HORRY GEORGETOWN TECHNICAL COLLEGE
OCEANS OF POSSIBILITIES

Bid Documents and Technical Specifications for the Procurement of Domestic Water System Alterations HGTC Conway Campus, Building 100

Project #IFB 0095-15

July 14, 2014

Prepared By:

Horry-Georgetown Technical College
PO Box 261966
Conway, SC 29528
(843) 359-5207
(843) 349-5270 - Fax

HORRY GEORGETOWN TECHNICAL COLLEGE	**Horry-Georgetown Technical College** **Invitation for Bid**	Solicitation Number Date Printed Date Issued Procurement Officer Phone E-Mail Address	IFB0095-15 07/14/14 07/14/14 Dianna Cecala (843) 349-5207 Dianna.cecala@hgtc.edu

DESCRIPTION: HGTC Conway Building 100 Domestic Water System Alterations

USING GOVERENMENTAL UNIT: Horry-Georgetown Technical College

The Term "Offer" Means Your "Bid" or "Proposal".

SUBMIT OFFER BY (Date/Time): **8/4/2014 2:00 pm**
BID OPENING AT (Date/Time): **8/4/2014 2:00 pm** **See "Deadline For Submission Of Offer" provision**

QUESTIONS MUST BE RECEIVED BY: **07/30/2014 5:00 pm** **See "Questions From Offerors" provision**

NUMBER OF COPIES TO BE SUBMITTED: **One (1) original and One (1) copy (marked 'copy')**

Offers must be submitted in a sealed package. Solicitation Number & Opening Date must appear on package exterior.

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:
HGTC Procurement Office
P.O. Box 261966
Conway, S.C. 29528-6066

PHYSICAL ADDRESS:
HGTC Procurement Office
2050 Hwy 501 E, Room 111
Conway, S.C. 29526

See "Submitting Your Offer" provision

CONFERENCE TYPE: **Pre-Bid** DATE & TIME: **July 22, 2014 at 10:00 a.m.** **As appropriate, see "Conferences - Pre-Bid/Proposal" & "Site Visit" provisions**	LOCATION: **Horry-Georgetown Tech College** **Bldg. 100 Main Lobby** **2050 Hwy 501 E** **Conway, SC 29526**

AWARD & AMENDMENTS	Award will be posted at the Physical Address stated above on **08/05/2014.** The award, this solicitation, and any amendments will be posted at the following web address: www.hgtc.edu/purchasing

You must submit a signed copy of this form with Your Offer. By submitting a bid or proposal, You agree to be bound by the terms of the Solicitation. You agree to hold Your Offer open for a minimum of thirty (30) calendar days after the Opening Date.

NAME OF OFFEROR (Full legal name of business submitting the offer)	OFFEROR'S TYPE OF ENTITY: (Check one) ☐ Sole Proprietorship ☐ Partnership ☐ Corporation (tax-exempt) ☐ Corporate entity (not tax-exempt) ☐ Government entity (federal, state, or local) ☐ Other _____ (See "Signing Your Offer" provision.)
AUTHORIZED SIGNATURE (Person signing must be authorized to submit binding offer to enter contract on behalf of Offeror named above.)	
TITLE (Business title of person signing above)	
PRINTED NAME (Printed name of person signing above) / DATE SIGNED	

Instructions regarding Offeror's name: Any award issued will be issued to, and the contract will be formed with, the entity identified as the offeror above. An offer may be submitted by only one legal entity. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, *i.e.*, a separate corporation, partnership, sole proprietorship, etc.

STATE OF INCORPORATION (If offeror is a corporation, identify the state of Incorporation.)	
TAXPAYER IDENTIFICATION NO. (See "Taxpayer Identification Number" provision)	STATE VENDOR NO. (Register to Obtain S.C. Vendor No. at www.procurement.sc.gov)

COVER PAGE MMO (JAN. 2006)

PAGE TWO

(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for offeror's home office / principal place of business)	NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause)
	Area Code - Number - Extension Facsimile E-mail Address

PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause)	ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders and "Contract Documents" clauses)
____Payment Address same as Home Office Address ____Payment Address same as Notice Address **(check only one)**	____Order Address same as Home Office Address ____Order Address same as Notice Address **(check only one)**

ACKNOWLEDGMENT OF AMENDMENTS

Offerors acknowledges receipt of amendments by indicating amendment number and its date of issue. (See "Amendments to Solicitation" Provision)

Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date

DISCOUNT FOR PROMPT PAYMENT (See "Discount for Prompt Payment" clause)	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	____Calendar Days (%)

PREFERENCES - A NOTICE TO VENDORS (SEP. 2009): On June 16, 2009, the South Carolina General Assembly rewrote the law governing preferences available to in-state vendors, vendors using in-state subcontractors, and vendors selling in-state or US end products. This law appears in Section 11-35-1524 of the South Carolina Code of Laws. A summary of the new preferences is available at www.procurement.sc.gov/preferences. ***ALL THE PREFERENCES MUST BE CLAIMED AND ARE APPLIED BY LINE ITEM, REGARDLESS OF WHETHER AWARD IS MADE BY ITEM OR LOT.*** **VENDORS ARE CAUTIONED TO CAREFULLY REVIEW THE STATUTE BEFORE CLAIMING ANY PREFERENCES. THE REQUIREMENTS TO QUALIFY HAVE CHANGED. IF YOU REQUEST A PREFERENCE, YOU ARE CERTIFYING THAT YOUR OFFER QUALIFIES FOR THE PREFERENCE YOU'VE CLAIMED. IMPROPERLY REQUESTING A PREFERENCE CAN HAVE SERIOUS CONSEQUENCES.** [11-35-1524(E)(4)&(6)]

PREFERENCES - ADDRESS AND PHONE OF IN-STATE OFFICE: Please provide the address and phone number for your in-state office in the space provided below. An in-state office is necessary to claim either the Resident Vendor Preference (11-35-1524(C)(1)(i)&(ii)) or the Resident Contractor Preference (11-35-1524(C)(1)(iii)). Accordingly, you must provide this information to qualify for the preference. An in-state office is not required, but can be beneficial, if you are claiming the Resident Subcontractor Preference (11-35-1524(D)).

____In-State Office Address same as Home Office Address
____In-State Office Address same as Notice Address (check only one)

Solicitation Outline

I. Scope of Solicitation
II. Instructions to Offerors
  A. General Instructions
  B. Special Instructions
III. Scope of Work / Specifications
IV. Information for Offerors to Submit
V. Qualifications
VI. Award Criteria
VII. Terms and Conditions
  A. General
  B. Special
VIII. Bidding Schedule / Cost Proposal
IX. Attachments to Solicitation

I. SCOPE OF SOLICITATION

Horry-Georgetown Technical College is seeking competitive bids to provide all labor, materials and equipment to complete the project titled HGTC Conway Building 100 Domestic Water System Alterations

ACQUIRE SERVICES & SUPPLIES/EQUIPMENT (January 2006): The purpose of this solicitation is to acquire services and supplies or equipment complying with the enclosed description and/or specifications and conditions,

BUDGET – DESIRED RANGE (JAN 2006): The Using Governmental Unit seeks to incur costs in the following range: **$20,000 - $40,000** [01-1020-1]

MAXIMUM CONTRACT PERIOD — ESTIMATED (January 2006): **August 5, 2014 – September 5, 2014.** Dates provided are estimates only. Any resulting contract will begin on the date specified in the notice of award. See clause entitled "Term of Contract – Effective Date / Initial Contract Period".

II. INSTRUCTIONS TO OFFERORS – A. GENERAL INSTRUCTIONS

DEFINITIONS (JANUARY 2006) EXCEPT AS OTHERWISE PROVIDED HEREIN, THE FOLLOWING DEFINITIONS ARE APPLICABLE TO ALL PARTS OF THE SOLICITATION.
AMENDMENT – means a document issued to supplement the original solicitation document.
BOARD – means the South Carolina Budget & Control Board.
BUYER – means the Procurement Officer.
CHANGE ORDER - means any written alteration in specifications, delivery point, rate of delivery, period of performance, price, quantity, or other provisions of any contract accomplished by mutual agreement of the parties to the contract.
CONTRACT - See clause entitled "Contract Documents & Order of Precedence."
CONTRACT MODIFICATION – means a written order signed by the Procurement Officer, directing the contractor to make changes which the changes clause of the contract authorizes the Procurement Officer to order without the consent of the contractor.
CONTRACTOR - means the Offeror receiving an award as a result of this solicitation.
COVER PAGE – means the top page of the original solicitation on which the solicitation is identified by number. Offerors are cautioned that Amendments may modify information provided on the Cover Page.
OFFER – means the bid or proposal submitted in response this solicitation. The terms "Bid" and "Proposal" are used interchangeably with the term "Offer."
OFFEROR – means the single legal entity submitting the offer. The term "Bidder" is used interchangeably with the term "Offeror." See bidding provisions entitled "Signing Your Offer" and "Bid/Proposal As Offer To Contract."

ORDERING ENTITY - Using Governmental Unit that has submitted a Purchase Order.
PAGE TWO – means the second page of the original solicitation, which is labeled Page Two.
PROCUREMENT OFFICER – means the person, or his successor, identified as such on the Cover Page.
YOU and YOUR – means Offeror.
SOLICITATION – means this document, including all its parts, attachments, and any Amendments.
STATE – means the Using Governmental Unit(s) identified on the Cover Page.
SUBCONTRACTOR – means any person having a contract to perform work or render service to Contractor as a part of the Contractor's agreement arising from this solicitation.
USING GOVERNMENTAL UNIT – means the unit(s) of government identified as such on the Cover Page. If the Cover Page names a "Statewide Term Contract" as the Using Governmental Unit, the Solicitation seeks to establish a Term Contract [11-35-310(35)] open for use by all South Carolina Public Procurement Units [11-35-4610(5)].
WORK - means all labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations under the Contract.

AMENDMENTS TO SOLICITATION (JANUARY 2006): (a) The Solicitation may be amended at any time prior to opening. All actual and prospective Offerors should monitor the following web site for the issuance of Amendments: www.hgtc.edu. (b) Offerors shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on Page Two, (3) by letter, or (4) by submitting a bid that indicates in some way that the bidder received the amendment. (c) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

AWARD NOTIFICATION (JANUARY 2006) Notice regarding the College's intent to award a contract will be posted at the location specified on the Cover Page. The date and location of posting will be announced at opening. If the contract resulting from this Solicitation has a total or potential value in excess of one hundred thousand dollars, such notice will be sent to all Offerors responding to the Solicitation and any award will not be effective until the eleventh day after such notice is given.

BID / PROPOSAL AS OFFER TO CONTRACT (JANUARY 2006) By submitting Your Bid or Proposal, You are offering to enter into a contract with the Using Governmental Unit(s). Without further action by either party, a binding contract shall result upon final award. Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror on the Cover Page. An Offer may be submitted by only one legal entity; "joint bids" are not allowed.

BID ACCEPTANCE PERIOD (JANUARY 2006) In order to withdraw Your Offer after the minimum period specified on the Cover Page, You must notify the Procurement Officer in writing.

BID IN ENGLISH & DOLLARS (JANUARY 2006) Offers submitted in response to this solicitation shall be in the English language and in US dollars, unless otherwise permitted by the Solicitation.

BOARD AS PROCUREMENT AGENT (AUG 2004) (a) Authorized Agent. All authority regarding the conduct of this procurement is vested solely with the responsible Procurement Officer. Unless specifically delegated in writing, the Procurement Officer is the only government official authorized to bind the government with regard to this procurement. (b) Purchasing Liability. The Procurement Officer is an employee of the Board acting on behalf of the Using Governmental Unit(s) pursuant to the Consolidated Procurement Code. Any contracts awarded as a result of this procurement are between the Contractor and the Using Governmental Units(s). The Board is not a party to such contracts, unless and to the extent that the board is a using governmental unit, and bears no liability for any party's losses arising out of or relating in any way to the contract.

CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (MAY 2008): GIVING FALSE, MISLEADING, OR INCOMPLETE INFORMATION ON THIS CERTIFICATION MAY RENDER YOU SUBJECT TO PROSECUTION UNDER SECTION 16-9-10 OF THE SOUTH CAROLINA CODE OF LAWS AND OTHER APPLICABLE LAWS.
(a) By submitting an offer, the offeror certifies that-
(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to—
(i) Those prices;
(ii) The intention to submit an offer; or
(iii) The methods or factors used to calculate the prices offered.
(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and
(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory-
(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this certification; or
(2)(i) Has been authorized, in writing, to act as agent for the offeror's principals in certifying that those principals have not participated, and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this certification [As used in this subdivision (b)(2)(i), the term "principals" means the person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal];
(ii) As an authorized agent, does certify that the principals referenced in subdivision (b)(2)(i) of this certification have not participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this certification; and
(iii) As an agent, has not personally participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this certification.
(c) If the offeror deletes or modifies paragraph (a)(2) of this certification, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure. [02-2A032-1]

CERTIFICATION REGARDING DEBARMENT AND OTHER RESPONSIBILITY MATTERS (JANUARY 2006)

(a)(1) By submitting an Offer, Offeror certifies, to the best of its knowledge and belief, that-

(i) Offeror and/or any of its Principals-

(A) Are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any state or federal agency;
(B) Have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and
(C) Are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) Offeror has not, within a three-year period preceding this offer, had one or more contracts terminated for default by any public (Federal, state, or local) entity.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

(b) Offeror shall provide immediate written notice to the Procurement Officer if, at any time prior to contract award, Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) If Offeror is unable to certify the representations stated in paragraphs (a)(1), Offer must submit a written explanation regarding its inability to make the certification. The certification will be considered in connection with a review of the Offeror's responsibility. Failure of the Offeror to furnish additional information as requested by the Procurement Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly or in bad faith rendered an erroneous certification, in addition to other remedies available to the State, the Procurement Officer may terminate the contract resulting from this solicitation for default.

CODE OF LAWS AVAILABLE (JANUARY 2006): The South Carolina Code of Laws, including the Consolidated Procurement Code, is available at http://www.scstatehouse.net/code/statmast.htm. The South Carolina Regulations are available at: http://www.scstatehouse.net/coderegs/statmast.htm.

COMPLETION OF FORMS / CORRECTION OF ERRORS (JANUARY 2006): All prices and notations should be printed in ink or typewritten. Errors should be crossed out, corrections entered and initialed by the person signing the bid. Do not modify the solicitation document itself (including bid schedule). (Applicable only to offers submitted on paper.)

DEADLINE FOR SUBMISSION OF OFFER (JANUARY 2006) Any offer received after the Procurement Officer of the governmental body or his designee has declared that the time set for opening has arrived, shall be rejected unless the offer has been delivered to the designated purchasing office or the governmental bodies' mail room which services that purchasing office prior to the bid opening. [R.19-445.2070(H)]

DISCLOSURE OF CONFLICTS OF INTEREST OR UNFAIR COMPETITIVE ADVANTAGE (MAY 2011): You warrant and represent that your offer identifies and explains any unfair competitive advantage you may have in competing for the proposed contract and any actual or potential conflicts of interest that may arise from your participation in this competition or your receipt of an award. The two underlying principles are (a) preventing the existence of conflicting roles that might bias a contractor's judgment, and (b) preventing an unfair competitive advantage. If you have an unfair competitive advantage or a conflict of interest, the state may withhold award. Before withholding award on these grounds, an offeror will be notified of the concerns and provided a reasonable opportunity to respond. Efforts to avoid or mitigate such concerns, including restrictions on future activities, may be considered. [02-2A047-1]

DRUG FREE WORK PLACE CERTIFICATION (JANUARY 2006) By submitting an Offer, Contractor certifies that, if awarded a contract, Contractor will comply with all applicable provisions of The Drug-free Workplace Act, Title 44, Chapter 107 of the South Carolina Code of Laws, as amended

DUTY TO INQUIRE (JANUARY 2006) Offeror, by submitting an Offer, represents that it has read and understands the Solicitation and that its Offer is made in compliance with the Solicitation. Offerors are expected to examine the Solicitation thoroughly and should request an explanation of any ambiguities, discrepancies, errors, omissions, or conflicting statements in the Solicitation. Failure to do so will be at the Offeror's risk. Offeror assumes responsibility for any patent ambiguity in the Solicitation that Offeror does not bring to the State's attention.

ETHICS ACT (JANUARY 2006) By submitting an Offer, You certify that You are in compliance with South Carolina's Ethics, Government Accountability, and Campaign Reform Act of 1991, as amended. The following statutes require special attention: (a) Offering, giving, soliciting, or receiving anything of value to influence action of public employee – Section 8-13-790, (b) Recovery of kickbacks – Section 8-13-790, (c) Offering, soliciting, or receiving money for advice or assistance of public official – Section 8-13-720, (d) Use or disclosure of confidential information – Section 8-13-725, and (e) Persons hired to assist in the preparation of specifications or evaluation of bids – Section 8-13-1150.

OMIT TAXES FROM PRICE (JANAURY 2006): Do not include any sales or use taxes in Your price that the State may be required to pay.

PROTESTS (JANUARY 2006) Any prospective bidder, offeror, contractor, or subcontractor who is aggrieved in connection with the solicitation of a contract shall protest within fifteen days of the date of issuance of the applicable solicitation document at issue. Any actual bidder, offeror, contractor, or subcontractor who is aggrieved in connection with the intended award or award of a contract shall protest within fifteen days of the date notification of award is posted in accordance with this code. A protest shall be in writing, submitted to the appropriate chief Procurement Officer, and shall set forth the grounds of the protest and the relief requested with enough particularity to give notice of the issues to be decided. [§ 11-35-4210]

QUESTIONS FROM OFFERORS (JANUARY 2006): (a) Any prospective offeror desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing. Questions must be received by the Procurement Officer no later than five (5) days prior to opening unless otherwise stated on the Cover Page. Label any communication regarding your questions with the name of the procurement officer, and the solicitation's title and number. Oral explanations or instructions will not be binding. Any information given a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an Amendment to the solicitation, if that information is necessary for submitting offers or if the lack of it would be prejudicial to other prospective offerors. (b) The State seeks to permit maximum practicable competition. Offerors are urged to advise the Procurement Officer – as soon as possible – regarding any aspect of this procurement, including any aspect of the Solicitation that unnecessarily or inappropriately limits full and open competition.

REJECTION/CANCELLATION (JANUARY 2006) The State may cancel this solicitation in whole or in part. The State may reject any or all proposals in whole or in part. [SC Code Section 11-35-1710 & R.19-445.2065.]

RESPONSIVENESS / IMPROPER OFFERS (JANUARY 2006)

(a) Bid as Specified. Offers for supplies or services other than those specified will not be considered unless authorized by the Solicitation.

(b) Multiple Offers. Offerors may submit more than one Offer, provided that each Offer has significant differences other than price. Each separate Offer must satisfy all Solicitation requirements. If this solicitation is an Invitation for Bids, each separate offer must be submitted as a separate document. If this solicitation is a Request for Proposals, multiple offers may be submitted as one document, provided that you clearly differentiate between each offer and you submit a separate cost proposal for each offer, if applicable.

(c) Responsiveness. Any Offer which fails to conform to the material requirements of the Solicitation may be rejected as nonresponsive. Offers which impose conditions that modify material requirements of the Solicitation may be rejected. If a fixed price is required, an Offer will be rejected if the total possible cost to the State cannot be determined. Offerors will not be given an opportunity to correct any material nonconformity. Any deficiency resulting from a minor informality may be cured or waived at the sole discretion of the Procurement Officer. [R.19-445.2070 and Section 11-35-1520(13)]

(d) Price Reasonableness: Any offer may be rejected if the Procurement Officer determines in writing that it is unreasonable as to price. [R. 19-445.2070].

