
- Range of antenna options
- IP66 protection class

Ethernet Switches

- 5 port switch: IEEE802.3af on 4 ports
- 8 port switch: IEEE802.3at on 8 ports
- Dual redundant power inputs
- Power failure alarm outputs
- Full & half duplex operation
- MDI/MDI-X

PoE Power Supplies

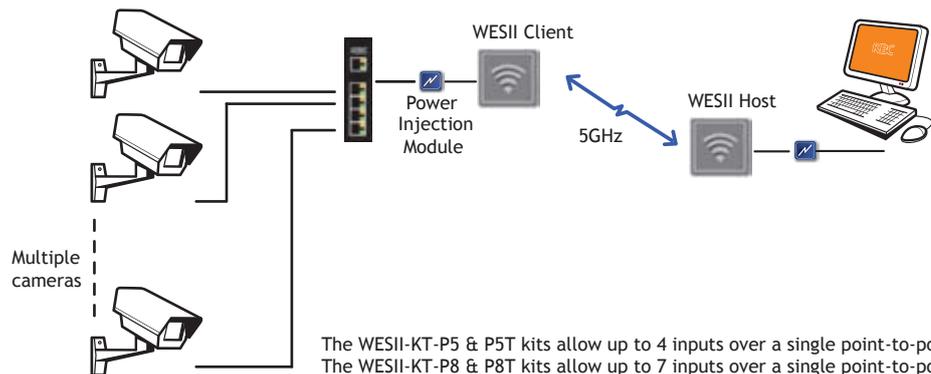
- Short circuit protection
- Overload protection
- Over temperature protection
- Cooling by free air convection
- Install on DIN rail TS-35/7.5 or 15
- UL 508 approved
- 100% full load burn-in test

Part Numbers & Kit Contents

Please note: the following wireless kits part numbers are applicable in the Americas only. For other regions, please contact your nearest KBC office.

| | |
|--------------|--|
| WESII-KT-P5 | 2 x WESII RF modules, 2 x PIM, 2 x 24Vdc PSU, mounting hardware, 5 port industrial PoE switch & power supply (ESUL5P-D & DR120-48) |
| WESII-KT-P5T | 2 x WESII RF modules, 2 x PIM, 2 x 24Vdc PSU, mounting hardware, 5 port industrial PoE switch & extended temp power supply (ESUL5P-D & SDR120-48) |
| WESII-KT-P8 | 2 x WESII RF modules, 2 x PIM, 2 x 24Vdc PSU, mounting hardware, 8 port industrial PoE+ switch & power supply (ESUG8P-D & DRP240-48) |
| WESII-KT-P8T | 2 x WESII RF modules, 2 x PIM, 2 x 24Vdc PSU, mounting hardware, 8 port industrial PoE+ switch & extended temp power supply (ESUG8P-D & SDR240-48) |

Typical System Configuration



Specifications



WESII Units

Standards

IEEE Standard

IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX
IEEE 802.3x Full Duplex
IEEE 802.11a 5GHz
IEEE 802.11h ETSI DFS & TPC
IEEE 802.11n MIMO

Radio

Frequency USA & Canada (FCC) U-NII3
Europe
Frequency Operation

5745 - 5825 MHz
5500 - 5700 MHz
Auto-select
User static selectable
Dynamic Frequency Selection
(ETSI DFS)
23dBm max⁽¹⁾
Transmit Power Control (ETSI TPC)
Selectable 5, 20 or 40MHz

Power Output

Channel Bandwidth Spectrum

Antenna Options

5dBi
9dBi

Omni-directional
Directional integrated patch
Dual polarization
Beamwidth:
Azimuth: Horizontal 65°, vert 65°
Elevation: Horizontal 33°, vert 33°
Directional integrated patch
Dual polarization
Beamwidth:
Azimuth: Horizontal 30°, vert 33°
Elevation: Horizontal 17°, vert 17°

17dBi

System

Data throughput⁽²⁾

HT5 HT20 HT40
17Mbps 99Mbps 99Mbps

Latency
Encryption

<10mS
TKIP / AES encryption up to 128 bit

Power

Power method

Passive PoE (see spec below)

Mechanical (unit)

Casing
Dimensions (L x W x D)
Weight (17dBi unit)
Installation

IP66 protection
245mm x 245mm x 76mm
(9.625" x 9.625" x 3")
1.36kg / 3lb
Wall-mount or pole-mount

Environmental

Operating Temperature
Storage Temperature
Operating Humidity

-40° - +74°C / -40° - +165°F
-40° - +90°C / -40° - +194°F
5 to 95% non-condensing

Connectors

10/100 Electrical

1 x RJ45

Approvals

FCC Part 15 Subpart C
CE
EN 55024 (IEC61000-4-2,3,4,5,6,8,11)
EN 55022 (CISPR 22)
EN 60 950: 1992+A1: 1993+A2:
1995+A4: 1996+A1: 1997
EN 300 328-2
EN 300 826
EN 301 489-17
EN 301 893
R&TT Directive (1999/5/EC)

Class B
Class B
Electromagnetic Immunity
Electromagnetic Interference
(Conduction & Radiation)
Low Voltage Directive

Ethernet Switches

Standards

IEEE Standard

Switch Performance

Switching Method
Transfer Rate

ESUL5P

IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX
IEEE 802.3x Full Duplex

Store & forward
14,881 pps
148,810 pps

Backplane Switch Capacity
Mac Address Table

1 Gbps
2k

PoE

Standard
Power Supplied (per port)

IEEE 802.3af
15.4W @+48Vdc

Contact Closure Alarm Output

Output
Switch rating

Normally closed
1A @24Vdc

Power

Power Input
Power Consumption

48 Vdc
3.4W (no PoE)
67W (full-load PoE)

Mechanical

Casing
Dimensions (W x H x D)

IP30 protection
30mm x 140mm x 95mm
(1.18" x 5.51" x 3.74")

Weight
Installation⁽³⁾

460g / 1lb
Wall-mount or DIN rail

ESUG8P

IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX
IEEE 802.3ab 1000BASE-T
IEEE 802.3x Full Duplex

Store & forward
14,881pps
148,810 pps
1,488,100 pps

16 Gbps
2k

IEEE 802.3at
30W @+50Vdc

Normally closed
1A @24Vdc

50-57 Vdc
8W (no PoE)
250W (full-load PoE)

IP30 protection
27mm x 145mm x 95mm
(1.07" x 5.71" x 3.74")

390g / 13.75oz
Wall-mount or DIN rail

Power Injection Modules

Mechanical

Physical
Dimensions (LxWxH)
Weight
Interface

Plastic housing,
36 x 44 x 23mm
25g (0.8oz)
2 x RJ45 connectors

Environmental

Operating Temperature

-40° - +74°C (-40° - +158°F)

Power

Power Supply

Input: 100 - 240Vac, 10W
Output: 24Vdc, 500mA
(UL / cUL listed wall transformer supplied)
Passive PoE "mid-span" compliant
(pins 4,5 positive -pins 7,8 ground)
LED - green
DC Jack 2.5mm x 5.5mm

Power-over-Ethernet (PoE)

Indicator
Connectors

1. Territory specific
2. Assumes ideal RF environment with max signal rates & within receive sensitivity specification. Max values - limited by 10/100 port
3. Unit is supplied with both DIN rail and wall-mount fittings.



PoE Power Supplies

| | DR-120-48 | SDR-120-48 | DRP-240-48 | SDR-240-48 |
|--------------------------------------|---|---|---|---|
| Output | | | | |
| DC Voltage | 48Vdc | 48Vdc | 48Vdc | 48Vdc |
| Rated Current | 2.5A | 2.5A | 5A | 5A |
| Current Range | 0-2.5A | 0-2.5A | 0-5A | 0-5A |
| Rated Power | 120W | 120W | 240W | 240W |
| Peak Current | | 3.75A | | 7.5A |
| Peak Power | | 189W (3 secs max) | | 360W (3 secs max) |
| Ripple & Noise (max) ⁽⁴⁾ | 100mVp-p | 120mVp-p | 150mVp-p | 120mVp-p |
| Voltage Adj. Range | 48-53Vdc | 48-55Vdc | 48-53Vdc | 48-55Vdc |
| Voltage Tolerance ⁽⁵⁾ | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| Line Regulation | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| Load Regulation | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| Setup, Rise Time | 500ms, 70ms/230Vac | 1500ms, 60ms/230Vac | 800ms, 40ms/230Vac | 1500ms, 60ms/230Vac |
| (at full load) | 500ms, 70ms/115Vac | 3000ms, 60ms/115Vac | 800ms, 40ms/115Vac | 3000ms, 60ms/115Vac |
| Hold Up Time | 36ms/230Vac | 20ms/230Vac | 24ms/230Vac | 20ms/230Vac |
| (at full load) | 32ms/115Vac | 20ms/115Vac | 24ms/115Vac | 20ms/115Vac |
| Input | | | | |
| Voltage Range ⁽⁶⁾ | 88 - 132Vac/ 176 - 264Vac (by sw) 248 - 370Vdc | 88 - 264Vac 124 - 370Vdc | 88 - 264Vac 120 - 370Vdc | 88 - 264Vac 124 - 370Vdc |
| Frequency Range | 47 - 63Hz | 47 - 63 Hz | 47 - 63Hz | 47 - 63 Hz |
| Efficiency (typ) | 85% | 90.5% | 85% | 94% |
| AC Current (typ) | 2.6A/115Vac 1.6A/230Vac | 1.4A/115Vac 0.7A/230Vac | 2.8A/115Vac 1.4A/230Vac | 2.6A/115Vac 1.3A/230Vac |
| Inrush Current (typ) | cold start 20A/115Vac 40A/230Vac | 35A/115Vac 70A/230Vac | cold start 27A/115Vac 45A/230Vac | 33A/115Vac 65A/230Vac |
| Leakage Current | <3.5mA/240Vac | <1mA/240Vac | <3.5mA/240Vac | <1mA/240Vac |
| Protection | | | | |
| Overload | 105 - 150% rated o/p power | 110 - 150% rated output power for > 3 secs & then shuts down output voltage >150% rated power, constant current limiting with auto-recovery within 3 secs & shuts down output voltage after 3 secs. | 105 - 150% rated output power Protection type: constant current limiting, auto-recovery after fault condition removed | 110 - 150% rated output power for >3 secs & then shut down output voltage with auto-recovery. >150% rated power, constant current limiting with auto-recovery within 2 secs & may shut down after 2 secs. |
| Over Voltage | 58 - 65V Protection type: shut down o/p voltage, repower on to recover | 56 - 65V Protection type: shuts down o/p voltage, repower on to recover | 54 - 60V Protection type: shut down o/p voltage, repower on to recover | 56 - 65V Protection type: shut down o/p voltage, with auto-recovery |
| Over Temperature | 90°C ±5°C (TSW1) | 95°C ±5°C (TSW: detect on power switch heatsink). Protection type: shut down output voltage, auto-recovery after temp decreases. | 100°C ±5°C (TSW1) detect on power transistor heat-sink. Protection type: shut down o/p voltage, auto-recovery after temp decreases | 95°C ±5°C (TSW: detect on power switch heatsink). Protection type: shut down o/p voltage, auto-recovery after temp decreases. |
| Mechanical Dimensions | 66mm x 126mm x 100mm (2.26" x 4.96" x 3.94") | 40mm x 126mm x 114mm 1.57" x 4.96" x 4.49" | 126mm x 126mm x 100mm (4.96" x 4.96" x 3.94") | 63mm x 126mm x 114mm 2.48" x 4.96" x 4.49" |
| Weight | 790g (1lb 11oz) | 670g (1lb 8oz) | 1.2kg (2lb 11oz) | 1.03kg (2lb 5oz) |
| Environmental | | | | |
| Operating Temperature ⁽⁷⁾ | -10° - +60° C / 14° - 140° F | -25° - +70° C / -13° - 158° F | -10° - +70° C / 14° - 158° F | -25° - +70° C / -13° - 158° F |
| Operating Humidity | 20 to 90% RH non-condensing | 20 to 95% RH non-condensing | 20 to 90% RH non-condensing | 20 to 95% RH non-condensing |
| Storage Temperature | -20° - +85° C / 4° - 185° F | -40° - +85° C / -40° - 185° F | -20° - +85° C / 4° - 185° F | -40° - +85° C / -40° - 185° F |
| Temp Coefficient | ±0.03%/°C (0 - 50°C) 10 - 500Hz, 2G 10 min/1 cycle | ±0.03%/°C (0 - 50°C) Component: 10 - 500Hz, 2G 10min/1cycle | ±0.03%/°C (0 - 50°C) 10 - 500Hz, 2G 10 min/1 cycle | ±0.03%/°C (0 - 50°C) Component: 10 - 500Hz, 2G 10min/1cycle |
| Mean Time Between Failure (MBTF) | 60 min each along X, Y, Z axis Mounting: IEC60068-2-6 136.8khrs min MIL-HDBK-217F (25°C) | 60 min each along X, Y Z axes Mounting: IEC60068-2-6 289.9khrs min MIL-HDBK-217F (25°C) | 60 min each along X, Y, Z axis Mounting: IEC60068-2-6 289.9khrs min MIL-HDBK-217F (25°C) | 60 min each along X, Y Z axes Mounting: IEC60068-2-6 169.3khrs min MIL-HDBK-217F (25°C) |
| Approvals | | | | |
| | UL508 UL60950-1 TUV EN60950-1 EN55011 EN55022 (CISPR22) Class B EN61000-3-2 EN61000-3-3 EN61000-4-2,3,4,5,6,8,11 EN61000-6-2 EN61000-6-2 | UL508 TUV EN60950-1 EN55022 (CISPR22) Class B EN61000-3-2 EN61000-3-3 EN61000-4-2,3,4,5,6,8,11 EN55024 EN61000-6-2 EN61204-3 SEMI F47, GL | UL508 UL60950-1 TUV EN60950-1 EN55011 EN55022 (CISPR22) Class B EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11 EN55024 EN61000-6-2 EN61000-6-2 | UL508 TUV EN60950-1 EN55022 (CISPR22) Class B EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11 EN55024 EN61000-6-2 EN61204-3 SEMI F47, GL |

All parameters not specifically mentioned are measured at 230Vac input rated load and 25°C ambient temperature

The power supply is considered a component which will be installed with the final equipment. The final equipment must be re-confirmed to ensure it still meets the EMC directives

4. Ripple & noise are measured at 20MHz of bandwidth by using 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor

5. Tolerance: includes set up tolerance, line regulation and load regulation

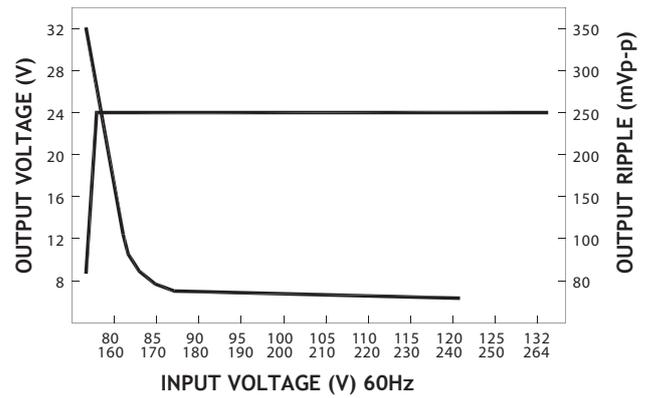
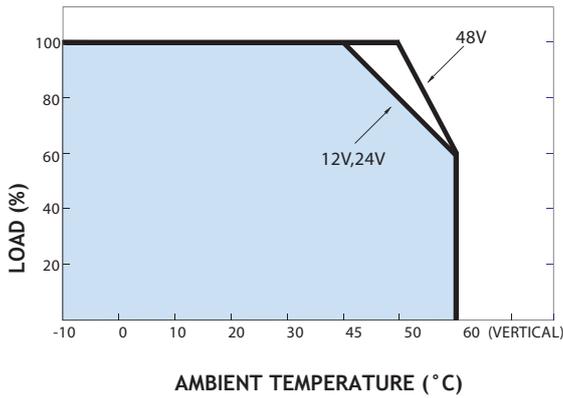
6. SDR-120-48: range de-rating may be needed under low input voltage. SDR-240-48: after 30 mins of burn-in

7. Installation clearances: 40mm above, 20mm below, 5mm either side are recommended when loaded permanently with full power. If the adjacent device is a heat source then 15mm clearance is recommended.