(e) Unbalanced Bidding. The State may reject an Offer as nonresponsive if the prices bid are materially unbalanced between line items or sub-line items. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the State even though it may be the low evaluated bid, or if it is so unbalanced as to be tantamount

RESTRICTIONS APPLICABLE TO OFFERORS (JANUARY 2006) Violation of these restrictions may result in disqualification of your offer, suspension or debarment, and may constitute a violation of the state Ethics Act. (a) After issuance of the solicitation, you agree not to discuss this procurement activity in any way with the Using Governmental Unit or its employees, agents or officials. All communications must be solely with the Procurement Officer. This restriction may be lifted by express written permission from the Procurement Officer. This restriction expires once a contract has been formed. (b) Unless otherwise approved in writing by the Procurement Officer, you agree not to give anything to any Using Governmental Unit

SIGNING YOUR OFFER (JANUARY 2006) Every Offer must be signed by an individual with actual authority to bind the Offeror. (a) If the Offeror is an individual, the Offer must be signed by that individual. If the Offeror is an individual doing business as a firm, the Offer must be submitted in the firm name, signed by the individual, and state that the individual is doing business as a firm. (b) If the Offeror is a partnership, the Offer must be submitted in the partnership name, followed by the words "by its Partner," and signed by a general partner. (c) If the Offeror is a corporation, the Offer must be submitted in the corporate name, followed by the signature and title of the person authorized to sign. (d) An Offer may be submitted by a joint venturer involving any combination of individuals, partnerships, or corporations. If the Offeror is a joint venture, the Offer must be submitted in the name of the Joint Venture and signed by every participant in the joint venture in the manner prescribed in paragraphs (a) through (c) above for each type of participant. (e) If an Offer is signed by an agent, other than as stated in subparagraphs (a) through (d) above, the Offer must state that is has been signed by an Agent. Upon request, Offeror must provide proof of the agent's authorization to bind the principal.

STATE OFFICE CLOSINGS (JANUARY 2006) If an emergency or unanticipated event interrupts normal government processes so that offers cannot be received at the government office designated for receipt of bids by the exact time specified in the solicitation, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal government processes resume. In lieu of an automatic extension, an Amendment may be issued to reschedule bid opening. If state offices are closed at the time a pre-bid or pre-proposal conference is scheduled, an Amendment will be issued to reschedule the conference. Useful information may be available at: http://www.scemd.org/scgovweb/weather_alert.htm.

SUBMITTING CONFIDENTIAL INFORMATION (AUGUST 2002): (An overview is available at www.procurement.sc.gov) For every document Offeror submits in response to or with regard to this solicitation or request, Offeror must separately mark with the word "CONFIDENTIAL" every page, or portion thereof, that Offeror contends contains information that is exempt from public disclosure because it is either (a) a trade secret as defined in Section 30-4-40(a)(1), or (b) privileged and confidential, as that phrase is used in Section 11-35-410. For every document Offeror submits in response to or with regard to this solicitation or request, Offeror must separately mark with the words "TRADE SECRET" every page, or portion thereof, that Offeror contends contains a trade secret as that term is defined by Section 39-8-20 of the Trade Secrets Act. For every document Offeror submits in response to or with regard to this solicitation or

request, Offeror must separately mark with the word "PROTECTED" every page, or portion thereof, that Offeror contends is protected by Section 11-35-1810. All markings must be conspicuous; use color, bold, underlining, or some other method in order to conspicuously distinguish the mark from the other text. Do not mark your entire response (bid, proposal, quote, etc.) as confidential, trade secret, or protected! If your response, or any part thereof, is improperly marked as confidential or trade secret or protected, the State may, in its sole discretion, determine it nonresponsive. If only portions of a page are subject to some protection, do not mark the entire page. By submitting a response to this solicitation or request, Offeror (1) agrees to the public disclosure of every page of every document regarding this solicitation or request that was submitted at any time prior to entering into a contract (including, but not limited to, documents contained in a response, documents submitted to clarify a response, and documents submitted during negotiations), unless the page is conspicuously marked "TRADE SECRET" or "CONFIDENTIAL" or "PROTECTED", (2) agrees that any information not marked, as required by these bidding instructions, as a "Trade Secret" is not a trade secret as defined by the Trade Secrets Act, and (3) agrees that, notwithstanding any claims or markings otherwise, any prices, commissions, discounts, or other financial figures used to determine the award, as well as the final contract amount, are subject to public disclosure. In determining whether to release documents, the State will detrimentally rely on Offeror's marking of documents, as required by these bidding instructions, as being either "Confidential" or "Trade Secret" or "PROTECTED". By submitting a response, Offeror agrees to defend, indemnify and hold harmless the State of South Carolina, it's officers and employees, from every claim, demand, loss, expense, cost, damage or injury, including attorney's fees, arising out of or resulting from the State withholding information that Offeror marked as "confidential" or "trade secret" or "PROTECTED". (All references to S.C. Code of Laws.)

SUBMITTING YOUR OFFER OR MODIFICATION (JANUARY 2006) (a) Offers and offer modifications shall be submitted in sealed envelopes or packages (unless submitted by electronic means) – (1) Addressed to the office specified in the Solicitation; and (2) Showing the time and date specified for opening, the solicitation number, and the name and address of the bidder. (b) If you are responding to more than one solicitation, each offer must be submitted in a different envelope or package. (c) Each Offeror must submit the number of copies indicated on the Cover Page. (d) Offerors using commercial carrier services shall ensure that the Offer is addressed and marked on the outermost envelope or wrapper as prescribed in paragraphs (a)(1) and (2) of this provision when delivered to the office specified in the Solicitation. (e) ***Facsimile or e-mail offers, modifications, or withdrawals, will not be considered unless authorized by the Solicitation.*** (f) Offers submitted by electronic commerce shall be considered only if the electronic commerce method was specifically stipulated or permitted by the solicitation.

TAX CREDIT FOR SUBCONTRACTING WITH MINORITY FIRMS (JANUARY 2006) Pursuant to Section 12-6-3350, taxpayers, who utilize certified minority subcontractors, may take a tax credit equal to 4% of the payments they make to said subcontractors. The payments claimed must be based on work performed directly for a South Carolina state contract. The credit is capped at $50,000 per year or the total tax liability; whichever is lesser. The taxpayer is eligible to claim the credit for 10 consecutive taxable years beginning with the taxable year in which the credit is first claimed. There is no carry forward of unused credits. The credit may be claimed on Form TC-2, "Minority Business Credit." A copy of the subcontractor's certificate from the Governor's Office of Small and Minority Business (OSMBA) is to be attached to the contractor's income tax return. Taxpayers must maintain evidence of work performed for a State contract by the minority subcontractor. Questions regarding the tax credit and how to file are to be referred to: SC Department of Revenue, Research and Review, Phone: (803) 898-5786, Fax: (803) 898-5888. The subcontractor must be certified as to the criteria of a "Minority Firm" by the Governor's Office of Small and Minority Business Assistance (OSMBA). Certificates are issued to subcontractors upon successful completion of the certification process. Questions regarding subcontractor certification are to be referred to: Governor's Office of Small and Minority Business Assistance, Phone: (803) 734-0657, Fax: (803) 734-2498. Reference: SC §11-35-5010 – Definition for Minority Subcontractor & SC §11-35-5230 (B) – Regulations for Negotiating with State Minority Firms.

TAXPAYER IDENTIFICATION NUMBER (JANUARY 2006): (a) If Offeror is owned or controlled by a common parent as defined in paragraph (b) of this provision, Offeror shall submit with its Offer the name and TIN of common parent.
(b) Definitions: "Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member. "Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.
(c) If Offeror does not have a TIN, Offeror shall indicate if either a TIN has been applied for or a TIN is not required. If a TIN is not required, indicate whether (i) Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States; (ii) Offeror is an agency or instrumentality of a state or local government; (iii) Offeror is an agency or instrumentality of a foreign government; or (iv) Offeror is an agency or instrumentality of the Federal Government.

VENDOR REGISTRATION MANDATORY (JAN 2006): You must have a state vendor number to be eligible to submit an offer. To obtain a state vendor number, visit www.procurement.sc.gov and select New Vendor Registration. (To determine if your business is already registered, go to "Vendor Search"). Upon registration, you will be assigned a state vendor number. Vendors must keep their vendor information current. If you are already registered, you can update your information by selecting Change Vendor Registration. (Please note that vendor registration does not substitute for any obligation to register with the S.C. Secretary of State or S.C. Department of Revenue. You can register with the agencies at http://www.scbos.com/default.htm) [02-2A145-1]

WITHDRAWAL OR CORRECTION OF OFFER (JANUARY 2006) Offers may be withdrawn by written notice received at any time before the exact time set for opening. If the Solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time before the exact time set for opening. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for opening, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid. The withdrawal and correction of Offers is governed by S.C. Code Section 11-35-1520 and Regulation 19-445.2085.

II. INSTRUCTIONS TO OFFERORS – B. SPECIAL INSTRUCTIONS

CLARIFICATION (NOV 2007): Pursuant to Section 11-35-1520(8), the Procurement Officer may elect to communicate with you after opening for the purpose of clarifying either your offer or the requirements of the solicitation. Such communications may be conducted only with offerors who have submitted an offer which obviously conforms in all material aspects to the solicitation. Clarification of an offer must be documented in writing and included with the offer. Clarifications may not be used to revise an offer or the solicitation. [Section 11-35-1520(8); R.19-445.2080] [02-2B055-1]

CONFERENCE – PRE-BID/PROPOSAL (JAN 2006):
Pre-Bid/Proposal Conference Date and Time: **July 22, 2014 at 10:00 a.m.**
Location of Pre-Bid/Proposal Conference: **HGTC Conway Campus, Main Lobby of Bldg. 100**
Due to the importance of all offerors having a clear understanding of the specifications and requirements of this solicitation, a conference of potential offerors will be held on the date specified on the cover page. Bring a copy of the solicitation with you. Any changes resulting from this conference will be noted in a written amendment to the solicitation. Your failure to attend will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the State. The State assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available at the conference. Nor does the State assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract. [02-2B025-1]

DISCUSSIONS & NEGOTIATIONS (NOV 2007): Submit your best terms from a cost or price and from a technical standpoint. Your proposal may be evaluated and your offer accepted without any discussions, negotiations, or prior notice. Ordinarily, nonresponsive proposals will be rejected outright. Nevertheless, the State may elect to conduct discussions, including the possibility of limited proposal revisions, but only for those proposals reasonably susceptible of being selected for award. If improper revisions are submitted, the State may elect to consider only your unrevised initial proposal. [11-35-1530(6); R.19-445.2095(I)] The State may also elect to conduct negotiations, beginning with the highest ranked offeror, or seek best and final offers, as provided in Section 11-35-1530(8). If negotiations are conducted, the State may elect to disregard the negotiations and accept your original proposal. [02-2B060-1]

MAIL PICKUP (JANUARY 2006): The College picks up all mail from The US Postal Service once daily around 9:00 a.m. (excluding weekends and holidays). See provision entitled Deadline for Submission of Offer.

PREFERENCES - A NOTICE TO VENDORS (SEP. 2009): On June 16, 2009, the South Carolina General Assembly rewrote the law governing preferences available to in-state vendors, vendors using in-state subcontractors, and vendors selling in-state or US end products. This law appears in Section 11-35-1524 of the South Carolina Code of Laws. A summary of the new preferences is available at www.procurement.sc.gov/preferences. ***ALL THE PREFERENCES MUST BE CLAIMED AND ARE APPLIED BY LINE ITEM, REGARDLESS OF WHETHER AWARD IS MADE BY ITEM OR LOT.*** **VENDORS ARE CAUTIONED TO CAREFULLY REVIEW THE STATUTE BEFORE CLAIMING ANY PREFERENCES. THE REQUIREMENTS TO QUALIFY HAVE CHANGED. IF YOU REQUEST A PREFERENCE, YOU ARE CERTIFYING THAT YOUR OFFER QUALIFIES FOR THE PREFERENCE YOU'VE CLAIMED. IMPROPERLY REQUESTING A PREFERENCE CAN HAVE SERIOUS CONSEQUENCES.** [11-35-1524(E)(4)&(6)]

PREFERENCES - RESIDENT CONTRACTOR PREFERENCE (SEP 2009): To qualify for the RCP, you must maintain an office in this state. An office is a nonmobile place for the regular transaction of business or performance of a particular service which has been operated as such by the bidder for at least one year before the bid opening and during that year the place has been staffed for at least fifty weeks by at least two employees for at least thirty five hours a week each. In addition, you must, at the time you submit your bid, directly employ, or have a documented commitment with, individuals domiciled in South Carolina that will perform services expressly required by the solicitation and your total direct labor cost for those individuals to provide those services must exceed fifty percent of your total bid price. [11-35-1524(C)(1)(iii)] Upon request by the procurement officer, you must identify the persons domiciled in South Carolina that will perform the services involved in the procurement upon which you rely in qualifying for the preference, the services those individuals are to perform, and documentation of the your labor cost for each person identified. If requested, your failure to provide this information promptly will be grounds to deny the preference and, potentially, for other enforcement action. [02-2B113A-1]

PREFERENCES - RESIDENT SUBCONTRACTOR PREFERENCE (SEP 2009): To qualify for this preference, you must meet the following requirements. (1) You must -- at the time you submit your bid -- have a documented commitment from a single proposed first tier subcontractor to perform some portion of the services expressly required by the solicitation. (2) The subcontractor -- at the time you submit your bid -- must directly employ, or have a documented commitment with, individuals domiciled in South Carolina that will perform services expressly required by the solicitation and the total direct labor cost to the subcontractor for those individuals to provide those services exceeds, as applicable, either twenty percent for a 2% preference or forty percent of bidder's total bid price for a 4% preference. (3) You must identify the subcontractor that will perform the work, the work the subcontractor is to perform, and your factual basis for concluding that the subcontractor's work constitutes the required percentage of the work to be performed in the procurement. [11-35-1524(D)] You can stack this preference, i.e., earn another 2% or 4% preference for each additional qualifying subcontractor, but the preference is capped. [11-35-1524(D)(4), (E)(7)] Upon request by the procurement officer, you must identify the persons domiciled in South Carolina that are to perform the services involved in the procurement upon which you rely in qualifying for the preference, the services those individuals are to perform, the employer of those persons, your relationship with the employer, and documentation of the subcontractor's labor cost for each person identified. If requested, your failure to provide this information promptly will be grounds to deny the preference and, potentially, for other enforcement action. YOU WILL NOT RECEIVE THE PREFERENCE UNLESS YOU SPECIFY WHETHER YOUR ARE CLAIMING THE 2% OR 4% PREFERENCE AND YOU PROVIDE THE INFORMATION REQUIRED BY ITEM (3) ABOVE. [02-2B113B-1]

PROTEST – CPO - MMO ADDRESS (JANUARY 2006): Any protest must be submitted in writing to the Chief Procurement Officer, Materials Management Office, 1201 Main Street, Suite 600, Columbia, SC 29201.

III. SCOPE OF WORK / SPECIFICATIONS

STATEMENT OF WORK (June 2007): Please see ATTACHMENT for STATEMENT OF WORK. [03-3003-1]

Attached are the Construction Drawings and Specifications for this project.

DELIVERY / PERFORMANCE LOCATION - SPECIAL (JANUARY 2006): Contractor shall deliver to:

HORRY-GEORGETOWN TECH COLL EGE
Conway Campus, Building 200
2050 Hwy. 501 E
Conway, SC 29526

Deviation from specifications indicated herein must be clearly pointed out; otherwise, it will be considered that the products offered are in strict compliance with the specifications and successful bidder will be held responsible. Deviations must be explained in detail on separate attached sheet(s). The right is reserved to reject any offering in which the items offered are considered unsatisfactory in any manner. The College will determine if minor deviations from these features are acceptable. **Failure to provide this information will be considered valid justification for rejection of a bid.**

Questions:
Questions regarding product or specifications should be directed to Kevin Brown, Superintendent of Building and Grounds 843-349-5398 or kevin.brown@hgtc.edu. Questions regarding the bid package or process should be directed to Dianna Cecala, Procurement Manage at 843-349-5207 or dianna.cecala@hgtc.edu.

IV. . INFORMATION FOR OFFERORS TO SUBMIT

INFORMATION FOR OFFERORS TO SUBMIT – GENERAL (JANUARY 2006): Offeror shall submit **a signed Cover Page and Page Two. Offeror should submit all other information and documents requested in this part and in parts II.B. Special Instructions; III. Scope of Work; V. Qualifications; VIII. Bidding Schedule/Price Proposal; and any appropriate attachments addressed in section IX. Attachments to Solicitations – Pricing must be submitted on Form SE-331 Attached.**

MINORITY PARTICIPATION (JAN 2006)
Is the bidder a South Carolina Certified Minority Business? □ Yes □ NO
Is the bidder a Minority Business certified by another governmental entity? □ Yes □ NO
If so, please list the certifying governmental entity: _____
Will any of the work under this contract be performed by a SC certified Minority Business as a subcontractor? □ Yes □ NO
If so, what percentage of the total value of the contract will be performed by a SC certified Minority Business as a subcontractor? □ Yes □ NO
Will any of the work under this contract be performed by a minority business certified by another governmental entity as a subcontractor? □ Yes □ NO
If so, what percentage of the total value of the contract will be performed by a minority business certified by another governmental entity as a subcontractor? □ Yes □ NO
If a certified Minority Business is participating in this contract, please indicate all categories for which the Business is certified:
□ Traditional minority
□ Traditional minority, but female
□ Women (Caucasian females)
□ Hispanic minorities
□ DOT referral (Traditional minority)
□ DOT referral (Caucasian female)
□ Temporary certification
□ SBA 8 (a) certification referral
□ Other minorities (Native American, Asian, etc.)
(If more than one minority contractor will be utilized in the performance of this contract, please provide the information above for each minority business.)

V. QUALIFICATIONS

QUALIFICATION OF OFFEROR (JANUARY 2006): To be eligible for award of a contract, a prospective contractor must be responsible. In evaluating an Offeror's responsibility, the State Standards of Responsibility [R.19-445.2125] and information from any other source may be considered. An Offeror must, upon request of the State, furnish satisfactory evidence of its ability to meet all contractual requirements. Unreasonable failure to supply information promptly in connection with a responsibility inquiry may be grounds for determining that you are ineligible to receive an award. S.C. Code Section 11-35-1810.

QUALIFICATIONS – REQUIRED INFORMATION (JAN 2006): In order to evaluate your responsibility, offeror shall submit the following information or documentation for the offeror and any subcontractor, if the value of subcontractor's portion of the work exceeds 10% of your price (if in doubt, provide the information):
(a) Include a brief history of the offeror's experience in providing work of similar size and scope.
(b) Your most current financial statement, financial statements for your last two fiscal years, and information reflecting your current financial position. If you have audited financial statements meeting these requirements, you must provide those statements. [Reference Statement of Concepts No. 5 (FASB, December, 1984)]
(c) A detailed, narrative statement listing the three most recent, comparable contracts (including contact information) which you have performed and the general history and experience of your organization.
(d) A list of every business for which offeror has performed, at any time during the past three year(s), services substantially similar to those sought with this solicitation. Err on the side of inclusion; by submitting an offer, offeror represents that the list is complete.
(e) List of failed projects, suspensions, debarments, and significant litigation.
[05-5015-1]

SUBCONTRACTOR – IDENTIFICATION (JAN 2006): If you intend to subcontract with another business for any portion of the work and that portion exceeds 10% of your price, your offer must identify that business and the portion of work which

they are to perform. Identify potential subcontractors by providing the business' name, address, phone, taxpayer identification number, and point of contact. In determining your responsibility, the state may evaluate your proposed subcontractors. [05-5030-1]

VI. AWARD CRITERIA

AWARD BY ITEM OR LOT) JANUARY 2006): Award will be made by individual item and/or complete lot

AWARD CRITERIA – BIDS (JANUARY 2006): Award will be made to the lowest responsible and responsive bidder(s).

VII. TERMS AND CONDITIONS – A. GENERAL

ASSIGNMENT (JANUARY 2006): No contract or its provisions may be assigned, sublet, or transferred without the written consent of the Procurement Officer.

BANKRUPTCY (JANUARY 2006): (a) Notice. In the event the Contractor enters into proceedings relating to bankruptcy,whether voluntary or involuntary, the Contractor agrees to furnish written notification of the bankruptcy to the Using Governmental Unit. This notification shall be furnished within five (5) days of the initiation of the proceedings relating to the bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of all State contracts against which final payment has not been made. This obligation remains in effect until final payment under this Contract. (b) Termination. This contract is voidable and subject to immediate termination by the State upon the contractor's insolvency, including the filing of proceedings in bankruptcy.

CHOICE-OF-LAW (JANUARY 2006): The Agreement, any dispute, claim, or controversy relating to the Agreement, and all the rights and obligations of the parties shall, in all respects, be interpreted, construed, enforced and governed by and under the laws of the State of South Carolina, except its choice of law rules. As used in this paragraph, the term "Agreement" means any transaction or agreement arising out of, relating to, or contemplated by the solicitation.