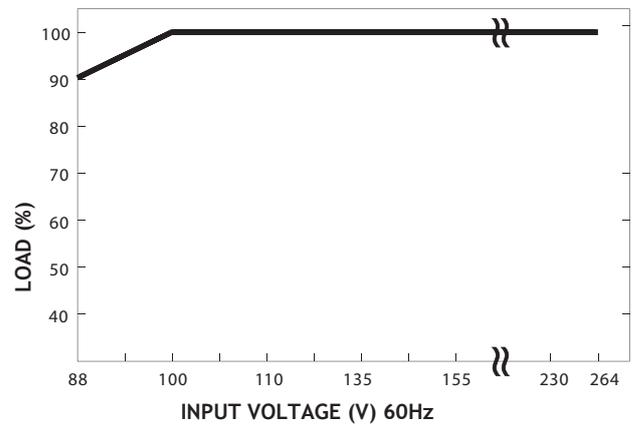
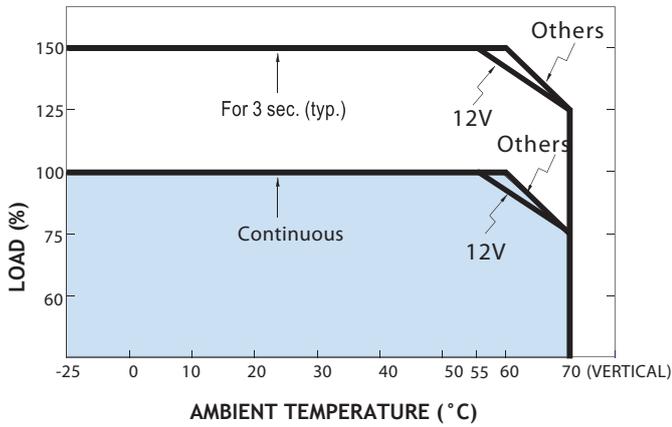
De-rating Curve

Output De-rating vs Input Voltage

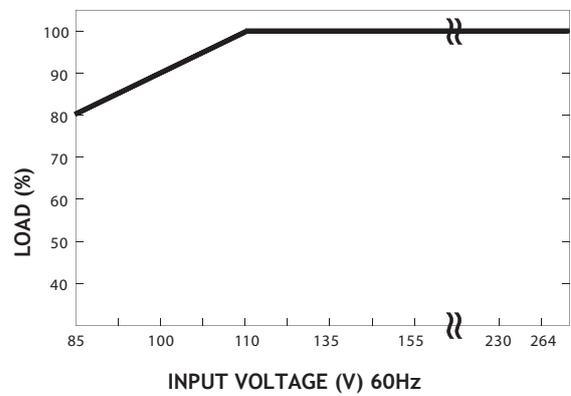
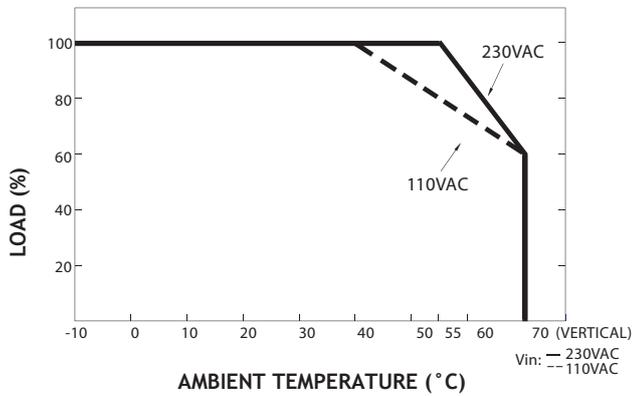
DR-120-48



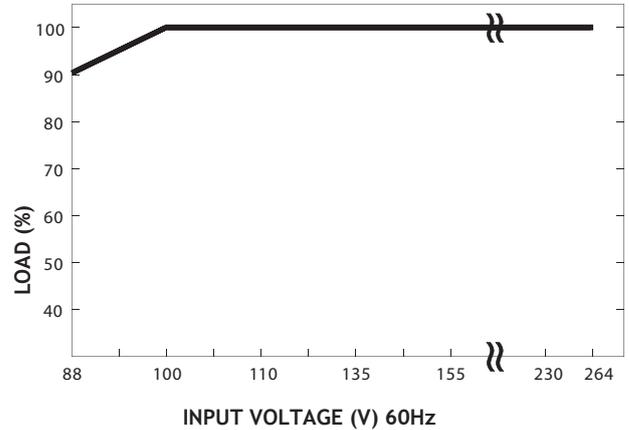
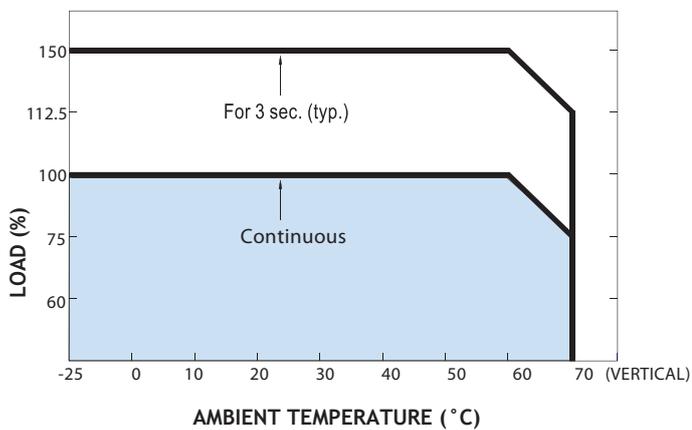
SDR-120-48



DRP-240-48



SDR-240-48



SNV-7084



3Megapixel Vandal-Resistant Network Dome Camera

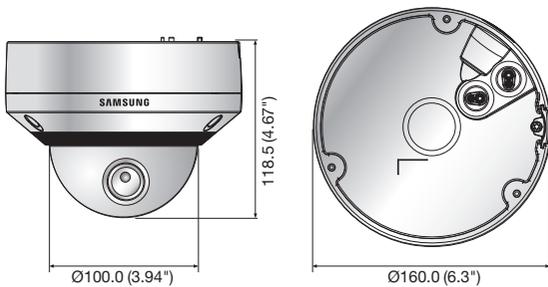


Key Features

- Max. 3M (2048 x 1536) resolution
- 30fps@2,048 x 1,536 / 60fps@1,920 x 1,080
- 3 ~ 8.5mm (2.8x) motorized varifocal lens
- Simple focus (Motorized VF), P-Iris
- Day & Night (ICR), Enhanced DIS, Defog
- 3M real-time WDR (Max. 120dB)
- Multi-crop streaming, Heater by PoE
- micro SD/SDHC/SDXC memory slot
- IP66, IK10, Bi-directional audio support

Dimensions

Unit : mm (inch)



Accessories (Optional)



* Data recorded on an SD memory card may be lost or damaged by data access during power-off, mechanical shock, memory card detachment, or other operations. Data loss or damage can also occur when a memory card reaches end of life, which varies according to operational conditions. No guarantee is given against damage (including passive damage).

| SNV-7084N/P | |
|------------------------------------|--|
| VIDEO | |
| Imaging Device | 1/2.8" 3.2M CMOS |
| Total Pixels | 2,065(H) x 1,565(V) |
| Effective Pixels | 2,065(H) x 1,553(V) |
| Scanning System | Progressive |
| Min. Illumination | Color : 0.1Lux (F1.2, 50IRE), 0.06Lux (F1.2, 30IRE), 0.0017Lux (2sec, F1.2, 30IRE) B/W : 0.01Lux (F1.2, 50IRE), 0.006Lux (F1.2, 30IRE), 0.00017Lux (2sec, F1.2, 50IRE) |
| S / N Ratio | 50dB |
| Video Output | CVBS : 1.0Vpp / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation DIP connector type |
| LENS | |
| Focal Length (Zoom Ratio) | 3 ~ 8.5mm (2.8x) motorized varifocal |
| Max. Aperture Ratio | F1.2 |
| Angular Field of View | H : 100.12°(Wide) ~ 35.38°(Tele) / V : 73.76°(Wide) ~ 26.58°(Tele) |
| Min. Object Distance | 0.5m (1.64ft) |
| Focus Control | Simple focus (Motorized V/F) / Manual, Remote control via network (Manual, Simple focus) |
| Lens Type / Mount Type | DC auto iris, P-Iris / Board-in type |
| PAN / TILT / ROTATE | |
| Pan / Tilt / Rotate Range | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° |
| OPERATIONAL | |
| Camera Title | Off / On (Displayed up to 45 characters) |
| Day & Night | Auto (ICR) / Color / B/W / External / Schedule |
| Backlight Compensation | Off / BLC / WDR |
| Wide Dynamic Range | 120dB |
| Contrast Enhancement | SSDR (Samsung Super Dynamic Range) (Off / On) |
| Digital Noise Reduction | SSNR III (2D+3D noise filter) (Off / On) |
| Digital Image Stabilization | Off / On |
| Defog | Off / Auto / Manual |
| Motion Detection | Off / On (4 zones with 4-sided polygon) |
| Privacy Masking | Off / On (32 zones with 4-sided polygon) |
| Gain Control | Off / Low / Middle / High |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor |
| Electronic Shutter Speed | Minimum / Maximum / Anti flicker (1 ~ 1/12,000sec) |
| Flip / Mirror | Off / On |
| Intelligent Video Analytics | Tampering, Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Face detection with metadata |
| Alarm I/O | Input 1ea / Output 1ea |
| Alarm Triggers | Motion detection, Tampering, Audio detection, Face detection, Network disconnection, Video analytics, Alarm input |
| Alarm Events | File upload via FTP and E-mail, Notification via E-mail, Local storage (SD/SDHC/SDXC) or NAS recording at Event, External output |
| NETWORK | |
| Ethernet | RJ-45 (10/100BASE-T) |
| Video Compression Format | H.264 (MPEG-4 part 10/AVC), MJPEG |
| Resolution | 2048 x 1536, 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 450, 640 x 480, 640 x 360, 320 x 240, 320 x 180 |
| Max. Framerate | H.264 : Max. 30fps@2048 x 1536, 1600 x 1200, Max 60fps@the other resolutions MJPEG : Max. 10fps@2048 x 1536 Max. 15fps@1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 Max. 30fps@800 x 600, 800 x 450, 640 x 480, 640 x 360, 320 x 240, 320 x 180 |
| Smart Codec | Manual mode (Area-based : 5ea), Face detection mode |
| Video Quality Adjustment | H.264 : Compression level, Target bitrate level control, MJPEG : Quality level control |
| Bitrate Control Method | H.264 : CBR or VBR, MJPEG : VBR |
| Streaming Capability | Multiple streaming (Up to 10 profiles) |
| Audio In | Selectable (Mic in / Line in), Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm |
| Audio Out | Line out (3.5mm mono jack), Max output level : 1Vrms |
| Audio Compression Format | G.711 u-law/G.726 selectable, G.726 (ADPCM) 8KHz, G.711 8KHz |
| Audio Communication | G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps |
| Audio Communication | Bi-directional audio |
| IP | IPv4, IPv6 |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour |
| Security | HTTPS(SSL) login authentication, Digest login authentication IP address filtering, User access log, 802.1x authentication |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 15 users at unicast mode micro SD/SDHC/SDXC |
| Edge Storage | Motion images recorded in the SDXC/SDHC/SD memory card can be downloaded NAS (Network Attached Storage) |
| Application Programming Interface | ONVIF profile S, HTTP API (SUNAPI) 2.0, SVNP 1.2 |
| Webpage Language | English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Danish, Portuguese, Turkish, Polish, Czech, Rumanian, Serbian, Dutch, Croatian, Hungarian, Greek, Norwegian, Finnish |
| Web Viewer | Supported OS : Windows XP / VISTA / 7 / 8 / 8.1, MAC OS X 10.7 Supported Browser : Microsoft Internet Explorer (Ver. 11 ~ 8) Mozilla Firefox (Ver. 19 ~ 9) * Windows only Google Chrome (Ver. 25 ~ 15) * Windows only Apple Safari (Ver. 6.0.2(Mac OS X 10.8, 10.7 only), 5.1.7) * Mac OS X only |
| SmartViewer, SSM | |
| CENTRAL MANAGEMENT SOFTWARE | |
| ENVIRONMENTAL | |
| Operating Temperature / Humidity | -40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH *Start up should be done at above -35°C (-31°F) |
| Storage Temperature / Humidity | -30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH |
| Ingress Protection | IP66 |
| Vandal Resistance | IK10 |
| ELECTRICAL | |
| Input Voltage / Current | 24V AC, 12V DC, PoE (IEEE802.3af class 3) Max. 9.0W / 11.5W (12V DC, Heater off / on), Max. 10.0W / 12.5W (PoE, Heater off / on) |
| Power Consumption | Max. 11.0W / 13.0W (24V AC, Heater off / on) |
| MECHANICAL | |
| Color / Material | Ivory / Aluminum |
| Dimensions (WxH) | Ø160.0 x 118.5mm (Ø6.3" x 4.67") |
| Weight | 960g (2.12 lb) |

* The latest product information / specification can be found at www.samsungsecurity.com

SNP-6320H/6320

2Megapixel Full HD 32x Network PTZ Dome Camera



SNP-6320H



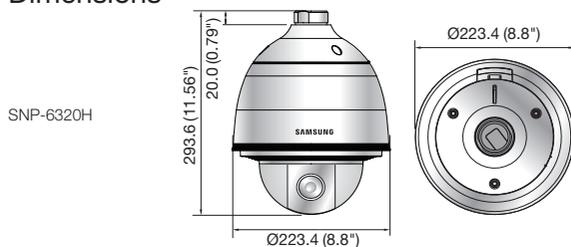
SNP-6320

Key Features

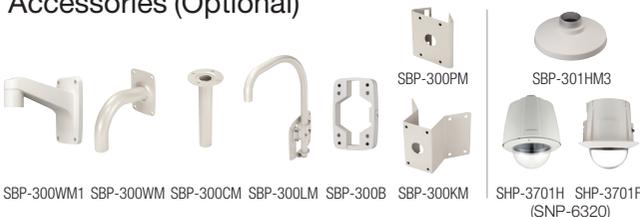
- Max. 2M (1920 x 1080) resolution
- 16 : 9 Full HD (1080p) resolution support
- 4.44 ~ 142.6mm (32x) optical zoom, 16x digital zoom
- H.264, MJPEG dual codec, Multiple streaming
- Day & Night (ICR), WDR (120dB)
- Auto tracking, Intelligent video analytics
- PoE+, SD/SDHC/SDXC memory slot, Bi-directional audio support
- IP66 / IK10 (SNP-6320H), IK10 (SNP-6320 + SHP-3701H only)

Dimensions

Unit : mm (inch)



Accessories (Optional)



* Data recorded on an SD memory card may be lost or damaged by data access during power-off, mechanical shock, memory card detachment, or other operations. Data loss or damage can also occur when a memory card reaches end of life, which varies according to operational conditions. No guarantee is given against damage (including passive damage).

| | SNP-6320HN/HP | SNP-6320N/P |
|--|--|-------------|
| VIDEO | | |
| Imaging Device | 1/2.8" 2.38M CMOS | |
| Total / Effective Pixels | 1,952(H) x 1,116(V), 2.18M pixels / 1,944(H) x 1,104(V), 2.14M pixels | |
| Scanning System | Progressive | |
| Min. Illumination | Color : 0.3Lux (1/30sec, F1.6, 50IRE) , 0.005Lux (2sec, F1.6, 50IRE) B/W : 0.03Lux (1/30sec, F1.6, 50IRE) , 0.0005Lux (2sec, F1.6, 50IRE) Color : 0.2Lux (1/30sec, F1.6, 30IRE) , 0.003Lux (2sec, F1.6, 30IRE) B/W : 0.01Lux (1/30sec, F1.6, 30IRE) , 0.0001Lux (2sec, F1.6, 30IRE) | |
| S / N Ratio | 50dB | |
| Video Output | CVBS : 1.0Vpp / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation | |
| LENS | | |
| Focal Length (Zoom Ratio) | 4.44 ~ 142.6mm (Optical 32x) | |
| Max. Aperture Ratio | F1.6(Wide) / F4.4(Tele) | |
| Angular Field of View | H : 62.8°(Wide) ~ 2.23°(Tele) / V : 36.8°(Wide) ~ 1.26°(Tele) | |
| Min. Object Distance | Wide : 1.4m (4.59ft), Tele : 1.9m (6.23ft) Wide : 1.5m (4.92ft), Tele : 2m (6.56ft) | |
| Focus Control | Auto / Manual / One push | |
| Lens / Mount Type | DC auto iris / Board-in type | |
| PAN / TILT / ROTATE | | |
| Pan / Tilt Range | 360° Endless / 210° (-15° ~ 195°) | |
| Pan / Tilt Speed | Preset : 700°/sec, Manual : 0.024°/sec ~ 120°/sec | |
| Preset / Preset Accuracy | 255ea / ±0.2° | |
| Auto Tracking | Off / On | |
| OPERATIONAL | | |
| Camera Title | Off / On (Displayed up to 15 characters) | |
| Day & Night | Auto (ICR) / Color / B/W | |
| Backlight Compensation | Off / BLC / HLC | |
| Wide Dynamic Range | 120dB | |
| Contrast Enhancement | SSDR (Samsung Super Dynamic Range) (Off / On) | |
| Digital Noise Reduction | SSNR III (2D+3D noise filter) (Off / On) | |
| Digital Image Stabilization | Off / On | |
| Defog | Off / Auto / Manual | |
| Motion Detection | Off / On (4ea rectangle zone) | |
| Privacy Masking | Off / On (32 zones of rectangle zone) | |
| Gain Control | Off / Low / Middle / High | |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor / Mercury / Sodium | |
| Electronic Shutter Speed | Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec) | |
| Digital Zoom | 16x | |
| Flip / Mirror | Off / On | |
| Intelligent Video Analytics | Tampering, Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Face detection | |
| Alarm I/O | Input 4ea / Output 2ea (Relay) | |
| Remote Control Interface | RS-485 | |
| RS-485 Protocol | Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, Bosch, GE | |
| Alarm Triggers | Motion detection, Tampering, Audio detection, Face detection, Video analytics, Alarm input, Network disconnection | |
| Alarm Events | File upload via FTP and E-mail, Notification via E-mail, TCP and HTTP, Local storage (SD/SDHC/SDXC) or NAS recording at network disconnected & event (Alarm triggers), External output | |
| NETWORK | | |
| Ethernet | RJ-45 (10/100BASE-T) | |
| Video Compression Format | H.264 (MPEG-4 part 10 / AVC), MJPEG | |
| Resolution | 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 450, 640 x 480, 640 x 360, 320 x 240, 320 x 180 | |
| Max. Framerate | H.264 : Max. 60fps at all resolutions MJPEG : 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 : Max. 15fps 800 x 600, 800 x 450, 640 x 480, 640 x 360, 320 x 240, 320 x 180 : Max. 30fps | |
| Smart Codec | Manual mode (Area-based : 5ea), Face detection mode | |
| Video Quality Adjustment | H.264 : Compression level, Target bitrate level control, MJPEG : Quality level control | |
| Bitrate Control Method | H.264 : CBR or VBR, MJPEG : VBR | |
| Streaming Capability | Multiple streaming (Up to 10 profiles) | |
| Audio In | Selectable (Mic in / Line in), Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm | |
| Audio Out | Line out (3.5mm mono jack), Max output level : 1 Vrms G.711 u-law/G.726 selectable, G.726 (ADPCM) 8KHz, G.711 8KHz, G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps | |
| Audio Compression Format | Bi-directional audio | |
| Audio Communication | IPV4, IPV6 | |
| Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour | |
| Security | HTTPS(SSL) login authentication, Digest login authentication IP address filtering, User access log, 802.1x authentication | |
| Streaming Method | Unicast / Multicast | |
| Max. User Access | 15 users at unicast mode SD/SDHC/SDXC (SNP-6320 : micro SD type, SNP-6320H : SD type) | |
| Edge Storage | Motion Images recorded in the SD/SDHC/SDXC memory card can be downloaded NAS (Network Attached Storage) | |
| Application Programming Interface | ONVIF profile S, SUNAPI (HTTP API), SVN 1.2 | |
| Webpage Language | English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Danish, Portuguese, Turkish, Polish, Czech, Rumanian, Serbian, Dutch, Croatian, Hungarian, Greek, Finnish, Norwegian | |
| Web Viewer | Supported OS : Windows XP / VISTA / 7 / 8 / 8.1, MAC OS X 10.7 / 10.8 Supported Browser : Microsoft Internet Explorer (Ver. 8 ~ 11), Mozilla Firefox (Ver. 9 ~ 19), Google Chrome (Ver. 15 ~ 32), Apple Safari (Ver. 6.0.2(Mac OS X 10.8, 10.7 Only), 5.1.7) * Mac OS X only | |
| Central Management Software | SmartViewer, SSM | |
| ENVIRONMENTAL | | |
| Operating Temperature / Humidity | 24V AC : -50°C ~ +55°C (-58°F ~ +131°F) / Less than ~ 90% RH PoE+ : -30°C ~ +55°C (-22°F ~ +131°F) / Less than 90% RH | |
| Storage Temperature / Humidity | -30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH | |
| Ingress Protection / Vandal Resistance | IP66 / IK10 | |
| ELECTRICAL | | |
| Input Voltage / Current | 24V AC, PoE+ (IEEE802.3at class3) | |
| Power Consumption | Max. 24W (Heater off), Max. 65W (Heater on, 24VAC) Max. 20W | |
| MECHANICAL | | |
| Color / Material | Ivory / Plastic + Metal | |
| Dimensions (WxH) | Ø223.4 x 293.6mm (Ø8.8" x 11.56") Ø152.0 x 218.0mm (Ø5.98" x 8.58") | |
| Weight | 3.3Kg (7.28 lb) 2.2Kg (4.85 lb) | |

* The latest product information / specification can be found at www.samsungsecurity.com

Performance & Reliability

The iES4024GP provides wire speed 10/100/1000 Gigabit Ethernet PoE/Non-PoE switching features that are targeted for high quality video over IP. This Samsung technology provides 2 combo ports for high speed connectivity showing a high price/performance ratio. The IP clustering feature in the iES4024GP allows for the interconnection of 36 switches to be managed in a logical group using a single IP address. Advanced QoS features are provided to minimize latency and give priority for IP video packets. The standards based 802.3af PoE provides up to 15.4W per port across all 24 ports.

iES4024GP

24 Ports Gigabit PoE switch

- 22 ports 10/100/1000 Base-T with PoE
- 2 ports 10/100/1000 Base-T Combo with PoE
- 1 Console Port
- IEEE802.3af Power over Ethernet supported in all the access ports
- Up to 36 switches can be managed in a single logical group using a single IP address
- Supports 802.1Q and port-based VLAN.
- Dynamic VLAN supported through GVRP Voice
- Save bandwidth and improve throughput by sending multicast traffic only to ports with registered multicast group members
- Bundle multiple Ethernet Ports to maximize bandwidth pipe
- L2 ~L4 ACL, Radius, TACACS+, SSH, SSL, 8021x based Port Security, DHCP Snooping



iES Series Ethernet Switch
iES4024GP



Specifications

| | iES4024GP | |
|---------------------|---|--|
| HARDWARE | | |
| Ports | 22 10/100/1000BASE-T ports with POE, 2 Gigabit combo ports with POE, 1 Console port | |
| Switching Fabric | 48Gbps, 35.7Mpps | |
| Switching DB | 8K MAC address entries | |
| Weight | 4.33kg (9.53 lbs) | |
| Dimensions | 4.3 x 44 x 32 cm (1.7 x 17.3 x 12.6inch) | |
| AC Input | 100 to 240 V, 50-60 Hz | |
| Power Consumption | 225W (System 45W, POE 180W) | |
| Power-Over-Ethernet | Maximum output power per port: 15.4 W, Maximum output power per port: 7.5 W simultaneously | |
| Network Interface | N/A | |
| SOFTWARE | | |
| Flow Control | IEEE 802.3x for full duplex mode, Back pressure flow control half duplex mode | |
| Spanning tree | <ul style="list-style-type: none"> • IEEE 802.1D STP • IEEE 802.1w RSTP • IEEE 802.1s MSTP • Spanning Tree Fast Forwarding • Auto Edge • Loop Protection | |
| VLAN | <ul style="list-style-type: none"> • 802.1Q Tag-based VLAN • 802.1Q Port-based VLAN • 802.1v Protocol-based VLAN • 256 VLANs entries out of 4K VLAN IDs • GVRP • Voice VLAN | |
| IGMP snooping | <ul style="list-style-type: none"> • V1, v2, v3 • Querier • Immediate Leave • Filtering and throttling | |
| Link Aggregation | IEEE 802.3ad with LACP (-8 aggregation groups up to 8 ports) | |
| MVR | Yes | |
| Jumbo Frame | 10K in gigabit ports | |
| QnQ | Yes | |
| Quality of Service | <ul style="list-style-type: none"> • Priority queue <ul style="list-style-type: none"> -Scheduling : Strict priority, WRR -4 queues per port • DiffServ • COS <ul style="list-style-type: none"> -IEEE 802.1p, DSCP based COS • Rate limiting (Per Port based) <ul style="list-style-type: none"> -Ingress, Egress | |
| Security | <ul style="list-style-type: none"> • Storm Control <ul style="list-style-type: none"> - Broadcast storm - Multicast storm - DLF (Destination Lookup Failure) • MAC Address filtering • Username/Password authentication • Access control list (L2/L3/L4) • AAA <ul style="list-style-type: none"> - RADIUS, TACACS+ • MAC based Authentication • HTTPS/SSL • SSHv1/v2 • 802.1x <ul style="list-style-type: none"> - Port-Based - Supplicant Support - VLAN Assignment - Guest VLAN - Co-works with Radius, TACACS+ server • Management Interface Access filtering <ul style="list-style-type: none"> - SNMP, WEB, Telnet • DHCP Snooping • IP Source Guard • Management method <ul style="list-style-type: none"> - Web-based - Telnet (4 sessions) | <ul style="list-style-type: none"> • Software download <ul style="list-style-type: none"> - TFTP, Xmodem • Dual Firmware Images • Configuration file download <ul style="list-style-type: none"> - TFTP • SNMP v1/v2c/v3 • RMON (group 1, 2, 3, 9) • BOOTP <ul style="list-style-type: none"> - Client • DHCP <ul style="list-style-type: none"> - Client - Relay(Option82) • Port mirroring (one-to-many) • Event/Error Log <ul style="list-style-type: none"> - Local, Syslog, SMTP • Remote Ping • STP • NTP • IEEE 802.1ab(LLDP) • UPnP • Banner • Web authentication • IP Clustering (36 members) |



The Eco mark represents Samsung Techwin's will to create environment-friendly products, and indicates that the product satisfies the EU RoHS Directive.

Design and specifications are subject to change without notice.