CONTRACT DOCUMENTS & ORDER OF PRECEDENCE (JANUARY 2006): (a) Any contract resulting from this solicitation shall consist of the following documents: (1) a Record of Negotiations, if any, executed by you and the Procurement Officer, (2) documentation regarding the clarification of an offer [e.g., 11-35-1520(8) or 11-35-1530(6)], if applicable, (3) the solicitation, as amended, (4) modifications, if any, to your offer, if accepted by the Procurement Officer, (5) your offer, (6) any statement reflecting the state's final acceptance (a/k/a "award"), and (7) purchase orders. These documents shall be read to be consistent and complimentary. Any conflict among these documents shall be resolved by giving priority to these documents in the order listed above. (b) The terms and conditions of documents (1) through (6) above shall apply notwithstanding any additional or different terms and conditions in either (i) a purchase order or other instrument submitted by the State or (ii) any invoice or other document submitted by Contractor. Except as otherwise allowed herein, the terms and conditions of all such documents shall be void and of no effect. (c) No contract, license, or other agreement containing contractual terms and conditions will be signed by any Using Governmental Unit. Any document signed or otherwise agreed to by persons other than the Procurement Officer shall be void and of no effect.

DISCOUNT FOR PROMPT PAYMENT (JANUARY 2006)

(a) Discounts for prompt payment will not be considered in the evaluation of offers. However, any offered discount will form a part of the award, and will be taken if payment is made within the discount period indicated in the offer by the offeror. As an alternative to offering a discount for prompt payment in conjunction with the offer, offerors awarded contracts may include discounts for prompt payment on individual invoices.

(b) In connection with any discount offered for prompt payment, time shall be computed from the date of the invoice. If the Contractor has not placed a date on the invoice, the due date shall be calculated from the date the designated billing office receives a proper invoice, provided the state annotates such invoice with the date of receipt at the time of receipt. For the purpose of computing the discount earned, payment shall be considered to have been made on the date that appears on the payment check or, for an electronic funds transfer, the specified payment date. When the discount date falls on a Saturday, Sunday, or legal holiday when Federal Government offices are closed and Government business is not expected to be conducted, payment may be made on the following business day.

DISPUTES (JANUARY 2006): (1) Choice-of-Forum. All disputes, claims, or controversies relating to the Agreement shall be resolved exclusively by the appropriate Chief Procurement Officer in accordance with Title 11, Chapter 35, Article 17 of the South Carolina Code of Laws, or in the absence of jurisdiction, only in the Court of Common Pleas for, or a federal court located in, Richland County, State of South Carolina. Contractor agrees that any act by the Government regarding the Agreement is not a waiver of either the Government's sovereign immunity or the Government's immunity under the Eleventh Amendment of the United State's Constitution. As used in this paragraph, the term "Agreement" means any transaction or agreement arising out of, relating to, or contemplated by the solicitation. (2) Service of Process. Contractor consents that any papers, notices, or process necessary or proper for the initiation or continuation of any disputes, claims, or controversies relating to the Agreement; for any court action in connection therewith; or for the entry of judgment on any award made, may be served on Contractor by certified mail (return receipt requested) addressed to Contractor at the address provided as the Notice Address on Page Two or by personal service or by any other manner that is permitted by law, in or outside South Carolina. Notice by certified mail is deemed duly given upon deposit in the United States mail.

EQUAL OPPORTUNITY (JANUARY 2006). Contractor is referred to and shall comply with all applicable provisions, if any, of Title 41, Part 60 of the Code of Federal Regulations, including but not limited to Sections 60-1.4, 60-4.2, 60-4.3, 60-250.5(a), and 60-741.5(a), which are hereby incorporated by reference.

FALSE CLAIMS (JANUARY 2006): According to the S.C. Code of Laws § 16-13-240, "a person who by false pretense or representation obtains the signature of a person to a written instrument or obtains from another person any chattel, money,valuable security, or other property, real or personal, with intent to cheat and defraud a person of that property is guilty" of a crime.

FIXED PRICING REQUIRED (JANUARY 2006): Any pricing provided by contractor shall include all costs for performing the work associated with that price. Except as otherwise provided in this solicitation, contractor's price shall be fixed for the duration of this contract, including option terms. This clause does not prohibit contractor from offering lower pricing after award.

NON-INDEMNIFICATION (JANUARY 2006): Any term or condition is void to the extent it requires the State to indemnify anyone.

NOTICE (JANUARY 2006): (A) After award, any notices shall be in writing and shall be deemed duly given (1) upon actual delivery, if delivery is by hand, (2) upon receipt by the transmitting party of automated confirmation or answer back from the recipient's device if delivery is by telex, telegram, facsimile, or electronic mail, or (3) upon deposit into the United States mail, if postage is prepaid, a return receipt is requested, and either registered or certified mail is used. (B) Notice to contractor shall be to the address identified as the Notice Address on Page Two. Notice to the state shall be to the Procurement Officer's address on the Cover Page. Either party may designate a different address for notice by giving notice in accordance with this paragraph.

PAYMENT & INTEREST (MAY 2011): (a) Unless otherwise provided in this Solicitation, the State shall pay the Contractor, after the submission of proper invoices or vouchers, the prices stipulated in this contract for supplies delivered and accepted or services rendered and accepted, less any deductions provided in this contract. Unless otherwise specified herein, including the purchase order, payment shall not be made on partial deliveries accepted by the Government. (b) Unless otherwise provided herein, including the purchase order, payment will be made by check. (c) Notwithstanding any other provision, payment shall be made in accordance with S.C. Code Section 11-35-45, which provides the Contractor's exclusive means of recovering any type of interest from the Owner. Contractor waives imposition of an interest penalty unless the invoice submitted specifies that the late penalty is applicable. Except as set forth in this paragraph, the State shall not be liable for the payment of interest on any debt or claim arising out of or related to this contract for any reason. (d) Amounts due to the State shall bear interest at the rate of interest established by the South Carolina Comptroller General pursuant to Section 11-35-45 ("an amount not to exceed fifteen percent each year"), as amended. (e) Any other basis for interest, including but not limited to general (pre- and post-judgment) or specific interest statutes, including S.C. Code Ann. Section 34-31-20, are expressly waived by both parties. If a court, despite this agreement and waiver, requires that interest be paid on any debt by either party other than as provided by items (c) and (d) above, the parties further agree that the applicable interest rate for any given calendar year shall be the lowest prime rate as listed in the first edition of the Wall Street Journal published for each year, applied as simple interest without compounding. [07-7A055-2]

PUBLICITY (JANUARY 2006): Contractor shall not publish any comments or quotes by State employees, or include the State in either news releases or a published list of customers, without the prior written approval of the Procurement Officer.

PURCHASE ORDERS (JANUARY 2006): Contractor shall not perform any work prior to the receipt of a purchase order from the using governmental unit. The using governmental unit shall order any supplies or services to be furnished under this contract by issuing a purchase order. Purchase orders may be used to elect any options available under this contract, e.g., quantity, item, delivery date, payment method, but are subject to all terms and conditions of this contract. Purchase orders may be electronic. No particular form is required. An order placed pursuant to the purchasing card provision qualifies as a purchase order.

SETOFF (JANUARY 2006) The state shall have all of its common law, equitable, and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the state with regard to this contract, any other contract with any state department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the state for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto.

SURVIVAL OF OBLIGATIONS (JANUARY 2006): The Parties' rights and obligations which, by their nature, would continue beyond the termination, cancellation, rejection, or expiration of this contract shall survive such termination, cancellation, rejection, or expiration, including, but not limited to, the rights and obligations created by the following clauses: Indemnification - Third Party Claims, Intellectual Property Indemnification, and any provisions regarding warranty or audit.

TAXES (JANUARY 2006): Any tax the contractor may be required to collect or pay upon the sale, use or delivery of the products shall be paid by the State, and such sums shall be due and payable to the contractor upon acceptance. Any personal property taxes levied after delivery shall be paid by the State. It shall be solely the State's obligation, after payment to contractor, to challenge the applicability of any tax by negotiation with, or action against, the taxing authority. Contractor agrees to refund any tax collected, which is subsequently determined not to be proper and for which a refund has been paid to contractor by the taxing authority. In the event that the contractor fails to pay, or delays in paying, to any taxing authorities, sums paid by the State to contractor, contractor shall be liable to the State for any loss (such as the assessment of additional interest) caused by virtue of this failure or delay. Taxes based on Contractor's net income or assets shall be the sole responsibility of the contractor.

TERMINATION DUE TO UNAVAILABILITY OF FUNDS (JANUARY 2006) Payment and performance obligations forsucceeding fiscal periods shall be subject to the availability and appropriation of funds therefor. When funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period, the contract shall be canceled. In the event of a cancellation pursuant to this paragraph, contractor will be reimbursed the resulting unamortized, reasonably incurred, nonrecurring costs. Contractor will not be reimbursed any costs amortized beyond the initial contract term.

THIRD PARTY BENEFICIARY (JANUARY 2006) This Contract is made solely and specifically among and for the benefit of the parties hereto, and their respective successors and assigns, and no other person will have any rights, interest, or claims hereunder or be entitled to any benefits under or on account of this Contract as a third party beneficiary or otherwise.

WAIVER (JANUARY 2006) The State does not waive any prior or subsequent breach of the terms of the Contract by making payments on the Contract, by failing to terminate the Contract for lack of performance, or by failing to strictly or promptly insist upon any term of the Contract. Only the Procurement Officer has actual authority to waive any of the State's rights under this Contract. Any waiver must be in writing.

VII. TERMS AND CONDITIONS – B. SPECIAL

CHANGES (JAN 2006):
(1) Contract Modification. By a written order, at any time, and without notice to any surety, the Procurement Officer may, subject to all appropriate adjustments, make changes within the general scope of this contract in any one or more of the following:
(a) drawings, designs, or specifications, if the supplies to be furnished are to be specially manufactured for the [State] in accordance therewith;
(b) method of shipment or packing;

(c) place of delivery;
(d) description of services to be performed;
(e) time of performance (i.e., hours of the day, days of
the week, etc.); or,
(f) place of performance of the services.
Subparagraphs (a) to (c) apply only if supplies are furnished under this contract. Subparagraphs (d) to (f) apply only if services are performed under this contract.
(2) Adjustments of Price or Time for Performance. If any such change increases or decreases the contractor's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, an adjustment shall be made in the contract price, the delivery schedule, or both, and the contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with the Price Adjustment Clause of this contract. Failure of the parties to agree to an adjustment shall not excuse the contractor from proceeding with the contract as changed, provided that the State promptly and duly make such provisional adjustments in payment or time for performance as may be reasonable. By proceeding with the work, the contractor shall not be deemed to have prejudiced any claim for additional compensation, or an extension of time for completion.
(3) Time Period for Claim. Within 30 days after receipt of a written contract modification under Paragraph (1) of this clause, unless such period is extended by the Procurement Officer in writing, the contractor shall file notice of intent to assert a claim for an adjustment. Later notification shall not bar the contractor's claim unless the State is prejudiced by the delay in notification.
(4) Claim Barred After Final Payment. No claim by the contractor for an adjustment hereunder shall be allowed if notice is not given prior to final payment under this contract.

CISG (JAN 2006): The parties expressly agree that the UN Convention on the International Sale of Goods shall not apply to this agreement.

COMPLIANCE WITH LAWS (JAN 2006): During the term of the contract, contractor shall comply with all applicable provisions of laws, codes, ordinances, rules, regulations, and tariffs.

CONFERENCE – PRE-PERFORMANCE (JAN 2006): Unless waived by the Procurement Officer, a pre-performance conference between the contractor, state and Procurement Officer shall be held at a location selected by the state within five (5) days after final award, and prior to commencement of work under the contract. The responsibilities of all parties involved will be discussed to assure a meeting of the minds of all concerned. The successful contractor or his duly authorized representative shall be required to attend at contractor's expense.
[07-7B040-1]
CONTRACTOR'S LIABILITY INSURANCE (MAR 2013): (a) Contractor shall procure from a company or companies lawfully authorized to do business in South Carolina and with a current A.M. Best rating of no less than A: VII, and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work and the results of that work by the contractor, his agents, representatives, employees or subcontractors. (b) Coverage shall be at least as broad as:
(1) Commercial General Liability (CGL): Insurance Services Office (ISO) Form CG 00 01 12 07 covering CGL on an "occurrence" basis, including products-completed operations, personal and advertising injury, with limits no less than $1,000,000 per occurrence. If a general aggregate limit applies, the general aggregate limit shall be twice the required occurrence limit. This contract shall be considered to be an "insured contract" as defined in the policy.
(2) Auto Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limits no less than $1,000,000 per accident for bodily injury and property damage.
(3) Worker's Compensation: As required by the State of South Carolina, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease.
(b) Every applicable Using Governmental Unit, and the officers, officials, employees and volunteers of any of them, must be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10 and CG 20 37 if a later edition is used.
(c) For any claims related to this contract, the Contractor's insurance coverage shall be primary insurance as respects the State, every applicable Using Governmental Unit, and the officers, officials, employees and volunteers of any of them. Any insurance or self-insurance maintained by the State, every applicable Using Governmental Unit, or the officers, officials,

employees and volunteers of any of them, shall be excess of the Contractor's insurance and shall not contribute with it.
(d) Prior to commencement of the work, the Contractor shall furnish the State with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this section. All certificates are to be received and approved by the State before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The State reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by this section, at any time.
(e) Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. In addition, the Contractor shall notify the State immediately upon receiving any information that any of the coverages required by this section are or will be changed, cancelled, or replaced.
(f) Contractor hereby grants to the State and every applicable Using Governmental Unit a waiver of any right to subrogation which any insurer of said Contractor may acquire against the State or applicable Using Governmental Unit by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the State or Using Governmental Unit has received a waiver of subrogation endorsement from the insurer.
(g) Any deductibles or self-insured retentions must be declared to and approved by the State. The State may require the Contractor to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.
(h) The State reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.
[07-7B056-1]

CONTRACTOR PERSONNEL (JAN 2006): The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. [07-7B060-1]

CONTRACTOR'S OBLIGATION – GENERAL (JAN 2006): The contractor shall provide and pay for all materials, tools, equipment, labor and professional and non-professional services, and shall perform all other acts and supply all other things necessary, to fully and properly perform and complete the work. The contractor must act as the prime contractor and assume full responsibility for any subcontractor's performance. The contractor will be considered the sole point of contact with regard to all situations, including payment of all charges and the meeting of all other requirements. [07-7B065-1]

CONTRACTOR'S USE OF STATE PROPERTY (JAN 2006): Upon termination of the contract for any reason, the State shall have the right, upon demand, to obtain access to, and possession of, all State properties, including, but not limited to, current copies of all State application programs and necessary documentation, all data, files, intermediate materials and supplies held by the contractor. Contractor shall not use, reproduce, distribute, display, or sell any data, material, or documentation owned exclusively by the State without the State's written consent, except to the extent necessary to carry out the work. [07-7B067-1]

DEFAULT (JAN 2006):
(a) (1) The State may, subject to paragraphs (c) and (d) of this clause, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to:
(i) Deliver the supplies or to perform the services within the time specified in this contract or any extension;
(ii) Make progress, so as to endanger performance of this contract (but see paragraph (a)(2) of this clause); or
(iii) Perform any of the other material provisions of this contract (but see paragraph (a)(2) of this clause).
(2) The State's right to terminate this contract under subdivisions (a)(1)(ii) and (1)(iii) of this clause, may be exercised if the Contractor does not cure such failure within 10 days (or more if authorized in writing by the Procurement Officer) after receipt of the notice from the Procurement Officer specifying the failure.
(b) If the State terminates this contract in whole or in part, it may acquire, under the terms and in the manner the Procurement Officer considers appropriate, supplies or services similar to those terminated, and the Contractor will be liable to the State for any excess costs for those supplies or services. However, the Contractor shall continue the work not terminated.
(c) Except for defaults of subcontractors at any tier, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (1) acts of God or of the public enemy, (2) acts of the State in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance the failure to perform must be beyond the control and without the fault or negligence of the Contractor.
(d) If the failure to perform is caused by the default of a subcontractor at any tier, and if the cause of the default is beyond the

control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be liable for any excess costs for failure to perform, unless the subcontracted supplies or services were obtainable from other sources in sufficient time for the Contractor to meet the required delivery schedule.
(e) If this contract is terminated for default, the State may require the Contractor to transfer title and deliver to the State, as directed by the Procurement Officer, any (1) completed supplies, and (2) partially completed supplies and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (collectively referred to as "manufacturing materials" in this clause) that the Contractor has specifically produced or acquired for the terminated portion of this contract. Upon direction of the Procurement Officer, the Contractor shall also protect and preserve property in its possession in which the State has an interest.
(f) The State shall pay contract price for completed supplies delivered and accepted. The Contractor and Procurement Officer shall agree on the amount of payment for manufacturing materials delivered and accepted and for the protection and preservation of the property; if the parties fail to agree, the Procurement Officer shall set an amount subject to the Contractor's rights under the Disputes clause. Failure to agree will be a dispute under the Disputes clause. The State may withhold from these amounts any sum the Procurement Officer determines to be necessary to protect the State against loss because of outstanding liens or claims of former lien holders.
(g) If, after termination, it is determined that the Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall, if the contract contains a clause providing for termination for convenience of the State, be the same as if the termination had been issued for the convenience of the State. If, in the foregoing circumstances, this contract does not contain a clause providing for termination for convenience of the State, the contract shall be adjusted to compensate for such termination and the contract modified accordingly subject to the contractor's rights under the Disputes clause.
(h) The rights and remedies of the State in this clause are in addition to any other rights and remedies provided by law or under this contract.
[07-7B075-1]

DISPOSAL OF PACKAGING (JAN 2006): Contractor shall dispose of all wrappings, crating, and other disposable materials pertaining to this contract at the end of each working day and upon completion of installation

ILLEGAL IMMIGRATION (NOV 2008): (An overview is available at www.procurement.sc.gov) By signing your offer, you certify that you will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agree to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable to you and your subcontractors or sub-subcontractors; or (b) that you and your subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." You agree to include in any contracts with your subcontractors language requiring your subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. [07-7B097-1]

INDEMNIFICATION - THIRD PARTY CLAIMS (JANUARY 2006): Notwithstanding any limitation in this agreement, Contractor shall defend and indemnify the State of South Carolina, its instrumentalities, agencies, departments, boards, political subdivisions and all their respective officers, agents and employees against all suits or claims of any nature (and all damages, settlement payments, attorneys' fees, costs, expenses, losses or liabilities attributable thereto) by any third party which arise out of, or result in any way from, any defect in the goods or services acquired hereunder or from any act or omission of Contractor, its subcontractors, their employees, workmen, servants or agents. Contractor shall be given written notice of any suit or claim. State shall allow Contractor to defend such claim so long as such defense is diligently and capably prosecuted through legal counsel. State shall allow Contractor to settle such suit or claim so long as (i) all settlement payments are made by (and any deferred settlement payments are the sole liability of) Contractor, and (ii) the settlement imposes no non-monetary obligation upon State. State shall not admit liability or agree to a settlement or other disposition of the suit or claim, in whole or in part, without the prior written consent of Contractor. State shall reasonably cooperate with Contractor's defense of such suit or claim. The obligations of this paragraph shall survive termination of the parties' agreement.

INTELLECTUAL PROPERTY INFRINGEMENT (JAN 2006) (a) Without limitation and notwithstanding any provision in this agreement, Contractor shall, upon receipt of notification, defend and indemnify the State, its instrumentalities, agencies, departments, boards, political subdivisions and all their respective officers, agents and employees against all actions, proceedings or claims of any nature (and all damages, settlement payments, attorneys' fees (including inside counsel), costs, expenses, losses or liabilities attributable thereto) by any third party asserting or involving an IP right related to an acquired item. State shall allow Contractor to defend such claim so long as the defense is diligently and capably prosecuted. State shall allow Contractor to settle such claim so long as (i) all settlement payments are made by

Contractor, and (ii) the settlement imposes no non-monetary obligation upon State. State shall reasonably cooperate with Contractor's defense of such claim. (b) In the event an injunction or order shall be obtained against State's use of any acquired item, or if in Contractor's opinion, the acquired item is likely to become the subject of a claim of infringement or violation of an IP right, Contractor shall, without in any way limiting the foregoing, and at its expense, either: (1) procure for State the right to continue to use, or have used, the acquired item, or (2) replace or modify the acquired item so that it becomes non-infringing but only if the modification or replacement does not adversely affect the specifications for the acquired item or its use by State. If neither (1) nor (2), above, is practical, State may require that Contractor remove the acquired item from State, refund to State any charges paid by State therefor, and take all steps necessary to have State released from any further liability. (c) Contractors obligations under this paragraph do not apply to a claim to the extent (i) that the claim is caused by Contractor's compliance with specifications furnished by the State unless Contractor knew its compliance with the State's specifications would infringe an IP right, or (ii) that the claim is caused by Contractor's compliance with specifications furnished by the State if the State knowingly relied on a third party's IP right to develop the specifications provided to Contractor and failed to identify such product to Contractor. (d) As used in this paragraph, these terms are defined as follows: "IP right(s)" means a patent, copyright, trademark, trade secret, or any other proprietary right. "Acquired item(s)" means the rights, goods, or services furnished under this agreement. "Specification(s)" means a detailed, exact statement of particulars such as a statement prescribing materials, dimensions, and quality of work. (e) Contractor's obligations under this clause shall survive the termination, cancellation, rejection, or expiration of this Agreement.