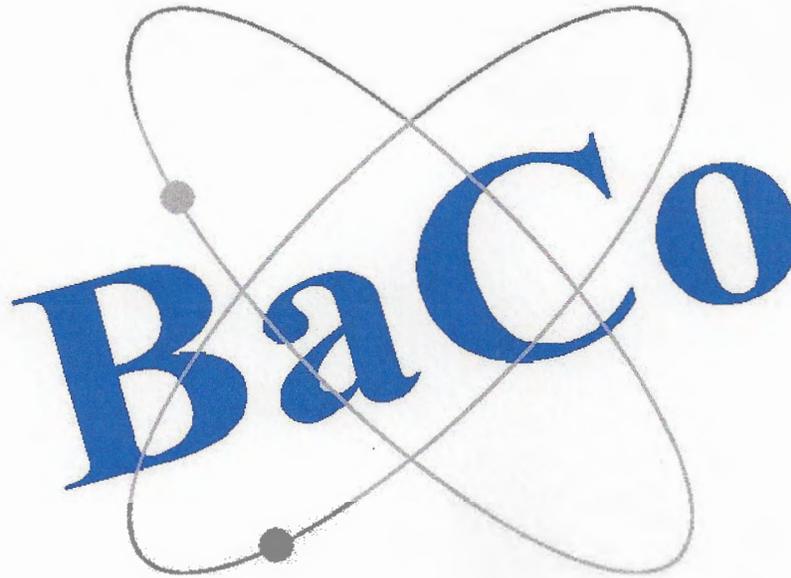
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Toll Free : +1-877-213-1222 Direct : +1-201-325-6920
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SAMSUNG TECHWIN



STATEMENT OF QUALIFICATIONS

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www.bazcox.com



STATEMENT OF QUALIFICATIONS

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STATEMENT OF QUALIFICATIONS

CONTRACT DATA FORMS

BaCo is proud of its long list of clients that we have had the privilege to provide information technology services to over the past years. We are providing a sampling of our customer base and a description of the services we performed. We urge you to contact these clients who we are positive will affirm our dedication to top quality workmanship and demeanor of our workforce.

| | | |
|--|---|---|
| Contract Number: YJS0751 YJS0557 YJS0545 YJS0540 | Customer/Agency: General Dynamics | Address: General Dynamics 77 "A" Street Needham, MA 02494 |
| Point of Contact: Mr. John Ihle Tel: (781)455-2289 Email: john.ihle@gd-ns.com | | Type of Contract: FFP Dollar Value: \$2,112,316.80 Period of Performance: 02/18/02 to Present |

DESCRIPTION OF SERVICES

BaCo provided personnel, tools, and project management for the installation of all telecommunication and data cables in support of the Navy Marine Corps Intranet (NMCI) at the CINCLANTFLT Compound located in Norfolk, VA. This project resulted in the installation of over 6500 workstations. The installation of telecommunication cabling for NMCI incorporated the following types of cable: Category 5e (narrow-band data); Fiber Optic (2-strand, 4-strand and 12-strand breakout cable for broadband data. In addition to cable placement and termination, BaCo installed backboards; wall mount equipment cabinets; support structure (cable tray, EMT & j-hooks) and performed all testing. Testing of the cable plant included: Reel tests using Optical Time Domain Reflectometer (OTDR); fiber optic cable tests using power meter and light source; and Category 5e cable tests for continuity, opens, shorts, and crossed pairs. Test results were a large volume of hard copy documents and delivered in 3-inch notebooks per customer directions. Data was also delivered on electronic media. All data deliverables were delivered on schedule.

The Project Manager was tasked to change work schedules (at least weekly) and to remain within constraints and budget, which he accomplished with ease. Personnel were adjusted as necessary to meet the workload.

Recent tasks include at the Amphibious Base Little Creek we installed over 700 workstations, and at NAS Oceana we installed over 250 workstations.

All schedules were met within the time frame allotted and budgets were adjusted to meet additional tasking from the customer.

STATEMENT OF QUALIFICATIONS

| | | |
|--|--|---|
| Contract Number: SALMEC-02-D-0011 | Customer/Agency: Department of State | Address: Department of State 1701 North Fort Myer Drive Arlington, VA 22209 |
| Point of Contact: Mr. Willie Johnson Tel: (703) 875-6164 Fax: (703) 812-2496 Email: JohnsonW@state.gov | | Type of Contract: FFP Dollar Value as to date: \$950,769.22 Period of Performance: 11/15/02 to present |

DESCRIPTION OF SERVICES

BaCo won a 5-year contract with the Department of State providing Quality Assurance (QA). BaCo is tasked to go in and test all installed copper & fiber optic workstations installed by other contractors. BaCo also collected documentation of all telecommunications closets and made sure the installation was installed in accordance with EIA/TIA 568B standard and the NEC. The telecommunication cabling tested for the State Department was as followed: Category 6 (narrow-band data); Fiber Optic (2-strand, 4-strand and 12-strand breakout cable for broadband data. In addition to cable testing, BaCo also is responsible for repairing up to 15% of cables that fail the test perimeters. Test results were a large volume of hard copy documents and delivered in 3-inch notebooks per customer directions. Data was also delivered on electronic media. All data deliverables were delivered on schedule.

The Project Manager was tasked to change work schedules (at least weekly) and to remain within constraints and budget, which he accomplished with ease. Personnel were adjusted as necessary to meet the workload.

All schedules were met within the time frame allotted and budgets were adjusted to meet additional tasking from the customer.

Sites BaCo has worked on

Abidjan, Belize, Nairobi, Tajikistan, Uganda, Abu Dhabi, Bulgaria, Panama, Belize, Figi, Nepal, Tisbli & Romania

STATEMENT OF QUALIFICATIONS

| | | |
|--|---|--|
| Contract Number: GS-35F-5528H USZA99-02-F-0160 H92244-04-F-0094 & H92244-04-F-0352 | Customer/Agency: NAVSPECWARDEVGRU | Address: NAVSPECWARDEVGRU 1636 Regulus Ave. Virginia Beach, VA 23461 |
| Point of Contact: Mr. Edwin Jackson Tel: (757) 492-7960 x2118 Email: ejackson@vb.socom.mil Mr. Chad Vititoe Office: 757-893-2634 or Mr. Dave Winfield Office: 757-893-2000 | | Type of Contract: FFP Dollar Value: \$1,188,559.56 Period of Performance: 6/27/02 to present |

DESCRIPTION OF SERVICE

BaCo provided and installed one 600 pair pe89 telephone cable approximately 8000' from Building 355 to Building 501. BaCo directional bored this cabling in from building to building. We installed a total of 6 pedestals splice enclosures were we spliced the 600 pair cable together with 710 modules. BaCo provided and installed lighting protection with fuses in both building. This installation was done in accordance with the NEC & EIA/TIA 568B standard.

BaCo provide fiber to the desk in Building 355. There were a total of 200 workstations. Each workstation consisted of a 6-strand multi-mode fiber optic cable. BaCo terminated all fiber optic cable with Corning MTRJ connectors. BaCo installed a total of 1200 MTRJ connectors. BaCo installed a 12" cable tray support structure throughout the building. Each workstation was terminated with MTRJ connectors and tested in accordance with the NEC & EIA/TIA 568B standard. Test documentation and "as-built" drawing were provided to the customer as per the contract

Recent tasks undertaken include:

Chad Vititoe

N643 BaCo installed 150 workstations consisting of one 4-strand multimode fiber optic cable and two category 6 cables. All fiber optic cables were terminated with AMP Keyed MTRJ connectors. We installed a total of 600 AMP MTRJ connectors. All copper cable was terminated with AMP Cat6 rj45 connectors. BaCo installed a two tier cable tray support systems throughout the N643 space. BaCo built out the communications closets and provide "as-built" test & CAD documentation at the completion of the job.

Edwin Jackson

We install a 48 strand multimode fiber optic backbone cable from Building 301 to Transportation. BaCo installed eight 6 strand multimode fiber optic workstations in the transportation building. All fibers optic strands were terminate with Corning MTRJ uni-cam connectors. BaCo installed 6 workstations in Building TPS-O6 and rewired Edwin Jackson's new office space with sixteen 6-strand workstations. All stations were terminated with Corning MTRJ connectors. BaCo also installed a 96strand fiber optic tie cable between Edwin Jackson's new space and closet T-9 on the 2nd deck. BaCo built out the communications closets and provide "as-built" test & CAD documentation at the completion of the job.

STATEMENT OF QUALIFICATIONS

4" duct bank and 48 strand single mode fiber optic cable project

BaCo installed 7500' 4inch PVC duct bank from Building 355 to Building 501. This duct bank was trenched and directionally bored in. We installed 12 hand holes throughout the route. BaCo installed a one inch inner duct & tracer wire within the 4 inch BaCo installed duct. We also installed 8,000' 48-strand single mode fiber optic cable from Building 355 to Building 501.

All installed fiber was tested in accordance with the EIA/TIA 568B standard. BaCo submitted "as-built" documentation at the completion of each School.

Dave Winfield

BaCo installed 4000 feet of 36-strand single-mode fiber optic cable between Building 358 and the North gate. BaCo directionally bored and trenched approximately 3500 feet of 1inch inner duct to provide a patch for the 36-strnd fiber optic cable. BaCo also built a concrete slab at the North gate location were we installed a NEMA water resistant cabinet. The fiber optic cable was terminated at the North gate cabinet location and in Building 358 T-9 closet. BaCo terminated the fiber with ST style fiber optic connectors. BaCo provided "as-built" test & CAD documentation at the completion of the job.

Dave Winfield

BaCo installed 6000' of 100 pair Aerial from Building 501 to SPECWAR warehouse. BaCo lashed the 100 pair to an existing strand. BaCo installed lighting protection on each end and tested in accordance with the EIA/TIA 568B standards.

New NAVSPECWARDEVGRU Compound

Ongoing

P.O.C: Edwin Jackson

Started 10-28-09

Anticipated completion date of 12-10-10

BaCo is teamed up Shore Communications for this project. The estimated value is \$4,000,000.00.

We are installing roughly 3,000 6-strand fiber optic cable workstations. All workstations will be terminated with LC type connectors for a total of 36,000 LC connectors... BaCo will also install 1500 red & black phone locations. Each red & black phone location will consist of 4 Cat5e cables and 4 Cat5e jacks. All phone locations will be punched down on 110 blocks. BaCo will test all installed cable in accordance with the RFP and current BICSI standards. At the completion of the project BaCo will submit all "as-built" test documentation to the customer.

STATEMENT OF QUALIFICATIONS

| | | |
|---|---|---|
| Contract Number: PO NVV100069 | Customer/Agency: Lucent Technologies | Address: PO Box 20046 Greensboro, NC 27420 |
| Point of Contact: Mr. Carl Gerringer Tel: (336) 279-3311 Fax: (336) 279-5682 Email: cgerringer@lucent.com | | Type of Contract: T&M Dollar Value: \$144,704.00 Period of Performance: 02/28/00 to 06/30/00 |

DESCRIPTION OF SERVICES

BaCo, as a sub-contractor to Lucent Technologies, conducted site surveys of Information Technology infrastructure for United States bases outside CONUS. The surveys were conducted for the Navy/Marine Corps INTRANET on the Lucent Vivid contract.

BaCo furnished two teams of engineers and technicians who, in a 90-day period, conducted pre-installation site surveys in Europe, United Kingdom, Bahrain, Japan, Korea, and Guam. The purpose of these site surveys was to:

- Gather information pertaining to current WAN connectivity, outside plant, inside plant, software, PCs, VTCs, voice, security, and environmental impacts;
- Gather Navy/Marine Corp Intranet (NMCI) seat management requirements;
- Gather all information pertaining to planned and/or required IT infrastructure upgrades in support of operational mission needs; and
- Interview command leadership in regards to personnel, building occupancy, number of unclassified and classified PCs per building, and IT support in place with both US firms and local companies

BaCo's engineers and cable technicians opened manholes and evaluated cable runs; entered buildings and evaluated LANs, servers, and personal computers; and interviewed Base Communications Office to obtain data on telephone circuits/leases/lines and switches.

We interviewed the base command leadership to obtain data on number of personnel in the command, number of personnel in each building occupied by the command, number of Unclassified and Classified personal computers per building, and the information technology support in place for both US and local companies.

We gathered all information that pertained to planned and/or required IT infrastructure upgrades in support of operational mission needs. This included:

- Planned or in-progress infrastructure upgrades
- Planned or in-progress workstation upgrades
- Facility MILCON plans which will require IT infrastructure upgrades
- Planned command and/or personnel moves
- Planned increase or decrease in base population; and
- Planned building or pier closures.

STATEMENT OF QUALIFICATIONS

| | | |
|---|--|---|
| Contract Number: FS-95-0073 | Customer/Agency: Bell Atlantic Federal Integrated Systems | Address: Bell Atlantic Center, 2nd floor P.O. Box 1461 Norfolk, VA 23501-1461 |
| Point of Contact: Mr. Jeff Larvick, RCDD Tel: (757) 667-5444 Fax: (757) 667-5083 Email: jeffrey.r.larvick@verizon.com | | Type of Contract: FFP Dollar Value: \$830,000.00 Period of Performance: 06/07/97 to 10/23/98 |

DESCRIPTION OF SERVICES

BaCo provided personnel, tools, and project management for the installation of all telecommunication and data cables in the Portsmouth Naval Hospital, Acute Care Facility (ACF), Portsmouth, VA. This project resulted in the installation of over 2.8 million feet of cable. The installation of telecommunication cabling within the ACF incorporated the following types of cable: Category 5 (narrow-band data); Category 3 (telephone); Fiber Optic (2-strand and 4-strand breakout cable for broadband data); Coaxial (RG-6/11 for CATV); Low Voltage (public address, intercom, and security systems); Riser (600/1200 pair for telephone and data); Outside Plant Telephone (1800 pair); and Outside Plant Fiber (154 strand fiber optic cable for data). In addition to cable placement and termination, BaCo installed backboards, equipment cabinets, and performed all testing. Testing of the cable plant included: Reel tests using Optical Time Domain Reflectometer (OTDR); fiber optic cable tests using power meter and light source; and Category 5 and Category 3 cable tests for continuity, opens, shorts, and crossed pairs. Test results were a large volume of hard copy documents and delivered in 3-inch notebooks per customer directions. Data was also delivered on electronic media. All data deliverables were delivered on schedule.

As follow-on, BaCo provided personnel to program, install, move, label, identify and change over 3,600 telephone sets in this facility. This project required close coordination between the Government (Naval Medical Center personnel), Bell Atlantic, and BaCo. Work schedules fluctuated due to changes in customer requirements which dictated that everyone remain flexible to meet demands.

Various constructions projects were being performed at the same time of the installation of cabling and termination. Close coordination with all other construction contractors was necessary to ensure cohesive working relationships and task accomplishments. We held weekly meetings to describe our weekly work plans and provided copies to the Bell Atlantic POC who provided copies to the other contractors.

The Project Manager was tasked to change work schedules (at least weekly) and to remain within constraints and budget which he accomplished with ease. Personnel were adjusted as necessary to meet the workload. This facility was a new construction (under the Military Construction program) replacing portions of the functions of the Naval Medical Center, Portsmouth, Virginia which is the second largest Navy hospital in the U.S.

All schedules were met within the time frame allotted and budgets were adjusted to meet additional tasking from the customer.

STATEMENT OF QUALIFICATIONS

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| Contract Number: GS-35F-5528H T0099AJ3295 | Customer/Agency: Department of Defense Computer Forensics Laboratory (DCFL) | Address: 911 Elkridge Landing Road Airport Square – Bldg. 11 Linthicum, MD 21090 |
| Point of Contact: Mr. Dave Ferguson Tel: (410) 981-0106 Fax: (410) 981-0183 Email: fergusond@dcfl.com | | Type of Contract: FFP Dollar Value: \$354,390.29 Period of Performance: 04/22/99 to 10/30/99 |

DESCRIPTION OF SERVICES

BaCo installed, tested, and terminated Category 5 cables for the Local Area Network (LAN) in the DCFL facility at Baltimore, Md. The work included the DCFL, the DoD Computer Investigation Training Program (DCITP) and a FBI Forensics Laboratory which is located on the second floor. The DCFL is located on the third floor and the FBI is located on the fourth floor. This task involved the installation of telecommunication cables throughout the building, terminating the cables in equipment racks, and conducting tests. We installed Category 5 cable and hardware (station jacks, termination blocks, patch panels, etc.), and ensured compliant with TIA/EIA-568A. We installed all under floor cable pathways. Telecommunications cables were placed in these pathways. We firestopped all wall and floor penetrations in accordance with federal, state and local fire codes. We ensured that all equipment cabinets, racks, and supporting structures were grounded in accordance with TIA/EIA-607 and Chapter 20 of NFPA-70.

There were other construction contractors working in the area at the same time and we had to coordinate our work schedules with these contractors. This was accomplished by our Project Manager who developed work schedules and delivered them to the Government rep on site for distribution.

BaCo bought equipment patch cords as specified in the contract. The Government later changed their minds and wanted patch cords coordinated with the color of the equipment patch panels. We were able to exchange these patch cords with the Government requirements and the additional cost was billed to the Government.

STATEMENT OF QUALIFICATIONS

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| Contract Number: GS-35F-5528H CTO 0012 | Customer/Agency: Naval Facilities Engineering Command, Atlantic Division Innovative & Criteria Office | Address: 1905 Gilbert Street Norfolk, Virginia 23511 |
| Point of Contact: Mr. Charlie Mandeville, PE, EE, Code 15 Tel: (757) 322-4208 Fax: (757) 322-4416 Email: mandevillecm@efdlant.navfac.navy.mil | | Type of Contract: FFP Dollar Value: \$111,706.00 Period of Performance: 11/22/96 to 09/30/99 |

DESCRIPTION OF SERVICES

Bazon-Cox & Associates, Inc. was chosen to develop Military Handbook 1012/4 Telecommunications outside Cable Plant, Planning, Designing and Estimating. This manual provides the telecommunications manager with a means of defining costs for new outside cable plants (OSP) or additions to existing OSP. As a follow up, Bazon-Cox & Associates, Inc. was chosen to develop a series of Military Handbooks that deal with telecommunications for new construction and renovated buildings. The first was Military Handbook 1012/3 titled Military Handbook for Premise Distribution: Estimating, Planning and Design. This handbook provides definitive guidance to NAVFAC and other Navy personnel who are responsible for planning premise cabling and distribution systems for new construction and renovation efforts. The second handbook was supplement one to 1012/3 titled Premises Switch, Estimating, Planning, and Design. This handbook provides planning and cost estimating guidelines for provisioning switched telecommunication services in conjunction with the Premises Wiring and Outside Cable Plant handbooks. The third handbook was supplement 2 to Military Handbook 1012/3 titled Local Area Networks, Estimating, Planning, and Designing. Adds the necessary background and technical understanding to include LAN systems in the distribution system including the functions of various network devices. The final handbook in this series was supplement 3 to Military Handbook 1012/3 titled Telecommunications Security Protection-Information Transfer Planning, Designing and Estimating. This handbook provides a guideline to other policy, standards and specifications. It combines the security issues of three aspects: physical, electronic and software and summarizes policy for certification and accreditation.

As follow-on, we were selected to update Military Handbook 1012/1 Electronics Facilities Engineering and provide data deliverable on hard copy and CD-ROM for promulgation on the CCB. This document provides engineers with the tools to design electronic facilities for the Department of Defense MILCON projects and renovation construction projects.

Additional tasking included development of NAVFAC Guide Specifications "Premise Distribution System, Premise Switch, and Fiber Optic Pier Connectivity". Drafts of these documents were delivered to NAVFAC LANTDIV Innovative & Criteria office for review. It is anticipated that final data deliverables will be completed during FY01.

STATEMENT OF QUALIFICATIONS

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| Contract Number: PO 248-008-96 | Customer/Agency: GTE South | Address: 50 Park Plaza P.O. Box 13606 Research Triangle Park, NC 27709 |
| Point of Contact: Mr. Charlie Wilkerson Tel: (919) 549-6198 Fax: (919) 485-8890 Email: charlie.wilkerson@gtesouth.com | | Type of Contract: T&M Dollar Value: \$1,285,840 Period of Performance: 10/30/96 to 10/31/97 |

DESCRIPTION OF SERVICES

Performing as on-site project manager, quality assurance, testing manager and installation entity for GTE, BaCo supervised seven other installation companies and provided fifty personnel, tools and test equipment at the Manassas, VA Dominion Semi-Conductor (IBM/Toshiba joint venture) construction site. A total of 3,344 multi-mode fiber optic and 3,684 Category 5 unshielded twisted pair drops, as well as 399 telephone drops were installed. The majority of these drops were installed within a level 6 clean room environment requiring BaCo personnel to "suit up" and devise innovative application of epoxy attached fiber connectors. BaCo also assisted with the cross connects and cut-over of PBX stations and provided oversight and termination of fiber optic and copper backbone cables. A total of 16 closets in three buildings were cabled and connected.

BaCo developed a data base and plan for testing and reporting of all cables. Our site managers planned force loading, work assignments and assisted the GTE site manager and project engineer in attending construction meetings and coordinating pricing and execution of contract changes.

This project required the close coordination with other construction contractors and other cable installation contractors on site. Our Program Manager coordinated the scheduling of weekly meetings to discuss the work schedules and promulgate assignments to other companies. We attended weekly and monthly Government meetings and coordinated with the Government all installation schedules. This provided for smooth transition and complete program success.

All work was completed on time and within budget.

STATEMENT OF QUALIFICATIONS

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| Contract Number: GS-35F-5528H N65236-99-A-7969 | Customer/Agency: Space and Naval Warfare Systems Center, Charleston | Address: PO Box 190022 North Charleston, SC 29406 |
| Point of Contact: Mr. William Rivers, Code 513WR Tel: (843) 974-4524 Fax: (843) 974-5640 Email: riversw@spawar.navy.mil | | Type of Contract: FFP Dollar Value: \$1,340,634.10 Period of Performance: 01/05/98 to 06/30/99 |

DESCRIPTION OF SERVICES

BaCo was tasked to conduct a site survey and collect communications infrastructure data at eleven (11) naval facilities in the Hampton Roads area. We specifically prepared the Base Electronics System Engineering Plan (BESEP) for NAVSECGRUACT Northwest, and did detailed work on the Naval Amphibious Base Little Creek and Norfolk Naval Shipyard. As part of a continuing effort, BaCo was selected to engineer and design a Local Area Network (LAN) for the Environmental Center at the Public Works Department, Naval Air Station Oceana, Virginia Beach, Virginia, in support of the Environmental Air Program (EAP) and preliminary Base Level Information Infrastructure (BLII) upgrade. We analyzed the plant-in-place drawings and conducted an on-site analysis of the existing fiber optic cable. We surveyed manholes and developed butterfly drawings. We engineered the fiber optic routes to accommodate the implementation of a WAN to 30 buildings in a base campus environment; and engineered additional buildings for future tasking. BaCo developed over 40 butterfly manhole drawings, 30 building floor plans, and site topologies in AutoCAD 2000. BaCo installed and tested approximately 150,000 feet of single and multi mode fiber optic backbone in existing ducts or direct buried to various buildings, as well as Category 5 horizontal connectivity to 40 desktop workstations. All fiber optic cables were terminated within fiber optic patch panel cabinets in equipment rooms selected by the clients. We were selected to continue the efforts for BLII upgrade to approximately 70 buildings. This project met the Information Technology solution for the 21st century (formerly called IT-21). BaCo's workmanship was in strict compliance with current industry standards, TIA/EIA specifications, NFPA 70, National Electric Code, federal, state, and city regulations. All data deliverables for various phases were completed on time and within budget.

We delivered as-built drawings consisting of: Site Plan, Cable Routes, Topology, Building Drawings, Manholes, Handholes, and Splice Plans. Fiber optic and Category 5 test results. Warranty information.

STATEMENT OF QUALIFICATIONS

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| Contract Number: DE-AM26-97FT97427 | Customer/Agency: Department of Veterans Affairs (VISN-3) VA Hospital East Orange NJ | Address: Veterans Administration Medical Center 151 Knollcroft Road Bldg. 10 Lyons, NJ 07939 |
| Point of Contact: Mr. Lou Rossi Tel: (908) 647-0180 Fax: (908) 580-3683 Email: hunter@fec.doe.gov | | Type of Contract: FFP Dollar Value: \$1,837,953.94 Period of Performance: 05/19/98 to 08/15/99 |

DESCRIPTION OF SERVICES

BaCo contracted to the Department of Energy to support the Veterans Affairs Telecommunications Integration Program (VA-TIP). BaCo provided the management, personnel, material, and test equipment for the installation of the VA-TIP cabling system at the VA Hospital Complex, East Orange, New Jersey. The project consisted of:

Horizontal Distribution: Over 1.5 million feet of Lucent Level 7 cable and over .75 million feet of Category 5 cable installation.

Riser/OSP Distribution: 12,550 copper pairs (41,300 feet) distributed to 26 closets in the main hospital building and 16 buildings located on the campus. Fiber optic cable (12mm/6sm) was distributed equally with the copper cable.

In addition to cable placement and termination, BaCo installed backboards, equipment racks, and termination blocks, grounds, and performed all testing. Testing of the cable plant included reel tests using Optical Time Domain Reflectometer (OTDR), post installation fiber optic cable tests using power meter and light Source and Category 5 testing in accordance with TSB-67.

This project required BaCo to adjust work schedules and tasking to meet several changes in Government Requirements. The BaCo Project Manager coordinated all installation and testing efforts with two sub-contractors on this effort. The PM coordinated with the customer and sub-contractors as required to ensure task completion within allotted time frame and within budget.

BaCo provided AutoCAD drawings showing as-built conditions upon completion of this project.

STATEMENT OF QUALIFICATIONS

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| Contract/Purchase Order: 107681 156443 107683 157960 107684 155970 107685 155529 136346 136348 4292 | Customer/Agency: Virginia Beach Public Schools | Address: Office of Business Services/ Purchasing Division 2512 George Mason Drive Virginia Beach, VA 23456 |
| Point of Contact: Mr. Steve T. Miller Tel: (757) 427-4574 Fax: (757) 427-4447 Email: stmiller@vbcp.s.k12.va.us Ms. Debbie Roberts Office: 757-263-1971 Email: Debbie.roberts@vbschools.com | | Type of Contract: FFP Dollar Value: \$1,774,345.10 Period of Performance: 05/19/00 to Present |

DESCRIPTION OF SERVICES

Cabling Service Contract

BaCo was awarded the Cabling Services Contract for the Virginia Beach Public Schools. The contract was awarded on 7-1-04 and it expires on 7-1-09. We were reissued this contract for an additional 5 year period starting on 10-1-09 and it expires on 6-30-14 We are responsible for new voice and data installations, MAC orders, Wireless and broadband installations.

CATV Installation Project

BaCo furnished all labor, material, and equipment to replace the entire cable television systems including CATV lines and outlets at 19 Virginia Beach Public Schools. We measured and ran all infrastructure cables to termination outlets as specified in the statement of work.

We installed three individual CAC6 lines from head-end equipment in the library areas for recording, broadcasting, and monitoring programs in the school plants. We terminated all RG-11 cables in head-end and completed testing.

We installed outlets in the main library for broadcasting only; installed outlets in auditoriums, cafeterias, and gyms as specified by the VBPS. We installed one outlet in each classroom and office including assistant principal, principal, guidance, kivas, planetarium, and all gymnasium rooms excluding locker rooms, kitchen, clinic, and stage.

We terminated all outlets in accordance with telecommunications industry standards.

We tested all terminations and provided test results.

We prepared AutoCAD drawings depicting total system in each school.

Portable Hardwiring Project

BaCo hardwired a total of 155 portables throughout the Virginia Beach Public High & Middle Schools. BaCo provided and installed 1 & 2inch rigid support structure between each portable. Each portable was wired with 5 category 5e workstations. BaCo installed a Panduit support structure within each portable.

STATEMENT OF QUALIFICATIONS

BaCo installed a cabinet in the main portable IDF at each School location and connected it to the main building IDF with a 6-strand multi-mode fiber optic cable.

All cable was tested in accordance with the EIA/TIA 568B standard. BaCo submitted "as-built" documentation at the completion of each School.

Multi Functional Copiers

BaCo installed 2 category 5e cables for each new multifunctional copier installed. There was a total of 82 Virginia Beach Public Schools and each school had two copier locations. BaCo installed all cabling in accordance with EIA/TIA 568B Standards.

All cable was tested in accordance with the EIA/TIA 568B standard. BaCo submitted "as-built" documentation at the completion of each School.

School Plant Project

BaCo installed a total of 183 workstations consisting of 3 cat5e cables. All cables are feed from the 3 building IDF closets. BaCo installed the building support structure with 12 inch cable tray, EMT and j-hooks. Each IDF closet is feed back to the new data center with a 50 pair copper cable and a 12-strand multi-mode fiber optic cable. All fiber optic cables are terminated with ST style connectors. All copper cables are terminated on 48 port cat5e patch panels. We installed 17 HP server racks in the new data center.

BaCo installed & tested all cabling in accordance with EIA/TIA 568B Standards.

Projector Data Drop Project

BaCo installed CaT5e data drops from the telecommunications closets to projector locations throughout numerous schools. BaCo installed and tested all data drops in accordance with the current EIA/TIA 568B Standards.