LICENSES AND PERMITS (JAN 2006): During the term of the contract, the Contractor shall be responsible for obtaining, and maintaining in good standing, all licenses (including professional licenses, if any), permits, inspections and related fees for each or any such licenses, permits and /or inspections required by the State, county, city or other government entity or unit to accomplish the work specified in this solicitation and the contract. [07-7B115-1]

MATERIAL AND WORKMANSHIP (JANUARY 2006): Unless otherwise specifically provided in this contract, all equipment, material, and articles incorporated in the work covered by this contract are to be new and of the most suitable grade for the purpose intended.

PRICE ADJUSTMENTS (JAN 2006): (1) Method of Adjustment. Any adjustment in the contract price made pursuant to a clause in this contract shall be consistent with this Contract and shall be arrived at through whichever one of the following ways is the most valid approximation of the actual cost to the Contractor (including profit, if otherwise allowed):
(a) by agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;
(b) by unit prices specified in the Contract or subsequently
agreed upon;
(c) by the costs attributable to the event or situation covered by the relevant clause, including profit if otherwise allowed, all as specified in the Contract; or subsequently agreed upon;
(d) in such other manner as the parties may mutually
agree; or,
(e) in the absence of agreement by the parties, through a unilateral initial written determination by the Procurement Officer of the costs attributable to the event or situation covered by the clause, including profit if otherwise allowed, all as computed by the Procurement Officer in accordance with generally accepted accounting principles, subject to the provisions of Title 11, Chapter 35, Article 17 of the S.C. Code of Laws.
(2) Submission of Price or Cost Data. Upon request of the Procurement Officer, the contractor shall provide reasonably available factual information to substantiate that the price or cost offered, for any price adjustments is reasonable, consistent with the provisions of Section 11-35-1830.

RELATIONSHIP OF THE PARTIES (JAN 2006): Neither party is an employee, agent, partner, or joint venturer of the other. Neither party has the right or ability to bind the other to any agreement with a third party or to incur any obligation or liability on behalf of the other party.

SHIPPING / RISK OF LOSS (JANUARY 2006) F.O.B. Destination. Destination is the shipping dock of the Using Governmental Units' designated receiving site, or other location, as specified herein. (See Delivery clause)

STORAGE OF MATERIALS (JAN 2006): Absent approval of the using governmental unit, Contractor shall not store items on the premises of the using governmental unit prior to the time set for installation.

SUBSTITUTIONS PROHIBITED - END PRODUCT PREFERENCES (SEP 2009): If you receive the award as a result of the South Carolina end product or United States end product preference, you may not substitute a nonqualifying end product for a qualified end product. If you violate this provision, the State may terminate your contract for cause and you may be debarred. In addition, you shall pay to the State an amount equal to twice the difference between the price paid by the State and your evaluated price for the item for which you delivered a substitute. [11-35-1534(B)(4)]

SUBCONTRACTOR SUBSTITUTION PROHIBITED-RESIDENT SUBCONTRACTOR PREFERENCE (SEP 2009): If you receive an award as a result of the subcontractor preference, you may not substitute any business for the subcontractor upon which you relied to qualify for the preference, unless first approved in writing by the procurement officer. If you violate this provision, the State may terminate your contract for cause and you may be debarred. In addition, the procurement officer may require you to pay the State an amount equal to twice the difference between the price paid by the State and the price offered by the next lowest bidder, unless the substituted subcontractor qualifies for the preference. [11-35-1524(D)(5)(c)] [07-7B237-1]

TERMINATION FOR CONVENIENCE – SHORT FORM (JAN 2006): The Procurement Officer may terminate this contract in whole or in part, for the convenience of the State. In such a termination, the Procurement Officer may require the contractor to transfer title and deliver to the State in the manner and to the extent directed by the Procurement Officer: (a) any completed supplies; and (b) such partially completed supplies and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (hereinafter called "manufacturing material") as the contractor has specifically produced or specially acquired for the performance of the terminated part of this contract. Upon such termination, the contractor shall (a) stop work to the extent specified, (b) terminate any subcontracts as they relate to the terminated work, and (c) be paid the following amounts without duplication, subject to the other terms of this contract: (i) contract prices for supplies or services accepted under the contract, (ii) costs incurred in performing the terminated portion of the work, and (iii) any other reasonable costs that the contractor can demonstrate to the satisfaction of the State, using its standard record keeping system, have resulted from the termination. The contractor shall not be paid for any work performed or costs incurred that reasonably could have been avoided. As a condition of payment, contractor shall submit within three months of the effective date of the termination a claim specifying the amounts due because of the termination. The absence of an appropriate termination for convenience clause in any subcontract shall not increase the obligation of the state beyond what it would have been had the subcontract contained such a clause

WARRANTY – STANDARD (JAN 2006): Contractor must provide the manufacturer's standard written warranty upon delivery of product. Contractor warrants that manufacturer will honor the standard written warranty provided.

IX. ATTACHMENTS TO SOLICITATION

1. **Form I-312 – Non-Resident Taxpayer Withholding – <u>For Services Contracts</u>**
2. **W-9 – Request for FEIN**
3. **Offeror's Checklist**
4. **SE-311 Invitation for Minor Construction Quotes**
5. **SE-331 Quote Form**
6. **Construction Drawings and Specifications**

IMPORTANT TAX NOTICE - NONRESIDENTS ONLY

Withholding Requirements for Payments to Nonresidents: Section 12-8-550 of the South Carolina Code of Laws requires persons hiring or contracting with a nonresident conducting a business or performing personal services of a temporary nature within South Carolina to withhold 2% of each payment made to the nonresident. The withholding requirement does not apply to (1) payments on purchase orders for tangible personal property when the payments are not accompanied by services to be performed in South Carolina, (2) nonresidents who are not conducting business in South Carolina, (3) nonresidents for contracts that do not exceed $10,000 in a calendar year, or (4) payments to a nonresident who (a) registers with either the S.C. Department of Revenue or the S.C. Secretary of State and (b) submits a Nonresident Taxpayer Registration Affidavit - Income Tax Withholding, Form I-312 to the person letting the contract.

The withholding requirement applies to every governmental entity that uses a contract ("Using Entity"). Nonresidents should submit a separate copy of the Nonresident Taxpayer Registration Affidavit - Income Tax Withholding, Form I-312 to every Using Entity that makes payment to the nonresident pursuant to this solicitation. Once submitted, an affidavit is valid for all contracts between the nonresident and the Using Entity, unless the Using Entity receives notice from the Department of Revenue that the exemption from withholding has been revoked.

Section 12-8-540 requires persons making payment to a nonresident taxpayer of rentals or royalties at a rate of $1,200.00 or more a year for the use of or for the privilege of using property in South Carolina to withhold 7% of the total of each payment made to a nonresident taxpayer who is not a corporation and 5% if the payment is made to a corporation. Contact the Department of Revenue for any applicable exceptions.

For information about other withholding requirements (e.g., employee withholding), contact the Withholding Section at the South Carolina Department of Revenue at 803-898-5383 or visit the Department's website at <u>www.sctax.org</u>.

This notice is for informational purposes only. This agency does not administer and has no authority over tax issues. All registration questions should be directed to the License and Registration Section at 803-898-5872 or to the South Carolina Department of Revenue, Registration Unit, Columbia, S.C. 29214-0140. All withholding questions should be directed to the Withholding Section at 803-898-5383.

STATE OF SOUTH CAROLINA
DEPARTMENT OF REVENUE

NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT INCOME TAX WITHHOLDING

I-312
(Rev. 5/7/04)
3323

The undersigned nonresident taxpayer on oath, being first duly sworn, hereby certifies as follows:

1. Name of Nonresident Taxpayer: _____
2. Trade Name, if applicable (Doing Business As): _____
3. Mailing Address: _____
4. Federal Identification Number: _____
5. Hiring or Contracting with: _____
   Name: _____
   Address: _____

   Receiving Rentals or Royalties From: _____
   Name: _____
   Address: _____

   Beneficiary of Trusts and Estates:
   Name: _____
   Address: _____

6. I hereby certify that the above named nonresident taxpayer is currently registered with **(check the appropriate box):**

☐ The South Carolina Secretary of State or	
☐ The South Carolina Department of Revenue	

Date of Registration:

7. I understand that by this registration, the above named nonresident taxpayer has agreed to be subject to the jurisdiction of the South Carolina Department of Revenue and the courts of South Carolina to determine its South Carolina tax liability, including estimated taxes, together with any related interest and penalties.

8. I understand the South Carolina Department of Revenue may revoke the withholding exemption granted under Code Sections 12-8-540 (rentals), 12-8-550 (temporarily doing business or professional services in South Carolina), and 12-8-570 (distributions to nonresident beneficiary by trusts or estates) at any time it determines that the above named nonresident taxpayer is not cooperating with the Department in the determination of its correct South Carolina tax liability.

The undersigned understands that any false statement contained herein could be punished by fine, imprisonment or both.

Recognizing that I am subject to the criminal penalties under Code Section 12-54-44 (B) (6) (a) (i), I declare that I have examined this affidavit and to the best of my knowledge and belief, it is true, correct and complete.

_____ (Seal) _____
Signature of Nonresident Taxpayer (Owner, Partner or Corporate Officer, when relevant) Date

If Corporate officer state title:	

(Name - Please Print)

Mail to: The company or individual you are contracting with.

► WM9

Form (Rev. November 2005)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give form to the requester. Do not send to the IRS.

See Specific Instructions on page 2

Name (as shown on your income tax return)

Business name, if different from above

Check appropriate box: ☐ Individual/ Sole proprietor ☐ Corporation ☐ Partnership ☐ Other .....

☐ Exempt from backup withholding

Address (number, street, and apt. or suite no.)

Requester's name and address (optional)

City, state, and ZIP code

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see How to get a TIN on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
| | | | - | | - | | | | |

or

Employer identification number
| | | . | - | | | | | | |

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. person (including a U.S. resident alien).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. (See the instructions on page 4.)

Sign Here Signature of U.S. person ► Date ►

Purpose of Form

A person who is required to file an information return with the IRS, must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

U.S. person. Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee.

In 3 above, if applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

For federal tax purposes, you are considered a person if you are:

- An individual who is a citizen or resident of the United States,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States, or
- Any estate (other than a foreign estate) or trust. See Regulations sections 301.7701-6(a) and 7(a) for additional

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and **avoiding** withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Cat. No. 10231X

OFFEROR'S CHECKLIST

AVOID COMMON BID/PROPOSAL MISTAKES

Review this checklist prior to submitting your bid/proposal.
If you fail to follow this checklist, you risk having your bid/proposal rejected.

- DO NOT INCLUDE ANY OF YOUR STANDARD CONTRACT FORMS!
- UNLESS EXPRESSLY REQUIRED, DO NOT INCLUDE ANY ADDITIONAL BOILERPLATE CONTRACT CLAUSES.
- REREAD YOUR ENTIRE BID/PROPOSAL TO MAKE SURE YOUR BID/PROPOSAL DOES NOT TAKE EXCEPTION TO ANY OF THE STATE'S MANDATORY REQUIREMENTS.
- MAKE SURE YOU HAVE PROPERLY MARKED ALL PROTECTED, CONFIDENTIAL, OR TRADE SECRET INFORMATION IN ACCORDANCE WITH THE INSTRUCTIONS ENTITLED: SUBMITTING CONFIDENTIAL INFORMATION. ***DO NOT MARK YOUR ENTIRE BID/PROPOSAL AS CONFIDENTIAL, TRADE SECRET, OR PROTECTED! DO NOT INCLUDE A LEGEND ON THE COVER STATING THAT YOUR ENTIRE RESPONSE IS NOT TO BE RELEASED!***
- HAVE YOU PROPERLY ACKNOWLEDGED ALL AMENDMENTS? INSTRUCTIONS REGARDING HOW TO ACKNOWLEDGE AN AMENDMENT SHOULD APPEAR IN ALL AMENDMENTS ISSUED.
- MAKE SURE YOUR BID/PROPOSAL INCLUDES A COPY OF THE SOLICITATION COVER PAGE. MAKE SURE THE COVER PAGE IS SIGNED BY A PERSON THAT IS AUTHORIZED TO CONTRACTUALLY BIND YOUR BUSINESS.
- MAKE SURE YOUR BID/PROPOSAL INCLUDES THE NUMBER OF COPIES REQUESTED.
- CHECK TO ENSURE YOUR BID/PROPOSAL INCLUDES EVERYTHING REQUESTED!
- IF YOU HAVE CONCERNS ABOUT THE SOLICITATION, DO NOT RAISE THOSE CONCERNS IN YOUR RESPONSE! **AFTER OPENING, IT IS TOO LATE! IF THIS SOLICITATION INCLUDES A PRE-BID/PROPOSAL CONFERENCE OR A QUESTION & ANSWER PERIOD, RAISE YOUR QUESTIONS AS A PART OF THAT PROCESS!** PLEASE SEE INSTRUCTIONS UNDER THE HEADING "SUBMISSION OF QUESTIONS" AND ANY PROVISIONS REGARDING PRE-BID/PROPOSAL CONFERENCES.

This checklist is included only as a reminder to help offerors avoid common mistakes.
Responsiveness will be evaluated against the solicitation, ***not*** against this checklist.
You do not need to return this checklist with your response.

SE-311
Invitation for Minor Construction Quotes

SCBO NOTES 2, 4 and 5 APPLY TO THIS INVITATION FOR QUOTES

PROJECT NAME: HGTC Conway Building 100 Domestic Water System Alterations

PROJECT NUMBER: IFB0095-15 **PROJECT LOCATION:** HGTC Conway Campus

BID SECURITY REQUIRED? Yes ☐ No ☑

PERFORMANCE BOND REQUIRED? Yes ☐ No ☑

PAYMENT BOND REQUIRED? Yes ☐ No ☑ **CONSTRUCTION COST RANGE:** $20,000 - 40,000

DESCRIPTION OF PROJECT:
All labor, materials and equipment required to complete installation of Domestic Water System Alterations to existing system

A/E NAME: N/A **A/E CONTACT:**

ADDRESS: **PHONE:** **Fax:**

CITY: **STATE:** **ZIP:** **E-MAIL:**

PLANS ON FILE AT: **AGC:**
DODGE:
OTHER:

PLANS MAY BE OBTAINED FROM: www.hgtc/purchasing

PLAN DEPOSIT AMOUNT: N/A **IS DEPOSIT REFUNDABLE?** Yes ☐ No ☐

PRE-QUOTE CONFERENCE? ☑ Yes ☐ No **MANDATORY ATTENDANCE?** ☐ Yes ☑ No

DATE: July 22, 20 **TIME:** 10:00 a.m. **PLACE:** Main Lobby Bldg. 100

AGENCY: Horry Georgetown Technical College

NAME AND TITLE OF AGENCY COORDINATOR: Dianna Cecala

ADDRESS: 2050 Hwy 501 E **PHONE:** 843-349-5207 **Fax:** 843-349-5270

CITY: Conway **STATE:** SC **ZIP:** 29526 **E-MAIL:** dianna.cecala@hgtc.edu

IFQ CLOSING DATE: August 4, 201 **TIME:** 2:00 p.m. **LOCATION:** HGTC Procurement Office

IFQ DELIVERY ADDRESSES:

HAND-DELIVERY:

MAIL SERVICE:
PO Box 261966
Conway SC 29528-6066
ATTN: Dianna Cecala

IS PROJECT WITHIN AGENCY CONSTRUCTION CERTIFICATION? *(Agency MUST check one)* ☑ YES ☐ NO

APPROVED BY: N/A
(State Engineer) *(Date)*

SE-331
Quote Form

2011 Edition

Quotes shall be submitted only on SE-331

QUOTE SUBMITTED BY: _____
(Offeror's Name)

QUOTE SUBMITTED TO: Horry Georgetown Technical College
(Agency Name)

FOR PROJECT: IFB0095-15 HGTC Conway Bldg 100 Domestic Water System Alteraterati
(Number) *(Name)*

OFFER

1. In response to the Form SE-311, *Request for Minor Construction Quotes*, and in compliance with the *Instructions to Bidders* for the above-named Project, the undersigned **OFFEROR** proposes and agrees, if this Quote is accepted, to enter into a Contract with the **AGENCY** in the form included in the Solicitation Documents, and to perform all Work as specified or indicated in the Solicitation Documents, for the prices and within the time frames indicated in the Solicitation and in accordance with the other terms and conditions stated.

N/A

2. Pursuant to Section 11-32-3030(1) of the SC Code of Laws, as amended, **OFFEROR** has submitted Bid Security as follows in the amount and form required by the Solicitation Documents:

☐ Bid Bond with Power of Attorney ☐ Electronic Bid Bond ☐ Cashier's Check
(OFFEROR check one, if Bid Security is required)

3. **OFFEROR** acknowledges the receipt of the following Addenda to the Solicitation documents and has incorporated the effects of said Addenda into its Quote:

ADDENDUM No: _____

4. **OFFEROR** agrees that this Quote, including all bid alternates, if any, may not be revoked or withdrawn after the opening of bids, and shall remain open for acceptance for a period of 30 Days following the Quote Date, or for such longer period of time that **OFFEROR** may agree to in writing upon request of the **AGENCY**.

5. **OFFEROR** agrees that from the compensation to be paid, the **AGENCY** shall retain as Liquidated Damages the amount of for each calendar day the actual construction time required to achieve Substantial Completion exceeds the specified or adjusted Contract Time for Substantial Completion, as provided in the Contract Documents.

6. **OFFEROR** herewith submits its offer to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fee, permits, licenses and applicable taxes necessary to complete the following items of construction work:

6.1 BASE BID _____
(enter BASE BID in figures only)

6.2 ALTERNATE NO. 1 _____ **to be ADDED/DEDUCTED from BASE BID.**
(circle one)

6.3 ALTERNATE NO. 2 _____ **to be ADDED/DEDUCTED from BASE BID.**
(circle one)

FEIN/SSN: _____

SC Contractor's License Number: _____

Address: _____

_____

_____

Telephone/Fax _____

E-mail _____

This Quote is hereby submitted on behalf of the Offeror named above.

BY: _____
(Signature of Offeror's Representative)

_____
(Print or Type Name of Offeror's Rpresentative)

ITS: _____

Project IFB0095-15

HGTC Conway Building 100 Domestic Water System Alterations

Constructions Drawings and Specifications

SECTION 15100 - PIPE IDENTIFICATION

PART 1 - GENERAL

1.1 WORK INCLUDED

A. The work includes all labor, materials, equipment, and plant required for complete installation of identification markers and flow arrows on the following pipe systems.

1.2 INSTALLATION

A. Pipe identification markers and flow arrows shall be install on pipe work after all insulation is complete and prior to installation of ceiling grid. Work may be performed by the Contractor's own forces, the Insulation Sub-Contractor or other qualified specialty sub-contractor.

1.3 SYSTEMS

PIPING SYSTEM:	BACKGROUND COLOR:	MARKER COLOR:
Domestic Cold Water	Green	White
Domestic Hot Water Supply	Yellow	Black

1.4 STANDARDS

A. The contractor shall furnish all material in accordance with latest edition of OSHA and ANSI Standard A13.1 applicable provisions.

PART 2 - EXECUTION

2.1 SHOP DRAWINGS

A. Contractor shall furnish to the Engineer/Owner shop drawings that show complete details of the marking system including colors and letter sizes.

B. In accordance with ANSI A13.1 "Scheme for the Identification of Piping System", each marker shall show:

1. Approved color-coded background.
2. Proper legend color in relation to background color.
3. Approved legend height/size.
4. Approved marker length.

C. Direction of flow arrows shall be included unless otherwise specified.

2.2 MARKING SYSTEM

A. All piping that is not built in or exposed in a finished space shall have identification markers and flow arrows installed. Mechanical Equipment rooms, Parking Garages, Stages, Gymnasiums, and other large assembly areas without ceilings shall not be considered finished spaces. Identification shall be required in these locations.