Access Control

Bazon-Cox has designed and integrated access control systems with school education system in mind. With ongoing maintenance and on-site support for the schools, Bazon has accomplished all task with-in a 24 hour time response and continue to support the education operations. BaCo supports and maintains the Virginia Beach Public School AMAG access control system.

STATEMENT OF QUALIFICATIONS

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| Contract/Purchase Order: ITTC-6-0005 | Customer/Agency: City of Virginia Beach | Address: ComIT/Telecommunications Division City of Virginia Beach Courts Building 10 Room G72 2425 Nimmo Parkway Virginia Beach, VA 23456 |
| Point of Contact: Mr. Todd Lane Tel: (757) 385-1984 Email: tlane@vbgov.com | | Type of Contract: FFP Dollar Value: \$275,000.00 Period of Performance: 7/29/05 to Present |

DESCRIPTION OF SERVICES

BaCo was currently awarded the Cabling Services Contract for the City of Virginia Beach. The contract was awarded on 7-29-05 and it expires on 7-29-10. We are responsible for new voice and data installations, MAC orders, Wireless and broadband installations.

STATEMENT OF QUALIFICATIONS

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| Contract/Purchase Order: 4500137792, 450016615, 450066249 & 450080735 | Customer/Agency: RAYTHEON Technical Ser- vices | Address: 5820 Ward Court Virginia Beach, VA. 23455 |
| Point of Contact: Greg Monostori Office: 757-547-2300 Fax: 757-547-2317 Email: Greg.Monostori@kicompany.com | | Type of Contract: FFP Dollar Value: As to date: \$534,287.52 Period of Performance: 9-1-04 to 8-20-06 |

DESCRIPTION OF SERVICES

BaCo, as a sub-contractor to RAYTHEON, provides technical support for SPAWAR Federal Bureau of Investigations (FBI) IT Contract.

BaCo provides RAYTHEON with ISP installation support. We assist in the installation of Category 6 Copper & Fiber Optic cabling at FBI facilities throughout the U.S. BaCo installs cable support structure, build out of communication rooms, termination and testing of copper and fiber optic cable installed.

Chantilly, Virginia

BaCo was the lead for the Chantilly, Virginia field office. We managed manpower & coordinated with the SPAWAR representative for tasking and scheduling. We installed cable support structure that included cable tray, EMT conduit & power poles on the 2nd and 4th floors. We installed fiber optic cable for the SCION, UNET, FBINET & TRILOGY networks. All fiber optic cable for the each network was terminated with AMP MTRJ keyed connectors. We installed a total of 1500 AMP MTRJ connectors. We also built out the communication room with cable tray under the raised floor and Installed 4 post cabinets as well as 2 post relay racks. BaCo install shielded Cat 6 cable to each workstation for the voice drops. Each Cat 6 cable was terminated on a rj45 connector

BaCo installed fiber optic, Copper and coax cable to support the video wall on the 4th floor of the Chantilly field office.

BaCo installed & tested all cabling in accordance with EIA/TIA 568B Standards.

JEH

BaCo installed cable support structure that included cable tray, EMT conduit & power poles on the 3, 5, 9 and 10th floors. We installed fiber optic cable for the SCION, UNET, FBINET & TRILOGY networks. All fiber optic cable for the each network was terminated with AMP MTRJ keyed connectors.

BaCo installed & tested all cabling in accordance with EIA/TIA 568B Standards.

SCION field office jobs

Upgrade SCION network at these locations Honolulu, Pocatello, Tampa, Mclean, St. Louis, Network, San Antonio, Austin, Houston, Pittsburgh, Plano, Phoenix, Seattle, Fort Monmouth, Richmond, Dallas & Los Angles.

We worked for the SPAWAR representative on-site

STATEMENT OF QUALIFICATIONS

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| Contract/Purchase Order: T41307236842 Delivery Orders 345,348,364,405 | Customer/Agency: Level 3 Communications | Address: 350 Centre Pointe Drive Virginia Beach, VA 23462 |
| Point of Contact: Scott Ostynski Office: 757-671-2573 Fax: 757-671-2509 Cell: 757-328-1382 Email: Scott.ostynski@l-3com.com | | Type of Contract: FFP Dollar Value: As to date: \$1,734,509.64 Period of Performance: 8-20-06 to Present |

Las Vegas, Nevada

BaCo was the lead for the Las Vegas, Nevada field office. We managed manpower & coordinated with the Level 3 Communications & SPAWAR representative for tasking and scheduling. We installed fiber optic cable for the SCION, UNET, FBINET networks with was roughly 1000 workstations on the 1st, 2nd and 3rd floors. All fiber optic cable for the each network was terminated with AMP MTRJ keyed connectors. We installed a total of 4000 AMP MTRJ connectors. We also built out the communication room installing 4 post cabinets and ladder rack above each one. Below is a more detailed description of what we did.

- Supervised a crew of 10 for Level 3 Communication/Titan for the Las Vegas field office installation.
- Submitted daily progress reports to Level 3 Communications/Titan & SPAWAR.
- Maintained inventory of all tools, material and other supplies for this project.
- Installed building support structure consisting of EMT conduit, flex & ladder tray
- Installed 14 72" cabinets, 32 splices boxes
- Installed all backbone cable through out the building from the MDF to the splice box locations and from the splice box locations we installed 2 strand fiber optic cable to all workstation locations.
- Setup and installed patch panels for the SCION, UNET & FBINET networks.
- Termination of approximately 4000 MTRJ fiber optic connectors through out the building.
- Tested all fiber optic workstations in accordance with the FBI & EIA/TIA 568B Standards.
- Coordinated the installation of the Uninterrupted Power Supply (UPS) and its testing
- Red lined all drawings with final workstation locations.
- Completed a final walk through with SPAWAR & FBI Reps.

SCION field office jobs

Upgrade SCION network at this location LA Westwood.

We worked for the SPAWAR representative on-site

Oil Platform Cable Installation

Rewired and installed new cable support structure on a oil platform in the middle of the Persian Gulf. We were on-site for 3 months.

STATEMENT OF QUALIFICATIONS

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| Contract/Purchase Order: 07-008/A7G706062 07-008/A7G706070 07-008/A7G706066 | Customer/Agency: Federal Bureau of Investigation | Address: 935 Pennsylvania Ave, NW Washington, DC 20535 |
| Point of Contact: Garland Crosby Office: 202-324-9013 Fax: 202-324-0570 Email: garland.crosby@ic.fbi.gov | | Type of Contract: FFP Dollar Value: As to date: \$305,874.74 Period of Performance: 7-20-07 to Present |

Description of Services

San Antonio Field Office

FBI Point of contact

John Kendra

703-985-3577

BaCo built out the communications room by installing 6 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 52 multimedia workstations consisting of 4 strand multi-mode 50 micron fiber optic cable, RG6 Coax cable and two Green Cat6 Cables. BaCo terminated the fiber with SC style connectors the coax with BNC connectors and the Cat6 with green RJ45 connectors.

BaCo provided and install 31 4-strand multi-mode fiber optic workstations. Each workstation was terminated with SC style connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards.

BaCo provided and installed twenty four 48" mayline workstations, five 72" mayline workstations & Twenty five chairs.

Tuscan Field Office

FBI Point of Contact

Monty McMorris

703-985-3609

BaCo built out the communications room by installing 3 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 14 multimedia workstations consisting of 4 strand multi-mode chairs.

Phoenix Field Office

FBI Point of Contact

Monty McMorris

703-985-3609

BaCo installed all cables in a FBI provided rack. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 12 multimedia workstations consisting of 4 Green Cat6 Cables. BaCo terminated the copper cable with green Cat6 RJ45 connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards. BaCo provided and installed nine 48" mayline workstations, two 72" mayline workstations & nine chairs.

STATEMENT OF QUALIFICATIONS

Houston Field Office

FBI Point of contact

Robert Carter

703-985-3602

BaCo built out the communications room by installing 6 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 75 multimedia workstations consisting of 4 strand multi-mode 50 micron fiber optic cable, RG6 Coax cable and two Green Cat6 Cables. BaCo terminated the fiber with SC style connectors the coax with BNC connectors and the Cat6 with green RJ45 connectors.

BaCo provided and install 60 4-strand multi-mode fiber optic workstations. Each workstation was terminated with SC style connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards.

BaCo provided and installed fifty 48" mayline workstations, five 72" mayline workstations & fifty five one chairs.

Louisville Field Office

FBI Point of contact

John Kendra

703-985-3577

BaCo built out the communications room by installing 6 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 32 multimedia workstations consisting of 4 strand multi-mode 50 micron fiber optic cable, RG6 Coax cable and two Green Cat6 Cables. BaCo terminated the fiber with SC style connectors the coax with BNC connectors and the Cat6 with green RJ45 connectors.

BaCo provided and installed thirty 48" mayline workstations, one 72" mayline workstations & Thirty one chairs.

Omaha Field Office

FBI Point of contact

John Kendra

703-985-3577

BaCo built out the communications room by installing 6 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 20 multimedia workstations consisting of 4 strand multi-mode 50 micron fiber optic cable, RG6 Coax cable and two Green Cat6 Cables. BaCo terminated the fiber with SC style connectors the coax with BNC connectors and the Cat6 with green RJ45 connectors.

BaCo provided and installed twenty 48" mayline workstations, 1 72" mayline workstations & Twenty one chairs.

STATEMENT OF QUALIFICATIONS

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| Contract/Purchase Order: 14164 942-B 14165 141283 | Customer/Agency: Suffolk Public Schools | Address: Suffolk Public School 2325 E. Washington Street Suffolk, VA 23434 |
| Point of Contact: Mr. John Littlefield Tel: (757) 934-6200 Fax: (757) 925-6763 Email: johnlittlefield@spsk12.net | | Type of Contract: FFP Dollar Value: \$220,755.00 Period of Performance: 05/19/08 to Present |

DESCRIPTION OF SERVICES

Multimedia Project

BaCo was currently awarded a contract to upgrade the multimedia systems at 7 major schools in the City of Suffolk. A total of 466 classrooms were upgraded. With a turnkey solution and strategic schedules this tack was successfully completed and Bazon is currently working with Suffolk Schools to perform additional similar work. Some of the services that were included are below:

- Removal of all existing televisions and brackets
- Coordinate and stage all removed equipment
- Installed new multimedia projectors and ceiling projector mounts
- Installed new multimedia screens above the white board
- Installed new self powered speakers and brackets on each side of the screen
- Installed new audio / video cabling to projectors and speakers
- Installed new teacher work plates
- Reconfigure existing TV head end room
- New CCTV cabling and activation
- Install data jack

All data deliverables were delivered on schedule.

The Project Manager was tasked to change work schedules (at least weekly) and to remain within constraints and budget, which he accomplished with ease. Personnel were adjusted as necessary to meet the workload.

All Projectors were setup, balanced, adjusted, and programmed.

All schedules were met within the time frame allotted and budgets were adjusted to meet additional tasking from the customer.

Data & Voice Cabling

BaCo is responsible for new voice and data installations, MAC orders, Wireless and broadband installations.

STATEMENT OF QUALIFICATIONS

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| Contract/Purchase Order: 3021072 | Customer/Agency: Verizon Wireless VB Amphitheater | Address: 3550 Cellar Door Way Virginia Beach, Va 23456 |
| Point of Contact: Jeremiah Tel: (757) 368-3099 Fax: (757) 368-3024 | | Type of Contract: Dollar Value: \$115,550.00 to date Period of Performance: 02/04/99 to Current |

DESCRIPTION OF SERVICES

The Virginia Beach Amphitheater approaches us with many of their A/V projects, wireless solutions and computer networking upgrades. With the size of this venue and the outdoor atmosphere design and installation is handled with care. We have completed all tasks with customer satisfaction and ease of use.

Audio for Amphitheater entrance walk ways.

The Verizon Wireless Virginia Beach Amphitheater wanted user selected audio to be heard as you approach the main viewing area but not interfere with the current venue. This audio had to time sequenced so that as you approach the main viewing area the message would not be lost. This could be used as advertising or emergency evacuations instructions. With two approach ramps to the main area each side was installed independent so that evacuation instructions could be different on each side of the theater. Another requirement was not to interfere with the landscaping on these ramps so all speakers would be heard but not seen. Also for the off season the speakers were to be removable.

Bazon-Cox designed, installed and programmed the audio system to meet all requirements by the customer. This was done with one system with networking capabilities so that an administrator could issue rights from a desktop. Removable Rock speakers were installed so not to interfere with its surroundings. Any digital audio could be easily played with selection of area, volume, and timing sequenced. The system was currently upgraded by us to include JBL parking lot speakers. All underground audio cabling was installed by us.

Projector Cabling Upgrade

Bazon-Cox installed new projector cabling to the left and right stage projectors. These projectors are located in the cat-walks above the seating area. New video cabling was installed from back stage to the new projectors. This task was completed it time for an upcoming event. JLG lifts were used to reach over the seating areas due to the height of the projectors.

Wireless Solutions

Various permanent and non-permanent wireless solutions have been installed for Ticket Master and The Amphitheater. Some permanent solutions were installed on most of the buildings for point to point communications in this arena. This included all equipment, programming, mast for the antenna, and cabling. We have also completed non-permanent installations for celebrities at the venue to access information while back stage.

Telecommunication Cabling

Bazon has install numerous telecommunication cabling to include OSP fiber, Cat6 cabling, Coax, OSP copper and many local drops in workstation offices.

STATEMENT OF QUALIFICATIONS

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| Contract/Purchase Order: DMS-0809-31A | Customer/Agency: Department of Management Services | Address: 4050 Esplanade Way, Suite 125B Tallahassee, FL 32399 |
| Point of Contact: Leon Simmonds Tel: (850) 487-2105 Fax: (850) 922-5162 Leon.simmonds@dms.myflorida.com | | Type of Contract: Dollar Value: Contract Pricing Period of Performance: 02/01/9 to Current |

DESCRIPTION OF SERVICES

Cabling Service Contract

BaCo was awarded the Telecommunications Infrastructure Cabling & Connectivity Contract for the Department of Management Services. The contract was awarded on 2-1-09 and it expires on 1-30-13. We are responsible for new voice and data installations, MAC orders, Wireless and broadband installations.

Florida Department of Children & Families (DCF)

375 Commerce Parkway, Rockledge, FL. 32955

P.O.C: Frank Kerwick

Phone: 772-467-4155

Frank_kerwick@dcf.state.fl.us

Bazon-Cox & Associates, Inc. (BaCo) provided and installed 17 new Cat5e workstation cables throughout the DCF facility. BaCo also toned, tested & labeled 42 existing Cat5e cables. BaCo terminated all cables on two new 48 port patch panels that were installed in a new wall mounted cabinet that BaCo provided.