B. Identification markers shall be semi-rigid plastic or vinyl; not pressure sensitive stick on markers. Pipe markers shall be as follows:
   1. Setmark Type SNA markers on pipe 3/4" thru 5", Snap On.
   2. Setmark Type STR markers on pipe 6" and larger, Snap On.
   3. Setmark outdoor grade plastic acrylic shall be used for identification system.
   4. Pipe identification as manufactured by Seton Nameplate Co., New Haven, CT. (1-800-243-66240); Brady Corporation, (1-800-537-8791), or prior approved equal.

2.3 LOCATIONS

A. Locate pipe identification markers and flow arrows at each pipe penetration through a wall, floor, or ceiling construction.

B. Locate pipe identification markers and flow arrows at each pipe penetration to underground.

C. Locate pipe identification markers on all horizontal pipe runs at 25' intervals.

D. Locate pipe identification markers at each piece of mechanical equipment, heater, pump, compressor, generator, etc. except on plumbing fixtures.

2.4 TAGS

A. For pipe under 3/4", too small for color bands and legends, provide and install brass identification tags 1-1/2" in diameter with 3/8" black filled.

B. Install tags at same locations as noted above. Attach with nylon snap ties and "S" hooks.

END OF SECTION 15100

SECTION 15120

HANGERS AND SUPPORTS

PART 1 NOT USED

PART 2 PRODUCTS

2.01 MATERIALS AND SPECIALTIES:

A. Perforated strap, chains, and tie wire shall not be permitted in any form to support, hang, or secure pipe.

B. Pipe hangers, supports and accessories shall be the standard products of Grinnell Co. , PHD Manufacturing, Michigan Hanger Co., or B-Line Systems or other prior approved manufacturer.

C. For chilled water, chilled/hot water, or HVAC piping, hangers shall be the equivalent of Auto-Grip "Insul-Speed" zinc electro-plated hanger, ASTM Type L.S. with permanently attached coated shield 12" long x 18 gauge steel. Flexible Aerotube, fiberglass or other low-density insulation shall not be used at insulation shields. A 12" length of Foamglas or other approved high-density insulation with fire resistant vapor barrier shall be used at each insulation shield. Details must be approved prior to installation. Where trapeze hangers are used, use insulation protection devices as above less pipe rings.

D. For domestic hot, tempered, and cold water piping, roof or overflow piping, and condensate drain lines from air handling equipment where run above ground, hangers shall be oversized galvanized clevis with integral factory installed insulation shield. Hangers shall be spaced not over 6' apart for 1-1/2" and smaller pipes and not over 8' apart for pipes 2" and larger. Insulation shall be continuous through the hangers. Hangers shall be equal to PHD model #455 or Michigan Hanger #403.

E. For cast iron or other ferrous piping run above ground, hangers shall be galvanized clevis. Hangers shall be spaced not over 5' apart on cast iron and 8' apart on other steel piping. Locate hangers as close as possible to cast iron hubs or bands. Hangers shall be equal to Michigan Hanger Co. #401.

F. For "plastic" drainage piping systems; PVC, CPVC, Polypropylene, PVDF, or other, run above ground, hangers shall be galvanized V clevis hangers with support trough in 10' lengths. Hangers shall be spaced at each end of support trough, less than 10' oc. Hangers shall be equal to PHD #450 V and trough shall be equal to #450 T.

G. For "plastic" water or sprinkler piping systems, PVC and CPVC, run above grade, hangers shall be galvanized, hangers shall be spaced a maximum of 4' apart.

H. Pipe rings for copper tube shall be Fee and Mason Figure 363 or "Auto-Grip" Symbol 19-500A Universal ring (copper plated).

I. For support of all other overhead horizontal pipes use "Auto-Grip" Symbol 19-400A Universal hanger rings, Grinnell Figure 104 or Figure 260 adjustable clevis ring (on piping 3-1/2" size and over).

J. Inserts shall be Unistrut Sections or Grinnell Figures 279, 281 or 285 wrought steel with proper size nut.

K. Beam clamps shall be Grinnell as follows: Figure 131 I-beam clamp, Figure 226 Universal channel clamp or Figure 267 Simplex top beam clamp. Figure 87 C-clamp with locknut and retaining clip may be used within its recommended maximum load rating.

L. Specially designed hangers and/or supports shall be provided as detailed on the drawings and/or complying with the requirements of Sections 15130 through 15190.

M. All hangers, supports, hanger rods and accessories shall be Zinc-plated and/or Hot-Dip Galvanized unless otherwise specified.

N. All exposed hangers, supports, hanger rods and accessories exposed to salt air (defined as within one [1] mile of ocean/inlet shoreline) shall be type 316 stainless steel unless otherwise specified.

PART 3 EXECUTION

3.01 INSTALLATION:

A. Generally, horizontal overhead runs of piping shall be hung with adjustable, wrought iron or malleable-iron pipe hangers. Chain strap, perforated bar or wire hangers will not be permitted. Hanger rings shall be copper or copper plated when in contact with copper pipe.

B. Trapeze hangers constructed of angle or channel iron sections may be used in lieu of individual hanger rings where multiple pipes run parallel at the same elevation and grade. Details must be submitted for approval.

C. Pipe clips, straps and hooks may be used where approved for the service, and shall be copper or copper plated when in contact with copper pipe.

D. The exterior wall of the building shall not be pierced by hanger and/or support bolts.

E. Supplementary steel supports shall be provided for proper support of piping and/or equipment which cannot be supported directly from the building structure.

F. Inserts and bolts for supporting piping and/or equipment shall be placed in concrete or masonry areas before concrete is poured and as masonry is built. Where multiple pipes run parallel, approved Unistrut Channel sections may be used in lieu of individual inserts. Inserts and/or unistrut sections shall not be used in pre-cast concrete or in concrete less than 3-1/2" in thickness.

G. Beam clamps shall be used insofar as possible where piping and/or equipment is supported from building structural steel. Punching of building structural steel will not be permitted. Support brackets electric welded to the building steel will be considered in lieu of beam clamps. Details must receive prior approval of the Engineer.

H. Supporting brackets and hangers in plastered, painted or tiled areas shall be installed before such areas are plastered, painted or tiled.

I. Hanger rods penetrating finished ceilings shall be provided with the equivalent of Grinnell Figure 133 spring ceiling plates.

J. Spacing of piping hangers and/or supports shall conform to the following unless otherwise specified, detailed or approved:

1. Steel pipe: 8'-0" maximum.

2. Hard drawn copper pipe: 1-1/2" and smaller - 6'-0" maximum; 2" and up - 8'-0" maximum.

3. Soft copper tubing: 5'-0" maximum.

4. PVC or other "plastic" pipe: 4'-0" maximum

5. Cast iron pipe: at or near each hub or band.

6. Underground cast iron and tile: body of pipe firmly bedded on solid ground.

7. Soil, waste, drain, and vent stacks: permanent support at base. Provide "riser" clamps at each floor, and at 10' intervals if floor height exceeds 14'.

8. Generally: Provide additional hangers where a number of valves, fittings, etc., are assembled and at least one hanger not more than 2' from where a change in direction takes place in any pipe line.

K. Anchors shall be provided to confine expansion movements of pipes to definite expansion members.

L. Specially designed hangers and/or supports shall be provided for any unusual conditions of installation. All specially designed hangers and/or supports must receive approval prior to fabrication and installation.

END OF SECTION

SECTION 15210

PLUMBING PIPING INSULATION

PART 1 GENERAL

1.01 WORK INCLUDED:

A. Work included in this section shall be the insulation of hot and cold water piping above grade.

B. Insulation shall be applied by factory-trained personnel of a Sub-contractor specializing in insulation installation.

1.02 DELIVERY AND STORAGE OF MATERIALS:

A. All of the insulation materials and accessories covered by this specification shall be delivered to the job site and stored in a safe, dry place with appropriate labels and/or other product identification.

B. The contractor shall use whatever means are necessary to protect the insulation materials and accessories before, during, and after installation. No insulation material shall be installed that has become damaged in any way. The contractor shall also use all means necessary to protect work and materials installed by other trades.

C. If any insulation material has become wet because of transit or job site exposure to moisture or water, the contractor shall not install such material, and shall remove it from the job site. An exception may be allowed in cases where the contractor is able to demonstrate that wet insulation when fully dried out (either before installation or afterward following exposure to system operating temperatures) will provide installed performance that is equivalent in all respects to new, completely dry insulation. In such cases, consult the insulation manufacturer for technical assistance.

PART 2 PRODUCTS

2.01 HAZARD CLASSIFICATION:

A. Fire hazard classification for all material shall not exceed flame spread of 25 and smoke development of 50, as listed by UL and acceptable under NFPA standards. This is to apply to the complete system and to the composite insulation with jacket or facings, vapor barrier, joint sealing tapes, mastic and fittings.

2.02 PIPE INSULATION:

A. A. Material for above grade piping shall be heavy density molded fiberglass with a factory applied all-service jacket composed of an outer layer of fiberglass scrim cloth, aluminum foil, and white kraft paper. Do not install fiberglass in any location that is not protected from the weather or is subject to getting wet. Material shall be Certain-Teed 500 Snap-On ASJ/SSL pipe insulation.

B. Material for below grade hot tempered, and return water lines and fittings shall be 1-1/2" thick Pittsburg Corning Foamglass. Finish coat with Foster 60-25 cut back asphalt. Reinforce with glass or nylon open weave cloth.

C. Material for air condition condensate or above grade ice machine drains shall be Armstrong #AP Armaflex self-sealing ½" thick closed cell elastomeric insulation.

D. Material for any water piping inside a block wall, shall be Armstrong #AP Armaflex self sealing ½" thick closed cell elastomeric insulation on pipe up to 6" in diameter. For larger diameter pipe use ½" thick closed cell flexible elastomeric block sheet material insulation.

PART 3 EXECUTION

3.01 PIPING:

A. All fiberglass pipe covering shall be furnished with self-seal lap and 3-inch wide butt joint strips. The release paper is pulled from adhesive edge, pipe covering closed tightly around pipe and self-seal lap rubbed hard in place with the blunt edge of an insulation knife. This procedure applies to longitudinal as well as circumferential joints. Care shall be taken to keep jacket clean, as it is the finish on all exposed work. All adjoining insulation sections shall be firmly butted together before joint strip is applied, and all cold water service lines shall have vapor seal mastic thoroughly coated to pipe at butt joints and at all fittings. All fittings, valve boxes, unions, and flanges shall be finished as follows:

1. Apply molded or segmental insulation to fittings equal in thickness to the insulation on adjoining pipe and wire in place with two (2) #14 copper wires or stainless steel bands.

2. Apply a skim coat of insulating cement to the insulated fitting to produce a smooth surface. After cement is dry, apply Owens-Corning Fiberglass fitting mastic, Type C, UL labeled.

3. Wrap the fitting with fiberglass reinforcing cloth overlapping the preceding layer by 1" to 2".

4. Apply a second coat of mastic over cloth working it well into mesh of cloth and smooth the surface. Mastic to be applied at the rate of 40 square feet per gallon.

5. The Contractor, at his option, may provide molded PVC fitting covers, secured with stainless steel tack fasteners, fiberglass blanket insulation with joints sealed with pressure sensitive tape.

6. Manufacturer's written instructions shall be strictly adhered to for work in this section.

7. Insulation shall be as manufactured by CertainTeed, Owens-Corning or Johns-Manville.

B. Insulation shall only be applied to piping after pressure testing is completed. All overspray of building fireproofing shall be cleaned from pipe prior to start on insulation.

C. Insulation shall be installed continuously through sleeves in masonry and/or fire rated walls.

D. All piping shall be supported in such a manner that neither the insulation nor the vapor/weather barrier is compromised by the hanger or the effects of the hanger. In all cases, hanger spacing shall be such that the circumferential joint may be made outside the hanger.

E. To avoid undue compression of insulation, provide inserts at supports as recommended by the insulation manufacturer. Install insert between support shield and piping. Supports shall be fabricated of high density, mildew resistant insulating material.

3.02 INSULATION REQUIREMENTS:

A.

Service	Thickness
Cold Water	1/2-inch with vapor barrier
Hot/ Tempered	1-inch with vapor barrier for pipe 1-1/4" and smaller

END OF SECTION

SECTION 15400

PLUMBING - GENERAL

PART 1 GENERAL

1.01 WORK INCLUDED:

A. The General Conditions, Special Conditions, and Supplementary Conditions of the specifications are binding on this Division of the work.

B. Before the work starts, confirm locations and inverts of existing and proposed pipes, sewers and mains. Review all drawings for project; check grades, elevations, location of structural elements, locations and sizes of chases, type and methods of construction of floors, walls, partitions, etc. Bring to the attention of the Architect and Engineer any unsatisfactory conditions or conflicts between plumbing design in conjunction with the site or other trades. No extra charge/change order will be approved after the start of construction for work resulting from failure to follow these instructions.

C. Drawings do not indicate all offsets, fittings, and specialties. Examine other drawings, investigate conditions to be encountered, and arrange work accordingly, furnishing additional fittings, valves, specialties, etc., as part of the work. Where conditions necessitate a rearrangement, submit for approval sketches showing a proposed arrangement.

D. Upon completion of the work, remove trash and debris properly from site, clean and paint unplated metal work and clean fixtures. The work shall be in clean and new condition.

E. Unless otherwise shown, piping is to be installed concealed, parallel and perpendicular to the building structure at 90° intervals, straight without sags or pockets, and graded for drainage where applicable. Cut pipe ends square and ream; before assembly clean off all dirt, scale and chips. Braze/solder joints according to fittings manufacturer's recommendations. Apply pipe compound to external threads only. Run cold water pipe at least 12 inches away from any source of heat. Make adequate provisions for expansion and contraction of pipes. Protect all piping and equipment during construction. Cover all piping ends to prevent entrance of dirt and debris.

F. Liability for damages to buildings, contents of buildings, or site property during construction and the guarantee period resulting from workmanship, materials or equipment supplied under this specification is a part of this contract.

G. The Contractor shall provide all materials and labor to install the plumbing system and shall comply with all local regulations, obtain all permits and pay for all fees. The work shall be in accordance with A.S.P.E. guidelines and conform to the applicable portion of the International Plumbing Code and as required by the local plumbing authority.

H. Cutting and Repairing: The work shall be carefully laid out in advance, and unnecessary cutting of construction shall be avoided. Damage to building, piping, wiring, or

equipment as a result of cutting shall be repaired by mechanics skilled in the trade involved. Cutting of structural elements shall be approved by the Structural Engineer/Architect prior to cutting.

I. Submittals for each piping system shall be separated into categories by specification section and for the piping materials and products that each system utilizes as required per Specification Section 15010.

J. All work shall be installed under the direct supervision of a licensed or journeyman plumber.

K. All pipe, fittings, valves and accessories shall be manufactured in the United States.

PART 2 PRODUCTS

2.01 SANITARY WASTE, VENT, AND STORM DRAIN PIPING:

A. All waste and drain pipe fittings shall be long radius fittings. Vent piping may be short radius.

B. Prior to commencing work, check invert elevations required for sewer connections, confirm inverts and verify proper slope for drainage and proper cover to avoid freezing and damage.

2.02 Not used.

2.03 Not used.

2.04 WATER PIPE AND FITTINGS MATERIALS:

A. Underground:

1. Water piping underground within the structure and to a point 5' outside shall be Type K copper conforming to ASTM B88 with silver brazed joints or Type K soft copper with no joints underground.

2. Main cold water supply from the building 5-foot line to point of connection to water supply shall be Type K copper conforming to ASTM B88 with silver brazed joints.

B. Aboveground: Piping aboveground shall be of the following material:

1. Copper tubing, hard-drawn, Type L, conforming to ASTM B88, with brazed or solder joint wrought copper fittings.

2. Exposed piping in finished areas shall be chrome-plated brass pipe to the wall and shutoff or stop valve of each fixture.

2.05 VALVES:

A. Bronze body valves incorporating either copper-zinc alloy exceeding 15 percent zinc content or aluminum alloy for trim material will not be permitted. Manufacturers shall provide alloy designations or chemistry for the materials used in valves. All valves shall be "lead free" bronze body with screw or solder ends. Stems shall be vertical unless structure dictates otherwise. All valves shall be of the same manufacturer.

B. Valves shall meet the specification requirements and manufactured by one of the following:

1. Nibco
2. Hammond
3. Crane
4. Apollo

C. Not used.

D. Valve Stems: Shall be oriented for accessibility as approved by the Owner's representative and/or the Engineer. Do not install valves with stems in the downward direction.

E. Installation:

1. Location of Valves: Provide an accessibly located valve where indicated or required for proper system, specialty and equipment operation and maintenance.

2. Valves shall be installed so no forces are transmitted to the valve through the piping supports.

3. Valves Required for each Flow Path: Provide combination balancing and shut-off valve in all multi-zone circulating systems, and at all equipment where indicated for proportioning flow.

4. Gate Valves: Install gate valves for shut-off and isolating service, to isolate equipment, parts of systems or vertical risers.

5. Globe or Angle Valve: Install globe or angle valves for throttling service and control device or meter by-pass.

6. Ball Valves: Two and one-half (2-1/2) inches and smaller - Use for directional flow and quick-acting applications, interchangeably in place of gate and globe valves.

F. Cleaning: All valves and appurtenances shall be flushed clear of all foreign material after installation.

G. Testing: Field-test all valves and appurtenances for proper operation, proper adjustments and settings, freedom from vibration, binding, scrapings, and other defects. Check all valve supports for strength and high quality workmanship. All defects shall be corrected. Hydrostatic and leakage tests shall be performed as specified in this Division of work.

2.06 MISCELLANEOUS MATERIALS:

A. Nipples: Nipples in unexposed areas shall be copper or brass, except as stated in section 2.04-B.2 above.

B. Unions: Unions shall be brass or bronze, either threaded or with solder joint ends for use in copper tubing.

C. Flanges: Flanges shall be steel, 150 pound, for ferrous piping, or wrought copper or bronze.

D. Gaskets: Gaskets shall be full face flat type made of synthetic rubber. Red rubber gasket shall be used for copper piping.

E. Floor, Wall, and Ceiling Escutcheon Plates: Provide split hinged, locked type, or one-piece escutcheon plates of pressed steel with set screw and heavy coating of copper, nickel, and chromium.

F. Backflow Preventer: Backflow preventer shall be the type and model as indicated on the drawings. All devices shall be tested and listed in accordance with FCCCHR-01 and be on the approved list of the S.C. Department of Health and Environmental Control (DHEC) or applicable agency in other states. Reduced pressure principle backflow preventers shall conform to ASSE ANSI/ASSE 1013. Backflow preventers with intermediate atmospheric vent shall conform to ASSE ANSI/ ASSE 1012. Hose applied atmospheric type vacuum breakers shall conform to ASSE ANSI/ASSE 1011. Pipe applied atmospheric type vacuum breakers shall conform to ASSE ANSI/ASSE 1001. Air gaps in plumbing systems shall comply with ASME A112.1.2. Pipe all relief valves to floor drain or as directed on drawings.

G. Trap Primer Valve: All-bronze primer valve with integral vacuum breaker. Zurn Series 1022, PPP Inc. "Prime-Rite", or approved equal with Zurn #ZANB-1460-3 access panel. Where approved by local authorities, "Proset" "Trap Guard" inserts may be used in lieu of trap primers on floor drains and drain hubs.

H. Solder: SOLDER AND FLUX SHALL BE "LEAD FREE". "Lead Free" shall be defined as less than 0.2 percent lead in solder and flux and less than 8.0 percent in pipes and fittings. All solder joints in potable water piping shall be 95/5 tin/antimony.

I. Install pre-manufactured shock arresters at each hot and cold water supply as recommended by manufacturer. Shock arresters shall be tested and rated in accordance with PDI-WH-201 and ASSE 1010. Off set to avoid obstruction. Install water hammer

arrestors complete with accessible isolation valve. Shock arresters shall meet the specification requirements and manufactured by one of the following:

1. PPP Inc.
2. Zurn
3. Watts
4. Josam
5. Souix Chief

J. Pipe Sleeves:

1. Pipe sleeves in exterior walls, below and above grade, footings, foundations or floor shall be zinc-coated steel pipe. Provide stress relieving arch for pipes passing through horizontal grade beams or footing and where required by structural conditions.

2. Sleeves in firewalls shall be zinc-coated steel pipe.

3. Sleeves in non-rated walls and partitions shall be not less than 24 gauge zinc-coated sheetmetal.

4. Isolate copper piping from sleeve with hair felt, vinyl, or other approved isolator.

2.07 PIPING FREEZE PROTECTION:

A. Where any water piping is exposed to outdoor air temperature, provide freeze protection. This shall apply but not be limited to the following piping systems.