BaCo installed a new j-hook support structure to accommodate all the new and existing Cat5e cables. We also repaired the existing 6-strand multimode fiber optic cable that ran from the 1st floor MDF to the 2nd floor IDF.

BaCo tested all installed cables in accordance with the TIPS contract and the current BICSI standards. All test documentation was provided at the completion of the project.

Florida Department of Children & Families (DCF)

1133 Seminole Drive, Rockledge, FL. 32955

P.O.C: Frank Kerwick

Phone: 772-467-4155

Frank_kerwick@dcf.state.fl.us

Bazon-Cox & Associates, Inc. (BaCo) provided and installed 12 new Cat5e workstation cables throughout the DCF facility. BaCo terminated all cables on a new 24 port patch panels that was mounted in an existing rack.

BaCo installed a new j-hook support structure to accommodate all the new and existing Cat5e cables.

BaCo tested all installed cables in accordance with the TIPS contract and the current BICSI standards. All test documentation was provided at the completion of the project.

STATEMENT OF QUALIFICATIONS

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| Contract/Purchase Order: N61339-09-F-0006 | Customer/Agency: Naval Air Warfare Center Training Systems Division (NAWCTSD) | Address: 12350 Research Parkway Orlando, FL 32826 |
| Point of Contact: Kevin Portanova Tel: (407) 380-4561 Kevin.portanova@navy.mil | | Type of Contract: Dollar Value: \$10,215.01 Period of Performance: 07/20/09 to 8-20-09 |

DESCRIPTION OF SERVICES

Bazon-Cox & Associates, Inc. (BaCo) provided all labor and materials to install 4800 ft of 24 Strand Corning Altos SM Fiber Optic Cable in existing conduit from an existing manhole at Ingenuity and Science Drive to an existing manhole in front of 2721 Discovery Drive.

BaCo verified and intercept an existing empty conduit from the power room of 2721 Discovery Drive at the Right of Way and sweep the conduit into a new 17X30X24 hand-hole. BaCo placed a new 2” conduit from the new hand-hole to the existing man-hole.

BaCo placed a 12 Strand Corning Altos Fiber Optic Cable through the new and existing conduit to the power room, the new fiber cable was routed to the MDF through a new EMT conduit from the power room, terminated on a new Corning LIU in the existing floor mounted rack.

BaCo spliced the 12 strands of the new 24-strand fiber into an existing 144 strand fiber. BaCo then spliced the 12-strand fiber to the 24 strand fiber leaving 12 fiber strands for future use.

BaCo was responsible for obtaining all appropriate permits for this project. BaCo was also responsible to contact the Research Park Utility Inspector before starting on any work. BaCo also utilized Sunshine State One Call of Florida to reduce the risk of damage to underground facilities, service disruptions, environmental contaminations, loss of products and potential disasters.

BaCo submitted all as-built drawings of all cable, conduit, pull box, and equipment locations installed under this contract as well as all test documentation at the completion of the project..

Bazon-Cox & Associates, Inc.
VBCPS PAST PERFORMANCES

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| Contract/Purchase Order: 4292 | Customer/Agency: Virginia Beach Public Schools | Address: Office of Business Services/ Purchasing Division 2512 George Mason Drive Virginia Beach, VA 23456 |
| Point of Contact: Ms. Debbie Roberts Streeter Office: 757-263-6812 Email: Debbie.roberts@vbschools.com | | Type of Contract: FFP Dollar Value: \$1,774,345.10 Period of Performance: 7/1/04 to Present |

DESCRIPTION OF SERVICES

Cabling Service Contract

BaCo was awarded the Cabling Services Contract for the Virginia Beach Public Schools. The contract was awarded on 7-1-04 and it expires on 7-1-14. We are responsible for new voice and data installations, MAC orders, Wireless and broadband installations.

CATV Installation Project

BaCo furnished all labor, material, and equipment to replace the entire cable television systems including CATV lines and outlets at 19 Virginia Beach Public Schools. We measured and ran all infrastructure cables to termination outlets as specified in the statement of work.

We installed three individual CAC6 lines from head-end equipment in the library areas for recording, broadcasting, and monitoring programs in the school plants. We terminated all RG-11 cables in head-end and completed testing.

We installed outlets in the main library for broadcasting only; installed outlets in auditoriums, cafeterias, and gyms as specified by the VBPS. We installed one outlet in each classroom and office including assistant principal, principal, guidance, kivas, planetarium, and all gymnasium rooms excluding locker rooms, kitchen, clinic, and stage.

We terminated all outlets in accordance with telecommunications industry standards.

We tested all terminations and provided test results.

We prepared AutoCAD drawings depicting total system in each school.

Portable Hardwiring Project

BaCo hardwired a total of 155 portables throughout the Virginia Beach Public High & Middle Schools. BaCo provided and installed 1 & 2inch rigid support structure between each portable. Each portable was wired with 5 category 5e workstations. BaCo installed a Panduit support structure within each portable. BaCo installed a cabinet in the main portable IDF at each School location and connected it to the main building IDF with a 6-strand multi-mode fiber optic cable.

All cable was tested in accordance with the EIA/TIA 568B standard. BaCo submitted "as-built" documentation at the completion of each School.

Multi Functional Copiers

BaCo installed 2 category 5e cables for each new multifunctional copier installed. There was a total of 82 Virginia Beach Public Schools and each school had two copier locations. BaCo installed all cabling in accordance with EIA/TIA 568B Standards.

All cable was tested in accordance with the EIA/TIA 568B standard. BaCo submitted "as-built" documentation at the completion of each School.

School Plant Project

BaCo installed a total of 183 workstations consisting of 3 cat5e cables. All cables are feed from the 3 building IDF closets. BaCo installed the building support structure with 12 inch cable tray, EMT and j-hooks. Each IDF closet is feed back to the new data center with a 50 pair copper cable and a 12-strand multi-mode fiber optic cable. All fiber optic cables are terminated with ST style connectors. All copper cables are terminated on 48 port cat5e patch panels. We installed 17 HP server racks in the new data center.

BaCo installed & tested all cabling in accordance with EIA/TIA 568B Standards.

Projector Data Drop Project

BaCo installed CaT5e data drops from the telecommunications closets to projector locations throughout numerous schools. BaCo installed and tested all data drops in accordance with the current EIA/TIA 568B Standards.

Access Control

Bazon-Cox has designed and integrated access control systems with school education system in mind. With ongoing maintenance and on-site support for the schools, Bazon has accomplished all task with-in a 24 hour time response and continue to support the education operations. BaCo supports and maintains the Virginia Beach Public School AMAG access control system.

Bazon-Cox & Associates, Inc.
Department of Management Services (TIPS) PAST PERFORMANCE

| | | |
|--|---|---|
| Contract/Purchase Order: DMS-0809-31A | Customer/Agency: Department of Management Services | Address: 4050 Esplanade Way, Suite 125B Tallahassee, FL 32399 |
| Point of Contact: Julie Gowen Tel: (850) 487-2105 Fax: (850) 922-5162 julie.gowen@dms.myflorida.com | | Type of Contract: Dollar Value: Contract Pricing Period of Performance: 02/01/9 to Current |

DESCRIPTION OF SERVICES

Cabling Service Contract

BaCo was awarded the Telecommunications Infrastructure Cabling & Connectivity Contract for the Department of Management Services. The contract was awarded on 2-1-09 and it expires on 1-30-13. We are responsible for new voice and data installations, MAC orders, Wireless and broadband installations.

Department of Corrections

400 W. Robinson Street, Orlando, 32801
P.O.C: James Montgomery
Phone: 407-697-2285

BaCo installed a 120' of 2" EMT pipe with pull string in the overhead from room 701 to the IDF closet located in room 709 on the 7th floor. The pipe was installed in accordance with the NEC.

Florida Department of Children & Families (DCF)

375 Commerce Parkway, Rockledge, FL. 32955
P.O.C: Frank Kerwick
Phone: 772-467-4155
Frank_kerwick@dcf.state.fl.us

Bazon-Cox & Associates, Inc. (BaCo) provided and installed 17 new Cat5e workstation cables throughout the DCF facility. BaCo also toned, tested & labeled 42 existing Cat5e cables. BaCo terminated all cables on two new 48 port patch panels that were installed in a new wall mounted cabinet that BaCo provided.

BaCo installed a new j-hook support structure to accommodate all the new and existing Cat5e cables. We also repaired the existing 6-strand multimode fiber optic cable that ran from the 1st floor MDF to the 2nd floor IDF.

BaCo tested all installed cables in accordance with the TIPS contract and the current BICSI standards. All test documentation was provided at the completion of the project.

Florida Department of Children & Families (DCF)

1133 Seminole Drive, Rockledge, FL. 32955
P.O.C: Frank Kerwick
Phone: 772-467-4155
Frank_kerwick@dcf.state.fl.us

Bazon-Cox & Associates, Inc.
Department of Management Services (TIPS) PAST PERFORMANCE

Bazon-Cox & Associates, Inc. (BaCo) provided and installed 12 new Cat5e workstation cables throughout the DCF facility. BaCo terminated all cables on a new 24 port patch panels that was mounted in an existing rack.

BaCo installed a new j-hook support structure to accommodate all the new and existing Cat5e cables.

BaCo tested all installed cables in accordance with the TIPS contract and the current BICSI standards. All test documentation was provided at the completion of the project.

Naval Air Warfare Center Training System Division (NAWCTSD)

12350 Research Parkway, Orlando, FL 32826

P.O.C: Kevin Portanova

Phone: 407-380-4561

kevin.portanova@navy.mil

Bazon-Cox & Associates, Inc. (BaCo) provided all labor and materials to install 4800 ft of 24 Strand Corning Altos SM Fiber Optic Cable in existing conduit from an existing manhole at Ingenuity and Science Drive to an existing manhole in front of 2721 Discovery Drive.

BaCo verified and intercept an existing empty conduit from the power room of 2721 Discovery Drive at the Right of Way and sweep the conduit into a new 17X30X24 hand-hole. BaCo placed a new 2" conduit from the new hand-hole to the existing manhole.

BaCo placed a 12 Strand Corning Altos Fiber Optic Cable through the new and existing conduit to the power room, the new fiber cable was routed to the MDF through a new EMT conduit from the power room, terminated on a new Corning LIU in the existing floor mounted rack.

BaCo spliced the 12 strands of the new 24-strand fiber into an existing 144 strand fiber. BaCo then spliced the 12-strand fiber to the 24 strand fiber leaving 12 fiber strands for future use.

BaCo was responsible for obtaining all appropriate permits for this project. BaCo was also responsible to contact the Research Park Utility Inspector before starting on any work. BaCo also utilized Sunshine State One Call of Florida to reduce the risk of damage to underground facilities, service disruptions, environmental contaminations, loss of products and potential disasters.

BaCo submitted all as-built drawings of all cable, conduit, pull box, and equipment locations installed under this contract as well as all test documentation at the completion of the project..

**Bazon-Cox & Associates, Inc.
FBI Past Performances**

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| <p>Contract/Purchase Order: 07-008/A7G706062 07-008/A7G706070 A2G203005 07-008/A7G706066 A2G203146 07-008/A9G900109 A2G206019 07-008/A8G800109 A2G206027 07-008/A8G800108 A2G206033 07-008/A8G800118 A2G1205901 A2G203260 A2G206003</p> | <p>Customer/ Agency: Federal Bureau of Investigation</p> | <p>Address: 935 Pennsylvania Ave, NW Washington, DC 20535</p> |
| <p align="center">Contracting Officer Garland Crosby, Jacob Gessel, Gary Hopkins, Katharine Miller Email: garland.crosby@ic.fbi.gov, gwhopkins@fbiacademy.edu Jacob.Gessel@ic.fbi.gov Katharine.Miller@ic.fbi.gov</p> <p align="center"><u>ETMU COTR</u> Montie McMorris Office: 703-985-3609 Robert Carter Office: 703-985-3602 Bill Burton Office: 703-985-3606 John Kendra Office: 703-985-3577 Michael Kruitbosch Office: 540-408-4141</p> | | <p>Type of Contract: FFP Dollar Value: As to date: \$2,364,389.70 Period of Performance: 7- 20-07 to Present</p> |

San Antonio Field Office ETMU

BaCo built out the communications room by installing 6 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 52 multimedia workstations consisting of 4 strand multi-mode 50 micron fiber optic cable, RG6 Coax cable and two Green Cat6 Cables. BaCo terminated the fiber with SC style connectors the coax with BNC connectors and the Cat6 with green RJ45 connectors.

BaCo provided and install 31 4-strand multi-mode fiber optic workstations. Each workstation was terminated with SC style connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards.

BaCo provided and installed twenty four 48” mayline workstations, five 72” mayline workstations & Thirty one chairs.

Bazon-Cox & Associates, Inc.
FBI Past Performances

Tuscan Field Office ETMU

BaCo built out the communications room by installing 3 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 14 multimedia workstations consisting of 4 strand multi-mode 50 micron fiber optic cable, RG6 Coax cable and two Green Cat6 Cables. BaCo terminated the fiber with SC style connectors the coax with BNC connectors and the Cat6 with green RJ45 connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards.

BaCo provided and installed fifteen 48" mayline workstations, one 72" mayline workstations & fourteen chairs.

Phoenix Field Office ETMU

BaCo installed all cables in a FBI provided rack. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 12 multimedia workstations consisting of 4 Green Cat6 Cables. BaCo terminated the copper cable with green Cat6 RJ45 connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards.

BaCo provided and installed nine 48" mayline workstations, two 72" mayline workstations & nine chairs.

Houston Field Office ETMU

BaCo built out the communications room by installing 18 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 61 multimedia workstations consisting of 4 strand multi-mode 50 micron fiber optic cable, RG6 Coax cable and four Green Cat6 Cables. BaCo terminated the fiber with SC style connectors the coax with BNC connectors and the Cat6 with green RJ45 connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards.

BaCo provided and installed forty eight 48" Mayline workstations, one 72" Mayline workstations & fifty three chairs.

Louisville Field Office ETMU

Bazon-Cox & Associates, Inc.
FBI Past Performances

BaCo built out the communications room by installing 6 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 12 multimedia workstations consisting of 4 strand multi-mode 50 micron fiber optic cable, RG6 Coax cable and two Green Cat6 Cables. BaCo terminated the fiber with SC style connectors the coax with BNC connectors and the Cat6 with green RJ45 connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards. BaCo provided and installed six 48" Mayline workstations, one 72" Mayline workstations & fourteen chairs.

St. Louis Field Office ETMU

BaCo provided and installed 6 racks in the communications room. We installed fire retardant plywood backboards for the voice blocks. BaCo grounded all racks & tray.

BaCo provided & installed 22 multimedia workstations consisting of 2 Green Cat6 Cables & one 4-strand fiber optic cable. BaCo terminated the copper cable with green Cat6 RJ45 connectors and the fiber with LC fiber optic connectors. BaCo installed and terminated all backbone cables from the building demark to the communications room. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards.

BaCo provided and installed nine 22" Mayline workstations, one 72" Mayline workstations & nine chairs.

Omaha Field Office ETMU

BaCo provided and installed 4 racks in the communications room. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 26 multimedia workstations consisting of one Green Cat6 Cables. BaCo terminated the copper cable with green Cat6 RJ45 connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards.

Indianapolis Field Office ETMU

BaCo built out the communications room by installing 10 Panduit cabinets and basket tray throughout the room. BaCo grounded all racks & tray. We install fire retardant plywood backboards for the voice blocks.

BaCo provided & installed 72 multimedia workstations consisting of 4 strand multi-mode 50 micron fiber optic cable, RG6 Coax cable and four Green Cat6 Cables. BaCo terminated the fiber with SC style connectors the coax with BNC connectors and the Cat6 with green RJ45 connectors. All cables were tested and labeled in accordance with the EIA/TIA 568B Standards.

Bazon-Cox & Associates, Inc.
FBI Past Performances

Completed the ETMU networks at the Minneapolis and Cincinnati field offices through the GSA connections contract on 3-1-12

Completed the ETMU Tucson, Portland, Austin, Santa Ana, Salt Lake City and Honolulu FBI project under our GSA Schedule 70 contract in the 2012 calendar year

We are currently working on the New York City ETMU FBI project under our GSA Schedule 70 contract. This project started on 1-7-13 and is scheduled to be completed by 3-30-13.

We also have the Huntsville, AL ETMU project scheduled to start around 4-8-13 and is scheduled to be about 4 weeks long.

Bazon-Cox & Associates, Inc.
FBI PAST PERFORMANCES

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| Contract/Purchase Order: | Customer/Agency: EPS Corporation | Address: 61 James Way Eatontown, NJ 07724 |
| EPS Point of Contact Richard Stalnaker Office: 321-607-2606 Email: comguy72@hotmail.com FBI Point of Contact Rich Hirst Office: 703-200-9860 Email: hirstrj@gmail.com | | Type of Contract: FFP Dollar Value: As to date: \$4,600,000 Period of Performance: 12- 01-09 to Present |

Current FBI field office cabling projects we are working on with EPS Corporation

Minneapolis
Detroit Phase 1
Detroit Phase 2
Tucson
Cincinnati
Fairmont, WV
Honolulu, Hawaii

FBI Knoxville, TN

BaCo was the lead for the Knoxville, TN field office. We managed manpower & coordinated with the EPS Corporation & SPAWAR representative for tasking and scheduling. We installed fiber optic cable for the SCION, UNET, FBINET networks with was roughly 1500 workstations. All fiber optic cable for the each network was terminated with AMP MTRJ keyed connectors. We installed a total of 9000 AMP MTRJ connectors. We also built out the communication room installing 4 post cabinets and ladder rack above each one. Below is a more detailed description of what we did.

- Helped supervise a crew of 15 for EPS Corporation for the Knoxville, TN field office installation.
- Submitted daily progress reports to EPS Corporation & SPAWAR.
- Maintained inventory of all tools, material and other supplies for this project.
- Installed building support structure consisting of J-hooks and EZ-Path fire sleeves
- Installed 20 72" cabinets, 32 splices boxes
- Installed all backbone cable through out the building from the MDF to the splice box locations and from the splice box locations we installed 2 strand fiber optic cable to all workstation locations.
- Setup and installed patch panels for the SCION, UNET & FBINET networks.
- Termination of approximately 9000 MTRJ fiber optic connectors through out the building.

Bazon-Cox & Associates, Inc.
FBI PAST PERFORMANCES

- Installed all low voltage cabling throughout the site
- Installed terminated and tested all CATV drop locations
- Installed terminated and tested all Phone drop locations
- Tested all fiber optic workstations in accordance with the FBI & EIA/TIA 568B Standards.
- Red lined all drawings with final workstation locations.
- Completed a final walk through with EPS Corporation, SPAWAR & FBI Reps.

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| Contract/Purchase Order: 597/OR/01/2893/12 | Customer/Agency: Florida Department of Children & Families (DCF) | Address: 400 W. Robinson Street North & South Tower Orlando, FL 32801 |
| Point of Contact: Mr. David Elliott Office: 407-317-7355 Email: David_Elliott@dcf.state.fl.us | | Type of Contract: FFP Dollar Value: \$20,354.70 Period of Performance: 9/12/12 to 2-30-13 Phased project |

DESCRIPTION OF SERVICES

DCF Hurston Building Project, Orlando

BaCo installed a total of 82 workstation outlets consisting of (2) cat5e cables. All cables were run from the existing IDF closets on each floor. BaCo installed a 6-strand multi-mode fiber optic cable from the 2nd floor MDF closet to the IDF closets on the 3rd, 6th & 7th floors. All fibers were terminated with ST style connectors. All copper cables are terminated on 48 port cat5e patch panels.

BaCo installed & tested all cabling in accordance with EIA/TIA 568C Standards. BaCo will provided the customer with redlined drawing and test results at the completion of the project.



INTRODUCTION

Founded and incorporated in 1992, Bazon-Cox and Associates, Inc., (BaCo), has been at the forefront of the information technology revolution. The company founder and owner, Mr. Anderson H. Cox, started the company with clear visions of a high technological company that would provide telecommunication engineering and technical support services to commercial and Government clients throughout the world. Today, his visions have become a reality. BaCo has established a reputation for high quality products and services worldwide.

BaCo is a service-disabled veteran-owned small business headquartered in Chesapeake, VA centrally located in the large military complex of Hampton Roads. BaCo is ideally situated to remain firmly entrenched as a leader in the telecommunications industry.

HISTORY OF BACO

Since its inception and incorporation BaCo has provided telecommunication system design, installation, and technical support services to a wide variety of commercial, city, state, and federal clients. A sampling of our major clients include the Department of Defense (U.S. Navy, and U.S. Air Force), National Security Agency (NSA) Forensics Laboratory, Consolidated Personnel Management Service, Bell Atlantic Federal Systems, GTE South, Lucent Technologies, and Digital Equipment Corporation (DEC).

ENGINEERING DISCIPLINES

We offer technical and engineering services in the following engineering disciplines:

- Local Area Networks/Wide Area Networks
- Telephone Systems
- Outside Cable Distribution Systems
- Inside Cable Distribution Systems
- Protected Distribution System (PDS)
- Technical Writing/Editing Services
- Computer Aided Manufacturing & Computer Aided Drawings (CAM/CAD)
- CCTV
- CATV
- Access Control Systems & Security DCJS#11-4875

BACO'S STAFF

BaCo employs a full-time Building International Consulting Services Incorporated (BICSI) Registered Communication Distribution Designer (RCDD), and one consultant RCDD, who is also a certified Local Area Network (LAN) specialist and Novell Certified NetWare Engineer (CNE). In addition, BaCo maintains a staff of BICSI certified cable installation technicians from the Apprentice to the Certified Installation Technician level. We have maximized the use of the BICSI three level cable installation training program and currently employ twelve BICSI certified cable installation technicians. In addition to the BICSI training course, our technicians regularly receive manufacturer's informal training on new products and installation techniques.

BaCo hold a facility clearance and all of our staff posses Top Secret or above clearance.

AFFILIATIONS

We are proud of our partnership arrangements with some of the largest telecommunications product and cable manufacturers in the world. These manufacturers have certified BaCo to provide extended warranty to their customers for their products:

| | |
|------------------------|------------------------------------|
| Siemon | Certified Premier Cable Installers |
| OCC | Certified Cable Installers |
| TYTON | Certified Cable Installers |
| MOLEX | Certified Cable Installers |
| TE Connectivity | NetConnect Certified |
| ORTRONICS | Certified Installers |
| SIGNAMAX | Certified Installers |
| Corning | Certified Installers |
| 2Gig Security | Certified Installers |

We are also certified by Cable Jet to provide blown fiber, and COMDIAL to provide and install PBXs and telephone switches. In addition to the manufacturer's extended warranties, BaCo warranties all cable installations, irrespective of product manufacturer, for a period of one year. This warranty covers defects in workmanship, compliance with established industry and Government standards (TIA, NEC, etc.), and cable and installation hardware reliability when purchased by BaCo. BaCo provides a serialized warranty certificate and pamphlet that describes the company warranty in detail.



QUALITY CONTROL

BaCo's reputation for superior workmanship has been due, largely in part, to the company's quality control program. The Quality Assurance Department has a QA Manager and QC Inspectors who report directly to the President. We have developed a QA checklist for cable distribution systems that verify installations in accordance with specific contract requirements, TIA/EIA, NFPA-70, and BICSI Telecommunications Distribution Methods Manual (TDMM) standards, building codes and the National Electric Code. BaCo employs an independent quality assurance inspection system that provides 100% inspection of all work. These inspections provide our clients with the following benefits:

- Verification of compliance to contract terms and conditions;
- Verification of compliance to industry standards, practices, and procedures;
- Verification of compliance to safety regulations, and local/national codes;
- Verification of material performance in accordance with manufacturer specifications; and
- Verification of documentation accuracy.

BaCo's QA inspections consist of physical inspections to ensure that all installations are technically compliant and aesthetically correct. Instrumented inspections, using industry recommended electronic test equipment, verify signal integrity and performance. All test results are documented and provided to the client.

TECHNICAL REFERENCE LIBRARY

BaCo has stocked a technical reference library with over 5,000 publications, standards, and specifications to aid management and technical personnel in performance of their duties. These documents include TIA/EIA, UL, NEMA, ANSI, MIL-STDs and HDBKs, BELCOR, OSHA, ICEA, ISO/IEC, IEEE, CCIT, ASTM, NFPA, NAVFAC and Army Corp of Engineers guide specifications, to name just a few. These documents are used by our planners, engineers, and technicians for outside and inside distribution systems for commercial and Government clients.

TELECOMMUNICATION SYSTEM EXPERIENCE

BaCo's experience in design, installation, testing, and certification is extensive. Our experience base in computer network cabling includes a variety of topologies and architectures including 10Base2, 10Base5, 10BaseT, 100BaseT, ARCNET, Token Ring, FDDI, Star and fiber optic backbones in campus type environments to support LAN/WAN systems. We are also experienced in Asynchronous Transfer Mode (ATM) technologies having installed several ATM networks at military installations in the Tidewater area.

Our design experience has been garnered through several projects for the Government. One of our largest projects was the design and installation of fiber optic cable to support the Hampton Roads Enterprise Network (HREN) at the Naval Air Station Oceana, Virginia Beach, Virginia. We provided full support to the Space and Naval Warfare Systems Center Charleston, South Carolina in the design and installation of over 150,000 feet of fiber optic cable and terminated the cable in over 70 buildings on the base. As part of this project, we also conducted certification testing, labeling of cables and termination cabinets, provided all test results, and developed and delivered a full set of as-built drawings, topology drawings, building drawings, manhole butterflies, and splice plans.

Our installation experience includes the project above, plus the installation of cabling to support LAN/WANs at the Acute Care Facility, Portsmouth, Virginia; Veterans Hospital East Orange, New Jersey; and the Defense Computer Forensics Laboratory, Baltimore, Maryland.

TECHNICAL WRITING/EDITING

BaCo employs technical writers/editors who have diversified backgrounds in developing and editing equipment and system technical support publications and manuals. We were selected by the Naval Facilities Engineering Command, Atlantic Division, to develop Military Handbook 1012/4 *Telecommunications outside Cable Plant, Designing and Estimating*. This handbook provides the telecommunications manager with a means of defining costs for a new outside ca-



CORPORATE QUALIFICATIONS

Ble plant or additions to existing cable plants. We were also chosen to develop a series of other Military Handbooks that deal with telecommunications for new construction and renovated buildings. The Military Handbooks that we developed are:

- MIL-HDBK 1012/3 *Military Handbook for Premise Distribution: Estimating, Planning and Design*
- MIL-HDBK 1012/3 Supp-1 *Premise Switch, Estimating, Planning, and Design*
- MIL-HDBK 1012/3 Supp-2 *Local Area Networks, Estimating, Planning, and Designing*
- MIL-HDBK 1012/3 Supp-3 *Telecommunications Security Protection-Information Transfer Planning, Designing, and Estimating*

We have experience in developing equipment specifications, operation and maintenance technical manuals, Government standards and specifications, logistics support documents, and military training plans in support of equipment and systems.

FLEXIBILITY

The measure of any organization responsible for the implementation of information technology resides in its ability to meet rapidly changing technology, which when properly applied, results in increased user efficiency and capability. The foundation on which all information technology rests is the cabling infrastructure providing information distribution. This is true whether it is switched voice, data, video, or video imagery. Today's systems are operating with increasing speed and capacity, resulting in greater demands on the cable infrastructure. Technology has pushed the design and installation of cabling systems to the point where adherence to specific standards and guidelines are no longer optional. Failure to meet standards often result in the failure of the system. BaCo is the type of organization that can provide the centralized planning, design and installation technical support necessary to exploit new and existing technological applications.

WORLDWIDE SUPPORT

BaCo provides information technology professional technical services throughout the United

States and at overseas locations as well. In support of Lucent Technologies under the vivid contract, we provided two teams of engineers and technicians who, in a 90-day period, conducted pre-installation site surveys in Europe, United Kingdom, Bahrain, Japan, Korea, and Guam. The purpose of the site surveys was to:

- Gather information pertaining to current WAN connectivity, outside plant, inside plant, software, PCs, VTCs, voice, security, and environmental impacts;
- Gather Navy/Marine Corp Intranet (NMCI) seat management requirements;
- Gather all information pertaining to planned and/or required IT infrastructure upgrades in support of operational mission needs; and
- Interview command leadership in regards to personnel, building occupancy, number of unclas and classified PCs per building, and IT support in place with both US firms and local companies.

Our versatility and flexibility was evident in arranging visas, travel and housing arrangements.

WEB SITE

To learn more about the company, visit our web site at www.bazcox.com.

SUMMARY

EXPERIENCE! EXPERIENCE! EXPERIENCE! This is what BaCo offers. From the company president to the Apprentice Technician, BaCo offers a staff of dedicated telecommunication professionals who are proud of their accomplishments. We are flexible to meeting the customer's needs. We are cooperative. We listen to the customer and provide the best and most cost effective solution to their telecommunication service requirements. **We are responsive and dependable; we arrive on time ready to perform!**