1. Domestic cold water, hot water, and hot water recirculating piping and P-traps.

B Freeze protection of piping shall be by means of automatic heat tape applied to pipe to prevent water temperature from dropping below 38°F when outside air temperature is per the ASHRAE 2.5% Extreme Wind Speed column, "Table 1A - Heating and Wind Design Conditions - United States". For example, the Myrtle Beach, South Carolina area per the 2.5% temperature is 15°F.

C. Heat tape shall be Chromalox Type TBT / Raychem XL-Trace with integral thermostat set at 40°F. Heat tape shall dissipate a minimum of 7 watts per lineal foot when supplied with 120V AC current. Heat tape shall be installed in strict accordance with manufacturer's written recommendations and instructions.

2.08 MISCELLANEOUS FITTINGS/COMPONENTS:

A. Wall Hydrants: Wall hydrants shall be automatic draining, vacuum breaker-backflow protected, frost-proof wall hydrant, 3/4" water supply connection and 3/4" male hose thread. Provide one (1) loose key for each hydrant and give to Owner. Hydrants shall meet the specification requirements and manufactured by one of the following:

1. Woodford

2. Zurn
3. Smith
4. Josam

B. Hose Bibs: Hose bibs shall be the vacuum breaker-backflow protected faucet. Provide 3/4-inch inlet connection and 3/4-inch male hose thread. Provide one (1) loose key for each hydrant and provide to General Contractor/Owner. Hose bibs shall meet the specification requirements and manufactured by one of the following:

1. Woodford
2. Zurn
3. Smith
4. Josam

C. Dielectric Fittings: All sizes - dielectric union with galvanized or plated steel female pipe-threaded end and copper solder-joint end.

D. Thermostatic Mixing Valves: Mixing valves, thermostatic type, shall be line size and shall be constructed with rough or finish bodies either with or without plating. Each valve shall be constructed to control the mixing of hot and cold water and to deliver water at a desired temperature regardless of pressure or input temperature changes. The control element shall be of an approved type. The body shall be of heavy cast bronze, and interior parts shall be brass, bronze, or copper. The valve shall be equipped with necessary stops, check valves, unions, and sediment strainers on the inlets. Mixing valves shall maintain water temperature within 5 degrees F of any setting.

E. Piping shall be insulated per Specification section 15210.

2.09 PIPE SUPPORTS:

A. Provide and install pipe supports, hangers and rods. Pipe supports, hangers and rods shall be furnished and installed per Specification section 15120.

2.10 ACCESS DOORS AND PANELS:

A. Provide factory fabricated doors and panels for installation at all places where specialties, valves, equipment, etc., are inaccessible. Access means to be of adequate size for intended service and of approved manufacture, finish and type. Submit shop drawings.

B. Access doors and panels shall be fire rated the same as the wall, ceiling or floor in which it is installed.

C Access doors shall meet the specification requirements and manufactured by one of the following:

1. Karp
2. Josam
3. Acudor

4. Elmdor/Stoneman

D. Access doors for ball valves shall be installed as to allow the valve handle to face the door opening when in the "off" position.

2.11 Not used.

2.12 FIRESTOPPING:

A. All piping passing through walls, floor, ceiling and roof (fire-rated and non-rated) shall be sealed with a firestopping system conforming to UL 1479 and ASTM E 814.

B. Firestopping system shall consist of 3M Company CP-25 caulk, 303 putty, FS-195 strips and CS-195 sheets.

C. Firestopping shall be applied according to the manufacturer's written instructions.

D. PVC piping shall not penetrate or be installed in fire-rated wall, floor or ceiling of the structure.

2.13 IDENTIFICATION OF VALVES AND PIPING, AND EQUIPMENT:

A. Valves and piping shall be identified by metal tags for valves and pre-coiled markers/ strap around/colored tape for piping as manufactured by Seton Identification Products or approved equal. Provide and install pipe identification. Pipe identification shall be furnished and installed per Specification section 15100.

B. Valve tags shall be 1-1/2" diameter brass tags with black filled letters not less than 1/4" high. Tags shall be attached to valves with "S" hooks or brass jack chain.

C. Each valve tag as described above shall have identifying letters designating the system on which it is installed.

D. Pipe labels shall indicate fluid/gas in the pipe and direction of flow.

E. Provide engraved rigid 3" x 1" Phenolic labels with 1/4" minimum white letters on black background fastened to each piece of equipment in multiple system projects. Equipment shall be defined as boilers, water heaters, mixing valves, etc.

2.14 CLEANING AND PAINTING:

A. The plumbing contractor shall "touch up" paint, to restore to original "new" appearance, all equipment installed under this contract in which the factory applied finish was damaged or scratched during construction and which is not otherwise to be painted.

B. All structural steel, rods, equipment stands, etc., installed by this contractor whether concealed or exposed shall be cleaned as follows: Uncoated Steel and Iron Surfaces: Remove scale by wire brushing, sandblasting, clean by washing with solvent. Apply treatment of phosphoric acid solution. Prime paint after repairs. Shop Primed Steel

Surfaces: Sand and scrape to remove loose primer and rust. Clean surfaces with solvent. Prime bare steel surfaces. Surfaces inaccessible after placement shall be primed and painted prior to placement. Use "Rust-Oleum clean metal primer" or equal, rust preventative primer and paints suitable for damp atmosphere.

PART 3 EXECUTION

3.01 ROCK EXCAVATION

A. Remove any rock encountered in the excavation to a minimum dimension of twelve (12) inches outside the pipe (over, under, beside the pipe).

B. Not used.

C. Rock excavation: Compute on the basis of the depth of rock removed and a trench width two (2) feet larger than the outside diameter of the pipe where one (1) pipe is laid in the trench and three (3) feet larger than the combined outside diameter where two (2) pipes are laid in the trench.

D. The unit price for rock excavation includes the pit run sand backfill under the pipe.

E. Include any rock excavation shown on the plans in the Base Bid.

3.02 INSTALLATION:

A. Cleaning and Protection of Pipe, Fixtures, Materials, and Equipment: Before being placed in position, carefully clean pipe and fittings. Maintain all pipe in a clean condition. Close pipe openings with caps or plugs during installation. Tightly cover fixtures and equipment and protect against dirt, water, and chemical or mechanical injury. Upon completion of all work, thoroughly clean, adjust, and operate the fixtures, materials and equipment. Pipe shall be protected during handling against impact shocks and free fall. Piping shall be cut accurately to measurements established at the site and shall be emplaced without springing, forcing, excessive cutting or weakening of the building structure.

B. Buried Piping: Place sewer and water piping in separate trenches below the frostline. Buried piping shall extend from approximately 6 inches above the lower floor or inside the structure wall to a point not less than 5 feet outside the structure or as defined on drawings.

C. Installation of Screw-Jointed Piping and Solder-Jointed Tubing: Cut screw-jointed piping and solder-jointed tubing accurately to required measurements and work into place without springing or forcing. Make proper provision for the expansion and contraction of all pipe and tubing lines. Free pipe and fittings from fins and burrs. Make screw joints with a lubricant or polytetrafluoroethylene tape applied on the male threads only; full cut threads and not more than three threads on the pipe shall remain exposed. Give all exposed ferrous pipe threads, after being installed and tested, one (1) coat of red lead and oil paint. Cut all copper tubing with square ends, and remove all burrs and fins.

Carefully handle and protect tubing and replace all tubing cut, dented, or otherwise damaged with new tubing. Clean end of tubing and fittings by wire brush or abrasive. Apply a non-corrosive rosin-type flux to the outside surface of tubing ends, and on the recess inside of fittings. Remove stems and washers of solder-joint type valves before soldering. Provide unions and union type connections and shut-off valves for all fixtures and equipment for ready disconnection. On ferrous pipe 3-inches in diameter and smaller, unions shall be 150 psig steam working pressure zinc-coated malleable iron ground-joint type. On ferrous pipe 4 inches in diameter and larger, unions shall be 125 psig steam working pressure forged steel flange type, with gaskets of 1/16-inch-thick best quality rubber or cloth inserted rubber. On sanitary piping, tucker connections may be used. Support pipe and tubing hung from structure by heavy adjustable hangers. All hangers and collars shall be of the sizes suitable for the weight of the pipe and tubing. Make all changes in sizes of pipe and tubing with reducing fittings. Provide dielectric fittings at transitions between ferrous and copper piping.

D. Water Systems: Install water systems with a fall towards the shut-off valve or the lowest fixture. Provide branches from hot and cold water lines to all fixtures, water-heating units, and outlets indicated. Parallel Pipes: Where several pipes are run together, they shall run parallel and shall be spaced at distances which will permit access for servicing, unless provisions for pitching the pipes dictate different elevations.

E. Water Valves: Install water valves in accessible places and locate as follows:

1. Shut off valve on each building supply main, all sub-mains and to each fixture not provided with compression stop or with other auxiliary shutoff valve at the bottom of each riser of all hot and cold water lines, and where indicated.

F. Installation of Fixtures: The Contractor shall provide all necessary material and labor to connect the plumbing system and all fixtures and equipment having plumbing connection, as specified in other sections of these specifications. Trap drainage connections. Equip the supply line to each item of equipment or fixture, except faucets, flush valves, or other control valves which are supplied with an integral stop, with a cutoff valve to enable isolation of the item for repair and maintenance without interfering with operation of other equipment or fixtures. Anchor supply piping to all fixtures, shower heads, and flush valves to prevent movement. Make connections between the earthenware of fixtures and the flanges on soil pipe gas and watertight with a one-piece special molded plastic gasket. Do not use all bulk material including putty and plastics for gaskets. Secure floor drains to the waterproofing or flashing in watertight manner. Caulk all fixtures to wall/floor with white grout.

G. Pipe Sleeves: Provide pipe sleeves where pipes and tubing pass through walls, floors, roofs, and partitions. Place sleeves during construction of the building and at no time shall jack hammers be used. Space between pipe, tubing, or insulation and the sleeve shall be not less than ½ inch. Securely hold sleeves in proper position and location before and during construction. All sleeves shall be of sufficient length to pass through entire thickness of walls, partitions, or slabs. Sleeves in floor slabs shall extend 2 inches above the finished floor. Firmly pack space between the pipe or tubing on both ends of sleeve with firestopping materials listed by UL for the assembly in which located. Provide sleeves located in waterproofed construction with flanged end clamping ring.

H. Supports and Fastening: Secure fixtures, trimmings, accessories, and appurtenances to concrete and brick by 1/4 inch brass expansion bolts not less than 4 inches long, to terra cotta and concrete masonry units by 1/4 inch brass toggle or through bolts, to wood by not less than No. 12 round-head brass wood screws, and to gypsum with steel plates 1/8 inch thick, 6 inches wide, and not less than 24 inches long at the back of the through bolts. Expansion bolts shall be of a length sufficient to extend at least 3 inches into solid concrete or brickwork. Provide through bolts with plates or washers at the back and set so that heads, nuts, and washers are concealed by the plaster. Exposed heads of bolts and nuts shall be nickel-chromium plated hexagons with rounded tops. Provide nickel-chromium plated brass washers where necessary. Do not use plastic anchors to carry any load.

I. Hangers and Supports: Pipe supports, hangers and rods shall be furnished and installed per Specification section 15120. Furnish and install supports to carry adequately the weight of the line. Provide hangers and supports spacing as required in Table I for the materials named. The spacing in the table does not apply where there are concentrated loads between supports, such as flanges, fittings, valves, and similar accessories. For hubless cast-iron soil pipe, comply also with CISPI 310. In addition, provide all piping with sway bracing. Install hangers and supports so that thermal expansion and contraction of piping will occur in the directions desired and so as to permit adjustment after installation while supporting the load. Use wall brackets for supporting piping adjacent to walls or other vertical surfaces. Use bolted steel clamps for supporting vertical lines. Place supports as near as possible to concentrated loads and, when practicable, immediately adjacent to changes in direction. Support horizontal piping so as to maintain alignment, prevent grade reversals, and prevent sagging in excess of 0.1 inch. Prevent vibration and undue strains on equipment by use of vibration dampers.

TABLE 1 - MAXIMUM SPAN FOR PIPE

DIAMETER INCHES	CAST IRON	PVC	COPPER TUBE
½	*	4'-0"	6'-0"
3/4	*	4'-0"	6'-0"
1-	*	4'-0"	6'-0"
1-1/2	*	4'-0"	6'-0"
2-	*	4'-0"	8'-0"
2-1/2	*	4'-0"	8'-0"
3-	*	4'-0"	8'-0"
3-1/2	*	4'-0"	8'-0"
4-	*	4'-0"	8'-0"

* - Support cast iron piping at 5'-0" intervals for 5' lengths and at 10' intervals for 10' and 20' lengths.

J. Prohibited Installation: Do not run piping through transformer vaults, elevator equipment rooms or other electrical or electronic equipment spaces and enclosures. Do not run piping over electrical panels. Where pipe joints or valves in water lines occur within two

feet in horizontal directions from electrical panels or equipment, provide drip pans, if allowed by the local authority, sized to afford protection. Pans shall be 20-gauge galvanized steel with edges turned up 2-1/2 inches on all sides, reinforced with galvanized steel angles or by rolling edges over 1/4-inch diameter steel wire. Provide a drain with 3/4-inch flange and pipe to nearest floor drain, and support the pan assemblies as required to prevent sagging or swaying.

K. SEISMIC REQUIREMENTS

1. Seismic protection for all piping and equipment shall be furnished and installed per Specification Section 15015.

2. Equipment supports and anchoring shall be designed to withstand the seismic forces computed. When such forces are applied, the equipment shall not be displaced or overturned, and shall not be made inoperable. Anchorages shall conform to recommendation of equipment manufacturer. When equipment is subject to thermal expansion, anchoring design shall allow this expansion.

3. Piping Supports and Anchoring: Upon application of seismic forces of computed intensity, piping shall remain fully connected into operable systems and shall not be displaced sufficiently to damage adjacent or connecting equipment, or building members. Thermal expansion flexibility shall not be impaired.

4. Seismic Design of Equipment shall include, but not limited to the following:

   a. Boilers, burners.

   b. Control panels.

   c. All pumps and drives.

   d. Tank type water heaters.

   e. Water storage tanks

   f. Aboveground fuel oil tanks.

   g. Boiler stacks and breeching.

   h. Air compressor.

   i. Water treatment systems.

5. Equipment shall be designed to be safely operable immediately after application of seismic forces.

Q. Field Tests, Inspections, and Disinfection: The Contractor shall perform all field tests and shall provide everything required for the tests. The Architect/Engineer will witness all field tests and conduct all field inspections. The Contractor shall give the

Architect/Engineer ample notice of the dates and times scheduled for tests. Any deficiencies found shall be rectified and work affected by such deficiencies shall be completely retested at no additional cost to the Owner.

1. Inspection: Inspection shall continue during installation and testing. The right is reserved to inspect any equipment at the manufacturer's facility, during or after manufacture, and to require reasonable witness tests before shipment. Perform a final inspection of the equipment prior to installation to determine conformity to the type, class, grade, size, capacity and other characteristics specified herein or indicated. Correct or replace all equipment rejected prior to installation.

2. Water Distribution Piping Test: Before fixtures are set, subject the entire hot and cold piping systems to a hydrostatic pressure test of 150 pounds per square inch with water for not less than 4 hours in order to permit inspection of all joints with no evidence of leakage. Where a portion of the water distribution piping is to be concealed before completion, test this portion separately as specified for the entire system.

3. Disinfection of Water Distribution System: After pressure tests have been made, thoroughly flush the entire domestic water distribution system with water until all entrained dirt and mud have been removed, and sterilize by chlorinating material. The chlorinating material shall be either liquid chlorine conforming to Fed. Spec. BB-C-120, or hypochlorite conforming to Fed. Spec. O-C-114, or Fed. Spec. O-S-602, Grade 1 (5 percent available chlorine) or Grade 2 (10 percent available chlorine). The chlorinating materials shall provide a dosage of not less than 50 parts per million and shall be introduced into the system or part thereof in an approved manner. Retain the treated water in the pipe for 24 hours, or fill the system or part thereof with a water-chlorine solution containing at least 200 parts per million of chlorine and allow to stand for 3 hours. Open and close all valves in the system being disinfected three times during the contact period. Then flush the system with clean potable water until the residual chlorine is reduced to less than 1.0 p/m. During the flushing period open and close all valves and faucets three times. Have three (3) random samples from systems tested by independent testing laboratory approved by the State Health Department and deliver certificates of approval to Architect, County Sanitarian, Engineer and any state and local authorities having jurisdiction for water quality. Take samples no sooner than 24 hours after flushing, and analyze in accordance with AWWA C601. All laboratory fees are to be included in the Plumbing Contract. The Contractor will be responsible for preventing use of water from systems for human consumption until tested and approved. Should any of the reports prove unfavorable, the entire disinfection and sampling process shall be repeated.

   Certificates indicating negative results of bacteriological tests MUST BE PROCURED before building can be accepted.

4. Operational Test: Upon completion and disinfection and prior to acceptance of the installation, the Contractor shall subject the plumbing system to operating tests to demonstrate satisfactory, functional, and operating efficiency. Such operating tests shall cover a period of not less than 2 hours for each system and

shall include the following information in a report with conclusion as to the adequacy of the system:

a. Time, date and duration of test.

b. Water pressures at most remote and highest fixtures.

c. Operation of all fixtures and fixture trim.

d. Operation of all valves, hydrants, and faucets.

e. Temperature of domestic hot water supply and recovery time for water heater.

Read all indicating instruments at half-hour intervals unless otherwise directed. Supply three (3) copies of the test report to the Owner/Engineer.

END OF SECTION

SECTION 15015

SEISMIC PROTECTION FOR MECHANICAL PIPING AND EQUIPMENT

PART 1 GENERAL

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.

1.01 GENERAL:

A. The contractor shall install all mechanical equipment in accordance with the design detail provided by a seismic engineer. The engineer shall be registered, shall be experienced in the design of site-specific seismic protection of mechanical equipment and piping and shall be employed by and responsible to the appropriate mechanical (HVAC or Plumbing) contractor/sub-contractor.

END OF SECTION

SECTION 15040

PLUMBING DEMOLITION AND REMOVAL

PART 1 GENERAL

1.01 WORK INCLUDED:

A. The work includes removal of existing water piping, insulation, hangers, cutting and patching of floors/walls, etc. as indicated, noted or specified on the drawings. Do not begin demolition until authorization is received from the Owner. Remove material and debris from the job site daily, unless otherwise directed; do not allow accumulations inside or outside the building. Store materials that cannot be removed daily in areas specified by the Owner. Material for Owners salvage shall be delivered to location defined by the Owner. All other material shall be properly disposed of off-site. Dispose of debris, rubbish, scrap, and other non-salvageable materials resulting from removal operations with all applicable federal, state and local regulations.

1.02 DUST CONTROL:

A. Take appropriate action to check the spread of dust to occupied portions of the building and to avoid the creation of a nuisance in the surrounding area. Do not use water if it results in hazardous or objectionable conditions, such as ice, flooding or pollution. Comply with all dust regulations imposed by all applicable federal, state and local air pollution agencies.

1.03 PROTECTION:

A. Protect existing work (material, equipment, etc.); which is to remain in place, to be reused, or to remain the property of the Owner, by temporary covers, shoring, bracing, and supports. Items which are to remain or salvaged and are damaged during the performance of work shall be repaired to their original condition or replaced with new. Do not overload structural elements. Provide new supports and reinforcement for existing construction weakened by demolition or removal work.

1.04 BURNING/BURY:

A. Burning of trash and debris will not be permitted. Nothing shall be buried on-site.

PART 2 EXECUTION

2.01 UTILITY SERVICES (SEWER, GAS, AND WATER):

A. Disconnections or interruption of utility services shall be approved by the General Contractor/Architect. Provide 24 hour notice to Owner prior to any interruption of service.

2.02 TITLE TO MATERIALS:

A. Except where indicated otherwise or specifically specified otherwise in other sections, all plumbing fixtures and equipment removed shall become the property of the Owner and shall be properly stored. Title to all piping resulting from demolition shall be retained by the Plumbing Contractor.

2.03 PATCHING:

A. Wherever existing surfaces are damaged during performance of the work, including openings and unfinished areas resulting from the removal of materials or equipment, the repair, patch, and finish such surfaces to match adjacent undamaged surfaces will be responsibility of the Plumbing Contractor.

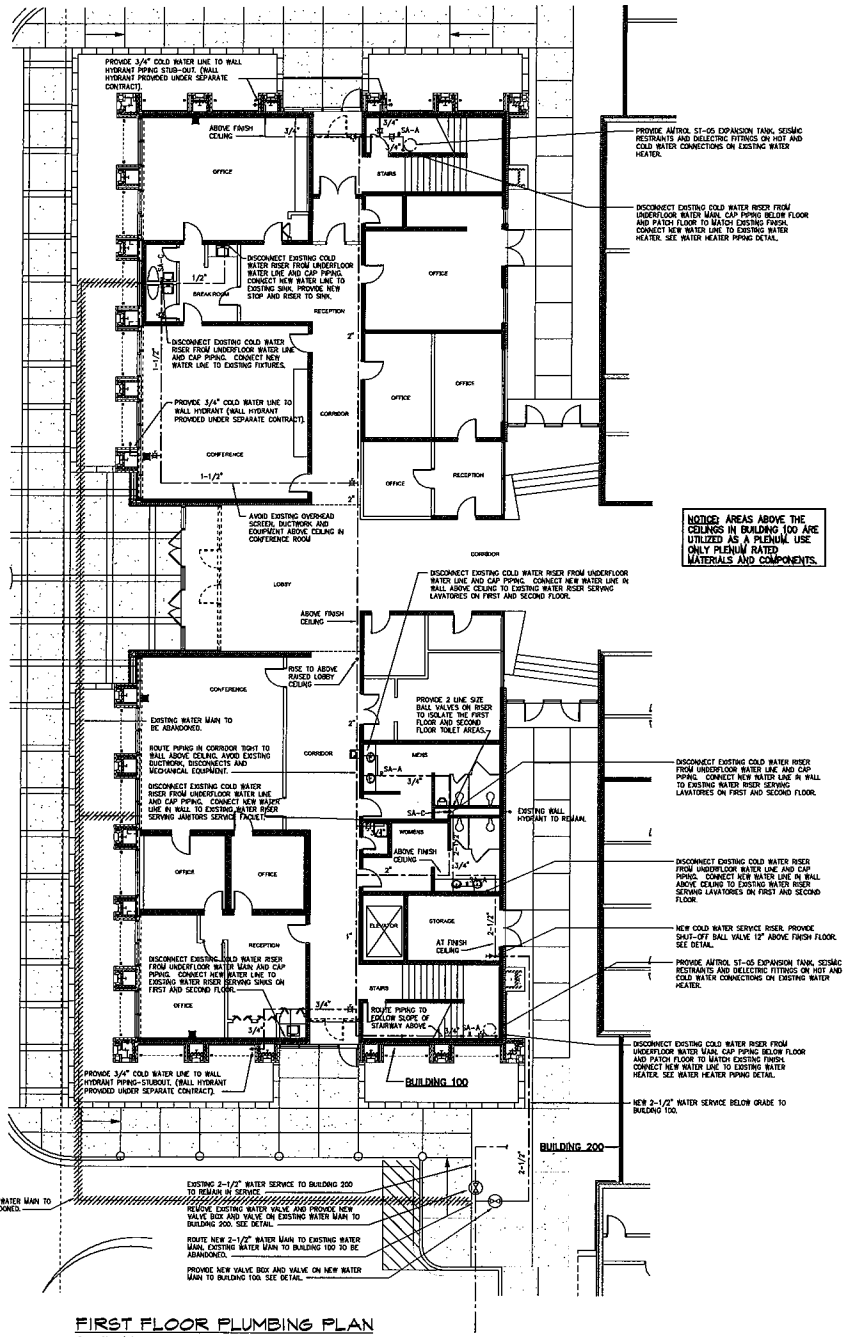
B. Saw cutting and removal of existing floor slabs or block walls shall be approved by the Owner and performed by the Plumbing Contractor. Trenching, pipe installation, testing, backfilling and compaction shall be by the Plumbing Contractor. Replacement of floor concrete and finish materials as well as "toothing" block into walls shall be the responsibility of the Plumbing Contractor.

2.04 CLEANUP:

A. Debris and Rubbish: Remove and transport debris, rubbish, and any excess soil in a manner that will prevent spillage on streets or adjacent areas. Any spillage into the streets and adjacent areas shall be cleaned up.

B. Regulations: Comply with federal, state, and local hauling and disposal regulations.

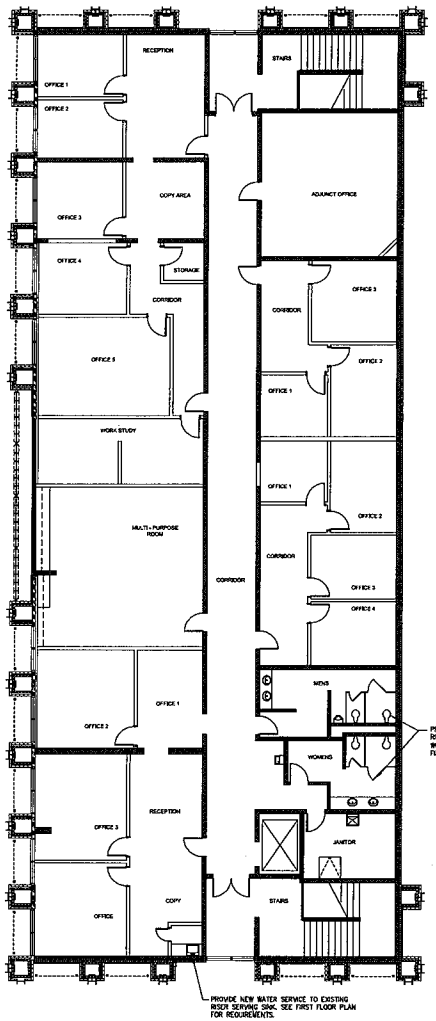
END OF SECTION



FIRST FLOOR PLUMBING PLAN

0 8' 16'

1/8" = 1'-0"



SECOND FLOOR PLUMBING PLAN

0 8' 16'

1/8" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET P2 FOR SCHEDULES, NOTES, AND DETAILS.
2. DETERMINE FIRE RATED WALLS/CEILINGS/ASSEMBLIES AND SMOKE BARRIERS. FIRE PENETRATIONS WILL BE REQUIRED, AS APPLICABLE PER THE INTERNATIONAL BUILDING CODE/INTERNATIONAL PLUMBING CODE.
3. PROVIDE NEW INSULATION ON EXISTING HOT WATER LINES FROM WATER HEATERS TO PIPE TERMINATION POINTS ABOVE EXISTING CEILINGS. .

DEMOLITION NOTES

A. DISCONNECTIONS OR INTERRUPTION OF UTILITY SERVICES SHALL BE APPROVED BY THE OWNER. WORK SHALL BE DONE SO AS TO MINIMIZE DISRUPTION TO BUILDING ACTIVITIES. SCHEDULING SHALL BE CLOSELY COORDINATED WITH THE OWNER, AND NO WORK SHALL PROCEED WITHOUT AN OWNER-APPROVED SCHEDULE.

B. REMOVE AND TRANSPORT DEBRIS AND RUBBISH IN A MANNER THAT WILL PREVENT SPILLAGE ON STREETS OR ADJACENT AREAS.

C. PROTECT EXISTING WORK WHICH IS TO REMAIN IN PLACE, WHICH IS TO BE REUSED, OR WHICH IS TO REMAIN THE PROPERTY OF THE OWNER, BY TEMPORARY COVERS, SHORING, BRACING, AND SUPPORTS.

D. ITEMS WHICH ARE TO REMAIN AND WHICH ARE TO BE SALVAGED AND WHICH ARE DAMAGED DURING PERFORMANCE OF WORK SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION OR REPLACED WITH NEW.

E. REMOVE ALL EXISTING EXPOSED UNUSED WATER PIPING COMPLETE TO BELOW FLOOR/BEHIND WALL AND CAP. PATCH WALLS AS REQUIRED FOR NEW FINISH SURFACE.

F. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.

G. WHEREVER EXISTING SURFACES ARE DAMAGED DURING PERFORMANCE OF THE WORK, INCLUDING OPENINGS AND UNFINISHED AREAS RESULTING FROM THE REMOVAL OF MATERIALS OR EQUIPMENT, THE REPAIR, PATCH, MATERIALS, FINISH/PAINT OF SUCH SURFACES SHALL MATCH ADJACENT UNDAMAGED SURFACES AND WILL BE PERFORMED BY A LICENSED GENERAL CONTRACTOR HIRED BY THIS CONTRACTOR.

H. SAW CUTTING AND REMOVAL OF EXISTING FLOOR SLABS OR BLOCK WALLS SHALL BE PERFORMED BY A SUB-CONTRACTOR OF THE PLUMBING CONTRACTOR. TRENCHING, PIPE INSTALLATION, TESTING, BACKFILLING AND COMPACTION SHALL BE BY THE PLUMBING CONTRACTOR. REPLACEMENT OF FLOOR CONCRETE AND FINISH MATERIALS AS WELL AS "TOOTHING" BLOCK INTO WALLS SHALL BE BY A LICENSED GENERAL CONTRACTOR HIRED BY THIS CONTRACTOR.

REVISIONS

NO.	DESCRIPTION	DATE	BY

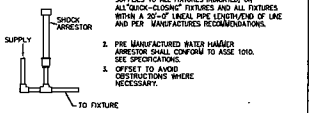
RAST DALLERY ENGINEERS, PC
514 ALDER ST, SUITE 4
MYRTLE BEACH, SC 29577
PHONE: (843) 232-0408
FAX: (843) 232-0508

HGTC CONWAY BUILDING 100
DOMESTIC WATER SYSTEM
ALTERATIONS
CONWAY, SOUTH CAROLINA

14026
06-20-14
DESIGNED: NS
DRAWN: NS
CHECKED: NS
APPROVED: RLD

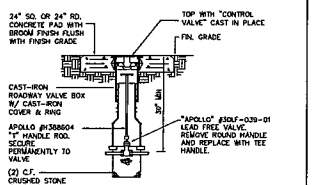
P1

of 2

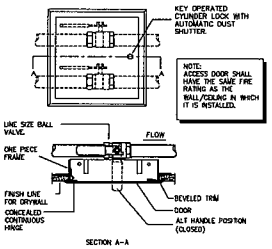


1. PROVIDE WATER HAMMER ARRESTOR ON WATER SUPPLIES TO ALL FIXTURES INDICATED, ON ALL "QUICK-CLOSING" FIXTURES AND ALL FIXTURES WITHIN A 20'-0" LINEAL PIPE LENGTH/END OF LINE AND PER MANUFACTURES RECOMMENDATIONS.
2. PDI MANUFACTURED WATER HAMMER ARRESTOR SHALL CONFORM TO ASSE 1010. SEE SPECIFICATIONS.
3. OFFSET TO AVOID OBSTRUCTIONS WHERE NECESSARY.

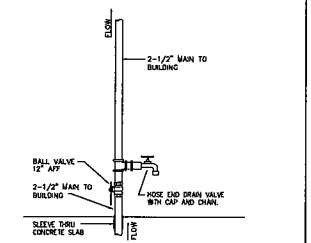
SHOCK ARRESTOR
NOT TO SCALE



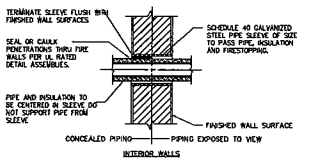
WATER CUTOFF VALVE BOX DETAIL
NOT TO SCALE



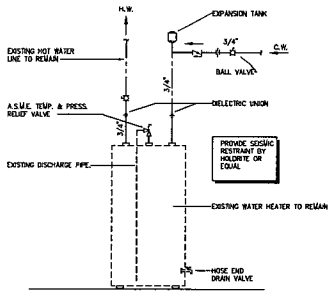
VALVE ACCESS DOOR
NOT TO SCALE



WATER SERVICE RISER DETAIL
NOT TO SCALE



PIPE SLEEVE THRU WALL DETAIL
NOT TO SCALE



SCHEMATIC DETAIL – ELECTRIC WATER HEATER
NOT TO SCALE

PLUMBING LEGEND

SYMBOL		ABREVIATIONS	
———	SANITARY SEWER/SOIL	P.C.	PLUMBING CONTRACTOR
— ESS—	EXISTING SANITARY SEWER/SOIL	EL. C.	ELECTRICAL CONTRACTOR
— — —	DOMESTIC COLD WATER	M.C.	MECHANICAL CONTRACTOR
— — —	DOMESTIC HOT WATER	G.C.	GENERAL CONTRACTOR
———	HOT WATER RECIRCULATING LINE	C.O.	CLEAN OUT
— T —	TEMPERED WATER	F.C.O.	FLOOR CLEAN OUT
— TR —	TEMPERED WATER RETURN	W.C.O.	WALL CLEAN OUT
—▽—	BALANCING COCK	Y.C.O.	YARD CLEAN OUT
—H	HOSE BIBB OR WALL HYDRANT	V.T.R.	VENT THRU ROOF
- - - -	VENT PIPING ABOVE FLOOR	C.I.	CAST IRON
—▷—	VALVE IN RISER	DN.	DOWN
—▷◁—	GATE VALVE	F.D.	FLOOR DRAIN
—◫—	BALL VALVE	WFA	WASTE FROM ABOVE
—▷|—	CHECK VALVE	WD	WASTE DOWN
—⊥—	UNION	VU	VENT UP
— TP —	TRAP PRIMER PIPING	WFB	VENT FROM BELOW
—▽—	GAS COCK	CWU	COLD WATER UP
— G —	NATURAL GAS PIPING	CW DN	COLD WATER DOWN
— LPG —	PROPANE GAS PIPING	HWU	HOT WATER UP
— RD —	ROOF DRAIN PIPING	HW DN	HOT WATER DOWN
— RDO —	ROOF DRAIN OVERFLOW PIPING	TYP.	TYPICAL
— G —	GREASE INTERCEPTOR PIPING	CD	CONDENSATE DRAIN
— CD —	CONDENSATE DRAINAGE PIPING	RD	ROOF DRAIN
~~	EXISTING PIPING TO BE ABANDONED	ROO	ROOF DRAIN OVERFLOW
		DS	DOWNSPOUT

SHOCK ARRESTOR SCHEDULE

SYMBOL	PIPE SIZE	FIXTURE RANGE	MODEL NUMBER
SA-A	1/2"	1 - 11	PPI # SC-500
SA-B	3/4"	12 - 32	PPI # SC-750
SA-C	1"	33 - 60	PPI # SC-1000
SA-D	1-1/4"	61 - 113	PPI # SC-1250
SA-E	1-1/2"	114 - 154	PPI # SC-1500
SA-F	2"	155 - 330	PPI # SC-2000

GENERAL NOTES/MATERIALS AND INSTALLATION:

Workmanship and Code Compliance

A. ALL WORK SHALL BE GOVERNED BY THE LATEST EDITIONS OF THE INTERNATIONAL MECHANICAL, PLUMBING, FIRE PROTECTION, FUEL GAS, BUILDING CODES, NATIONAL ELECTRICAL CODES AND NATIONAL FIRE PROTECTION ASSOCIATION CODES AS ADOPTED BY THE AUTHORITIES HAVING JURISDICTION.

B. THE CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL CONDITIONS AFFECTING THIS WORK, PRIOR TO SUBMITTING HIS PROPOSAL/SIGNING A CONTRACT.

C. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC. THAT MAY BE REQUIRED.

D. THE CONTRACTOR SHALL NOTE THAT THE DRAWINGS ARE SCHEMATIC IN NATURE AND DO NOT SHOW EVERY OFFSET, TRANSITION, FITTING, ETC. THAT MAY BE REQUIRED FOR A COMPLETE AND WORKING SYSTEM.

E. IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO PROVIDE AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT. IN THE EVENT THAT ADDITIONAL DETAILS OF SPECIAL CONSTRUCTION IS REQUIRED FOR WORK INDICATED OR SPECIFIED IN THIS SECTION OR WORK SPECIFIED IN OTHER SECTIONS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL EQUIPMENT AND MATERIALS WHICH IS USUALLY FURNISHED WITH SUCH SYSTEMS IN ORDER TO COMPLETE THE INSTALLATION, WHETHER SPECIFICALLY MENTIONED OR NOT.

F. CONTRACTOR SHALL GUARANTEE, FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF SYSTEMS BY OWNER, EACH AND EVERY PIECE OF APPARATUS WHICH HAS BEEN INSTALLED UNDER THIS CONTRACT AND REMEDY DEFECTS WHICH APPEAR AS A RESULT OF NORMAL USAGE TO THE COMPLETE SATISFACTION OF THE OWNER.

G. ALL PIPING SHALL BE TESTED & STERILIZED AS REQUIRED BY THE PLUMBING CODE AND THE AUTHORITIES HAVING JURISDICTION. PROVIDE WRITTEN REPORT ON RESULTS OF TEST TO THE ENGINEER.

H. PVC PIPE AND FITTING SHALL NOT PENETRATE OR BE INSTALLED IN ANY PART OF RETURN- AIR PLENUMS.

I. LOCATE BALL VALVES IN COLD WATER BRANCH LINES ABOVE LAY-IN CEILING TILE. POSITION VALVE FOR EASY ACCESS. AVOID STRUCTURAL ELEMENTS AND WORK OF MECHANICAL, ELECTRICAL, AND SPRINKLER TRADES.

J. PROVIDE FIRE RATED PIPE PENETRATION AROUND ALL PIPES PASSING THRU ANY FIRE RATED WALL OR FLOOR ASSEMBLY. FIRE STOPPING SHALL MATCH HOUR RATING OF THE ASSEMBLY. SEAL TIGHT AROUND ALL METAL PIPE PASSING THRU ONE FACE LAYER OF GYPSUM. APPLY #A/S 25 CAULK AROUND PIPE TO SEAL "SMOKE" TIGHT AND COVER VOIDS OR CRACKS.

K. CONTRACTOR SHALL INSTALL NEW DOMESTIC WATER LINES, INDICATED OR PLANS TO BE "ABOVE CEILING", SO THAT BRANCH VALVES ARE EASILY ACCESSIBLE THRU THE CEILING GRID. HANG ON THREADED ROD FROM ROOF STRUCTURE/WALLS. COORDINATE EXACT LOCATION AND ROUTING WITH LIGHT FIXTURES, SPRINKLER LINES, & DUCTWORK.

L. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS AT SITE.

M. INSTALLATION OF ALL PIPING SHALL BE COORDINATED WITH EXISTING STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL SYSTEMS. CONSULT WITH A LICENSED STRUCTURAL ENGINEER PRIOR TO ALTERING/CUTTING ANY STRUCTURAL COMPONENTS.

N. PROTECT EXISTING WORK WHICH IS TO REMAIN IN PLACE, WHICH IS TO BE REUSED, OR WHICH IS TO REMAIN THE PROPERTY OF THE OWNER, BY TEMPORARY COVERS, SHORING, BRACING, AND SUPPORTS.

O. ITEMS WHICH ARE TO REMAIN AND WHICH ARE TO BE SALVAGED, AND ARE DAMAGED DURING PERFORMANCE OF WORK, SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION OR REPLACED WITH NEW.

P. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.

NOTE TO BIDDERS/CONTRACTORS:
THE DRAWINGS ARE A SCHEMATIC 2D REPRESENTATION OF A 3D SYSTEM. ALL FIELD CONDITIONS MAY NOT BE EVIDENT AT THE TIME OF ISSUANCE OF THIS DRAWING. SCALE TURNS, ELEVATION CHANGES, DUCTWORK FITTINGS, ETC. WILL HAVE TO BE FABRICATED, CHANGED OR MODIFIED IN THE FIELD TO MEET THE CONDITIONS PRESENT AT THE TIME OF CONSTRUCTION. COORDINATE WITH ALL TRADES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN A COMPLETE SET OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR COORDINATION PRIOR TO SUBMITTING A BID.

RENOVATION/ADDITION NOTE:
PREPARATION OF THESE CONSTRUCTION DRAWINGS IS BASED ON FIELD INVESTIGATIONS OF AS-BUILT CONDITIONS AS CONDUCTED BY THE ARCHITECT AND RAST GALLERY ENGINEERS, P.C. AS A RESULT, REASONABLE ASSUMPTIONS WERE MADE WITH RESPECT TO CONCEALED OR OTHERWISE INACCESSIBLE PORTIONS OF THE EXISTING CONSTRUCTION AND ITS SYSTEMS. AS SUCH, MARKED GRAPHIC DEPICTION OF THE WORK TO BE PERFORMED ARE CONCEPTUAL IN NATURE AND WILL BE SUBJECT TO ADJUSTMENTS IN THE FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING DIMENSIONS, SLOPES, CONNECTION TO EXISTING SERVICES AND OTHER UNITS OF MEASURE AS IT PERTAINS TO THE EXECUTION OF THE WORK, AND TO IDENTIFY DISCREPANCIES AND REPORT INFORMATION TO THE OWNER AND ENGINEER FOR REVIEW AND ADJUSTMENTS.

NO.	DESCRIPTION	DATE	BY
	REVISIONS		

RAST GALLERY ENGINEERS, PC
514 ALDER ST, SUITE 4
MYRTLE BEACH, SC 29577
PHONE: (843) 232-0408
FAX: (843) 232-0508

HGTC CONWAY BUILDING 100
DOMESTIC WATER SYSTEM
ALTERATIONS
CONWAY, SOUTH CAROLINA

14026
06-20-14
DESIGNED: NS
DRAWN: NS
CHECKED: NS
APPROVED: RLD

P2
of 2

SECTION 15010 - MECHANICAL PROVISIONS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. The provisions of the Instruction to Bidders and of the Special Conditions, General Conditions, and Supplementary Conditions of this specification shall govern the work in this division. The attention of this Contractor is directed to the Supplementary Conditions concerning substitution of materials and equipment.

1.2 PRIOR APPROVALS AND SUBSTITUTIONS

A. All request for substitution of any material or equipment shall be submitted, by a bidding Contractor, Equipment Manufacturer, or Wholesaler, so as to be received in the Engineers office ten (10) days prior to bid date. Any items approved will be listed in the last addendum issued before bid date.

B. Contract prices shall be based upon material and equipment as specified and/or listed in the addendum as a "prior approved" substitution.

C. Request for approvals shall be submitted in letter form on letterhead of submitting firm, two (2) copies required along with a self addressed stamped envelope. Letter shall be addressed to the Engineer and referenced to this project by name. Faxed or email request are not acceptable and will not be reviewed.

D. Contractor shall note any and all deviations between plans or specifications and the submitted items. Letter shall state "Item submitted is in accordance with specifications except for the following deviations." Contractor then shall list deviations in itemized list. An item that is submitted without deviations shall contain the statement, "Item is in accordance with the specifications without any deviations."

E. Items approved shall not be construed as authorizing deviations from the plans and specifications. Contractor shall be responsible for verifying all dimensions with available space conditions with provisions for access, maintenance, part replacement, and for coordination with other trades - electrical, plumbing, sprinkler, and with the structure.

F. Where such approved deviations require a different quantity and/or arrangement of ductwork, piping, wiring, conduit, and equipment from that specified or indicated on the drawings, the Contractor shall furnish and install such ductwork, piping, structural support, insulation, controllers, motors, starters, wiring, and conduit and any additional equipment required by the system at no additional cost to the Owner.

1.3 MATERIALS

A. Material References: Equipment or materials are described by reference to manufacturer's published data. Such data will be used as the basis for comparison with proposed substitute equipment or material. Such publications are available for review in the offices of the Engineers, and the Contractor is referred to them for full information.

B. Use of Substitute Equipment of Materials: The mechanical, electrical, structural, architectural, space conditions and other features of the overall project design have been based on the requirements of the scheduled products. Should approved products other than those scheduled be used, the Contractor shall submit for approval a schedule setting forth in what respects the overall project design (mechanical, electrical, structural, architectural or space conditions) must be modified in order to permit proper installation and operation of the approved products. Extensive or unreasonable modifications shall be considered cause for rejection of such products. In the event the required modifications are approved, the Contractor shall bear all costs related thereto.

C. Material List: Within thirty (30) days after award of the contract, the Contractor shall forward to the Engineer a complete list of all materials and equipment to be used in the work. The intent to use the exact material or equipment scheduled or specified does not eliminate the responsibility for submitting such a list. Should the Contractor fail to submit such a list, then the right is reserved for the Engineer to select a full line of material and equipment which shall be used in the work at no additional cost to the Owner.

1.4 GENERAL REQUIREMENTS

A. Mechanical Drawings: The drawings specifically applicable to "Mechanical" are identified by the prefix "M" and "P". The Contractor shall refer to all other drawings for additional details such as ceiling heights, finishes, dimensions, building materials, door openings, and other architectural, structural, mechanical and electrical features which may affect "Mechanical".

B. Interference: The mechanical drawings are generally diagrammatic and the Contractor shall provide offsets in the work so that interferences between piping, ducts, conduit, equipment, apparatus, architectural, and structural work will be avoided.

C. Shop Drawings: Shop drawings required under "Mechanical" shall be included in a single submittal brochure including outline drawings, descriptive literature and/or specification data covering plumbing fixtures, major components of each mechanical system, insulation, and specialty items. Data shall show performance, internal wiring diagrams, roughing-in dimensions, space requirements, construction features and external wiring and piping connections. Where data includes information not applicable to this project, the information which is applicable shall be clearly identified for easy reference. A cover sheet shall be included, listing manufacturer and model number of each item submitted.

D. Existing Utilities and/or Concealed Work: The locations, sizes, elevations, and other data indicated on the drawings relative to existing utilities and/or other work below the surface of the ground or in otherwise concealed locations are based on the information available during the design. Should actual conditions be at variance to conditions indicated by the drawings and specifications, all changes in work necessary to correct such variance and make the work conform to actual conditions shall be accomplished in accordance with applicable portions of the contract documents.

E. Space Conditions:

1. All piping, ductwork, apparatus, equipment, and related work shall fit properly into the provided spaces in the building or property, and shall be introduced into the spaces at

such time and in such manner as to not cause damage to the building structure or property.

2. The Contractor shall locate all equipment, which must be serviced, operated, or maintained, in fully accessible positions. This provision includes, but is not limited to, pumps, valves, traps, cleanouts, dampers, turning vanes, motors, controllers, drain points, etc..

F. Excavation, Trenching, and Backfilling: All excavation, trenching, and backfilling necessary to receive any mechanical work shall be provided hereunder, and shall be performed in strict accordance with the applicable requirements of another division.

G. Painting: Any required painting, except for the standard factory coat furnished on equipment, touch-up painting, and/or other painting as may be expressly required hereunder, will be provided under section entitled, "Painting"; however, the Contractor shall leave all mechanical work and equipment clean and free of any grease, dirt, rust, and other foreign matter and in suitable condition for proper painting.

H. Access Doors: Access doors shall be furnished to provide access for service and maintenance of any concealed valves, cleanouts, fire dampers, air vents, or other equipment normally requiring servicing or maintenance, and for which other means of ready access is not built into the building or structure.

I. Roof Flashing: Pipes, ducts, or other mechanical work passing through the roof shall be flashed and made water-tight in a manner approved by the manufacturer of the roofing material and complying with roof bond requirements.

J. Equipment Supports and/or Foundations: Unless expressly stipulated otherwise, provide all supports, concrete foundations and/or pads required for proper installation of the equipment furnished under "Mechanical". Concrete work shall conform in all applicable detail to the requirements of "Concrete". Foundations requiring anchor bolts shall be constructed with such anchor bolts securely embedded in the concrete. Bolts shall have bottom plates and pipe sleeves unless otherwise detailed on the mechanical drawings.

K. Equipment, Transformers, Controls, Disconnects, Switches, Starters, Etc.: Shall be identified with engraved plastic nameplates as manufactured by Seaton Nameplate Co., Columbia Engravers, International Nameplate Co. or equal unless noted otherwise, nameplates shall be 1" high 4" long 1/16" thick plastic with white letters on black background. Attach nameplates with two round head chrome plated screws. Nameplate shall show function, system, etc. Hand lettering, typing under tape, or embossed letters on plastic will not be accepted.

L. Operating and Maintenance Data and Instructions:

1. Prior to making request for final inspection, the Contractor shall put all mechanical systems and equipment into operation, and shall make all tests and adjustments. The Contractor shall furnish proper instructions to the Owner in the presence of the Engineer or the Engineer's designated representative concerning operation and maintenance of all mechanical and related electrical equipment. Coordinate all equipment start-ups with the Owner so that he may have a man present. Deliver to the Owner the manufacturer's agent name, address, and phone number for each piece of equipment. Advise the Owner as to where to order common repair parts and provide a complete listing of filter sizes and count of all mechanical equipment.

2. For all items of mechanical or related electric equipment or apparatus installed which requires operation of maintenance after occupancy, the Contractor shall furnish four (4) complete brochures, warranties, and data as prepared and published by the manufacturer covering details of operation and maintenance. Brochures and data shall be delivered to the Engineer for transmittal to the Owner.
3. Each brochure shall contain one (1) copy of each "shop drawing". Shop drawings as originally submitted and approved shall be revised if necessary to reflect the work "as-built". Where brochures and data include information not applicable to this contract, the information which is applicable shall be clearly identified for easy reference.

1.5 ELECTRICAL APPARATUS AND WIRING

A. Motors: Motors shall conform in all respect to the latest applicable standards of NEMA and IEEE and shall be the type most suitable for the equipment and/or machinery they are to operate. Each motor shall have sufficient capacity to start and operate the equipment and/or machinery it drives without its required brake horsepower exceeding the motor nameplate rating at the specified speed or at any speed and load which may be obtained by the drive actually furnished. Motor horsepowers scheduled on the drawings are estimated as a guide to approximate requirements; however, actual motors furnished shall be selected to comply with the requirements of this paragraph.

B. Except as may be otherwise specified, each motor furnished hereunder shall be complete with a motor starter of proper type for the intended service. Motor starter shall comply with the requirements of NEMA and IEEE, and shall be equipped with proper thermal overload elements. Unless stipulated otherwise hereinafter and/or on the mechanical drawings, or required by the specific requirements of the motor and drive, starters shall comply with the following:

1. Starters for motors ½ hp and larger and/or motors controlled by automatic devices shall be of the fully enclosed, general purpose surface mounting, full voltage, across-the-line, magnetically operated type.
2. Where the motor is automatically controlled, the starter shall be provided with a three-position "Hand-Off-Automatic" switch mounted in the case.
3. Where the motor is manually controlled from a remote location, a magnetic starter and flush mounted remote push-button station with pilot light shall be provided.
4. Where the motor is manually controlled at the starter, a "Start-Stop" push-button shall be provided in the cover of magnetic starters.
5. Where "reduced voltage" starters are indicated they shall be of the type specified hereinafter or indicated on the drawings.

C. Installation:

1. Unless expressly stipulated otherwise, electrical apparatus (motors, electric space heating equipment and/or other electrical equipment) furnished under "Mechanical" shall be installed under "Mechanical".
2. All power wiring for electrical apparatus furnished under "Mechanical", including necessary circuit breakers or fused disconnect switches not furnished integral with the equipment, will be provided under "Electrical".
3. Starters, controllers and/or other control devices furnished under "Mechanical" for field installation in power wiring shall be installed under "Electrical".

4. All inter-control wiring, associated control system wiring and pilot circuit wiring required to accomplish and control sequence specified under "Mechanical" and/or shown on the mechanical drawings shall be provided under "Mechanical".

    a. Associated control system wiring is defined as that wiring which is necessary to power or control any electrical-pneumatic or other electric control device furnished under "Mechanical".
    b. Pilot circuit wiring is defined as that wiring which is necessary to power or control any starter and/or other controller furnished under "Mechanical" and interposed in the wiring to the electrical apparatus. For example, the wiring between a remote push-button station and a magnetic motor starter, including wiring through any safety or other auxiliary control devices interposed in such wiring, is considered pilot circuit wiring.

5. Any remote push-button stations and/or control devices provided under "Mechanical" and not interposed in the power wiring shall be installed under "Mechanical".
6. Conduit and outlet boxes for wiring provided under "Mechanical" will be provided under "Electrical" only when specifically indicated on the electrical drawings. Conduit and outlet boxes not so indicated on the electrical drawings shall be provided under "Mechanical".
7. Any wiring, conduit and outlet boxes provided under "Mechanical" shall be in strict accordance with all applicable requirements of "Electrical", provided however:
    a. Line voltage and exposed wiring shall be run in conduit;
    b. No splices will be allowed except at junction boxes and control centers;
    c. No two wires of the same color shall be run in one conduit unless all wires of the same color are properly tagged at both ends and any splice points.

1.6 BELT DRIVES

A. Each motor driven machine not directly connected to its driving motor shall be equipped with a V-belt drive of rating as recommended by the manufacturer for the service. For variable speed drives, the horsepower rating shall be based on the specified mid-position operating conditions.

B. Variable and adjustable pitch sheaves shall, unless otherwise specified, be selected so that the required RPM will be obtained with the sheave set approximately in mid-position.

C. Each belt drive shall be provided with an approved guard.

1.7 MISCELLANEOUS PROVISIONS

A. Definition: Unless otherwise defined or modified on the drawings, the word "exposed" shall be interpreted to mean all piping, ducts, equipment, and similar work which is not concealed within the building walls, floors, or ceilings or above suspended ceilings or behind furring or buried in the ground.

B. Certification: When the work of this Division 15 is completely balanced and in permanent operating condition, the Contractor shall submit certification in six (6) copies to the Engineer that the system is installed in accordance with drawings, specifications and manufacturer's recommendations and that safety and operating controls are functioning properly.

PART 2 - EXECUTION

2.1 WORKMANSHIP AND MATERIALS

A. Workmanship shall be of the best quality and none but competent mechanics skilled in their trades shall be employed on this project. The Contractor furnish the services of an experienced superintendent who will be constantly in charge of the erection of the work until completed and accepted.

B. Unless otherwise specified herein, all materials and equipment shall be new, of the grade level specified, and as listed in printed catalogs of the manufacturer. Each article of its kind shall be the standard product of a single manufacturer.

C. The Architect shall have the right to accept or reject material, equipment, and/or workmanship and when the Contractor has complied with the requirements specified herein. Where departures from indicated arrangements are required, Contractor shall obtain written approval for such change from the Architect.

D. All manufactured materials and equipment shall be delivered and stored in their original containers. Each item shall be clearly marked with the manufacturers name, model number, size or rating.

E. All material and equipment used on this project shall be stored on site. Contractor shall provide weatherproof storage trailers or arrange lockable dry space within the building. No equipment, roof top units, condensing units, etc. shall be stored outdoors exposed to the weather. In the event the Owner agrees to having material stored offsite, the Contractor shall have the material invoiced to the Owner, stored in a "bonded" warehouse, with insurance in the Owners name of a value equal to stored items. Architect shall have access to warehouse to verify pay application for such stored items.

2.2 MANUFACTURERS INSTRUCTIONS

A. Prior to purchasing equipment, procure product manufacturers application, installation, and operating instructions for use in conjunction with the system design drawings and specifications during construction. In the event that there is a conflict between the design drawings and specifications and the manufacturers publications, immediately notify the Engineer in writing. Upon notification by the Engineer, proceed in accordance with his instructions.

2.3 SHOP DRAWINGS

A. The Contractor shall submit for approval detailed shop drawings of all equipment and material required to complete the system in its entirety. Do not deliver material or equipment to the job without approved shop drawings. The Contractor shall furnish the number of copies as called for by the Special Conditions but in no case less than six (6). Do not submit partial submittals.

B. Sufficiently in advance of needing material on the project, submit for approval detailed dimensional drawings or cut sheets showing construction, size, arrangement, operating clearances, performance characteristics, and capacity. Each item of proposed equipment shall be a standard catalog product of an established manufacturer and be of equal quality, finish, and durability to that specified.

C. Samples, drawings, specifications, and/or catalog cuts submitted for approval shall be properly labeled indicating specific service for which material or equipment is to be used, section and article number of the specifications governing, Contractors name and project name. Clearly mark in ink on each sheet the specific model or option selected. Data of a general nature or catalog sheets without marking will not be accepted.

D. Catalogs, pamphlets, or other documents submitted to describe items on which approval is being requested shall be specific and each item shall be clearly identified by ink marking in each catalog, pamphlet, etc. Submittal of general catalog data will not be allowed.

E. Approval by the Architect and/or Engineer of shop drawings for any material, apparatus, device, or layout shall not relieve this Contractor from the responsibility of furnishing items of proper dimension, size, quantity, quality, and performance characteristics to efficiently perform the requirements and the intent of the contract documents.

F. In addition, approval of shop drawings does not relieve this Contractor from responsibility for error of any sort. If the shop drawings deviate from the contract documents, this Contractor shall list such deviations on the shop drawings and the reason for such deviation shall be stated.

G. Failure of this Contractor to submit shop drawings in ample time for checking shall not entitle him to an extension on the contract time. Any claim for extension of time for reason of late submittal of materials, colors, samples, etc. will not be allowed.

2.4 EXCAVATION AND BACKFILL

A. This Contractor shall do all excavating and backfilling necessary to execute the work indicated on the contract drawings.

B. Excavations shall be made to the proper depth and trenches shall be graded uniformly to provide solid bearing along the entire length of pipe. Bell holes shall be dug at each joint in bell and spigot pipe so that pipe is not bearing on the hubs. All trenches shall be excavated so that there is 6" clearance on each side of pipe. Trenches in fill, sand, or loose material shall have trench bottom tamped to 95% maximum density compaction prior to laying pipe. See section on testing in other section of the specification.

C. Dewatering and shoring shall be this Contractors responsibility, if required. Pumps, piping, and well points shall be furnished as required to keep trenches dry during the laying, jointing, and testing of the pipe. Provide shoring where required. Maintain trenches against settlement until pipe work is tested and accepted. Contractor may "over" cut trench on both sides where ground is stable and material is moved away from edge of bank. Trench boxes shall be provided where necessary.

D. Backfilling shall not be started until piping has been tested and inspected. After the work is accepted, fill on each side of pipe and 6" above pipe with coarse sand fill. Tamp fill to 95% compaction. Proceed to fill and tamp in layers. Local material may be used in backfilling after 12" of sand is in place around the pipe. Remove all organic material and any rocks over 3" in size. Excess earth, rock, or organic material shall be removed from the project site and properly disposed of.

2.5 OPENING-CUTTING AND PATCHING

A. This Contractor shall coordinate all opening locations with the General Contractor prior to the start of work. Provide information as to size and exact location of openings and/or sleeves required in walls, slabs, footings, or pile caps.

B. This Contractor shall provide detailed layout drawings to the General Contractor for any openings required in precast concrete panels. Sleeves shall be furnished and installed in masonry walls as they are laid. Sleeves shall be accurately located and installed on forms before concrete floor slabs are poured. Contractor shall coordinate sleeve locations in metal stud walls with the installer prior to erection of studs.

C. All holes in concrete or block load bearing walls or floor slabs shall be core drilled or saw cut and shall have the approval of the Structural Engineer prior to any cutting or drilling.

D. This Contractor shall be responsible for cost of cutting or core drilling as a result of incorrect location of sleeves. All cutting, core drilling, and patching shall be performed by the General Contractor and the cost borne by this Contractor.

2.6 FINISHES

A. Finishes for all water coolers, grills, registers, diffusers, room fan coil units, unit heaters, room air conditioning units, louvers, roof top fans, kitchen exhaust package, and any other item exposed to view shall be selected by the Architect and shall be equivalent to factory applied baked on enamel paint. Submit color chart with other submittal data.

2.7 CLEANING EQUIPMENT AND MATERIALS

A. Provide for the protection and good condition of all materials and equipment until final acceptance by the Owner. Protect all material and equipment from damage by other trades during construction. Special care shall be given so that no open pipe connections are allowed, open ductwork is covered or sealed, pumps, coils, bearings are protected.

B. All fixtures, piping, finished surfaces, and factory equipment shall have all grease, oil, pipe dope, putty, adhesive labels, and foreign matter removed.

C. All piping shall be drained and flushed to remove grease and foreign matter. Pressure regulating valves, mixing valves, flush valves and similar items shall be taken apart and cleaned. Prior to final walk through but after piping has been flushed, remove and clean strainers on all aerators and all cooler and bubbler nozzles.

D. Remove from the premises all unused material and any debris resulting from performance of work under this section.

2.8 FINISH PLANS

A. As-Built drawings shall be maintained by this Contractor during entire duration of the project and be available on site for inspection by Architect at time of Payment Application each month. Contractor shall mark drawings with dimensions and elevations of all buried work. Any

deviation or alternate method of the work shall also be marked as the work progresses. At completion of project, turn over AS-Built drawings to the Architect.

2.9 DAMAGES

A. The cost of repairing damage to the building, building contents, and building site during construction and guarantee period resulting from work under this section, including damage to ceiling grid or tile, carpet, wall finishes, sod, sidewalks, or asphalt, is a part of this contract.

2.10 GUARANTEE

A. This Contractor agrees to correct defects in workmanship, material, controls, equipment, and operation of the system for a period of one (1) year from date of final completion and acceptance of the work. Equipment and material repaired or replaced during this period shall be guaranteed for one (1) year from date of correction.

B. This Contractor agrees that the system installed will safely, quietly, and efficiently perform their respective functions in accordance with the design.

END OF SECTION 15010